

Office of the Chief Engineer, Hamirpur Zone

Public Works Department, Government of Himachal Pradesh, Hamirpur

[On the Letterhead of the employer]

Date: 10th Jan, 2018

Invitation for Bids No.: CLC/03/2017-18

Loan/Grant No. and Title: Loan No. -----IND/ Himachal Pradesh Skill Development Project.

Contract Package No. and Title: CLC/RLC-3; Construction and Completion of Model Career Center (MCC) Building at Hamirpur in Himachal Pradesh (Sh:- Construction of Building Portion including Civil Works, Water supply & Sanitary installation, Septic tank and Soak pit, Rain water harvesting system, Electrical installations, Solar water Heating System, Environmental management Site development etc.)

Deadline for Submission of Bids 3rd. Feb, 2018 at 11:00 hrs (IST)

1. The India has applied for financing from the Asian Development Bank (ADB) toward the cost of "Himachal Pradesh Skill Development Project". Part of this financing will be used for payments under the Contract Package named above. Bidding is open to Bidders from eligible source countries of the ADB.

2. The "Public Works Department, Government of Himachal Pradesh, represented by Chief Engineer, Hamirpur Zone, Hamirpur" ("the Employer") invites sealed bids from eligible Bidders for the Construction and Completion of Model Career Center (MCC) Building at Hamirpur in Himachal Pradesh (Sh:- Construction of Building Portion including Civil Works, Water supply & Sanitary installation, Septic tank and Soak pit, Rain water harvesting system, Electrical installations, Solar water Heating System, Environmental management Site development etc.) in all respect ("the Works").

3. National competitive bidding will be conducted in accordance with ADB's Single-stage: Two-envelope procedure and is open to all Bidders from eligible countries as described in the Bidding Document.

4. Only eligible Bidders with the following key qualifications should participate in this bidding:

- a) Participation in at least one contract that has been successfully or substantially completed within the last *five years* and that is similar to the proposed works, where the value of the Bidder's participation exceeds INR 12 million;
- b) Minimum average annual construction turnover of INR 30 million, calculated as total certified payments received for contracts in progress or completed, within the last *three (3)* years;
- c) Has financial resources to meet its current contract commitments, plus INR 2.0 million requirements for the Subject Contract;
- d) Meets other Personnel and Equipment requirements as stipulated in the Bidding Document.

However for complete eligibility and qualification requirements, bid document should be referred.

5. To obtain further information and inspect the bidding documents, Bidders should contact:

Attention: Er. N P S Chauhan
Executive Engineer, Hamirpur
Himachal Pradesh Public Works Department (HPPWD)
Hamirpur

Himachal Pradesh
India

Phone number - 01972-222510
Fax - 01972-222510
email ID - ee-ham-hp@nic.in

A Pre-bid meeting shall take place on 27th Jan, 2018 at 11:00 hrs (IST), at the address stated above.

6. To purchase the bidding documents in English language, eligible Bidders should write or visit at the office of the Employer at address stated above and pay a nonrefundable fee of INR 5,000 towards the cost of bidding document in the form of Bank Demand Draft.

In case of written request, the document will be sent by post/ courier and no liability will be accepted for loss or late delivery.

The Bidders who wish to receive the bidding document by post/courier shall have to pay an additional amount of INR 3,000 for delivery within India, or USD 250 for delivery outside India. The method of payment will be through bank demand draft payable at Hamirpur, Himachal Pradesh, India.

The eligible bidders may otherwise download the bidding document in English language from the website www.hppwd.gov.in, such bidders shall be required to submit INR 5,000 with their bid in the form of Bank demand draft towards cost of bidding document.

7. Deliver your bid

- to the address above
- on or before the deadline: 3rd. Feb., 2018 at 11:00 hrs (IST)
- together with a Bid Security as described in the Bidding Document.

8. Bids will be opened on 3rd. Feb., 2018 at 11:30 hrs (IST) in the presence of Bidders' representatives who choose to attend.

Executive Engineer, Hamirpur, HPPWD

For and on behalf of:

Chief Engineer, Hamirpur Zone
Public Works Department, Government of Himachal Pradesh, Hamirpur
Himachal Pradesh, India

Office of the Chief Engineer, Hamirpur Zone

Public Works Department, Government of Himachal Pradesh, Hamirpur

[On the Letterhead of the employer]

Date: 25th July, 2017

Invitation for Bids No.: CLC/03/2017-18

Loan/Grant No. and Title: Loan No. -----IND/ Himachal Pradesh Skill Development Project.

Contract Package No. and Title: CLC/RLC-3; Construction and Completion of Model Career Center (MCC) Building at Hamirpur in Himachal Pradesh (Sh:- Construction of Building Portion including Civil Works, Water supply & Sanitary installation, Septic tank and Soak pit, Rain water harvesting system, Electrical installations, Solar water Heating System, Environmental management Site development etc.)

Deadline for Submission of Bids 11th September, 2017 at 11:00 hrs (IST)

1. The India has applied for financing from the Asian Development Bank (ADB) toward the cost of "Himachal Pradesh Skill Development Project". Part of this financing will be used for payments under the Contract Package named above. Bidding is open to Bidders from eligible source countries of the ADB.
2. The "Public Works Department, Government of Himachal Pradesh, represented by Chief Engineer, Hamirpur Zone, Hamirpur" ("the Employer") invites sealed bids from eligible Bidders for the Construction and Completion of Model Career Center (MCC) Building at Hamirpur in Himachal Pradesh (Sh:- Construction of Building Portion including Civil Works, Water supply & Sanitary installation, Septic tank and Soak pit, Rain water harvesting system, Electrical installations, Solar water Heating System, Environmental management Site development etc.) in all respect ("the Works").
3. National competitive bidding will be conducted in accordance with ADB's Single-stage: Two-envelope procedure and is open to all Bidders from eligible countries as described in the Bidding Document.
4. Only eligible Bidders with the following key qualifications should participate in this bidding:
 - a) Participation in at least one contract that has been successfully or substantially completed within the last *five years* and that is similar to the proposed works, where the value of the Bidder's participation exceeds INR 12 million;
 - b) Minimum average annual construction turnover of INR 30 million, calculated as total certified payments received for contracts in progress or completed, within the last *three (3)* years;
 - c) Has financial resources to meet its current contract commitments, plus INR 2.0 million requirements for the Subject Contract;
 - d) Meets other Personnel and Equipment requirements as stipulated in the Bidding Document.

However for complete eligibility and qualification requirements, bid document should be referred.

5. To obtain further information and inspect the bidding documents, Bidders should contact:

Attention: Er. N P S Chauhan
Executive Engineer, Hamirpur
Himachal Pradesh Public Works Department (HPPWD)
Hamirpur

Himachal Pradesh
India

Phone number - 01972-222510
Fax - 01972-222510
email ID - ee-ham-hp@nic.in

A Pre-bid meeting shall take place on 17th August, 2017 at 11:00 hrs (IST), at the address stated above.

6. To purchase the bidding documents in English language, eligible Bidders should write or visit at the office of the Employer at address stated above and pay a nonrefundable fee of INR 5,000 towards the cost of bidding document in the form of Bank Demand Draft.

In case of written request, the document will be sent by post/ courier and no liability will be accepted for loss or late delivery.

The Bidders who wish to receive the bidding document by post/courier shall have to pay an additional amount of INR 3,000 for delivery within India, or USD 250 for delivery outside India. The method of payment will be through bank demand draft payable at Hamirpur, Himachal Pradesh, India.

The eligible bidders may otherwise download the bidding document in English language from the website www.hppwd.gov.in, such bidders shall be required to submit INR 5,000 with their bid in the form of Bank demand draft towards cost of bidding document.

7. Deliver your bid

- to the address above
- on or before the deadline: 11th September, 2017 at 11:00 hrs (IST)
- together with a Bid Security as described in the Bidding Document.

8. Bids will be opened on 11th September, 2017 at 11:30 hrs (IST) in the presence of Bidders' representatives who choose to attend.

Executive Engineer, Hamirpur, HPPWD

For and on behalf of:

Chief Engineer, Hamirpur Zone
Public Works Department, Government of Himachal Pradesh, Hamirpur
Himachal Pradesh, India

Himachal Pradesh Skill Development Project.

Loan No: ----- IND

Procurement of Works

Single-Stage: Two-Envelope Bidding Procedure

Bidding Document for Procurement of

Construction and Completion of Model Career Center (MCC) Building at Hamirpur in Himachal Pradesh (Sh:- Construction of Building Portion including Civil Works, Water supply & Sanitary installation, Septic tank and Soak pit, Rain water harvesting system, Electrical installations, Solar water Heating System, Environmental management Site development etc.)

Volume 1 (Technical Bid)

Issued on: July, 2017

Invitation for Bids No.: CLC/03/2017-18

NCB No: CLC/RLC-4

**Employer: Public Works Department, Government of Himachal Pradesh,
represented by Chief Engineer, Hamirpur Zone, Hamirpur (HP)**

Country: India

Preface

This Bidding Document for the Procurement of Works has been prepared by ***Public Works Depart, Government of Himachal Pradesh*** and is based on the Standard Bidding Document for the Procurement of Works—Small Contracts (*SBD Works-Small*) issued by the Asian Development Bank dated ***December 2015***.

ADB's *SBD Works-Small* has the structure and the provisions of the Master Procurement Document entitled "Bidding Documents for the Procurement of Works—Small Contracts", prepared by multilateral development banks and other public international financial institutions except where ADB-specific considerations have required a change.

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Section 1 - Instructions to Bidders

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Section 1 - Instructions to Bidders

A. General

1. Scope of Bid	<p>1.1 In connection with the Invitation for Bids (IFB) indicated in the Bid Data Sheet (BDS), the Employer, as indicated in the BDS, issues this Bidding Document for the procurement of the Works as specified in Section 6 (Employer's Requirements). The name, identification, and number of contracts of this bidding are provided in the BDS.</p> <p>1.2 Throughout this Bidding Document,</p> <ul style="list-style-type: none"> (a) the term "in writing" means communicated in written form and delivered against receipt; (b) except where the context requires otherwise, words indicating the singular also include the plural and words indicating the plural also include the singular; and (c) "day" means calendar day.
2. Source of Funds	<p>2.1 The Borrower or Recipient (hereinafter called "Borrower") indicated in the BDS has applied for or received financing (hereinafter called "funds") from the Asian Development Bank (hereinafter called "ADB") toward the cost of the project named in the BDS. The Borrower intends to apply a portion of the funds to eligible payments under the contract(s) for which this Bidding Document is issued.</p> <p>2.2 Payments by ADB will be made only at the request of the Borrower and upon approval by ADB in accordance with the terms and conditions of the Financing Agreement between the Borrower and ADB (hereinafter called "Financing Agreement"), and will be subject in all respects to the terms and conditions of that Financing Agreement. No party other than the Borrower shall derive any rights from the Financing Agreement or have any claim to the funds.</p>
3. Fraud and Corruption	<p>3.1 ADB's Anticorruption Policy requires Borrowers (including beneficiaries of ADB-financed activity), as well as Bidders, Suppliers, and Contractors under ADB-financed contracts, observe the highest standard of ethics during the procurement and execution of such contracts. In pursuance of this policy, ADB</p> <p>(a) defines, for the purposes of this provision, the terms set forth below as follows:</p> <ul style="list-style-type: none"> (i) "corrupt practice" means the offering, giving, receiving, or soliciting, directly or indirectly, anything of value to influence improperly the actions of another party; (ii) "fraudulent practice" means any act or omission, including a misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain a financial or other benefit or to avoid an obligation; (iii) "coercive practice" means impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the

actions of a party;

- (iv) “collusive practice” means an arrangement between two or more parties designed to achieve an improper purpose, including influencing improperly the actions of another party;
- (v) “obstructive practice” means (a) deliberately destroying, falsifying, altering, or concealing of evidence material to an ADB investigation; (b) making false statements to investigators in order to materially impede an ADB investigation; (c) failing to comply with requests to provide information, documents or records in connection with an Office of Anticorruption and Integrity (OAI) investigation; (d) 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 (e) materially impeding ADB's contractual rights of audit or access to information; and
- (vi) “integrity violation” is any act which violates ADB's Anticorruption Policy, including (i) to (v) above and the following: abuse, conflict of interest, violations of ADB sanctions, retaliation against whistleblowers or witnesses, and other violations of ADB's Anticorruption Policy, including failure to adhere to the highest ethical standard.

- (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 or other integrity violations in competing for the Contract;
- (c) will cancel the portion of the financing allocated to a contract if it determines at any time that representatives of the Borrower or of a beneficiary of ADB financing engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices or other integrity violations during the procurement or the execution of that contract, without the Borrower having taken timely and appropriate action satisfactory to ADB to remedy the situation;
- (d) will impose remedial actions on a firm or an individual, at any time, in accordance with ADB's Anticorruption Policy and Integrity Principles and Guidelines (both as amended from time to time), including declaring ineligible, either indefinitely or for a stated period of time, to participate¹ in ADB-financed, administered, or supported activities or to benefit from an ADB-financed, administered, or supported contract, financially or otherwise, if it at any time determines that the firm or individual has, directly or through an agent, engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices or other integrity violations; and

¹ Whether as a Contractor, Nominated Subcontractor, Consultant, Manufacturer or Supplier, or Service Provider; or in any other capacity (different names are used depending on the particular Bidding Document). A Nominated Subcontractor is one that either has been: (i) included by the Bidder in its prequalification application or bid because it brings specific and critical experience and know-how that are accounted for in the evaluation of the bidder's prequalification application or the bid; or (ii) appointed by the Employer.

(e) will have the right to require that a provision be included in bidding documents and in contracts financed by ADB, requiring Bidders, suppliers, and contractors to permit ADB or its representative 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 ADB.

3.2 Furthermore, Bidders shall be aware of the provisions of GCC 28.3 and 73.2 (i).

4. Eligible Bidders

4.1 A Bidder may be a natural person, private entity, or government-owned enterprisesubject to ITB 4.5 – or any combination of them with a formal intent to enter into an agreement or under an existing agreement in the form of a Joint Venture. In the case of a Joint Venture:

(a) all partners shall be jointly and severally liable; and

(b) the Joint Venture shall nominate a Representative who shall have the authority to conduct all business for and on behalf of any and all the parties of the Joint Venture during the bidding process and, in the event the Joint Venture is awarded the Contract, during contract execution.

4.2 A Bidder, and all parties constituting the Bidder, shall have the nationality of an eligible country, in accordance with Section 5 (Eligible Countries). A Bidder shall be deemed to have the nationality of a country if the Bidder is a citizen or is constituted, or incorporated, and operates in conformity with the provisions of the laws of that country. This criterion shall also apply to the determination of the nationality of proposed subcontractors or suppliers for any part of the Contract including related services.

4.3 A Bidder shall not have a conflict of interest. All Bidders found to have a conflict of interest shall be disqualified. A Bidder may be considered to be in a conflict of interest with one or more parties in this bidding process if any of, including but not limited to, the following apply:

(a) they have controlling shareholders in common; or

(b) they receive or have received any direct or indirect subsidy from any of them; or

(c) they have the same legal representative for purposes of this bid; or

(d) they have a relationship with each other, directly or through common third parties, that puts them in a position to have access to material information about or improperly influence the Bid of another Bidder, or influence the decisions of the Employer regarding this bidding process; or

(e) a Bidder participates in more than one bid in this bidding process, either individually or as a partner in a joint venture, except for alternative offers permitted under ITB 13 of the Bidding Document. This will result in the disqualification of all Bids in which it is involved. However, subject to any finding of a conflict of interest in terms of 4.3 (a) - (d) above, this does not limit the participation of a Bidder as a Subcontractor in another Bid or of a firm as a Subcontractor in more than one Bid; or

- (f) a Bidder or any affiliated entity, participated as a Consultant in the preparation of the design or technical specifications of the works that are the subject of the Bid; or
- (g) a Bidder was affiliated with a firm or entity that has been hired (or is proposed to be hired) by the Employer or Borrower as Engineer for the contract.

4.4 A firm shall not be eligible to participate in any procurement activities under an ADB-financed, administered, or supported project while undetemporary suspension or debarment by ADB pursuant to its Anticorruption Policy (see ITB 3), whether such debarment was directly imposed by ADB, or enforced by ADB pursuant to the Agreement for Mutual Enforcement of Debarment Decisions. A bid from a temporary suspended or debarred firm will be rejected.

4.5 Government-owned enterprises in the Employer's country shall be eligible only if they can establish that they (i) are legally and financially autonomous, (ii) operate under commercial law, and (iii) are not a dependent agency of the Employer.

4.6 Bidders shall provide such evidence of their continued eligibility satisfactory to the Employer, as the Employer shall reasonably request.

4.7 Firms shall be excluded if by an act of compliance with a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations, the Borrower's country prohibits any import of goods or contracting of works or services from that country or any payments to persons or entities in that country.

4.8 In case a prequalification process has been conducted prior to the bidding process, this bidding is open only to prequalified Bidders.

5. Eligible Materials, Equipment and Services

5.1 The materials, equipment, and services to be supplied under the Contract shall have their origin in eligible source countries as defined in ITB 4.2 above and all expenditures under the Contract will be limited to such materials, equipment, and services. At the Employer's request, Bidders may be required to provide evidence of the origin of materials, equipment, and services.

5.2 For purposes of ITB 5.1 above, "origin" means the place where the materials and equipment are mined, grown, produced, or manufactured, and from which the services are provided. Materials and equipment are produced when, through manufacturing, processing, or substantial or major assembling of components, a commercially recognized product results that differs substantially in its basic characteristics or in purpose or utility from its components.

B. Contents of Bidding Document

6. Sections of Bidding Document

6.1 The Bidding Document consist of Parts I, II, and III, which include all the sections indicated below, and should be read in conjunction with any addenda issued in accordance with ITB 8.

PART I Bidding Procedures

Section 1 - Instructions to Bidders (ITB)
Section 2 - Bid Data Sheet (BDS)
Section 3 - Evaluation and Qualification Criteria (EQC)
Section 4 - Bidding Forms (BDF)
Section 5 - Eligible Countries (ELC)

PART II Requirements

Section 6 –Employer’s Requirements (ERQ)

PART III Conditions of Contract and Contract Forms

Section 7 - General Conditions of Contract (GCC)
Section 8 - Particular Conditions of Contract (PCC)
Section 9 - Contract Forms (COF)

6.2 The Invitation for Bids (IFB) issued by the Employer is not part of the Bidding Document.

6.3 The Employer is not responsible for the completeness of the Bidding Document and their Addenda, if they were not obtained directly from the source stated by the Employer in the IFB.

6.4 The Bidder is expected to examine all instructions, forms, terms, and specifications in the Bidding Document. Failure to furnish all information or documentation required by the Bidding Document may result in the rejection of the bid.

7. **Clarification of Bidding Document, Site Visit, Pre-Bid Meeting**

7.1 A prospective Bidder requiring any clarification on the Bidding Document shall contact the Employer in writing at the Employer’s address indicated in the BDS or raise his inquiries during the pre-bid meeting if provided for in accordance with ITB 7.4. The Employer will respond in writing to any request for clarification, provided that such request is received prior to the deadline for submission of bids, within a period given in the BDS. The Employer shall forward copies of its response to all Bidders who have acquired the Bidding Document in accordance with ITB 6.3, including a description of the inquiry but without identifying its source. Should the Employer deem it necessary to amend the Bidding Document as a result of a request for clarification, it shall do so following the procedure under ITB 8 and ITB 22.2.

7.2 The Bidder is advised to visit and examine the Site of Works and its surroundings and obtain for itself, on its own risk and responsibility, 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.

7.3 The Bidder and any of its personnel or agents will be granted permission by the Employer to enter its premises and lands for the purpose of such visit, but only upon the express condition that the Bidder, its personnel, and agents will release and indemnify the Employer and its personnel and agents from and against all liability in respect thereof, and will be responsible for death or personal injury, loss of or damage to property, and any other loss, damage, costs, and expenses incurred as a result of the inspection.

- 7.4 The Bidder's designated representative is invited to attend a pre-bid meeting, if provided for in the BDS. The purpose of the meeting will be to clarify issues and to answer questions on any matter that may be raised at that stage.
- 7.5 The Bidder is requested to submit any questions in writing, to reach the Employer not later than 1 week before the meeting.
- 7.6 Minutes of the pre-bid meeting, including the text of the questions raised, without identifying the source, and the responses given, together with any responses prepared after the meeting, will be transmitted promptly to all Bidders who have acquired the Bidding Document in accordance with ITB 6.3. Any modification to the Bidding Document that may become necessary as a result of the pre-bid meeting shall be made by the Employer exclusively through the issue of an addendum pursuant to ITB 8 and not through the minutes of the pre-bid meeting.
- 7.7 Nonattendance at the pre-bid meeting will not be a cause for disqualification of a Bidder.

8. Amendment of Bidding Document

- 8.1 At any time prior to the deadline for submission of Bids, the Employer may amend the Bidding Document by issuing addenda.
- 8.2 Any addendum issued shall be part of the Bidding Document and shall be communicated in writing to all who have obtained the Bidding Document from the Employer in accordance with ITB 6.3.
- 8.3 To give prospective Bidders reasonable time in which to take an addendum into account in preparing their Bids, the Employer may, at its discretion, extend the deadline for the submission of Bids, pursuant to ITB 22.2.

C. Preparation of Bids

9. Cost of Bidding

- 9.1 The Bidder shall bear all costs associated with the preparation and submission of its Bid, and the Employer shall in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.

10. Language of Bid

- 10.1 The Bid, as well as all correspondence and documents relating to the bid exchanged by the Bidder and the Employer, shall be written in the language specified in the BDS. Supporting documents and printed literature that are part of the Bid may be in another language provided they are accompanied by an accurate translation of the relevant passages in the language specified in the BDS, in which case, for purposes of interpretation of the Bid, such translation shall govern.

11. Documents Comprising the Bid

- 11.1 The Bid shall comprise two envelopes submitted simultaneously, one called the Technical Bid containing the documents listed in ITB 11.2 and the other the Price Bid containing the documents listed in ITB 11.3, both envelopes enclosed together in an outer single envelope.

11.2 The Technical Bid shall comprise the following:

- (a) Letter of Technical Bid;
- (b) Bid Security or Bid-Securing Declaration, in accordance with ITB 19;
- (c) alternative Bids, at Bidder's option and if permissible, in accordance with ITB 13;
- (d) written confirmation authorizing the signatory of the Bid to commit the Bidder, in accordance with ITB 20.2;
- (e) documentary evidence in accordance with ITB 17, establishing the Bidder's qualifications to perform the contract;
- (f) Technical Proposal in accordance with ITB 16;
- (g) Any other document required in the BDS.

11.3 The Price Bid shall comprise the following:

- (a) Letter of Price Bid;
- (b) completed Price Schedules, in accordance with ITB 12 and ITB 14, or as stipulated in the BDS;
- (c) alternative price Bids, at Bidder's option and if permissible, in accordance with ITB 13;
- (d) Any other document required in the BDS.

11.4 In addition to the requirements under ITB 11.2, Bids submitted by a Joint Venture shall include a copy of the Joint Venture Agreement entered into by all partners. Alternatively, a Letter of Intent to execute a Joint Venture 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.

12. Letters of Bid and Schedules

12.1 The Letters of Technical Bid and Price Bid, and the Schedules, and all documents listed under Clause 11, shall be prepared using the relevant forms furnished in Section 4 (Bidding Forms). The forms must be completed without any alterations to the text, and no substitutes shall be accepted. All blank spaces shall be filled in with the information requested and as required in the BDS.

13. Alternative Bids

13.1 Unless otherwise indicated in the BDS, alternative Bids shall not be considered.

13.2 When alternative times for completion are explicitly invited, a statement to that effect will be included in the BDS, as will the method of evaluating different times for completion.

13.3 When specified in the BDS pursuant to ITB 13.1, and subject to ITB 13.4 below, Bidders wishing to offer technical alternatives to the requirements of the Bidding Document must first price the Employer's design as described in the Bidding Document and shall further provide all information necessary for a complete evaluation of the alternative by the Employer, including drawings, design calculations, technical specifications, breakdown of prices, and proposed construction methodology and other relevant details. Only the technical alternatives, if any, of the lowest evaluated Bidder conforming to the basic technical

requirements shall be considered by the Employer.

13.4 When specified in the BDS, Bidders are permitted to submit alternative technical solutions for specified parts of the Works. Such parts will be identified in the BDS and described in Section 6 (Employer's Requirements). The method for their evaluation will be stipulated in Section 3 (Evaluation and Qualification Criteria).

14. Bid Prices and Discounts

14.1 The prices and discounts quoted by the Bidder in the Letter of Price Bid and in the Schedules shall conform to the requirements specified below.

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

14.3 The price to be quoted in the Letter of Price Bid shall be the total price of the Bid, excluding any discounts offered. Absence of the total bid price in the Letter of Price Bid may result in the rejection of the Bid.

14.4 The Bidder shall quote any discounts and the methodology for their application in the Letter of Price Bid, in accordance with ITB 12.1.

14.5 Unless otherwise provided in the BDS and the Conditions of Contract, the prices quoted by the Bidder shall be fixed. If the prices quoted by the Bidder are subject to adjustment during the performance of the Contract in accordance with the provisions of the Conditions of Contract, the Bidder shall furnish the indexes and weightings for the price adjustment formulas in the Table(s) of Adjustment Data in Section 4 (Bidding Forms) and the Employer may require the Bidder to justify its proposed indexes and weightings.

14.6 If so indicated in ITB 1.1, bids are being invited for individual contracts or for any combination of contracts (packages). Bidders wishing to offer any price reduction for the award of more than one Contract shall specify in their bid the price reductions applicable to each package, or alternatively, to individual Contracts within the package. Price reductions or discounts shall be submitted in accordance with ITB 14.4, provided the Bids for all contracts are submitted and opened at the same time.

14.7 All duties, taxes, and other levies payable by the Contractor under the Contract, or for any other cause, as of the date 28 days prior to the deadline for submission of bids, shall be included in the rates and prices and the total Bid Price submitted by the Bidder.

15. Currencies of Bid and Payment

15.1 The currency(ies) of the Bid and payment shall be as specified in the BDS.

15.2 Bidders may be required by the Employer to justify, to the Employer's satisfaction, their local and foreign currency requirements, and to substantiate that the amounts included in the prices shown in the appropriate form(s) of Section 4, in which case a detailed breakdown of the foreign currency requirements shall be provided by Bidders.

16. Documents Comprising the Technical Proposal

16.1 The Bidder shall furnish a Technical Proposal including a statement of work methods, equipment, personnel, schedule, and any other information as stipulated in Section 4 (Bidding Forms), in sufficient detail to demonstrate the adequacy of the Bidders' proposal to meet the work requirements and the completion time.

17. Documents Establishing the Qualifications of the Bidder

17.1 To establish its qualifications to perform the Contract in accordance with Section 3 (Evaluation and Qualification Criteria) the Bidder shall provide the information requested in the corresponding information sheets included in Section 4 (Bidding Forms).

17.2 Domestic Bidders, individually or in joint ventures, applying for eligibility for domestic preference shall supply all information required to satisfy the criteria for eligibility in accordance with ITB 35.

18. Period of Validity of Bids

18.1 Bids shall remain valid for the period specified in the BDS after the bid submission deadline date prescribed by the Employer. A bid valid for a shorter period shall be rejected by the Employer as nonresponsive.

18.2 In exceptional circumstances, prior to the expiration of the bid validity period, the Employer may request Bidders to extend the period of validity of their Bids. The request and the responses shall be made in writing. If a bid security is requested in accordance with ITB 19, it shall also be extended 28 days beyond the deadline of the extended validity period. A Bidder may refuse the request without forfeiting its bid security. A Bidder granting the request shall not be required or permitted to modify its Bid.

19. Bid Security/Bid-Securing Declaration

19.1 Unless otherwise specified in the BDS, the Bidder shall furnish as part of its Bid, in original form, either a Bid-Securing Declaration or a bid security as specified in the BDS. In the case of a bid security, the amount and currency shall be as specified in the BDS.

19.2 If a Bid-Securing Declaration is required pursuant to ITB 19.1, it shall use the form included in Section 4 (Bidding Forms). The Employer will declare a Bidder ineligible to be awarded a Contract for a specified period of time, as indicated in the BDS, if the Bid-Securing Declaration is executed.

19.3 If a bid security is specified pursuant to ITB 19.1, the bid security shall be, at the Bidder's option, in any of the following forms:

- (a) an unconditional bank guarantee,
- (b) an irrevocable letter of credit, or
- (c) a cashier's or certified check,

all from a reputable bank from an eligible country as described in Section 5 (Eligible Countries). In the case of a bank guarantee, the bid security shall be submitted either using the Bid Security Form included

in Section 4 (Bidding Forms) or another form acceptable to the Employer. The form must include the complete name of the Bidder. The bid security shall be valid for 28 days beyond the original validity period of the bid, or beyond any period of extension if requested under ITB 18.2.

- 19.4 Unless otherwise specified in the BDS, any Bid not accompanied by a substantially compliant bid security or Bid-Securing Declaration, if one is required in accordance with ITB 19.1, shall be rejected by the Employer as nonresponsive.
- 19.5 If a bid security is specified pursuant to ITB 19.1, the bid security of unsuccessful Bidders shall be returned as promptly as possible upon the successful Bidder's furnishing of the performance security pursuant to ITB 42.
- 19.6 If a bid security is specified pursuant to ITB 19.1, the bid security of the successful Bidder shall be returned as promptly as possible once the successful Bidder has signed the Contract and furnished the required performance security.
- 19.7 The bid security may be forfeited or the Bid-Securing Declaration executed
 - (a) if a Bidder withdraws its bid during the period of bid validity specified by the Bidder on the Letters of Technical Bid and Price Bid, except as provided in ITB 18.2; or
 - (b) if the successful Bidder fails to
 - (i) sign the Contract in accordance with ITB 41;
 - (ii) furnish a performance security in accordance with ITB 42;
 - (iii) accept arithmetical corrections in accordance with ITB 33; or
 - (iv) furnish a domestic preference security, if applicable, in accordance with ITB 42.
- 19.8 The bid security or the Bid-Securing Declaration of a Joint Venture shall be in the name of the Joint Venture that submits the Bid. If the Joint Venture has not been legally constituted at the time of bidding, the bid security or the Bid-Securing Declaration shall be in the names of all future partners as named in the letter of intent mentioned in ITB 4.1.

20. Format and Signing of Bid

- 20.1 The Bidder shall prepare one original set of the Technical Bid and one original of the Price Bid comprising the Bid as described in ITB 11 and clearly mark it "ORIGINAL - TECHNICAL BID" and "ORIGINAL - PRICE BID." Alternative Bids, if permitted in accordance with ITB 13, shall be clearly marked "ALTERNATIVE." In addition, the Bidder shall submit copies of the Bid in the number specified in the BDS, and clearly mark each of them "COPY." In the event of any discrepancy between the original and the copies, the original shall prevail.
- 20.2 The original and all copies of the Bid shall be typed or written in indelible ink and shall be signed by a person duly authorized to sign on behalf of the Bidder. This authorization shall consist of a written

confirmation as specified in the BDS and shall be attached to the Bid. The name and position held by each person signing the authorization must be typed or printed below the signature. All pages of the Bid, except for unamended printed literature, shall be signed or initialed by the person signing the bid. If a Bidder submits a deficient authorization, the Bid shall not be rejected in the first instance. The Employer shall request the Bidder to submit an acceptable authorization within the number of days as specified in the BDS. Failure to provide an acceptable authorization within the prescribed period of receiving such a request shall cause the rejection of the Bid.

20.3 Any amendments such as interlineations, erasures, or overwriting shall be valid only if they are signed or initialed by the person signing the Bid.

D. Submission and Opening of Bids

21. Sealing and Marking of Bids

21.1 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. Procedures for submission, sealing, and marking are as follows:

- (a) Bidders submitting Bids by mail or by hand shall enclose the original of the Technical Bid, the original of the Price Bid, and each copy of the Technical Bid and each copy of the Price Bid, in separate sealed envelopes, duly marking the envelopes as "ORIGINAL - TECHNICAL BID," "ORIGINAL - PRICE BID," and "COPY NO.... - TECHNICAL BID," and "COPY NO.... - PRICE BID." These envelopes, the first containing the originals and the others containing copies, shall then be enclosed in one single envelope per set. If permitted in accordance with ITB 13, alternative Bids shall be similarly sealed, marked and included in the sets. The rest of the procedure shall be in accordance with ITB 21.2 and ITB 21.3.
- (b) Bidders submitting Bids electronically shall follow the electronic bid submission procedures specified in the BDS.

21.2 The inner and outer envelopes shall

- (a) bear the name and address of the Bidder;
- (b) be addressed to the Employer as provided in BDS 22.1; and
- (c) bear the specific identification of this bidding process indicated in the BDS 1.1.

21.3 The outer envelopes and the inner envelopes containing the Technical Bid shall bear a warning not to open before the time and date for the opening of Technical Bid, in accordance with ITB 25.1.

21.4 The inner envelopes containing the Price Bid shall bear a warning not to open until advised by the Employer in accordance with ITB 25.7.

21.5 If all envelopes are not sealed and marked as required, the Employer will assume no responsibility for the misplacement or premature opening of the Bid.

22. Deadline for Submission of Bids

22.1 Bids must be received by the Employer at the address and no later than the date and time indicated in the BDS.

22.2 The Employer may, at its discretion, extend the deadline for the submission of Bids by amending the Bidding Document in accordance with ITB 8, in which case all rights and obligations of the Employer and Bidders previously subject to the deadline shall thereafter be subject to the deadline as extended.

23. Late Bids

23.1 The Employer shall not consider any Bid that arrives after the deadline for submission of bids, in accordance with ITB 22. Any Bid received by the Employer after the deadline for submission of Bids shall be declared late, rejected, and returned unopened to the Bidder.

24. Withdrawal, Substitution, and Modification of Bids

24.1 A Bidder may withdraw, substitute, or modify its Bid – Technical or Price – after it has been submitted by sending a written notice, duly signed by an authorized representative, and shall include a copy of the authorization in accordance with ITB 20.2, (except that withdrawal notices do not require copies). The corresponding substitution or modification of the Bid must accompany the respective written notice. All notices must be

(a) prepared and submitted in accordance with ITB 20 and ITB 21 (except that withdrawal notices do not require copies), and in addition, the respective envelopes shall be clearly marked "WITHDRAWAL," "SUBSTITUTION," "MODIFICATION;" and

(b) received by the Employer prior to the deadline prescribed for submission of Bids, in accordance with ITB 22.

24.2 Bids requested to be withdrawn in accordance with ITB 24.1 shall be returned unopened to the Bidders.

24.3 No Bid may be withdrawn, substituted, or modified in the interval between the deadline for submission of Bids and the expiration of the period of bid validity specified by the Bidder on the Letters of Technical Bid and Price Bid or any extension thereof.

25. Bid Opening

25.1 The Employer shall open the Technical Bids in public at the address, on the date, and time specified in the BDS in the presence of Bidders' designated representatives and anyone who choose to attend. Any specific electronic bid opening procedures required if electronic bidding is permitted in accordance with ITB 21.1, shall be as specified in the BDS. The Price Bids will remain unopened and will be held in custody of the Employer until the specified time of their opening. If the Technical Bid and Price Bid are submitted together in one envelope, the Employer may reject the entire Bid. Alternatively, the Price Bid may be immediately resealed for later evaluation.

25.2 First, envelopes marked "WITHDRAWAL" shall be opened and read out and the envelope with the corresponding Bid shall not be opened, but returned to the Bidder. No bid withdrawal shall be permitted unless the corresponding withdrawal notice contains a valid authorization to request the withdrawal and is read out at bid opening.

25.3 Second, outer envelopes marked "SUBSTITUTION" shall be opened. The inner envelopes containing the Substitution Technical Bid and/or Substitution Price Bid shall be exchanged for the corresponding envelopes being substituted, which are to be returned to the Bidder unopened. Only the Substitution Technical Bid, if any, shall be opened, read out, and recorded. Substitution Price Bid will remain unopened in accordance with ITB 25.1. No envelope shall be substituted unless the corresponding substitution notice contains a valid authorization to request the substitution and is read out and recorded at bid opening.

25.4 Next, outer envelopes marked "MODIFICATION" shall be opened. No Technical Bid and/or Price Bid shall be modified unless the corresponding modification notice contains a valid authorization to request the modification and is read out and recorded at the opening of Technical Bids. Only the Technical Bids, both Original as well as Modification, are to be opened, read out, and recorded at the opening. Price Bids, both Original and Modification, will remain unopened in accordance with ITB 25.1.

25.5 All other envelopes holding the Technical Bids shall be opened one at a time, and the following read out and recorded:

- (a) the name of the Bidder;
- (b) whether there is a modification or substitution;
- (c) the presence of a bid security or a Bid-Securing Declaration, if required; and
- (d) any other details as the Employer may consider appropriate.

Only Technical Bids and alternative Technical Bids read out and recorded at bid opening shall be considered for evaluation. Unless otherwise specified in the BDS, all pages of the Letter of Technical Bid are to be initialed by at least three representatives of the Employer attending the bid opening. No Bid shall be rejected at the opening of Technical Bids except for late bids, in accordance with ITB 23.1.

25.6 The Employer shall prepare a record of the opening of Technical Bids that shall include, as a minimum, the name of the Bidder and whether there is a withdrawal, substitution, or modification; alternative proposals; and the presence or absence of a bid security or a Bid-Securing Declaration, if one was required. The Bidders' representatives who are present shall be requested to sign the record. The omission of a Bidder's signature on the record shall not invalidate the contents and effect of the record. A copy of the record shall be distributed to all Bidders who submitted Bids on time, and posted online when electronic bidding is permitted.

25.7 At the end of the evaluation of the Technical Bids, the Employer will invite bidders who have submitted substantially responsive Technical Bids and who have been determined as being qualified for award to attend the opening of the Price Bids. The date, time, and location of the opening of Price Bids will be advised in writing by the Employer. Bidders shall be given reasonable notice for the opening of Price Bids.

- 25.8 The Employer will notify Bidders in writing who have been rejected on the grounds of their Technical Bids being substantially nonresponsive to the requirements of the Bidding Document and return their Price Bids unopened.
- 25.9 The Employer shall conduct the opening of Price Bids of all Bidders who submitted substantially responsive Technical Bids, in the presence of Bidders' representatives who choose to attend at the address, on the date, and time specified by the Employer. The Bidder's representatives who are present shall be requested to sign a register evidencing their attendance.
- 25.10 All envelopes containing Price Bids shall be opened one at a time and the following read out and recorded:
 - (a) the name of the Bidder;
 - (b) whether there is a modification or substitution;
 - (c) the Bid Prices, including any discounts and alternative offers; and
 - (d) any other details as the Employer may consider appropriate.

Only Price Bids, discounts, and alternative offers read out and recorded during the opening of Price Bids shall be considered for evaluation. Unless otherwise specified in the BDS, all pages of the Letter of Price Bid and Schedules are to be initialed by at least three representatives of the Employer attending the bid opening. No Bid shall be rejected at the opening of Price Bids.

- 25.11 The Employer shall prepare a record of the opening of Price Bids that shall include, as a minimum, the name of the Bidder, the Bid Price (per lot if applicable), any discounts, and alternative offers. The Bidders' representatives who are present shall be requested to sign the record. The omission of a Bidder's signature on the record shall not invalidate the contents and effect of the record. A copy of the record shall be distributed to all Bidders who submitted Bids on time, and posted online when electronic bidding is permitted.

E. Evaluation and Comparison of Bids

26. Confidentiality

- 26.1 Information relating to the examination, evaluation, comparison, and postqualification of Bids and recommendation of contract award, shall not be disclosed to Bidders or any other persons not officially concerned with such process until information on Contract award is communicated to all Bidders.
- 26.2 Any attempt by a Bidder to influence the Employer in the evaluation of the Bids or Contract award decisions may result in the rejection of its Bid.
- 26.3 Notwithstanding ITB 26.2, 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 may do so in writing.

27. Clarification of Bids

- 27.1 To assist in the examination, evaluation, and comparison of the Technical and Price Bids, the Employer may, at its discretion, ask any

Bidder for a clarification of its Bid. Any clarification submitted by a Bidder that is not in response to a request by the Employer shall not be considered. The Employer's request for clarification and the response shall be in writing. No change in the substance of the Technical Bid or prices in the Price Bid shall be sought, offered, or permitted, except to confirm the correction of arithmetic errors discovered by the Employer in the evaluation of the Price Bids, in accordance with ITB 33.

27.2 If a Bidder does not provide clarifications of its Bid by the date and time set in the Employer's request for clarification, its Bid may be rejected.

28. Deviations, Reservations, and Omissions

28.1 During the evaluation of bids, the following definitions apply:

- (a) "Deviation" is a departure from the requirements specified in the Bidding Document;
- (b) "Reservation" is the setting of limiting conditions or withholding from complete acceptance of the requirements specified in the Bidding Document; and
- (c) "Omission" is the failure to submit part or all of the information or documentation required in the Bidding Document.

29. Examination of Technical Bids

29.1 The Employer shall examine the Technical Bid to confirm that all documents and technical documentation requested in ITB 11.2 have been provided, and to determine the completeness of each document submitted.

29.2 The Employer shall confirm that the following documents and information have been provided in the Technical Bid. If any of these documents or information is missing, the offer shall be rejected.

- (a) Letter of Technical Bid;
- (b) written confirmation of authorization to commit the Bidder;
- (c) Bid Security or Bid-Securing Declaration, if applicable; and
- (d) Technical Proposal in accordance with ITB 16.

30. Responsiveness of Technical Bid

30.1 The Employer's determination of a Bid's responsiveness is to be based on the contents of the Bid itself, as defined in ITB 11.

30.2 A substantially responsive Technical Bid is one that meets the requirements of the Bidding Document without material deviation, reservation, or omission. A material deviation, reservation, or omission is one that,

- (a) if accepted, would:
 - (i) affect in any substantial way the scope, quality, or performance of the Works specified in the Contract; or
 - (ii) limit in any substantial way, inconsistent with the Bidding Document, the Employer's rights or the Bidder's obligations under the proposed Contract; or
- (b) if rectified, would unfairly affect the competitive position of other Bidders presenting substantially responsive Bids.

30.3 The Employer shall examine the technical aspects of the Bid submitted in accordance with ITB 16, Technical Proposal, in particular, to confirm that all requirements of Section 6 (Employer's Requirements) have been met without any material deviation, reservation, or omission.

30.4 If a Bid is not substantially responsive to the requirements of the Bidding Document, it shall be rejected by the Employer and may not subsequently be made responsive by correction of the material deviation, reservation, or omission.

31. Nonmaterial Nonconformities

31.1 Provided that a Bid is substantially responsive, the Employer may waive any nonconformities in the Bid that do not constitute a material deviation, reservation, or omission.

31.2 Provided that a Technical Bid is substantially responsive, the Employer may request that the Bidder submit the necessary information or documentation, within a reasonable period of time, to rectify nonmaterial nonconformities in the Technical Bid related to documentation requirements. Requesting information or documentation on such nonconformities shall not be related to any aspect of the Price Bid. Failure of the Bidder to comply with the request may result in the rejection of its Bid.

31.3 Provided that a Technical Bid is substantially responsive, the Employer shall rectify quantifiable nonmaterial nonconformities related to the Bid Price. To this effect, the Bid Price shall be adjusted, for comparison purposes only, to reflect the price of a missing or non-conforming item or component. The adjustment shall be made using the method indicated in Section 3 (Evaluation and Qualification Criteria).

32. Qualification of the Bidder

32.1 The Employer shall determine to its satisfaction during the evaluation of Technical Bids whether Bidders meet the qualifying criteria specified in Section 3 (Evaluation and Qualification Criteria).

32.2 The determination shall be based upon an examination of the documentary evidence of the Bidder's qualifications submitted by the Bidder, pursuant to ITB 17.1.

32.3 An affirmative determination shall be a prerequisite for the opening and evaluation of a Bidder's Price Bid. A negative determination shall result into the disqualification of the Bid, in which event the Employer shall return the unopened Price Bid to the Bidder.

33. Correction of Arithmetical Errors

33.1 During the evaluation of Price Bids, the Employer shall correct arithmetical errors on the following basis:

(a) Only for unit price contracts, if there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected, unless in the opinion of the Employer there is an obvious misplacement of the decimal point in the unit price, in which case the total price as quoted shall govern and the unit price shall be corrected.

(b) If there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total

shall be corrected.

- (c) If there is a discrepancy between the bid price in the Summary of Bill of Quantities and the bid amount in item (c) of the Letter of Price Bid, the bid price in the Summary of Bill of Quantities will prevail and the bid amount in item (c) of the Letter of Price Bid will be corrected.
- (d) If there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail subject to (a), (b) and (c) above.

33.2 If the Bidder that submitted the lowest evaluated bid does not accept the correction of errors, its Bid shall be disqualified and its bid security may be forfeited or its Bid-Securing Declaration executed.

34. Conversion to Single Currency

34.1 For evaluation and comparison purposes, the currency(ies) of the Bid shall be converted into a single currency as specified in the BDS.

35. Margin of Preference

35.1 Unless otherwise specified in the BDS, a margin of preference shall not apply.

36. Evaluation of Price Bids

36.1 The Employer shall use the criteria and methodologies listed in this Clause. No other evaluation criteria or methodologies shall be permitted.

36.2 To evaluate the Price Bid, the Employer shall consider the following:

- (a) the bid price, excluding Provisional Sums and the provision, if any, for contingencies in the Summary Bill of Quantities for admeasurement contracts, or Schedule of Prices for lump sum contracts, but including Daywork items, where priced competitively;
- (b) price adjustment for correction of arithmetic errors in accordance with ITB 33.1;
- (c) price adjustment due to discounts offered in accordance with ITB 14.4;
- (d) converting the amount resulting from applying (a) to (c) above, if relevant, to a single currency in accordance with ITB 34;
- (e) adjustment for nonconformities in accordance with ITB 31.3; and
- (f) application of all the evaluation factors indicated in Section 3 (Evaluation and Qualification Criteria).

36.3 The estimated effect of the price adjustment provisions of the Conditions of Contract, applied over the period of execution of the Contract, shall not be taken into account in bid evaluation.

36.4 If this Bidding Document allows Bidders to quote separate prices for different contracts, and to award multiple contracts to a single Bidder, the methodology to determine the lowest evaluated price of the contract combinations, including any discounts offered in the Letter of Price Bid, is specified in Section 3 (Evaluation and Qualification Criteria).

36.5 If the Bid for an admeasurement contract, which results in the lowest Evaluated Bid Price, is seriously unbalanced, front loaded or substantially below updated estimates in the opinion of the Employer, the Employer may require the Bidder to produce detailed price analyses for any or all items of the Bill of Quantities, to demonstrate the internal consistency of those prices with the construction methods and schedule proposed. After evaluation of the price analyses, taking into consideration the schedule of estimated Contract payments, the Employer may require that the amount of the performance security be increased at the expense of the Bidder to a level sufficient to protect the Employer against financial loss in the event of default of the successful Bidder under the Contract.

37. Comparison of Bids

37.1 The Employer shall compare all substantially responsive Bids to determine the lowest evaluated Bid, in accordance with ITB 36.2.

38. Employer's Right to Accept Any Bid, and to Reject Any or All Bids

38.1 The Employer reserves the right to accept or reject any Bid, and to annul the bidding process and reject all Bids at any time prior to contract award, without thereby incurring any liability to Bidders. In case of annulment, all Bids submitted and specifically, bid securities, shall be promptly returned to the Bidders.

F. Award of Contract

39. Award Criteria

39.1 The Employer shall award the Contract to the Bidder whose offer has been determined to be the lowest evaluated Bid and is substantially responsive to the Bidding Document, provided further that the Bidder is determined to be qualified to perform the Contract satisfactorily.

40. Notification of Award

40.1 Prior to the expiration of the period of bid validity, the Employer shall notify the successful Bidder, in writing, that its Bid has been accepted.

40.2 At the same time, the Employer shall also notify all other Bidders of the results of the bidding. The Employer will publish in an English language newspaper or well-known freely accessible website the results identifying the bid and lot numbers and the following information: (i) name of each Bidder who submitted a Bid; (ii) bid prices as read out at bid opening; (iii) name and evaluated prices of each Bid that was evaluated; (iv) name of bidders whose bids were rejected and the reasons for their rejection; and (v) name of the winning Bidder, and the price it offered, as well as the duration and summary scope of the contract awarded. After publication of the award, unsuccessful Bidders may request in writing to the Employer for a debriefing seeking explanations on the grounds on which their Bids were not selected. The Employer shall promptly respond in writing to any unsuccessful Bidder who, after publication of contract award, requests a debriefing.

40.3 Until a formal contract is prepared and executed, the notification of award shall constitute a binding Contract.

41. Signing of Contract

41.1 Promptly after notification, the Employer shall send the successful Bidder the Contract Agreement.

41.2 Within 28 days of receipt of the Contract Agreement, the successful

Bidder shall sign, date, and return it to the Employer.

42. Performance Security

- 42.1 Within 28 days of the receipt of notification of award from the Employer, the successful Bidder shall furnish the performance security in accordance with the Conditions of Contract, subject to ITB 36.5, using for that purpose the Performance Security Form included in Section 9 (Contract Forms), or another form acceptable to the Employer.
- 42.2 Failure of the successful Bidder to submit the above-mentioned Performance Security or to sign the Contract Agreement shall constitute sufficient grounds for the annulment of the award and forfeiture of the bid security or execution of the Bid-Securing Declaration. In that event the Employer may award the Contract to the next lowest evaluated Bidder whose offer is substantially responsive and is determined by the Employer to be qualified to perform the Contract satisfactorily.
- 42.3 The above provision shall also apply to the furnishing of a domestic preference security, if so required.

Section 2 - Bid Data Sheet

A. General

ITB 1.1	The number of the Invitation for Bids (IFB) is : CLC/03/2017-18
ITB 1.1	The Employer is: Public Works Department, Government of Himachal Pradesh, represented by Chief Engineer, Hamirpur Zone, Hamirpur
ITB 1.1	<p>The name of the bidding process is: Construction of Model Career Center (MCC) Building at Hamirpur in Himachal Pradesh (Sh:- Construction of Building Portion including Civil Works, Water supply & Sanitary installation, Septic tank and Soak pit, Rain water harvesting system, Electrical installations, Solar water Heating System, Environmental management Site development etc.)</p> <p>The identification number of the bidding process is: CLC/RLC-4</p> <p>The number and identification of lots comprising this bidding process is: One</p>
ITB 2.1	The Borrower is: India
ITB 2.1	<p>The name of the Project is: Himachal Pradesh Skill Development Project.</p> <p>Loan No: ----- IND</p>

B. Contents of Bidding Documents

ITB 7.1	<p>For <u>clarification purposes</u> only, the Employer's address is:</p> <p>Attention: Er. N P S Chauhan Executive Engineer, Hamirpur Himachal Pradesh Public Works Department (HPPWD) Hamirpur Himachal Pradesh India</p> <p>Phone number - 01972-222510 Fax - 01972-222510 email ID - ee-ham-hp@nic.in</p> <p>Requests for clarification should be received by the Employer no later than: 21 days prior to the deadline for submission of bids.</p> <p>Notwithstanding the provisions of ITB 7.1, the Employer shall only upload the Clarifications on the bidding document on the freely accessible domain of web portal www.hppwd.gov.in instead of forwarding the copies to the bidders. Bidders are requested to keep themselves updated by regular checking.</p>
ITB 7.4	<p>A Pre-Bid meeting <u>shall</u> take place.</p> <p>Date: 17th August, 2017</p> <p>Time: 11:00 hrs (IST)</p> <p>Place: At the Office of the Executive Engineer</p>

	<p>Hamirpur Himachal Pradesh Public Works Department (HPPWD) Hamirpur Himachal Pradesh India</p> <p>Phone number - 01972-222510 Fax - 01972-222510 email ID - ee-ham-hp@nic.in</p> <p>A site visit <u>shall not</u> be conducted by the Employer.</p>
ITB 8.2	<p>Notwithstanding the provisions of ITB 8.2, the Employer will promptly upload the addendum on the bidding document on the freely accessible domain of web portal www.hppwd.gov.in instead of communication in writing to the bidders; Bidders are requested to keep themselves updated by regular checking.</p>

C. Preparation of Bids

ITB 10.1	The language of the Bid is: English
ITB 11.2 (g)	<p>The Bidder shall submit with its Technical Bid the following additional documents:</p> <ol style="list-style-type: none"> 1. The bidder or each member of Joint Venture/ Intended Joint Venture as the case may be, shall submit their PAN No. (Permanent Account Number) issued by the Department of Income Tax, Government of India with the photocopy of the PAN card; Should the bidder or each/any member of Joint Venture/ Intended Joint Venture has not been issued with such PAN No., the same shall be submitted before signing the Contract; 2. If the bid or the Joint Venture Agreement/ Intent to enter into Joint Venture as the case may be, is signed by a person who is retired or relieved from the Government organization as a Gazetted or Non-Gazetted Officer within a period of two years preceding the deadline for the Bid submission, the bidder shall also submit a permission obtained from the organization last served by such person, allowing the person to do so.
ITB 11.3 (d)	The Bidder shall submit with its Price Bid the following additional documents: <i>NIL</i>
ITB 12.1	The units and rates in figures entered into the Bill of Quantities and Daywork Schedule should be typewritten or if written by hand, must be in print form. Bill of Quantities and Daywork Schedule not presented accordingly may be considered nonresponsive.
ITB 13.1	Alternative bids <u>shall not be</u> permitted.
ITB 13.2	Alternative times for completion <u>shall not be</u> permitted.
ITB 13.4	Alternative technical solutions shall be permitted for the following parts of the Works: <i>Not applicable</i>
ITB 14.5	The prices quoted by the Bidder <u>shall be</u> subject to adjustment during the

	performance of the Contract.
ITB 15.1	The prices shall be quoted by the bidder and shall be paid in: <u>Indian National Rupee (INR)</u>
ITB 18.1	The bid validity period shall be <u>120</u> days.
ITB 19.1	The Bidder shall furnish a bid security in the amount of <u>Indian Rupees 450,000</u> only.
ITB 19.2	Not Applicable.
ITB 19.4	Provision in ITB 19.4 shall prevail.
ITB 20.1	In addition to the original Bid, the number of copies is: <u>One</u>
ITB 20.2	<p>The written confirmation of authorization to sign on behalf of the Bidder shall consist of:</p> <p>A Power of Attorney (in original or duly notarized) stating the name, position held and signature of each person giving the authority, and the name, position and signature of the person authorized to sign the bid or Joint Venture Agreement/ Intent to Joint Venture as the case may be; or</p> <p>A Board resolution (original or duly notarized) in favour of the duly authorized representative of the bidder (or the member of the Joint Venture/ Intended Joint Venture) allowing him to sign the bid or Joint Venture Agreement/ Intent to Joint Venture as the case may be.</p>
ITB 20.2	The bidder shall submit and acceptable authorization within <u>14 days</u> .

D. Submission and Opening of Bids

ITB 21.1	Bidders <u>do not</u> have the option of submitting their Bids electronically.
ITB 21.1 (b)	If bidders shall have the option of submitting their Bids electronically, the electronic bidding submission procedures shall be: <u>Not Applicable</u> .
ITB 22.1	<p>For <u>bid submission purposes</u> only, the Employer's address is:</p> <p>Attention: Er. N P S Chauhan Executive Engineer, Hamirpur Himachal Pradesh Public Works Department (HPPWD) Hamirpur Himachal Pradesh India</p> <p>Phone number - 01972-222510 Fax - 01972-222510 email ID - ee-ham-hp@nic.in</p> <p>The deadline for bid submission is:</p> <p>Date: 11th September, 2017</p>

	Time: 11:00 hrs (IST)
ITB 25.1	<p>The opening of the Technical Bid shall take place at: Office of the Executive Engineer Hamirpur Himachal Pradesh Public Works Department (HPPWD) Hamirpur Himachal Pradesh India</p> <p>Date: 11th September, 2017</p> <p>Time: 11:30 hrs (IST)</p>
ITB 25.1	If electronic bid submission is permitted in accordance with ITB 21.1, the specific bid opening procedures shall be: <i>Not Applicable</i>
ITB 25.5	The Letter of Technical Bid shall be initialed by <u>three (3)</u> representatives of the Employer attending the Bid opening.
ITB 25.10	The Letter of Price Bid and Schedules shall be initialed by <u>three (3)</u> representatives of the Employer attending the Bid opening.
ITB 29.2	<p>Insert the following items after (d):</p> <p>(e) Affidavit of true and correct information in original on a non-judicial stamp paper of INR 10/- and attested by Magistrate/ Sub-Judge/ Notary Public.</p>

E. Evaluation and Comparison of Bids

ITB 34.1	Not applicable.
ITB 35.1	A margin of preference <u>shall not</u> apply.

Section 3 - Evaluation and Qualification Criteria

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1. Evaluation

In addition to the criteria listed in ITB 36.2 (a) – (e), other relevant factors are as follows:

1.1 Adequacy of Technical Proposal

Evaluation of the Bidder's Technical Proposal will include an assessment of the Bidder's technical capacity to mobilize key equipment and personnel for the contract consistent with its proposal regarding work methods, scheduling, and material sourcing in sufficient detail and fully in accordance with the requirements stipulated in Section 6 (Employer's Requirements).

Non-compliance with equipment and personnel requirements described in Section 6 (Employer's Requirements) shall not normally be a ground for bid rejection, and such noncompliance will be subject to clarification during bid evaluation and rectification prior to contract award.

1.2 Completion Time

An alternative Completion Time, if permitted under ITB 13.2, will be evaluated as follows: *An alternative Completion Time shall not be permitted.*

1.3 Technical Alternatives

Technical alternatives, if permitted under ITB 13.4, will be evaluated as follows: *Technical alternatives shall not be permitted.*

1.4 Quantifiable Nonconformities and Omissions

Subject to ITB 14.2 and ITB 36.2, the evaluated cost of quantifiable nonconformities including omissions, is determined as follows:

Pursuant to ITB 31.3, the cost of all quantifiable nonmaterial nonconformities shall be evaluated, but excluding omission of prices in the Bill of Quantities. The Employer will make its own assessment of the cost of any nonmaterial nonconformities and omissions for the purpose of ensuring fair comparison of bids.

1.5 Margin of Preference

If a margin of preference shall apply under ITB 35.1, the procedure will be as follows as: *a margin of preference shall not be allowed.*

1.6 Multiple Contracts

If the Works are grouped in multiple contracts and pursuant to ITB 36.4, the Employer shall evaluate and compare Bids on the basis of a contract, or a combination of contracts, or as a total of contracts in order to arrive at the least-cost combination for the Employer by taking into account discounts offered by Bidders in case of award of multiple contracts: *Not Applicable*.

2. Qualification

It is the legal entity or entities comprising the Bidder, and not the Bidder's parent companies, subsidiaries, or affiliates, that must satisfy the qualification criteria described below.

2.1 Eligibility

Criteria	Compliance Requirements			Documents	
	Joint Venture				
	All Partners Combined	Each Partner	One Partner		
Requirement	Single Entity			Submission Requirements	

2.1.1 Nationality

Nationality in accordance with ITB Subclause 4.2.	must meet requirement	must meet requirement	must meet requirement	not applicable	Forms ELI -1; ELI -2 with attachments
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2.1.2 Conflict of Interest

No conflicts of interest in accordance with ITB Subclause 4.3.	must meet requirement	must meet requirement	must meet requirement	not applicable	Letter of Technical Bid
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2.1.3 ADB Eligibility

Not having been declared ineligible by ADB, as described in ITB Subclause 4.4.	must meet requirement	must meet requirement	must meet requirement	not applicable	Letter of Technical Bid
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2.1.4 Government-Owned Enterprise

Bidder required to meet conditions of ITB Subclause 4.5.	must meet requirement	must meet requirement	must meet requirement	not applicable	Forms ELI -1, ELI -2 with attachments
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2.1.5 United Nations Eligibility

Not having been excluded by an act of compliance with a UN Security Council resolution in accordance with ITB Subclause 4.7.	must meet requirement	must meet requirement	must meet requirement	not applicable	Letter of Technical Bid
--	-----------------------	-----------------------	-----------------------	----------------	-------------------------

2.2 Pending Litigation

Pending litigation and arbitration criterion shall not apply.

2.3 Financial Situation

2.3.1 Historical Financial Performance

Criteria	Compliance Requirements				Documents	
	Single Entity	Joint Venture				
		All Partners Combined	Each Partner	One Partner		
Submission of audited financial statements or, if not required by the law of the Bidder's country, other financial statements acceptable to the Employer, for the last three (3) years to demonstrate the current soundness of the Bidder's financial position. As a minimum, the Bidder's net worth for the last year, calculated as the difference between total assets and total liabilities should be positive.	must meet requirement	not applicable	must meet requirement	not applicable	Form FIN - 1 with attachments	

2.3.2 Average Annual Construction Turnover

Criteria	Compliance Requirements				Documents	
	Single Entity	Joint Venture				
		All Partners Combined	Each Partner	One Partner		
Minimum average annual construction turnover of INR 30 million , calculated as total certified (by Chartered Accountant) payments received for contracts in progress or completed, within the last three (3) years.	must meet requirement	must meet requirement	must meet 25% of the requirement	must meet 40% of the requirement	Form FIN - 2	

2.3.3 Financial Resources

If the bid evaluation process and the decision for the award of the Contract takes more than one (1) year from the date of bid submission, Bidders shall be asked to resubmit their current contract commitments and latest information on financial resources supported by latest audited accounts/audited financial statements, or if not required by the law of the Bidder's country, other financial statements acceptable to the Employer, and the Bidders' financial capacity shall be reassessed on this basis.

Criteria	Single Entity	Compliance Requirements			Documents
		Joint Venture			
Requirement		All Partners Combined	Each Partner	One Partner	Submission Requirements
The Bidder must demonstrate that it has the financial resources to meet					
(a) its current contract commitments, as defined in FIN-4 (Total Financial Requirements for Current Contract Commitments), plus	must meet requirement	not applicable	must meet requirement for its own contractual commitments	not applicable	Form FIN - 4
(b) the requirements for the Subject Contract of INR 2.0 million	must meet requirement	must meet requirement	must meet 25%	must meet 40%	Form FIN – 3 and Form FIN - 4

2.4 Construction Experience

2.4.1 Contracts of Similar Size and Nature

Criteria	Compliance Requirements				Documents	
	Single Entity	Joint Venture				
		All Partners Combined	Each Partner	One Partner		
Participation in at least one contract that has been successfully or substantially completed within the last five years and that is similar to the proposed works, where the value of the Bidder's participation exceeds INR 12 million . The similarity of the Bidder's participation shall be based on the physical size, nature of works, complexity, methods, technology or other characteristics as described in Section 6 (Employer's Requirements).	must meet requirement	not applicable	not applicable	must meet requirement	Form EXP -1	

2.4.2 Construction Experience in Key Activities

(May be complied with by Specialist Subcontractors. Employer shall require evidence of subcontracting agreement from the Bidder. Specialist Subcontractor is a specialist enterprise engaged for highly specialized processes which cannot be provided by the main Contractor.)

Criteria	Compliance Requirements				Documents	
	Single Entity	Joint Venture				
		All Partners Combined	Each Partner	One Partner		
For the above or other contracts executed during the period stipulated in 2.4.1 above, a minimum construction experience in the following key activities:	must meet requirements	must meet requirements	not applicable	not applicable	Form EXP-2	
Not Applicable						

Section 4 - Bidding Forms

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Letter of Technical Bid

Note

The bidder must accomplish the Letter of Technical Bid on its letterhead clearly showing the bidder's complete name and address.

Date:

ICB/NCB No.:

Invitation for Bid No.:

To:.....

We, the undersigned, declare that:

- (a) We have examined and have no reservations to the Bidding Documents, including Addenda issued in accordance with Instructions to Bidders (ITB) 8.
- (b) We offer to execute in conformity with the Bidding Documents the following Works: _____
- (c) Our Bid consisting of the Technical Bid and the Price Bid shall be valid for a period of days from the date fixed for the bid submission deadline in accordance with the Bidding Documents, and it shall remain binding upon us and may be accepted at any time before the expiration of that period.
- (d) Our firm, including any Subcontractors or Suppliers for any part of the Contract, have nationalities from eligible countries in accordance with ITB 4.2.
- (e) We, including any Subcontractors or Suppliers for any part of the contract, do not have any conflict of interest in accordance with ITB 4.3.
- (f) We are not participating, as a Bidder in more than one Bid in this bidding process in accordance with ITB 4.3(e), other than alternative offers submitted in accordance with ITB 13.
- (g) Our firm, its affiliates or subsidiaries, including any Subcontractors or Suppliers for any part of the contract, has not been declared ineligible by ADB, under the Employer's country laws or official regulations or by an act of compliance with a decision of the United Nations Security Council.

(h) [We are not a government-owned enterprise] / [We are a government-owned enterprise but meet the requirements of ITB4.5].¹

(i) We agree to permit ADB or its representative to inspect our accounts and records and other documents relating to the bid submission and to have them audited by auditors appointed by ADB.

(j) If our Bid is accepted, we commit to mobilizing key equipment and personnel in accordance with the requirements set forth in Section 6 (Employer's Requirements) and our technical proposal, or as otherwise agreed with the Employer.

Name

In the capacity of

Signed

Duly authorized to sign the Bid for and on behalf of

Date.....

¹ Use one of the two options as appropriate.

Affidavit of true and correct information

To be submitted in original

(NOTE: This affidavit should be on a non-judicial stamp paper of INR 10/- and shall be attested by Magistrate/ Sub-Judge/ Notary Public)

I, (name of the authorised representative of the bidder) son/daughter of resident of (full address), aforesaid solemnly affirm and state as under:

1. I hereby certify that all the information furnished with the bid submitted online in response to notice inviting bid number date issued by (authority inviting bids) for (name and identification of work) are true and correct.
2. *I hereby certify that I have been authorised by (the bidder) to sign on their behalf, the bid mentioned in paragraph 1 above.

Deponent

Place:

Date:

* not applicable if the bidder is an individual and is signing the bid on his own behalf.

Bid Security

Bank Guarantee

*Bank's name, and address of issuing branch or office*¹

Beneficiary: *Name and address of employer*

Date:.....

Bid Security No.:

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

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

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

- (a) has withdrawn its Bid during the period of bid validity specified by the Bidder in the Letter of Technical Bid and Letter of Price Bid; or
- (b) does not accept the correction of errors in accordance with the Instructions to Bidders (hereinafter "the ITB"); or
- (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 Agreement, or (ii) fails or refuses to furnish the Performance Security, in accordance with the ITB, or (iii) fails or refuses to furnish the domestic preference security, if required.

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

..... *Bank's seal and authorized signature(s)*

Note

In case of a joint venture, the bid security must be in the name of all partners to the joint venture that submits the bid.

¹ All italicized text is for use in preparing this form and shall be deleted from the final document.

Technical Proposal

Personnel

Form PER – 1: Proposed Personnel

Bidder should provide the details of the proposed personnel and their experience record in the relevant Information Forms below for each candidate:

1.	Title of position*
	Name
2.	Title of position*
	Name
3.	Title of position*
	Name
4.	Title of position*
	Name
etc.	Title of position*
	Name

Note

*As listed in Section 6 (Employer's Requirements).

Form PER – 2: Resume of Proposed Personnel

The Bidder shall provide all the information requested below. Use one form for each position.

Position		
Personnel information	Name	Date of birth
	Professional qualifications	
Present employment	Name of employer	
	Address of employer	
	Telephone	Contact (manager / personnel officer)
	Fax	E-mail
	Job title	Years with present employer

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

Equipment

Form EQU: Equipment

The Bidder shall provide adequate information and details to demonstrate clearly that it has the capability to meet the equipment requirements indicated in Section 6 (Employer's Requirements), using the Forms below. A separate Form shall be prepared for each item of equipment listed, or for alternative equipment proposed by the Bidder.

Item of Equipment		
Equipment Information	Name of manufacturer	Model and power rating
	Capacity	Year of manufacture
Current Status	Current location	
	Details of current commitments	
Source	Indicate source of the equipment	
	<input type="checkbox"/> Owned <input type="checkbox"/> Rented <input type="checkbox"/> Leased <input type="checkbox"/> Specially manufactured	

Omit the following information for equipment owned by the Bidder.

Owner	Name of owner	
	Address of owner	
	Telephone	Contact name and title
	Fax	Telex
Agreements	Details of rental / lease / manufacture agreements specific to the project	

Site Organization

Method Statement

Mobilization Schedule

Construction Schedule

Bidders Qualification

To establish its qualifications to perform the contract in accordance with Section 3 (Evaluation and Qualification Criteria) the Bidder shall provide the information requested in the corresponding Information Sheets included hereunder.

Form ELI - 1: Bidder's Information Sheet

Bidder's Information	
Bidder's legal name	
In case of Joint Venture, legal name of each partner	
Bidder's country of constitution	
Bidder's year of constitution	
Bidder's legal address in country of constitution	
Bidder's authorized representative (name, address, telephone numbers, fax numbers, e-mail address)	
Attached are copies of the following documents. <ul style="list-style-type: none"> <input type="checkbox"/> 1. In case of single entity, articles of incorporation or constitution of the legal entity named above, in accordance with ITB 4.1 and ITB 4.2. <input type="checkbox"/> 2. Authorization to represent the firm or Joint Venture named above, in accordance with ITB 20.2. <input type="checkbox"/> 3. In case of Joint Venture, letter of intent to form Joint Venture or Joint Venture agreement, in accordance with ITB 4.1. <input type="checkbox"/> 4. In case of a government-owned enterprise, any additional documents not covered under 1 above required to comply with ITB 4.5. 	

Form ELI - 2: Joint Venture Information Sheet

Each member of the Joint Venture and Specialist Subcontractor must fill out this form separately.

Joint Venture / Specialist Subcontractor Information	
Bidder's legal name	
Joint Venture Partner's or Specialist Subcontractor's legal name	
Joint Venture Partner's or Specialist Subcontractor's country of constitution	
Joint Venture Partner's or Specialist Subcontractor's year of constitution	
Joint Venture Partner's or Specialist Subcontractor's legal address in country of constitution	
Joint Venture Partner's or Specialist Subcontractor's authorized representative information (name, address, telephone numbers, fax numbers, e-mail address)	
Attached are copies of the following documents. <ul style="list-style-type: none"> <input type="checkbox"/> 1. Articles of incorporation or constitution of the legal entity named above, in accordance with ITB 4.1 and ITB 4.2. <input type="checkbox"/> 2. Authorization to represent the firm named above, in accordance with ITB 20.2. <input type="checkbox"/> 3. In the case of government-owned enterprise, documents establishing legal and financial autonomy and compliance with commercial law, in accordance with ITB 4.5. 	

Specialist Subcontractor is a specialist enterprise engaged for highly specialized processes that cannot be provided by the main Contractor.

Form FIN - 1: Historical Financial Performance

Each Bidder must fill out this form.

In case of joint ventures, each Joint Venture Partner must fill out this form separately, and provide the Joint Venture Partner name below:

Joint Venture Partner: _____

Financial Data for Previous <u>three (3)</u> Years [INR]		
Year 1:	Year 2:	Year ___:

Information from Balance Sheet

Total Assets (TA)			
Total Liabilities (TL)			
NetWorth = TA - TL			
Current Assets (CA)			
Current Liabilities (CL)			
Working Capital = CA - CL			

Most Recent Working Capital		To be obtained for most recent year and carried forward to FIN-3 Line 1; in case of Joint Ventures, to the corresponding Joint Venture Partner's FIN-3.
------------------------------------	--	---

Information from Income Statement

Total Revenues			
Profits Before Taxes			
Profits After Taxes			

Attached are copies of financial statements (balance sheets including all related notes, and income statements) for the last three (3) years, as indicated above, complying with the following conditions.

- Unless otherwise required by Section 3 of the Bidding Document, all such documents reflect the financial situation of legal entity or entities comprising the Bidder and not the Bidder's parent companies, subsidiaries, or affiliates.
- Historical financial statements must be audited by a certified accountant.
- Historical financial statements must be complete, including all notes to the financial statements.
- Historical financial statements must correspond to accounting periods already completed and audited (no statements for partial periods shall be requested or accepted).

Form FIN - 2: Average Annual Construction Turnover

Each Bidder must fill out this form.

The information supplied should be the Annual Construction Turnover of the Bidder or each member of a Joint Venture in terms of the amounts billed to clients for each year for work in progress or completed, converted to INR at the specified exchange rate.

In case of joint ventures, each Joint Venture Partner must fill out this form separately, and provide the Joint Venture Partner name below:

Joint Venture Partner: _____

Annual Turnover Data for the Last <i>three (3)</i> Years (Construction only)			
Year	Amount Currency	Exchange Rate	INR Equivalent
Average Annual Construction Turnover			_____

Form FIN – 3: Availability of Financial Resources

Bidder must demonstrate sufficient financial resources, usually comprising of Working Capital supplemented by unutilized cash credit statements or overdraft facilities and others to meet the Bidder's financial requirements for

- (a) its current contract commitments, and
- (b) the subject contract.

In case of joint ventures, each Joint Venture Partner must fill out this form separately and provide the Joint Venture Partner name below:

Joint Venture Partner: _____

Financial Resources		
No.	Source of financing	Amount (INR)
1	Working Capital (to be taken from FIN-1)	
2	Unutilized Cash Credit/ Over draft facility ^a	
3	Other Financial Resources	
	Total Available Financial Resources	

^a To be substantiated by a letter from the bank issuing the Cash Credit or Over draft facility.

Form FIN- 4: Financial Resources Requirement

Bidders (or each Joint Venture partner) should provide information on their current commitments on all contracts that have been awarded, or for which a letter of intent or acceptance has been received, or for contracts approaching completion, but for which an unqualified, full completion certificate has yet to be issued.

In case of joint ventures, each Joint Venture Partner must fill out this form separately and provide the Joint Venture Partner name below:

Joint Venture Partner: _____

Current Contract Commitments						
No.	Name of Contract	Employer's Contact (Address, Tel, Fax)	Contract Completion Date	Outstanding Contract Value (X)	Remaining Contract Period in months (Y)	Monthly Financial Resources Requirement (X / Y)
1						
2						
3						
4						
Total Monthly Financial Requirements for Current Contract Commitments						INR

Form FIN - 5: Compliance Check of Financial Resources (Criterion 2.3.3 of Section 3)
Form FIN-5A: For Single Entities

For Single Entities:	Total Available Financial Resources from FIN-3 (C)	Total Monthly Financial Requirement for Current Contract Commitments (CCC) from FIN-4 (D)	Available Financial Resources net of CCC (C-D)	≥	Requirement
				≥	100% of Requirement from Section 3 - 2.3.3(b)
(Name of Bidder)					

Form FIN-5B: For Joint Ventures

For Joint Ventures:	Total Available Financial Resources from FIN-3 (C)	Total Monthly Financial Requirement for Current Contract Commitments (CCC) from FIN-4 (D)	Available Financial Resources net of CCC (C-D)	≥	Requirement
One Partner:					
				≥	B(%) of Requirement
(Name of Partner)					
Each (Other) Partner:					
				≥	A(%) of Requirement
(Name of Partner 1)					
				≥	A(%) of Requirement
(Name of Partner 2)					
				≥	A(%) of Requirement
(Name of Partner 3)					
All partners combined			$\sum (C-D)^b =$	≥	100% of Requirement from Section 3 - 2.3.3(b)

Form FIN - 5 is made available for use by the bidder as a self-assessment tool, and by the employer as evaluation work sheet, to determine compliance with financial resources.

^a Requirement for the subject contract is defined in Criterion 2.3.3(b) of Section 3. Value A is the required percentage of the subject contract, which each partner must meet; and value B is the required percentage of the subject contract, which one partner must meet. A and B values are defined in Criterion 2.3.3 of Section 3 (Evaluation and Qualification Criteria).

^b $\Sigma (C - D) = \text{sum of available financial resources net of current contract commitments (CCC) for all partners.}$

Form EXP – 1: Contracts of Similar Size and Nature

Fill up one (1) form per contract.

Contract of Similar Size and Nature		
Contract No of	Contract Identification	
Award Date		Completion Date
Total Contract Amount	US\$	
If partner in a Joint Venture or subcontractor, specify participation of total contract amount	Percent of Total	Amount
Employer's Name Address Telephone/Fax Number E-mail		
Description of the similarity in accordance with Criterion 2.4.1 of Section 3		

Form EXP - 2: Construction Experience in Key Activities***Not Applicable***

Fill up one (1) form per contract.

Contract with Similar Key Activities		
Contract No of	Contract Identification	
Award Date		Completion Date
Total Contract Amount	US\$	
If partner in a Joint Venture or subcontractor, specify participation of total contract amount	Percent of Total	Amount
Employer's Name Address Telephone Number Fax Number E-mail		
Description of the key activities in accordance with Criterion 2.4.2 of Section 3		

Schedules

Table(s) of Adjustment Data

Not Applicable

Section 5 - Eligible Countries

This section contains the list of eligible countries.

1. Afghanistan
2. Armenia
3. Australia
4. Austria
5. Azerbaijan
6. Bangladesh
7. Belgium
8. Bhutan
9. Brunei Darussalam
10. Cambodia
11. Canada
12. China, People's Republic of
13. Cook Islands
14. Denmark
15. Fiji
16. Finland
17. France
18. Georgia
19. Germany
20. Hong Kong,China
21. India

22. Indonesia
23. Ireland
24. Italy
25. Japan
26. Kazakhstan
27. Kiribati
28. Korea, Republic of
29. Kyrgyz Republic
30. Lao PDR
31. Luxembourg
32. Malaysia
33. Maldives
34. Marshall Islands
35. Micronesia, Federated States of
36. Mongolia
37. Myanmar
38. Nauru
39. Nepal
40. The Netherlands
41. New Zealand
42. Norway
43. Pakistan
44. Palau
45. Papua New Guinea
46. Philippines

47. Portugal
48. Samoa
49. Singapore
50. Solomon Islands
51. Spain
52. Sri Lanka
53. Sweden
54. Switzerland
55. Taipei,China
56. Tajikistan
57. Thailand
58. Timor-Leste
59. Tonga
60. Turkey
61. Turkmenistan
62. Tuvalu
63. United Kingdom
64. United States
65. Uzbekistan
66. Vanuatu
67. Viet Nam

Section 6 –Employer's Requirements

Table of Contents

Specifications	6-2
Drawings	6-3
Supplementary Information Regarding Works to Be Procured	6-4
Personnel Requirements.....	6-5
Equipment Requirements.....	6-6

Specifications

The name of the Works: *Construction and Completion of Model Career Center (MCC) Building at Hamirpur in Himachal Pradesh (Sh:- Construction of Building Portion including Civil Works, Water supply & Sanitary installation, Septic tank and Soak pit, Rain water harvesting system, Electrical installations, Solar water Heating System, Environmental management and Site development etc.)*

The Works envisaged to be covered under the contract inter-alia consist of Construction of Building portion including Civil works, Water supply & Sanitary installation, Septic tank and Soak pit, Rain water harvesting, Electrical installations, Solar Water heating system Environmental management and Site development etc. including all ancillary activities in compliance with provisions stipulated in various safeguard documents subject to modification time-to-time as required in relation to successful completion and function of Model Career Center (MCC) Building at Hamirpur in Himachal Pradesh.

The details specifications of the works to be constructed under the Contract are covered in "Public Works Department Specifications 1990, published by Public Works Department, Himachal Pradesh" and the same shall be and remain part and parcel of the Bidding Document and therefore be binding on the Contractor.

The Contractor (or either of the Joint Venture partner) shall be required to possess valid electrical license issued from competent authority for executing electrification works. However, in the event of electrical works being sub-contracted, the sub-contractor should have the said valid electrical license.

The Contractor shall be required to comply with the specifications and provisions stipulated in various Safeguard documents and to ensure that the rates and mount quoted by the Contractor are based on the following aspects:

- The Bill of Quantities shall be read in conjunction with the Instructions to Bidders, General and Particular Conditions of Contract, Specifications, Drawings and to comply with requirements of Safeguard documents.
- The quantities given in the Bill of Quantities are estimated and provisional, and are given to provide a common basis for bidding. The basis of payment will be the actual quantities of work ordered and carried out, as measured and verified by the Engineer and valued at the rates and prices bid in the priced Bill of Quantities, wherever applicable, and otherwise at such rates and prices as the Project Manager may fix within the terms of the Contract.
- The rates and prices bid in the priced Bill of Quantities shall, except as otherwise provided under the Contract, include all required construction equipment, labor, supervision, materials, erection, maintenance, insurance, profit, taxes, and duties, together with all general risks, liabilities, and obligations set out or implied in the Contract.
- The cost of Items against which the Contractor has failed to enter a rate or price/amount shall be deemed to be covered by other item rates and prices/amount in the Bill of Quantities.

- The whole cost of complying with the provisions of the Contract shall be included in the Items provided in the priced Bill of Quantities, and where no rates or the Items are provided, the cost shall be deemed to be distributed among the rates and prices entered for the related Items of Work.
- Provisional Sums if included and so designated in the Bill of Quantities shall be expended in whole or in part at the direction and discretion of the Project Manager in accordance with the Conditions of Contract. It will be used by the Project Manager for nominated sub-contractors, line agencies, third party inspecting agencies, charges levied by statutory electrical, telephone, or other authorities, or for other miscellaneous works as Project Manager deems fit. The use of provisional sum will also be for relocation of utilities above or under the ground that conflict with the existing or permanent line or level or the works; independent sampling and laboratory testing as directed by the Project Manager, Replacement or Compensation for Plants and Trees removed due to the works etc. as directed by the Project Manager.
- The method of measurement of completed work for payment shall be in accordance with the relevant codes of practice/ procedures.
- Cost of temporary works including but not limited to Construction and maintenance of road diversions including traffic control; Construction and maintenance of temporary dewatering and drainage arrangements, establishment and maintenance of contractor's site office, store, establishment and maintenance of workshops, plant and equipment, including Project sign boards etc will be part of work and shall not be paid extra.

Drawings

The Drawings related to the Bidding process are enclosed.

Supplementary Information Regarding Works to Be Procured

The Soil Testing Report and Topographic survey related to the Bidding process are available in the office of the Employer for Bidder's guidance. The bidders are advised to see these documents before submission of their bid.

Personnel Requirements

Using Form PER-1 and PER-2 in Section 4 (Bidding Forms), the Bidder must demonstrate that it has personnel who meet the following requirements:

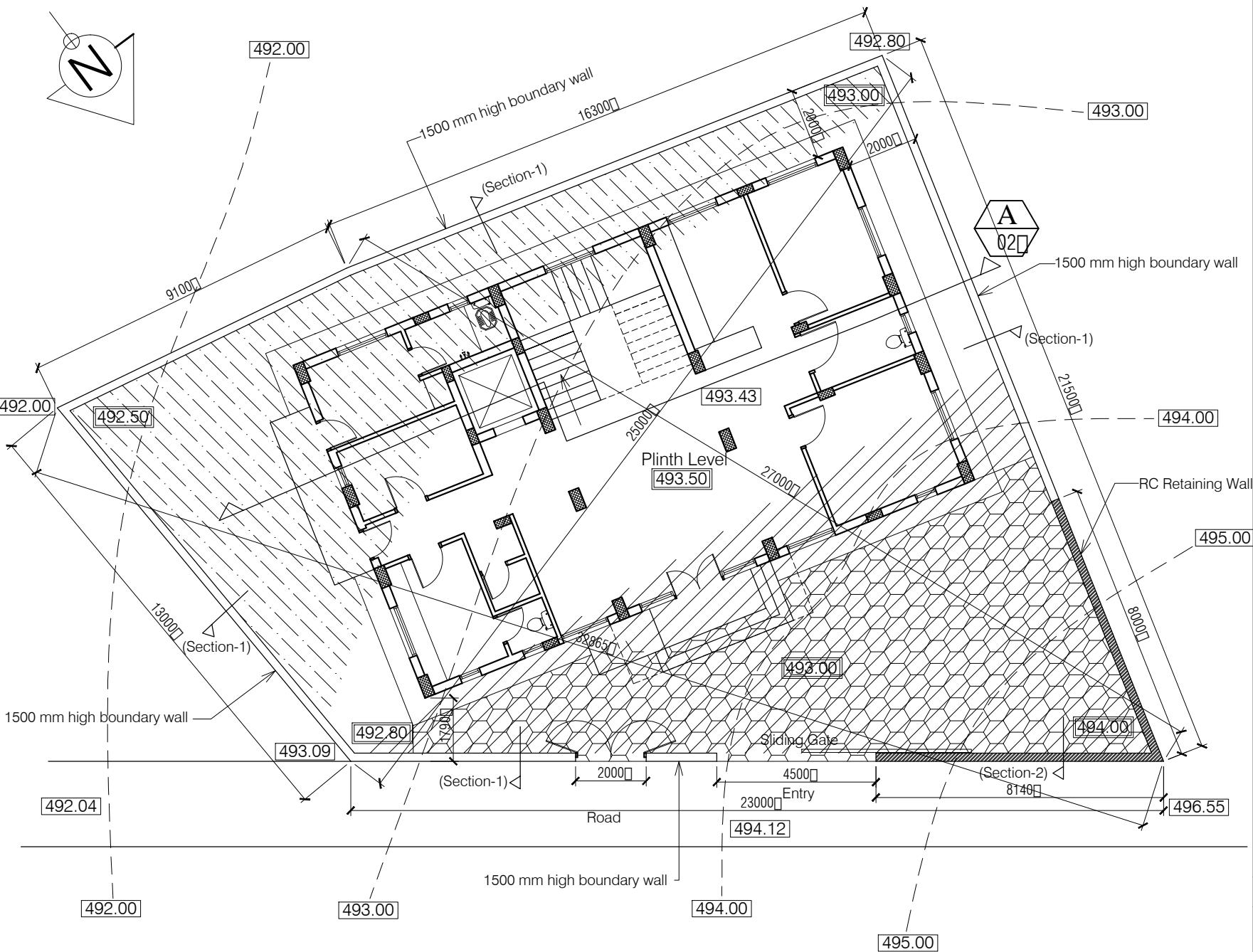
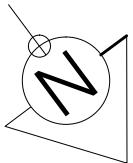
No.	Position	Required Qualification	Experience In Similar Work [years]
1	Project Manager	Graduate Engineer	5 Years
2	Quality Control/ Assurance Engineer	Diploma in Engineering	2 Years
3	Safety officer	Suitably Qualified	2 Years
4	Environment, Health and Social Safeguard Officer	Suitably Qualified	2 Years

Equipment Requirements

Using Form EQU in Section 4 (Bidding Forms), the Bidder must demonstrate that it has the key equipment listed below:

No.	Equipment Type and Characteristics	Minimum Number Required
1	Hoist (Pulley, rope and tripod)	1 No.
2	Tipper Truck or tractor with trolley having capacity 0.5 ton or more	2 No.
3	Steel Shuttering	300 Sqm
4	Concrete mixer (one bagger)	2 No.
5	Weighing Machine	1 No.
6	Vibrators	3 No.

MODEL CAREER CENTRE AT HAMIRPUR- DISTT. HAMIRPUR				
S.No.	Title	Sheet Title	Drawing No.	Date
1	Annexure - A (Site Development)	Site Plan	01	27-04-2017
2		Site plan Section	02	27-04-2017
3		Boundary Wall Section	03	27-04-2017
4	Annexure - B (Civil Works)	Ground floor plan	04	27-04-2017
5		First floor plan	05	27-04-2017
6		Second floor plan	06	27-04-2017
7		Third floor plan	07	27-04-2017
8		Roof Plan	08	27-04-2017
9		Front Elevation	09	27-04-2017
10		Section	10	27-04-2017
11		Footing Plan	11	27-04-2017
12		Framing Plan	12	27-04-2017
13		Specification	13	27-04-2017
14	Annexure - C (Sanitary Works)	Toilet Detail- Water Supply-1	14	27-04-2017
15		Toilet Detail- Water Supply-2	15	27-04-2017
16		Toilet Detail- Sanitary-1	16	27-04-2017
17		Toilet Detail- Sanitary-2	17	27-04-2017
18		Water Supply- Single line diagram	18	27-04-2017
19	Annexure - D (Rain Water Harvesting)	Site plan- Rain Water Supply	19	27-04-2017
20		Plan & Section	20	27-04-2017
21	Annexure - E (Septic Tank)	Site plan- Waste & Soil Supply	21	27-04-2017
22		Plan & Section	22	27-04-2017
23	Electrical Works	Site plan- External Lighting	01	27-04-2017
24		Ground floor plan	02	27-04-2017
25		First floor plan	03	27-04-2017
26		Second floor plan	04	27-04-2017
27		Third floor plan	05	27-04-2017
28		Machine Room	06	27-04-2017

**NOTES**

1. DR-WING TO BE RE-D -ND NOT ME-SURED.
2. ALL DIMENSIONS -RE IN MM UNLESS OTHERWISE SPECIFIED.



Earth Cutting



Earth Fill



Paved Area

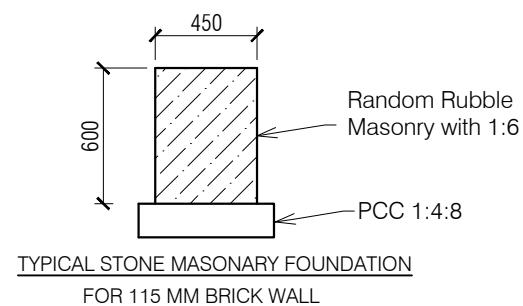
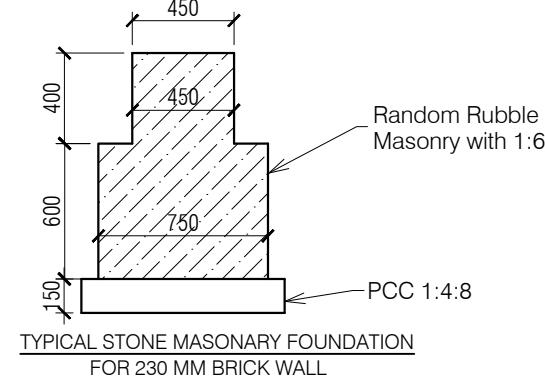
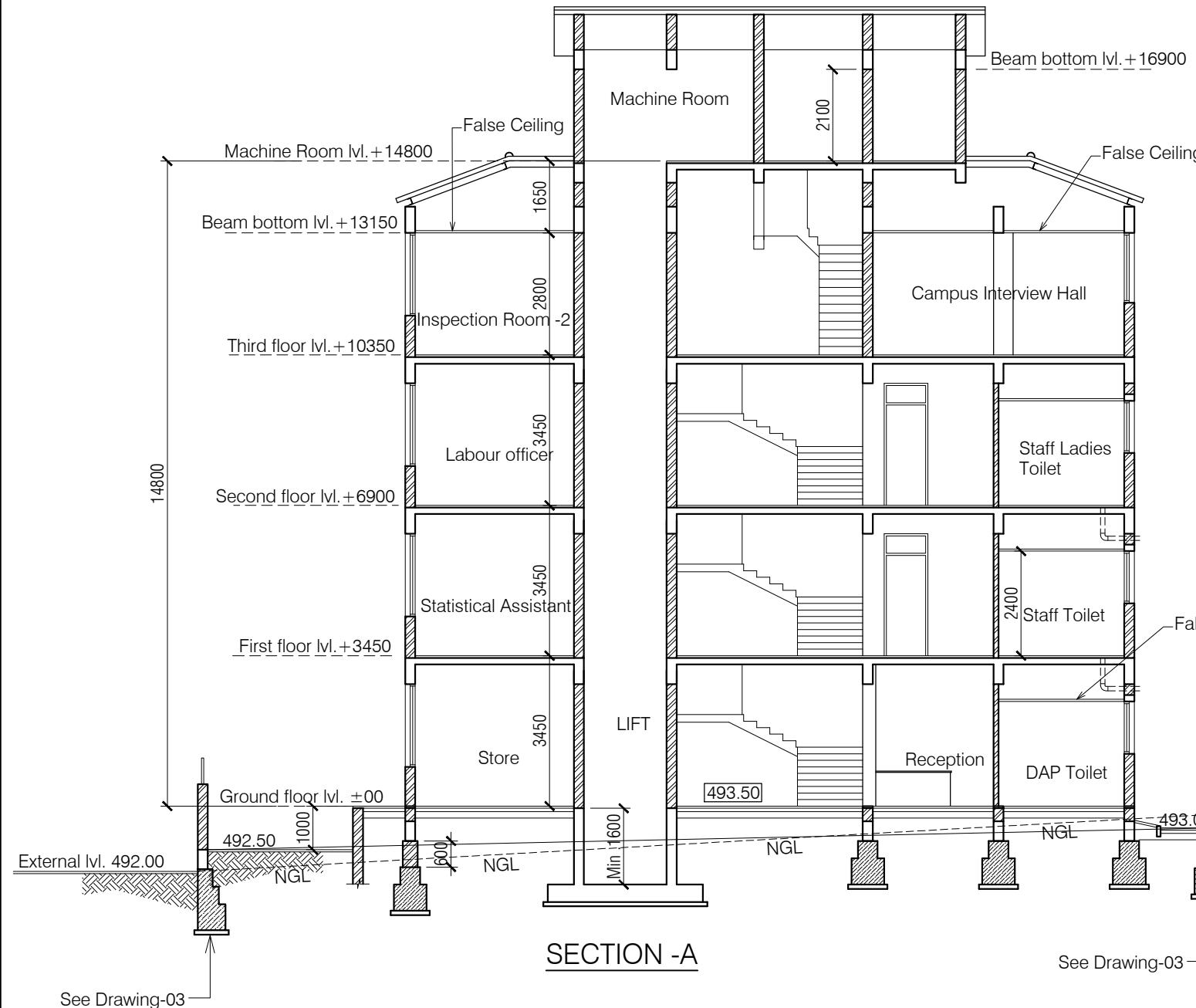
XXXX Existing Level

XXXX Proposed Level

ANNEXURE - A (Site Development)

Project : MODEL CAREER CENTRE
AT HAMIRPUR- DISTT. HAMIRPUR

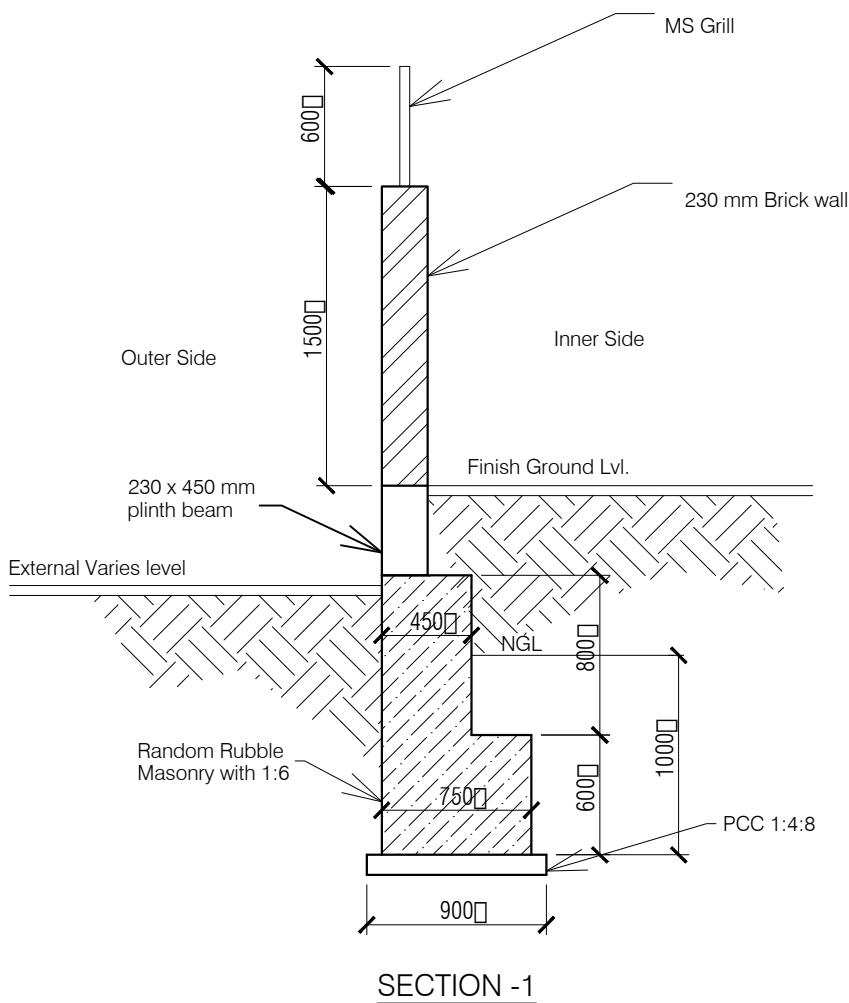
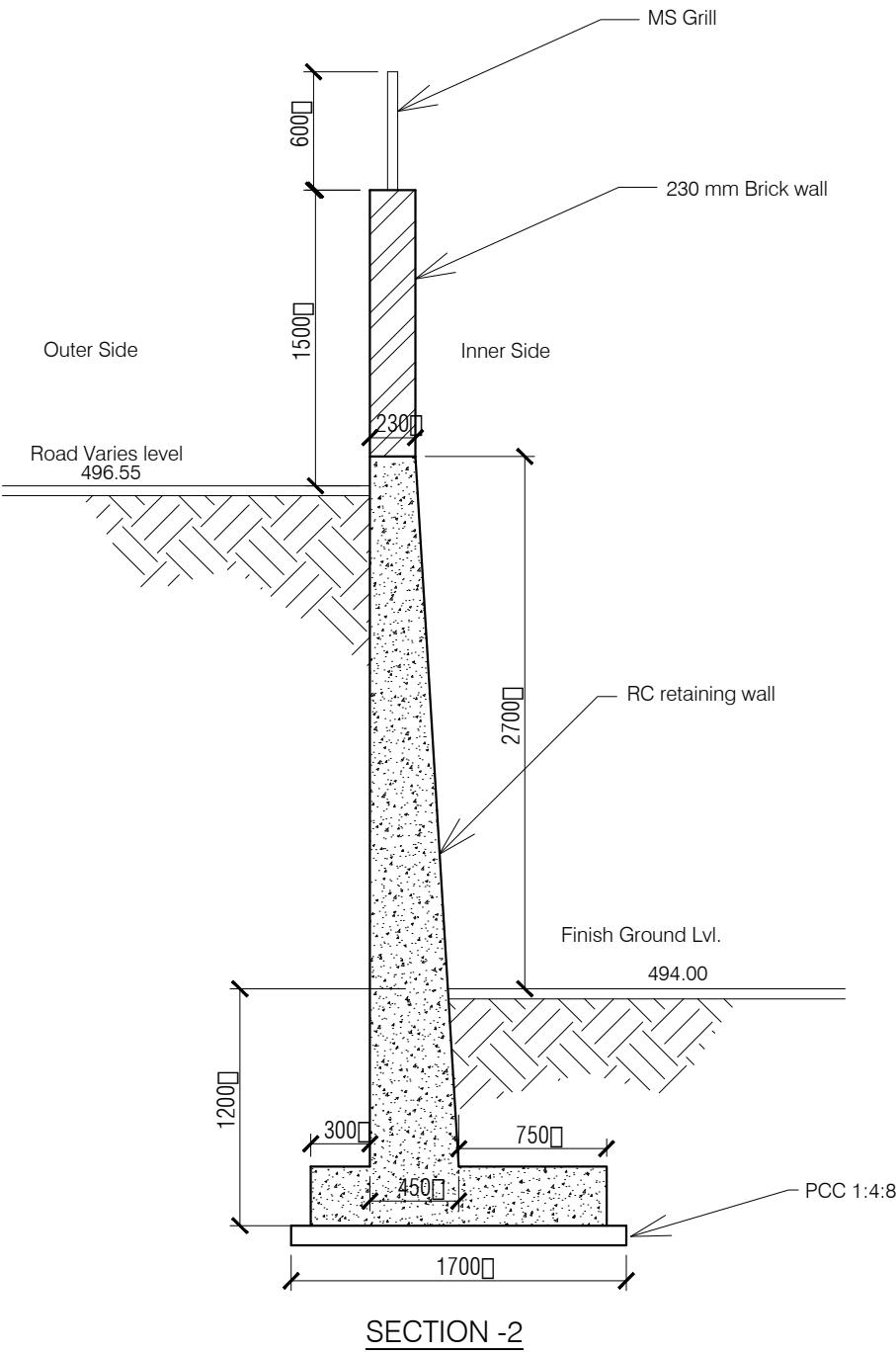
Sheet Title	Date 27-04-17	Drawn By -
SITE PLAN		
-rchitects		Drg. No.
		01



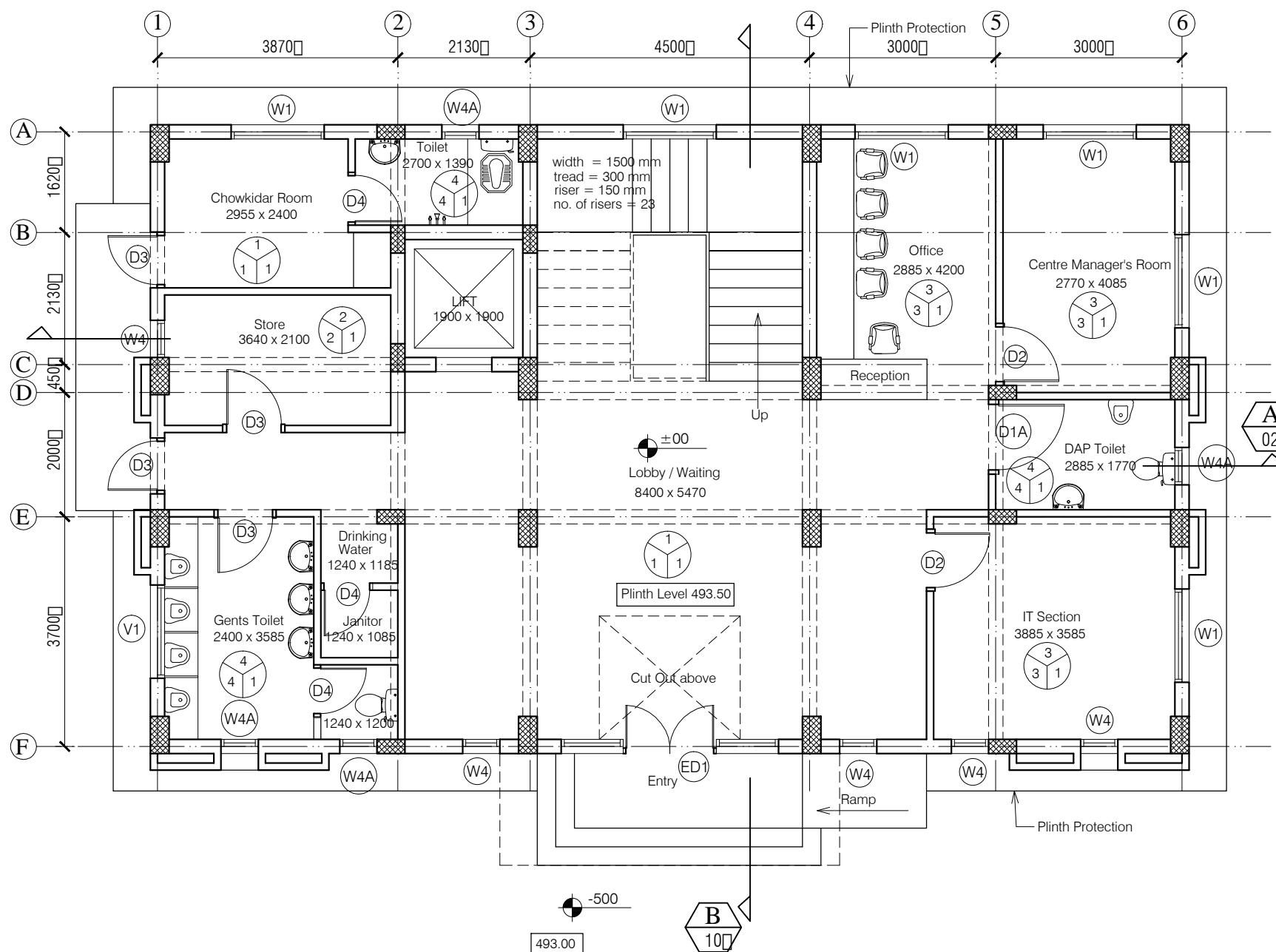
ANNEXURE - A (Site Development)

Project : CITY LIVELIHOOD CENTRE
AT MOHAL SIDHBARI- DISTT KANGRA

Sheet Title	Date 27-04-17	Drawn By -
Site Section	Scale 1:150	Checked By -
-rchitects		Drg. No. 02



ANNEXURE - A (Site Development)		
Project :	MODEL CAREER CENTRE AT HAMIRPUR- DISTT. HAMIRPUR	
Sheet Title	Date 27-04-17	Drawn By -
Boundary Wall Sections	Scale 1:75	Checked By -
-rchitects	Drg. No.	03



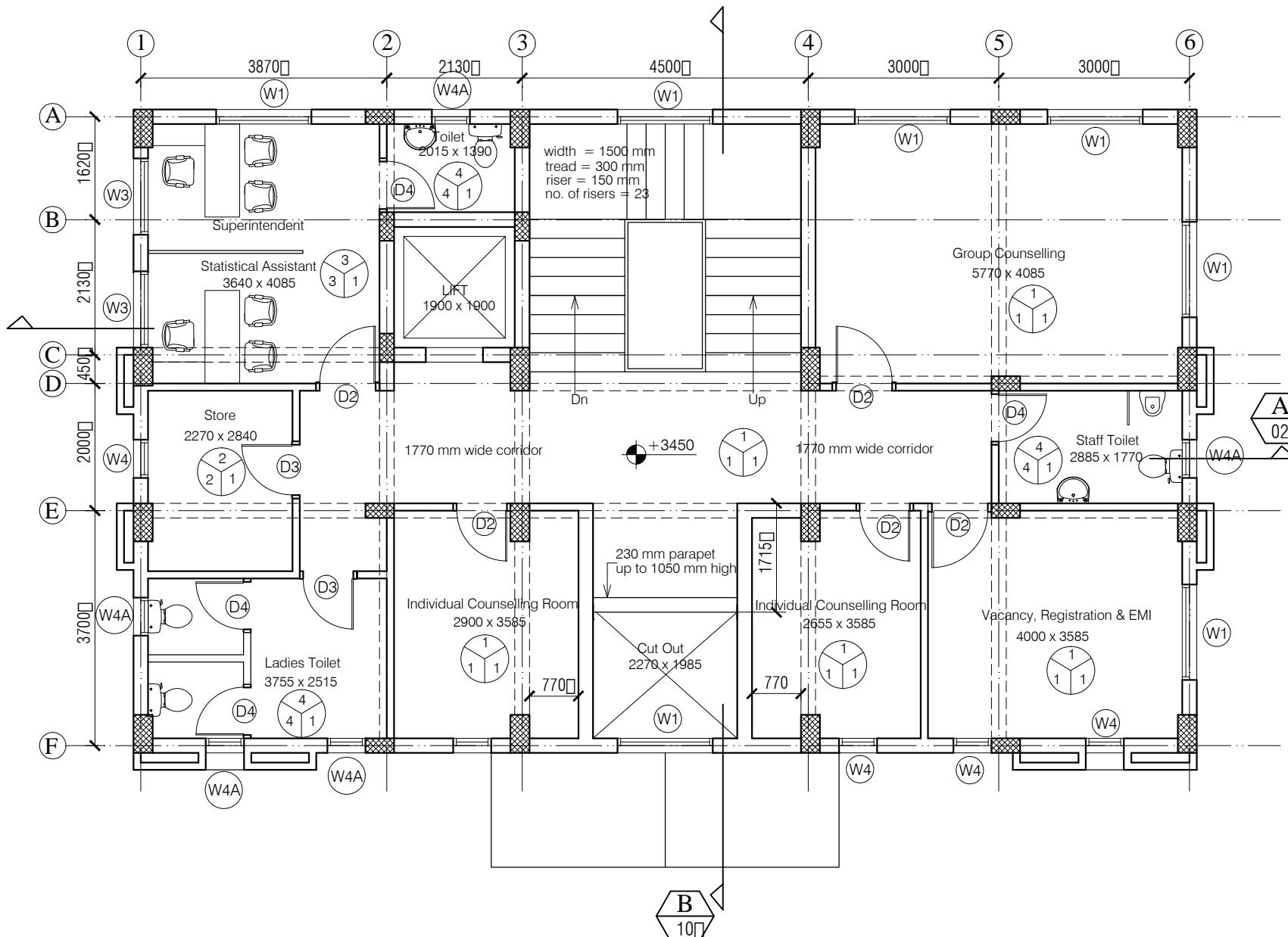
DOORS + WINDOWS SCHEDULE

MKD.	WIDTH	HEIGHT	CILL
ED1	3500	2800	00/100
D1	1200	2800	00
D1A	1200	2100	00
D2	1000	2800	00
D3	900	2800	00
D4	850	2100	00
G1	2800	2350	450
W1	1500	1900	900
W2	1400	1900	900
W3	1200	1900	900
W4	600	1900	900
W4A	600	1200	1200
V1	1500	600	2200
V2	600	450	1650

ANNEXURE - B (Civil Works)

Project : MODEL CAREER CENTRE
AT HAMIRPUR- DISTT. HAMIRPUR

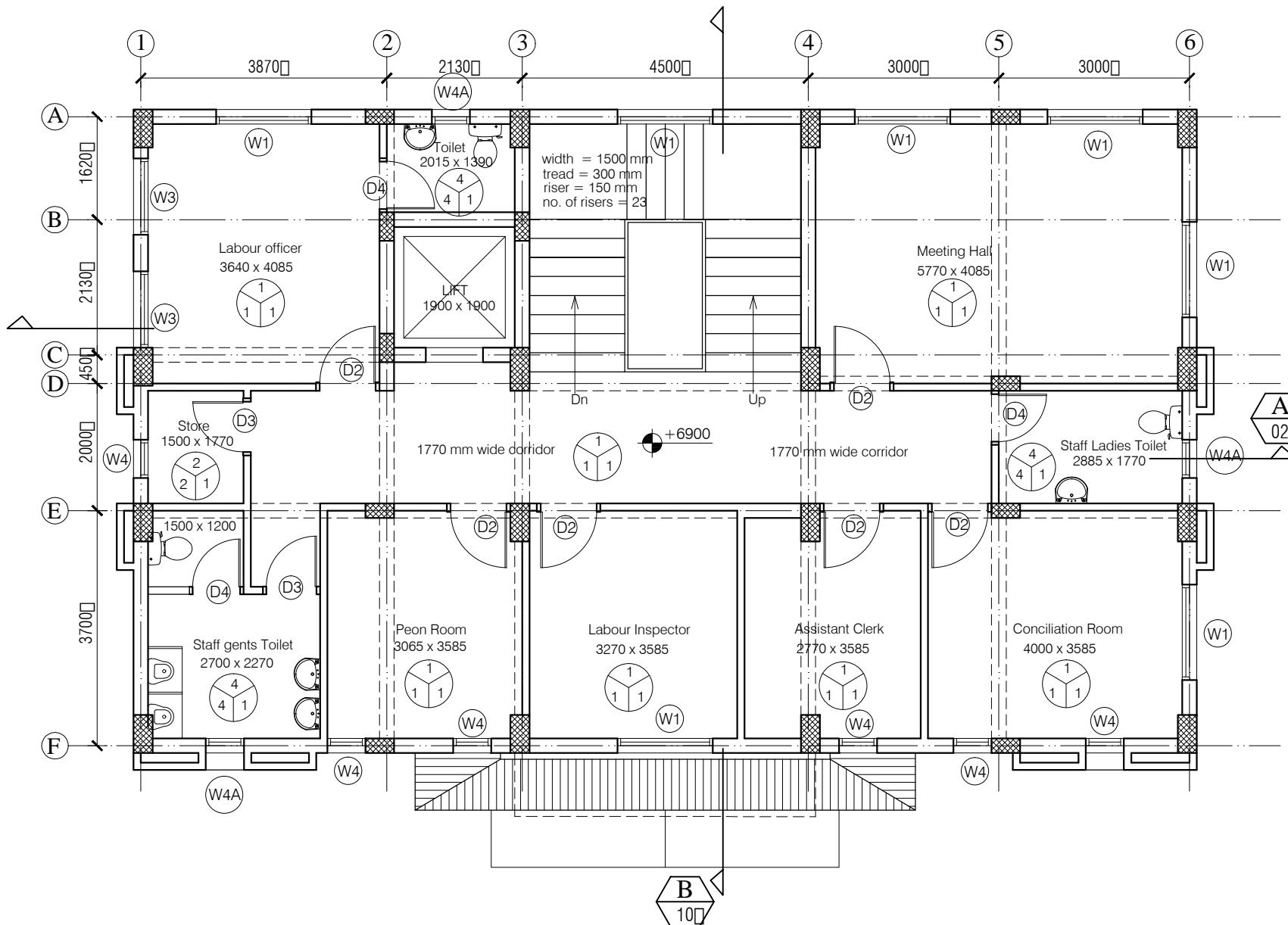
Sheet Title	Date 27-04-17	Drawn By -
GROUND FLOOR PLAN		Checked By -
-rchitects		Drg. No.
		04



ANNEXURE - B (Civil Works)

Project : MODEL CAREER CENTRE
AT HAMIRPUR- DISTT. HAMIRPUR

Sheet Title	Date 27-04-17	Drawn By -
FIRST FLOOR PLAN	Scale 1:100	Checked By -
-rchitects		Drg. No.
		05

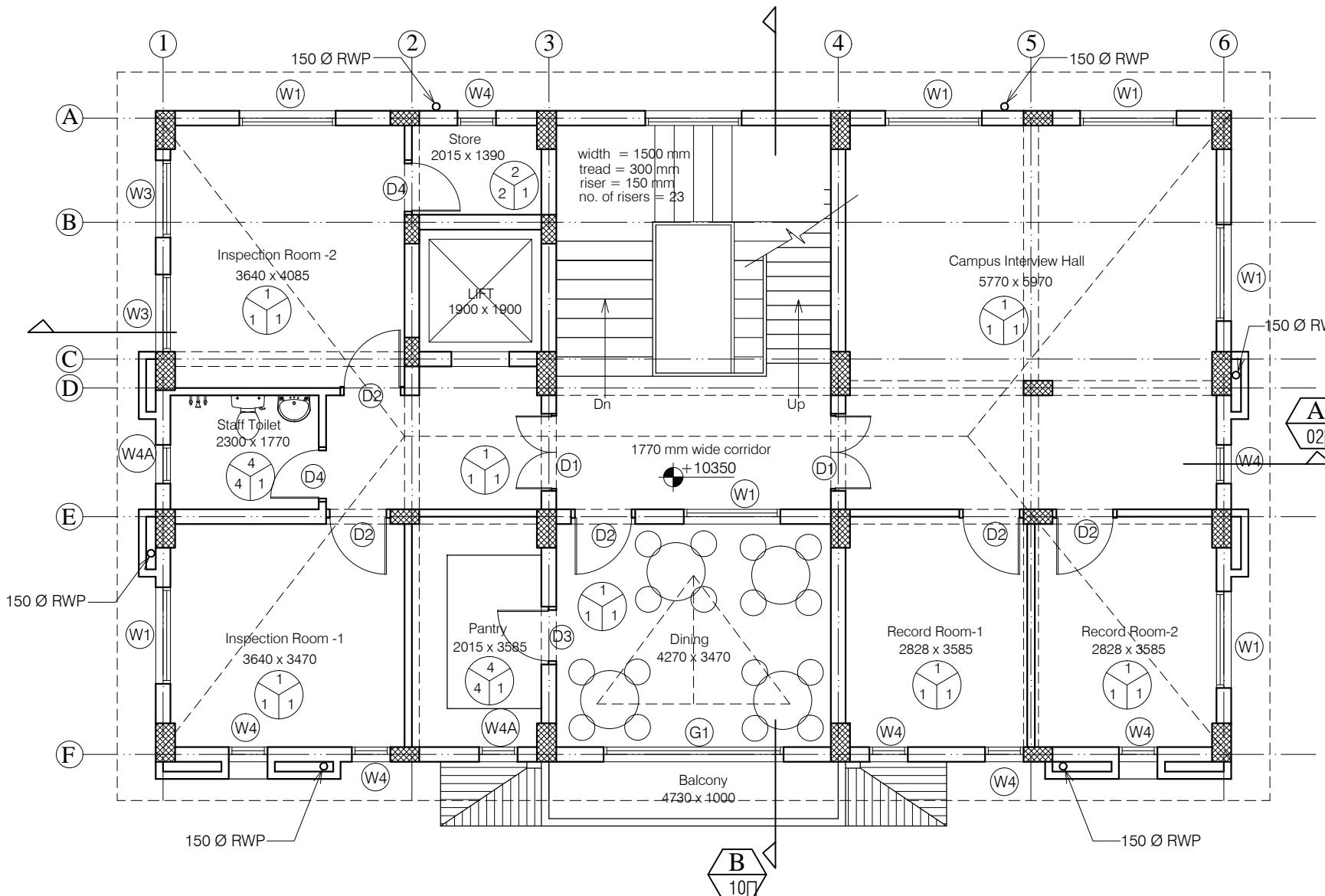


DOORS + WINDOWS SCHEDULE			
MKD.	WIDTH	HEIGHT	CILL
ED1	3500	2800	00/100
D1	1200	2800	00
D1A	1200	2100	00
D2	1000	2800	00
D3	900	2800	00
D4	850	2100	00
G1	2800	2350	450
W1	1500	1900	900
W2	1400	1900	900
W3	1200	1900	900
W4	600	1900	900
W4A	600	1200	1200
V1	1500	600	2200
V2	600	450	1650

ANNEXURE - B (Civil Works)

Project : MODEL CAREER CENTRE
AT HAMIRPUR- DISTT. HAMIRPUR

Sheet Title	Date 27-04-17	Drawn By -
SECOND FLOOR PLAN		
Scale 1:100	Checked By -	
-rchitects	Drg. No.	06



NOTES

1. DR-WING TO BE RE-D -ND NOT ME-SURED.
2. -LL DIMENSIONS -RE IN MM UNLESS OTHERWISE SPECIFIED.

Legend:

- Flooring (F)
- Skirting / Dado (S)
- Wall Finishing (W)

Annotations:

- Rooms: Store (2015 x 1390), Campus Interview Hall (5770 x 5970), Lift (1900 x 1000), Staff Toilet (2300 x 1770), Pantry (2015 x 3585), Dining (4270 x 3470), Record Room-1 (2828 x 3585), Record Room-2 (2828 x 3585), Inspection Room -1 (3640 x 3470), Inspection Room -2 (3640 x 4085).
- Dimensions: 150 Ø RWP, 1770 mm wide corridor, +10350.
- Labels: A, B, C, D, E, F on the left; 1, 2, 3, 4, 5, 6 at the top; A 02D, B 10D at the bottom.
- Material Codes: 1= Kota Flooring, 2= Cement Flooring, 3= Vitrified Skirting, 4= White Glazed Tile, 5= Terrazzo Skirting.
- Wall Finishing (W):

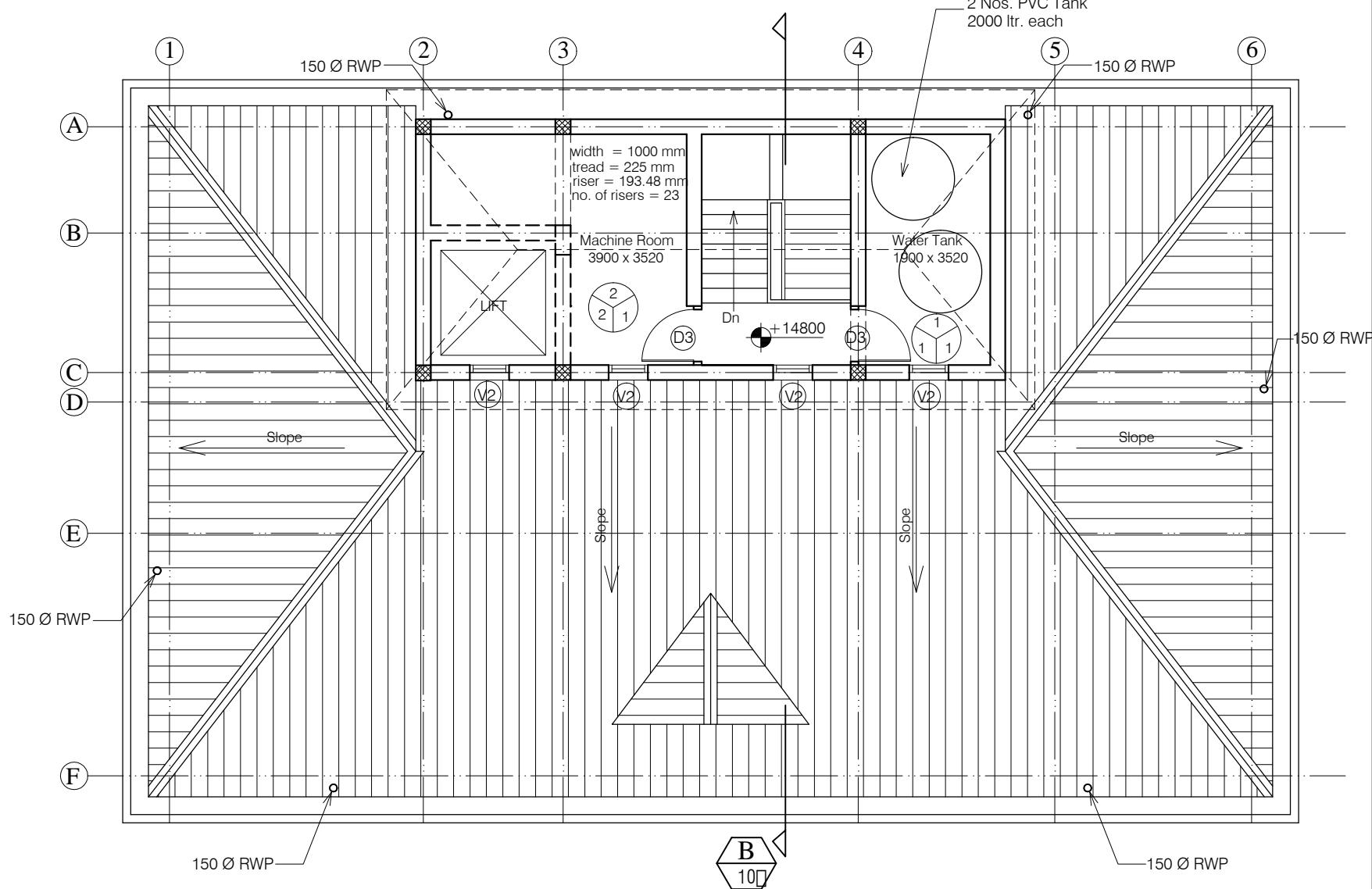
 - W= Wall Finishing
 - 1= Wall Putty + Acrylic Emulsion
 - 2= Wall Putty + Weather Proof Exterior grade Emulsion

DOORS + WINDOWS SCHEDULE			
MKD.	WIDTH	HEIGHT	CILL
ED1	3500	2800	00/100
D1	1200	2800	00
D1A	1200	2100	00
D2	1000	2800	00
D3	900	2800	00
D4	850	2100	00
G1	2800	2350	450
W1	1500	1900	900
W2	1400	1900	900
W3	1200	1900	900
W4	600	1900	900
W4A	600	1200	1200
V1	1500	600	2200
V2	600	450	1650

ANNEXURE - B (Civil Works)

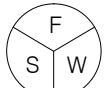
Project : MODEL CAREER CENTRE
AT HAMIRPUR- DISTT. HAMIRPUR

Sheet Title	Date 27-04-17	Drawn By -
THIRD FLOOR PLAN		
Scale 1:100	Checked By -	
-rchitects	Drg. No.	07



NOTES

1. DR-WING TO BE RE-D -ND NOT ME-SURED.
2. -LL DIMENSIONS -RE IN MM UNLESS
OTHERWISE SPECIFIED.



F= Flooring
S= Skirting / Dado
W= Wall Finishing

- F= Flooring
- 1= Kota Flooring
- 2= Cement Flooring
- 3= Vitrified Tile Flooring
- 4= Ceramic Tile Flooring
- 5= Terrazo Flooring
- 6= 50 mm CC Flooring with Hardener toping

S= Skirting / Dado
 1= Kota Skirting
 2= Cement Skirting
 3= Vitrified Skirting
 4= White Glazed Tile
 5= Terrazo Skirting

W= Wall Finishing
 1= Wall Putty + Acrylic Emulsion
 2= Wall Putty + Weather Proof Exterior
 grade Emulsion

DOORS + WINDOWS SCHEDULE

MKD.	WIDTH	HEIGHT	CILL
ED1	3500	2800	00/100
D1	1200	2800	00
D1A	1200	2100	00
D2	1000	2800	00
D3	900	2800	00
D4	850	2100	00
G1	2800	2350	450
W1	1500	1900	900
W2	1400	1900	900
W3	1200	1900	900
W4	600	1900	900
W4A	600	1200	1200
V1	1500	600	2200
V2	600	450	1650

ANNEXURE - B (Civil Works)

Project : MODEL CAREER CENTRE
AT HAMIRPUR- DISTT. HAMIRPUR

Sheet Title	Date 27-04-17	Drawn By -
ROOF PLAN	Scale 1:100	Checked By -
-rchitects		Drg. No.
		08



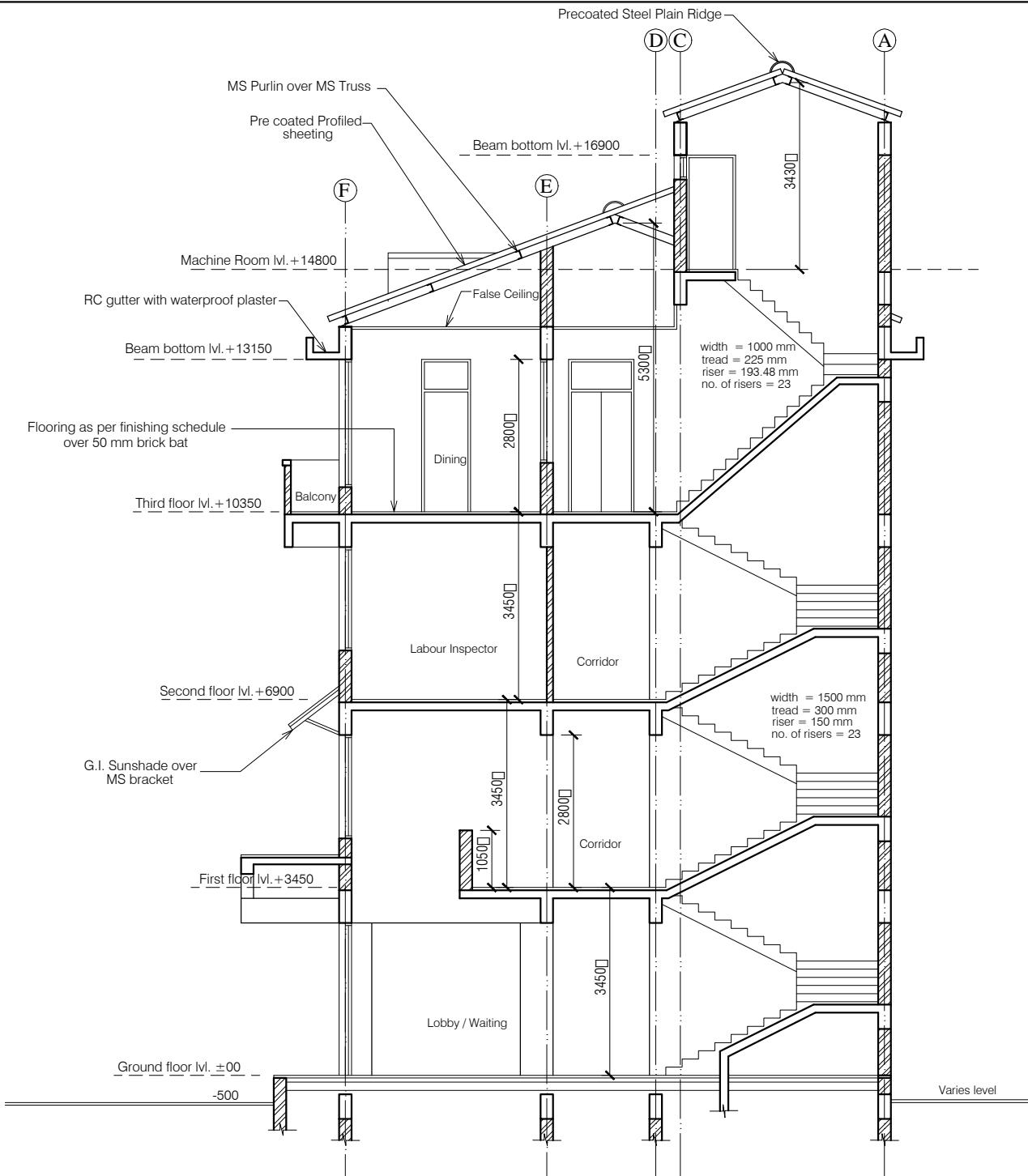
NOTES

1. DRAWING TO BE READ AND NOT MEASURED.
2. ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE SPECIFIED.

ANNEXURE - B (Civil Works)

Project : MODEL CAREER CENTRE
AT HAMIRPUR- DISTT. HAMIRPUR

Sheet Title	Date 27-04-17	Drawn By -
FRONT ELEVATION	Scale 1:100	Checked By -
-rchitects		Drg. No.
		09



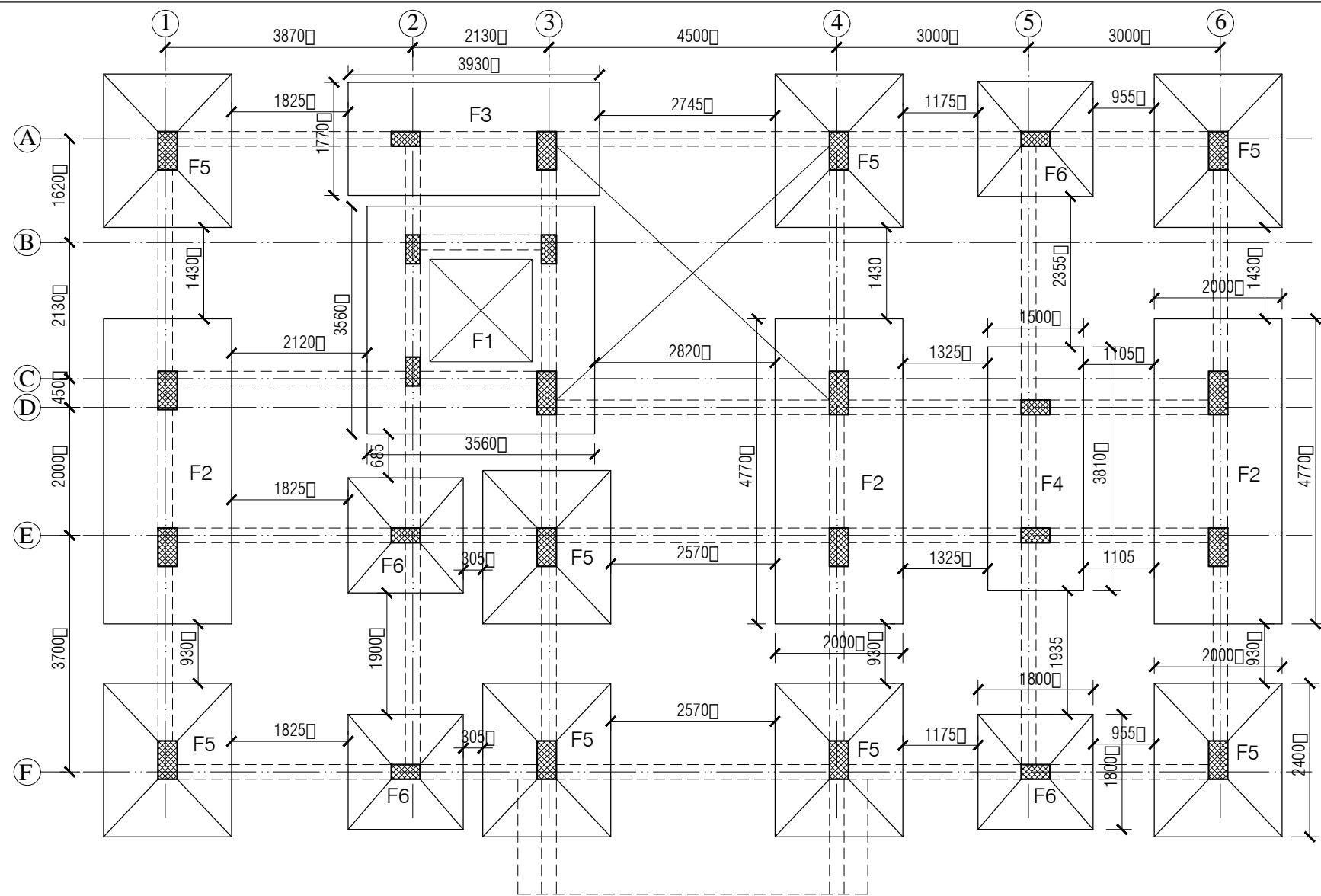
NOTES

1. DR-WING TO BE RE-D -ND NOT ME-SURED.
2. -LL DIMENSIONS -RE IN MM UNLESS
OTHERWISE SPECIFIED.

ANNEXURE - B (Civil Works)

Project : MODEL CAREER CENTRE
AT HAMIRPUR- DISTT. HAMIRPUR

Sheet Title SECTION-A -rchitects	Date 27-04-17 Scale 1:100	Drawn By - Checked By -
		Drg. No. 10



NOTES

1. DR-WING TO BE RE-D -ND NOT ME-SURED.
2. -LL DIMENSIONS -RE IN MM UNLESS
OTHERWISE SPECIFIED.

COLUMN SCHEDULE

MKD.	L	B	H
C1	600	300	
C2	450	230	

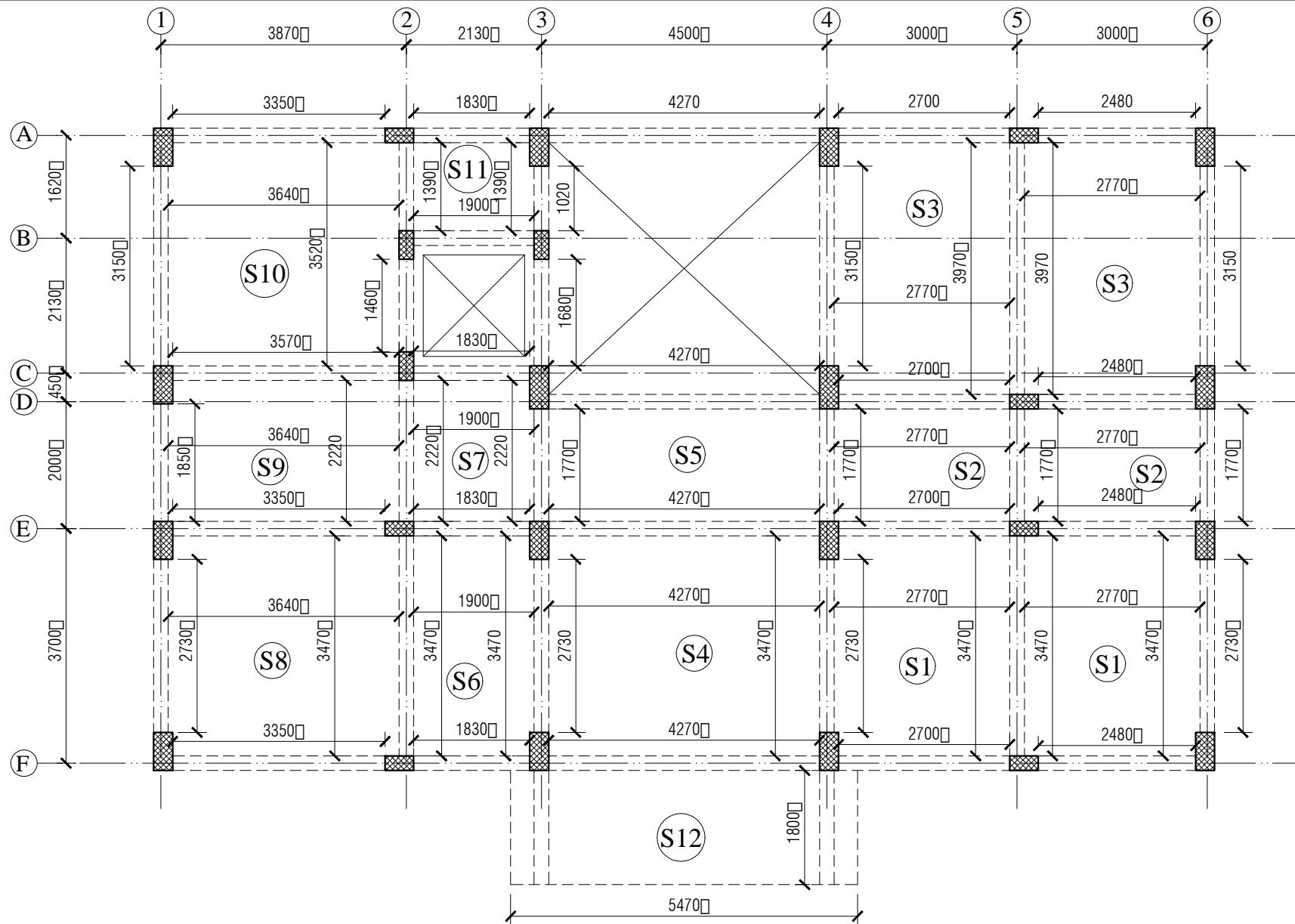
FOOTING SCHEDULE

MKD.	L	B	H
F1	3560	3560	500
F2	2000	4770	500
F3	3930	1770	500
F4	1500	3810	500
F5	2000	2400	250 / 250
F6	1800	1800	250 / 250

ANNEXURE - B (Civil Works)

Project : MODEL CAREER CENTRE
AT HAMIRPUR- DISTT. HAMIRPUR

Sheet Title FOOTING DETAILS	Date 21-04-17	Drawn By -
	Scale 1:100	Checked By -
-Architects		Drg. No. 11



COLUMN SCHEDULE			
MKD.	L	B	H
C1	600	300	
C2	450	230	

BEAM SCHEDULE			
MKD.	L	B	H
Plinth Beam	230	450	
Stair mid Beam	230	450	
Main Beam	230	600	

Note :- All Floor Slab thickness 140 mm.

ANNEXURE - B (Civil Works)

Project : MODEL CAREER CENTRE
AT HAMIRPUR- DISTT. HAMIRPUR

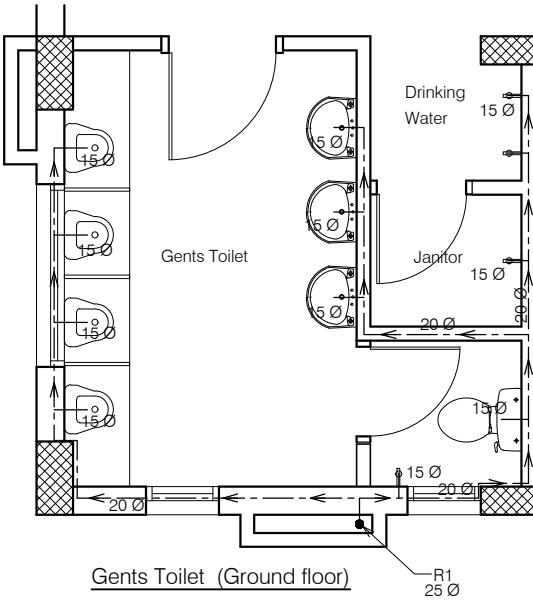
Sheet Title	Date 21-04-17	Drawn By -
TYPICAL FRAMING PLAN	Scale 1:100	Checked By -
-rchitects		Drg. No.
		12

SPECIFICATION

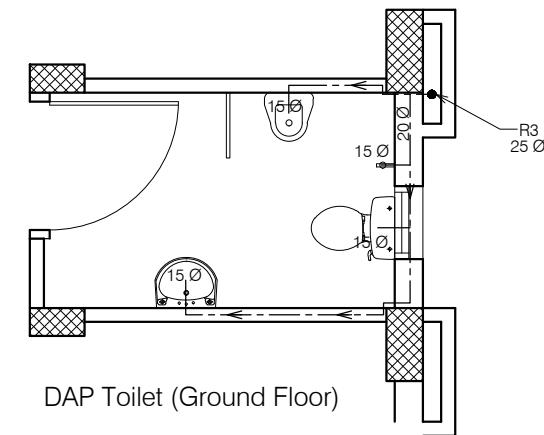
Reinforcement Cement Concrete (R.C.C.)	Cement concrete 1:1.5:3 (One cement one and half sand : three graded stone aggregate 20mm nominal size)	<u>Windows</u> <u>Doors Frame</u> <u>Doors Shutter</u> <u>Railing and Hand Rail</u> <u>Sanitary Fixture</u> <u>IWC</u> <u>EWC</u> <u>Urinal</u> <u>Wash basin</u> <u>Electrical</u> <u>False Ceiling</u> 	Anodized aluminum work for windows, ventilators with standard tubular sections appropriate to sections and other sections of approved make including necessary filling gaps at junctions at top bottom and sides with required PVC/neoprene/felt/ silicone sealant.
P.C.C.	Cement concrete 1:4:8 (one cement: four sand: eight graded stone aggregate 40 mm nominal size)		
D.P.C.	Damp Proof Course 50mm thick with cement concrete 1:2:4 (1 cement :2 sand:4 graded stone aggregate 20mm nominal size)		Angle iron door, window, clerestory window frame manufactured from steel section 40 x 40 x 6mm, including hinges jamb, lock jamb etc. Approved From this office.
Plinth Protection	1- Plinth protection 50mm thick in cement concrete 1:3:6 (1 cement: 3 sand : 6 Graded stone aggregate 20mm nominal size) 2- Under layer for plinth protection of 75 mm thick (unconsolidated) bed of dry brick/ stone aggregate 40 mm nominal size rammed consolidated and grouted with fine sand including preparation of ground. 3- Brick edging (brick laid on edge) to plinth protection with bricks including grouting with cement mortar 1:4 (1 cement: 4 sand)		35 mm thick flush shutters, interior grade, commercial type, core of block board construction with frame of first class hard wood well matched commercial ply veneering , with vertical grains of cross and face veneers on both side. Approved From this office.
Brick Work	1- Second Class Brick work using common burnt clay building bricks in foundation and plinth & Superstructure above plinth level up to all levels. cement mortar 1:6 (1 Cement: 6 Sand) 2- Second Class Half brick work using common burnt Clay building bricks in super structure above plinth level up to floor all level using first class, building bricks in cement mortar 1:4 (1 cement : 4 sand)		Approved From this office.
Flooring Rooms and Corridors	40 mm thick kota stone slab flooring with 20 mm thick base of cement mortar 1:4 (one cement is to four sand) of size 55 x 55 cm.		Steel work welded in built up sections, trusses and framed work, including cutting, hoisting, fixing in position and applying a priming coat of red lead paint. Approved From this office.
Manager's & Computer Room	Spartic ceramic tiles 5.5mm thick in flooring (300x300mm size) flooring laid on a bed of 12mm thick cement mortar 1:3(1 cement :3 sand)		Ornssa Pattern vitreous china water closet squatting pan (Indian type W.C. pan) size 580 mm with foot rest and traps Approved From this office.
Stores	40 mm thick cement concrete flooring 1:2:4 (1 cement:2 sand:4 graded stone. aggregate 20 mm nominal size) laid one layer finished with a floating coat of neat cement.		Ordinary closet vitreous china wash ,down water closet (European type W.C. pan) with P or S traps Approved From this office.
Dado & Skirting Rooms and Corridors	Kota stone slab 25 mm thick in risers of steps ,skirting dado laid on 12 mm (average) thick cement mortar 1:3 (one cement is to three sand)		White vitreous flat back or wall corner type lipped front urinal basin of 430 x 260 x 350 mm and 340 x 430 x 265 mm size with automatic flushing cistern with all type fittings.
Manager's & Computer Room	Vitrified tiles (300x300mm x 8mm) in grey/colour of required shade in skirting, risers of steps and dados laid over 12mm thick cement mortar 1 :3(1 cement :3sand)		550 mm x 400 mm flat back White vitreous china wash basin with single hole for pillar tap with C.I. or M.S. brackets. Approved From this office.
Stores	22 mm thick cement plaster skirting in all heights with cement mortar 1 :3 (1 cement: 3 sand)		Concealed PVC wiring.all electrical fittings to be provided as per electrical layout plan. Approved From this office.
Roofing	0.60 mm thick prepainted steel sheet in roofing with hot dipped metallic zinc coated sheet with top coat of regular modified polyester (RNP) complete with all accessories as required.including Ridge or hips and Valley as required. Approved From this office.		Thermal insulation with Resin Bonded Fibre glass wool conforming to IS: 8183 having density 24 kg/m ³ , 50 mm thick, wrapped in 200G Virgin Polythene Bags
Pastering Ceiling plaster	6 mm thick cement plaster with cement mortar 1:3 (1 cement :3 Sand).		False ceiling with 12 mm thick plain/semi perforated or with design ceiling tiles of BWP type phenol formaldehyde synthetic resin bonded pressed particle board conforming to IS:3087 finished with a coat of aluminium primer on both sides & edges and two coats of synthetic enamel paint of approved quality on exposed face fixed to a grid made out of anodised aluminium
Internal & External Plaster	15 mm thick cement plaster Fair and rough side with cement mortar 1:6 (1 cement :6 Sand). Approved From this office.		
Painting Ceiling paint	Distempering with dry distemper of approved brand and manufacture (two coats) on decorated wall surfaces to give an even shade.		
Internal paint	Wall painting (two coats) with acrylic emulsion paint of approved brand and manufacture for interior grade. Approved From this office.		
External paint	Finishing wall with weather proof exterior grade emulsion of approved design (Apexultima) or its equivalent on undecorated wall surfaces (two coats) to give an even shade. Approved From this office.		

ANNEXURE - B (Civil Works)

Project :	MODEL CAREER CENTRE AT HAMIRPUR- DISTT. HAMIRPUR	
Sheet Title	Date 27-04-17	Drawn By -
	SPECIFICATIONS	Scale 1:100
Architects	Checked By -	
Drg. No.	13	



Chowkidar Toilet (Ground floor)



Ladies Toilet (First floor)

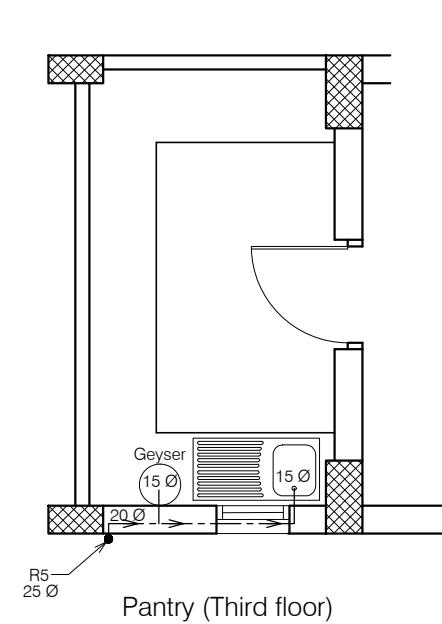
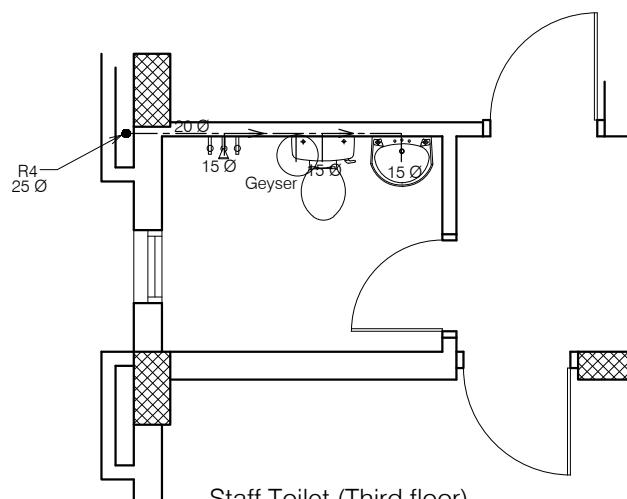
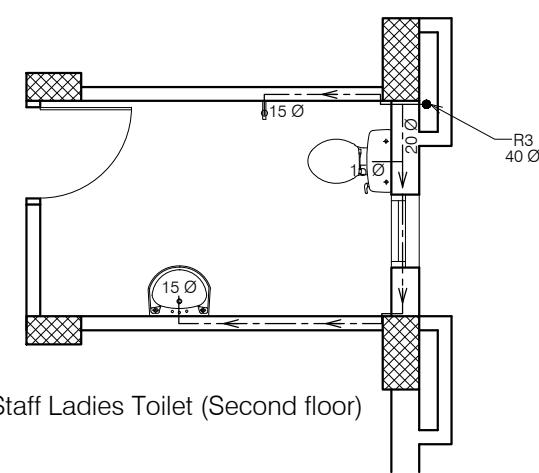
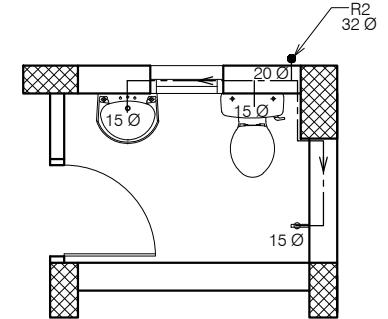
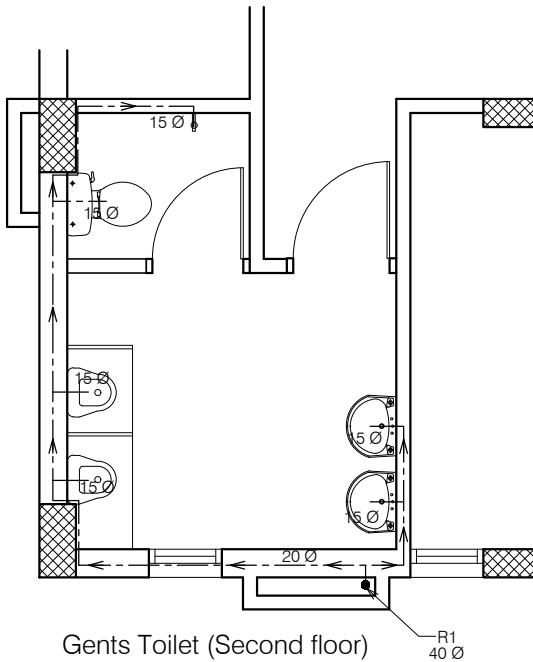
R1 32 Ø

Staff Toilet (First floor)

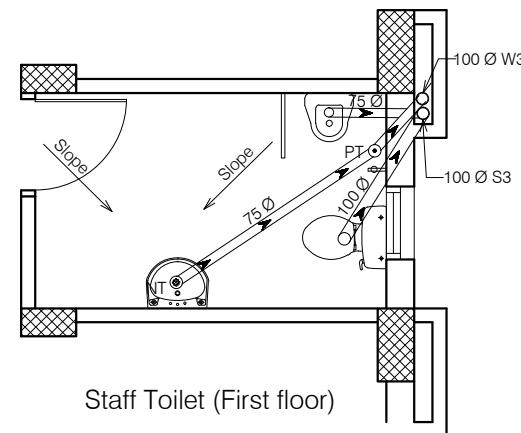
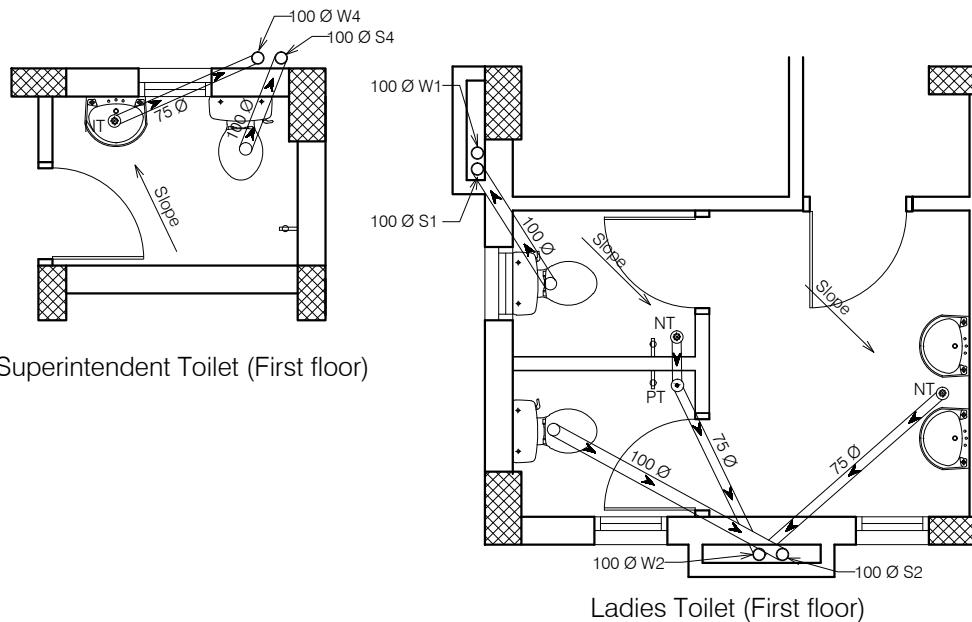
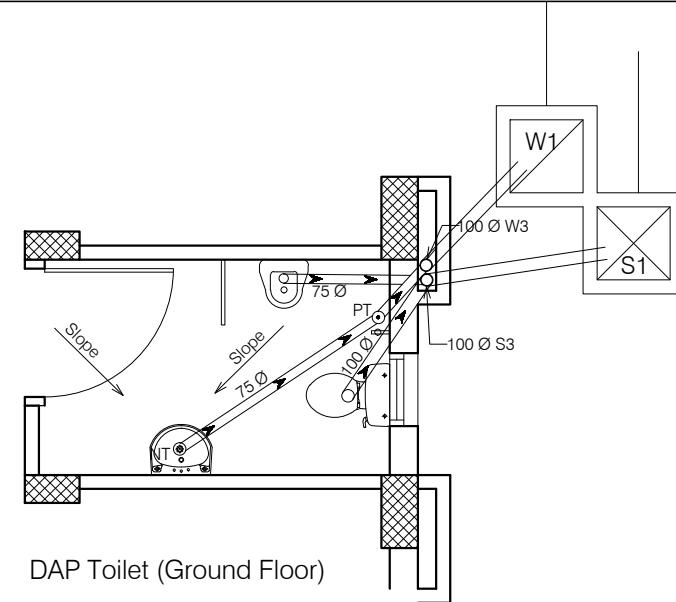
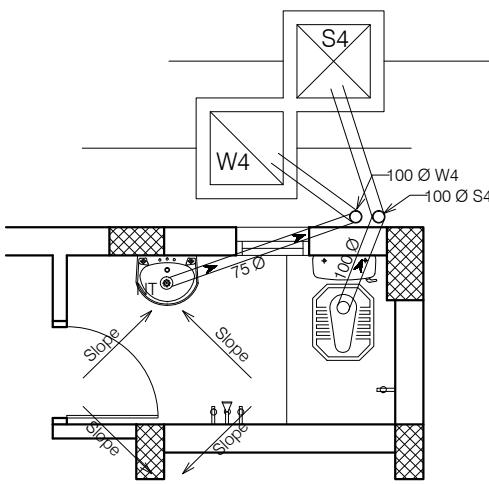
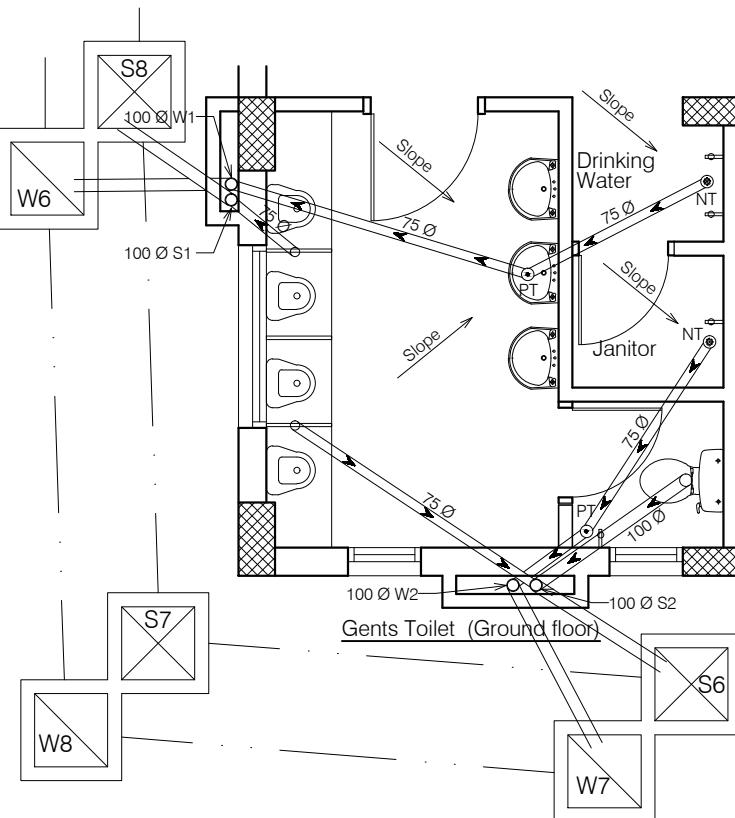
ANNEXURE - C (Sanitary Works)

Project : MODEL CAREER CENTRE
AT HAMIRPUR- DISTT. HAMIRPUR

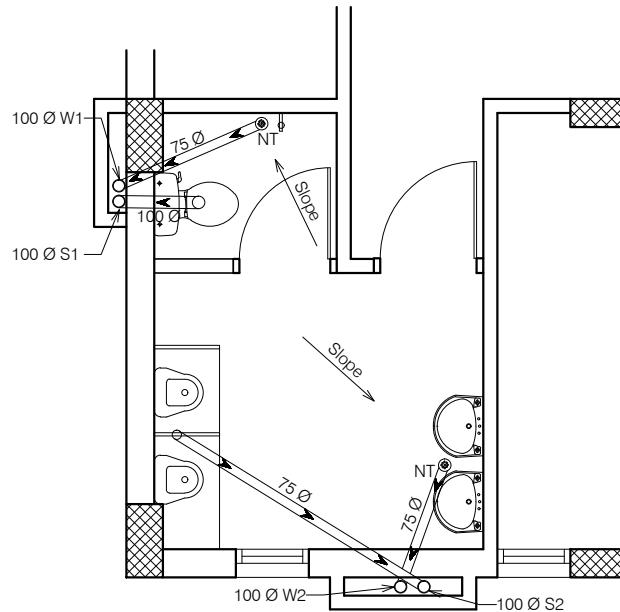
Sheet Title	Date 27-04-17	Drawn By -
TOILET DETAIL -WATER SUPPLY-1	Scale 1:60	Checked By -
-rchitects		Drg. No.
		14



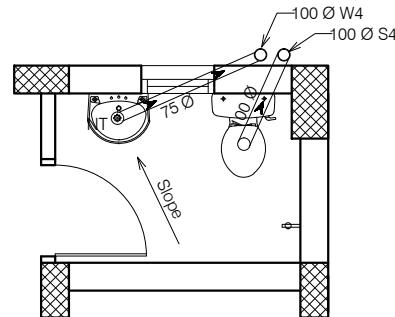
ANNEXURE - C (Sanitary Works)		
Project : MODEL CAREER CENTRE AT HAMIRPUR- DISTT. HAMIRPUR		
Sheet Title TOILET DETAIL -WATER SUPPLY-2		
Date 27-04-17	Drawn By -	
Scale 1:60	Checked By -	
-rchitects	Drg. No.	15



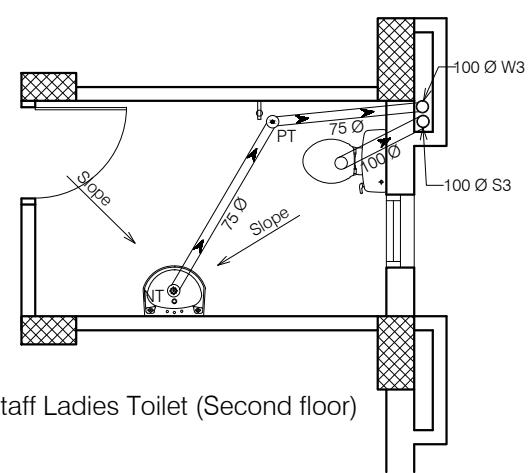
ANNEXURE - C (Sanitary Works)		
Project :	MODEL CAREER CENTRE AT HAMIRPUR- DISTT. HAMIRPUR	
Sheet Title	Date 27-04-17	Drawn By -
TOILET DETAIL -SANITARY-1		Checked By -
Architects	Drg. No. 16	



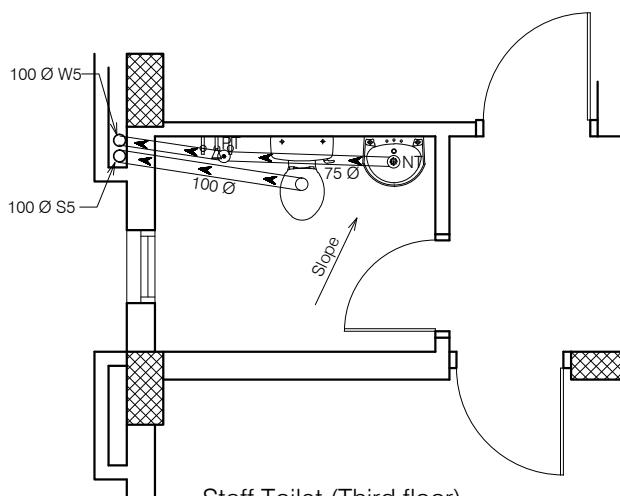
Gents Toilet (Second floor)



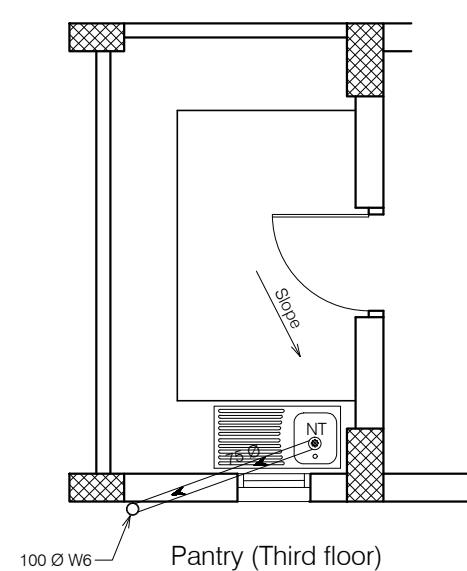
Labour officer Toilet (Second Floor)



Staff Ladies Toilet (Second floor)

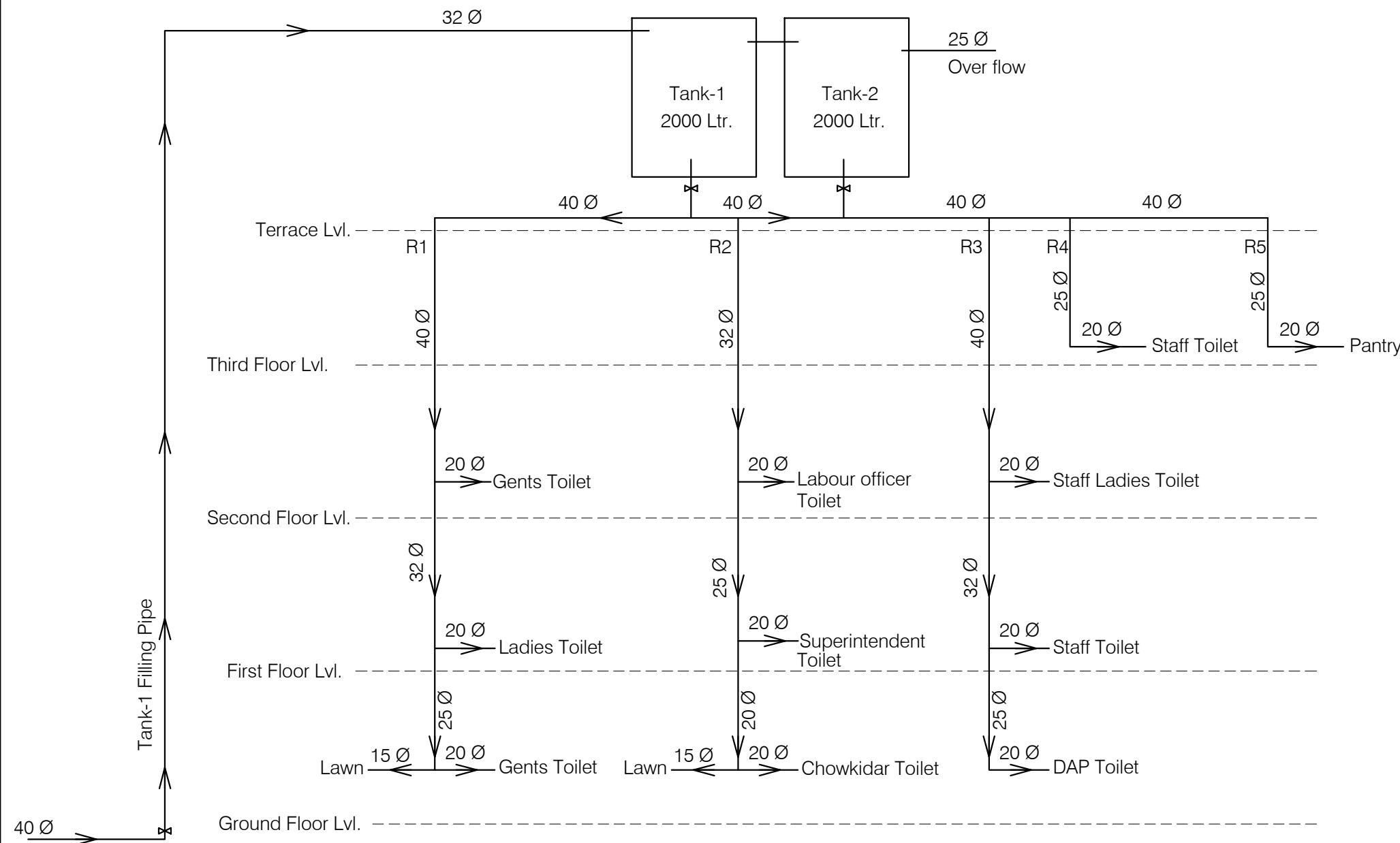


Staff Toilet (Third floor)

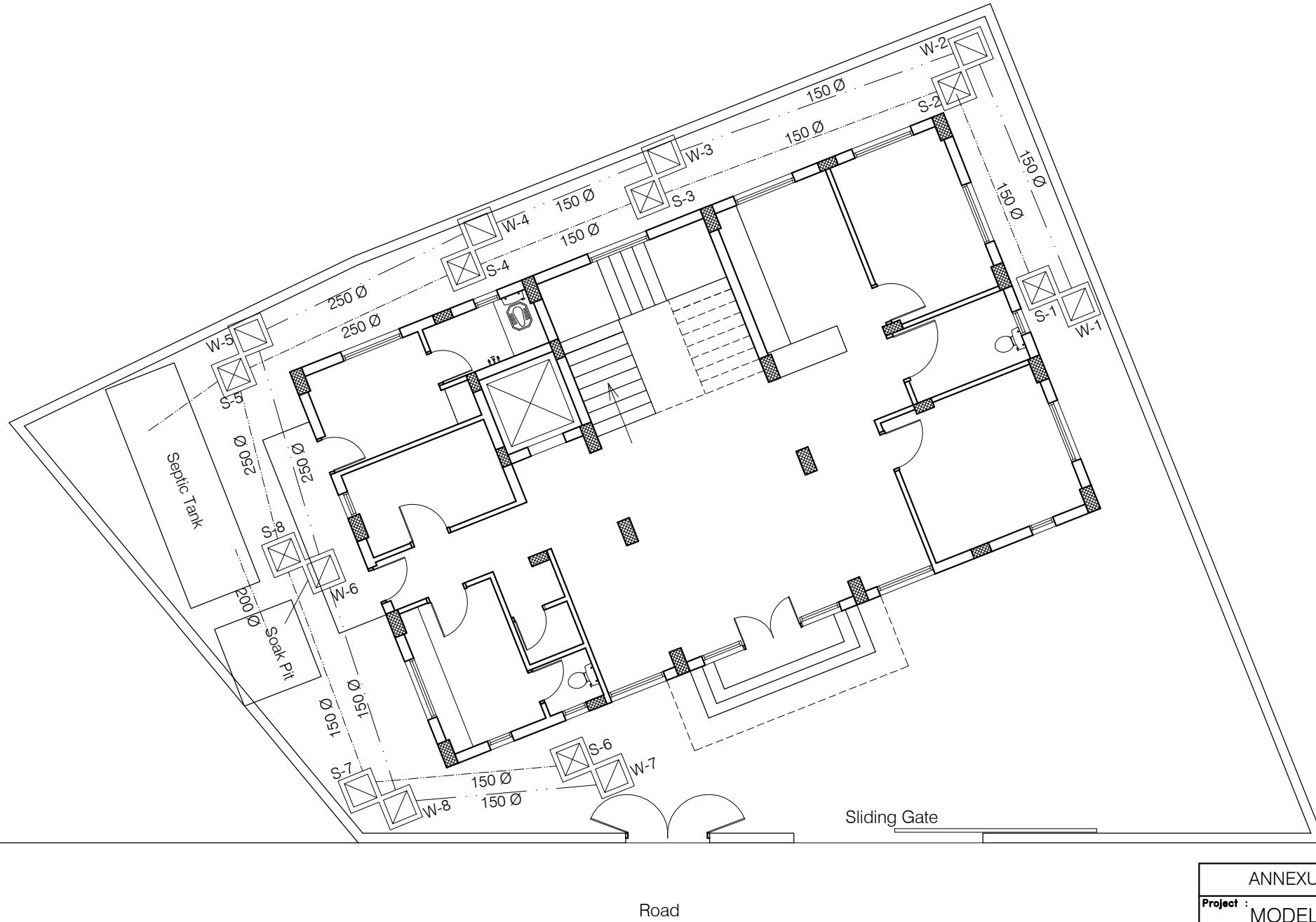


Pantry (Third floor)

ANNEXURE - C (Sanitary Works)		
Project : MODEL CAREER CENTRE AT HAMIRPUR- DISTT. HAMIRPUR		
Sheet Title TOILET DETAIL -SANITARY-2		
Architects	Date 27-04-17	Drawn By -
	Scale 1:60	Checked By -
Drg. No.		17



ANNEXURE - C (Sanitary Works)		
Project : MODEL CAREER CENTRE AT HAMIRPUR- DISTT. HAMIRPUR		
Sheet Title WATER SUPPLY -SINGLE LINE DIAGRAM -rchitects	Date	27-04-17
	Scale	Drawn By -
		Checked By -
		Drg. No.
		18



Road

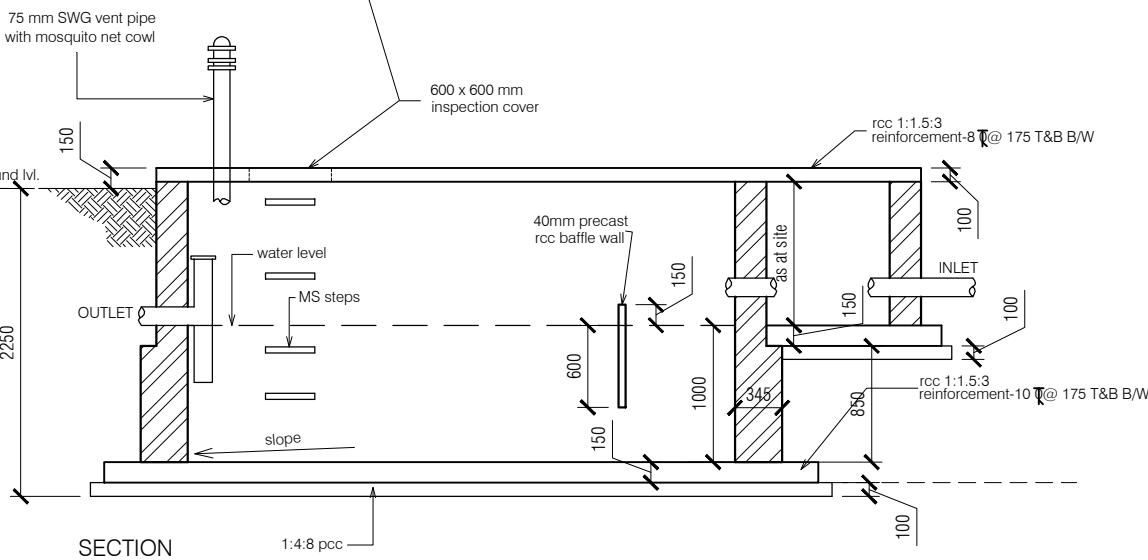
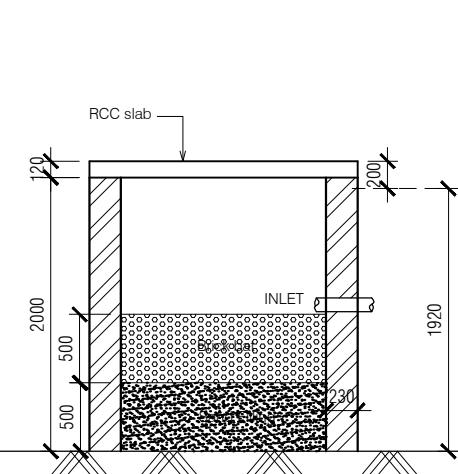
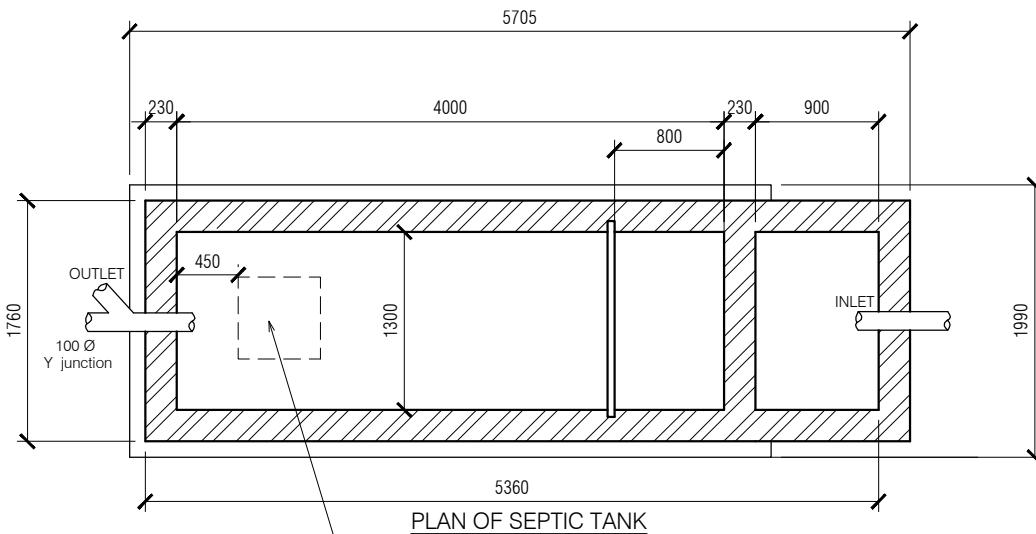
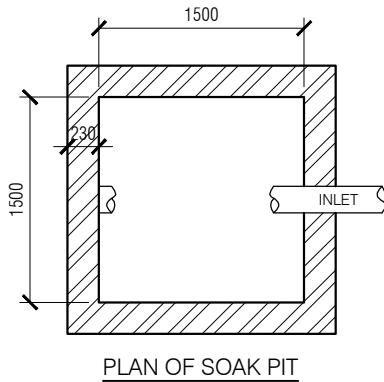
ANNEXURE - E (Septic Tank)

Project :
MODEL CAREER CENTRE
AT HAMIRPUR- DISTT. HAMIRPUR

Sheet Title	Date 27-04-17	Drawn By -
SITE PLAN- WASTE & SOIL SUPPLY		
-rchiects	Scale 1:100	Checked By -
		Drg. No. 19

NOTES:

1. DR- ING TO BE RE-D - D NOT ME-SURED.
2. -LL DIMENSIONS -RE IN MM UNLESS OTHERWISE SPECIFIED.
3. S- IT-RY DR- INGS SH-LL BE RE-D IN CONJUNCTION WITH SITE DEVELOPMENT DR- INGS - D - Y DISCREP-NCY OBSERVED SH-LL BE REPORTED TO THE -RCHITECT.
4. -LL INNER - D OUTER W-LLS TO BE FINISHED WITH W-TER PROOF PL-STER.

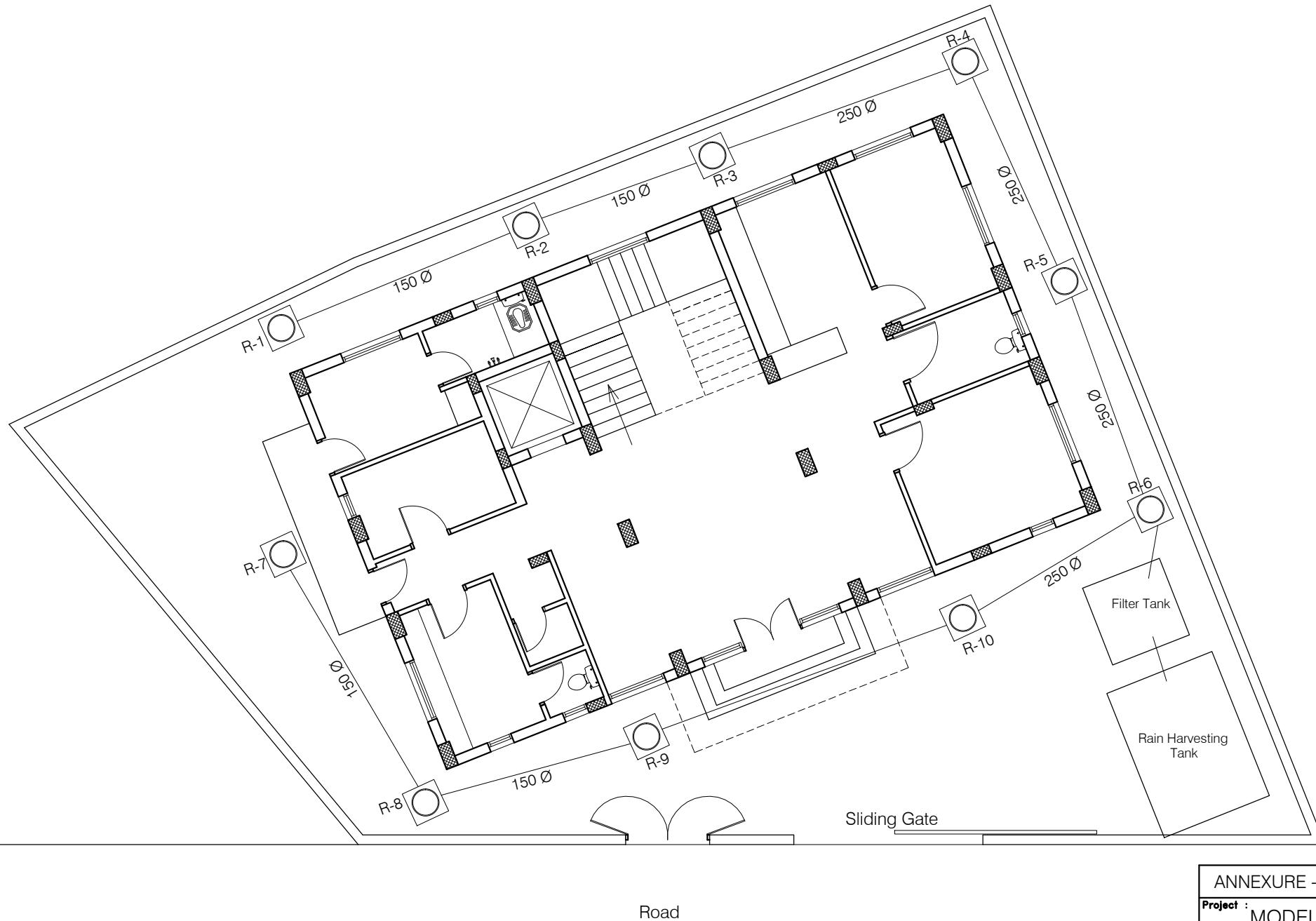


ANNEXURE - E (Septic Tank)

Project :

Septic Tank and Soak Pit

Sheet Title	Date 27-04-17	Drawn By -
PLAN & SECTION	Scale 1:50	Checked By -
-rchitects	Drg. No.	20



Road

Sliding Gate

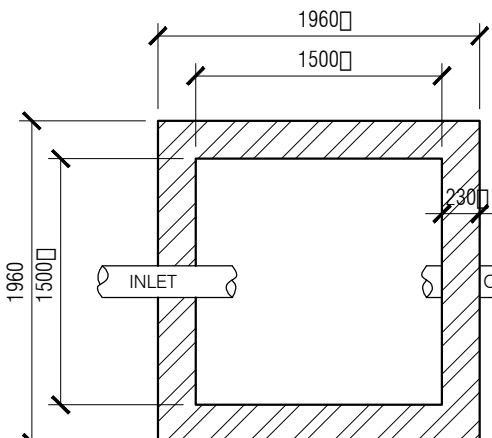
ANNEXURE - D (Rain water Harvesting)

Project :
MODEL CAREER CENTRE
AT HAMIRPUR- DISTT. HAMIRPUR

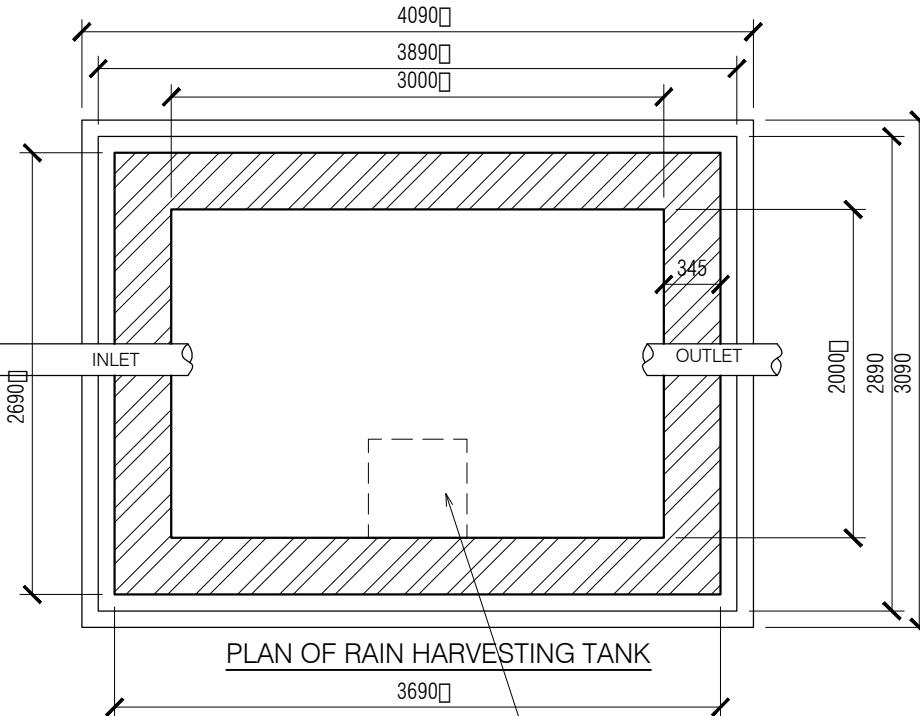
Sheet Title	Date 27-04-17	Drawn By -
SITE PLAN- RAIN WATER SUPPLY		Checked By -
-architects	Scale 1:100	
Drg. No.		21

NOTES:

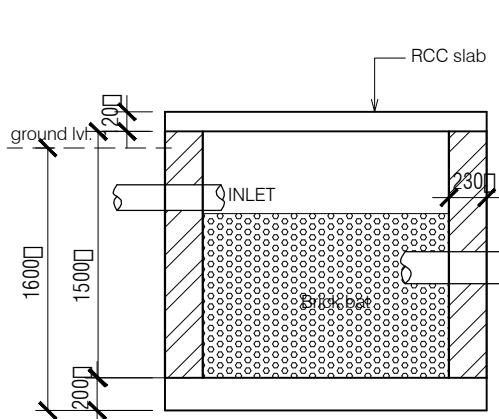
1. DR- ING TO BE RE-D - D NOT ME-SURED.
2. -LL DIMENSIONS -RE IN MM UNLESS OTHERWISE SPECIFIED.
3. S- IT-RY DR- INGS SH-LI BE RE-D IN CONJUNCTION WITH SITE DEVELOPMENT DR- INGS - D - Y DISCREP-NCY OBSERVED SH-LI BE REPORTED TO THE -RCHITECT.
4. -LL INNER - D OUTER W-LLS TO BE FINISHED WITH W-TER PROOF PL-STER.



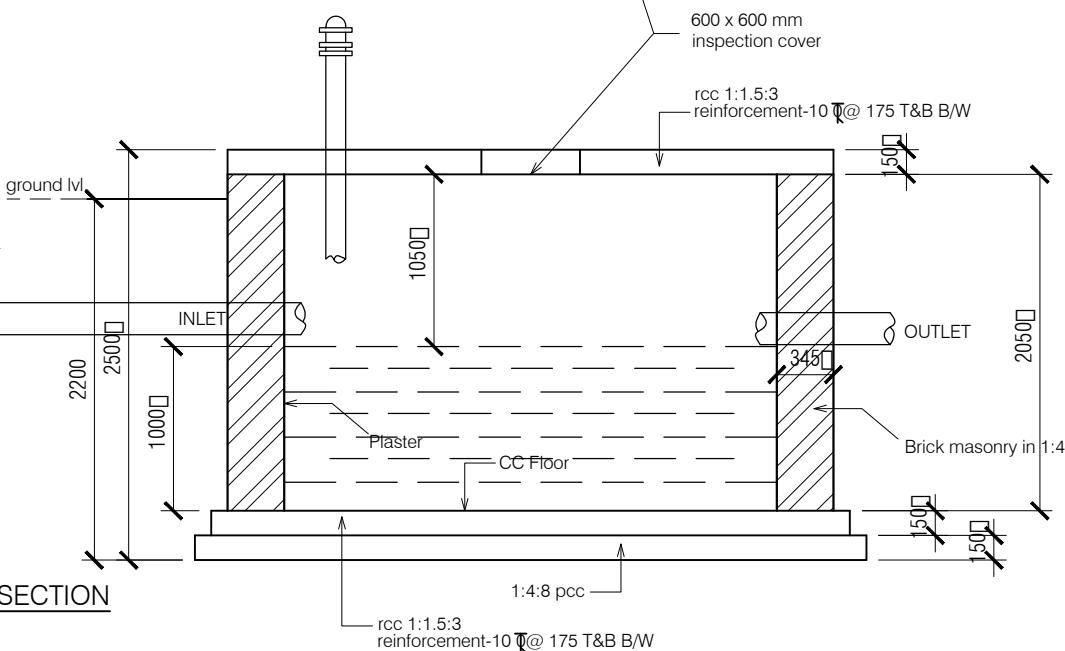
PLAN OF FILTER TANK



PLAN OF RAIN HARVESTING TANK



SECTION

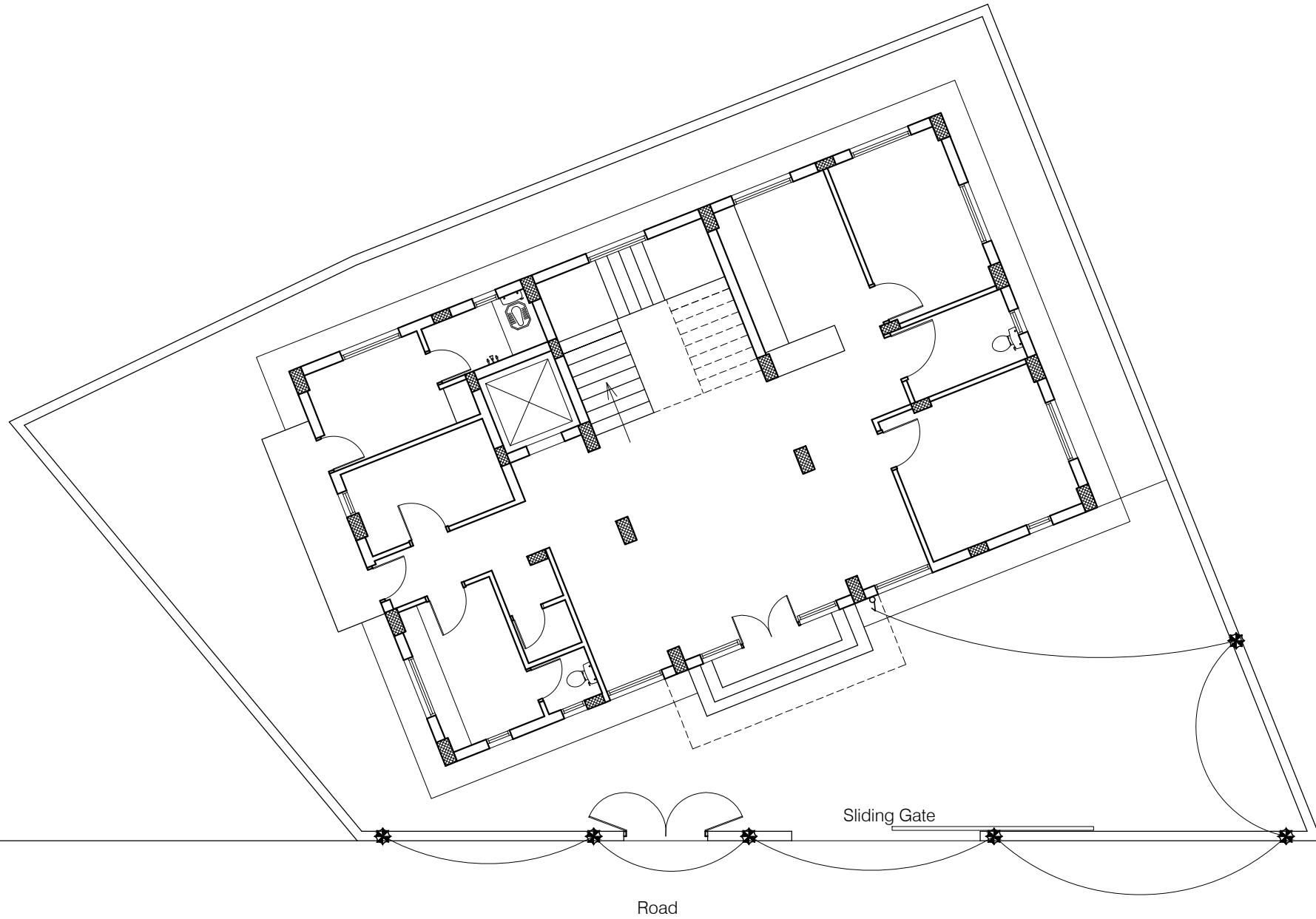


ANNEXURE - D (Rain water Harvesting)

Project :

Rain Harvesting Tank

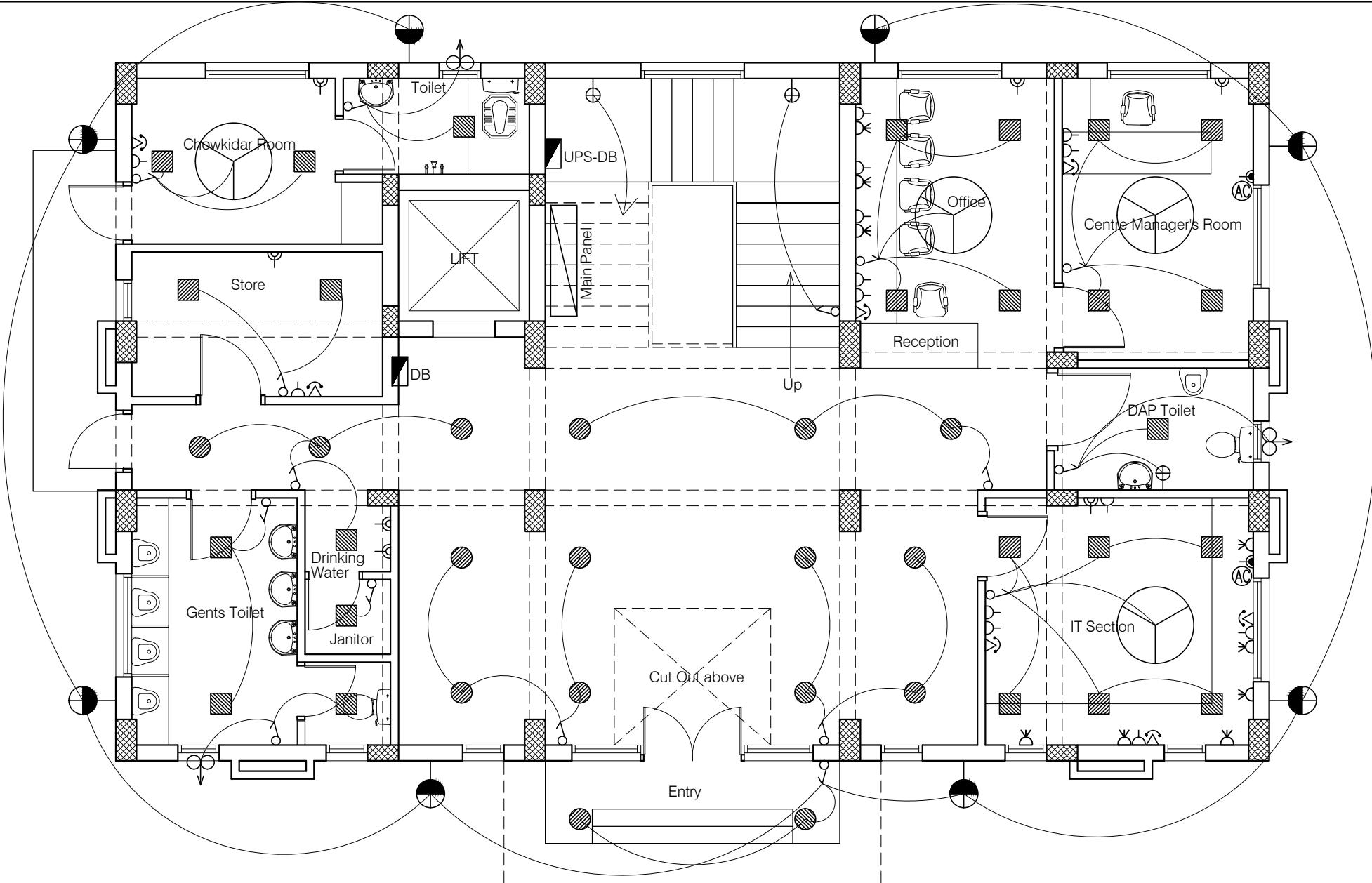
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PLAN & SECTION	Scale 1:50	Checked By -
-rchitects		Drg. No. 22



Project : MODEL CAREER CENTRE
AT HAMIRPUR- DISTT. HAMIRPUR

Sheet Title	Date 27-04-17	Drawn By -
SITE PLAN- External Lighting		Checked By -
-rchitects	Scale 1:100	Drg. No.
01		

SYMBOL	DESCRIPTION
	26W CFL POST TOP

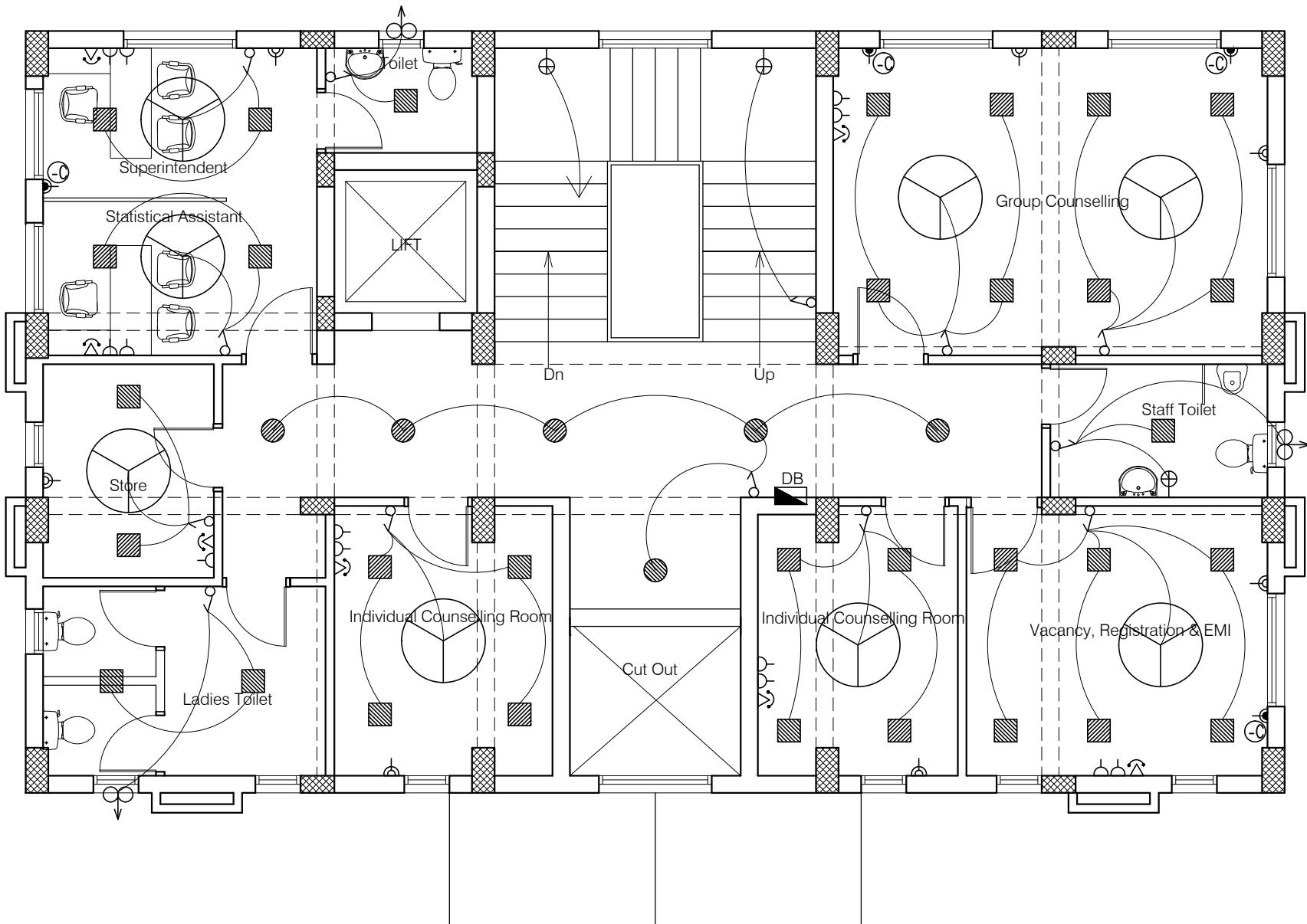


NOTES

1. DRAWING TO BE READ AND NOT MEASURED.
2. ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE SPECIFIED.
3. PROVIDE 2 NOS. DATA OUTLETS (RJ-45) FOR EVERY 2 NOS. UPS POINTS.

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
♂	CONTROL SWITCH BOARD	■	LCDSPL-S-18-CDL (Crompton)
♂	TWO WAY CONTROL SWITCH BOARD	●	LCDSPL-R-12-CDL (Crompton)
□	6A SWITCH SOCKET OUTLET	□	LSCSM-18W-CDL/NW/WW (Crompton)
□	16A SWITCH SOCKET OUTLET	○	LSCRM-12W-CDL/NW/WW (Crompton)
○	CEILING FAN	⊕	BRACKET LIGHT - (Code-2701)
○		8→	EXHAUST FAN

Project : MODEL CAREER CENTRE	
AT HAMIRPUR- DISTT. HAMIRPUR	
Sheet Title	Date 27-04-17 Drawn By -
GROUND FLOOR PLAN	
Scale 1:100	Checked By -
Architects	Drg. No.
02	

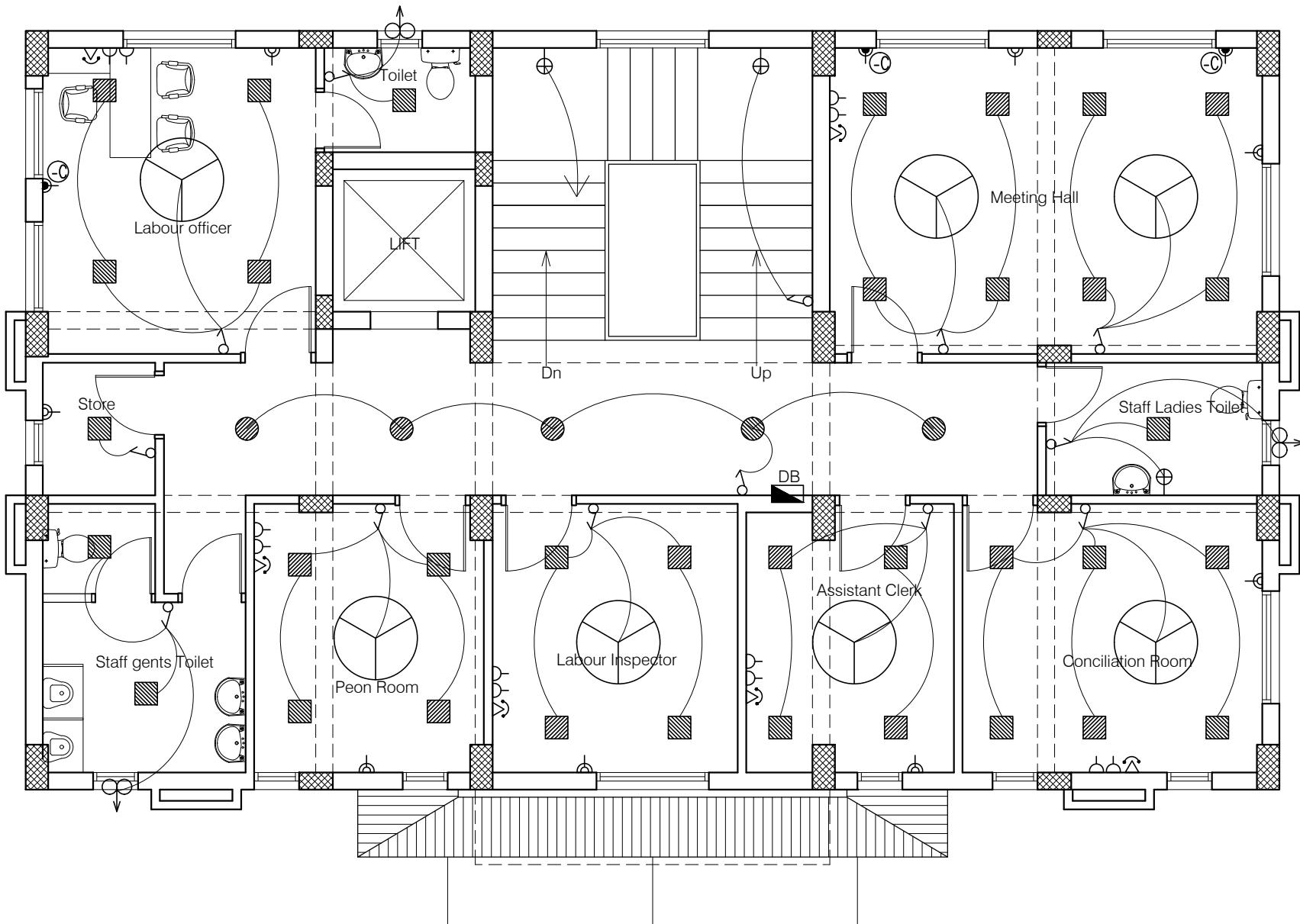


NOTES

1. DR-WING TO BE RE-D -ND NOT ME-SURED.
2. -LL DIMENSIONS -RE IN MM UNLESS OTHERWISE SPECIFIED.
3. PROVIDE 2 NOS. D-T- OUTLETS (RJ-45) FOR EVERY 2 NOS. UPS POINTS.

SYMBOL	DESCRIPTION			SYMBOL	DESCRIPTION
♂	CONTROL SWITCH BO-RD	■	LCDSPL-S-18-CDL (Crompton)	▷	TELEPHONE OUTLET
♂	TWO W-Y CONTROL SWITCH BO-RD	●	LCDSPL-R-12-CDL (Crompton)	⊕	BULK HE-D CFL -(Code-2711)
□	6- SWITCH SOCKET OUTLET	□	LCSCM-18W-CDL/NW/WW (Crompton)	✖	26W CFL POST TOP
□	16- SWITCH SOCKET OUTLET	○	LCSR-12W-CDL/NW/WW (Crompton)	○	20-SPN SWITCH SOCKET FOR -C
○	CEILING F-	→⊕	BR-CKET LIGHT - (Code-2701)	○	20- SWITCH SOCKET OUTLET FOR GEYSER
		8→	EXH-UST F-N	☒	2-SOCKET -6- - D, 1-SWITCH ON UPS

Project : MODEL CAREER CENTRE AT HAMIRPUR- DISTT. HAMIRPUR	
Sheet Title FIRST FLOOR PLAN	Date 27-04-17 Drawn By -
	Scale 1:100 Checked By -
-rchitects	Drg. No.
	03

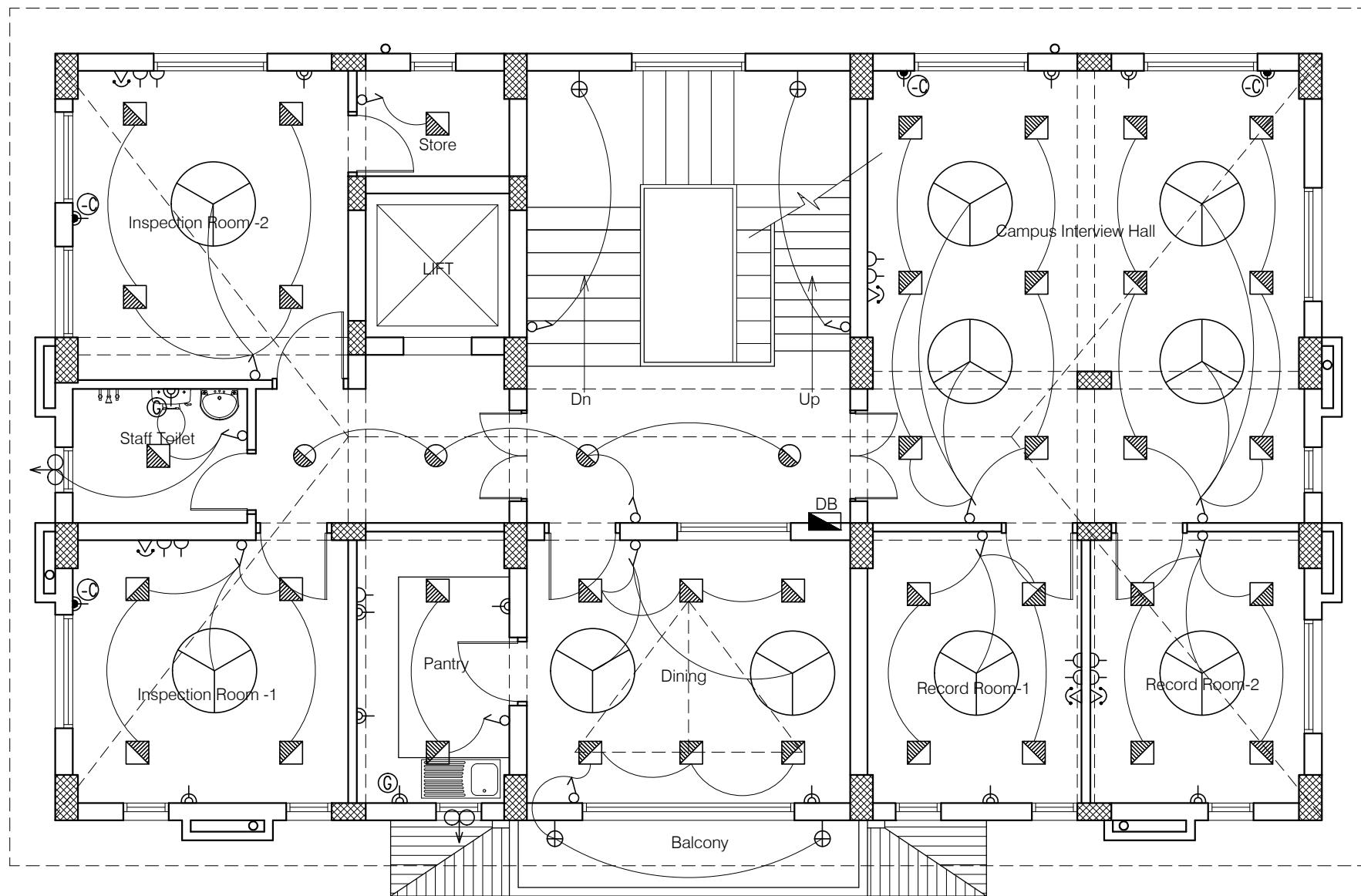


NOTES

1. DR-WING TO BE RE-D -ND NOT ME-SURED.
2. -LL DIMENSIONS -RE IN MM UNLESS OTHERWISE SPECIFIED.
3. PROVIDE 2 NOS. D-T- OUTLETS (RJ-45) FOR EVERY 2 NOS. UPS POINTS.

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
Ⓐ	CONTROL SWITCH BO-RD	■	LCDSPL-S-18-CDL (Crompton)
Ⓑ	TWO W-Y CONTROL SWITCH BO-RD	●	LCDSPL-R-12-CDL (Crompton)
△	6- SWITCH SOCKET OUTLET	□	LCSCM-18W-CDL/NW/WW (Crompton)
□	16- SWITCH SOCKET OUTLET	○	LCRM-12W-CDL/NW/WW (Crompton)
○	CEILING F-	⊕	BR-CKET LIGHT - (Code-2701)
		8→	EXH-UST F-N

Project : MODEL CAREER CENTRE AT HAMIRPUR- DISTT. HAMIRPUR	
Sheet Title SECOND FLOOR PLAN	Date 27-04-17 Drawn By - Scale 1:100 Checked By -
-rchitects	Drg. No.
	04

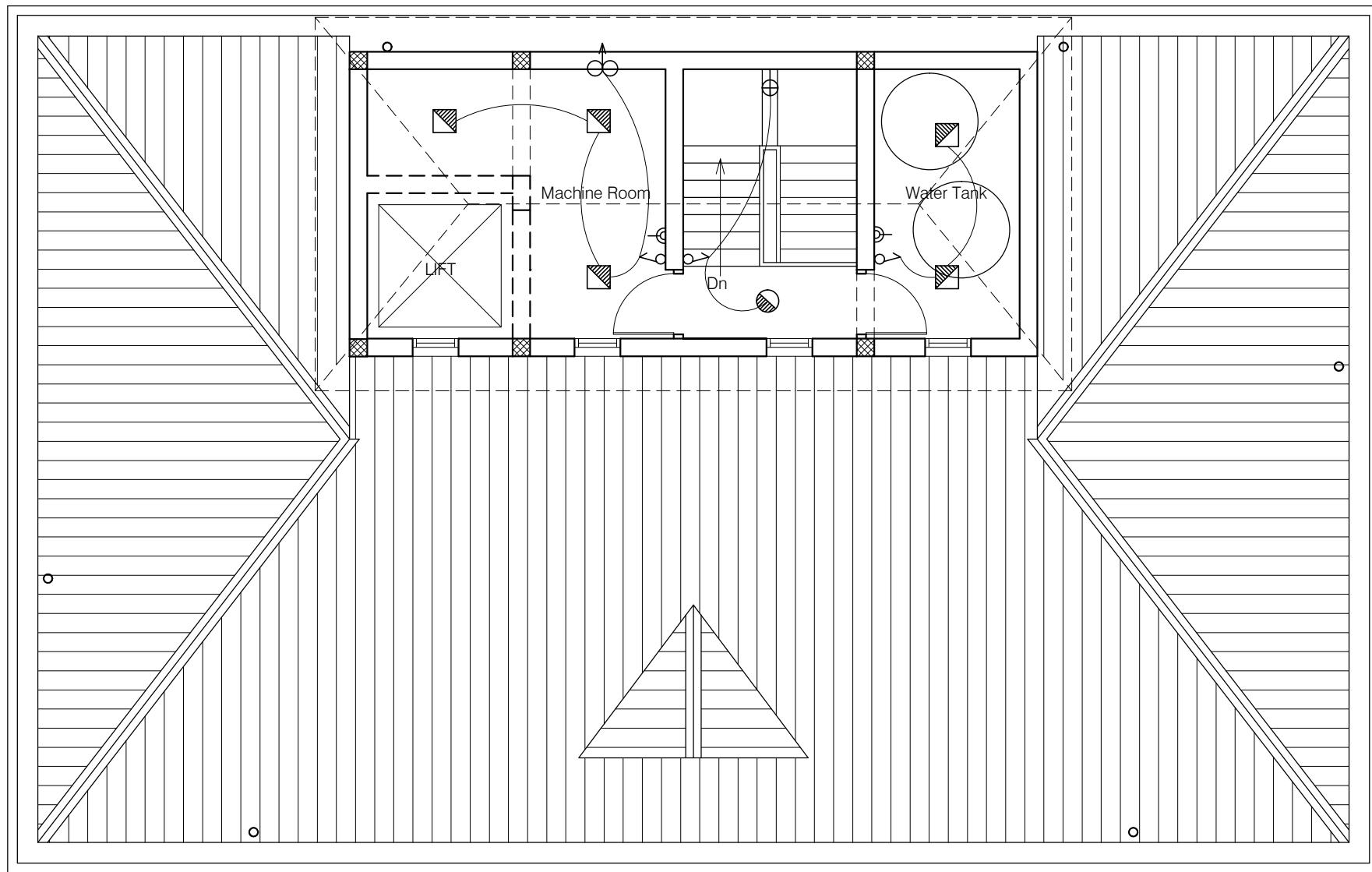


NOTES

1. DR-WING TO BE RE-D -ND NOT ME-SURED.
2. -LL DIMENSIONS -RE IN MM UNLESS OTHERWISE SPECIFIED.
3. PROVIDE 2 NOS. D-T- OUTLETS (RJ-45) FOR EVERY 2 NOS. UPS POINTS.

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
Ⓐ	CONTROL SWITCH BO-RD	■	LCDSPL-S-18-CDL (Crompton)
Ⓑ	TWO W-Y CONTROL SWITCH BO-RD	●	LCDSPL-R-12-CDL (Crompton)
△	6- SWITCH SOCKET OUTLET	□	LCSCM-18W-CDL/NW/WW (Crompton)
□	16- SWITCH SOCKET OUTLET	○	LSCRN-12W-CDL/NW/WW (Crompton)
○	CEILING F-	⊕	BR-CKET LIGHT - (Code-2701)
		8→	EXH-UST F-N

Project : MODEL CAREER CENTRE AT HAMIRPUR- DISTT. HAMIRPUR	
Sheet Title THIRD FLOOR PLAN	Date 27-04-17 Drawn By -
	Scale 1:100 Checked By -
-rchitects	Drg. No.
	05



NOTES

1. DR-WING TO BE RE-D -ND NOT ME-SURED.
2. -LL DIMENSIONS -RE IN MM UNLESS OTHERWISE SPECIFIED.
3. PROVIDE 2 NOS. D-T- OUTLETS (RJ-45) FOR EVERY 2 NOS. UPS POINTS.

SYMBOL	DESCRIPTION		SYMBOL	DESCRIPTION	
♂	CONTROL SWITCH BO-RD	■	LCDSPL-S-18-CDL (Crompton)	▷	TELEPHONE OUTLET
♂	TWO W-Y CONTROL SWITCH BO-RD	●	LCDSPL-R-12-CDL (Crompton)	⊕	BULK HE-D CFL -(Code-2711)
△	6- SWITCH SOCKET OUTLET	□	LCSCM-18W-CDL/NW/WW (Crompton)	✖	26W CFL POST TOP
△	16- SWITCH SOCKET OUTLET	○	LCCRM-12W-CDL/NW/WW (Crompton)	○	20-SPN SWITCH SOCKET FOR -C
○	CEILING F-	→⊕	BR-CKET LIGHT - (Code-2701)	○	20- SWITCH SOCKET OUTLET FOR GEYSER
		8→	EXH-UST F-N	☒	2-SOCKET -6- - D, 1-SWITCH ON UPS

Project : MODEL CAREER CENTRE AT HAMIRPUR- DISTT. HAMIRPUR	
Sheet Title MACHINE ROOM	Date 27-04-17 Drawn By -
	Scale 1:100 Checked By -
-rchitects	Drg. No. 06

Section 7 - General Conditions of Contract

Public Works Department, Government of Himachal Pradesh

[Name of Employer]

[Name of Contract]

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General Conditions of Contract

A. General

1. Definitions 1.1 Boldface type is used to identify defined terms.

- (a) The **Accepted Contract Amount** means the amount accepted in the Letter of Acceptance for the execution and completion of the Works and the remedying of any defects.
- (b) The **Activity Schedule** is a schedule of the activities comprising the construction, installation, testing, and commissioning of the Works in a lump sum contract. It includes a lump sum price for each activity, which is used for valuations and for assessing the effects of Variations and Compensation Events.
- (c) The **Adjudicator** is the person appointed jointly by the Employer and the Contractor to resolve disputes in the first instance, as provided for in GCC 29.1[Appointment of Adjudicator] hereunder.
- (d) **Bank** means the financing institutions named in the **Particular Conditions of Contract (PCC)**.
- (e) **Bill of Quantities** means the priced and completed Bill of Quantities forming part of the Bid.
- (f) **Compensation Events** are those defined in GCC 51.1[Compensation Events]hereunder.
- (g) The **Completion Date** is the date of completion of the Works as certified by the Project Manager, in accordance with GCC 69.1 [Completion].
- (h) The **Contract** is the Contract between the Employer and the Contractor to execute, complete, and maintain the Works. It consists of the documents listed in GCC 2.3 below.
- (i) The **Contractor** is the party whose Bid to carry out the Works has been accepted by the Employer.
- (j) The **Contractor's Bid** is the completed bidding document submitted by the Contractor to the Employer.
- (k) The **Contract Price** is the Accepted Contract Amount stated in the Letter of Acceptance and thereafter as adjusted in accordance with the Contract.
- (l) **Days** are calendar days; months are calendar months.
- (m) **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.
- (n) A **Defect** is any part of the Works not completed in accordance with the Contract.
- (o) The **Defects Liability Certificate** is the certificate issued by the Project Manager upon correction of defects by the Contractor.

- (p) The **Defects Liability Period** is the period calculated from the Completion Date where the Contractor remains responsible for remedying defects.
- (q) **Drawings** include calculations and other information provided or approved by the Project Manager for the execution of the Contract.
- (r) The **Employer** is the party who employs the Contractor to carry out the Works, as specified in thePCC.
- (s) **Equipment** is the Contractor's machinery and vehicles brought temporarily to the Site to construct the Works.
- (t) **Force Majeure** means an exceptional event or circumstance: which is beyond a Party's control; which such Party could not reasonably have provided against before entering into the Contract; which, having arisen, such Party could not reasonably have avoided or overcome; and, which is not substantially attributable to the other Party.
- (u) **In writing** or **written** means hand-written, type-written, printed or electronically made, and resulting in a permanent record.
- (v) The **Initial Contract Price** is the Contract Price listed in the Employer's Letter of Acceptance.
- (w) 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 thePCC. The Intended Completion Date may be revised only by the Project Manager by issuing an extension of time or an acceleration order.
- (x) **Letter of Acceptance** means the formal acceptance by the Employer of the Bid and denotes the formation of the Contract at the date of acceptance.
- (y) **Materials** are all supplies, including consumables, used by the Contractor for incorporation in the Works.
- (z) **Party** means the Employer or the Contractor, as the context requires.
- (aa) **PCC** means Particular Conditions of Contract.
- (bb) **Plant** is any integral part of the Works that shall have a mechanical, electrical, chemical, or biological function.
- (cc) The **Project Manager** is the person named in thePCC (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.
- (dd) **Retention Money** means the aggregate of all monies retained by the Employer pursuant to GCC 55.1 [Retention].
- (ee) **Schedules** means the document(s) entitled schedules, completed by the Contractor and submitted with the Letter of Tender, as included in the Contract. Such document may include the Bill of Quantities, data, lists, and schedules of rates and/or prices.

- (ff) The **Site** is the area defined as such in thePCC.
- (gg) **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.
- (hh) **Specification** means the Specification of the Works included in the Contract and any modification or addition made or approved by the Project Manager.
- (ii) The **Start Date** is given in thePCC. 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.
- (jj) 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.
- (kk) **Temporary Works** are works designed, constructed, installed, and removed by the Contractor that are needed for construction or installation of the Works.
- (ll) A **Variation** is an instruction given by the Project Manager which varies the Works.
- (mm) The **Works** are what the Contract requires the Contractor to construct, install, and turn over to the Employer, as defined in thePCC.

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 thePCC, references in the GCC to the Works, the Completion Date, and the Intended Completion Date apply to any Section of the Works (other than references to the Completion Date and Intended Completion Date for the whole of the Works).
- 2.3 The documents forming the Contract shall be interpreted in the following order of priority:
 - (a) Contract Agreement,
 - (b) Letter of Acceptance,
 - (c) Letter of Bid,
 - (d) Particular Conditions of Contract,
 - (e) the List of Eligible Countries that was specified in Section 5 of the bidding document,
 - (f) General Conditions of Contract,
 - (g) Specifications,
 - (h) Drawings,
 - (i) Completed Activity Schedules or Bill of Quantities, and

- (j) any other document listed in the **PCC** 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 **PCC**.
- 3.2 Throughout the execution of the Contract, the Contractor shall comply with the import of goods and services prohibitions in the Employer's country when
 - (a) by an act of compliance with a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations, the Borrower's Country prohibits any import of goods from, or any payments to, a particular country, person, or entity. Where the borrower's country prohibits payments to a particular firm or for particular goods by such an act of compliance, that firm may be excluded.

4. Contract Agreement

- 4.1 The Parties shall enter into a Contract Agreement within 28 days after the Contractor receives the Letter of Acceptance, unless the Particular Conditions establish otherwise. The Contract Agreement shall be based upon the attached Contract forms in Section 8. The costs of stamp duties and similar charges (if any) imposed by law in connection with entry into the Contract Agreement shall be borne by the Employer.

5. Assignment

- 5.1 Neither Party shall assign the whole or any part of the Contract or any benefit or interest in or under the Contract. However, either Party
 - (a) may assign the whole or any part with the prior agreement of the other Party, at the sole discretion of such other Party; and
 - (b) may, as security in favor of a bank or financial institution, assign its right to any moneys due, or to become due, under the Contract.

6. Care and Supply of Documents

- 6.1 The Specification and Drawings shall be in the custody and care of the Employer. Unless otherwise stated in the Contract, two copies of the Contract and of each subsequent Drawing shall be supplied to the Contractor, who may make or request further copies at the cost of the Contractor.
- 6.2 Each of the Contractor's Documents shall be in the custody and care of the Contractor, unless and until taken over by the Employer. Unless otherwise stated in the Contract, the Contractor shall supply to the Engineer six copies of each of the Contractor's Documents.
- 6.3 The Contractor shall keep, on the Site, a copy of the Contract, publications named in the Specification, the Contractor's Documents (if any), the Drawings and Variations and other communications given under the Contract. The Employer's Personnel shall have the right of access to all these documents at all reasonable times.
- 6.4 If a Party becomes aware of an error or defect in a document which was prepared for use in executing the Works, the Party shall promptly give notice to the other Party of such error or defect.

7. Confidential Details

- 7.1 The Contractor's and the Employer's Personnel shall disclose all such confidential and other information as may be reasonably required in order to verify the Contractor's compliance with the Contract and allow

its proper implementation.

- 7.2 Each of them shall treat the details of the Contract as private and confidential, except to the extent necessary to carry out their respective obligations under the Contract or to comply with applicable Laws. Each of them shall not publish or disclose any particulars of the Works prepared by the other Party without the previous agreement of the other Party. However, the Contractor shall be permitted to disclose any publicly available information, or information otherwise required to establish his qualifications to compete for other projects.
- 7.3 Notwithstanding the above, the Contractor may furnish to its Subcontractor(s) such documents, data and other information it receives from the Employer to the extent required for the Subcontractor(s) to perform its work under the Contract, in which event the Contractor shall obtain from such Subcontractor(s) an undertaking of confidentiality similar to that imposed on the Contractor under this Clause.

8. Compliance with Laws	<ol style="list-style-type: none">8.1 The Contractor shall, in performing the Contract, comply with applicable Laws.8.2 Unless otherwise stated in the Particular Conditions,<ol style="list-style-type: none">(a) the Employer shall acquire and pay for all permits, approvals, and/or licenses from all local, state, or national government authorities or public service undertakings in the [Employer's Country or country where the Site is located] which (i) such authorities or undertakings require the Employer to obtain in the Employer's name, and (ii) are necessary for the execution of the Contract, including those required for the performance by both the Contractor and the Employer of their respective obligations under the Contract;(b) the Contractor shall acquire and pay for all permits, approvals, and/or licenses from all local, state, or national government authorities or public service undertakings in the [Employer's Country or country where the Site is located] which such authorities or undertakings require the Contractor to obtain in its name and which are necessary for the performance of the Contract, including, without limitation, visas for the Contractor's and Subcontractor's personnel and entry permits for all imported Contractor's Equipment. The Contractor shall acquire all other permits, approvals, and/or licenses that are not the responsibility of the Employer under Subclause 8.2(a) hereof and that are necessary for the performance of the Contract. The Contractor shall indemnify and hold harmless the Employer from and against any and all liabilities, damages, claims, fines, penalties, and expenses of whatever nature arising or resulting from the violation of such laws by the Employer or its personnel, including the Subcontractors and their personnel, but without prejudice to Subclause 8.1 hereof.
9. Joint and Several Liability	<ol style="list-style-type: none">9.1 If the Contractor is a joint venture of two or more persons, all such persons shall be jointly and severally liable to the Employer for the fulfillment of the provisions of the Contract, and shall designate one of such persons to act as a leader with authority to bind the joint venture.

The composition or the constitution of the joint venture shall not be altered without the prior consent of the Employer.

10. Project Manager's Decisions

10.1 Except where otherwise specifically stated, the Project Manager shall decide contractual matters between the Employer and the Contractor in the role representing the Employer.

11. Delegation

11.1 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.

12. Communications

12.1 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.

13. Subcontracting

13.1 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.

14. Other Contractors

14.1 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 PCC. 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.

15. Personnel and Equipment

15.1 The Contractor shall employ the key personnel and use the equipment identified in its Bid to carry out the functions stated in the Schedule or other personnel and equipment approved by the Project Manager. The Project Manager shall approve any proposed replacement of key personnel and equipment only if their relevant qualifications or characteristics are substantially equal to or better than those proposed in the Bid.

15.2 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 7 days and has no further connection with the work in the Contract.

15.3 If the Employer, Project Manager, or Contractor determines, that any employee of the Contractor be determined to have engaged in corrupt, fraudulent, collusive, coercive, or other prohibited practices during the execution of the Works, then that employee shall be removed in accordance with Clause 15.2 above.

16. Employer's and Contractor's Risks

16.1 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.

17. Employer's Risks

17.1 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.

17.2 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.

18. Contractor's Risks

18.1 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.

19. Insurance

19.1 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 PCC 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.

19.2 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.

19.3 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.

19.4 Alterations to the terms of an insurance shall not be made without the

approval of the Project Manager.

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

20. Site Investigation Reports 20.1 The Contractor, in preparing the Bid, shall rely on any Site Investigation Reports referred to in the **PCC**, supplemented by any information available to the Contractor.

21. Contractor to Construct the Works 21.1 The Contractor shall construct and install the Works in accordance with the Specifications and Drawings.

22. The Works to Be Completed by the Intended Completion Date 22.1 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.

23. Designs by Contractor and Approval by the Project Manager 23.1 The Contractor shall carry out design to the extent specified in the **PCC**. The Contractor shall promptly submit to the Employer all designs prepared by him. Within 14 days of receipt, the Employer shall notify any comments. The Contractor shall not construct any element of the permanent work designed by him within 14 days after the design has been submitted to the Employer or where the design for that element has been rejected. Design that has been rejected shall be promptly amended and resubmitted. The Contractor shall resubmit all designs commented on, taking these comments into account as necessary.

23.2 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..

23.3 The Contractor shall be responsible for design of Temporary Works.

23.4 The Project Manager's approval shall not alter the Contractor's responsibility for design of the Temporary Works.

23.5 The Contractor shall obtain approval of third parties to the design of the Temporary Works, where required.

23.6 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.

24. Safety 24.1 The Contractor shall be responsible for the safety of all activities on the Site.

25. Discoveries 25.1 Anything of historical or other interest or of significant value unexpectedly discovered on the Site shall be the property of the Employer. The Contractor shall notify the Project Manager of such discoveries and carry out the Project Manager's instructions for dealing with them.

26. Possession of the Site 26.1 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 **PCC**, the Employer shall be deemed to have delayed the start of the

relevant activities, and this shall be a Compensation Event.

27. Access to the Site 27.1 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.

28. Instructions, Inspections, and Audits 28.1 The Contractor shall carry out all instructions of the Project Manager, which comply with the applicable laws where the Site is located.

28.2 The Contractor shall keep, and shall make all reasonable efforts to cause its Subcontractors and subconsultants to keep accurate and systematic accounts and records in respect of the Works in such form and details as will clearly identify relevant time changes and costs.

28.3 The Contractor shall permit ADB to inspect the Contractor's accounts, records, and other documents relating to the submission of bids and contract performance and to have them audited by auditors appointed by ADB. The Contractor shall maintain all documents and records related to the Contract for a period of three (3) years after completion of the Works. The Contractor shall provide any documents necessary for the investigation of allegations of fraud, collusion, coercion, or corruption and require its employees or agents with knowledge of the Contract to respond to questions from ADB.

29. Appointment of the Adjudicator 29.1 The Adjudicator shall be appointed jointly by the Employer and the Contractor, at the time of the Employer's issuance of the Letter of Acceptance. If, in the Letter of Acceptance, the Employer does not agree on the appointment of the Adjudicator, the Employer will request the Appointing Authority designated in the **PCC**, to appoint the Adjudicator within 14 days of receipt of such request.

29.2 Should the Adjudicator resign or die, or should the Employer and the Contractor agree that the Adjudicator is not functioning in accordance with the provisions of the Contract, a new Adjudicator shall be jointly appointed by the Employer and the Contractor. In case of disagreement between the Employer and the Contractor, within 30 days, the Adjudicator shall be designated by the Appointing Authority at the request of either party, within 14 days of receipt of such request.

30. Procedure for Disputes 30.1 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 14 days of the notification of the Project Manager's decision.

30.2 The Adjudicator shall give a decision in writing within 28 days of receipt of a notification of a dispute.

30.3 The Adjudicator shall be paid by the hour at the rate specified in the **PCC**, together with reimbursable expenses of the types specified in the **PCC**, 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 28 days of the Adjudicator's written decision. If neither party refers the dispute to arbitration within the above 28 days, the

Adjudicator's decision shall be final and binding.

30.4 The arbitration shall be conducted in accordance with the arbitration procedures published by the institution named and in the place specified in the **PCC**.

B. Staff and Labor

31. Forced Labor

31.1 The Contractor shall not employ forced labor, which consists of any work or service, not voluntarily performed, that is exacted from an individual under threat of force or penalty. This covers any kind of involuntary or compulsory labor, such as indentured labor, bonded labor, or similar labor-contracting arrangements.

32. Child Labor

32.1 The Contractor shall not employ children in a manner that is economically exploitative, or is likely to be hazardous, or to interfere with, the child's education, or to be harmful to the child's health or physical, mental, spiritual, moral, or social development. Where national laws have provisions for employment of minors, the Contractor shall follow those laws applicable to the Contractor. Children below the age of 18 years shall not be employed in dangerous work.

33. Workers' Organizations

33.1 In countries where national law recognizes workers' rights to form and to join workers' organizations of their choosing without interference and to bargain collectively, the Contractor shall comply with national law. Where national law substantially restricts workers' organizations, the Contractor shall enable alternative means for the Contractor's Personnel to express their grievances and protect their rights regarding working conditions and terms of employment. In either case described above, and where national law is silent, the Contractor shall not discourage the Contractor's Personnel from forming or joining workers' organizations of their choosing or from bargaining collectively, and shall not discriminate or retaliate against the Contractor's Personnel who participate, or seek to participate, in such organizations and bargain collectively. The Contractor shall engage with such workers representatives. Worker organizations are expected to fairly represent the workers in the workforce.

34. Nondiscrimination and Equal Opportunity

34.1 The Contractor shall not make employment decisions on the basis of personal characteristics unrelated to inherent job requirements. The Contractor shall base the employment relationship on the principle of equal opportunity and fair treatment, and shall not discriminate with respect to aspects of the employment relationship, including recruitment and hiring, compensation (including wages and benefits), working conditions and terms of employment, access to training, promotion, termination of employment or retirement, and discipline. In countries where national law provides for non-discrimination in employment, the Contractor shall comply with national law. When national laws are silent on nondiscrimination in employment, the Contractor shall meet this Subclause's requirements. Special measures of protection or assistance to remedy past discrimination or selection for a particular job based on the inherent requirements of the job shall not be deemed discrimination.

C. Time Control

35. Program	<p>35.1 Within the time stated in thePCC, after the date of the Letter of Acceptance, the Contractor shall submit to the Project Manager for approval a Program showing the general methods, arrangements, order, and timing for all the activities in the Works.In the case of a lump sum contract, the activities in the Program shall be consistent with those in the Activity Schedule.</p> <p>35.2 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>35.3 The Contractor shall submit to the Project Manager for approval an updated Program at intervals no longer than the period stated in thePCC. If the Contractor does not submit an updated Program within this period, the Project Manager may withhold the amount stated in thePCCfrom the next payment certificate and continue to withhold this amount until the next payment after the date on which the overdue Program has been submitted.In the case of a lump sum contract, the Contractor shall provide an updated Activity Schedule within 14 days of being instructed to by the Project Manager.</p> <p>35.4 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.</p>
36. Extension of the Intended Completion Date	<p>36.1 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.</p> <p>36.2 The Project Manager shall decide whether and by how much to extend the Intended Completion Date within 21 days of the Contractor asking the Project Manager for a decision upon the effect of a Compensation Event or Variation and submitting full supporting information. 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.</p>
37. Acceleration	<p>37.1 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.</p> <p>37.2 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.</p>
38. Delays Ordered by the Project	<p>38.1 The Project Manager may instruct the Contractor to delay the start or progress of any activity within the Works.</p>

Manager**39. Management Meetings**

- 39.1 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.
- 39.2 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.

40. Early Warning

- 40.1 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.
- 40.2 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.

D. Quality Control**41. Identifying Defects**

- 41.1 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.

42. Tests

- 42.1 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.

43. Correction of Defects

- 43.1 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 PCC. The Defects Liability Period shall be extended for as long as Defects remain to be corrected.
- 43.2 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.

44. Uncorrected Defects

- 44.1 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.

E. Cost Control

45. Contract Price

- 45.1 In the case of an admeasurement contract, the Bill of Quantities shall contain priced items for the Works to be performed by the Contractor. The Bill of Quantities is used to calculate the Contract Price. The Contractor will be paid for the quantity of the work accomplished at the rate in the Bill of Quantities for each item.
- 45.2 In the case of a lump sum contract, the Activity Schedule shall contain the priced activities for the Works to be performed by the Contractor. The Activity Schedule is used to monitor and control the performance of activities on which basis the Contractor will be paid. If payment for Materials on Site shall be made separately, the Contractor shall show delivery of Materials to the Site separately on the Activity Schedule.

46. Changes in the Contract Price

- 46.1 In the case of an admeasurement contract:
 - (a) If the final quantity of the work done differs from the quantity in the Bill of Quantities for the particular item by more than 25%, provided the change exceeds 1% of the Initial Contract Price, the Project Manager shall adjust the rate to allow for the change.
 - (b) The Project Manager shall not adjust rates from changes in quantities if thereby the Initial Contract Price is exceeded by more than 15%, except with the prior approval of the Employer.
 - (c) If requested by the Project Manager, the Contractor shall provide the Project Manager with a detailed cost breakdown of any rate in the Bill of Quantities.
- 46.2 In the case of a lump sum contract, the Activity Schedule shall be amended by the Contractor to accommodate changes of Program or method of working made at the Contractor's own discretion. Prices in the Activity Schedule shall not be altered when the Contractor makes such changes to the Activity Schedule.

47. Variations

- 47.1 All Variations shall be included in updated Programs, and, in the case of a lump sum contract, also in the Activity Schedule, produced by the Contractor.
- 47.2 The Contractor shall provide the Project Manager with a quotation for carrying out the Variation when requested to do so by the Project Manager. The Project Manager shall assess the quotation, which shall be given within seven (7) days of the request or within any longer period stated by the Project Manager and before the Variation is ordered.
- 47.3 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.
- 47.4 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.

- 47.5 The Contractor shall not be entitled to additional payment for costs that could have been avoided by giving early warning.
- 47.6 In the case of an admeasurement contract, if the work in the Variation corresponds to an item description in the Bill of Quantities and if, in the opinion of the Project Manager, the quantity of work above the limit stated in GCC46.1 [Changes in the Contract Price] 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.

48. Cash Flow Forecasts

- 48.1 When the Program, or, in the case of a lump sum contract, the Activity Schedule, is updated, the Contractor shall provide the Project Manager with an updated cash flow forecast. The cash flow forecast shall include different currencies, as defined in the Contract, converted as necessary using the Contract exchange rates.

49. Payment Certificates

- 49.1 The Contractor shall submit to the Project Manager monthly statements of the estimated value of the work executed less the cumulative amount certified previously.
- 49.2 The Project Manager shall check the Contractor's monthly statement and certify the amount to be paid to the Contractor.
- 49.3 The value of work executed shall be determined by the Project Manager.
- 49.4 The value of work executed shall comprise,
 - (a) in the case of an admeasurement contract, the value of the quantities of work in the Bill of Quantities that have been completed; or
 - (b) in the case of a lump sum contract, the value of work executed shall comprise the value of completed activities in the Activity Schedule.

- 49.5 The value of work executed shall include the valuation of Variations and Compensation Events.
- 49.6 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.

50. Payments

- 50.1 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 28 days of the date of each certificate. If the Employer makes a late payment, the Contractor shall be paid interest on the late payment in the next payment. Interest shall be

calculated from the date by which the payment should have been made up to the date when the late payment is made at the prevailing rate of interest for commercial borrowing for each of the currencies in which payments are made.

- 50.2 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.
- 50.3 Unless otherwise stated, all payments and deductions shall be paid or charged in the proportions of currencies comprising the Contract Price.
- 50.4 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.

51. Compensation Events

- 51.1 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 26.1 [Possession of the Site].
 - (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.

- 51.2 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.
- 51.3 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.
- 51.4 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.

52. Tax

- 52.1 The Project Manager shall adjust the Contract Price if taxes, duties, and other levies are changed between the date 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 54.1 [Price Adjustment].

53. Currencies

- 53.1 Where payments are made in currencies other than the currency of the Employer's country specified in thePCC, the exchange rates used for calculating the amounts to be paid shall be the exchange rates stated in the Contractor's Bid.

54. Price Adjustment

- 54.1 Prices shall be adjusted for fluctuations in the cost of inputs only if provided for in thePCC. 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:

$$P_c = A_c + B_c \text{ Imc/loc}$$

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 coefficients¹ specified in thePCC, representing the nonadjustable and adjustable portions, respectively, of the Contract Price payable in that specific currency "c;" and

¹

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 formulas for all currencies, since coefficient A , for the nonadjustable portion of the payments, is a

Imc is a consolidated index prevailing at the end of the month being invoiced and loc is the same consolidated index prevailing 28 days before Bid opening for inputs payable; both in the specific currency "c."

54.2 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.

55. Retention

55.1 The Employer shall retain from each payment due to the Contractor the proportion stated in thePCC until Completion of the whole of the Works.

55.2 Upon the issue of a Certificate of Completion of the Works by the Project Manager, in accordance with GCC 69.1 [Completion], half the total amount retained 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. The Contractor may substitute retention money with an "on demand" bank guarantee.

56. Liquidated Damages

56.1 The Contractor shall pay liquidated damages to the Employer at the rate per day stated in thePCC 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 thePCC. The Employer may deduct liquidated damages from payments due to the Contractor. Payment of liquidated damages shall not affect the Contractor's liabilities.

56.2 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 50.1 [Payments].

57. Bonus

57.1 The Contractor shall be paid a Bonus calculated at the rate per calendar day stated in thePCC 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.

58. Advance Payment

58.1 The Employer shall make advance payment to the Contractor of the amounts stated in thePCCby the date stated in thePCC, 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

very approximate figure (usually 0.10 ~ 0.20) to take account of fixed cost elements or other nonadjustable components. The sum of the adjustments for each currency is added to the Contract Price.

by the Contractor. Interest shall not be charged on the advance payment.

- 58.2 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.
- 58.3 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.

59. Securities

- 59.1 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 PCC, by a bank acceptable to the Employer, and denominated in the types and proportions of the currencies in which the Contract Price is payable. The Performance Security shall be valid until a date 28 days from the date of issue of the Certificate of Completion in the case of a bank guarantee.

60. Dayworks

- 60.1 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.
- 60.2 All work to be paid for as Dayworks shall be recorded by the Contractor on forms approved by the Project Manager. Each completed form shall be verified and signed by the Project Manager within 2 days of the work being done.
- 60.3 The Contractor shall be paid for Dayworks subject to obtaining signed Dayworks forms.

61. Cost of Repairs

- 61.1 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.

F. Force Majeure

62. Definition of Force Majeure

- 62.1 In this Clause, "Force Majeure" means an exceptional event or circumstance,
 - (a) which is beyond a Party's control;
 - (b) which such Party could not reasonably have provided against before entering into the Contract;
 - (c) which, having arisen, such Party could not reasonably have avoided or overcome; and

(d) which is not substantially attributable to the other Party.

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

- (a) war, hostilities (whether war be declared or not), invasion, act of foreign enemies;
- (b) rebellion, terrorism, sabotage by persons other than the Contractor's Personnel, revolution, insurrection, military or usurped power, or civil war;
- (c) riot, commotion, disorder, strike or lockout by persons other than the Contractor's Personnel;
- (d) munitions of war, explosive materials, ionizing radiation or contamination by radio-activity, except as may be attributable to the Contractor's use of such munitions, explosives, radiation or radio-activity; and
- (e) natural catastrophes such as earthquake, hurricane, typhoon or volcanic activity.

63. Notice of Force Majeure

63.1 If a Party is or will be prevented from performing its substantial obligations under the Contract by Force Majeure, then it shall give notice to the other Party of the event or circumstances constituting the Force Majeure and shall specify the obligations, the performance of which is or will be prevented. The notice shall be given within 14 days after the Party became aware, or should have become aware, of the relevant event or circumstance constituting Force Majeure.

63.2 The Party shall, having given notice, be excused performance of its obligations for so long as such Force Majeure prevents it from performing them.

63.3 Notwithstanding any other provision of this Clause, Force Majeure shall not apply to obligations of either Party to make payments to the other Party under the Contract.

64. Duty to Minimize Delay

64.1 Each Party shall at all times use all reasonable endeavours to minimize any delay in the performance of the Contract as a result of Force Majeure.

64.2 A Party shall give notice to the other Party when it ceases to be affected by the Force Majeure.

65. Consequences of Force Majeure

65.1 If the Contractor is prevented from performing its substantial obligations under the Contract by Force Majeure of which notice has been given under GCC Subclause 63 [Notice of Force Majeure], and suffers delay and/or incurs Cost by reason of such Force Majeure, the Contractor shall be entitled subject to GCC Subclause 30.1 [Procedure for Disputes] to

- (a) an extension of time for any such delay, if completion is or will be delayed, under GCC Subclause 36 [Extension of the Intended Completion Date]; and

(b) if the event or circumstance is of the kind described in subparagraphs (a) to (d) of GCC Subclause 62.2 [Definition of Force Majeure] and, in the case of subparagraphs (b) to (d), occurs in the Country, payment of any such Cost, including the costs of rectifying or replacing the Works and/or Goods damaged or destructed by Force Majeure, to the extent they are not indemnified through the insurance policy referred to in GCC Subclause 19 [Insurance].

65.2 After receiving this notice, the Project Manager shall proceed in accordance with GCC Subclause 10 [Project Manager's Decisions] to agree or determine these matters.

66. Force Majeure Affecting Subcontractor

66.1 If any Subcontractor is entitled under any contract or agreement relating to the Works to relief from force majeure on terms additional to or broader than those specified in this Clause, such additional or broader force majeure events or circumstances shall not excuse the Contractor's nonperformance or entitle him to relief under this Clause.

67. Optional Termination, Payment and Release

67.1 If the execution of substantially all the Works in progress is prevented for a continuous period of 84 days by reason of Force Majeure of which notice has been given under GCC Subclause 63 [Notice of Force Majeure], or for multiple periods which total more than 140 days due to the same notified Force Majeure, then either Party may give to the other Party a notice of termination of the Contract. In this event, the termination shall take effect 7 days after the notice is given, and the Contractor shall proceed in accordance with GCC Subclause 73.5 [Termination].

67.2 Upon such termination, the Project Manager shall determine the value of the work done and issue a Payment Certificate, which shall include

- (a) the amounts payable for any work carried out for which a price is stated in the Contract;
- (b) the Cost of Plant and Materials ordered for the Works which have been delivered to the Contractor, or of which the Contractor is liable to accept delivery: this Plant and Materials shall become the property of (and be at the risk of) the Employer when paid for by the Employer, and the Contractor shall place the same at the Employer's disposal;
- (c) other Costs or liabilities which in the circumstances were reasonably and necessarily incurred by the Contractor in the expectation of completing the Works;
- (d) the Cost of removal of Temporary Works and Contractor's Equipment from the Site and the return of these items to the Contractor's works in his country (or to any other destination at no greater cost); and
- (e) the Cost of repatriation of the Contractor's staff and labor employed wholly in connection with the Works at the date of termination.

68. Release from Performance

68.1 Notwithstanding any other provision of this Clause, if any event or circumstance outside the control of the Parties (including, but not limited to, Force Majeure) arises, which makes it impossible or

unlawful for either or both Parties to fulfill its or their contractual obligations or which, under the law governing the Contract, entitles the Parties to be released from further performance of the Contract, then upon notice by either Party to the other Party of such event or circumstance,

- (a) the Parties shall be discharged from further performance, without prejudice to the rights of either Party in respect of any previous breach of the Contract; and
- (b) the sum payable by the Employer to the Contractor shall be the same as would have been payable under GCC Subclause 67 [Optional Termination, Payment and Release] if the Contract had been terminated under GCC Subclause 67.

G. Finishing the Contract

69. Completion	69.1 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.
70. Taking Over	70.1 The Employer shall take over the Site and the Works within 7 days of the Project Manager's issuing a certificate of Completion.
71. Final Account	71.1 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 56 days of receiving the Contractor's account if it is correct and complete. If it is not, the Project Manager shall issue within 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.
72. Operating and Maintenance Manuals	72.1 If "as built" Drawings and/or operating and maintenance manuals are required, the Contractor shall supply them by the dates stated in the PCC . 72.2 If the Contractor does not supply the Drawings and/or manuals by the dates stated in the PCC pursuant to GCC 72.1, or they do not receive the Project Manager's approval, the Project Manager shall withhold the amount stated in the PCC from payments due to the Contractor.
73. Termination	73.1 The Employer or the Contractor may terminate the Contract if the other party causes a fundamental breach of the Contract. 73.2 Fundamental breaches of Contract shall include, but shall not be limited to, the following: <ul style="list-style-type: none"> (a) the Contractor stops work for 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 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 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 Project Manager gives two consecutive Notices to update the Program and accelerate the works to ensure compliance with GCC Subclause 22.1 [The Works to be Completed by the Intended Completion Date] and the Contractor fails to update the Program and demonstrate acceleration of the works within a reasonable period of time determined by the Project Manager;
- (g) the Contractor does not maintain a Security, which is required;
- (h) the Contractor 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 PCC; and
- (i) if the Contractor, in the judgment of the Employer has engaged in corrupt or fraudulent practices in competing for or in executing the Contract, pursuant to GCC 74.1 [Fraud and Corruption].

73.3 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 73.2 above, the Project Manager shall decide whether the breach is fundamental or not.

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

73.5 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.

74. Fraud and Corruption

74.1 ADB's Anticorruption Policy requires that Borrowers (including beneficiaries of ADB-financed activity), as well as Contractors, Subcontractors, Manufacturers, and Consultants under ADB-financed contracts, observe the highest standard of ethics during the procurement and execution of such contracts. In pursuance of this policy, the ADB

- (a) defines, for the purposes of this provision, the terms set forth below as follows:
 - (i) "corrupt practice" means the offering, giving, receiving, or soliciting, directly or indirectly, anything of value to

influence improperly the actions of another party;

- (ii) "fraudulent practice" means any act or omission, including a misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain a financial or other benefit or to avoid an obligation;
- (iii) "coercive practice" means impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party;
- (iv) "collusive practice" means an arrangement between two or more parties designed to achieve an improper purpose, including influencing improperly the actions of another party;
- (v) "obstructive practice" means (a) deliberately destroying, falsifying, altering, or concealing of evidence material to an ADB investigation; (b) making false statements to investigators in order to materially impede an ADB investigation; (c) failing to comply with requests to provide information, documents or records in connection with an Office of Anticorruption and Integrity (OAI) investigation; (d) 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 (e) materially impeding ADB's contractual rights of audit or access to information; and
- (vi) "integrity violation" is any act which violates ADB's Anticorruption Policy, including (i) to (v) above and the following: abuse, conflict of interest, violations of ADB sanctions, retaliation against whistleblowers or witnesses, and other violations of ADB's Anticorruption Policy, including failure to adhere to the highest ethical standard.

- (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 or other integrity violations in competing for the Contract;
- (c) will cancel the portion of the financing allocated to a contract if it determines at any time that representatives of the borrower or of a beneficiary of ADB-financing engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices or other integrity violations during the procurement or the execution of that contract, without the borrower having taken timely and appropriate action satisfactory to ADB to remedy the situation; and
- (d) will impose remedial actions on a firm or an individual, at any time, in accordance with ADB's Anticorruption Policy and Integrity Principles and Guidelines (both as amended from time to time), including declaring ineligible, either indefinitely or for a

stated period of time, to participate² in ADB-financed, administered, or supported activities or to benefit from an ADB-financed, administered, or supported contract, financially or otherwise, if it at any time determines that the firm or individual has, directly or through an agent, engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices or other integrity violations.

75. Payment upon Termination

- 75.1 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 PCC. 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.
- 75.2 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.

76. Property

- 76.1 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.

77. Release from Performance

- 77.1 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 afterward to which a commitment was made.

78. Suspension of ADB Loan or Credit

- 78.1 In the event that ADB suspends the Loan or Credit to the Employer, from which part of the payments to the Contractor are being made,
 - (a) the Employer is obligated to notify the Contractor, with copy to the Project Manager, of such suspension within 7 days of having received ADB's suspension notice.
 - (b) if the Contractor has not received sums due it within the 28 days for payment provided for in GCC50.1 [Payments], the Contractor may immediately issue a 14-day termination notice.

² Whether as a Contractor, Nominated Subcontractor, Consultant, Manufacturer or Supplier, or Service Provider; or in any other capacity (different names are used depending on the particular Bidding Document). A Nominated Subcontractor is one which either has been: (i) included by the Bidder in its prequalification application or bid because it brings specific and critical experience and know-how that are accounted for in the evaluation of the Bidder's prequalification application or the bid; or (ii) appointed by the Employer.

79. Eligibility

79.1 The Contractor shall have the nationality of an eligible country as specified in Section 5 [Eligible Countries] of the bidding document. The Contractor shall be deemed to have the nationality of a country if the Contractor is a citizen or is constituted, or incorporated, and operates in conformity with the provisions of the laws of that country. This criterion shall also apply to the determination of the nationality of proposed subcontractors or suppliers for any part of the Contract including related services.

79.2 The materials, equipment, and services to be supplied under the Contract shall have their origin in eligible source countries as specified in Section 5 [Eligible Countries] of the bidding document and all expenditures under the Contract will be limited to such materials, equipment, and services. At the Employer's request, the Contractor may be required to provide evidence of the origin of materials, equipment, and services.

79.3 For purposes of GCC 79.2, "origin" means the place where the materials and equipment are mined, grown, produced, or manufactured, and from which the services are provided. Materials and equipment are produced when, through manufacturing, processing, or substantial or major assembling of components, a commercially recognized product results that differs substantially in its basic characteristics or in purpose or utility from its components.

Section 8 - Particular Conditions of Contract

The following Particular Conditions of Contract shall supplement the GCC. Whenever there is a conflict, the provisions herein shall prevail over those in the GCC.

Particular Conditions of Contract

A. General	
GCC 1.1 (d)	The financing institutions is: Asian Development Bank (ADB)
GCC 1.1 (r)	The Employer is: Public Works Department, Government of Himachal Pradesh, represented by Chief Engineer, Hamirpur Zone, Hamirpur
GCC 1.1 (w)	The Intended Completion Date for the whole of the Works shall be 18 months from the Start Date.
GCC 1.1 (cc)	The Project Manager is: Executive Engineer, HPPWD, Hamirpur, Himachal Pradesh, INDIA.
GCC 1.1 (ff)	The Site is located at Hamirpur, District Hamirpur, Himachal Pradesh and is defined in drawing.
GCC 1.1 (ii)	The Start Date shall be: 15 days from the date of signing of the contract.
GCC 1.1 (mm)	The Works consist of Construction of Building portion including Civil works, Water supply & Sanitary installation, Septic tank and Soak pit, Rain water harvesting, Electrical installations, Solar Water heating system Environmental management and Site development etc. including all ancillary activities in compliance with provisions stipulated in various safeguard documents subject to modification time-to-time as required including all ancillary activities in relation to successful completion and function of Model Career Center (MCC) Building at Hamirpur in Himachal Pradesh.
GCC 2.2	Sectional Completions are: Not Applicable
GCC 2.3(j)	<p>The following documents also form part of the Contract:</p> <ul style="list-style-type: none"> i) Public Works Depart Specification 1990 published by Public Works Department, Himachal Pradesh; and ii) Environmental Management Plan (Attached as Appendix A), and Initial Environmental Examination Report (Attached as Appendix B).
GCC 3.1	<p>The language of the contract is English</p> <p>The law that applies to the Contract is the law of India</p>
GCC 8.3	<p>Add the following as Sub-clause 8.3:</p> <ul style="list-style-type: none"> (i) The Contractor (or either of the Joint Venture partner) shall be required to possess valid electrical license issued from competent authority for executing electrification works. However, in the event of electrical works being sub-contracted, the sub-contractor should have the said valid electrical license. (ii) The Contractor shall obtain, if necessary, the licenses under the current explosive rules to enable him to manufacture and process the quantity of

	gunpowder / explosive and perform the blasting as necessary according to prevailing rules.
GCC 8.4	<p>Add the following Sub-clause 8.4:</p> <p>The Contractor shall comply with all applicable National, provincial and local environmental laws and regulation.</p> <p>The Contractor shall:</p> <ul style="list-style-type: none"> (a) establish an operational system for managing environmental impacts, (b) carry out all the monitoring and mitigation measures set forth in the Environmental Management Plan (EMP) of the bidding document and (c) allocate the budget required to ensure that such measures are carried out. <p>The Contractor shall submit quarterly reports on the carrying out of such measures to the Employer.</p>
GCC 11.1	The Project Manager <u>may</u> delegate any of his duties and responsibilities.
GCC 14.1	Schedule of other contractors: <i>Nil</i>
GCC 19.1	<p>The minimum insurance amounts and deductibles shall be:</p> <ul style="list-style-type: none"> (a) for loss or damage to the Works, Plant and Materials: INR 10.0 million. (b) for loss or damage to Equipment: INR 2.0 million. (c) for loss or damage to property (except the Works, Plant, Materials, and Equipment) in connection with Contract: INR 5.0 million and unlimited number of occurrences. (d) for personal injury or death: <ul style="list-style-type: none"> (i) of the Contractor's employees: As per governing law but not less than INR 1.0 million and unlimited number of occurrences. (ii) of other people: As per governing law but not less than INR 1.0 million and unlimited number of occurrences.
GCC 20.1	<p>Site Investigation Reports are:</p> <ul style="list-style-type: none"> (a) Topographic Survey, and (b) Soil Investigation Report <p>These Investigation reports are available in the Office of the Employer.</p>
GCC 21.2	<p>Add the following Sub-clause 21.2:</p> <p>The Contractor shall comply with (i) the measures and requirements set forth in the Social Due Diligence Report attached there to as Appendix C, to the extent they concern impacts on affected people during construction; and (ii) any corrective or preventive actions set out in a Safeguards Monitoring Report (SMR) that the Employer will prepare from time to time to monitor compliance with measures set out in the Social Due Diligence Report. The Contractor shall allocate a budget for compliance with these measures, requirements and actions.</p>
GCC 22.1	<p>Add the following para at the end of Sub-Clause 22.1:</p> <p>The Contractor shall adequately record the condition of roads, agricultural land and other infrastructure prior to the start of transporting materials, goods and equipment,</p>

	and construction.
GCC 23.1	The following shall be designed by the Contractor: Not Applicable
GCC 24.2	Add the following Sub-clause 24.2: The Contractor shall comply with all safety measures as required by rules and regulations and applicable law.
GCC 26.1	The Site Possession Date(s) shall be: Same as the Start Date.
GCC 29.1	Appointing Authority for the Adjudicator: Concerned Secretary of Administrative Department can appoint Adjudicator from a panel to be drawn or as existing in the Institution of Engineers (India), Shimla Chapter, Himachal Pradesh.
GCC 30.3	The Adjudicator shall be paid by the hour at the rate of: INR 10,000 per work day The reimbursable expenses are: Travel Expenses
GCC 30.4	<p>Institution whose arbitration procedures shall be used:</p> <p>(a) Contracts with foreign contractors: International arbitration shall be conducted in accordance with the rules of the Singapore International Arbitration Centre (SIAC). Arbitration shall be administered by the Singapore International Arbitration Centre (SIAC).</p> <p>The place of arbitration shall be: the place of the institution administering the arbitration.</p> <p>(b) Contracts with domestic contractors: Arbitration shall be conducted in accordance with the laws of the Employer's country.</p>
C. Time Control	
GCC 35.1	The Contractor shall submit for approval a Program for the Works within 15 days from the date of the Letter of Acceptance.
GCC 35.3	The period between Program updates is 45 days. The amount to be withheld for late submission of an updated Program is INR 1.0 million
D. Quality Control	
GCC 43.1	The Defects Liability Period is: 365 days.
E. Cost Control	
GCC 50.1	Text “.....The Employer shall pay the Contractor the amounts certified by the Project Manager within 28 days of the date of each certificate.....” stands replaced with:

	<p>“.....The Employer shall pay the Contractor the amounts certified by the Project Manager within 45 days of the date of each certificate.....”</p>
GCC 51.5	<p>Add the following Sub-clause 51.5:</p> <p>Notwithstanding above the Contractor shall bear the cost of any impact on structure or land due to movement of machinery during construction and all temporary use of lands outside ROW to be through written approval of Land owner.</p>
GCC 53.1	<p>The currency of the Employer's country is: Indian National Rupee (INR)</p>
GCC 54.1	<p>The Contract <i>shall</i> subject to price adjustment in accordance with GCC Clause 54,</p> <p>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 as indicated below:</p> $P = 0.2 + 0.15 (I_{Ln} / I_{Lo}) + 0.65 (I_{Mn} / I_{Mo})$ <p>where:</p> <p>“P” is the adjustment factor for the portion of the Contract Price payable.</p> <p>“I_{Ln}” is the “minimum wage of an unskilled mazdoor notified by the Department of Finance, Government of Himachal Pradesh” at the end of the month being invoiced.</p> <p>“I_{Lo}” is the “minimum wage of an unskilled mazdoor notified by the Department of Finance, Government of Himachal Pradesh” applicable at the end of the month in which the Letter of Award is issued.</p> <p>“I_{Mn}” is the “All India Wholesale Price Index for all commodities published by the Economic Advisor to Government of India, Ministry of Industry and Commerce” at the end of the month being invoiced.</p> <p>I_{Mo} is the “All India Wholesale Price Index for all commodities published by the Economic Advisor to Government of India, Ministry of Industry and Commerce” applicable at the end of the month in which the Letter of Award is issued.</p>
GCC 54.3	<p>Add the following as Sub-clause 54.3:</p> <p>Notwithstanding provisions in Sub-clause 54.1 and Sub-clause 54.2, in the event of Contractor's failure to complete the works on or before Intended Completion Date, adjustment for prices after Intended Completion Date shall be made using either (i) each index or price applicable on the date of Intended Completion Date, or (ii) the current index or price: whichever is more favorable to the Employer.</p>
GCC 55.1	<p>The proportion of payments retained is: 5%</p>
GCC 56.1	<p>The liquidated damages for the whole of the Works are 0.1% per day.</p> <p>The maximum amount of liquidated damages for the whole of the Works is 10% of the final Contract Price.</p>
GCC 57.1	<p>The Bonus for the whole of the Works is Nil per day. The maximum amount of Bonus for the whole of the Works is Nil.</p>
GCC 58.1	<p>The Advance Payments shall be 10% (ten percent) and shall be paid to the</p>

	Contractor no later than 60 days of receipt of corresponding unconditional Bank Guarantee.
GCC 58.3	Repayment of the Advance Payments shall be at a rate of 15% (fifteen percent) from each payment certificate.
GCC 59.1	The Performance Security amount is 5% of the Initial Contract Price.
G. Finishing the Contract	
GCC 69.2	Add the following as Sub-clause 69.2: "Upon the completion of construction, the Contractor shall fully reinstate pathways, other local infrastructure, and agricultural land to at least their pre-project condition as recorded by the Contractor in consonance with its obligation in Clause 22.
GCC 72.1	The date by which operating and maintenance manuals are required is: <i>Not Applicable</i> The date by which "as built" drawings are required is: <i>Not Applicable</i>
GCC 72.2	The amount to be withheld for failing to produce "as built" drawings and/or operating and maintenance manuals by the date required in GCC 72.1 is: <i>Not Applicable</i>
GCC 73.2 (h)	The maximum number of days is: 100 days
GCC 75.1	The percentage to apply to the value of the work not completed, representing the Employer's additional cost for completing the Works, is 30%
GCC 80.1	Add the following as Sub-clause 80.1: The Contractor shall provide the Employer with quarterly reports of its activities, including each of its obligations in Sub-Clause 8.4, 21.2, 22, 24.2 and 40.3.

Appendix A

Environmental Management Plan

Table 1: Environmental Management Plan for Preconstruction Phase (Hamirpur MCC)

Sl. No.	Environmental Issues	Mitigation Measures	Parameter / Indicator for Compliance	Responsible for Implementation	Responsible for Supervision	Frequency for Monitoring	Fund Sources for Implementing Mitigation Measure
1	Lack of sufficient planning to assure long-term sustainability of the improvements and ensure protection of the assets created	<ul style="list-style-type: none"> Design has included provisions for ensuring effective maintenance and protection of the assets to be created to ensure their long-term sustainability. The long-term sustainability has been ensured by taking into consideration the appropriate Bureau of Indian Standards Codes for design, Seismic Zone V coefficient, appropriate wind load factor (corresponding to 39 m/s wind speed), and detailed design after carrying geotechnical investigations and topographic survey. 	Verification of design parameters	PWD	PWD	Review after completion of detailed project report	Project cost
2	Layout of components to	<ul style="list-style-type: none"> The project 	MCC building exterior	PWD	PWD	Review after completion of	Project cost

Sl. No.	Environmental Issues	Mitigation Measures	Parameter / Indicator for Compliance	Responsible for Implementation	Responsible for Supervision	Frequency for Monitoring	Fund Sources for Implementing Mitigation Measure
	avoid impacts on the aesthetics of the site	components sighting will avoid impacts on the aesthetics of the site and surroundings, and the MCC building will blend well with local buildings.				detailed project report	
3	Slope stability related issues	<ul style="list-style-type: none"> The plot area for MCC building is flat, however, during construction any exposed slopes at excavated areas will be covered and slope protection measures will be provided specially at side slopes of internal roads. 	Slope protection measures on side slopes of access path, internal road, etc.	PWD	PWD	Review of recommended slope protection measures	Project cost
4	Increased storm water runoff from alterations of the site's natural drainage patterns due to landscaping, excavation works, construction of parking lot, and addition of paved surfaces	<ul style="list-style-type: none"> Design of proposed MCC building enables efficient drainage of the plot and maintains natural drainage patterns. The storm water generated will be diverted to local drains through a properly constructed drainage system. 	Arrangement for proper diversion of storm water runoff	PWD	PWD	After mobilization of contractor at site and during establishment of construction camp	Incidental to construction cost
5	Integration of	<ul style="list-style-type: none"> The detailed designs 	Specifications	PWD	PWD	During finalization	Project cost

Sl. No.	Environmental Issues	Mitigation Measures	Parameter / Indicator for Compliance	Responsible for Implementation	Responsible for Supervision	Frequency for Monitoring	Fund Sources for Implementing Mitigation Measure
	energy efficiency and energy conservation programs in design of subproject components	for the subproject have ensured that environmental sustainability principles, including energy efficiency, resource recycling, waste minimization, etc. The design considers the following energy efficiency measures: <ul style="list-style-type: none"> - Usage of recyclable materials like wood substitutes. - Installation of Bureau of Energy Efficiency-certified equipment - Usage of energy efficient lighting fixtures (LED) - Provision of photovoltaic cells on roofs for solar power. 	of rain water harvesting structures, electrical fixtures, details of water heating system			of detailed project report	
6	Consents, permits, clearances, NOC, etc.	<ul style="list-style-type: none"> • Obtain all necessary consents, permits, clearance, NOCs, etc. prior to start of civil works. • Acknowledge in 	Consents, permits, clearance, and NOCs' records and communications	PWD	PWD	Check consent for establishment of construction camp and approval from civic authorities for MCC construction	Project cost

Sl. No.	Environmental Issues	Mitigation Measures	Parameter / Indicator for Compliance	Responsible for Implementation	Responsible for Supervision	Frequency for Monitoring	Fund Sources for Implementing Mitigation Measure
		writing and provide report on compliance all obtained consents, permits, clearance, NOCs, etc.					
7	Establishment of baseline environmental conditions prior to start of civil works	<ul style="list-style-type: none"> Conduct documentation of location of components, areas for construction zone (camp, staging, storage, stockpiling, etc.) and surroundings (within direct impact zones). Include photos and GPS coordinates. 	Records and photographs	Contractor	PWD	Once prior to construction	Contractor
8	Utilities	<ul style="list-style-type: none"> The locations and operators of utilities to be impacted should be identified and documented in detailed project report documents to prevent unnecessary disruption of services during the construction phase. Require contractor to prepare a contingency plan to include actions to be 	<ul style="list-style-type: none"> List and maps showing utilities to be shifted Contingency plan for services disruption 	<ul style="list-style-type: none"> PWD will prepare preliminary list and maps of utilities to be shifted During detailed design phase, contractor to (i) prepare list and operators of utilities to be shifted; (ii) contingency plan 	PWD	Preconstruction Phase	Contractor

Sl. No.	Environmental Issues	Mitigation Measures	Parameter / Indicator for Compliance	Responsible for Implementation	Responsible for Supervision	Frequency for Monitoring	Fund Sources for Implementing Mitigation Measure
		<p>done in case of unintentional interruption of services.</p> <ul style="list-style-type: none"> • Obtain from the PIU and / or PWD the list of affected utilities and operators. • If relocations are necessary, contractor will coordinate with the providers to relocate the utility. 					
9	Social and Cultural Resources	<ul style="list-style-type: none"> • Consult Archaeological Survey of India or Himachal Pradesh State Archaeology Department to obtain an expert assessment of the archaeological potential of site. • Consider alternatives if the site is found to be of medium or high risk. • Include state and local archaeological, cultural and historical authorities, and interest groups in consultation forums 	Chance find protocol	PWD	PWD	Prior to start of construction activities	Project cost

Sl. No.	Environmental Issues	Mitigation Measures	Parameter / Indicator for Compliance	Responsible for Implementation	Responsible for Supervision	Frequency for Monitoring	Fund Sources for Implementing Mitigation Measure
		<p>as project stakeholders so that their expertise can be made available.</p> <ul style="list-style-type: none"> • Develop a protocol for use by the construction contractor in conducting any excavation work, to ensure that any chance finds are recognized and measures are taken to ensure they are protected and conserved. 					
10	Construction camp—location, selection, design and layout	<ul style="list-style-type: none"> • Sighting of the construction camp shall be as per the guidelines below and details of layout to be approved by PWD. • Potential sites for the labor camp will be lined up to be visited by the environmental expert of Safeguards Cell. The one having least impacts on the environment will be approved by the PWD and Safeguards Cell. As 	Construction camp site, and locations of material storage areas, sanitation facilities	Contractor	PWD	At the time of construction camp establishment and finalization of storage areas	Contractor

Sl. No.	Environmental Issues	Mitigation Measures	Parameter / Indicator for Compliance	Responsible for Implementation	Responsible for Supervision	Frequency for Monitoring	Fund Sources for Implementing Mitigation Measure
		<p>far as possible, the construction camp will be established on vacant land near the MCC plot to avoid impact on other land.</p> <ul style="list-style-type: none"> • The storage location of construction materials shall be at the MCC site or any building close to the MCC site. • Construction sanitation facilities shall be adequately planned. 					
11	Sources of construction materials	<ul style="list-style-type: none"> • Use quarry sites and sources licensed by the Government of Himachal Pradesh. • Verify suitability of all material sources and obtain approval from PIU. • If additional quarries are required after construction has started, obtain written approval from PIU. • Submit monthly to PWD a documentation of sources of materials. 	Permits issued to quarries or sources of materials	<p>Contractor</p> <p>PWD to verify sources (including permits) if additional is requested by contractor</p>	PWD	Upon submission by contractor	Project cost

Sl. No.	Environmental Issues	Mitigation Measures	Parameter / Indicator for Compliance	Responsible for Implementation	Responsible for Supervision	Frequency for Monitoring	Fund Sources for Implementing Mitigation Measure
12	Access for construction material transportation	<ul style="list-style-type: none"> • Plan transportation routes so that heavy vehicles do not use narrow local roads, except in the immediate vicinity of site. • Schedule transport and hauling activities during nonpeak hours. • Locate entry and exit points in areas where there is low potential for traffic congestion. • Keep the site free from all unnecessary obstructions. • Drive vehicles in a considerate manner. • Coordinate with the Traffic Police Department for temporary road diversions and for provision of traffic aids if transportation activities cannot be avoided during peak hours. 	Traffic management plan	Contractor	PWD	During delivery of construction materials	Contractor
13	Occupational health and safety	<ul style="list-style-type: none"> • Comply with International Finance Corporation Environmental, 	Health and safety plan	Contractor	PWD	During construction phase	Contractor

Sl. No.	Environmental Issues	Mitigation Measures	Parameter / Indicator for Compliance	Responsible for Implementation	Responsible for Supervision	Frequency for Monitoring	Fund Sources for Implementing Mitigation Measure
		<p>Health, and Safety Guidelines on Occupational Health and Safety in developing comprehensive site-specific health and safety plan. The overall objective is to provide guidance to contractors on establishing a management strategy and applying practices that are intended to eliminate, or reduce, fatalities, injuries, and illnesses for workers performing activities and tasks associated with the project.</p> <ul style="list-style-type: none"> • Include in the health and safety plan measures such as (i) type of hazards in the construction of the MCC building, (ii) corresponding personal protective equipment for each identified hazard, (iii) 					

Sl. No.	Environmental Issues	Mitigation Measures	Parameter / Indicator for Compliance	Responsible for Implementation	Responsible for Supervision	Frequency for Monitoring	Fund Sources for Implementing Mitigation Measure
		<p>health and safety training for all site personnel, (iv) procedures to be followed for all site activities, and (v) documentation of work-related accidents.</p> <ul style="list-style-type: none"> • Provide medical insurance coverage for workers. 					
14	Public consultations	<ul style="list-style-type: none"> • Continue information dissemination, consultations, and involvement or participation of stakeholders during project implementation. 	Disclosure records; consultations	PWD	PWD	<ul style="list-style-type: none"> • During update of IEE report • During preparation of site- and activity-specific plans as per environmental management plan • Prior to start of construction • During construction 	Project cost

MCC = model career center, IEE = initial environmental examination, NOC = no objection certificate, PIU = project implementation unit, PWD = Public Works Department.

Source: Asian Development Bank.

Table 2: Environmental Management Plan for Construction Phase (MCC Hamirpur)

Sl. No.	Environmental Issues	Mitigation Measures	Parameter / Indicator for Compliance	Responsible Implementation	Responsible Supervision	Frequency for Monitoring	Sources of Fund for Implementing Mitigation Measure
1	Sanitation facilities at construction camp	<ul style="list-style-type: none"> The contractor shall provide sanitation facilities at the camp site. These facilities will include dust bins in adequate numbers for solid waste collection, and separate toilets for male and females. Toilet facilities shall be maintained and septic tanks or soak pits shall be provided. The dust bins shall be regularly emptied and waste from camp site shall be disposed off at designated locations. 	Construction camp sanitation facilities	Contractor	PWD	Regularly during construction phase	Contractor fee
2	Traffic circulation plan during construction	<ul style="list-style-type: none"> Prior to commencement of site activities and mobilization on ground, the contractor will prepare and get approval from the engineer (PWD) for a 	Safe movement of traffic	Contractor	PWD	Every day during construction phase	Contractor fee

Sl. No.	Environmental Issues	Mitigation Measures	Parameter / Indicator for Compliance	Responsible Implementation	Responsible Supervision	Frequency for Monitoring	Sources of Fund for Implementing Mitigation Measure
		<p>circulation plan during construction for safe passage of public vehicles so that locals are not inconvenienced.</p> <ul style="list-style-type: none"> The contractor with support of PIU will disseminate these information and circulation plan at the site and at key access roads to the MCC site. 					
3	Site clearance activities, including delineation of construction areas	<ul style="list-style-type: none"> Only ground cover or shrubs that directly affect the permanent works or necessary temporary works shall be removed (4 Bamboo groves) with prior approval from the environmental expert of the Safeguards Cell. All areas used for temporary construction operations will be subjected to complete restoration to their former condition with appropriate rehabilitation 	Preconstruction records of sites and vegetation in area of construction	Contractor	PWD	Duration of site preparation	Contractor fee

Sl. No.	Environmental Issues	Mitigation Measures	Parameter / Indicator for Compliance	Responsible Implementation	Responsible Supervision	Frequency for Monitoring	Sources of Fund for Implementing Mitigation Measure
		<p>procedures.</p> <ul style="list-style-type: none"> Photographic records shall be maintained for the temporary sites used for construction. These will help in proper restoration. 					
4	Drinking water availability at construction camp and construction site	<ul style="list-style-type: none"> Sufficient supply of cold potable water to be provided and maintained. The drinking water will be obtained from the market. No public supply source in the vicinity of sub-project will be used for drinking or construction purposes. The drinking water will be stored in a suitable size storage tank to ensure uninterrupted availability. Contractor will submit his plan on how availability of drinking water shall be assured. The original source of the water supplied by the tankers will be recorded. 	Water supply source and availability of water, source of water used by the tankers	Contractor	PWD	Regularly during construction phase	Contractor fee

Sl. No.	Environmental Issues	Mitigation Measures	Parameter / Indicator for Compliance	Responsible Implementation	Responsible Supervision	Frequency for Monitoring	Sources of Fund for Implementing Mitigation Measure
5	Waste disposal	<ul style="list-style-type: none"> The pre-identified disposal location shall be part of the comprehensive waste disposal plan. A solid waste management plan will be prepared by the contractor in consultation with local civic authorities. The environmental specialist of PWD shall approve these disposal sites after conducting a joint inspection on the site with the contractor. Contractor shall ensure that waste shall not be disposed of near natural streams in the surroundings of the site and along the access path. 	Waste disposal sites, waste management plan	Contractor	PWD	Regularly during construction phase	Contractor fee
6	Stockpiling of construction materials	<ul style="list-style-type: none"> Stockpiling of construction materials will be done in such a way that it does not impact and obstruct the drainage. Stockpiles will be covered to protect 	Subproject stockpiling sites	Contractor	PWD	Regularly during construction phase	Contractor fee

Sl. No.	Environmental Issues	Mitigation Measures	Parameter / Indicator for Compliance	Responsible Implementation	Responsible Supervision	Frequency for Monitoring	Sources of Fund for Implementing Mitigation Measure
		from dust and erosion.					
7	Arrangement for construction water	<ul style="list-style-type: none"> The contractor shall provide a list of locations and type of sources from where water for construction shall be acquired. To avoid disruption or disturbance to other water users, the contractor shall arrange water from the market through authorized tanker suppliers or from the local municipality and consult PWD before finalizing the source. 	Source of water used by the tankers	Contractor	PWD	Regularly during construction phase	Contractor fee
8	Soil erosion and water ponding on account of excavation	<ul style="list-style-type: none"> Slope protection measures will be undertaken as per design to control soil erosion especially on side slopes of access and internal roads. The excavation works will be avoided during monsoon months to avoid soil erosion, stagnation of water, and vector - borne diseases. 	Locations of slope protection	Contractor	PWD		Contractor fee

Sl. No.	Environmental Issues	Mitigation Measures	Parameter / Indicator for Compliance	Responsible Implementation	Responsible Supervision	Frequency for Monitoring	Sources of Fund for Implementing Mitigation Measure
9	Water pollution from construction wastes	<ul style="list-style-type: none"> The contractor shall take all precautionary measures to prevent entry of waste water into any local stream during construction. 	Subproject sites	Contractor	PWD	Regularly during construction phase	Contractor fee
10	Water pollution from fuel and lubricants	<ul style="list-style-type: none"> The contractor shall ensure that all construction vehicle parking locations; fuel and lubricants storage sites; vehicle, machinery, and equipment maintenance and refueling sites shall be located at least 500 m away from the natural streams. Contractor shall ensure that all vehicles and machinery, as well as equipment operation, maintenance, and refueling shall be carried out in such a manner that spillage of fuels and lubricants does not contaminate the ground. Wastewater from vehicle parking, fuel 	Vehicle parking, refueling sites, oil interceptor functioning	Contractor	PWD	Regularly during construction phase	Contractor fee

Sl. No.	Environmental Issues	Mitigation Measures	Parameter / Indicator for Compliance	Responsible Implementation	Responsible Supervision	Frequency for Monitoring	Sources of Fund for Implementing Mitigation Measure
		storage areas, workshops, wash down, and refueling areas shall be treated in an oil interceptor before discharging it on land, or into surface water bodies, or into other treatment system.					
11	Soil pollution due to fuel and lubricants, construction wastes	<ul style="list-style-type: none"> The fuel storage and vehicle cleaning area will be stationed such that spillage of fuels and lubricants does not contaminate the ground. Soil and pollution parameters will be monitored as per monitoring plan. 	Vehicle maintenance and parking area, soil quality monitoring results	Contractor	PWD	Regularly during construction phase	Contractor fee
12	Siltation of water bodies due to spillage of construction wastes	<ul style="list-style-type: none"> No disposal of construction wastes will be carried out into the surface water bodies. Extraneous construction wastes will be transported to the pre-identified disposal sites for safe disposal. 	Water bodies especially natural springs near subproject site	Contractor	PWD	Regularly during construction phase	Contractor fee
13	Generation of dust	<ul style="list-style-type: none"> The contractor will take every 	Subproject site, air quality	Contractor	PWD	Regularly during construction	Contractor fee

Sl. No.	Environmental Issues	Mitigation Measures	Parameter / Indicator for Compliance	Responsible Implementation	Responsible Supervision	Frequency for Monitoring	Sources of Fund for Implementing Mitigation Measure
		<p>precaution to reduce the levels of dust at construction sites. Water will be sprayed as required, on locations of excavations, internal unfinished roads/walkways and locations of sand and sub grade storages. The water for spraying will be used from the water stored for construction. The water spray records will be maintained at site.</p> <ul style="list-style-type: none"> • All filling works are to be protected or covered in a manner to minimize dust generation. In order to minimize dust impacts, MCC site will be protected through MS sheet barricades. • The air quality monitoring will be conducted as per monitoring plan 	monitoring results, water spray records			phase	
14	Emission from construction vehicles,	• All vehicles, equipment, and machinery used for	Pollution under control certificates of	Contractor	PWD	Regularly during construction phase	Contractor fee

Sl. No.	Environmental Issues	Mitigation Measures	Parameter / Indicator for Compliance	Responsible Implementation	Responsible Supervision	Frequency for Monitoring	Sources of Fund for Implementing Mitigation Measure
	equipment and machinery	<p>construction shall conform to the relevant Bureau of India Standard norms.</p> <ul style="list-style-type: none"> • The discharge standards promulgated under the Environment Protection Act, 1986 shall be strictly adhered to. The silent or quiet equipment available in the market shall be used in the subproject. • The Contractor shall maintain a record of pollution under control for all vehicles and machinery used during the contract period, which shall be produced for verification whenever required. 	vehicles and machinery				
15	Noise pollution	<ul style="list-style-type: none"> • The contractor shall confirm that all construction equipment shall strictly conform to the Ministry of Environment, Forests 	Certificates of vehicles conforming noise standards, noise monitoring	Contractor	PWD	Regularly during construction phase	Contractor fee

Sl. No.	Environmental Issues	Mitigation Measures	Parameter / Indicator for Compliance	Responsible Implementation	Responsible Supervision	Frequency for Monitoring	Sources of Fund for Implementing Mitigation Measure
		<p>and Climate Change and Central Pollution Control Board noise standards.</p> <ul style="list-style-type: none"> • Contractor must ensure that all vehicles and equipment used in construction shall be fitted with exhaust silencers. • At the construction sites, noisy construction work such as crushing, operation of diesel generator sets, use of high noise generation equipment shall be stopped during the night time between 10:00 p.m. to 6:00 a.m. • Noise limits for construction equipment used in this project will not exceed 75 dB (A) at 1 m distance. However, noise levels as specified in ambient noise standards (55 dB (A) during day time and 	results				

Sl. No.	Environmental Issues	Mitigation Measures	Parameter / Indicator for Compliance	Responsible Implementation	Responsible Supervision	Frequency for Monitoring	Sources of Fund for Implementing Mitigation Measure
		<p>45 dB (A) during night time) will be adhered to during the construction phase.</p> <ul style="list-style-type: none"> • Noise level monitoring will be carried out as per monitoring plan. • The construction site will be properly barricaded through MS sheets to avoid noise impacts in the surroundings of MCC site. 					
16	Impacts on flora and fauna	<ul style="list-style-type: none"> • Conduct site induction and environmental awareness. • Limit activities within the work area. • Plant trees and shrubs in the area/space marked for plantation in the layout. 	Record Barricades along excavation works. Note trees and shrubs planted by the project.	Contractor	PWD	Regularly during construction phase	Contractor fee
17	Material handling at site	<ul style="list-style-type: none"> • Workers employed on mixing cement, lime mortars, concrete, etc., will be provided with protective footwear and protective goggles. 	Data on available personal protective	Contractor	PWD	Regularly during construction phase	Contractor fee

Sl. No.	Environmental Issues	Mitigation Measures	Parameter / Indicator for Compliance	Responsible Implementation	Responsible Supervision	Frequency for Monitoring	Sources of Fund for Implementing Mitigation Measure
		<ul style="list-style-type: none"> Workers engaged in welding works will be provided with welder's protective eye shields. The use of any toxic chemical will be strictly in accordance with the manufacturer's instructions. The PWD will be given at least 6 working days' notice of the proposed use of any chemical. A register of all toxic chemicals delivered to the site will be kept and maintained up to date by the contractor. 					
18	Disposal of construction waste, debris, cut material	<ul style="list-style-type: none"> The contractor shall confirm that safe disposal of the construction waste will be ensured in the pre-identified disposal locations. In no case will any construction waste will be disposed of around the project site indiscriminately. 	Disposal site	Contractor	PWD	Regularly during construction phase	Contractor fee

Sl. No.	Environmental Issues	Mitigation Measures	Parameter / Indicator for Compliance	Responsible Implementation	Responsible Supervision	Frequency for Monitoring	Sources of Fund for Implementing Mitigation Measure
19	Safety measures during construction	<ul style="list-style-type: none"> Adequate safety measures for workers during handling of materials at site will be taken up. The contractor has to comply with all regulations for the safety of workers. Precaution will be taken to prevent danger to workers from accidental injuries, fire, etc. First aid treatment will be made available for all injuries likely to be sustained during work. The contractor will conform to all anti-malaria instructions given to him by the engineer. 	Records of availability of personal protective equipment, availability of first aid kits	Contractor	PWD	Regularly during construction phase	Contractor fee
20	Onsite emergency plan for minor accidents and mishaps and Disaster Management Plan for Natural Calamities	1-The onsite emergency plan will be prepared by the contractor in consultation with PWD and PMC. 2- For natural calamities, disaster management plan prepared by the PWD	Onsite emergency plan document and Disaster Management Plan document of PWD	Contractor	PWD	Mock Drill every quarter	Contractor

Sl. No.	Environmental Issues	Mitigation Measures	Parameter / Indicator for Compliance	Responsible Implementation	Responsible Supervision	Frequency for Monitoring	Sources of Fund for Implementing Mitigation Measure
		under the provisions of Disaster Management Act 2005 will be followed.					
21	Clearing of construction of camp and restoration	<ul style="list-style-type: none"> Contractor to prepare site restoration plans for approval by the engineer (PWD). The plan is to be implemented by the contractor prior to demobilization. On completion of the works, all temporary structures will be cleared away, all rubbish burned, excreta or other disposal pits or trenches filled in and effectively sealed off, and the site left clean and tidy, at the contractor's expense, to the entire satisfaction of the PWD. 	Restoration plan, and records of preconstruction of temporary sites	Contractor	PWD	End of construction phase	Contractor fee

MCC =model career center, NOC = no objection certificate, PIU = project implementation unit, PWD = Public Works Department.

Source: Asian Development Bank.

Table 3: Monitoring Plan for MCC Hamirpur Subproject at Preconstruction, Construction, and Defect Liability Period

Sl. No.	Field (environmental attribute)	Phase	Parameters to be Monitored	Locations	Frequency	Responsibility
1	Air Quality	During preconstruction phase	Nitrogen oxide, sulfur dioxide, carbon monoxide, particulate matter (both 10 micrometers and 2.5 micrometers or less in diameter)	MCC construction site	Once in the preconstruction phase to establish baseline	Contractor through approved monitoring agency
		During construction phase			Once in every 3 months (except monsoon season) during construction phase (24 months construction phase)	
		Defect Liability Period			Once every season except during monsoon season during Defect Liability Period	
2	Water quality	During preconstruction phase	Total dissolved solids, total suspended solids, pH, hardness, biochemical oxygen demand, fecal coliform	MCC construction site groundwater	Once in preconstruction phase to establish baseline	Contractor through approved monitoring agency
		During construction phase			Once in every 3 months (except monsoon season) during construction phase	
		Defect Liability Period			Once every season except during monsoon season during Defect Liability Period	
3	Noise levels	During preconstruction phase	Noise quality as per National Ambient Noise Standards on dB(A) scale	MCC construction site	Once in preconstruction phase to establish baseline	Contractor through approved monitoring agency
		During construction phase			Once every 3 months (except monsoon season) during construction phase	
		Defect Liability Period			Once every season except monsoon season during defect Liability Period	

MCC = model career center.

Source: Asian Development Bank.

Appendix B

Initial Environmental Examination

Project Number: 49108-002
July 2017

India: Himachal Pradesh Skill Development Project

Name of the subproject: Model Career Center at Hamirpur, Hamirpur District (Himachal Pradesh) - Package No. HPSDP-PWD/04

Prepared by the Government of Himachal Pradesh for the Asian Development Bank

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ABBREVIATIONS

ADB	– Asian Development Bank
ASI	– Archaeological Survey of India
CHC	– community health center
CLC	– city livelihood center
CFE	– Consent for Establishment
CFO	– Consent for Operation
CPCB	– Central Pollution Control Board
DOHE	– Department of Higher Education
DOLE	– Department of Labor and Employment
DOP	– Department of Planning
DOTE	– Department of Technical Education, Vocational & Industrial Training
DOUD	– Department of Urban Development
DORD	– Department of Rural Development
EIA	– environmental impact assessment
EMP	– environmental management plan
ESMF	– environmental and social management framework
FSI	– Forest Survey of India
GOHP	– Government of Himachal Pradesh
GRC	– Grievance Redress Committee
HPKVN	– Himachal Pradesh Kaushal Vikas Nigam
HPSDP	– Himachal Pradesh Skill Development Project
IEE	– initial environmental examination
MCC	– model career center
MOEFCC	– Ministry of Environment, Forests and Climate Change
PHC	– primary health center
PIU	– Project Implementation Unit
PMC	– project management consultant
PMU	– Project Management Unit
PWD	– Public Works Department
RLC	– rural livelihood centers
SPS	– Safeguard Policy Statement
TVET	– technical and vocational education and training

CURRENCY EQUIVALENTS

(As of 3 May 2017)

Currency unit	-	Indian rupee (₹)
Re1.00	=	\$0.01560
\$1.00	=	₹64.1200

WEIGHTS AND MEASURES

μg	-	microgram
dB(A)	-	weighted decibel
km	-	kilometer
km^2	-	square kilometer
m	-	meter
m^2	-	square meter

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EXECUTIVE SUMMARY

1. At the request of the Government of India and the Government of Himachal Pradesh, the Asian Development Bank (ADB) will offer \$80 million in loan assistance to modernize and reform Himachal Pradesh's technical and vocational education and training (TVET) programs, and scale up training capacity. The Department of Planning (DOP) in Himachal Pradesh will be the executing agency for the proposed Himachal Pradesh Skill Development Project (HPSDP). The Himachal Pradesh Kaushal Vikas Nigam (HPKVN); Department of Technical Education, Vocational and Industrial Training (DOTE); Department of Higher Education (DOHE); and Public Works Department (PWD) will be the implementing agencies. The HPKVN will also function as the project management unit (PMU) for HPSDP.

2. The impact of HPSDP will be a more productive work force in Himachal Pradesh equipped with market-relevant technical and vocational skills created, in alignment with the Himachal Pradesh Skill Development Policy (*Him Kaushal*), 2016. The outcome will be improved employment and livelihood development opportunities for those trained under the project. This will be achieved through the following outputs:

- Output 1: TVET in Himachal Pradesh modernized, expanded, and aligned to national standards.
- Output 2: Market-aligned skills ecosystem created.
- Output 3: Access to quality training institutes improved.
- Output 4. TVET institutional structure reformed and improved.

3. Output 3 of the project will involve construction of new training facilities and upgrading of some existing buildings to improve the access of TVET programs across Himachal Pradesh.¹ The new facilities include construction of seven city livelihood centers (CLCs), seven rural livelihood centers (RLCs), and one polytechnic for women to be constructed in Rehan, district of Kangra. Eleven employment exchanges will be upgraded into model career centers (MCCs) and one new MCC will also be constructed. On average, the CLCs and RLCs will have three to four floors, and occupy about 900 square meters (m²). The MCCs will have three to four floors on average, and occupy around 400 m² each. The new MCC planned at Hamirpur will also be a three floor building. The total built up area of this MCC will be around 800 m². The Department of Urban Development (DOUD), Department of Rural Development (DORD), and the Department of Labor and Employment (DOLE) will help HPKVN in running livelihood development and counseling programs at the proposed CLCs, RLCs, and MCCs constructed at their respective premises.

4. GOHP has assured the Asian Development Bank (ADB) that the proposed new infrastructure will be built, either within premises owned by the government, or on vacant and unencumbered land owned by the government. No new land will be acquired, nor will anyone be displaced in anticipation of ADB funding. Sites located within or near environmentally sensitive areas and tribal areas of Himachal Pradesh will not be considered. No project-related activity will have any adverse impact on indigenous peoples or impede their cultural and human rights. Hence, from a safeguards perspective, the project is categorized as B for environment, C for involuntary resettlement, and C for indigenous peoples. The proposed project categorization has been reconfirmed by an experienced ADB

¹ A detailed Environmental and Social Management Framework (ESMF) has been prepared in line with ADB's Safeguard Policy Statement (SPS), 2009, to guide the executing agency and implementing agencies in mainstreaming environmental and social concerns into the design and implementation phases of HPSDP.

environment and social safeguards consultant, who has already visited 16 sites identified by the Himachal Pradesh government to date.²

5. One of the civil works subprojects included under advance contracting is a MCC at Hamirpur in the Hamirpur district of Himachal Pradesh. It will provide the needy and educated youth of the district counseling facilities for career development. This MCC will also act as an interface between industry and educated youth by organizing job fairs and interactive sessions besides maintaining data base of available employable manpower. The proposed MCC is planned on a vacant and unencumbered plot owned by DOLE at the outer skirts of Hamirpur town. The MCC will be a three-floor building including the ground floor, with a total built-up area of 683.24 m². On the ground floor, there will be a reception cum display area, Lobby/waiting hall, IT section, MCC Manager's room, and toilet and drinking water facilities. On the first floor, there will be space for the group counseling room, individual counseling rooms two numbers, registration room for vacancies, superintendent room, statistical assistant room, ladies toilet, etc.. On the second floor, there will be labor officer's room, meeting hall, conciliation room, staff toilets, and labor inspector room. The MCC design ensures adequate space for data storage, registration facilities and administrative facilities for labor officers.

6. The architectural expression of the building is in harmony with the local style of Himachal Pradesh—suitable for cool weather, long rainy season, and light snowfall. The building aims to evoke a friendly counseling atmosphere that will attract the jobs providers and jobs seekers. The MCC will be barrier-free. There will be ramps and specially designed toilets to make it easy for people with disabilities. The MCC will have adequate number of modern sanitation and drinking water facilities. Concrete gutters at the end of steel sheeting roofs will direct the rainwater to underground rain water harvesting tanks. The clean rainwater run-off can be reused for horticultural purposes and replenishing groundwater.

7. The proposal includes for the provision of solar power panels, for which a budget of \$13,400 has been allocated. The system is expected to generate about 3 kilovolt-amperes to meet the light and water heating. A preliminary estimate has been approved by the state government for a sum of \$502,562, inclusive of taxes, contingencies, and administrative charges. The construction period will be 2 years. The preliminary estimate also budgets for a 10.5% cost escalation on this basis. Any waste generated on account of operation and maintenance of solar PV Cell will be taken up by the supplier, who will also be maintaining the PV cell, for possible recycle and reuse.

8. This initial environment examination (IEE) report provides details about the site, the potential environmental impact of the civil works, and ways of mitigating and addressing these.³ Since the site is at the outer skirts of Hamirpur town, there is no protected or reserved forest area nearby. There is no natural stream or river near the site. The subproject site is on a plain terrain. There are no protected areas (national parks, bird sanctuaries, tiger reserves, etc.); wetlands; mangroves; or estuaries in or near the subproject location. The site is in a relatively open area. Therefore, there are no ambient air quality and noise level issues.

² In addition to the ADB environment and social safeguards consultant, other experts including an architect, labor economist, gender specialist, plus relevant consultants from the consulting firm engaged under the project preparatory technical assistance project (IND TA 8760), have also screened these sites. ADB. 2015. *Technical Assistance to India for Supporting Skill Development in Himachal Pradesh*. Manila (TA 9060-IND).

³ Local stakeholders were involved in developing the IEE through on-site discussions and public consultation. Their views were incorporated into the IEE and the design of the subproject. The IEE will be made available at public locations in the town such as municipal office building, employment exchange building and district administration office. It will be disclosed to a wider audience via the ADB, DOLE, DOP, and HPKVN websites.

Since the MCC will be a relatively small building for counseling and registration of job seekers, facilitating interviews for registered candidates and maintenance of records of registered and selected candidates, etc. Its construction and operation are unlikely to cause any significant impact. These routine and localized effects associated with construction and operation of the new MCC building can be mitigated easily by following the measures laid down in the **environment management plan (EMP)** included in the IEE. The EMP will be included in civil work bidding and contract documents. **The IEE confirms that the subproject as environment category “B”.** No further special study or detailed environmental impact assessment (EIA) needs to be undertaken to comply with the ADB SPS or Government of India EIA Notification, 2006.

9. The PWD (one of the implementing agencies as mentioned earlier) will be responsible for overall planning and implementation of the civil works under the HPSDP including this subproject. It will ensure that EMP prepared is implemented. The project management consulting (PMC) firm to be engaged under the proposed loan will have experienced environment and social safeguards experts. These experts will assist PWD in the smooth implementation of EMP. The PMC will also assist PWD and HPKVN in preparing semi-annual safeguards monitoring reports as required by ADB.

I. INTRODUCTION

A. Background

1. **Location** The subproject site for the proposed Model Career Center (MCC), at Hamirpur, is situated near Hamirpur town in the Hamirpur district of Himachal Pradesh. The latitude and longitude of the sub-project site are 31.671334 N and 76.533107 E, respectively. The nearest rail head is at Una and it is about 76 kilometers (km) away. Hamirpur town is well connected by roads with all the important places in Himachal Pradesh like Hamirpur (3 km), Mandi (71 km), Sunder Nagar (72 km), Shimla (142 km), Palampur (69.3 km), and Kangra (91 km). The Hamirpur is the smallest district of Himachal Pradesh. The elevation of project site is about 748 m above mean sea level. Hamirpur district shares borders with the neighboring districts of Mandi to North, Bilaspur to South and South West, Una to West and Kangra to North West. River Beas separates Hamirpur from Kangra and is a parent river to two of tributaries, namely Maan Khad and Kunah Khad flowing across either sides of Hamirpur district, to the adjacent Sutlej. The district lies between the parallels of 31°25'N and 31°52'N and between 76°18'E and 76°44'E

2. **Present status of site.** The sub-project site at Hamirpur is plain land. The site belongs to the Department of Labour and Employment, Government of Himachal Pradesh. There are no permanent or temporary structures on the site. Since the site has been lying vacant and unused, small shrubs have grown over time. There are also no trees at the site. Close to the sub-project site, there are residential houses. Some photos of the site are shown in **Figure 1**.

Figure 1: Site Photographs of MCC Hamirpur

	
Plot measures approximately 16m x 25m, Frontage has road	Bamboo is approximately in the centre, there is a level difference of about 1.2m

B. Compliance with India's Environmental Regulatory Framework

3. India's environmental rules and regulations, as relevant for this proposed sub-project, are shown in **Table 1**. The Environmental Impact Assessment (EIA) notification, 2006 by the Ministry of Environment, Forests and Climate Change (MOEFCC), Government of India specifies the requirements for mandatory environmental clearances. All projects and activities are broadly categorized into two categories—category A and category B, based on the spatial extent of potential impacts on the environment, human health, and natural and human-made resources.⁴ However, MOEFCC's Office Memorandum (F. No. 19-2/2013-IA-

⁴ All projects or activities included as category A in the schedule, including expansion and modernization of existing projects or activities and change in product mix, will require prior environmental clearance from MOEF, Government of India based on recommendations of an expert appraisal committee to be constituted by the central government for the purposes of this notification. All projects or activities included as category B in the

III), dated 9 June 2015, and exempts all educational and training institutes from obtaining prior environmental clearance. Since all the training facilities to be constructed or upgraded under HPSDP, including this proposed subproject at Hamirpur, are meant for educational, training purposes and skills development, they will not require any prior environmental clearances according to the environmental rules and regulations of India. Further, as shown in Table 1, most other rules pertaining to India's Ancient Monuments and Archaeological Sites and Remains Act, 1958; the Wildlife (Protection) Act, 1972, amended in 2003 and 2006; and the Forest (Conservation) Act, 1980, will not apply to this subproject. Only some clearances will be required from the Himachal Pradesh State Pollution Control Board for the construction phase of the sub-project.

Table 1: Environmental Regulatory Compliance

Subproject	Applicability of Acts and Guidelines	Compliance Criteria
Construction and operation of Model Career Center at Hamirpur	The EIA notification, 2006 (and its subsequent amendments till date) provides for categorization of projects into category A and B, based on extent of impacts.	The subproject is not covered in the ambit of the EIA notification (amended till date), either as a category A or Category B project. As per the Office Memorandum dated 9 June 2015 of Ministry of Environment, Forests and Climate Change, educational and training institutions are exempted from prior environmental clearance. As a result, the categorization, and the subsequent environmental assessment and clearance requirements, either from the state or the Government of India, are not triggered. – Not Applicable
	The Ancient Monuments and Archaeological Sites and Remains Act, 1958, and the rules, 1959 provide guidance for carrying out activities including conservation, construction and reuse in and around the protected monuments.	The Model Career center site at Hamirpur is not close to any monument which is protected by the ASI. Hence, no clearance is needed from ASI. – Not Applicable
	Water (Prevention and control of pollution) Act, 1974 and Air (prevention and control of pollution) Act, 1981	CFE and CFO from the State Pollution Control Board will be required during construction for installation of diesel generator set, hot mix plant, and concrete batching plant. For the operation phase, no CFO or CFE will be required. – Applicable for construction phase
	The Wildlife Conservation Act, 1972, amended in 2003 and 2006, provides for protection and management of Protected Areas.	No wildlife protected areas nearby. – Not Applicable
	Forest (Conservation) Act, 1980	This act provides guidelines for conservation of forests and diversion of forest land for non-forest use. It describes the penalties for contravention of

schedule, including expansion and modernization of existing projects or activities as specified in subparagraph (ii) of paragraph 2; or change in product mix as specified in subparagraph (iii) of paragraph 2, but excluding those that fulfill the general conditions stipulated in the schedule, *will* require prior environmental clearance from the state or union territory Environment Impact Assessment Authority, which shall base its decision on the recommendations of a state or union territory-level expert appraisal committee to be constituted for this notification. In addition, general condition of the notification specifies that any project or activity specified in category B will be treated as category A, if located in whole or in part within 10 km from the boundary of (i) protected areas notified under the Wild Life Protection) Act, 1972; (ii) critically polluted areas as notified by the Central Pollution Control Board from time to time; (iii) notified eco-sensitive areas; and (iv) interstate boundaries and international boundaries.

Subproject	Applicability of Acts and Guidelines	Compliance Criteria
		the provisions of the Act. If forest land has to be acquired for the project, clearance is required from the Forest Department. No forest land is required for this subproject. Hence, this is not applicable. – Not Applicable

ASI = Archaeological Survey of India, CFE = consent for establishment, CFO = consent for operation, EIA = environmental impact assessment.

Source: Asian Development Bank.

C. Asian Development Bank's Environmental Safeguard Policy Principles

4. Since the proposed HPSDP is being funded by the ADB, it has to comply with its Safeguard Policy Statement (SPS), in addition to India's own environmental laws and regulations. The environmental safeguard policy principles embodied in the SPS aim to avoid adverse impacts on the environment and on affected people and/or communities; minimize, mitigate and/or compensate for adverse project impacts, if unavoidable; help borrowers to strengthen their safeguard systems, and to develop their capacity in managing the environmental and social risks. The SPS categorizes all projects into three environmental categories (A, B or C) based on their potential impacts.⁵ Similarly, ADB's Rapid Environmental Assessment checklist method was followed to assess the potential impact of the proposed sub-project at Hamirpur (Appendix 2). As will be explained below, the sub-project has been categorized as B. Accordingly; this IEE has been prepared to address the potential impacts in line with the requirements for category B projects. The IEE was based mainly on baseline data generation on environmental parameters and secondary sources of information and field reconnaissance surveys. Stakeholder consultation was an integral part of the IEE. An environmental management plan (EMP) outlining the specific environmental measures to be adhered to during implementation of the sub-project is included in the IEE.

D. Review and Approval Procedure

5. For category B projects, the draft environmental status report is reviewed by the relevant ADB departments and the executing agency. Additional comments are incorporated into the final documents as relevant. These are reviewed by the executing agency and ADB safeguards team. The executing agency then officially submits the IEE report to ADB for consideration by the Board of Directors. The final report is made available worldwide by ADB, via the depository library system and the ADB website.

⁵ As per the SPS, projects are assigned to one of the following four categories: (i) **Category A**. A proposed project is classified as category A if it is likely to have significant adverse environmental impacts that are irreversible, diverse, or unprecedented. These impacts may affect an area larger than the sites or facilities subject to physical works. An environmental impact assessment is required. (ii) **Category B**. A proposed project is classified as category B if its potential adverse environmental impacts are less adverse than those of category A projects. These impacts are site-specific, few if any of them are irreversible, and in most cases mitigation measures can be designed more readily than for category A projects. An initial environmental examination is required. (iii) **Category C**. A proposed project is classified as category C if it is likely to have minimal or no adverse environmental impacts. No environmental assessment is required although environmental implications need to be reviewed (iv) **Category FI**. A proposed project is classified as category FI if it involves investment of ADB funds to or through a financial institution.

E. Report Structure

6. This report contains eight sections: (i) introduction; (ii) description of sub-project components; (iii) description of the existing environment around the subproject; (iv) environmental impact and mitigation measures; (v) EMP; (vi) processes for public consultation and information disclosure; (vii) findings and recommendations; and (viii) conclusions.

II. DESCRIPTION OF THE PROJECT COMPONENTS

A. Components of the Subproject

7. The location of the MCC site and its surroundings are shown in **Figures 2 and 3**. **Table 2** summarizes the need for the sub-project, and is proposed components.

Figure 2: Location of Hamirpur MCC Site

MCC = Model Career Center
Source: Asian Development Bank.

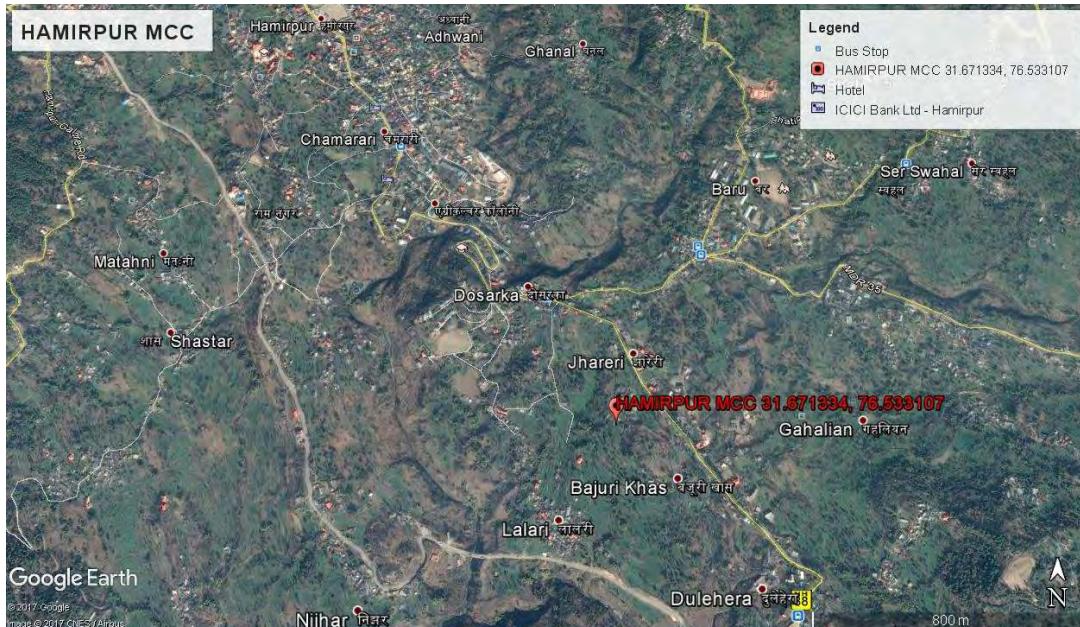


Figure 3: Location of Sub Project Site

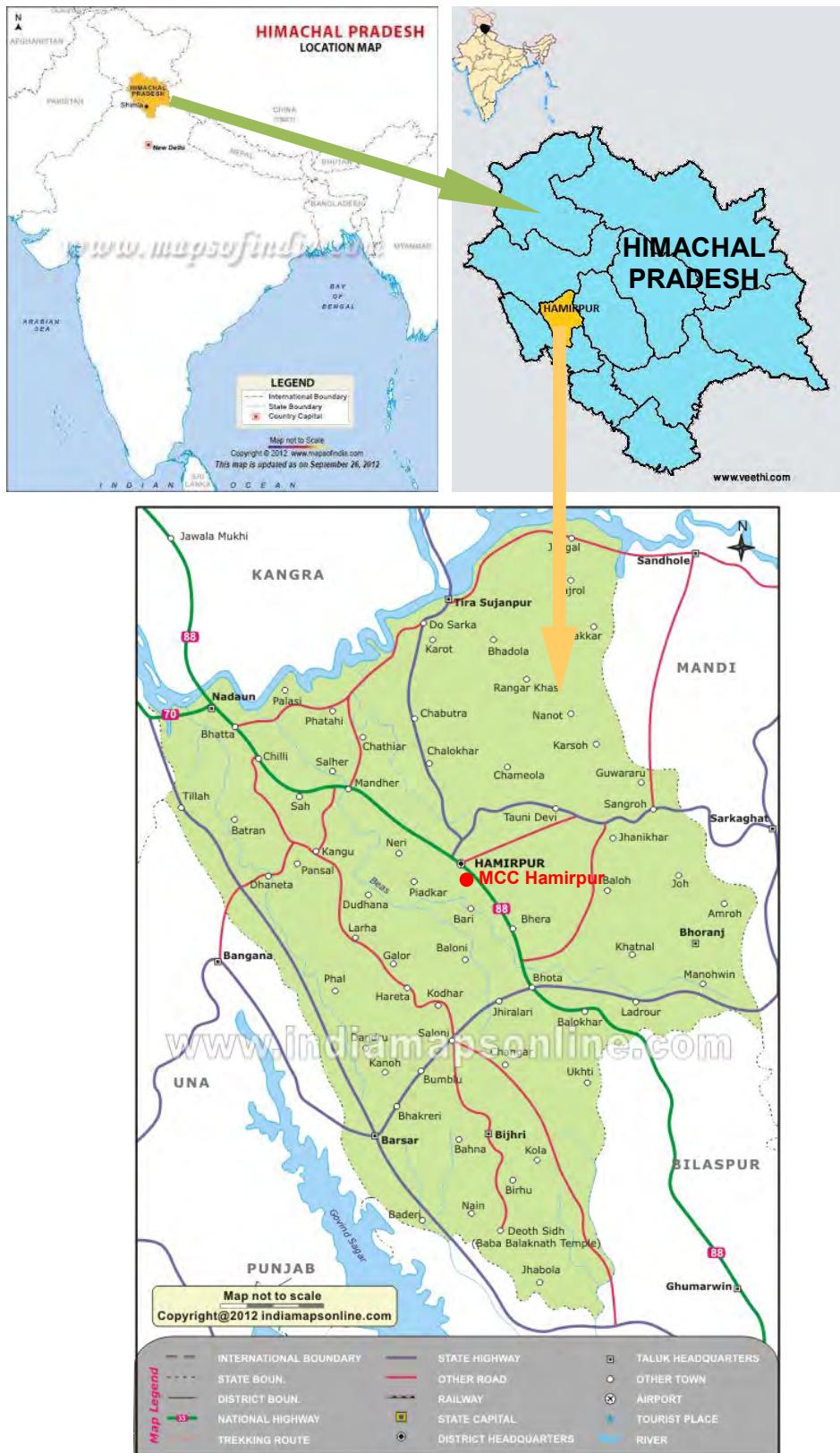


Table 2: Description of the Subproject Components

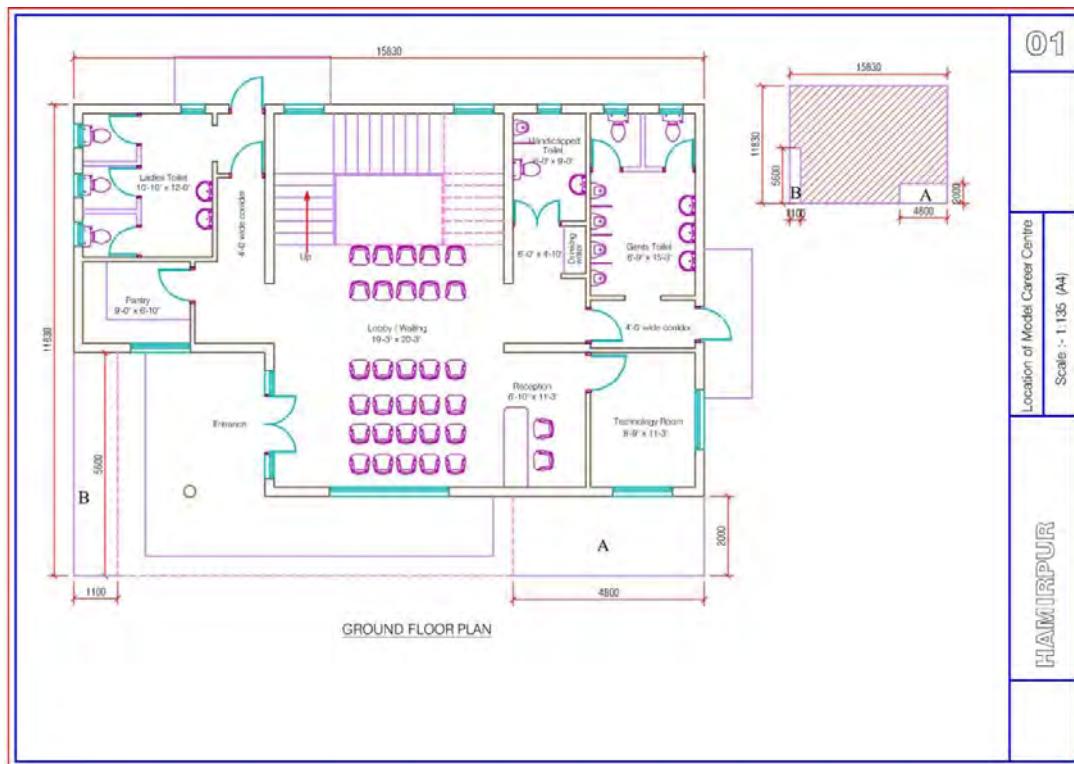
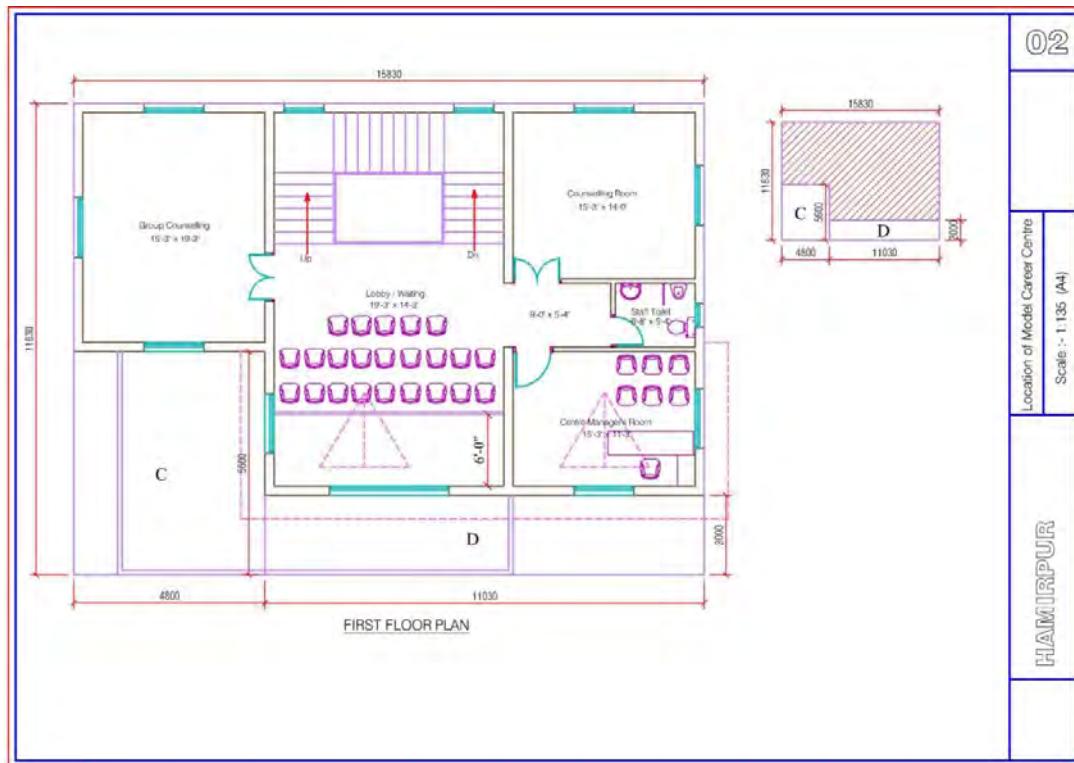
Description	Need of the Project	Proposed Components
A MCC is proposed at the outer skirts of Hamirpur town in Hamirpur district of Himachal Pradesh	<ul style="list-style-type: none"> • There is need for the Model Career Centers in Himachal Pradesh to guide Himachali youth for selection of jobs as well as act as an interface between the industry and skill manpower. • The model career center will also keep records of employment and this data will help GOHP to plan educational and training facilities as per the emerging needs. 	<p>The main subproject components include:</p> <ul style="list-style-type: none"> • The MCC will be a three-storey building. It will have a lobby cum waiting area, and Technology Room on the ground floor. • There will be rooms for counseling for big groups and small groups. This floor will also have a MCC Manager's room • On the second floor there will be counseling room and IT section for records upkeep. • Sanitation facilities have been planned on all floors. • A septic tank will be provided for 100 users. • Solar panels will be installed on the roof with potential to generate 5 kW. • The total electricity load has been estimated as 25 kilowatts • Water consumption has been estimated as 4500 liters per day. Water source will be from the municipal supply. • The solid waste generated will be integrated with the waste disposal system of Hamirpur City.

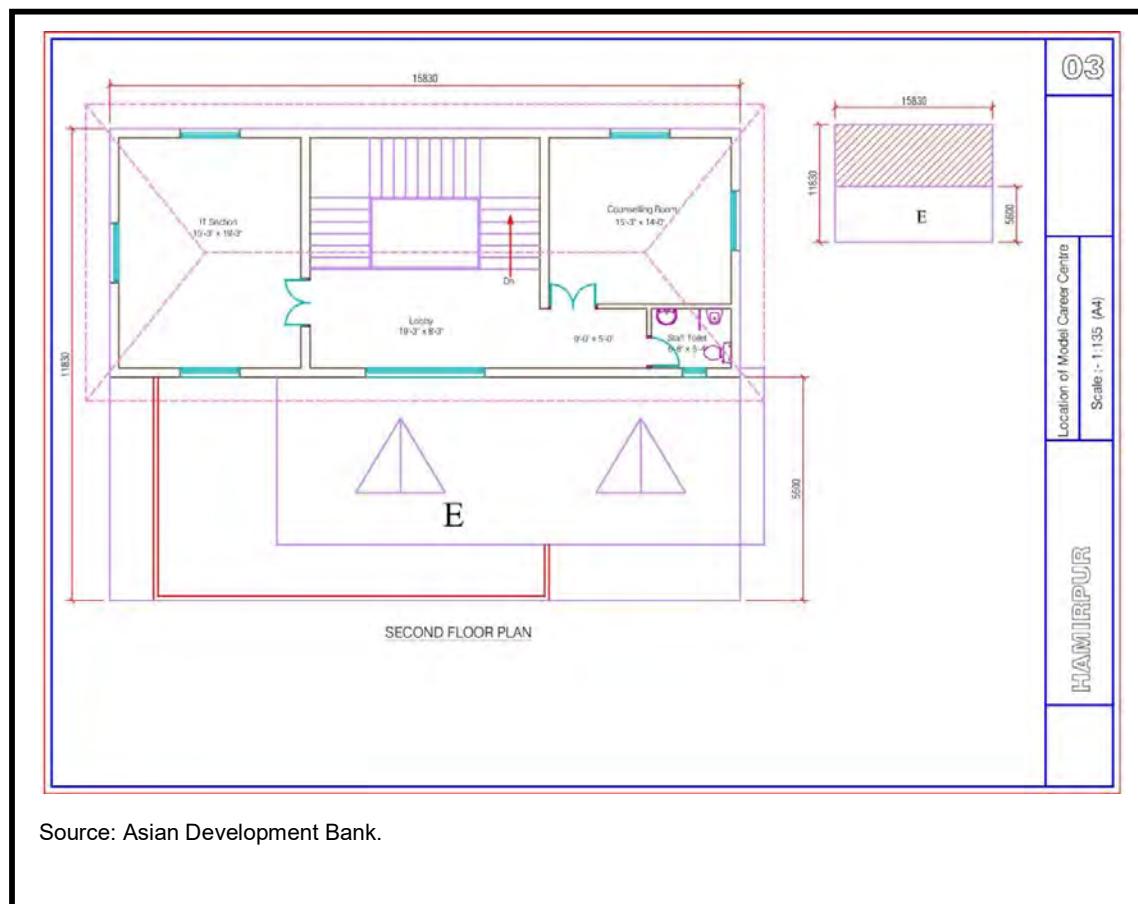
MCC = model career center.

Source: Asian Development Bank.

8. The layout plan of MCC for ground floor, first floor and second floor is shown below in **Figure 4**.

Figure 4: Layout Plan of MCC Building





B. Executing and Implementing Agencies

9. At the request of the Government of India and the Himachal Pradesh government, ADB will offer \$80 million in loan assistance to modernize and reform Himachal Pradesh's TVET programs, and scale up training capacity. The Department of Planning (DOP) of Himachal Pradesh will be the executing agency for the proposed Himachal Pradesh Skill Development Project (HPSDP). The Himachal Pradesh Kaushal Vikas Nigam (HPKVN); Department of Technical Education, Vocational and Industrial Training (DOTE); Department of Higher Education (DOHE); and Public Works Department (PWD) of the Government of Himachal Pradesh will be the implementing agencies. HPKVN will also function as the project management unit (PMU) for the project. The PWD will be responsible for overall planning and implementation of the civil works under the HPSDP. They will ensure that IEEs and EMPs are prepared for all subprojects and the ESMF is adhered to during project implementation. The project management consulting firm to be engaged under the proposed loan will have experienced environment and social safeguards experts. The PMC will assist PWD and HPKVN in preparing semi-annual safeguards monitoring reports. HPKVN will consolidate these safeguard reports and submit them to ADB semiannually.

C. Implementation Schedule

10. The implementation period for the proposed subproject is 24 months. The preliminary drawings for MCC have been prepared for approval and have been approved. The bidding process for the sub project is expected to start in July 2017. The sub-project will be awarded for construction by October 2017. The contractor is expected to be mobilized by December 2017. The construction work is expected to be completed by December 2019.

III. DESCRIPTION OF THE EXISTING SUBPROJECT ENVIRONMENT

11. This section presents a brief description of the existing environment around the subproject site, including its physical resources, ecological resources, socioeconomic development and social and cultural resources. Broad aspects on various environmental parameters such as geography, climate and meteorology, physiographic, geology, seismology, ecology, socio-cultural and economic development parameters that are likely to be affected by the proposed subproject are presented. Secondary information was collected from relevant government agencies like the Forest Department, State Environment Protection, and Pollution Control Board, and Meteorological Department.

A. Environmental Profile

1. Air and Noise Quality

12. No air pollution sources (point or nonpoint) have been seen in the surroundings of subproject influence area. The subproject site is at the outer skirts of Hamirpur town. The subproject site is not on any national or state highway. Traffic on the road connecting to the site is low. Hence, insignificant vehicular emission is expected. There are no industrial establishments near the subproject site. The ambient air quality and noise data for the subproject are not available. However, the levels are expected to be well within the stipulated limits since there are no sources of air or noise pollution near the MCC site. Ambient air quality monitoring and noise level monitoring will be conducted by the contractor prior to start of construction works with the aim of establishing baseline conditions.

13. It was observed that ambient noise scenario in the study area is quite low in general. There are no industrial establishments in and around the subproject site. As the traffic density is very low, the noise either from point or nonpoint sources is not expected in the project area. Moreover, there will be not much rise in the noise due to the proposed MCC activities since it only includes counseling activities, and registration and interview conducting facilities for the visiting industrial establishment officials. There is no noise baseline data available for the subproject site. But the levels are expected to be well within the stipulated limits due to no major source of noise pollution at the site. Noise level monitoring will be conducted by the contractor prior to start of construction to establish baseline conditions.

14. **Climate** The subproject site and its surroundings fall in sub-humid sub tropical climate zone of Himachal Pradesh. The winter prevails from mid November to mid March, spring from mid March to mid May, summer from mid May to September and transition season from October to November. There are two seasons of rainfall during the year, one from December to March, associated with the passage of western disturbances and the other which is the main one, extending from middle of June till end of September, caused by the south west monsoon. Some rain is also received in the post monsoon month of October. July and August are the wettest months. Out of the total rainfall 70 percent is received in the month of July, August and September only.

15. **Temperature** The temperature exhibits seasonal variation, lowest during the winter, and higher during the summer. May, June, and July are the hottest months while January, February, and December are the cold months. The maximum temperature rises to about 36°C in June and the minimum temperature falls to about 6.4°C in January. **Table 3** shows monthly temperature variation for Hamirpur.

Table 3: Average, Maximum, and Minimum Temperature at Hamirpur

	January	February	March	April	May	June	July	August	September	October	November	December
Avg. Temperature (°C)	11.7	14.3	18.9	24	28.8	30.3	26.9	25.9	25.5	22.3	17.4	13.6
Min. Temperature (°C)	6.4	8.7	13	17.5	22.4	24.6	23.2	22.5	21.2	16.5	10.8	7.7
Max. Temperature (°C)	17.1	20	24.8	30.6	35.3	36	30.7	29.4	29.9	28.1	24	19.5
Avg. Temperature (°F)	53.1	57.7	66.0	75.2	83.8	86.5	80.4	78.6	77.9	72.1	63.3	56.5
Min. Temperature (°F)	43.5	47.7	55.4	63.5	72.3	76.3	73.8	72.5	70.2	61.7	51.4	45.9
Max. Temperature (°F)	62.8	68.0	76.6	87.1	95.5	96.8	87.3	84.9	85.8	82.6	75.2	67.1

Source: Government of India, Ministry of Earth Sciences, India Meteorological Department, New Delhi.

16. Rainfall The area received 1162–1448 mm yearly rainfall over this 90% rainfall constitutes during the period middle of June to end of September. The monthly average rainfall observed in last two decades is presented in **Table 4**.

Table 4: Average Monthly Rainfall at Hamirpur (millimeters)

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Rainfall	79	54	67	24	29	92	478	448	211	41	14	35

Source: Government of India, Ministry of Earth Sciences, Indian Meteorological Department, New Delhi.

17. Humidity. Based on long-term climatology data of the Hamirpur district, it is found that relative humidity increases rapidly with the onset of monsoon and reaches a maximum (100% in the morning and 70% in the evening) in the peak of the monsoon period. Relative humidity is minimum during the summer months (April–June) with May being the driest month (8.78% in morning and 19% in evening). Skies are heavily clouded during the monsoon months and for short spells when the district is affected by western disturbances.

18. Wind speed and direction. Two broad wind patterns are observed in the district, the southeast to northwest (January–May), and south westerly to north easterly (June–October). The average wind speed is minimum (5kmph) in winter months and maximum (12 kmph) in summer months.

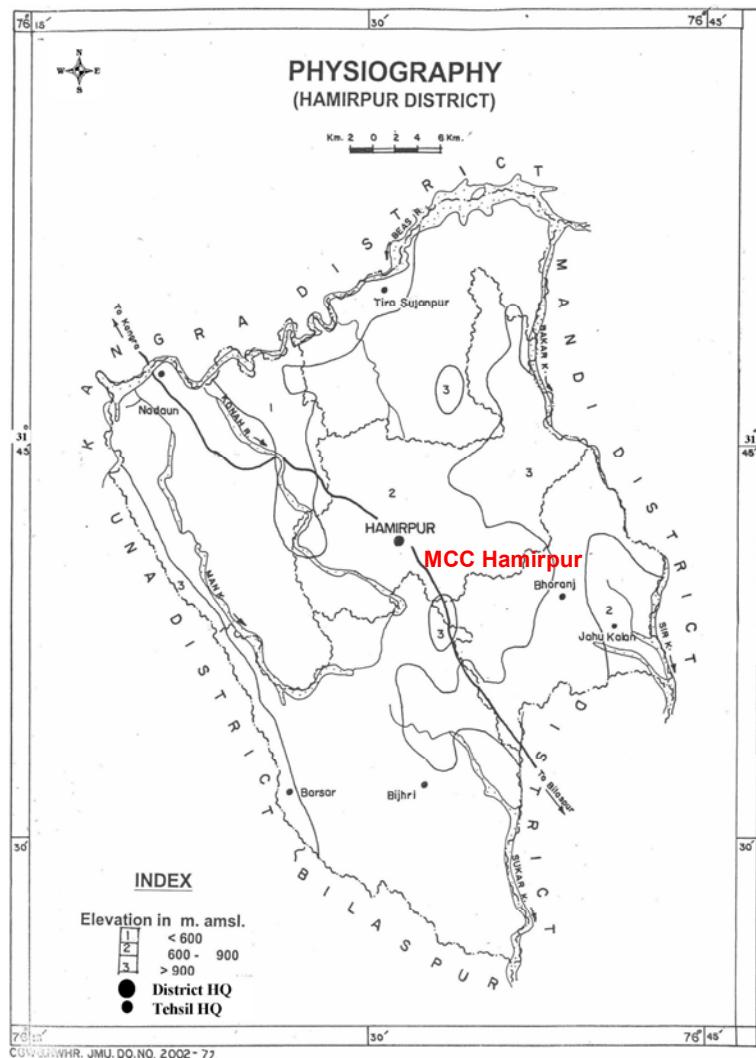
2. Topography and Soils

19. The topography of Hamirpur district is mostly hilly and undulating. The surface elevation ranges from 400 m to 600 m above mean sea level along the Beas river valley and in lower reaches of Kunah Khad in the northern part of the district. The elevation is more than 900 m above mean sea level in the eastern part of the district. The altitudinal variation in-general, ranges between 600 to 900 m above mean sea level. Sola Singhi hill ranges forms the western boundary of the district, with a maximum elevation of 1145 m above mean sea level. Deep gulleys and gorges are formed in the north-eastern part of the district. The river / Khad valleys are broad in the southern part of the district, mainly along the Sukar and Sir Khad in Bhorang-Jahu-Dhankar areas. In the drainage basin of Beas River, the general

ground slope is towards north, while in the Sutlej River this slope is towards south. The subproject site is located in a relatively plain terrain. The site elevation is 746 m above mean sea level. The physiographic map of Hamirpur district showing MCC is given in **Figure-5**.

20. The soils of the district can broadly be divided into nine groups on the basis of their development and physico-chemical properties. These are: (i) alluvial soils, (ii) brown hill soil, (iii) brown earth, (iv) brown forests soils, (v) grey wooded or podzolic soils, (vi) grey brown podzolic soils, (vii) planosolic soils, (viii) humus and iron podzols (ix) alpine humus mountain speletal soils. The soils around the subproject site are generally brown, alluvial and grey brown podzolic. The soil map of the district is shown in Figure 6. The soils are generally brown, alluvial, and grey brown podzolic. The soils are light textured with acidic pH and good fertility status. Surface layer of soil up to 15-20 cm is of reddish brown to yellowish brown color. As per the information of past environmental impact assessment studies conducted soil characteristics are acidic in nature having pH values from 6.6 to 6.8. The soil texture varies from coarse sandy loam to clay loam having predominantly Sand. The Sodium absorption ratio (SAR) varies from 1.6 to 1.8.

Figure 5: Physiographic Map of Hamirpur District



Source: Government of India, Ministry of Water Resources, Central Ground Water Board. *Ground Water Information Booklet Hamirpur District*. New Delhi.

3. Surface Water and Groundwater Quality

21. The subproject site is located in catchment area of the Beas River. Kunah is the most important tributary of the Beas River in the Hamirpur district. Major tributaries of this Khad are Sukar, Jhaniari, Gasota, Hathali and Sukrala Khads. These khads are perennial and have floods during rainy season. The water quality data of Kunah Khad has been obtained from the secondary sources and this has been given in Table-5 below. The ground water sources in the subproject area are dug wells, hand pumps, and tube wells. To establish the baseline scenario, ground water quality data was obtained from the Central Ground Water Board. The water quality data for the project region is given in **Table 6**.

Table-5: Surface Water Quality (Kunah Khad) in Subproject Area

Sl. No.	Parameter	Value	CPCB Water Quality Criteria for A to C Classes for Surface Water	Drinking Standard (IS:10500)	Water Value
1	pH	8.2	6.5-8.5	6.5 to 8.5	
2	Temperature (Deg. 0C)	21.2	Not Specified	Not Specified	
3	Chloride (as Cl), mg/l, Max	27	Not Specified	250	
4	Nitrate, mg/l, Max.	4.9	Not Specified	45	
5	Iron (as Fe), mg/l, Max.	0.14	Not Specified	0.3	
6	Total Dissolved solids mg/l, Max	190	Not Specified	500	
7	Total Suspended Solids mg/l, Max.	45	Not Specified	Not specified	
8	Sulphate (as SO4) mg/l, max.	45	Not Specified	150	
9	Oil & Grease, mg/l	0.5	Not Specified	0.5	
10	Biochemical Oxygen Demand, mg/l (3 days for 270 C)	0.7	2-3	Not specified	
11	Chemical Oxygen demand, mg/l	7.3	Not Specified	Not specified	
12	Copper (as Cu), mg/l	BDL	Not Specified	0.05	
13	Zinc (as Zn), mg/l. Max.	BDL	Not Specified	5	
14	Mercury (as 0.001 Hg) mg/l, Max.	BDL	Not Specified	0.001	
15	Cadmium (as Cd) mg/l, Max.	BDL	Not Specified	0.003	
16	Arsenic (as As), mg/l, max.	BDL	Not Specified	0.01	
17	Cyanide (as CN) mg/l, Max.	BDL	Not Specified	0.05	
18	Lead (as Pb) mg/l, Max.	BDL	Not Specified	0.01	
19	Total Chromium (as Cr), mg/l	BDL	Not Specified	0.05	
20	Boron, mg/l	0.06	Not Specified	0.5	
21	DO, mg/l	6.8	4-6	Not Specified	
22	Total Hardness (as CaCO3), mg/l	158	Not Specified	200	
23	Total Alkalinity, mg/l	142	Not Specified	200	

Note : 1- Designated Best Use -Class A: Fit for Drinking Water without Conventional Treatment but after disinfection

2-Designated Best Use -Class B: Fit for Bathing (Organized)

3- Designated Best Use -Class C: Fit for Drinking Water with Conventional Treatment and disinfection

BDL = Below Detection Limit.

Source: Himachal Pradesh State Pollution Control Board

Table 6: Ground Water Quality in Subproject Area

Parameter	pH	EC $\mu\text{S}/\text{cm}$ at 25°C	HCO₃	Cl	SO₄	NO₃	F	Ca	Mg	Na	K	Total Hardness as CaCO₃
Minimum	8.02	280	12	10	1	2	Tr	30	11	7.5	0.6	120
Maximum	8.17	360	153	125	85	22	0.16	48	17	14.0	5.8	165
Drinking Water Standard Value	6.5-8.5	No limit specified	No Limit specified	1000	400	45	1.5	200	100	No limit specified	No limit specified	600

Tr = traces. All parameters units in mg/l, except pH

Source: Government of India, Ministry of Water Resources, Central Ground Water Board.

22. Due to the absence of any water polluting source in the area, it is clear that all parameters of water quality are within the permissible limits specified by the Bureau of Indian Standards for drinking. The surface water quality of Kunah Khad if compared with CPCB criterion of various uses, it fits in to class 'A'. This implies that Kunah Khad water is fit for drinking even without disinfection. The water sampling for Kunah Khad is about 5 km from the subproject site. The ground water samples were drawn by the Central Ground Water Board from different locations across the district. The nearest location is within 2 km from the subproject site. The water quality was monitored in the year 2013 for both ground and surface. Water quality monitoring will be conducted by the contractors prior to the start of construction works.

23. Based on 2012 data, the depth of water level during pre monsoon months ranged from 2.73 to 8.59 m below ground level. During post monsoon months, it ranged from 2.47 to 9.97 m below ground level. The stage of groundwater development in the entire Hamirpur district, where the subproject site located, is <70 % and falls under the safe category. This indicates that groundwater has not been overexploited and that it is restored regularly.

4. Geology and Seismology

24. In Himachal Pradesh, geological history goes back to the Archaean Proterozoic transition although the actual Himalayan Mountain building took place only during Cenozoic era. The Himalayas are a classic example of continent and continent collision due to convergent movement of the Indian plate toward the Eurasian plate. It comprises two contrasting tectogens with their own distinctive geological history. The dividing lines between these two tectogens represent a major tectonic discontinuity and are designated by several local names. However, it can be collectively refer to as a main central thrust and on either side of this thrust the tectogens display contrasting stratigraphic and tectonics features indicating convergence of two alien blocks. These are the lesser Himalayan tectogens and the Tethys Himalayan tectogen.

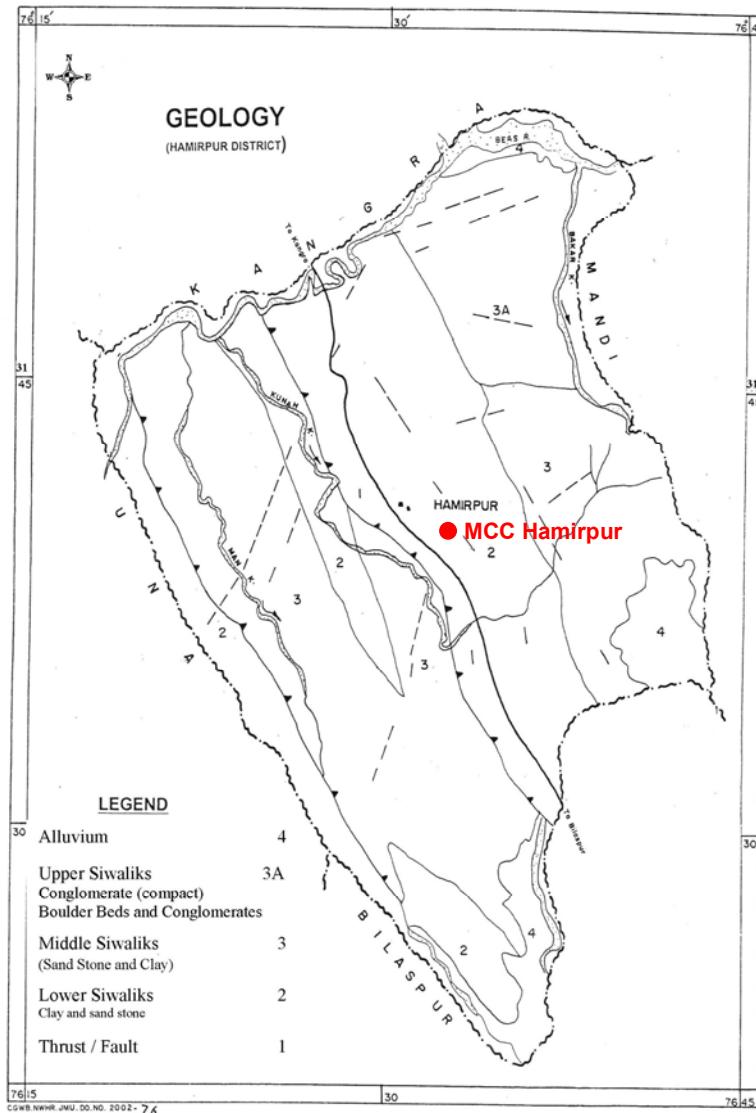
25. The Shivalik group in the Himachal Himalaya forms a parallel foot-hill belt in the sub-Himalayan zone, extending along the southern margin of the Palaeogene Sirmour group belt from the Ravi to the Yamuna. Within Himachal Pradesh, the Himalaya has maximum width between Hoshiarpur and Jogindernagar. The Siwalik sediments, though occurring as an independent structural belt, are also seen to overlie the Muree in the Jammu sector of the Kashmir Himalaya and the Kasauli in the Himachal Himalaya. Pilgrim (1910) recorded a gradual transition from Muree beds to Lower Siwalik in the Rawalpindi and Jhelum districts of Pakistan and from Kasauli to Lower *Shivalik* (Nahan) in the Himachal Himalaya. This fact assumes importance because there is a tendency to ignore this normal relationship between the *Shivalik* and *Sirmour* groups at Dharamshala, Sarkaghat, and Nalagarh. At Haritalyangar near Bilaspur, the Lower Siwalik is seen resting on the Dagshai with an unconformity, which is described as the most striking discordance in the whole sequence of fresh water deposits and evidently representing a period of considerable earth movements (Pascoe 1964). The main tectonic elements of the project region include the central thrust, and boundary fault. Several NE-SW lineaments are also known from the area and these traverses across different tectonic zones. Seismically, the state constitutes one of the most active domains of the Himalayan region. The geological map of project region has been given in **Figure 6**. There are two main geological horizons, namely post-tertiary and tertiary formations in Hamirpur district. The sequence of geological formation is given in **Table-7** below. Almost the entire Hamirpur district is underlain by the tertiary formations. These formations are represented by the Siwalik group of rocks (lower, middle and upper). Lower Shivaliks comprise of massive dark gray sandstone and purple shales. These are conformably overlain by micaceous sandstone and gray clay/shales of middle Siwalik. Upper Shivaliks

comprise of conglomerates, coarse-grained sandstones, inter bedded with grey and pink clays/silts and sand stone or pebbles beds. Conglomerates occupy the major part of the district. Conglomerates are compact and hard in northern part, while in south-eastern parts these are weathered and fractured.

Table 7: Geological Formations in Project Region

Age	Formation	Lithology
Post-Tertiary (Quaternary)	Alluvium	Sand, Gravels, Pebble, Boulders and Clay
Tertiary (Siwalik)	Upper	Conglomerates, Boulders and pebbly sandstone
	Middle	Micaceous sandstone and shale
	Lower	Hard, purple sandstone & shale

Figure 6: Geological Map of Project Region



Source: Government of India, Ministry of Water Resources, Central Ground Water Board. Ground Water Information Booklet Hamirpur District.

26. India's seismic code divides the country into five seismic zones (I to V). The subproject stretch comes under seismic zone V as defined by Urban Earthquake Vulnerability Project and the Atlas prepared by the Building Materials Promotion and Technology Council, Government of India and UNDP (IS 1893 [Part I: 2002]). All structures have been designed considering seismic zone V. It may be mentioned that intensity of earthquake increases from Zone I to V. The Zone V mainly covers Himalayan region in India and Himachal Pradesh being a hilly state lies in Himalayan region. Zones I, II and III mainly cover Central and Southern parts of Indian peninsula. It may be mentioned that after an earthquake of 7.8 intensity on Richter scale in Kangra district in 1905 no major earthquake has occurred in Himachal Pradesh.

27. **Drainage**

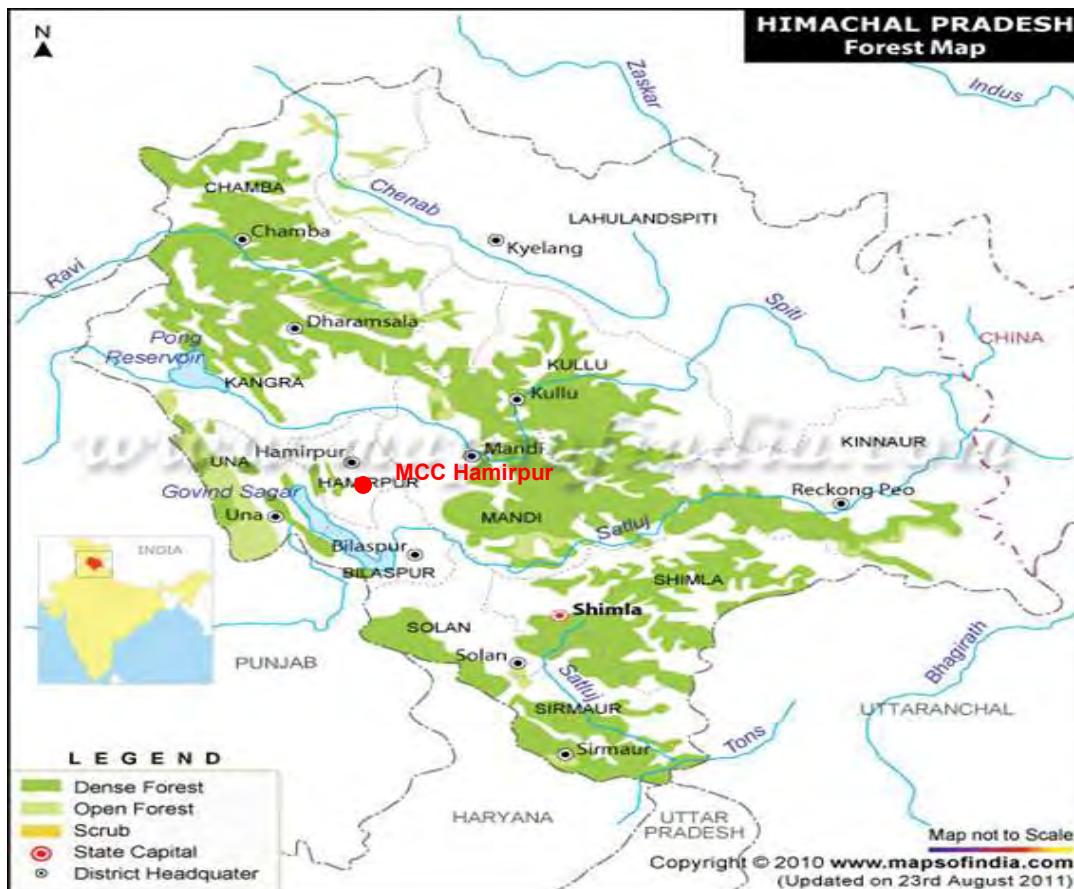
The sub-project site at Hamirpur is drained by Kunah Khad, a tributary of Beas River. No flooding issues have been reported at the subproject site as site is about 5 km from Kunah Khad. Further, being in hilly region all site has swift drainage.

B. Ecological Resources

1. Forests

28. Forests in Himachal Pradesh currently cover an area of nearly 37,691 km² (14,553 sq miles), which is about 38.3% of the total land area of the state. The variation in the landscape has created great diversity of flora and fauna. From the snowbound peaks of the Himalayas to the moist Alpine scrub, sub Alpine forests, dry-temperate and moist-temperate forests to moist deciduous forests, the state possesses a wide biodiversity that in return nurtures a large multiplicity of floral and faunal forms. Reserve forests constitute 71.11%, protected forests cover 28.52%, and unclassed forests constitute 0.35% of the total forest area. Hamirpur district has about 43.65% (488 sq km of its geographic area (1118 sq km) under forests and most of it is managed by the Forest Department. The forests of the district can be classified into six main categories, namely (1) tropical dry deciduous forests; (2) sal forests; (3) chir forests; (4) oak forests; (4) deodar, fir, and spruce forests; and (5) the Alpine pastures. The forest cover map is shown in **Figure 7**.

Figure 7: Forest Cover Map of Himachal Pradesh



Source: Forest Department, Government of Himachal Pradesh.

29. The subproject site location does not fall within any reserved, protected, or revenue forest. The complete vegetation of Himachal Pradesh relies on two factors—height and rainfall. The southernmost part of the state is at a lower altitude level and it contains both humid and subtropical dry broadleaf woodlands, along with subtropical moist broadleaf forests. Majority of the area is covered by Himalayan subtropical broadleaf forests. Apart from this, the state has some of the vegetation that is abundant with sal, sisham, chir pine, dry deciduous, and moist broad-leaved forests. The landscape that falls in temperate regions has trees like oak, deodar, blue pine, fir, and spruce. The trees found in higher elevations include alders, birches, rhododendrons, and moist alpine scrubs.

30. Himachal Pradesh has abundant fruits like apple, peaches, plums, and berries. It is rightly called the “fruit bowl of India.” There are plenty of fruit orchards, and fruits are exported to various parts of the country and abroad. The pleasant climate also helps numerous flower varieties like gladiolas, lilies, tulips, chrysanthemums, roses, marigolds, carnations, etc. to grow in abundance. The topography and the agro-climatic conditions of Hamirpur district are quite suitable for the production of the various fruits. The topography of the district can be grouped into three categories namely high hill areas located at a higher elevation, mid hill areas and low lying valley areas. Fruits of different varieties, depending upon the terrain, climatic condition and soil are grown in the district. The total area of district under horticulture is around 6639 hectares as per data of Economics and Statistics Department of GOHP.

31. Himachal Pradesh is home to approximately 1,200 birds and 359 animal species. This includes leopards, ghoral, snow leopard, musk deer (state animal), and western tragopan (state bird). The state is an ideal tourist destination for animal lovers as it hosts 12 main national parks and sanctuaries. It has two major national sanctuaries—the Great Himalayan National Park and the Pin Valley National Park.

32. Since the subproject site of MCC is located at the outer skirts of Hamirpur town, there are no protected areas within a 20 km radius. Around the subproject site, one only finds domesticated fauna (cow, goats, buffalo, mules, hens, dogs, cats, etc.) and common trees such as shisam, mango, neem, and sal. At the subproject site there is presence of Bamboo (*Bambusa vulgaris*) 4 groves, Kainth (*Limmonia acidissima*) -1 tree and Beul (*Grewia Optiva*) -1 tree. Out of these trees only Bamboo groves will be removed for the construction of MCC. Some common birds of the project area are Crow, Parrot, Gidh (Vulture), Koel, Neelkant (blue jay), and Kala teetar.

33. The major water body close to subproject site is Kunah. This is a perennial stream and tributary of Beas River. The aquatic micro- flora and fauna of this stream includes phytoplankton (*Chaetophora* sp. (clean water algae), *Sphaerocystis* sp. (Surface algae), *chlorella* sp. (fresh water algae), and Moss (wet & moist placed growing vegetation)), Zooplanktons (Protozoans Rotifers), and Benthos (Ephemeroptera, Plecoptera, Diptera, Hemiptera and Crustacea). The above information is based on Environmental Impact Assessment Study report of a mineral extracting industry in the project region. There are no endangered or rare species flora at and around subproject site as site is outskirts of inhabited Hamirpur town.

2. Protected Areas

34. The list of protected areas (National Parks and Wildlife Sanctuaries) in Himachal Pradesh is given in **Table 8**. None of the protected areas are falling within Hamirpur. None of these protected areas are located within 20 km aerial distance from the proposed MCC site at Hamirpur.

Table 8: Protected Areas in Himachal Pradesh

Sl. No.	Sanctuaries	District	Area (km ²)
1	Bandli	Mandi	32.11
2	Chail	Solan	16.00
3	Chandra Tal	Lahaul and Spiti	38.56+ (11.53 for consideration)
4	Churdhar	Sirmour	55.52
5	Daranghati	Shimla	171.50
6	Dhauladhar	Kangra	982.86
7	Gamgul-Siyabehi	Chamba	108.40
8	Kais	Kullu	12.61
9	Kalatop-Khajjiar	Chamba	17.17
10	Kanawar	Kullu	54.27
11	Khokhan	Kullu	14.94
12	Kibber	Lahaul & Spiti	2220.12
13	Kugti	Chamba	379.00
14	Lipa Asrang	Kinnaur	31.00

Sl. No.	Sanctuaries	District	Area (km ²)
15	Majathal	Solan	30.86
16	Manali	Kullu	29.00
17	Nargu	Mandi	278.00
18	Pong Dam Lake	Kangra	207.59
19	Rakchham-Chitkul	Kinnaur	304.00
20	Renuka	Sirmour	4.00
21	Rupi-Bhaba	Kinnaur	503.00
22	Sechu-Tuan Nalla	Chamba	390.29
23	Sainj	Kullu	90.00
24	Shikari Devi	Mandi	29.94
25	Shimla Water Catchment	Shimla	10.00
26	Simbalbara	Sirmour	27.88
27	Talra	Shimla	46.48
28	Tirthan	Kullu	61.00
29	Tundah	Chamba	64.00
30	Water Supply Catchment	Shimla	10.00
National Parks			
1	Great Himalayan National Park	Kullu	765.00
2	Pin Valley National Park	Lahaul and Spiti	675.00
Conservation Areas			
1	Shilli Conservation Reserve	Solan	1.49
2	Shri Naina Devi Conservation Reserve	Bilaspur	17.01
3	Darlaghat Conservation Reserve	Solan	0.67

Source: Himachal Pradesh State Forest Department.

C. Economic Resources

1. Industries

35. Being a hilly state, Himachal Pradesh has few large industrial units. As shown in **Table 9** below, the Hamirpur district also mainly has micro, small, and medium enterprises focusing on agro-products, textiles, furniture, etc.:

Table 9: Details of Existing Micro and Small Enterprises and Artisan Units in the District

NIC Code No	Type of Industry	Number of Units	Investment (lakh ₹)	Employment
20	Agro-based	333	110.24	433
22	Soda water	06	5.07	22
23	Cotton textile	-	-	-
24	Woolen, silk, and artificial thread-based clothes	37	5.48	66
25	Jute and jute-based	-	-	-

NIC Code No	Type of Industry	Number of Units	Investment (lakh ₹)	Employment
26	Ready-made garments and embroidery	31	7.4	91
27	Wood and wooden-based furniture	272	108.20	548
28	Paper and paper products	48	72.00	50
29	Leather-based	11	18.70	42.0
31	Chemical and chemical-based	6	2.10	15.0
30	Rubber, plastic, and petro-based	15	923.93	91.0
32	Mineral-based	-	-	-
33	Metal-based (steel fabrication)	233	62.61	297
35	Engineering units	-	-	-
36	Electrical machinery and transport equipment	-	-	-
97	Repairing and servicing	96	60.69	165
01	Others	322	102.36	602

Source: Government of Himachal Pradesh, District Industry Centre. Hamirpur

2. Transportation

36. The MCC site at Hamirpur is well connected by roads with all the important places in Himachal Pradesh like Shimla (142 km), Palampur (69.3 km), and Hamirpur (3 km). The nearest rail head at Una is 76 km away. The nearest airport from MCC subproject site is 83 km. No clearance or permission from Airport Authority of India (AAI) is needed as subproject site is significantly away from airport and MCC building is low height building (ground plus two floors).

3. Land Use

37. A study of the land use (Table 10) shows that majority of the district is under forest cover followed by land under cultivation. The land under non agricultural uses is also significant (15300 hectares). The land under double crop area is also significant. This is due to availability of water sources in the district. Overall it is concluded that land under agriculture is maximum due to plain areas in the district and these plain areas are close to Punjab border. The subproject site land use is residential and it is well within municipal council limits of Hamirpur town.

Table 10: Land Use Pattern of Hamirpur District

Land Use	Area (hectare)
Geographical area of district	110200
Area under forest, dense and open forest	18200
Misc. Tree, crops and Groves (Not included in net area sown)	0.0
Permanent Pastures & Other Grazing Lands	11500
Culturable Waste land	11000
Land put to Non- Agri- Culturable Uses	15300
Barren & Unculturable Land	11700
Current Follows	5300
Other Follows	1500

Net Area sown	35700
Net Area sown more than once	33200

Source: District Census Handbook Hamirpur District, 2011

38. Agricultural Development Agriculture is the main occupation of the people in Hamirpur district. However, intensive cultivation is not possible as significant part of the district is mountainous. Despite the hilly topography of the district the agro climatic conditions provide a range of potentialities for growing cash crops like off season vegetables, cereals, pulses and oil seeds. Among the cereals wheat, maize, rice and barley are extensively grown.

4. Electrification

39. There is 100 % electrification in rural and urban areas of Hamirpur district as per Statistical abstract published by Department of Economics and Statistics, GOHP for the year 2015-2016.

D. Social and Cultural Resources

1. Population and Communities

40. The Hamirpur district has a total area of 1,118 sq. km forming 2.01 per cent of the total area of the state. It ranks 12th in area amongst the districts of the state. According to Census 2011, the total population of Hamirpur district is 4,54,768 comprising 2,17,070 males and 2,37,698 females. This population of the district forms 6.62 per cent of the state population and rank at 8th place among the districts. Out of the total population of the district 93.09 per cent lives in rural areas while 6.91 per cent lives in urban areas. Rural population of the district is distributed among 5 Tehsil and 2 sub-Tehsil, whereas urban population is spread over to 4 towns. The total urban population in the district is 31,430 comprising 16,322 males and 15,108 females. The total rural population in the district comes to 4,23,338 consisting of 2,17,070 males and 2,37,698 females. Over all the district have 1,725 villages. The total rural population is distributed in 1,671 inhabited villages. Rests of the 54 villages have been returned as un-inhabited. The density of population in Hamirpur district comes to 407 per sq.km. Against the state density of 123 persons. At the sub-district level, the density of population varies between 583 in Bhoranj sub- district and 255 persons in Tira Sujanpur sub-district. In rural areas, the density of population works out 383 persons per sq. km. while in urban area it comes to 2,707 at the district level. There are 1,095 females for every thousand males in Hamirpur district. The sex ratios for rural and urban areas of the district are 1,109 and 926, respectively. The proportion of females is much higher in rural areas in comparison to urban areas of the district. As per Census 2011, Hamirpur district reported 3,58,091 persons as literates constituting 88.15 per cent of the total population. The proportion of male and female literates in the district is 94.36 and 82.62 per cent, respectively. The literacy rate is higher than the state average of 76.1%. Out of the total population of 4,54,768 of the district, 4,49,412 (98.82 per cent) have reported their religion as Hindu followed by 3,711 (0.82 per cent) as Muslim. Remaining Sikhs, Buddhist, Christian, Jain and other religions have a negligible representation in the district.

41. The mother tongue in Hamirpur district is Hindi. The other local languages such as Punjabi and Kangri are spoken by a very small fraction of population. The majority of the people are Hindu Brahmin, Rajputs, Banias, and scheduled castes and scheduled tribes. There are also minority populations of Sikhs, Muslims and Christians. The traditional dress for men is the *kurta*, *pyjama*, and a woolen jacket used in winter. Women generally wear the *salwar kameez*.

2. Health Facilities

42. The GOHP run health facilities in Hamirpur district include 4 hospitals, 3 Community Health Centers and 29 Primary Health Centers. The Ayurvedic related health facilities include 5 hospitals, and 6 dispensaries. In addition to the above mentioned government run health facilities, there are many private run hospitals, nursing homes and clinics.

3. Education facilities

43. In the Hamirpur district, there are 489 primary schools, 120 middle schools, 156 secondary and senior secondary schools, 16 degree colleges (5 Government and 11 private), 3 Engineering Colleges to provide quality education. In addition to this, there are many private owned schools, degree colleges, polytechnic institutes and Industrial Training Institutes.

E. Archaeological Resources

44. There are no heritage sites notified by Archaeological Survey of India (ASI) within or near the subproject area. Similarly, no common property resources such as public wells, water tanks, play grounds, common grassing grounds or pastures, market areas and community buildings will be affected by the proposed subproject.

IV. ENVIRONMENTAL IMPACT AND MITIGATION MEASURES

A. Environmental Impacts

45. Any project creating physical infrastructure will cause some minor impacts on the environment. This IEE examines the potential impacts anticipated during the construction and operation of the subproject, namely "Model Career Center at Hamirpur" including:

- (i) **Location impacts.** Impact associated with site selection including effect on the environment and resettlement or livelihood-related impacts on communities.
- (ii) **Design impacts and preconstruction impacts.** Impact arising from project design, including the technology used, scale of operations, discharge standards, topographic survey, geotechnical survey, etc.
- (iii) **Construction impacts.** Impact resulting from construction activities including site clearance, earthworks, civil works, etc.
- (iv) **Operation and maintenance impacts.** Impact associated with the operation and maintenance of the infrastructure built in the subproject.

46. ADB's Rapid Environmental Assessment checklist for Buildings was used while screening the site and recommending mitigation measures (**Appendix 1**).

B. Location Impacts

47. The subproject site is located on unencumbered land owned by the Department of Labour and Employment (**Appendix 5**). No new land has been acquired for the subproject, nor has anyone been displaced in anticipation of the proposed ADB financed subproject. There are no significant ecological resources in the surroundings of the MCC site. There are no heritage sites notified by ASI (state archaeological department) within the subproject area or in the immediate surroundings. No significant impacts can arise due to project location as the MCC building components will not impinge upon any area of ecological, archaeological or historical importance. The site of MCC is in outer skirts of Hamirpur town and within the municipal limits. Hence, there is no requirement for change of land use. The site photographs are shown in **Appendix 4**.

48. The MCC site is located within seismic zone V. and even a small magnitude earthquake may damage the MCC building.

C. Impacts during Design and Preconstruction Phase

49. As noted above, the proposed subproject site is owned by the Government of Himachal Pradesh. There are no issues arising due to land acquisition or involuntary resettlement. There is need to cut 4 bamboo groves. Based on the environmental screening of the subproject area, there are no significant adverse environmental impacts during the design and preconstruction phases.

D. Impacts during Construction Phase

50. All construction activities to be undertaken at the site will be approved by the PMU. The construction stage impacts due to the proposed project components are generic to the construction activities. The EMP emphasizes on the construction impacts and necessary mitigation measures to be strictly followed by the contractor and supervised by the PWD and PIU. The key potential impacts are covered in the following paragraphs.

51. Impact due to stock piles of construction materials. Improper stockpiling of construction materials in and around the MCC site could obstruct movement along access roads and nearby drainage. Hence, due consideration will be given for proper material storage MCC construction site. Stock piles will be covered to protect from dust and erosion. Waste materials will be disposed at identified and approved locations.

52. Disposal of construction waste. The construction waste could lead to untidy conditions at site and may find its way to local urban drains and natural streams and siltation and obstruction to natural flow in these drains and streams. In the proposed subproject, it shall be mandatory for the contractor to ensure proper disposal of the construction waste at the disposal site as designated by the PWD.

53. Quarry and/or borrow pits operations. Since the civil works are of a small size, all construction material will be procured from market ensuring these are from GOHP authorized sources. There will not be any need for direct procurement of stones and building material from quarries.

54. Increase in noise levels. Noise levels in the immediate proximity of MCC site are expected to increase somewhat during construction. However, these will be largely imperceptible as civil works will be confined to relatively small area. The duration of construction will also be relatively brief. Transportation of construction materials will be confined to daytime, depending upon extent of construction activity. The increase in noise levels is expected to be between 5%–10% of ambient noise levels. This increase will be felt up to a distance of 500 m only. This noise will be intermittent in nature, and will last only during the construction phase. The construction noise is not likely to be felt at residential houses near the MCC site as these are at more than 200 m distance. At the residential locations noise levels are not anticipated to exceed the stipulated limits of residential areas. But necessary monitoring of noise levels will be taken up as part of environmental monitoring plan.

55. Impacts on biodiversity during construction phase. No major impacts are expected on the biodiversity during the construction phase as the sub project site is open, and there is need to remove only 4 bamboo groves. Presence of local shrubs has also not been seen at the site. As part of compensatory plantation, 18 trees will be planted in the vacant space along the periphery of the MCC plot. Around 30 shrubs will also be planted along the internal roads. There are no endangered or rare species of flora and fauna at and around MCC site.

56. Disturbance to traffic during construction phase. At the time of construction, there will be some temporary inconvenience due to transportation of building material and clearance of debris by trucks. However, since the scale of civil works is relatively small, the inconvenience caused will be relatively minor and limited only to the construction phase. A sample Traffic Management plan is attached in **Appendix 6**.

57. Impact on cultural properties. The proposed subproject will not have any impact on any religious structure or any other structure of historical and/or cultural significance.

58. Groundwater. Ground water will not be extracted and used for construction purposes. The contractor will arrange for water from the market. It will be supplied by the authorized water tankers. The problem of ground water contamination is also not anticipated during the construction phase since there will be proper disposal of the waste water.

59. Ambient air quality. Generation of dust is anticipated during transportation, excavation, and construction activities. Some dust and gaseous emissions will also be generated during the construction period from machines such as mixers, and vehicles

engaged in transportation of construction materials. Pollutants of primary concern at this stage include respirable and suspended particulate matter and gaseous emissions (nitrogen oxide, sulfur dioxide, carbon monoxide, etc.). However, transportation of construction materials will be confined to a few trips per day depending upon the extent of construction activity. Therefore, impact at this stage will be temporary and restricted to the close vicinity of the construction site only.

60. All vehicles and construction equipment operating for the contractor and the consultant will obtain and maintain "Pollution under Control" certificates. To control dust emissions, vehicles deployed for transporting material, sand, and aggregate haulage, will be covered with tarpaulins to prevent spillage. Regular sprinkling of water during excavations, loading, unloading, vehicular movement, and raw material transport will prevent spread of dust and other contaminants. Periodic air quality monitoring will be conducted to ensure that emissions will comply with the vehicle emission standards specified by the Government of India and ambient air quality standards specified by the Central Pollution Control Board.. The contractors will submit emission monitoring results as a compliance with environmental monitoring plan.

61. Construction waste. Some waste will be generated due to excavated earth material and waste from construction. Debris and excavated earth material can be reused subject to the approval of the PWD engineer during construction. Waste generated during construction and demolition will be disposed off as per law to the satisfaction of the engineer. The clean-up and restoration operations will be implemented by the contractor prior to demobilization. The contractor will clear all temporary structures and dispose off all garbage from construction site. All construction zones used and affected by the subproject will be left clean and tidy, at the contractor's expense as per the satisfaction the engineer.

62. The contractor is likely to engage local labor for various construction activities. However, in case of migrant labor has to be engaged, the contractor will establish properly designed labor camps with all basic amenities such as potable drinking water supply and sanitation facilities (septic tanks and soak pit). Dust bins will be placed in adequate numbers. The EMP lays down some measures to address likely adverse impacts associated with the labor camp.

E. Environmental Impacts during Operation Phase

63. Since only guidance to the job seekers and facilitation to the industrial enterprises for organizing interviews at MCC will be undertaken, there will not be any adverse environmental impact during operation. The MCC design provides for adequate parking, accommodation, and safe disposal for waste water and solid waste. Toilet blocks with septic tank and soak pits have been included in the design. The solid waste generated at MCC during operation phase will be segregated. Its disposal will be integrated with Hamirpur town waste disposal. There may be generation of some waste on account of maintenance and operation of solar PV cell. The supplier of the solar PV cell will be responsible for collecting the waste for possible reuse and recycling. Since septic tanks have been proposed for waste water, therefore, regular maintenance and cleaning of these needs to be undertaken as part of MCC operations.

64. Given the relatively small size of the MCC, there will not be any significant vehicular increase on account of its operations. Most job seekers will be using public transport. A diesel generator will be required, but it will operate only during power cuts. The generator will be of the silent type, and will comply with the levels stipulated by the Central Pollution Control Board.

65. Safety measures. The design of the MCC includes structural and seismic safety measures required by India's latest building codes (in seismic zone V). The other safety features are explained below:

- The MCC will be equipped with fire-fighting systems with portable fire extinguishers and smoke detectors. The staircase will have adequate width to allow for people to exit the MCC during any fire-related or other eventuality.
- During natural calamities, the operations will be stopped. The visiting public members and MCC staff will be safely evicted as per the disaster management plan of Himachal Pradesh.
- Necessary first aid facilities will be provided at the MCC building.

66. Socioeconomic impacts. The MCC will have a positive development impact since it will provide guidance and counseling for career development to the skilled, trained and needy Himachali youth for getting appropriate employment. The MCC will also act as interface between the skilled youth and industry.

67. Flora and fauna. Since the MCC will be located within Hamirpur town, no adverse impact on fauna and flora is anticipated due to its operation. To enhance the natural look of the MCC, planting of shrubs and landscaping will be taken up along the pathways and vacant space. Eighteen trees will be planted in the vacant space between the boundary and building. About 30 shrubs will be planted on the side slopes of internal roads.

68. Emergency Plan for Accident and Natural Hazards- For operation phase onsite emergency plan will be prepared by the managers of MCC for minor accidents and fire. For natural calamities the Disaster Management Plan prepared by Department of Labour and Employment will be followed. The Disaster Management Plans have been prepared by the respective departments of GOHP as per provisions of Disaster Management Act 2005 of Government of India.

F. Description of Planned Mitigation Measures

69. Screening of environmental impacts is based on the magnitude and duration of the impact. **Table 11** provides the potential environmental impacts and the mitigation measures including the institutional responsibilities for implementing the same. The subproject site is located sufficiently away from protected areas and the components proposed will not impact any environmentally sensitive or protected areas. All subproject activities including construction and operation will take place within available government lands.

Table 11: Summary of Environmental Impacts and Planned Mitigation Measures

Sl. No.	Potential Environmental Issues	Duration / Extent	Magnitude	Proposed Mitigation Measures	Institutional Responsibilities
1: Location Impacts					
1.1	Lack of sufficient planning to assure long-term sustainability of the MCC building and ensure protection specially from earthquakes and	Permanent	Major	The design of MCC building has been done considering earthquake coefficient of zone V. The site is not on the bank of any river or local stream.	PWD

Sl. No.	Potential Environmental Issues	Duration / Extent	Magnitude	Proposed Mitigation Measures	Institutional Responsibilities
	other natural disasters				
2: Design and Preconstruction Impacts					
2.1	Consents, permits, clearances, NOC, etc.	Permanent	Major	Obtain all necessary consents, permits, clearance, NOCs, etc., prior to start of civil works. Acknowledge in writing and provide report on compliance all obtained consents, permits, clearance, NOCs, etc. Include in detailed design drawings and documents all conditions and provisions, if necessary.	PWD
2.2	Layout of components to avoid impact on the aesthetics of the site	Permanent	Major	Project components will not have any adverse impact on aesthetics of site as it involves construction of a building. Hence, no mitigation measures are warranted.	Not Applicable
2.3	Slope stability-related issues	Permanent	Minor	The MCC site is on plain land. No stability issue is involved. No mitigation measures are warranted.	Not applicable
2.4	Increased storm water runoff from alterations of the site's natural drainage patterns due to landscaping, excavation works, construction of parking lots, and addition of paved surface	Permanent	Moderate	Design of proposed MCC will allow efficient drainage at the site and maintain natural drainage patterns	PWD
2.5	Integration of energy efficiency and energy conservation programs in design of MCC	Permanent	Moderate	The following measures have been included in the design to enhance energy efficiency: <ul style="list-style-type: none"> • Usage of recyclable materials like wood substitutes • Installation of Bureau of Energy Efficiency-certified equipment • Usage of energy-efficient lighting fixtures (LED and solar) • Provision of solar power generation 	PWD
3: Construction Impacts					

Sl. No.	Potential Environmental Issues	Duration / Extent	Magnitude	Proposed Mitigation Measures	Institutional Responsibilities
3.1	Construction camp—location, selection, design and layout	Temporary	Moderate	The construction camp will be located within the MCC site. It will not affect the day-to-day activities of local residents. Adequate sanitation facilities shall be provided at camp site and no waste water will be discharged outside.	Contractor, PWD
3.2	Traffic circulation plan during construction	Temporary	Moderate	Prior to commencement of site activities and mobilization on ground, the contractors will prepare a traffic circulation plan for safe passage of local traffic during the construction stage. This will include alternative access routes, traffic regulations, signages, etc. The contractors will get these plans approved from the PWD engineer The contractor will disseminate the traffic circulation plan around the sub project site.	Contractor, PWD
3.3	Impacts on flora and fauna	Temporary	Moderate	Conduct site induction and environmental awareness. Limit activities within the work area. Prepare site landscape and shrub or tree plantation plan (for 18 trees and 30 shrubs.)	Contractor, PWD
3.4	Site clearance activities, including delineation of construction area	Temporary	Moderate	The commencement of site clearance activities will be undertaken with due permission from the environment specialist of the PWD or HPKVN to minimize environmental impacts. All areas used for temporary construction operations will be subject to complete restoration to their former condition with appropriate rehabilitation procedures	Contractor, PWD

Sl. No.	Potential Environmental Issues	Duration / Extent	Magnitude	Proposed Mitigation Measures	Institutional Responsibilities
3.5	Drinking water availability	Temporary	Major	Sufficient supply of potable water will be provided and maintained. The drinking water will be obtained from the market through authorized tankers. This water will be stored in a tank of suitable size to ensure uninterrupted water supply	Contractor, PWD
3.6	Waste disposal	Permanent	Major	Location of disposal site for construction waste will be finalized by the environmental specialist of PWD or HPKVN. He will confirm that disposal of the material will not impact the water body or environmentally sensitive areas. He will also ensure that no endangered or rare flora is impacted by such materials.	Contractor, PWD
3.7	Stockpiling of construction materials	Temporary	Moderate	Stockpiling of construction materials does not impact nor obstruct drainage. Stockpiles will be covered to protect from dust and erosion.	Contractor, PWD
3.8	Soil erosion	Temporary	Moderate	Temporary slope protection may be required during construction at the excavated areas. Adequate measures will be taken up so that there is no soil erosion causing risks in the vicinity.	Contractor, PWD
3.9	Soil and water pollution due to fuel and lubricants, construction waste	Temporary	Moderate	The fuel storage and vehicle cleaning area will be stationed such that water discharge does not drain into the local drain. Soil and water pollution parameters will be monitored as per monitoring plan.	Contractor, PWD
3.10	Siltation of water bodies due to spillage of construction wastes	Temporary	Moderate	No disposal of construction wastes will be carried out into any streams near the subproject site. Extraneous construction wastes will be transported	Contractor, PWD

Sl. No.	Potential Environmental Issues	Duration / Extent	Magnitude	Proposed Mitigation Measures	Institutional Responsibilities
				to the pre-identified disposal site for safe disposal.	
3.11	Generation of dust	Temporary	Moderate	The contractor will take every precaution to reduce the levels of dust at construction site. The site of MCC will be properly barricaded with Mild Steel Sheets to avoid dust and air pollution impacts in the surroundings.	Contractor, PWD
3.12	Emission from construction vehicles, equipment and machinery	Temporary	Moderate	Vehicles, equipment, and machinery used for construction will conform to the relevant standard (vehicular emission standards of Government of India and CPCB specified standards for equipment and machinery) and will be regularly maintained to ensure that pollution emission levels comply with the relevant requirements.	Contractor, PWD
3.13	Noise pollution	Temporary	Moderate	Noise limits for construction equipment used in this project will not exceed 75 dB(A) at 1 m distance. The site of MCC will be properly barricaded with Mild Steel Sheets to avoid noise impacts in the surroundings.	Contractor, PWD
3.14	Material handling at site	Temporary	Moderate	Workers employed on mixing cement, lime mortars, concrete etc., will be provided with protective footwear and protective goggles. Workers who are engaged in welding works will be provided with welder's protective eye shields. Workers engaged in stone breaking activities will be provided with protective goggles and clothing.	Contractor, PWD

Sl. No.	Potential Environmental Issues	Duration / Extent	Magnitude	Proposed Mitigation Measures	Institutional Responsibilities
				The use of any toxic chemical will be strictly in accordance with the manufacturer's instructions. The engineer will be given at least 6 working days' notice of the proposed use of any chemical. A register of all toxic chemicals delivered to the site will be kept and maintained up to date by the contractor.	
3.15	Disposal of construction waste	Temporary	Moderate	Safe disposal of the construction waste will be ensured in the pre-identified disposal locations. In no case will construction waste be disposed of around the project site and especially in vacant plots in the locality.	Contractor, PWD
3.16	Safety measures during construction	Temporary	Moderate	<p>Adequate safety measures for workers during handling of materials at site will be taken up.</p> <p>The contractor has to comply with all regulations for the safety of workers. Precaution will be taken to prevent danger to workers from fire, accidental injury, etc. First aid treatment will be made available for all injuries likely to be sustained during the course of work.</p> <p>The contractor will conform to all anti-malaria instructions given to him by the engineer.</p>	Contractor, PWD
3.17	Clearing of construction of camp and restoration	Temporary	Major	<p>Contractor to prepare site restoration plans for approval by the engineer. The plan is to be implemented by the contractor prior to demobilization.</p> <p>On completion of the works, all temporary structures will be cleared</p>	Contractor, PWD

Sl. No.	Potential Environmental Issues	Duration / Extent	Magnitude	Proposed Mitigation Measures	Institutional Responsibilities
				away, all rubbish burned, excreta, or other disposal pits or trenches filled in and effectively sealed off and the site left clean and tidy, at the contractor's expense, to the satisfaction of the engineer.	
3.18	Onsite emergency plan for minor accidents and mishaps and Disaster Management Plan for Natural Calamities	Temporary	Major in case of natural calamity and minor in case of accidents or mishaps at construction site	The onsite emergency plan will be prepared by the contractor in consultation with PWD and PMC. For natural calamities, disaster management plan prepared by the PWD under the provisions of Disaster Management Act 2005 will be followed.	Contractor
4: Operation and Maintenance impacts					
4.1	Environmental Conditions	Temporary	Moderate	Air, water, noise and soil quality will be monitored periodically as per the environmental monitoring plan prepared.	DOLE
4.2	Safety risks	Temporary	Major	<ul style="list-style-type: none"> Proper demarcation and flagging of the area requiring safety observations. Necessary precaution measures to be observed by visitors will be printed on boards and will be prominently put inside the MCC building. 	DOLE
4.3	Unhygienic conditions due to poor maintenance of sanitation facilities and irregular solid waste collection	Temporary	Severe	DOLE will carry out maintenance of the toilets, and carry out the regular collection and disposal of waste to the local disposal site. The septic tanks will be maintained and emptied regularly.	DOLE
4.4	Waste generated on account operation and maintenance of Solar PV Cells	Intermittent	Minor	The supplier of solar PV cells will maintain the system. Any waste generated will be collected by the supplier for possible reuse and recycling. For this, necessary agreement will be prepared at the time of	DOLE

Sl. No.	Potential Environmental Issues	Duration / Extent	Magnitude	Proposed Mitigation Measures	Institutional Responsibilities
				supply and installation.	
4.5	Onsite emergency plan for minor accidents and mishaps and Disaster Management Plan for Natural Calamities	Temporary	Major in case of natural calamity and minor in case of accidents or mishaps at construction site	The Manager Hamirpur MCC will prepare onsite emergency plan for possible minor accidents and mishaps during operation phase. For natural calamities, the disaster management plan prepared by DOLE will be followed.	Manager MCC for Onsite Emergency Plan and DOLE for Disaster Management Plan

MCC = model career center, DOLE = Department of Labor and Employment, HPKVN = Himachal Pradesh Kaushal Vikas Nigam, LED = light emitting diode, NOC = no objection certificate, PWD = Public Works Department.

Source: Asian Development Bank.

G. Land Acquisition and Resettlement

70. The proposed MCC will be located on land owned by the DOLE. The land records showing ownership of DOLE-GOHP have been given in **Appendix-5**. Hence, there will not be any acquisition of private land. Since the proposed site is unencumbered land, there is no acquisition any private assets. At the subproject site, there are no squatters or encroachers. Hence, there is no requirement for any rehabilitation and resettlement.

V. ENVIRONMENT MANAGEMENT PLAN

A. Institutional Arrangements for Project Implementation

71. The Government of Himachal Pradesh through DOP is the executing agency. The executing agency (i) assumes overall responsibility for the execution of the project and reporting; (ii) engage adequate permanent or fixed-term staff to implement the Project; (iii) setup a state-level project management unit (PMU) and project implementation units (PIUs) at local sub-project level; (iv) provides overall strategic guidance on technical supervision and project execution; and (v) ensures overall compliance with the loan covenants.

72. The implementing agencies in the project are HPKVN, DOTE, DOHE and PWD. The implementing agency responsibilities include (i) project planning and budgeting; (ii) day-to-day assistance, supervision and guidance for the project implementation units and their consultants; (iii) review sub-projects for due diligence requirements and approve sub-project proposals; (iv) bidding, evaluation and contract award; (v) managing and disbursing funds; (vi) review compliance with loan covenants, contract specifications, work plans and quality control; and (vii) consolidate and submit progress reports, finance and accounting / audit reports, and matters requiring higher level decision to state-level empowered committee (SLEC) and ADB.

73. A State-level empowered committee (SLEC) has been established in Himachal Pradesh, chaired by State's Chief Secretary, with Principal Secretary/Secretary of the Department of Planning as Member Secretary and comprised of Secretaries from relevant line departments (PWD, DOUD, DORD, DOLE, HPKVN MD). The SLEC has been empowered to take all decisions on behalf of the State and will (i) act as a policy making body, (ii) provide overall advice and guidance to the State's executing agency and PMU, and (iii) accord all approvals under the project.

74. DOP will establish a PMU, headed by a full-time Project Director (PD) at HPKVN, and consisting of personnel drawn from relevant line departments and market. This PMU will also have safeguards expert (social and environment). The PMU will be supported by the Project Management Consultants (PMC). The PMU will be the nodal agency for overall management of all program activities and will be responsible for: (i) project planning and budgeting; (ii) providing day-to-day assistance, supervision and guidance for the PIUs and PWD; (iii) reviewing sub-projects to satisfy ADB's due diligence requirements and approving sub-project proposals submitted by PIUs and line departments; (iv) bidding, evaluation and contract award; (v) managing and disbursing funds; (vi) reviewing compliance with loan covenants, contract specifications, work plans and quality control; (vii) consolidating and submitting progress reports, finance and accounting/audit reports, and matters requiring higher-level decision, to the SLEC and ADB.

75. The sub-project will be implemented by the Project Implementation Unit (PIU) of PWD at local level comprising of personnel drawn from relevant line departments on deputation and outside of government and will be headed by a Project manager. The PIU will be responsible for: (i) prioritizing and preparing sub-project proposals; (ii) providing day-to-day assistance, supervision and guidance to the PWD at Shimla and an agency to be hired for quality check; (iii) conducting detailed assessments and surveys including public consultation and input from stakeholders; (iv) preparing detailed designs, specifications, schedule of quantity, bidding documents, and related documentation; (v) implementing civil works and related activities; (vi) reporting to PMU; (vii) preparing regular progress reports for the SLEC, the executing agency and ADB through PMU; and (viii) supervising construction, conducting quality control, approving progress payments to contractors; and (ix) maintaining records and accounts on an up-to-date basis and making these available to ADB, its missions, or auditors for inspection.

76. The Project Management Consultant (PMC) is proposed to be engaged to provide support to the PMU in overall planning, risk management, implementation, monitoring and evaluation of projects under the HPSDP. The PMC will also assist the PMU and PIUs in meeting the relevant requirements of ADB, GOHP, and GOI for project implementation. The PMC will report to and work under the overall guidance of the PMU. The scope of services of the PMC's will include but not necessarily be limited to: (i) planning, reporting, and communication; (ii) establishment of procedures and systems; (iii) review and preparation of plans, manuals and reports; (iv) overall project management, monitoring and implementation of MIS; and (v) social, environmental, archaeological, occupational health and safety, community participation and gender action compliance monitoring.

77. The executing agency will engage one agency for the quality check and to meet timeline requirements. This agency will work under the PMU. The scope of services of the agency will include but not necessarily be limited to: (i) surveys, verification of feasibility studies and base maps; (ii) project planning and management support to the PIU; (iii) finalization of design criteria, preparation of manuals, guidelines and systems; (iv) preparation of detailed design and bid documents; and (v) construction management and contract administration.

78. In order to ensure effective implementation of safeguard related components in the project PIU at PWD will include a safeguard expert (an environmental cum social expert) in the team. This safeguard expert will ensure compliance with ESMF requirements, and implementation of environmental management plans of sub-projects at sites through contractor(s).

79. The PMC will also have safeguard experts in their team to support PMU in reporting, safeguards related documents preparation, disclosure and capacity building of PIUs, PMU and contractor(s). The PMU at HPKVN will establish a safeguard cell comprising of an environmental expert, and a social development expert.

80. The contractor at sub-project site will designate one officer as safeguard cum safety officer for the implementation of IEE and EMP requirements at site. The project implementation arrangement for safeguard compliance has been shown below in **Figure -8**. **Tables 12 to 14** present a generic EMP to guide the contractor in mitigating environmental impacts for pre construction, construction and operation phases of MCC.

B. Responsibility for updating IEE during Pre-Construction and Construction

81. **Responsibility for monitoring.** During construction, the Environmental Specialist of the Safeguards cell at PMU (at HPKVN) and the designated representative engineer of the PWD will monitor the contractor's performance. During the operation phase, monitoring will be the responsibility of the PMU. The Environmental specialist PMU will prepare semi-annual reports.

82. **Responsibility for Reporting.** PMU at HPKVN will submit semi-annual reports on the implementation of the EMP to ADB. It will permit ADB to field environmental review missions to examine in detail, the environmental aspects of the project. Any major lapses in adhering to the ESMF and IEE and / or EMP for specific sub-project should be reported to ADB immediately. The PMC's Environment Safeguard Specialist will assist the PMU in finalizing the semi-annual and annual progress reports. For any non compliance observed corrective actions will be taken in a time bound manner. The cost for mitigating non compliance will be borne by the contractor as per contract provisions. In case of mitigation costs not coming in scope of contract, these will be met out of contingencies built in EMP cost and in overall project cost.

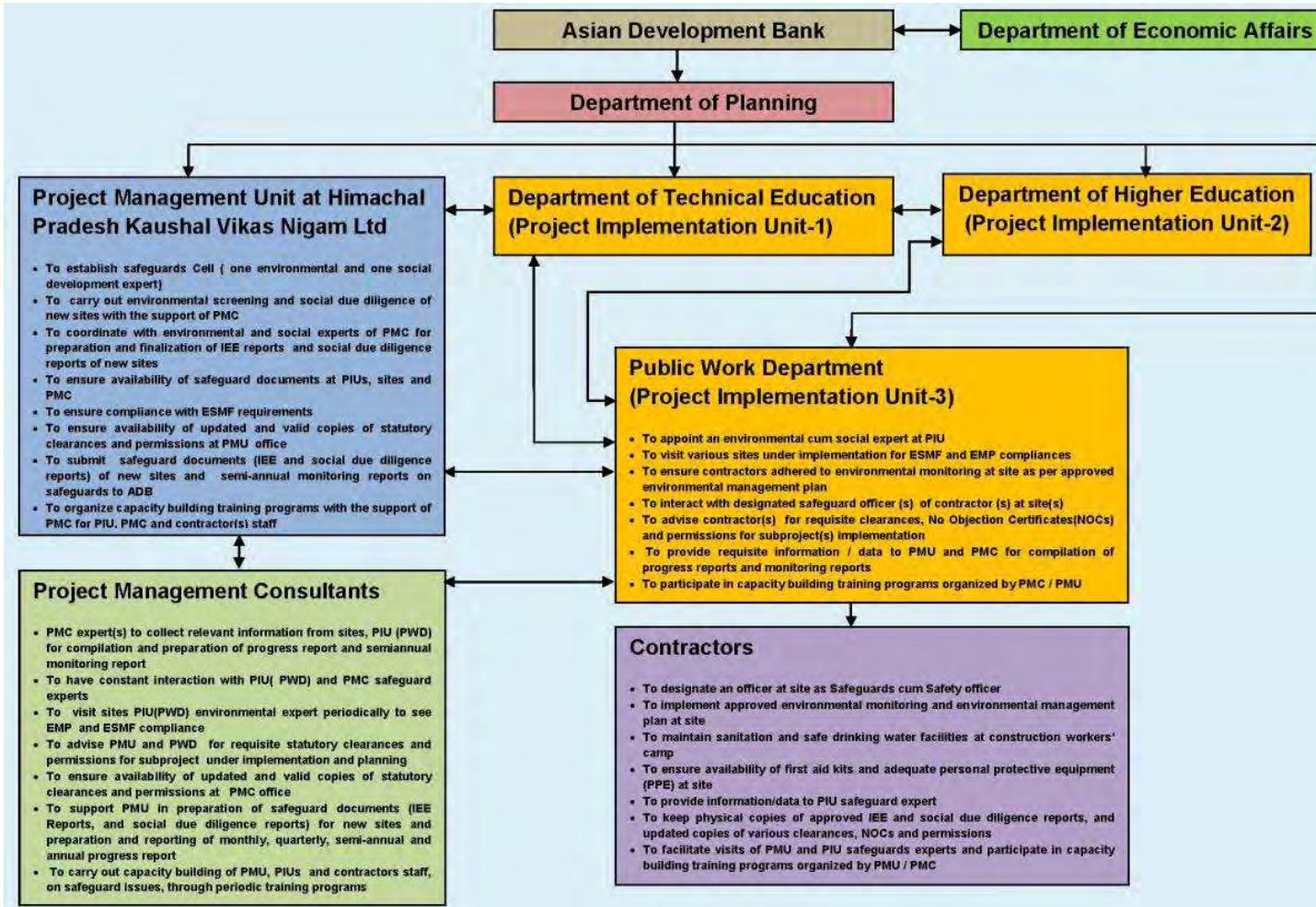
FIGURE 8: PROJECT IMPLEMENTATION ARRANGEMENT FOR SAFEGUARD COMPLIANCE

Table 12: Environmental Management Plan for Preconstruction Phase

Sl. No.	Environmental Issues	Mitigation Measures	Parameter / Indicator for Compliance	Responsible for Implementation	Responsible for Supervision	Frequency for Monitoring	Fund Sources for Implementing Mitigation Measure
1	Lack of sufficient planning to assure long-term sustainability of the improvements and ensure protection of the assets created	<ul style="list-style-type: none"> Design has included provisions for ensuring effective maintenance and protection of the assets to be created to ensure their long-term sustainability. The long-term sustainability has been ensured by taking into consideration the appropriate Bureau of Indian Standards Codes for design, Seismic Zone V coefficient, appropriate wind load factor (corresponding to 39 m/s wind speed), and detailed design after carrying geotechnical investigations and topographic survey. 	Verification of design parameters	PWD	PWD	Review after completion of detailed project report	Project cost
2	Layout of components to avoid impacts on the aesthetics of	<ul style="list-style-type: none"> The project components sighting will avoid impacts on the aesthetics of the 	MCC building exterior	PWD	PWD	Review after completion of detailed project report	Project cost

Sl. No.	Environmental Issues	Mitigation Measures	Parameter / Indicator for Compliance	Responsible for Implementation	Responsible for Supervision	Frequency for Monitoring	Fund Sources for Implementing Mitigation Measure
	the site	site and surroundings, and the MCC building will blend well with local buildings.					
3	Slope stability related issues	<ul style="list-style-type: none"> The plot area for MCC building is flat, however, during construction any exposed slopes at excavated areas will be covered and slope protection measures will be provided specially at side slopes of internal roads. 	Slope protection measures on side slopes of access path, internal road, etc.	PWD	PWD	Review of recommended slope protection measures	Project cost
4	Increased storm water runoff from alterations of the site's natural drainage patterns due to landscaping, excavation works, construction of parking lot, and addition of paved surfaces	<ul style="list-style-type: none"> Design of proposed MCC building enables efficient drainage of the plot and maintains natural drainage patterns. The storm water generated will be diverted to local drains through a properly constructed drainage system. 	Arrangement for proper diversion of storm water runoff	PWD	PWD	After mobilization of contractor at site and during establishment of construction camp	Incidental to construction cost
5	Integration of energy efficiency and energy conservation programs in design of subproject components	<ul style="list-style-type: none"> The detailed designs for the subproject have ensured that environmental sustainability principles, including energy efficiency, resource 	Specifications of rain water harvesting structures, electrical fixtures, details of water heating	PWD	PWD	During finalization of detailed project report	Project cost

Sl. No.	Environmental Issues	Mitigation Measures	Parameter / Indicator for Compliance	Responsible for Implementation	Responsible for Supervision	Frequency for Monitoring	Fund Sources for Implementing Mitigation Measure
		<p>recycling, waste minimization, etc. The design considers the following energy efficiency measures:</p> <ul style="list-style-type: none"> - Usage of recyclable materials like wood substitutes. - Installation of Bureau of Energy Efficiency-certified equipment - Usage of energy efficient lighting fixtures (LED) - Provision of photovoltaic cells on roofs for solar power. 	system				
6	Consents, permits, clearances, NOC, etc.	<ul style="list-style-type: none"> • Obtain all necessary consents, permits, clearance, NOCs, etc. prior to start of civil works. • Acknowledge in writing and provide report on compliance all obtained consents, permits, clearance, NOCs, etc. 	Consents, permits, clearance, and NOCs' records and communications	PWD	PWD	Check consent for establishment of construction camp and approval from civic authorities for MCC construction	Project cost
7	Establishment of baseline environmental conditions prior to	<ul style="list-style-type: none"> • Conduct documentation of location of components, areas for construction zone 	Records and photographs	Contractor	PWD	Once prior to construction	Contractor

Sl. No.	Environmental Issues	Mitigation Measures	Parameter / Indicator for Compliance	Responsible for Implementation	Responsible for Supervision	Frequency for Monitoring	Fund Sources for Implementing Mitigation Measure
	start of civil works	(camp, staging, storage, stockpiling, etc.) and surroundings (within direct impact zones). Include photos and GPS coordinates.					
8	Utilities	<ul style="list-style-type: none"> The locations and operators of utilities to be impacted should be identified and documented in detailed project report documents to prevent unnecessary disruption of services during the construction phase. Require contractor to prepare a contingency plan to include actions to be done in case of unintentional interruption of services. Obtain from the PIU and / or PWD the list of affected utilities and operators. If relocations are necessary, contractor will coordinate with the providers to relocate the utility. 	<ul style="list-style-type: none"> List and maps showing utilities to be shifted Contingency plan for services disruption 	<ul style="list-style-type: none"> PWD will prepare preliminary list and maps of utilities to be shifted During detailed design phase, contractor to (i) prepare list and operators of utilities to be shifted; (ii) contingency plan 	PWD	Preconstruction Phase	Contractor
9	Social and Cultural	<ul style="list-style-type: none"> Consult Archaeological 	Chance find	PWD	PWD	Prior to start of	Project cost

Sl. No.	Environmental Issues	Mitigation Measures	Parameter / Indicator for Compliance	Responsible for Implementation	Responsible for Supervision	Frequency for Monitoring	Fund Sources for Implementing Mitigation Measure
	Resources	<p>Survey of India or Himachal Pradesh State Archaeology Department to obtain an expert assessment of the archaeological potential of site.</p> <ul style="list-style-type: none"> • Consider alternatives if the site is found to be of medium or high risk. • Include state and local archaeological, cultural and historical authorities, and interest groups in consultation forums as project stakeholders so that their expertise can be made available. • Develop a protocol for use by the construction contractor in conducting any excavation work, to ensure that any chance finds are recognized and measures are taken to ensure they are protected and conserved. 	protocol			construction activities	
10	Construction camp—location, selection, design	<ul style="list-style-type: none"> • Sighting of the construction camp shall be as per the 	Construction camp site, and locations of	Contractor	PWD	At the time of construction camp establishment and	Contractor

Sl. No.	Environmental Issues	Mitigation Measures	Parameter / Indicator for Compliance	Responsible for Implementation	Responsible for Supervision	Frequency for Monitoring	Fund Sources for Implementing Mitigation Measure
	and layout	<p>guidelines below and details of layout to be approved by PWD.</p> <ul style="list-style-type: none"> Potential sites for the labor camp will be lined up to be visited by the environmental expert of Safeguards Cell. The one having least impacts on the environment will be approved by the PWD and Safeguards Cell. As far as possible, the construction camp will be established on vacant land near the MCC plot to avoid impact on other land. The storage location of construction materials shall be at the MCC site or any building close to the MCC site. Construction sanitation facilities shall be adequately planned. 	material storage areas, sanitation facilities			finalization of storage areas	
11	Sources of construction materials	<ul style="list-style-type: none"> Use quarry sites and sources licensed by the Government of Himachal Pradesh. Verify suitability of all material sources and 	Permits issued to quarries or sources of materials	Contractor PWD to verify sources (including permits) if	PWD	Upon submission by contractor	Project cost

Sl. No.	Environmental Issues	Mitigation Measures	Parameter / Indicator for Compliance	Responsible for Implementation	Responsible for Supervision	Frequency for Monitoring	Fund Sources for Implementing Mitigation Measure
		<p>obtain approval from PIU.</p> <ul style="list-style-type: none"> • If additional quarries are required after construction has started, obtain written approval from PIU. • Submit monthly to PWD a documentation of sources of materials. 		additional is requested by contractor			
12	Access for construction material transportation	<ul style="list-style-type: none"> • Plan transportation routes so that heavy vehicles do not use narrow local roads, except in the immediate vicinity of site. • Schedule transport and hauling activities during nonpeak hours. • Locate entry and exit points in areas where there is low potential for traffic congestion. • Keep the site free from all unnecessary obstructions. • Drive vehicles in a considerate manner. • Coordinate with the Traffic Police Department for temporary road diversions and for 	Traffic management plan	Contractor	PWD	During delivery of construction materials	Contractor

Sl. No.	Environmental Issues	Mitigation Measures	Parameter / Indicator for Compliance	Responsible for Implementation	Responsible for Supervision	Frequency for Monitoring	Fund Sources for Implementing Mitigation Measure
		provision of traffic aids if transportation activities cannot be avoided during peak hours.					
13	Occupational health and safety	<ul style="list-style-type: none"> • Comply with International Finance Corporation Environmental, Health, and Safety Guidelines on Occupational Health and Safety in developing comprehensive site-specific health and safety plan. The overall objective is to provide guidance to contractors on establishing a management strategy and applying practices that are intended to eliminate, or reduce, fatalities, injuries, and illnesses for workers performing activities and tasks associated with the project. • Include in the health and safety plan measures such as (i) 	Health and safety plan	Contractor	PWD	During construction phase	Contractor

Sl. No.	Environmental Issues	Mitigation Measures	Parameter / Indicator for Compliance	Responsible for Implementation	Responsible for Supervision	Frequency for Monitoring	Fund Sources for Implementing Mitigation Measure
		<p>type of hazards in the construction of the MCC building, (ii) corresponding personal protective equipment for each identified hazard, (iii) health and safety training for all site personnel, (iv) procedures to be followed for all site activities, and (v) documentation of work-related accidents.</p> <ul style="list-style-type: none"> • Provide medical insurance coverage for workers. 					
14	Public consultations	<ul style="list-style-type: none"> • Continue information dissemination, consultations, and involvement or participation of stakeholders during project implementation. 	Disclosure records; consultations	PWD	PWD	<ul style="list-style-type: none"> • During update of IEE report • During preparation of site- and activity-specific plans as per environmental management plan • Prior to start of construction • During construction 	Project cost

MCC = model career center, IEE = initial environmental examination, NOC = no objection certificate, PIU = project implementation unit, PWD = Public Works Department.
Source: Asian Development Bank.

Table 13: Environmental Management Plan for Construction Phase

Sl. No.	Environmental Issues	Mitigation Measures	Parameter / Indicator for Compliance	Responsible Implementation	Responsible Supervision	Frequency for Monitoring	Sources of Fund for Implementing Mitigation Measure
1	Sanitation facilities at construction camp	<ul style="list-style-type: none"> The contractor shall provide sanitation facilities at the camp site. These facilities will include dust bins in adequate numbers for solid waste collection, and separate toilets for male and females. Toilet facilities shall be maintained and septic tanks or soak pits shall be provided. The dust bins shall be regularly emptied and waste from camp site shall be disposed off at designated locations. 	Construction camp sanitation facilities	Contractor	PWD	Regularly during construction phase	Contractor fee
2	Traffic circulation plan during construction	<ul style="list-style-type: none"> Prior to commencement of site activities and mobilization on ground, the contractor will prepare and get approval from the engineer (PWD) for a circulation plan during construction for safe passage of public vehicles so that locals are not inconvenienced. 	Safe movement of traffic	Contractor	PWD	Every day during construction phase	Contractor fee

Sl. No.	Environmental Issues	Mitigation Measures	Parameter / Indicator for Compliance	Responsible Implementation	Responsible Supervision	Frequency for Monitoring	Sources of Fund for Implementing Mitigation Measure
		<ul style="list-style-type: none"> The contractor with support of PIU will disseminate these information and circulation plan at the site and at key access roads to the MCC site. 					
3	Site clearance activities, including delineation of construction areas	<ul style="list-style-type: none"> Only ground cover or shrubs that directly affect the permanent works or necessary temporary works shall be removed (4 Bamboo groves) with prior approval from the environmental expert of the Safeguards Cell. All areas used for temporary construction operations will be subjected to complete restoration to their former condition with appropriate rehabilitation procedures. Photographic records shall be maintained for the temporary sites used for construction. These will help in proper restoration. 	Preconstruction records of sites and vegetation in area of construction	Contractor	PWD	Duration of site preparation	Contractor fee
4	Drinking water availability at	<ul style="list-style-type: none"> Sufficient supply of cold potable water to 	Water supply source and	Contractor	PWD	Regularly during construction phase	Contractor fee

Sl. No.	Environmental Issues	Mitigation Measures	Parameter / Indicator for Compliance	Responsible Implementation	Responsible Supervision	Frequency for Monitoring	Sources of Fund for Implementing Mitigation Measure
	construction camp and construction site	<p>be provided and maintained. The drinking water will be obtained from the market. No public supply source in the vicinity of sub-project will be used for drinking or construction purposes. The drinking water will be stored in a suitable size storage tank to ensure uninterrupted availability.</p> <ul style="list-style-type: none"> • Contractor will submit his plan on how availability of drinking water shall be assured. The original source of the water supplied by the tankers will be recorded. 	availability of water, source of water used by the tankers				
5	Waste disposal	<ul style="list-style-type: none"> • The pre-identified disposal location shall be part of the comprehensive waste disposal plan. • A solid waste management plan will be prepared by the contractor in consultation with local civic authorities. 	Waste disposal sites, waste management plan	Contractor	PWD	Regularly during construction phase	Contractor fee

Sl. No.	Environmental Issues	Mitigation Measures	Parameter / Indicator for Compliance	Responsible Implementation	Responsible Supervision	Frequency for Monitoring	Sources of Fund for Implementing Mitigation Measure
		<ul style="list-style-type: none"> The environmental specialist of PWD shall approve these disposal sites after conducting a joint inspection on the site with the contractor. Contractor shall ensure that waste shall not be disposed of near natural streams in the surroundings of the site and along the access path. 					
6	Stockpiling of construction materials	<ul style="list-style-type: none"> Stockpiling of construction materials will be done in such a way that it does not impact and obstruct the drainage. Stockpiles will be covered to protect from dust and erosion. 	Subproject stockpiling sites	Contractor	PWD	Regularly during construction phase	Contractor fee
7	Arrangement for construction water	<ul style="list-style-type: none"> The contractor shall provide a list of locations and type of sources from where water for construction shall be acquired. To avoid disruption or disturbance to other water users, the contractor shall arrange water from the 	Source of water used by the tankers	Contractor	PWD	Regularly during construction phase	Contractor fee

Sl. No.	Environmental Issues	Mitigation Measures	Parameter / Indicator for Compliance	Responsible Implementation	Responsible Supervision	Frequency for Monitoring	Sources of Fund for Implementing Mitigation Measure
		market through authorized tanker suppliers or from the local municipality and consult PWD before finalizing the source.					
8	Soil erosion and water ponding on account of excavation	<ul style="list-style-type: none"> Slope protection measures will be undertaken as per design to control soil erosion especially on side slopes of access and internal roads. The excavation works will be avoided during monsoon months to avoid soil erosion, stagnation of water, and vector - borne diseases. 	Locations of slope protection	Contractor	PWD		Contractor fee
9	Water pollution from construction wastes	<ul style="list-style-type: none"> The contractor shall take all precautionary measures to prevent entry of waste water into any local stream during construction. 	Subproject sites	Contractor	PWD	Regularly during construction phase	Contractor fee
10	Water pollution from fuel and lubricants	<ul style="list-style-type: none"> The contractor shall ensure that all construction vehicle parking locations; fuel and lubricants storage sites; vehicle, machinery, and equipment 	Vehicle parking, refueling sites, oil interceptor functioning	Contractor	PWD	Regularly during construction phase	Contractor fee

Sl. No.	Environmental Issues	Mitigation Measures	Parameter / Indicator for Compliance	Responsible Implementation	Responsible Supervision	Frequency for Monitoring	Sources of Fund for Implementing Mitigation Measure
		<p>maintenance and refueling sites shall be located at least 500 m away from the natural streams.</p> <ul style="list-style-type: none"> • Contractor shall ensure that all vehicles and machinery, as well as equipment operation, maintenance, and refueling shall be carried out in such a manner that spillage of fuels and lubricants does not contaminate the ground. • Wastewater from vehicle parking, fuel storage areas, workshops, wash down, and refueling areas shall be treated in an oil interceptor before discharging it on land, or into surface water bodies, or into other treatment system. 					
11	Soil pollution due to fuel and lubricants, construction wastes	<ul style="list-style-type: none"> • The fuel storage and vehicle cleaning area will be stationed such that spillage of fuels and lubricants does not contaminate the 	Vehicle maintenance and parking area, soil quality monitoring results	Contractor	PWD	Regularly during construction phase	Contractor fee

Sl. No.	Environmental Issues	Mitigation Measures	Parameter / Indicator for Compliance	Responsible Implementation	Responsible Supervision	Frequency for Monitoring	Sources of Fund for Implementing Mitigation Measure
		ground. • Soil and pollution parameters will be monitored as per monitoring plan.					
12	Siltation of water bodies due to spillage of construction wastes	• No disposal of construction wastes will be carried out into the surface water bodies. • Extraneous construction wastes will be transported to the pre-identified disposal sites for safe disposal.	Water bodies especially natural springs near subproject site	Contractor	PWD	Regularly during construction phase	Contractor fee
13	Generation of dust	• The contractor will take every precaution to reduce the levels of dust at construction sites. Water will be sprayed as required, on locations of excavations, internal unfinished roads/walkways and locations of sand and sub grade storages. The water for spraying will be used from the water stored for construction. The water spray records will be maintained at site.	Subproject site, air quality monitoring results, water spray records	Contractor	PWD	Regularly during construction phase	Contractor fee

Sl. No.	Environmental Issues	Mitigation Measures	Parameter / Indicator for Compliance	Responsible Implementation	Responsible Supervision	Frequency for Monitoring	Sources of Fund for Implementing Mitigation Measure
		<ul style="list-style-type: none"> • All filling works are to be protected or covered in a manner to minimize dust generation. In order to minimize dust impacts, MCC site will be protected through MS sheet barricades. • The air quality monitoring will be conducted as per monitoring plan 					
14	Emission from construction vehicles, equipment and machinery	<ul style="list-style-type: none"> • All vehicles, equipment, and machinery used for construction shall conform to the relevant Bureau of India Standard norms. • The discharge standards promulgated under the Environment Protection Act, 1986 shall be strictly adhered to. The silent or quiet equipment available in the market shall be used in the subproject. • The Contractor shall maintain a record of pollution under control for all vehicles and 	Pollution under control certificates of vehicles and machinery	Contractor	PWD	Regularly during construction phase	Contractor fee

Sl. No.	Environmental Issues	Mitigation Measures	Parameter / Indicator for Compliance	Responsible Implementation	Responsible Supervision	Frequency for Monitoring	Sources of Fund for Implementing Mitigation Measure
		machinery used during the contract period, which shall be produced for verification whenever required.					
15	Noise pollution	<ul style="list-style-type: none"> The contractor shall confirm that all construction equipment shall strictly conform to the Ministry of Environment, Forests and Climate Change and Central Pollution Control Board noise standards. Contractor must ensure that all vehicles and equipment used in construction shall be fitted with exhaust silencers. At the construction sites, noisy construction work such as crushing, operation of diesel generator sets, use of high noise generation equipment shall be stopped during the night time between 10:00 p.m. to 6:00 a.m. Noise limits for construction equipment 	Certificates of vehicles conforming noise standards, noise monitoring results	Contractor	PWD	Regularly during construction phase	Contractor fee

Sl. No.	Environmental Issues	Mitigation Measures	Parameter / Indicator for Compliance	Responsible Implementation	Responsible Supervision	Frequency for Monitoring	Sources of Fund for Implementing Mitigation Measure
		<p>used in this project will not exceed 75 dB (A) at 1 m distance. However, noise levels as specified in ambient noise standards (55 dB (A) during day time and 45 dB (A) during night time) will be adhered to during the construction phase.</p> <ul style="list-style-type: none"> • Noise level monitoring will be carried out as per monitoring plan. • The construction site will be properly barricaded through MS sheets to avoid noise impacts in the surroundings of MCC site. 					
16	Impacts on flora and fauna	<ul style="list-style-type: none"> • Conduct site induction and environmental awareness. • Limit activities within the work area. • Plant trees and shrubs in the area/space marked for plantation in the layout. 	Record Barricades along excavation works. Note trees and shrubs planted by the project.	Contractor	PWD	Regularly during construction phase	Contractor fee
17	Material handling at site	<ul style="list-style-type: none"> • Workers employed on mixing cement, lime mortars, concrete, etc., 	Data on available personal	Contractor	PWD	Regularly during construction phase	Contractor fee

Sl. No.	Environmental Issues	Mitigation Measures	Parameter / Indicator for Compliance	Responsible Implementation	Responsible Supervision	Frequency for Monitoring	Sources of Fund for Implementing Mitigation Measure
		<p>will be provided with protective footwear and protective goggles.</p> <ul style="list-style-type: none"> Workers engaged in welding works will be provided with welder's protective eye shields. The use of any toxic chemical will be strictly in accordance with the manufacturer's instructions. The PWD will be given at least 6 working days' notice of the proposed use of any chemical. A register of all toxic chemicals delivered to the site will be kept and maintained up to date by the contractor. 	protective				
18	Disposal of construction waste, debris, cut material	<ul style="list-style-type: none"> The contractor shall confirm that safe disposal of the construction waste will be ensured in the pre-identified disposal locations. In no case will any construction waste will be disposed of around the project site indiscriminately. 	Disposal site	Contractor	PWD	Regularly during construction phase	Contractor fee
19	Safety measures	<ul style="list-style-type: none"> Adequate safety 	Records of	Contractor	PWD	Regularly during	Contractor fee

Sl. No.	Environmental Issues	Mitigation Measures	Parameter / Indicator for Compliance	Responsible Implementation	Responsible Supervision	Frequency for Monitoring	Sources of Fund for Implementing Mitigation Measure
	during construction	<p>measures for workers during handling of materials at site will be taken up.</p> <ul style="list-style-type: none"> • The contractor has to comply with all regulations for the safety of workers. Precaution will be taken to prevent danger to workers from accidental injuries, fire, etc. First aid treatment will be made available for all injuries likely to be sustained during work. • The contractor will conform to all anti-malaria instructions given to him by the engineer. 	availability of personal protective equipment, availability of first aid kits			construction phase	
20	Onsite emergency plan for minor accidents and mishaps and Disaster Management Plan for Natural Calamities	<p>1-The onsite emergency plan will be prepared by the contractor in consultation with PWD and PMC.</p> <p>2- For natural calamities, disaster management plan prepared by the PWD under the provisions of Disaster Management Act 2005 will be followed.</p>	Onsite emergency plan document and Disaster Management Plan document of PWD	Contractor	PWD	Mock Drill every quarter	Contractor

Sl. No.	Environmental Issues	Mitigation Measures	Parameter / Indicator for Compliance	Responsible Implementation	Responsible Supervision	Frequency for Monitoring	Sources of Fund for Implementing Mitigation Measure
21	Clearing of construction of camp and restoration	<ul style="list-style-type: none"> Contractor to prepare site restoration plans for approval by the engineer (PWD). The plan is to be implemented by the contractor prior to demobilization. On completion of the works, all temporary structures will be cleared away, all rubbish burned, excreta or other disposal pits or trenches filled in and effectively sealed off, and the site left clean and tidy, at the contractor's expense, to the entire satisfaction of the PWD. 	Restoration plan, and records of preconstruction of temporary sites	Contractor	PWD	End of construction phase	Contractor fee

MCC =model career center, NOC = no objection certificate, PIU = project implementation unit, PWD = Public Works Department.

Source: Asian Development Bank.

Table 14: Environmental Management Plan for Operation Phase

Sl. No.	Environmental Issues	Mitigation Measures	Parameter / Indicator for Compliance	Responsible Implementation	Responsible Supervision	Frequency for Monitoring	Sources of Fund for Implementing Mitigation Measure
1	Environmental	<ul style="list-style-type: none"> Periodic monitoring of the 	Monitoring	DOLE through	HPKVN	As per	DOLE

Sl. No.	Environmental Issues	Mitigation Measures	Parameter / Indicator for Compliance	Responsible Implementation	Responsible Supervision	Frequency for Monitoring	Sources of Fund for Implementing Mitigation Measure
	conditions	ambient air quality, noise level, surface water quality, soil quality in the subproject area as suggested in the monitoring plan through an approved monitoring agency.	results and relevant standards	Pollution Monitoring Agency		monitoring plan	
2	Unhygienic condition due to poor maintenance of sanitation facilities and irregular solid waste collection	<ul style="list-style-type: none"> DOLE will maintain toilets, and carry out the regular collection and disposal of wastes to a designated waste treatment site. Solid waste disposal will be integrated with Hamirpur City waste disposal. Septic tanks will be maintained and regularly emptied. 	Maintenance schedule of MCC building and facilities drawn up	DOLE	HPKVN	Every year during tourist season	DOLE
3	Natural disasters	<ul style="list-style-type: none"> Necessary procedures to be followed by the visitors, MCC staff and trainees during the natural disasters shall be written at prominent locations. 	Warnings of disasters by the Meteorological Department	District administration	HPKVN	During disasters	Government of Himachal Pradesh
4	Waste Generation on account of maintenance and operations of solar PV Cell	<ul style="list-style-type: none"> The solar PV cell will be maintained and operated by the supplier. Any waste generated will be taken by the supplier for possible reuse and recycle. For this, necessary agreement will be made at the time of supply. 	Waste generated from the operation and maintenance of solar PV cells	DOLE and supplier of solar PV cells	HPKVN	During entire operation phase	DOLE
5	Onsite emergency plan for minor accidents and mishaps and Disaster Management Plan	The Manager of MCC Hamirpur will prepare onsite emergency plan for possible minor accidents and mishaps for operational phase. For natural calamities, the disaster management plan prepared by	Onsite Emergency plan document and Disaster Management Plan document	Manager MCC Hamirpur	DOLE	Mock Drills every quarter	MCC operation cost

Sl. No.	Environmental Issues	Mitigation Measures	Parameter / Indicator for Compliance	Responsible Implementation	Responsible Supervision	Frequency for Monitoring	Sources of Fund for Implementing Mitigation Measure
	for Natural Calamities	DOLE will be followed.					

MCC = model career center, DOLE= Department of Labor and Employment, HPKVN = Himachal Pradesh Kaushal Vikas Nigam, PIU = project implementation unit, PWD = Public Works Department.

Source: Asian Development Bank.

C. Emergency Response Plan

83. The Government of India enacted the Disaster Management Act in 2005. To implement this Act, the National Disaster Management Authority has been established at the central level and State Disaster Management Authorities (SDMA) was established in each state including Himachal Pradesh. The Chief Minister is the chairman of Himachal Pradesh SDMA.

84. As per Section 40 of the Disaster Management Act, 2005, each government department, in conformity with the guidelines laid down by the SDMA, shall draw up their own disaster management plans.

85. Accordingly, a general disaster management plan for the entire state was prepared by the Public Works Department (PWD) in 2015.

86. Similarly, the Department of Labor and Employment prepares disaster management plans focusing on their own facilities falling in different parts of the state.

87. These plans prepared by PWD and DOLE cover natural calamities including earthquakes, floods, cloud bursts, landslides, and avalanche as relevant. They also lay down clear procedures which have to be followed during natural calamities.

88. Further, all public and private structures have to be designed on the basis of the seismic zoning and structural engineering standards prescribed by the Bureau of Indian standards and the provisions of India's National Building codes. These codes cover all aspects of building construction including administrative regulations, development control rules; fire safety requirements; stipulations regarding materials, structural design and construction (including safety).

89. Himachal Pradesh has adopted robust standard operating procedures (SOP) for responding to any disaster. It has also established an incident response system, which is activated after any event for search, evacuation, rescue, relief and rehabilitation. The SOP lays down, in a comprehensive manner, the specific actions required to be taken by various departments and agencies of Government of Himachal Pradesh, as well as organizations under the control of Government of India for responding to natural disasters. The SOP covers the preparedness, early warning, response, relief and restoration phases of disaster management for effective and efficient response.

90. During the construction phase (for a period of 24 months), the MCC at Hamirpur will be under PWD's jurisdiction. Hence, PWD will be responsible for ensuring that the civil contractors follow relevant building codes and safety norms.

91. During the operation phase, the MCC will come under DOLE's jurisdiction. Therefore, it will be responsible for following the relevant aspects of the disaster management plan prepared by the DOLE Department Authorities.

92. Hence, instead of preparing a separate emergency response plan for the project or any sub-project (and might be redundant exercise), all statutory provisions of GOHP and the Government of India, including those pertaining to disaster mitigation and response requirements, needs to be adhered to.

D. Environmental Monitoring Plan

93. Environmental monitoring (covers EMP and all of the Government of Himachal Pradesh's rules with respect to the environment, and handling of solid and liquid waste) at site will be undertaken by the contractor during preconstruction and post construction

stages, and be monitored by PWD. Environmental monitoring during post construction will be undertaken by the DOLE and be monitored by HPKVN. The environment and social safeguards specialists of PMC will coordinate with PWD and DOLE to ensure environmental parameters are monitored and reported.

94. An EMP has been prepared to ensure the effective implementation of mitigation measures to address all the environmental issues during construction and operation phase of the subproject. The proposed monitoring of all relevant environmental parameters, with a description of the sampling stations, frequency of monitoring, applicable standards, and responsible agencies are presented in the EMP as given in **Table 15**.

Table 15: Monitoring Plan for MCC Hamirpur Subproject at Preconstruction, Construction, and Operation Phases

Sl. No.	Field (environmental attribute)	Phase	Parameters to be Monitored	Locations	Frequency	Responsibility	Cost (Rs/\$)
1	Air Quality	During preconstruction phase	Nitrogen oxide, sulfur dioxide, carbon monoxide, particulate matter (both 10 micrometers and 2.5 micrometers or less in diameter)	MCC construction site	Once in the preconstruction phase to establish baseline	Contractor through approved monitoring agency	Rs130,000/ \$2,000
		During construction phase			Once in every 3 months (except monsoon season) during construction phase (24 months construction phase)		
		Operation phase			Once every season except during monsoon season during first 2 years		
2	Water quality	During preconstruction phase	Total dissolved solids, total suspended solids, pH, hardness, biochemical oxygen demand, fecal coliform	MCC construction site groundwater	Once in preconstruction phase to establish baseline	Contractor through approved monitoring agency	Rs130,000/ \$2,000
		During construction phase			Once in every 3 months (except monsoon season) during construction phase		
		Operation phase			Once every season except during monsoon season during first 2 years		
3	Noise levels	During preconstruction phase	Noise quality as per National Ambient Noise Standards on dB(A) scale	MCC construction site	Once in preconstruction phase to establish baseline	Contractor through approved monitoring agency	Rs39,000/ \$600
		During construction phase			Once every 3 months (except monsoon season) during construction phase		
		Operation phase			Once every season except monsoon season for first 2 years		

MCC = model career center.

Source: Asian Development Bank.

E. Summary of Site- and Activity-Specific Plans

95. **Table 16** summarizes site- and activity-specific plans to be prepared as per EMP tables.

Table 16: Environmental Management Plan—Site and Activity Plans and Programs

Preparation Phase	Specific Plan/Program	Purpose	Responsible for Preparation	Responsible for Implementation
Preconstruction phase	Environmental monitoring program as per detailed design	Indicate sampling locations, methodology and parameters	PWD	Contractor
Construction phase	Erosion control and revegetation plan	Mitigate impacts due to erosion	Contractor	Contractor
Detailed design phase	List and maps showing utilities to be shifted	Utilities shifting	PWD during preliminary stage; contractor as per detailed design	Contractor
Detailed design phase	Contingency plan	Mitigate impacts due to interruption of services during utilities shifting	Contractor	Contractor
Preconstruction	Chance find protocol	Address archaeological or historical finds	PWD	Contractor
Preconstruction phase	List of preapproved sites	Location/s for work camp, areas for stockpile, storage and disposal	PWD	Contractor
Preconstruction phase	Waste or spoil management plan	Mitigate impacts due to waste generation	Contractor	Contractor
Construction phase	Traffic management plan	Mitigate impacts due to transport of materials and pipe-laying works	Contractor	Contractor
Construction phase	Health and safety plan	Occupational health and safety	Contractor	Contractor
Preconstruction phase	Spill prevention and containment plan	Mitigate impacts of accidental spills of oil, lubricants, fuels, concrete, and other hazardous materials	Contractor	Contractor

PWD = Public Works Department.

Source: Asian Development Bank.

96. An indicative traffic management plan is attached in **Appendix 6**.

F. Capacity Building

97. In addition to the primary objective of skills enhancement of Himachali youth, the current subproject will also raise awareness about environmental conservation among trainees, implementing agencies, and local communities. The project will have the opportunity to build capacity in environment protection for the abovementioned stakeholders. The environmental specialists at PMC and Safeguards Cell at PMU will provide the basic training required for environmental awareness. Specific modules customized for the

available skill set will be devised after assessing the capabilities of the members of the training program and the requirements of the project. The training would cover basic principles of environmental assessment and management, mitigation plans and programs, implementation techniques, monitoring methods and tools. The proposed training program along with the frequency of sessions is presented in **Table 17**.

Table 17: Training Modules for Environmental Management

Program	Description	Participants	Duration	Training Conducting Agency
A. PRECONSTRUCTION STAGE				
Sensitization Workshop on Environment	<ul style="list-style-type: none"> Introduction to Environment: environmental assessment and social due diligence requirements in the project, regulatory clearances, and permission requirements in the project Environmental management plan implementation, introduction of ADB Safeguard Policy Statement, 2009, and ADB Guidelines on Environmental considerations in planning, design and implementing projects 	DOLE officials, environmental specialist of PWD and other engineering staff associated with the subproject, PIU staff and HPKVN PMU staff	½ working day	Environmental specialist of project management consulting firm
Session 1	<ul style="list-style-type: none"> Environmental impacts due to subproject in construction and operation phases, pollution generation activities during preconstruction and construction phases Environmental management, environmental provisions, implementation arrangements, methodology of assessment good engineering practices to be integrated into contract documents 	All PIUs, HPKVN staff	½ working day	Safeguards specialist of project management consulting firm
B. CONSTRUCTION STAGE				
Session 2	<ul style="list-style-type: none"> Roles and responsibilities of officials, contractors, consultants toward protection of environment Implementation arrangements and environmental monitoring during construction phase 	Engineers and staff of line departments of the Government of Himachal Pradesh, PMU, and PIU	½ working day	Safeguards Specialist of PMU
Session 3	<ul style="list-style-type: none"> Monitoring and reporting system 	Engineers and staff of implementing agencies, PMU, and PIU (including the environmental specialist)	¼ working day	Safeguards Specialist of PMU

ADB = Asian Development Bank, DOLE = Department of Labor and Employment, HPKVN = Himachal Pradesh Kaushal Vikas Nigam, PIU = project implementation unit, PMU = project management unit, PWD = Public Works Department.

Source: Asian Development Bank.

G. Environmental Budget

98. Most of the mitigation measures require the MCC contractor to adopt good site practices, which should be part of normal procedures already, so there are unlikely to be major costs associated with compliance. Only those items not covered under budgets for construction are included in the initial environmental examination (IEE) budget. The IEE costs include mitigation, monitoring, and capacity building costs. The summary budget for the environmental management costs for the subproject is presented in **Table 18**.

Table 18: Environmental Management and Monitoring Costs
(Rupees)

Monitoring Component	Rate	Amount	Source of Fund
PRECONSTRUCTION AND CONSTRUCTION PHASE			
Air Quality One location at MCC construction site, thrice a year (one sample at pre-construction and six samples during construction phase; total: seven samples)	10,000	70,000	Contractor
Water Quality One ground water sample from MCC construction site (one sample at pre-construction and six samples during construction phase; total: seven samples)	10,000	70,000	Contractor
Noise Quality One location at MCC site (one sample at preconstruction and six samples during construction phase; total 7 samples)	3000	21,000	Contractor
Training for Capacity Building of stakeholders	Covered in the consultancy cost of the Public Works Department and the project management consulting firm		
Total Construction Phase Monitoring Cost		161,000	Contractor
OPERATIONS & MAINTENANCE (O&M) PHASE			
Air Quality One location at MCC site, thrice a year, for first 2 years (three samples a year, total of six samples)	10,000	60,000	PMU
Water Quality One ground water sample at MCC site, thrice a year, for first 2 years (three samples a year, total of six samples)	10,000	60,000	PMU
Noise Quality One location at MCC site, thrice a year, for first 2 years (three samples a year, total of six samples)	3,000	18,000	PMU
Capacity Building Expenses (five sessions)	90,000	450,000	PMU
Total O&M Phase Monitoring and Capacity Building Cost		588,000	PMU
Total Cost		749,000	
Contingencies @ 5%		37,450	
Total Budgeted Cost		786,450 (around 800,000)	

MCC = model career center, PMU = project management unit.

Source: Asian Development Bank.

H. Environmental Monitoring and Reporting

99. The PWD will monitor and measure the progress of EMP implementation while supervising civil construction activities. PWD will undertake site inspections and document review to verify compliance with the EMP and progress toward the final outcome. PWD will submit monthly EMP monitoring and implementation reports to PMU, DOLE, and HPKVN, who will take follow-up actions, if necessary. The HPKVN will review and consolidate the monthly reports to prepare semiannual monitoring reports to ADB.

100. ADB will review project performance against the executing agency's commitments as agreed in the loan documents. The extent of ADB's monitoring and supervision activities will be commensurate with the project's risks and impacts. Monitoring and supervising of social and environmental safeguards will be integrated into the project performance management system. ADB will monitor projects on an ongoing basis until a project completion report is issued.

VI. PUBLIC CONSULTATION AND INFORMATION DISCLOSURE

A. Process for Consultations Followed

101. This subproject does not involve any elements that could have an adverse impact on the community. There is no deprivation of any sort for the residents or displacement of any groups. Particularly as to environmental impacts, the subproject can be characterized as innocuous.

102. In view of this, the need for holding a public hearing (as defined in EIA Notification 2006 of the Government of India) is not perceived at this stage. However, in compliance with ADB's guidelines, focused public consultations were undertaken during the site visits in subproject areas. Residents of the area were informed about the proposed subproject and their views were obtained. During the preparation of this IEE, consultations have been held with the officials of DOP, HPKVN, MOEFCC, DOLE, and other stakeholders such as People seeking employment at Hamirpur Employment Exchange and PWD office Hamirpur. The process of consultations was taken up as an integral part of the subproject in accordance with the following objectives:

- (i) Educate the general public, especially potentially impacted or benefited communities, individuals, and stakeholders about the proposed subproject activities.
- (ii) Familiarize the people with technical and environmental issues of the subproject for better understanding.
- (iii) Solicit the opinion of the communities and individuals on environmental issues and assess the significance of impacts due to the proposed development;
- (iv) Foster cooperation among officers of PIU, the community, and the stakeholders to achieve a cordial working relationship for smooth implementation of the subproject.
- (v) Identify the environmental issues relating to the proposed activity.

103. During the consultations, skilled youth seeking employment demanded better facilities, ease of registration for employment and better counseling from employment exchange officials for the employment and officials. The subproject building construction will lead to infrastructure creation for facilitation of employment for the skilled and educated Himachali youth. They demanded fast implementation of the subproject. The dates of consultations and stakeholders consulted are summarized in **Table 19**.

Table 19: Stakeholder Consultations and Dates

Sl. No.	Stakeholders Consulted	Dates of Consultations
1	Himachal Pradesh Forest Department	23 December 2015
2	Department of Rural Development, Department of Labor and Employment and Department of Higher Education	21 December 2015
3	Himachal Pradesh Pollution Control Board	23 December 2015
4	Department of Environment, Government of Himachal Pradesh; HPKVN; and Department of Planning	14–15 March 2016
5	Department of Technical Education, Government of Himachal Pradesh	12 December 2015 and 16–17 March 2016
6	Local public at MCC site at Hamirpur	6 May 2016

HPKVN = Himachal Pradesh Kaushal Vikas Nigam.

Source: Asian Development Bank.

104. The views, comments, and suggestions of stakeholders and their incorporation in project design are presented in **Tables 20 and 21**. The records of consultations (list of participants with signatures) and consultation photographs are given in **Appendix 7**. It is clear that most of the suggestions of stakeholders have been taken care in the project design.

Table 20: Views, Comments, and Suggestions of Stakeholders at Subproject Site and Addressal in Project Design

Sl. No.	Place	Date	Stakeholders	Issues Discussed	Outcome of Discussions and Consideration in Project Design and Implementation
1	Model Career center site, Hamirpur	6/5/2016	Youth seeking employment, people residing near the site and employment exchange officials	<ul style="list-style-type: none"> • MCC proposal • Project benefits • Implemen tation schedul e • Environ mental and social impacts during project implemen tation • Disrupti on to utility services 	<ul style="list-style-type: none"> • The participants welcomed the project consultants. They emphasized that there is urgent need for promoting skills and livelihood development in the State. GOHP should focus on creating employment for local youth. • The youth visiting the existing employment exchange at Hamirpur for registration and seeking employment told the consultants that there is urgent need of new office for employment exchange as current office is very small and at a very congested location. • The local youth suggested that there is need to provide effective guidance before interview and details about the organization conducting interview for employment should be explained. The ADB consultants team replied that the new MCC building proposed will have counseling rooms and adequate space for carrying activities for the employment exchange. The employment exchange at new building will display all details about the company visiting for conducting interviews. There will be effective guidance to the job seekers. • The ADB environment and social safeguard consultant asked the participants about suggestions to reduce pollution during construction and operation of MCC. The participants emphasized the need to control dust and noise. They also noted that solid waste collection and disposal should be handled properly. The ADB consultant assured them that the Environmental Management Plan will include specific measures to address these useful suggestions. • Local participants demanded that during construction, local contractors should be hired so that there is generation of employment. The

Sl. No.	Place	Date	Stakeholders	Issues Discussed	Outcome of Discussions and Consideration in Project Design and Implementation
					consultants replied that there will be a transparent bidding process. This will be done by the PWD. The local contractors should participate in the bid subject to qualifying the qualification criteria.

Source: Asian Development Bank.

Table 21: Summary of Stakeholder Consultation at Institutional Level

Sl. No.	Place and date	Stakeholders	Issues Discussed	Outcome of Discussions and Consideration in Project Design and Implementation
1	Shimla, 23/12/2015	Conservator Forest cum Nodal Officer CAMPAs, State Forest Department	Clearances, permissions and No Objection Certificates - requirements from the State Forest Department and suggestions for the project	<ul style="list-style-type: none"> • The ADB Environment and Social Safeguards consultant briefly explained the project concept to the state department officials. • Officials advised that for any site falling under forest land, clearance is required either under the Forest (Conservation) Act, 1980 or under the Schedule Tribe and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006. • For vocational training purposes, the Government of Himachal Pradesh can give clearance up to 1.0 hectare land. If application is submitted under the Forest (Conservation) Act, 1980, then the net present value of the land and cost for compensatory forestation are to be paid by the state government. • If the application is submitted under Forest Rights Act 2006, then for educational institutes, payment of net present value and compensatory afforestation costs are exempted for the land up to 1.0 hectare. The clearance can also be issued at the level of the divisional forest officer. • The Forest officials suggested that application may be made under the Forest Rights Act for faster clearance if any site falls under the forest. • The ADB consultant assured everyone that sites on forest land will not be considered to the extent feasible. However, under unavoidable situations, applications for clearances will be submitted as suggested. • Only the proposed women's polytechnic site at Rehan in Kangra

Sl. No.	Place and date	Stakeholders	Issues Discussed	Outcome of Discussions and Consideration in Project Design and Implementation
				<p>district falls within forest area. Under the Forest (Conservation) Act, 1980, clearance is required for forest land diversion. This has been received as of 6 July 2016. The land has also been transferred in the name of DOTE.</p>
2	Shimla, 23/12/2015	Senior Environmental Engineer, Himachal Pradesh Pollution Control Board	Clearances and permissions required from HPPCB and Department of Environment	<ul style="list-style-type: none"> The ADB consultant provided an overview on the Himachal Pradesh Skill Development Project (HPSDP). He enquired about the types of permissions and clearances required from the HPPCB and State Department of Environment. The senior environmental engineer, Department of Environment, replied that educational and training institutes are exempted from the environmental clearance process. Therefore, there is no requirement for prior environmental clearances for CLCs, RLCs, MCCs, and the Women's Polytechnic planned under HPSDP. He explained that consent to establish and operate has to be obtained from HPPCB only if a residential complex is planned at any of the sites. In case hazardous waste is generated, then a management proposal has to be submitted to the HPPCB for hazardous waste authorization and disposal. The ADB consultant replied that none of the planned training facilities will generate hazardous waste, either during construction or operation.
3	Sunder Nagar, 22/12/2015, 14/03/2016, and 15/03/2016	Director, DOTE, and other officials	ITI selected for upgrade, locations of RLCs and CLCs selected at ITI campus and site of proposed Women Polytechnic at Rehan in Kangra district	<ul style="list-style-type: none"> The ADB consultant enquired whether any of project sites under DOTE are planned in forest areas or within buffer or core zones of national park or bird sanctuary. Director, DOTE, replied that CLC and RLC sites planned are within the vacant sites within the premises of existing industrial training institutes. Only the site for the Women's Polytechnic in Kangra falls within revenue forest land. The ADB consultant suggested that DOTE should submit land ownership details and revenue records for all sites planned under the ADB funding for due diligence. He noted that DOTE should also start the process of getting clearances from the Forest Department for the site in Rehan, Kangra, where the Women's

Sl. No.	Place and date	Stakeholders	Issues Discussed	Outcome of Discussions and Consideration in Project Design and Implementation
				Polytechnic is planned.
4	Shimla, 21/12/2015	Department of Labour and Employment	Locations of MCCs planned, approximate area required for MCCs	<ul style="list-style-type: none"> The ADB consultant enquired about the proposed locations of MCCs. The officials replied that with ADB assistance, 11 MCCs planned. The planned locations are Hamirpur, Shimla, Bilaspur, Kullu, Dharamshala, etc. As per the Government of India guidelines, the built- up area of around 3,000 sq feet is needed for MCCs. The ADB Environment and Safeguard consultant noted that the revenue record of land ownership should be provided to the ADB team for due diligence.
5	Shimla, 21/12/2015	Department of Rural Development	Locations of proposed RLCs, environmental and social safeguard issues, tree cutting, etc.	<ul style="list-style-type: none"> The ADB Environment and Safeguard consultant enquired about probable locations of RLCs planned. The environmental expert suggested that no sites with temporary or permanent occupation should be identified and revenue records showing ownership details should be provided for the social due diligence. Further, any site involving tree cutting, necessary tree cutting permission should be obtained. The ADB consultant also suggested that sites should be at least 300 m away from buildings and monuments of heritage importance and those declared as protected monuments by the State Archaeological Department or by the Archaeological Survey of India. The officials noted the suggestions.

CLC = city livelihood center, DOTE = Department of Technical Education, HPPCB = Himachal Pradesh Pollution Control Board, IEE = initial environmental examination. ITI = industrial training institute, MCC = model career center, RLC = rural livelihood center.

Source: Asian Development Bank.

B. Consultation and Information Disclosure

105. **Consultation.** To ensure continued public and stakeholder participation in the subproject life cycle, periodic consultations should be held at subproject site. This participatory process will ensure that all views of the people are adequately reviewed and suitably incorporated in the design and implementation process.

106. **Information disclosure.** Once the IEE is approved by the Government of Himachal Pradesh and ADB, an electronic version of the IEE will be placed in the official websites of DOLE, HPKVN, Government of Himachal Pradesh, and ADB. Upon written request, any person seeking information can obtain a hard copy of the complete IEE document by paying for its photocopying cost. The PMU will issue notification on the disclosure mechanism in local newspapers, ahead of initiation of implementation of the subproject, providing

information on the project, start dates, etc. The notice will be issued by the PMU in local newspapers 1 month ahead of the implementation works. This will create awareness of the project implementation among the public.

C. Grievance Redress Mechanism

107. The affected person(s)/aggrieved party can give their grievance verbally or in written to the local site office of MCC sub-project. Grievances of affected person will first be brought to the attention of the site in charge, who can resolve the issue at the site level. If the matter is not solved within 7 days period by the site in charge, it will be brought to the Grievance Redress Committee (GRC) constituted for the purpose in PIU (PWD). This GRC shall discuss the issue in its monthly meeting and resolve the issues within one month of time after receiving the grievance. If the matter is not resolved by GRC at PIU level within stipulated time, it shall be referred to GRC at PMU level by Project Manager of PIU.

GRC at PMU shall discuss the issue and try to resolve it and inform the PIU accordingly. If the matter is not resolved by the GRC at PMU level within one month of time the matter will be referred to State Level Empowered Committee (SLEC), who will resolve the compliant within one month. The PIU and sub-project site office shall keep records of all grievances received including contact details of complainant, date of receiving the complaint, nature of grievance, agreed corrective actions and the date these were affected and final outcome. For this a complaint register will be maintained at each sub-project site. The grievance redress process is shown below **Figure-9**. The cost for functioning of Grievance Redress Mechanism will be accounted for in project cost as part of PMU or PIU functioning.

Further, person(s) / aggrieved party who are, or may be, adversely affected by the subproject may submit complaints to ADB's Accountability Mechanism. The accountability mechanism provides an independent forum and process whereby people can voice, and seek a resolution of their problems, as well as report alleged violations of ADB's operational policies and procedures. Before submitting a complaint to the Accountability Mechanism, affected person(s) / aggrieved party should first make a good faith effort to solve their problems by working with the ADB South Asia operations department including the India Resident Mission.Composition and functions of GRC

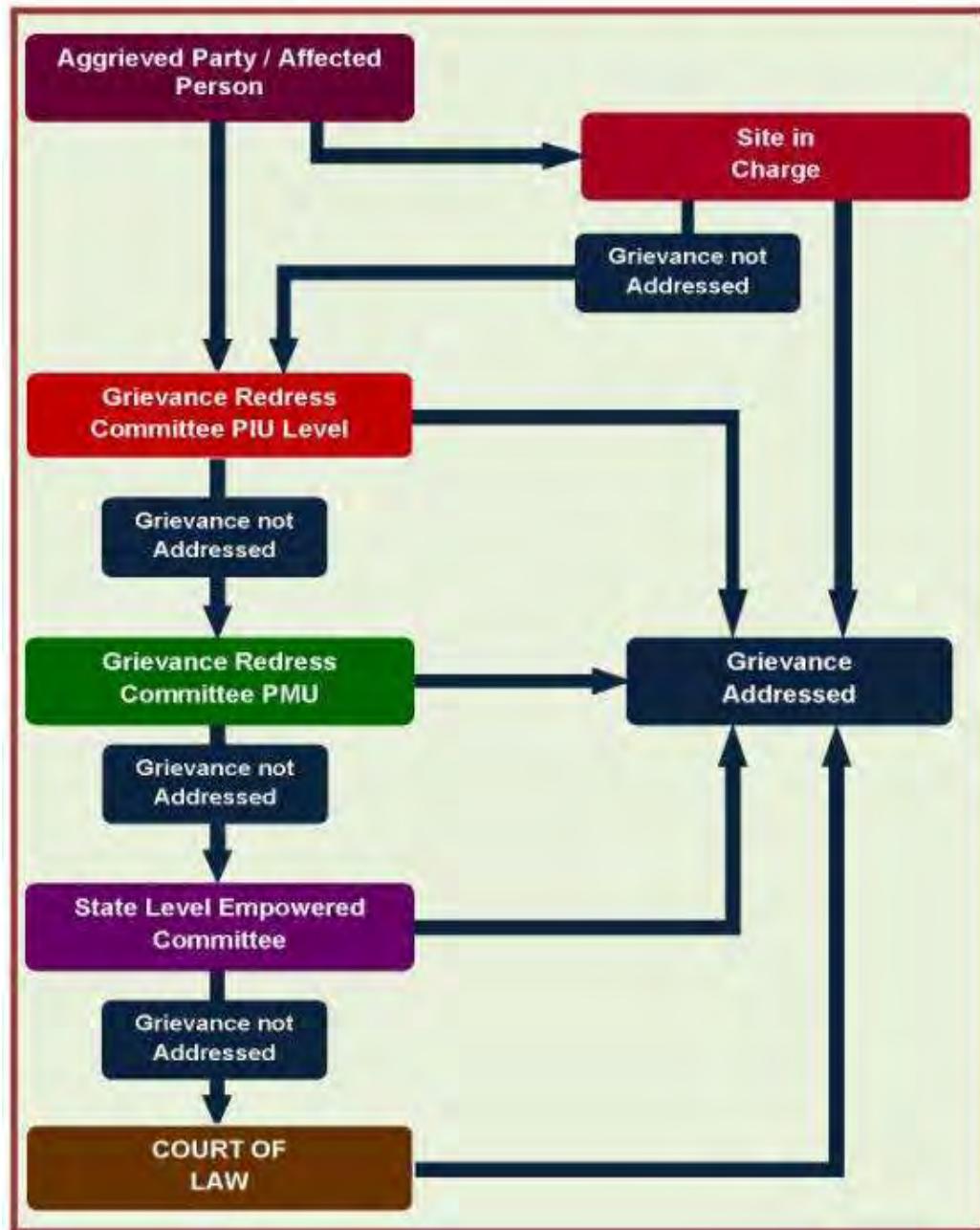
PIU Level Grievance Redress Committee (GRC- PIU) – This committee will comprise of Project Manager, Site In charge and one officer from contractor team. The GRC- PIU will be headed by Project Manager (PIU). It will meet at least once a month. The agenda of the meeting will be circulated to all the members and the affected persons/aggrieved party along with venue, date and time at least a week prior to the meeting. The matters shall remain with GRC at PIU level for one month. If the grievance is not resolved within this time period, then it will be referred to GRC at PMU.

GRC at PMU. There shall be one GRC in PMU. The matters not resolved by the GRC at PIU level within one month shall come under GRC at PMU. GRC at PMU will include the Managing Director, HPKVN, and Project Manager PIU (PWD), safeguard specialists (Environmental and Social) of the PMU, and one representative from concerned Department (DOTE/DOLE/DOHE). This committee shall look into the matters, which are referred to and not resolved by GRC at PIU level. If the matter is not resolved by the GRC at PMU level within one month of time, then the aggrieved person or party can bring the matter to State Level Empowered Committee (SLEC) which is in-charge of the overall HPSDP. In case grievance is not readdressed by the SLEC, then complainant can reach to the court of law. It may also be mentioned that aggrieved party / or person is free to reach court of law any time after filing compliant either at PIU level or at PMU level.

Approach to GRC. Affected person or aggrieved party can approach the GRC for redress of his/their grievances through any of the following modes:

- Web based: A separate corner will be developed at the HPKVN website so that public and affected person can register their complaints in the online column.
- Telecom based: A telephone number will be displayed at the web site of HPKVN and the construction site (s) sub projects so that general public can register their complaint through telephone and mobile phone to the PIU and PMU office. One complaint register will also be maintained at sub-project.

Figure 9: Grievance Redress Mechanism of the Himachal Pradesh Skill Development Project



PIU = project implementation unit, PMU = project management unit.
Source: Asian Development Bank.

VII. FINDINGS AND RECOMMENDATIONS

108. The proposed subproject components do not involve any interventions in and around the natural and cultural heritage destinations and have less significant (direct or indirect) environmental impacts. It is expected that the proposed subproject will enhance economic growth and will support skilled and educated youth in seeking employment in the state with proper counseling.

109. This IEE has identified minor likely impacts on water, air, and noise during the construction and operation period and has defined mitigation measures. Those mitigation measures will be implemented and monitored during the subproject execution. The overall environmental quality of subproject surroundings will not be affected as a result of operating the MCC as adequate sanitation facilities have been planned.

110. The specific management measures laid down in the IEE will effectively address any adverse environmental impacts due to the subproject. The effective implementation of the measures proposed will be ensured through the building up of capacity towards environmental management within the PMU supplemented by the technical expertise of Safeguards Specialists of the PMC. Further, the environmental monitoring plans provide adequate opportunities towards course correction to address any residual impacts during construction or operation stages.

VIII. CONCLUSIONS

111. Based on this IEE, it is expected that the proposed subproject components have only minor, localized, temporary, and insignificant environmental impacts. These can be easily mitigated through adequate mitigation measures and regular monitoring during the design, construction, and post construction phases of the subproject. Negative impacts on water, air quality, and noise levels during civil works and operation phase, which will be appropriately monitored and adequately mitigated. This report has not identified any comprehensive, broad, diverse, or irreversible adverse impacts caused by the subproject. Based on the findings of the IEE, the classification of the subproject as category B is confirmed. No further special study or detailed EIA needs to be undertaken to comply with the Safeguard Policy Statement, 2009.

APPENDIX 1: ENVIRONMENT CATEGORIZATION

A. Instructions									
<p>(i) The project team completes and submits the form to the Environment and Safeguards Division (RSES) for endorsement by RSES Director, and for approval by the Chief Compliance Officer (CCO). OM F1/OP on <i>Safeguard Review Procedures</i> (paras. 4-7) provides the requirements on environment categorization.</p> <p>(ii) The classification of a project is a continuing process. If there is a change in the project components or/and site that may result in category change, the Sector Division submits a new form and requests for recategorization, and endorsement by RSES Director and by the CCO. The old form is attached for reference.</p> <p>(iii) In addition, the project team may propose in the comments section that the project is highly complex and sensitive (HCS), for approval by the CCO. HCS projects are a subset of category A projects that ADB deems to be highly risky or contentious or involve serious and multidimensional and generally interrelated potential social and/or environmental impacts.</p>									
B. Project Data									
<p>Country/Project No./Project Title : India/ 49108-002/ Himachal Pradesh Skill Development Project</p>									
<p>Department/ Division : SARD/SAHS</p>									
<p>Processing Stage : Fact-finding mission completed (20-27 June 2016)</p>									
<p>Modality : </p>									
<p><input checked="" type="checkbox"/> Project Loan <input type="checkbox"/> Program Loan <input type="checkbox"/> Financial Intermediary <input type="checkbox"/> General Corporate Finance</p>									
<p><input type="checkbox"/> Sector Loan <input type="checkbox"/> MFF <input type="checkbox"/> Emergency Assistance <input type="checkbox"/> Grant</p>									
<p><input type="checkbox"/> Other financing modalities:</p>									
C. Environment Category									
<p><input checked="" type="checkbox"/> New <input type="checkbox"/> Recategorization — Previous Category <input type="checkbox"/></p>									
<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="border: 1px dashed black; padding: 2px; margin-right: 10px;"><input type="checkbox"/> Category A</div> <div style="border: 1px dashed black; padding: 2px; margin-right: 10px;"><input checked="" type="checkbox"/> Category B</div> <div style="border: 1px dashed black; padding: 2px; margin-right: 10px;"><input type="checkbox"/> Category C</div> <div style="border: 1px dashed black; padding: 2px; margin-right: 10px;"><input type="checkbox"/> Category F1</div> </div>									
D. Basis for Categorization/ Recategorization (please attach supporting documents):									
<p><input checked="" type="checkbox"/> Rapid Environmental Assessment Checklist</p>									
<p><input checked="" type="checkbox"/> Project and/or Site Description</p>									
<p><input checked="" type="checkbox"/> Other:</p>									
<p>1. Environmental and Social Management Framework</p>									
<p>2. Initial Environmental Examination (Subproject – Model Career Center at Hamirpur in Hamirpur District of Himachal Pradesh)</p>									
E. Comments									
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; padding: 5px;">Project Team Comments</td> <td style="width: 50%; padding: 5px;">SDES Comments</td> </tr> <tr> <td style="padding: 5px;"> <p>The HPSDP project involves construction of new training facilities and upgrade of some existing buildings to improve the access of technical and vocational education and training (TVET) facilities to the underserved areas of Himachal Pradesh. The new facilities include construction of 7 CLCs, 7 RLCs and 1 polytechnic for women. Eleven existing employment exchanges will be upgraded into model career centers (MCCs). One new MCC is also planned at Hamirpur.</p> </td> <td style="padding: 5px;"></td> </tr> <tr> <td style="padding: 5px;"> <p>The proposed MCC will occupy built up area of 683.24 m² and will have three floors. Since MCC building is part of HPSDP and will peruse counseling and career guidance to the educated youth of Himachal, according to the environmental rules and regulations of India and Himachal Pradesh, there will not be requirement for any prior environmental clearance.</p> </td> <td style="padding: 5px;"></td> </tr> <tr> <td style="padding: 5px;"> <p>The land for the sub project has already been transferred in the name of</p> </td> <td style="padding: 5px;"></td> </tr> </table>		Project Team Comments	SDES Comments	<p>The HPSDP project involves construction of new training facilities and upgrade of some existing buildings to improve the access of technical and vocational education and training (TVET) facilities to the underserved areas of Himachal Pradesh. The new facilities include construction of 7 CLCs, 7 RLCs and 1 polytechnic for women. Eleven existing employment exchanges will be upgraded into model career centers (MCCs). One new MCC is also planned at Hamirpur.</p>		<p>The proposed MCC will occupy built up area of 683.24 m² and will have three floors. Since MCC building is part of HPSDP and will peruse counseling and career guidance to the educated youth of Himachal, according to the environmental rules and regulations of India and Himachal Pradesh, there will not be requirement for any prior environmental clearance.</p>		<p>The land for the sub project has already been transferred in the name of</p>	
Project Team Comments	SDES Comments								
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<p>The land for the sub project has already been transferred in the name of</p>									

DOLE and is in possession of DOLE. The subproject site is free from encumbrances.

The subproject site is not located within core and buffer zones of national parks, sanctuaries, tiger reserves, and biosphere reserves; or within 100 meters from the boundary of protected monuments of archaeological importance. Hence, the subproject is category B with respect to environment.

The ADB consultant has taken relevant government staff to the MCC site, and shown them how to use ADB's rapid environmental assessment checklists. He has also conducted workshops on ADB's safeguard policies and processes with the implementing agencies including the Public Works Department, which will oversee the civil works.

F. Approval

Proposed by:

Shamit Chakravarti

Project Team Leader: SARD/SAHS

Date:

Endorsed by:

Herath Gunatilake

Director, SDES

Date:

Endorsed by:

Sungsup Ra

Director, SAHS

Date:

Approved by:

Chief Compliance Officer

Date:



Highly
Complex and
Sensitive
Project

APPENDIX 2: RAPID ENVIRONMENTAL ASSESSMENT CHECKLIST

Instructions:

- (i) The project team completes this checklist to support the environmental classification of a project. It is to be attached to the environmental categorization form and submitted to the Environment and Safeguards Division (SDES) for endorsement by Director, RSES and for approval by the Chief Compliance Officer.
- (ii) This checklist focuses on environmental issues and concerns. To ensure that social dimensions are adequately considered, refer also to ADB's (a) checklists on involuntary resettlement and Indigenous Peoples; (b) poverty reduction handbook; (c) staff guide to consultation and participation; and (d) gender checklists.
- (iii) Answer the questions assuming the "without mitigation" case. The purpose is to identify potential impacts. Use the "remarks" section to discuss any anticipated mitigation measures.

Country/Project Title:	India/ Himachal Pradesh Skill Development Project (Establishment of Model Career Center at Hamirpur)
Sector Division:	SAHS

Screening Questions	Yes	No	Remarks
A. Project Sighting Is the project area adjacent to or within any of the following areas:			<p>The subproject involves establishment one MCC at Hamirpur. This MCC will provide guidance to educated youth for career development and will act as interface between youth and industry through facilitation of interviews and job fairs. The built up area of MCC is 683.24 m².</p> <p>None of the subproject components are located within core and buffer zones of national parks, sanctuaries, tiger reserves, and biosphere reserves; or within 100 meters from the boundary of protected monuments of archaeological importance.</p>
▪ Underground utilities		✓	The MCC subproject site is located in an open area at the outer skirts of Hamirpur town. There is no presence of underground utilities.
▪ Cultural heritage site		✓	
▪ Protected area		✓	
▪ Wetland		✓	
▪ Mangrove		✓	
▪ Estuarine		✓	
▪ Buffer zone of protected area		✓	
▪ Special area for protecting biodiversity		✓	
▪ Bay		✓	
B. Potential Environmental Impacts Will the project cause...			

Screening Questions	Yes	No	Remarks
▪ Encroachment on historical or cultural areas?		✓	
▪ Encroachment on precious ecology (e.g., sensitive or protected areas)?		✓	
▪ Impacts on the sustainability of associated sanitation and solid waste disposal systems?		✓	For waste water, septic tanks are planned as part of sanitation system in subproject building. The solid waste will be disposed of by integrating with the disposal systems of the Hamirpur city.
▪ Dislocation or involuntary resettlement of people?		✓	The subproject site is under the ownership of DOLE. The site is unencumbered vacant plot. This has been confirmed during the site visits.
▪ Disproportionate impacts on the poor, women and children, Indigenous Peoples or other vulnerable groups?		✓	<p>This project is aimed at imparting relevant TVET skills to needy segments and women. In fact, this project is classified as a "GEN" or gender equity project. Hence, it will not have any adverse impact on them or children.</p> <p>The state of Himachal Pradesh is divided into 12 districts. Of these, the Kinnaur and Lahaul-Spiti districts in their entirety, and Pangi and Bharmour (now <i>Tehsil</i> Bharmour and <i>subtehsil</i>, Holi) subdivisions of the Chamba district, are notified as scheduled tribal areas of Himachal Pradesh since the proportion of scheduled tribes is 50% or more. These districts are in the extreme north and northeast of Himachal Pradesh, forming a contiguous belt in the far hinterland behind high mountain passes. Given their high altitude, inhospitable terrain, harsh winters, sparsely and dispersed population, and poor connectivity (especially during winters and rainy seasons), no civil works (i.e., construction of training facilities) have been planned here. Since subproject site is not in Kinnaur and Lahaul -Spiti district, therefore, there will be no adverse impact on Indigenous Peoples.</p>
▪ Accident risks associated with increased vehicular traffic, leading to loss of life?		✓	MCC planned to be constructed is of relatively small scale and MCC site is located outside Hamirpur town. So there will be no effect on local vehicular traffic (or risk of accidents), either during the construction or operational phases. However, to rule out any accident due to project related vehicular traffic, if required, flagmen will be deployed near the subproject construction site to regulate the traffic. A traffic management plan will be prepared for the construction phase of the subproject.
▪ Increased noise and air pollution resulting from increased traffic volume?		✓	As noted above, there would be no increase in traffic volume owing to this subproject. Hence, there would be no increase in noise or air pollution.
▪ Occupational and community health and safety risks?		✓	<p>The environmental impact related to the construction of MCC building will be minor in nature and mostly limited to the duration of construction. The impact will be confined mainly within the construction site. These minor impacts will be mitigated through Environmental Management Plan.</p> <p>Potential occupational health and safety risks during</p>

Screening Questions	Yes	No	Remarks
			construction will be addressed by including provisions in the contract documents and implementation of the environment mitigation measures. During the operation phase, these issues will be taken care of through formulation of safe operating procedures.
▪ Risks and vulnerabilities related to occupational health and safety due to physical, chemical, biological, and radiological hazards during project construction and operation?	✓		As noted above, the environmental impact related to the construction of MCC building will be minor and mostly limited for the duration of construction. There will not be any physical, chemical, biological, and radiological hazards during project construction and operation phases. Adequate provisions will be included in the relevant contract documents to address potential occupational health and safety hazards during the construction and operation phases.
▪ Generation of dust in sensitive areas during construction?	✓		During construction, there will be minor dust generation due to material handling and operation of construction machinery and equipment. This will be controlled through dust suppression measures e.g. water spray and through proper maintenance of construction equipment and machinery. It will also be ensured that construction equipment and machinery conform to the emission norms laid down by the Central Pollution Control Board.
▪ Requirements for disposal of fill, excavation, and/or spoil materials?	✓		Since the subproject site is plain and requires no cutting or filling. The generation of spoils is not anticipated except minor construction waste. The construction waste will be utilized to the extent possible. Any remaining waste will be disposed off at disposal site. The disposal site will be identified during the construction waste.
▪ Noise and vibration due to blasting and other civil works?	✓		During construction, some noise will be generated due to the operation of construction equipment and machinery. Adequate mitigation measures have been stipulated in the EMP. Since the proposed MCC building is relatively small, no heavy equipment and machinery will be used. No blasting will be required in the construction. Hence, there will not be any significant shaking or vibrations. Further, no construction works will be undertaken at night at the subproject site. There will be periodic noise monitoring at construction site as per the monitoring plan prepared as part of EMP.
▪ Long-term impacts on groundwater flows as result of needing to drain the project site prior to construction?	✓		Since the subproject sites are in hilly terrain and have swift drainage pattern, no adverse impact on ground water flow are anticipated.
▪ Long-term impacts on local hydrology as a result of building hard surfaces in or near the building?	✓		Most of the subproject sites are within the campuses of existing departments of the government. Hence, there will not be any impact on local hydrology.
▪ Large population influx during project construction and operation that causes increased burden on social infrastructure and services (such as water supply and sanitation systems)?	✓		The project aims to train around 60,000 local youth over the 5-year period. The training facilities, colleges, ITIs, and polytechnics covered under the project are spread across the state in a balanced manner. Several of the RLCs and CLCs will have their own hostels. The women's polytechnic will also have its own hostel. All the students and trainees will be local from within

Screening Questions	Yes	No	Remarks
			<p>Himachal Pradesh. Hence, there will not be any influx of people. Adequate facilities (as per specified codes) for water and sanitation have been designed for each training facility.</p> <p>Since the subproject sites are spread across the state, and the building sizes are small, the construction work force per site will not exceed 40 to 50. The contractors will arrange for potable water supply for the workers, and also provide adequate sanitation facilities. Hence, there will not be any burden on social infrastructure and services during the project life cycle.</p>
▪ Social conflicts if workers from other regions or countries are hired?		✓	Preference will be given to locally available labor. The construction activities are relatively small in nature so requirement of workers will not be significant. There would be no need to hire workers from other regions or countries.
▪ Risks to community safety caused by fire, electric shock, or failure of the buildings safety features during operation?		✓	Since the MCC building to be constructed will be new, the latest national building codes and safety measures will be followed.
▪ Risks to community health and safety caused by management and disposal of waste?		✓	<p>During the construction phase, waste collection and disposal system will be carried out by the contractor. The processes being followed will be reviewed and approved by the Public Works Department. The firm to be engaged for ensuring quality of civil works will help the Public Works Department in ensuring that the required safety measures are adhered to while managing and disposing of waste.</p> <p>For the operation phase, adequate provisions have been made in the MCC building design to take care of management and disposal of waste water and other solid waste.</p>
▪ Community safety risks due to both accidental and natural hazards, especially where the structural elements or components of the project are accessible to members of the affected community or where their failure could result in injury to the community throughout project construction, operation and decommissioning?		✓	Specific community risks are not foreseen due to operation since the MCC site has good access through the road. The MCC building has been designed following applicable seismic coefficients for Himachal Pradesh. The building will be maintained regularly in the operation phase.

EMP = environmental management plan, MCC = model career center,
Source: Asian Development Bank.

APPENDIX 3: A CHECKLIST FOR PRELIMINARY CLIMATE RISK SCREENING

Country/Project Title: India/ Himachal Pradesh Skill Development Project

Sector: Education

Subsector: Technical Vocational Education and Training

Division/Department: SAHS/ SARD

Screening Questions	Score ^a	Remarks
Location and Design of project	1	Since Himachal Pradesh is a hilly state, there is risk of landslides during the rainy season. However, the road connectivity to Hamirpur town and MCC site is reliable.
	0	Not applicable
Materials and Maintenance	0	Weather conditions at MCC site do not demand usage of any specific construction material to counteract weather phenomenon
	0	No, weather conditions at MCC site do not require specific scheduling for maintenance
Performance of project outputs	0	Not applicable

^a Options for answers and corresponding score are as follows: not likely = 0, likely = 1, very likely = 2.
Source: Asian Development Bank.

Responses when added that provide a score of 0 will be considered low-risk project. If adding all responses will result to a score of 1–4 and no score of 2 was given to any single response, the project will be assigned a medium risk category. A total score of 5 or more (including a score of 1 in all responses or a 2 in any single response) will be categorized as high-risk project.

Result of Initial Screening (Low, Medium, High) - Low Risk

Other Comments: None

Prepared by: Shreenivas Verma, Environmental Safeguard Specialist

APPENDIX 4: SITE PHOTOGRAPHS



**APPENDIX 5 (A) : LAND RECORDS SHOWING OWNERSHIP OF GOHP AND NO
OBJECTION CERTIFICATES OF VARIOUS UTILITIES AND REGULATORY
DEPARTMENTS**

HIMACHAL PRADESH
IRRIGATION & P.H. DEPARTMENT
No.IPH/NSD-NOC/2015-16-
To 13-9-15 Dated:- 1-9-15

The District Employment Officer,
Hamirpur Distt. Hamirpur.

Subject:- No Objection Certificate for the transfer of land.

Reference:- Your office letter No. DEE/HMR/Bldg/12-4106 dt. 17-08-2015.

With reference to above, it is intimated that this department has no objection for the transfer of land to the Name Labour and Employment, H.P. Construction office building for the District Employment Office, Hamirpur in Tehsil and Distt. Hamirpur, as per Mohal and Khasra Nos mentioned in your letter.

Copy to the Assistant Engineer IPH Sub-Division Hamirpur for information w.r.t. his office letter No 2247 dt. 26-08-2015.

Executive Engineer,
I&PH Division, Hamirpur

Initial Environmental Examination Report
Development of Model Career Center at Hamirpur

Himachal Pradesh
Public Works Department

No. PWD/HMR/CB/WAI/NOC/2014-15- 12772-73
To

Dated: 11/9/2015

✓ The District Employment Officer,
Hamirpur Distt Hamirpur.(HP)

Subject: NOC for the transfer of land.

Reference :- Your office Letter No. DEE/HMR/Bldg/12- 4105 dated 17-8-2015.

In this connection, it is intimated that this Department has no objection for transfer of land in the name of Department of Labour and Employment (HP) for construction of office building for the Distt. Employment office Hamirpur situated in Mauza up Mahal Ustyana in Tikka Ustyana Moza Bazuri Tehsil Hamirpur Distt Hamirpur comprising in Khasara Nos 610/435 subject to the condition that no construction will be allowed within 5.00 Mtr. from the edge of the road. It may be ensured by the concerned agency that during the Construction there is no violation of HP. Road side control Act and Road Infrastructure Act.

DA:Nil

✓
Executive Engineer,
Hamirpur Division,
HP PWD Hamirpur

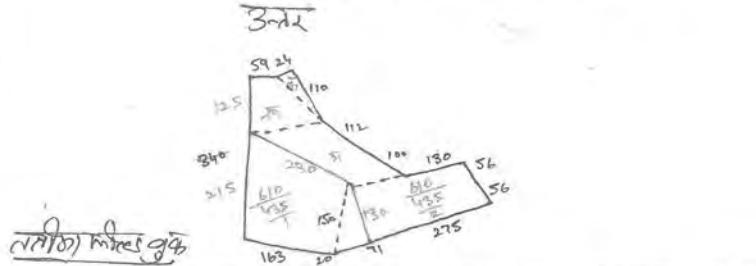
Copy forwarded to the Assistant Engineer Hamirpur, Sub Division HP PWD Hamirpur for information with reference to his letter No. 2224 dated 04-9-2015.

DA: Nil.

✓
Executive Engineer,
Hamirpur Division,
HP PWD Hamirpur

Initial Environmental Examination Report Development of Model Career Center at Hamirpur

अन्ते ततीक छालप लड्डू व्यवस्था जीव लागे लाल १९४१-४२
 'उपजहाल उम्माज गोला बछुरी त-व जीला हरीसुर
 पूर्णार्ज व हिस्तव १००५-५०५५ अत लै-जी०



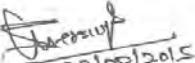
નામ	જાત	બિલ	બિલ
610 435 215	610 435 1	$\frac{300 (120+130)}{2} = 37500$ $\frac{210 (150 \times 65)}{2} = \frac{4875}{42375}$	423 - 75 બિલ
11	610 435 2	$\frac{330 (100+120)}{2} = 36300$ $\frac{27 (120 \times 21)}{2} = 1260$ $\frac{160 (55+120)}{2} = 14000$	બિલ 887-35 બિલ
51	300 105 110	$\frac{300 (105+110)}{2} = 32250$ 83810	

Shership
PATWARI 22/07/2015
Pal-er-Cerie LOHARAR,
Teh. & Dist. Gurdaspur 141 2

CERTIFICATE

It is certified that the land bearing Khasra No 610/435

Area 1261-10 measuring 1 Kanal 2 Marla situated in
423-75 अंकुर
Tika up Mahal Usaina Mauza Bazuri Tehsil and District Hamirpur H.P. proposed for
Construction of the office building of District Employment Office, Hamirpur and NOC of
which is sought, has been vested to the Government of H.P under Ceiling of Land Holdings Act,
1972 and/ or H.P. Village Common Land and utilization Act, 1974. It is further certified that the
Land was neither recorded as forest land before its vesting nor it has been recorded as forest land
thereafter at any time.


Fauzia
Tehsildar
22/08/2015
District Hamirpur (H.P.)


Tehsildar,
Hamirpur

Initial Environmental Examination Report
Development of Model Career Center at Hamirpur

No. 77-2
H.P. Forest Department.

From:



Subject:

Sir,

on the subject cited above.

2.

In this connection, on the recommendation/report of the committee and being on forest land comprising Khasra No. 610/435/1 area measuring **01 Kanal 2 Marla** situated in **UP Mohal Usiyana Mouza Bajuri Tehsil & Distt. Hamirpur HP**, NOC of this department is hereby granted subject to the conditions that 1 No. Bamboo clump standing on the proposed land will not be felled without the prior approval of the competent authority.

Yours faithfully,

Divisional Forest Officer,
Hamirpur Forest Division
Tel. No.01972-224922
E-Mail ID: dfohamirpur@gmail.com

Ends. No. _____ / Dated Hamirpur, the _____
1. Copy is forwarded to R.O. Hamirpur w.r.t. his office
memo. No. 662/H dated 2.9.2015 for information.

Divisional Forest Officer,
Hamirpur Forest Division.
Tel. No.01972-224922
E-Mail ID: dfohamirpur@gmail.com

HIMACHAL PRADESH STATE ELECTRICITY BOARD LIMITED
(A State Govt. undertaking)

No.241256/2014-15-
To

6504 Dated :- 11-9-15

The Distt. Employment Officer,
Hamirpur, District Hamirpur. (HP).

Sub :- NOC for the transfer of land.
Sir,

Jai Hind,

Kindly refer to your office letter No. DEE/HMR/Bldg/12-4/08 dated 19.8.2015 on
the subject cited above.

In this context, it is intimated that H.P. State Electricity Board Limited has no
objection if the land transferred in favour of Distt. Employment Office, Hamirpur. At presently
there is no any existing electricity line crossing over the above land which can cause the
collation of Indian Electricity rule

This is for your kind information please.

Yours faithfully,

Sr. Executive Engineer,
Electrical Division,
HPSERB, Hamirpur.

नकल पारित प्रस्ताव क्रमांक 94 / 2015 दिनांक 28-09-2015

94 / 2015 दिनांक 28-09-2015 पत्र क्रमांक DEE/HMR/Bldg/12-4109 dated 19-08-2015
आमदा जिला रोजगार अधिकारी हमीरपुर बावत NOC for the transfer of land.

कार्यकारी अधिकारी महोदय द्वारा पत्र के अश समा को पढ़ कर सुनाये गये जिसमें लिखा
गया है कि खसरा नम 610 / 435 उपमहाल तासियान भौजा बजूरी को जिला रोजगार कार्यालय
हमीरपुर के नाम पर स्थानान्तरित करवाने हेतु अनापति प्रमाण पत्र की आवश्यकता है इस पर समा
द्वारा गहन विचार विभिन्न किया गया और सर्व सम्मति से निर्णय लिया गया कि यदि उपरोक्त
खसरा नम को जिला रोजगार कार्यालय के नाम पर स्थानान्तरित किया जाता है तो उन्हें इस बारे
कोई एतराज नहीं है अतः अनापति प्रमाण पत्र दिया जावे।

नकल मुताविक असल है।

हस्तांत्र
प्रधान,
नगर परिषद हमीरपुर


Executive Officer
Municipal Council
Hamirpur (H.P.)

**APPENDIX 5 (B) : CERTIFICATION OF LAND OWNERSHIPS BY THE
DEPARTMENT OF LABOUR AND EMPLOYMENT FOR MCC HAMIRPUR SITE**

Most Urgent

No.-L&E(Emp)MCC-2014/Vol-I-
Government of Himachal Pradesh,
Directorate of Labour & Employment, H.P.

Dated, the Shimla-1, 34 JUL 2017,

To

The General Manager,
Himachal Pradesh Kaushal Vikas Nigam
(A State Government Undertaking),
SDA Complex, Block No.24, STPI Building, Kasumpati,
Shimla-171009.

Subject: Land Ownership Letter in English Language .

Madam/Sir,

Please refer to your email dated 03.07.2017, on the subject cited above.

It is informed that Government land comprised in Khata No. 54 Min Khatauni No.91 Min Khasra No.-610/435/1 measuring 423.75 sqm., situated in Village Up Mohal Usiyana Mauza Bajuri, Tehsil and District Hamirpur, has been transferred in the name of the Labour & Employment Department, vide order No.- DRO/DCH/SK/OK(LR)-TL-167/125 dated 19/12/2015 of the District Collector, District Hamirpur, for the purpose of construction of MCC Hamirpur. Copy of said orders alongwith other relevant document are attached.

Yours faithfully,

DR
DR
Director Employment,
Himachal Pradesh,
Telephone No.-0177-2625085
Email: lep-hp@nic.in

Enccl - As above (4)

APPENDIX 6: SAMPLE TRAFFIC MANAGEMENT PLAN

A. Principles

1. Since the scale of construction work at the subproject site is relatively small, there will not be any major or prolonged disruption of local traffic. Nevertheless, it is good to prepare a traffic management plan (TMP) to minimize and avoid public inconvenience to the extent feasible. This indicative TMP will ensure the safety of all the road users along the work zone and minimize public inconvenience. It addresses the following issues:

- (i) the safety of pedestrians, bicyclists, and motorists travelling through the construction zone;
- (ii) protection of work crews from hazards associated with moving traffic;
- (iii) avoiding traffic congestion; and
- (iv) Maintenance of access to adjoining properties.

B. Operating Policies for Traffic Management Plan

2. The following principles will help to promote safe and efficient movement for all road users (motorists, bicyclists, and pedestrians, including persons with disabilities) through and around work zones while reasonably protecting workers and equipment.

- (i) Make traffic safety and temporary traffic control an integral and high-priority element of every project from planning through design, construction, and maintenance.
- (ii) Inhibit traffic movement as little as possible.
- (iii) Provide clear and positive guidance to drivers, bicyclists, and pedestrians as they approach and travel through the temporary traffic control zone.
- (iv) Inspect traffic control elements routinely, both day and night, and make modifications when necessary.
- (v) Pay increased attention to roadside safety in the vicinity of temporary traffic control zones.
- (vi) Keep the public well informed.
- (vii) Make appropriate accommodation for abutting property owners, residents, businesses, emergency services, railroads, commercial vehicles, and transit operations.

C. Procedures for Street Closure, if Required

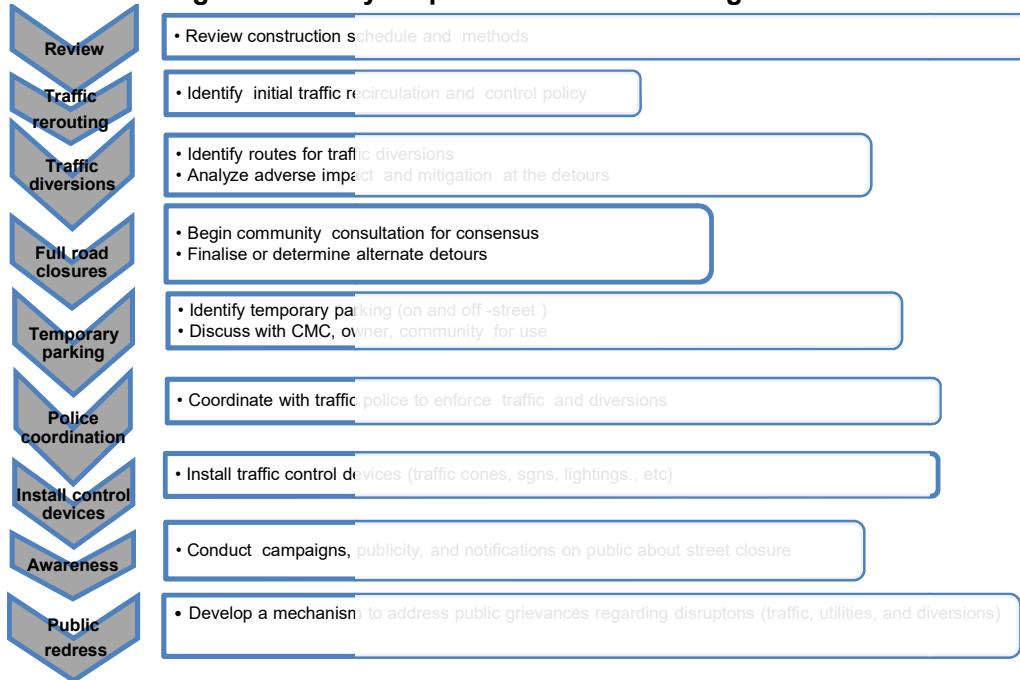
3. A final decision to close a particular street and divert the traffic should involve the following steps:

- (i) approval from the project implementation unit (PIU) and local administration to use alternative local streets as detours;
- (ii) consultation with businesses, community members, traffic police, persons with disability, etc., regarding the mitigation measures necessary at the detours where the road is diverted during the construction;
- (iii) determining the maximum number of days allowed for road closure, and incorporation of such provisions into the contract documents;
- (iv) determining if additional traffic control or temporary improvements are needed along the detour route;
- (v) considering how access will be provided to the worksite;
- (vi) contacting emergency service, school officials, and transit authorities to determine if there is any effect on their operations; and

(vii) Developing a notification program to keep the public informed, and advising the public of alternate routes as a result of the traffic diversion.

4. If full road-closure of certain streets within the area is not feasible due to inadequate capacity of the detour streets or public opposition, then full closure can be restricted to weekends with the construction commencing on Saturday night and ending on Monday morning prior to the morning rush hour traffic.

Figure A: Policy Steps for the Traffic Management Plan



Source: Asian Development Bank.

D. Public Awareness and Notifications

5. The Public Works Department and contractor will issue timely notifications to inform the public about the following issues:

- (i) road blockages and alternative routes along with the duration (as applicable);
- (ii) traffic control devices placed around the construction zones (signs, traffic cones, barriers, etc.); and
- (iii) Reduced speed limits to be enforced at the work zones and traffic diversions.

8. It may be necessary to conduct an awareness campaign on road safety during construction. It will target relevant groups, i.e., children, adults, and drivers. Therefore, these campaigns will be conducted in schools and community centers. In addition, the project will publish a brochure for public information. These brochures will be widely circulated around the area and will also be available at the PIU, and the contractor's site office. The text of the brochure should be concise to be effective, with a lot of graphics. It will serve the following purpose:

- (i) Explain why the brochure was prepared, along with a brief description of the project.

- (ii) Advise the public to expect the unexpected.
- (iii) Educate the public about the various traffic control devices and safety measures adopted at the work zones.
- (iv) Educate the public about safe road user behaviour at the work zones.
- (v) Advise the public how to stay informed or where to inquire about road safety issues at the work zones (name, telephone, mobile number of the contact person).
- (vi) Indicate the office hours of relevant offices.

E. Vehicle Maintenance and Safety

10. A vehicle maintenance and safety program shall be implemented by the construction contractor. The contractor should ensure that all the vehicles are in proper running condition, and comply with roadworthy and meet certification standards of the government. All vehicles should be in good condition and meet the pollution standards of the Government of India and the Himachal Pradesh government. The drivers will follow the special code of conduct and road safety rules of the Himachal Pradesh government. They will ensure that all loads are covered and secured. Vehicles will be cleaned and maintained in designed places.

F. Installation of Traffic Control Devices at Work Zones and Traffic Diversion Routes

10. The purpose of installing traffic control devices at the work zones is to delineate these areas to warn, inform, and direct the road users about a hazard ahead, and to protect them as well as the workers. As proper delineation is key for achieving the above objective, it is important to install good traffic signs at the work zones. The following traffic control devices will be used in work zones: signs, pavement markings, channelizing devices, arrow panels, warning lights.

11. Procedures for installing traffic control devices at any work zone vary depending on road configuration, location of the work, construction activity, duration, traffic speed and volume, and pedestrian traffic. Work will take place along major roads, and the minor internal roads. As such, the traffic volume and road geometry vary. However, regardless of where the construction takes place, all the work zones should be cordoned off, and traffic shifted away at least with traffic cones, barricades, and temporary signs (temporary "STOP" and "GO").

12. The work zone should take into consideration the space required for a buffer zone between the workers and the traffic (lateral and longitudinal), and the transition space required for delineation, as applicable. For the works, a 30 centimeter clearance between the traffic and the temporary STOP and GO signs should be provided. In addition, at least 60 centimeters is necessary to install the temporary traffic signs and cones.

13. Traffic police should regulate traffic away from the work zone and enforce the traffic diversion result from full street closure in certain areas during construction. Flaggers or personnel should be equipped with reflective jackets at all times and have traffic control batons (preferably the LED type) for regulating the traffic during nighttime.

14. In addition to the delineation devices, all the construction workers should wear fluorescent safety vests and helmets in order to be visible to the motorists at all times. There should be provision for lighting beacons and illumination for night constructions. The PIU and contractor will coordinate with the local administration and traffic police regarding the traffic signs, detour, and any other matters related to traffic. The contractor will prepare the traffic management plan in detail and submit it along with the environmental management plan for the final approval.

APPENDIX 7: PHOTOGRAPHS AND ATTENDANCE SHEETS OF CONSULTATIONS



**IND 49108-002: Supporting Skill Development in Himachal Pradesh
Stakeholder Consultations**

Date : 06/07/16

Location: MCC Hamirpur-Site

Planned Facility: MCC

S. No.	Name	Designation	Phone Number	Signature
1	V P Rana	DEO	9418498145	<i>[Signature]</i>
2	SUDHA SOOD	Supdt	9418768497	<i>[Signature]</i>
3	Pawan Kumar	Perm	8628850838	Pawan Kumar
4	Yashpal malik	PWC	9815040088	<i>[Signature]</i>
5	HARSH WADHWA	PWC	9999007005	<i>[Signature]</i>
6	Anita	Clerk	9805315716	<i>[Signature]</i>
7	Harish Kumar	Clerk	91181-91326	<i>[Signature]</i>
8	Niraj Sharma	Labour Inspector	92188-40831	<i>[Signature]</i>
9	Shivam Sharma	DB	981122448	<i>[Signature]</i>
10				
11				
12				
13				
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Appendix C

Social Due Diligence Report

Document Stage: Project Appraisal

July 2017

Himachal Pradesh Skill Development Project

Sub Project - MCC Hamirpur Construction Package(HPSDP-PWD/04)

Prepared by the Government of Himachal Pradesh for the Asian Development Bank.

The social Due Diligence Report is a document of the borrower. The views expressed herein do not necessarily represent those of ADB's Board of Directors, Management, or staff, and may be preliminary in nature.

ABBREVIATIONS

ADB	Asian Development Bank
CLC	City Livelihood Centre
CPCB	Central Pollution Control Board
DEA	Department of Economic Affairs
DoLE	Department of Labour and Employment
DTE	Department of Technical Education
DoUD	Department of Urban Development
DOHE	Department of Higher Education
EAC	Environmental Appraisal Committee
EIA	Environmental Impact Assessment
EMP	Environmental Management Plan
ESMF	Environmental and Social Management Framework
ESSP	Environmental and Social Safeguard Policy
GoHP	Government of Himachal Pradesh
GOI	Government of India
GRM	Grievance Redress Mechanism
HPSPCB	Himachal Pradesh State Pollution Control Board
IEE	Initial Environmental Examination
MCC	Model Career Centre
MOEFCC	Ministry of Environment, Forests and Climate Change
NRRP	National Rehabilitation and Resettlement Policy
PAP	Project-affected person
RLC	Rural Livelihood Center
SPCB	State Pollution Control Board
SPS	Safeguard Policy Statement
TOR	Terms of Reference

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Executive Summary

1. The Department of Planning (DoP), Government of Himachal Pradesh, plans to implement Himachal Pradesh Skill Development Project in the state with an aim of improvement in livelihood opportunities and employability of Himachali youth aged 16 to 30 years. The outputs of the project are (a) Technical and Vocational Educational Training (TVET) in the state is scaled up and aligned to national standards, (b) market aligned skills ecosystem is created (c) access to quality training institutes is improved, and (d) capacity of HPKVN is improved as it is entrusted to deliver mandate of Himachal Pradesh Skill Development Mission (HPSDM).
2. The Department of Planning (DoP), Government of Himachal Pradesh is the Executive Agency (EA) for the project. The implementing agencies (IAs) for this project are Himachal Pradesh Kaushal Vikas Nigam Ltd. (HPKVN) an autonomous body established by GoHP, Department of Technical Education, Vocational and Industrial Training (DoTE), Department of Urban Development (DoUD), Public Works Departments (PWD) and Department of Rural Development (DoRD). The Environmental and Social Management Frame Work (ESMF) has been prepared for the project to take care of environmental and social impacts of the project and to comply with ADB SPS 2009 and local, national and State regulatory requirements. The ESMF will be followed in planning and implementation of this project. As part of project there is proposal to upgrade 11 existing Employment Exchanges into Model Career Centers (MCCs), one new MCC at Hamirpur, 7 Rural Livelihood Centers (RLCs), 6 City Livelihood Centers (CLCs) and one Women Polytechnic (in Rehan in Kangra district). In addition to these infrastructure facilities for skill development, 50 ITIs will be upgraded through installation of equipment to make these NSQF aligned. In addition to the above training hall and laboratories in 10 undergraduate colleges and 10 polytechnics, where vocational courses to be introduced, will be constructed.
3. To meet the ESMF and ADB SPS 2009 requirements, 'Social Due Diligence Report' has been prepared for the MCC Hamirpur construction package which involves establishment of a Model Career Center at Hamirpur town.
4. The MCC will be a three floor building including ground floor with a built up area of about 500 m². The ground floor components of MCC are (a) Lobby cum waiting area, (b) technology room. On the first floor of proposed MCC building space for facilities include (a) Counseling room for big group, (b) Counseling room, (c) practical class room for small group, and (b) Manager's room and toilet. On the top floor i.e. second floor space for facilities include (a)

Counseling room and (b) IT section for record keeping. The construction period for MCC will be 2.0 years.

5. There is no requirement for acquisition of private land for the construction of MCC as the proposed site ownership is with Department of Labour and Employment (DOLE). The HPSDP project as a whole has been categorized as 'C' category project as GoHP has assured ADB that all project related infrastructure will be created on GoHP owned land.
6. The construction and operation of proposed MCC will not have any impact on Indigenous People (IP) because there is no presence of such people in the Hamirpur district as a whole. The tribal dominated regions in Himachal are Lahaul Spiti and Kinnaur districts and Bharmour and Pangi subdivisions of Chamba districts. These are far away from the subproject site. The HPSDP project as a whole has been categorised as 'C' category project.
7. The consultations with the stakeholders have been carried out and the suggestions of stakeholders have been incorporated in the sub project design. The consultations with the stakeholders will continue in future also.
8. In order to address any grievance of the stakeholders and public residing in the surroundings of subproject site, a 'Grievance Redress Mechanism (GRM)' has been established. This GRM will be functional from the start of the construction period and will remain active in the entire construction duration of 2 years.
9. The proposed sub project of MCC establishment will not have any adverse impact on women and/or girls or will widen gender inequality. The subproject will help in getting employment to the educated and skilled youth of both the genders and will increase employability in the Hamirpur district.

A. INTRODUCTION:

1. The Department of Planning (DoP), Government of Himachal Pradesh, plans to implement Himachal Pradesh Skill Development Project in the state with an aim of improvement in livelihood opportunities and employability of Himachali youth aged 16 to 30 years. The outputs of the project are (a) Technical and Vocational Educational Training (TVET) in the state is scaled up and aligned to national standards, (b) market aligned skills ecosystem is created, (c) access to quality training institutes is improved, and (d) capacity of HPKVN is improved as it is entrusted to deliver mandate of Himachal Pradesh Skill Development Mission (HPSDM).
2. The Department of Planning (DoP), Government of Himachal Pradesh is the Executive Agency (EA) for the project. The implementing agencies (IAs) for this project are Himachal Pradesh Kaushal Vikas Nigam Ltd. (HPKVN) an autonomous body established by GoHP, Department of Technical Education (DoTE), Department of Urban Development (DoUD), Department of Labour and Employment (DoLE), Public Works Departments (PWD) and Department of Rural Development (DoRD). The Environmental and Social Management Frame Work (ESMF) has been prepared for the project to take care of environmental and social impacts of the project and to comply with ADB SPS 2009 and local, national and State regulatory requirements. The ESMF will be followed in planning and implementation of this project. As part of project there is proposal to upgrade 11 existing Employment Exchanges into Model Career Centers (MCCs) and to construct one new MCC at Hamirpur, 7 Rural Livelihood Centers (RLCs), 6 City Livelihood Centers (CLCs) and one Women Polytechnic (in Rehan in Kangra district). In addition to these infrastructure facilities for skill development, 50 ITIs will be upgraded through installation of equipment to make these NSQF aligned. As part of this HPSDP project there will also be construction of training hall and laboratories in 10 undergraduate colleges and 10 polytechnics where vocational courses will be introduced.
3. As per ESMF requirements, this social due diligence report has been prepared for the proposed MCC at Hamirpur. The subproject site is in Hamirpur district. The implementing agencies for this sub project are PWD and HPKVN.

B. JUSTIFICATION FOR THE PROJECT

4. Himachal Pradesh (HP), located in the north of India along the Himalayan range, has a population of 6.8 million. Despite constraints such as its hilly terrain, poor connectivity, and predominantly rural population (90%), HP has shown significant improvement in economic, poverty, education, and health indicators since the year 2000 owing to the concerted effort of successive governments to invest in infrastructure and improve delivery of basic public

services. With the marked increase in secondary school enrolments over the past decade, the Government of HP (GOHP) now faces the “second-generation” challenge of providing appropriate technical and vocational education training (TVET) opportunities to its youth to prepare them for the fast-changing needs of the job market. The proposed project will assist GOHP in increasing the employability of its youth and improving their employment prospects by modernizing and reforming the state’s TVET programs, aligning it to the needs of the market through public private partnerships (PPP), and improving overall quality and outcome of TVET programs.¹

5. Between fiscal year (FY) 2004–05 and FY 2013–14, HP’s economy grew at 7.8% as compared to 7.6% for India as a whole. Overall poverty declined from 22.9% to 8.1% between FY 2004–05 and FY 2011–12.² Decline in rural poverty from 25.6% to 8.5% was commendable. Nearly all villages in HP have access to electricity. Two-thirds of rural households have access to sanitation facilities as compared to the all India average of 30.7%. Average life expectancy in HP at 70 years is higher than the national average of 66.1 years. Overall literacy rate has improved and the gender gap has narrowed steadily.³ In FY 2013–14, the gross enrolment rate (GER) at the secondary and higher secondary levels in HP was 120 and 96 respectively as compared to 76 and 52 for India. Owing to high female literacy and improved access to basic health, education, and family planning services, HP’s fertility rate is 1.9, which is lower than the replacement level. HP has a narrow demographic window till 2022 after which, the share of the working age population (15–59 years) will begin to decline.⁴
6. The GOHP is keen to take advantage of this demographic window by boosting the technical and vocational skills level of its youth. However, despite the increase in secondary school enrolment and improvement in literacy levels, HP is constrained by the low employability of its school and college graduates. The challenge of “educated unemployment” is growing.⁵

¹ The project is included in the country operations business plan for India. ADB. 2015. Country Operations Business Plan: India, 2016–2018. Manila. Project preparatory technical assistance will be provided (Appendix 3).

² Estimates are based on ‘Suresh Tendulkar Committee’ poverty estimates.

³ Between 1991 and 2011, HP’s literacy rate increased from 63.7% to 82.8%. Male literacy increased from 75.3% to 89.5% while female literacy rose from 52.1% to 75.9%. The gender gap fell from 23.2% in 1991 to 13.4% in 2011.

⁴ By 2026, around 14.7% of HP’s population will be aged 60 years and above.

⁵ In HP, the worker to population ratio, i.e., the number of persons employed per 1000 persons, is 86% for those with primary education, 67% for those with secondary education, and 60% for those with higher secondary education.

Like in the other states of India, general education at the secondary and college levels is not adequately aligned to the needs of the market. TVET programs in HP are fragmented across 12 government departments. There are no uniform benchmarks for quality assurance, outcomes, certification, or costs. Owing to outdated curricula and delivery methods, weak industry-linkage, and poor placement record, TVET is not viewed as a viable career option by HP's youth. Consequently, there continues to be heavy dependence on government jobs in HP which is neither fiscally sustainable, nor economically productive.⁶ Further, a sharp mismatch has arisen between HP's economic and employment profiles over time. Between FY 2004–05 and FY 2013–14, the share of the primary sector in HP's gross domestic product declined from 25% to 19%, of the secondary sector remained stable at around 38%, and that of the tertiary sector increased from 36% to 43%.⁷ However, as of FY 2013-14, 58.5% of the workforce continues to be employed in the primary sector, 22.5% in the secondary sector, and only 19% in the services sector. It is estimated that between 2017 and 2022, there will be a net demand for 515,557 skilled workers.⁸ HP's TVET system therefore, needs to be reformed on a priority basis to equip its youth with the skills required to make the transition from primary to secondary to tertiary jobs.

7. In February 2015, GOHP established a skill development corporation – the HP Kaushal Vikas Nigam (HPKVN) – as an autonomous body under the Department of Planning to take the lead in delivering the mandate of the HP Skill Development Mission (HPSDM) by bringing about convergence across the TVET programs being run by different departments, and aligning all training with the competency levels specified in India's National Skills Qualification Framework (NSQF) and other national quality assurance and certification norms.⁹ There will be industry representation in HPKVN's Board to strengthen market links and catalyze PPPs in training and assessment. HP is one of the first few states including Kerala and Haryana to introduce vocational education at the secondary level successfully. GoHP aims to build on this by integrating vocational education at the college level so that a TVET career path can be opened up for students pursuing general education. This project

⁶ In 2012–2013, the share of salaries in total expenditure in the government of HP was 33.8% as compared to an average of 23.6% for all other states. In 2011, one third of employed Himachalis held public sector jobs.

⁷ The primary sector includes agriculture, forestry, and fishing; the secondary sector: construction, manufacturing, mining and quarrying, electricity gas and water supply; and the tertiary sector: hospitality, transport and communication, trade, banking, insurance, public administration, and other services.

⁸ National Skill Development Corporation. 2012. *Skill-gap Study for Himachal Pradesh, 2012-2022*. New Delhi.

⁹ India's National Skill Development Policy, 2015, encourages states to develop umbrella Skill Development Missions, with “the over-arching power to pool resources for harmonizing the skilling efforts across line departments, private agencies, and voluntary organizations, and reducing duplication.”

will modernize and reform HP's TVET institutional framework, scale up the state's annual TVET training capacity by 17,000, and align it to the needs of the market so that the employment prospects of HP's youth improves.

C. SCOPE OF THIS DUE-DILIGENCE REPORT:

8. This social due diligence report examines Involuntary Resettlement and Land Acquisition issues in the proposed MCC, impacts on Indigenous People, Gender Issues, Project Outputs and Stakeholder Consultations. The HPSDP project has been categorized as "C" for Involuntary Resettlement and Indigenous People.

D. OBJECTIVES OF THIS DUE-DILIGENCE REPORT:

9. The objective of Due Diligence report is to examine that all that ADB SPS social safeguards principles, ESMF and Government of India and State Government of Himachal Pradesh Regulatory requirements are met for the project life cycle.

E. PROJECT IMPACTS AND OUTPUTS

10. The sub project is a part of HPSDP. The HPSDP impacts include improved employment and livelihood development opportunities for the needy youth of HP aged 16 to 30 years, aligned with the mandate of the HP Skill Development Mission. The outcome will be improved employability of those trained under the project. This will be achieved through the following outputs:
11. **Output 1:** TVET in HP scaled up and aligned to national standards. The project will support HPKVN in designing and running an NSQF-aligned TVET training program to reach out to 65,000 needy youth over the project period (2017–2021).¹⁰ HPKVN will subsume the ongoing skilling programs of some Departments such as Horticulture, Health, Animal Husbandry, Tribal

¹⁰ Alignment with NSQF is critical because with effect from 27 Dec. 2016, no government funding will be provided for training programs which are not NSQF-aligned. Also, all announcements for jobs in the central government, state governments, and public sector enterprises will have to define eligibility criteria in terms of NSQF. Certificate received by trainees upon the completion of training has to be NSQF-aligned for them to be eligible for jobs.

Affairs, and Tourism, and align them with national quality assurance standards. It will encourage PPPs in TVET training and assessment. Depending upon the background, capacity, and aspirations of the trainees, training will be provided either for formal wage employment, or for improved livelihood development and self-employment. The project will also support the Department of Higher Education (DOHE) in introducing long-term (i.e. 1 to 3 years) Bachelor of Vocational Education (B. Voc.) courses, and short-term courses aligned to NSQF levels 5 to 6 in 50 government and government-aided arts and science colleges. This will provide nearly 20,000 students with the opportunity to get advanced degrees in vocational education over the project period. It will establish a career path for TVET, and help to counter the stigma attached to it. To expand TVET options for the girls of HP, the project will establish a polytechnic for women focusing on trades such as pharmacy, computers, and electronics which are in high demand.¹¹ 1,200 women will be trained over the project period. Overall, the proposed project will boost HP's annual TVET training capacity by 17,000.

12. **Output 2:** Market-aligned skills ecosystem created in HP. The project will support HPKVN in forging partnerships with industry associations and sector skills councils (SSCs) to get demand information, and identify internship and placement opportunities. Around 200 master-trainers focusing on the main demand sectors relevant for HP will be groomed. The project will assist the Department of Labor and Employment (DOLE) in converting 11 employment exchanges into centers for awareness building and career counseling and one new Model Career Centre will be established at Hamirpur. The revamped employment exchanges will disseminate information on all ongoing public and private schemes, and play a pro-active role in placements. An information technology (IT)-based job portal will be established so that the trained and certified youth of HP are able to access job opportunities within and outside the state.
13. **Output 3:** Access to quality training institutes improved. The project will establish 7 multi-purpose Rural Livelihood Centers (RLCs) and 6 City Livelihood Centers (CLCs) to reach out to rural and urban poor respectively. HPKVN will assist the Department of Rural Development (DORD) and the Department of Urban Development (DOUD) in delivering training in these centers. The project will also help the Department of Technical Education, Vocational & Industrial Training (DTE) in upgrading the equipment of 50 selected Industrial Training Institutes (ITIs) as required by the revised guidelines of the National Council of Vocational Training (NCVT). This will ensure that the latest training is offered to the 6750 students

¹¹ Currently, HP has only 1 dedicated polytechnic for women at Kandaghat. The project will therefore, expand the reach of TVET training for the benefit of HP's women.

enrolled in these 50 ITIs. The proposed Women's Polytechnic at Rehan in Kangra district will expand TVET training options for women. In addition to the above, there will be construction of laboratories and training halls in 10 undergraduate and 10 polytechnics where vocational courses are to be started.

14. **Output 4.** Capacity of HPKVN strengthened. The project will build HPKVN's project management, fiduciary, safeguards, and training capacity. A cadre of staff specialized in different facets of TVET – counseling, training, quality assurance, industry engagement, skill-gap analysis, and M&E – will be trained. HPKVN will prepare a TVET results-framework for the entire state. Lessons drawn from evaluations of ongoing programs will be used to reduce duplication. The new infrastructure proposed under the project will be located optimally so that all Departments can use them as required. A state-wide IT-based management information system (MIS) for tracking project activities assessors will be established. This will help to break silos across departments, and establish the foundation for a true state Skill Development Mission.
15. The project is pro-poor and gender focused. The target trainees are the needy urban and rural youth of HP, and those enrolled in government arts and science colleges and TVET training institutes. Training will focus on trades such as pharmaceuticals, food processing, and light manufacturing in the secondary sector, and retail, tourism, hospitality, and banking and financial services in the tertiary sector for which there is demand within and outside HP. Support will also be provided to boost the livelihoods of the rural and urban poor through a package of training and marketing support. To ensure that the labor force participation rate for women does not decline with urbanization and diversification of HP's economy, the project will establish a Women's polytechnic (output 3), introduce gender-sensitive vocational courses in arts and science colleges where a high proportion of women are enrolled, and design counseling modules to inform women of the opportunities and career choices offered by TVET.¹²

F. SCOPE OF LAND ACQUISITION AND RESETTLEMENT ISSUE

16. The construction and operation of the MCC will not result in any permanent or temporary land acquisition and resettlement impacts because the land is owned by the Government of Himachal Pradesh (DOLE owned land). There is no displacement of any families in

¹² In 2011–2012, HP's labor force participation rate for rural women was 63%, but only 28% for urban women. It was 87% for rural men and 73% for urban men.

anticipation of the project implementation also.

17. There is also no encroachment by any private parties at the subproject site. There are no squatters or kiosks either residing or doing any commercial activities within the proposed site of MCC and its surroundings. As the project interventions will be on GOHP owned land in possession of DOLE, who will operate the MCC. In the subproject implementation no land acquisitions and resettlement requirements are envisaged.

G. INDIGENOUS PEOPLES:

18. There will be no impact on Indigenous peoples (IPs). All the proposed construction activities will be done within the vacant government land. This HPSDP project is categorized as "C" for Indigenous Peoples. No Indigenous Peoples Development Plan (IPDP) will be needed for the construction of MCC. The tribal population in the State is 5.71%. The areas dominated with tribal population are Lahaul Spiti and Kinnaur districts and Bharmour and Pangi subdivisions of Chamba districts. These are far away from the subproject site.

H. GENDER ISSUES:

19. The proposed sub project under of MCC construction will not have any adverse impact on women and/or girls or will widen gender inequality. The subproject will raise skills and will help in getting employment to both the genders. The HPSDP project as a whole will have positive impacts as it will provide direct and indirect employment to youths during implementation and operation. To create awareness among the upcoming development activities and their livelihood opportunities that are likely to come up, continuous consultation and focus group discussion with women community at subproject site and surroundings will be conducted throughout the project implementation period for participation in income generation and livelihood related activities.
20. Further, DoP, HPKVN and other implementing agencies will also publicize facilities available to the skilled youth for getting employment with the help of MCC. This will help skilled women youth in getting employment in Hamirpur district and surroundings.

I. PUBLIC CONSULTATIONS

21. Census Survey was not undertaken because of the reasons mentioned above, i.e. there is no physical or economic, temporary or permanent, IR impact. No person or community is being adversely affected by the construction of MCC. No land or asset acquisition is necessitated in the sub project. So people and communities will not be physically or

economically displaced due to the project interventions. No Common Property Resources (CPRs) such as Schools, hospitals, wells, hand pumps, graveyards, and religious structures will also be affected. The vulnerable group, indigenous and other ethnic groups are not being impacted. A summary of resettlement impact and the socio-economic table therefore is redundant. During visits to subproject site public consultations were conducted by the PPTA team and the IA officials to understand the possible impacts of the project and to solicit views, comments and suggestions of the stakeholders.

22. During consultation meetings, participants were of the view that HPSPD project as whole is important and very much needed and all are pleased by learning that project related facilities to upgrade the skills of youth and new model career centers will be created in their area and assured of cooperation during the project implementation. There was no opposition for the MCC construction learning that this will be on government land.

J. GRIEVANCE REDRESS MECHANISM

23. The affected person(s)/aggrieved party can give their grievance verbally or in written to the local site office. Grievances of affected person will first be brought to the attention of the Project Manager at PIU who can resolve the issue at the site level. If the matter is not solved within 7 days period by the PIU, it will be brought to the Grievance Redress Committee constituted for the purpose in PIU. This GRC shall discuss the issue in its monthly meeting and resolve the issues within one month of time after receiving the grievance. If the matter is not resolved by GRC at PIU level within stipulated time, it shall be referred to GRC at PMU level by Project Manager of PIU.
24. GRC at PMU shall discuss the issue and try to resolve it and inform the PIU accordingly. If the matter is not resolved by the GRC at PMU level within one month of time. The aggrieved person/party can bring the matter to The Court of Law any time after filing complaints at PIU or PMU level. The PIU shall keep records of all grievances received including contact details of complainant, date of receiving the complaint, nature of grievance, agreed corrective actions and the date these were affected and final outcome. The grievance redress process is shown below.

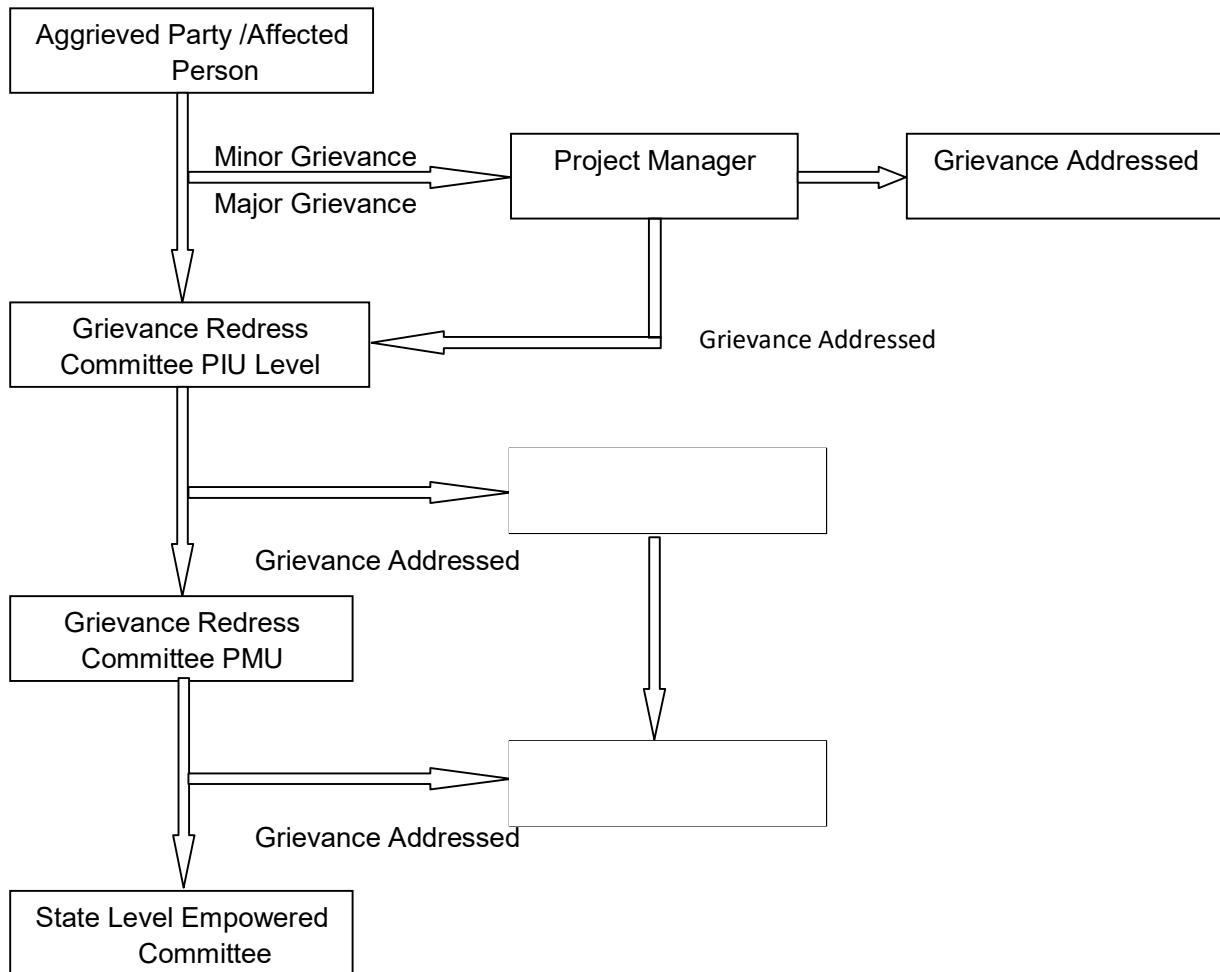
Composition and functions of GRC

25. PIU Level Grievance Redress Committee (GRC- PIU) – This committee will comprise of one local elected members of municipal council(Hamirpur), Project Manager, PWD Engineer

deployed at site , and construction manager of the contractor.

26. The GRC- PIU shall be headed by Project Manager (PIU). The committee will meet at least once in every month. Agenda of meeting shall be circulated to all the members and affected persons/aggrieved party along with venue, date and time; informed in written at least 7 days in advance of meeting. The matters shall remain with GRC at PIU level for one month and if grievance is not resolved within this time period, the matter shall be referred to GRC at PMU.
27. GRC within Environmental and Social Management Cell (ESMC) at PMU-There shall be one GRC in PMU. The matters not resolved by the GRC at PIU level within one month shall come under GRC at PMU. GRC at PMU will include General Manager HPKVN, Safeguard Specialists (Environmental and Social) of PMU and One representative from the DoUD, DOTE, DOLE, DORD Shimla offices. The Committee shall be headed by MD HPKVN. This committee shall look the matters, which are referred to and not resolved by GRC at PIU level. If the matter is not resolved by the GRC at PMU level within one month of time, the aggrieved person/party can bring the matter to State Level Empowered Committee (SLEC).
28. Approach to GRC. Affected person/aggrieved party can approach to GRC for redress of his/their grievances through any of the following modes-
 - Web based: A separate corner will be developed at the HPKVN website so that public /community/ affected person can register their complaint in the online column.
 - Telecom based: A telephone number will be displayed at the web site of HPKVN as wells at the construction site of MCC at Hamirpur so that general public can register their complaint through telephone / mobile phone to the PIU/PMU office.

GRIEVANCE REDRESS MECHANISM (HPSDP)



K. FINDINGS:

29. In the construction and operations of MCC at Hamirpur, full or partial, permanent or temporary, physical and economic displacements are absent. There are no Project Displaced Persons (DPs); no land or structure is impacted, no common property resources are affected. Even nobody's livelihood either temporarily or permanently is likely to be affected.
30. The construction and operation of the planned MCC will not result in permanent land acquisition and resettlement impacts because it will be undertaken within the land available and owned by the Government of Himachal Pradesh.
31. This project has been categorized as "C" for Involuntary Resettlement (IR) impact as per the

ADB's Safeguard Policy Statement, 2009 (SPS).

32. The project has also been categorized as 'C' for Indigenous People (IP) impact as proposed MCC site is not located in Tribal areas.

L. OTHER SOCIAL MEASURES AND SUGGESTIONS:

33. Although there is no land acquisition and resettlement impact for the MCC mentioned above, even then the contractor shall ensure that the construction staff shall adhere to the following code of conduct while undertaking construction activities:

- Regularly remove trash from the site on scheduled clean-up days;
- Entire area will be declared as plastic free, smoking free and silence zone and sign boards for the purpose should be displayed at site.
- Prior to commencement of site activities and mobilization on ground, the Contractor will prepare and get approved from the PWD, circulation plan for the construction phase for safe passage of traffic, including development of alternative access routes, traffic regulations, signage, etc., during construction. The Contractor with support of the PWD will carry out dissemination of these information and circulation plan at key entry points to the respective destinations.
- The contractor will train manpower not to hunt any bird or animals and damage the private plantation in the surroundings of MCC site.

M. CONCLUSION AND RECOMMENDATIONS

34. It is concluded from this due diligence study that: the proposed construction of MCC at Hamirpur does not have issues of land acquisition and resettlement. All MCC infrastructure and facilities will be built on vacant government land owned by DOLE GOHP. Due to sub project intervention, there will be no loss of income of any person or any assets, either privately owned or publicly owned. In case any claims or complaints are submitted during the construction period, an effective and efficient Grievance Redress Mechanism (GRM) will be followed. This GRM will enhance provision of timely and sensible hearings and facilitate solutions. The consultations should be continued throughout the construction period for a hassle free implementation.

35. This Social Due Diligence Report also meets ESMF requirements for screening of project from social impacts point view in the start phase of project life cycle.

Section 9 - Contract Forms

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

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Letter of Acceptance

---- on letterhead paper of the employer ----

..... date.

To: name and address of the contractor

Subject: Notification of Award Contract No.

This is to notify you that your Bid dated date for execution of the name of the contract and identification number, as given in the Bid Data Sheet for the Accepted Contract Amount of the equivalent of amount in numbers and words and name of currency as corrected and modified in accordance with the Instructions to Bidders is hereby accepted by our Agency.

You are requested to furnish the Performance Security within 28 days in accordance with the Conditions of Contract, using for that purpose the Performance Security Form included in Section 9 (Contract Forms) of the Bidding Document.

[Choose one of the following statements:]

We accept that _____ [insert the name of adjudicator proposed by the bidder] be appointed as the Adjudicator.

[or]

We do not accept that _____ [insert the name of the adjudicator proposed by the bidder] be appointed as the Adjudicator, and by sending a copy of this Letter of Acceptance to _____ [insert name of the appointing authority], the Appointing Authority, we are hereby requesting such Authority to appoint the Adjudicator in accordance with GCC 29.1.

Authorized Signature:

Name and Title of Signatory:

Name of Agency:

Attachment: Contract Agreement

Contract Agreement

WHEREAS the Employer desires that the Works known as *name of the contract*. should be executed by the Contractor, and has accepted a Bid by the Contractor for the execution and completion of these Works and the remedying of any defects therein,

The Employer and the Contractor agree as follows:

1. In this Agreement, words and expressions shall have the same meanings as are respectively assigned to them in the Contract documents referred to.
2. The following documents shall be deemed to form and be read and construed as part of this Agreement. This Agreement shall prevail over all other Contract documents.
 - (a) the Contract Agreement,
 - (b) the Letter of Acceptance,
 - (c) the Letters of Technical Bid and Price Bid,
 - (d) the Particular Conditions of Contract,
 - (e) the List of Eligible Countries that was specified in Section 5 of the bidding document,
 - (f) the General Conditions of Contract,
 - (g) the Specification,
 - (h) the Drawings,
 - (i) the Completed Activity Schedules or Bill of Quantities, and
 - (j) any other documents shall be added here.¹
3. In consideration of the payments to be made by the Employer to the Contractor as indicated in this Agreement, the Contractor hereby covenants with the Employer to execute the Works and to remedy defects therein in conformity in all respects with the provisions of the Contract.
4. The Employer hereby covenants to pay the Contractor in consideration of the execution and completion of the Works and the remedying of defects therein, the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

IN WITNESS whereof the parties hereto have caused this Agreement to be executed in accordance with the laws of *name of the borrowing country.* on the day, month and year indicated above.

Tables of Adjustment Data may be added if the contract provides for price adjustment (see GCC 54.1).

Signed by
for and on behalf of the Employer

Signed by
for and on behalf of the Contractor

in the presence of:

in the presence of:

Witness, Name, Signature, Address, Date

Witness, Name, Signature, Address, Date

Performance Security

Bank's name, and address of issuing branch or office¹

Beneficiary: *Name and address of employer*

Date:

Performance Guarantee No.:

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

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

At the request of the Contractor, we *name of the bank* hereby irrevocably undertake to pay you any sum or sums not exceeding in total an amount of *name of the currency and amount in figures²* (..... *amount in words*.....) 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 the Day of , ³, and any demand for payment under it 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.⁴

.....
Seal of Bank and Signature(s)

Note to Bidder

If the institution issuing the performance security is located outside the country of the employer, it shall have a correspondent financial institution located in the country of the employer to make it enforceable.

¹ All italicized text is for guidance on how to prepare this demand guarantee and shall be deleted from the final document.

² The guarantor 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. If the bank issuing the performance security is located outside the country of the employer, it shall have a correspondent financial institution located in the country of the employer.

³ Insert the date 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 [6 months][1 year], in response to the Employer's written request for such extension, such request to be presented to the Guarantor before the expiry of the guarantee."

⁴ Or the same or similar to this clause specified in the Uniform Rules for Demand Guarantees, ICC Publication No. 758 where applicable.

Advance Payment Security

*Bank's name, and address of issuing branch or office*¹

Beneficiary: *Name and address of employer*

Date:

Advance Payment Guarantee No.:

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

Furthermore, we understand that, according to the Conditions of the Contract, an advance payment in the sum *name of the currency and amount in figures*² (..... *amount in words*.....) is to be made against an advance payment guarantee.

At the request of the Contractor, we *name of the bank* hereby irrevocably undertake to pay you any sum or sums not exceeding in total an amount of *name of the currency and amount in figures*³ (..... *amount in words*.....) upon receipt by us of your first demand in writing accompanied by a written statement stating that the Contractor is in breach of its obligation under the Contract because the Contractor used the advance payment for purposes other than the costs of mobilization in respect of the Works.

It is a condition for any claim and payment under this guarantee to be made that the advance payment referred to above must have been received by the Contractor on its account number *contractor's account number* at *name and address of the bank*

The maximum amount of this guarantee shall be progressively reduced by the amount of the advance payment repaid by the Contractor as indicated in copies of interim statements or payment certificates which shall be presented to us. This guarantee shall expire, at the latest, upon our receipt of a copy of the interim payment certificate indicating that eighty percent (80%) of the Contract Price has been certified for payment, or on the day of⁴, whichever is earlier. 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 (or ICC Publication No. 758 as applicable).

.....
Seal of Bank and Signature(s)

Note to Bidder

If the institution issuing the advance payment security is located outside the country of the employer, it shall have a correspondent financial institution located in the country of the employer to make it enforceable.

¹ All italicized text is for guidance on how to prepare this demand guarantee and shall be deleted from the final document.

² The guarantor shall insert an amount representing the amount of the advance payment denominated either in the currency(ies) of the advance payment as specified in the Contract, or in a freely convertible currency acceptable to the employer.

³ Footnote 2.

⁴ Insert the expected expiration date of the time for completion. 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 [6 months][1 year], in response to the Employer's written request for such extension, such request to be presented to the Guarantor before the expiry of the guarantee."

Himachal Pradesh Skill Development Project.

Loan No: ----- IND

Procurement of Works

Single-Stage: Two-Envelope Bidding Procedure

Bidding Document for Procurement of

Construction and Completion of Model Career Center (MCC) Building at Hamirpur in Himachal Pradesh (Sh:- Construction of Building Portion including Civil Works, Water supply & Sanitary installation, Septic tank and Soak pit, Rain water harvesting system, Electrical installations, Solar water Heating System, Environmental management Site development etc.)

Volume 2 (Price Bid)

Issued on: July, 2017

Invitation for Bids No.: CLC/03/2017-18

NCB No: CLC/RLC-4

**Employer: Public Works Department, Government of Himachal Pradesh,
represented by Chief Engineer, Hamirpur Zone, Hamirpur (HP)**

Country: India

Section 4 - Bidding Forms

Volume 2 (Price Bid)

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Letter of Price Bid

-Note

The bidder must accomplish the Letter of Price Bid on its letterhead clearly showing the bidder's complete name and address.

Date:

ICB/NCB No.:

Invitation for Bid No.:

To:

We, the undersigned, declare that:

(a) We have examined and have no reservations to the Bidding Documents, including Addenda issued in accordance with Instructions to Bidders (ITB) 8.

(b) We offer to execute in conformity with the Bidding Documents the following Works: _____

(c) The total price of our Bid, excluding any discounts offered in item (d) below is:

[amount of foreign currency in words], [amount in figures], and [amount of local currency in words], [amount in figures]

The total bid price from the Summary of Bill of Quantities for admeasurement contracts or Activity Schedule for lump sum contracts should be entered by the bidder inside this box. Absence of the total bid price in the Letter of Price Bid may result in the rejection of the bid.

(d) The discounts offered and the methodology for their application are as follows:

(e) Our Bid shall be valid for a period of days from the date fixed for the bid submission deadline in accordance with the Bidding Documents, and it shall remain binding upon us and may be accepted at any time before the expiration of that period.

(f) If our Bid is accepted, we commit to obtain a performance security in accordance with the Bidding Documents.

(g) We have paid, or will pay the following commissions, gratuities, or fees with respect to the bidding process or execution of the Contract:¹

Name of Recipient	Address	Reason	Amount
.....
.....

(h) We understand that this bid, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us, until a formal contract is prepared and executed.

(i) We understand that you are not bound to accept the lowest evaluated bid or any other bid that you may receive.

(j) We agree to permit ADB or its representative to inspect our accounts and records and other documents relating to the bid submission and to have them audited by auditors appointed by ADB.

Name

In the capacity of

Signed

Duly authorized to sign the Bid for and on behalf of

Date.....

¹ If none has been paid or is to be paid, indicate "None".

Schedules

Schedule of Payment Currencies

Not Applicable

Bill of Quantities

Contract Package No. and Title: CLC/RLC-4; Construction of Model Career Center (MCC) Building at Hamirpur in Himachal Pradesh (Sh:- Construction of Building Portion including Civil Works, Water supply & Sanitary installation, Septic tank and Soak pit, Rain water harvesting system, Electrical installations, Solar water Heating System, Environmental management Site development etc.)

Sr. No.	Description of Item	Qty	Unit	Unit Rate (INR)		Amount (INR)
				In Figure	In Words	
1	Cutting in earth work in all heights and in all kind of soil such as pick work ,jumper work, blasting work (Soft &Hard rock) including chiseling and wedging out of rock wherever blasting is prohibited,any other intermediate classification of soil and saturated soil including ramming and dewatering wherever required and disposal of all unservicable material within all leads and lifts as directed by the Engineer-in-Charge through all modes of transportation.	483.00	per cubic metre			
2	Excavation in foundation, trenches etcetera in all classification of soil such as pick work, jumper work, blasting work soft rock and hard rock including chiselling wedging and any other mixed variety in dry or saturated conditions upto any depth and lift including pumping and bailing out water where required including stacking the serviceable and unserviceable materials separately as directed and then returning the stacked soil in 15cm (fifteen centimetres) layers when required into plinth and sides of foundation etcetra consolidating each deposited layer by ramming and watering and then disposing of all surplus unserviceable excavated earth within all leads and lifts as directed by the Engineer-in-Charge including entire carriage of materials in all leads and lifts, disposed materials to be neatly levelled including all incidentals.	448.37	Per cubic metre			
3	Excavation in drain and channel etcetera in all classification of soil such as pick work, jumper work, blasting work soft rock and hard rock including chiselling wedging and any other mixed variety in dry or saturated conditions upto any depth and lift including pumping and bailing out water where required including stacking the serviceable and unserviceable materials separately as directed and then returning the stacked soil in	28.80	Per cubic metre			

Sr. No.	Description of Item	Qty	Unit	Unit Rate (INR)		Amount (INR)
				In Figure	In Words	
	15cm (fifteen centimetres) layers when required into plinth and sides of foundation etcetra consolidating each deposited layer by ramming and watering and then disposing of all surplus un-serviceable excavated earth within all leads and lifts including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.					
4	Filling in plinth with sand under floors including watering, ramming consolidating and dressing complete in all floor levels and in all heights including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	28.13	Per cubic metre			
5	Stone filling under floors and filter material in filter chamber including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	34.05	Per cubic metre			
6.01	Providing form work with mild steel plates 3.15 mm (three point one five millimetre) thick welded with angle iron in frames 30x30x5mm (Thirty into thirty into five millimetre) so as to give a fair finish including centring, shuttering, strutting, propping and centring with wooden battens and ballies in all heights below supporting floor to ceiling and removal of the same for insitu-reinforced concrete and plain concrete work upto all floor level in all heights in Foundation Footings, basis of column etc mass concrete including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	271.82	Per square metre			
6.02	Providing form work with mild steel plates 3.15 mm (three point one five millimetre) thick welded with angle iron in frames 30x30x5mm (Thirty into thirty into five millimetre) so as to give a fair finish including centring, shuttering, strutting, propping and centring with wooden battens and ballies in all heights below supporting floor to ceiling and removal of the	556.51	Per square metre			

Sr. No.	Description of Item	Qty	Unit	Unit Rate (INR)		Amount (INR)
				In Figure	In Words	
	same for insitu-reinforced concrete and plain concrete work upto all floor level in all heights in Flat surfaces such as soffits of suspended floors, roofs, landings shelves and the like etcetera In all thickness in any floor level including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.					
6.03	Providing form work with mild steel plates 3.15 mm (three point one five millimetre) thick welded with angle iron in frames 30x30x5mm (Thirty into thirty into five millimetre) so as to give a fair finish including centring, shuttering, strutting, propping and centring with wooden battens and ballies in all heights below supporting floor to ceiling and removal of the same for insitu-reinforced concrete and plain concrete work upto all floor level in all heights in Vertical surfaces such as walls (any thickness) partition and the like including attached pilasters, buttresses plinth and string courses and the like including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	152.64	Per square metre			
6.04	Providing form work with mild steel plates 3.15 mm (three point one five millimetre) thick welded with angle iron in frames 30x30x5mm (Thirty into thirty into five millimetre) so as to give a fair finish including centring, shuttering, strutting, propping and centring with wooden battens and ballies in all heights below supporting floor to ceiling and removal of the same for insitu-reinforced concrete and plain concrete work upto all floor level in all heights in Edges of slab and break in floors and walls upto any thickness/height in any floor including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	247.20	Per Running metre			
6.05	Providing form work with mild steel plates 3.15 mm (three point one five millimetre) thick welded with angle iron in frames 30x30x5mm (Thirty into thirty into five millimetre) so as	671.15	Per square metre			

Sr. No.	Description of Item	Qty	Unit	Unit Rate (INR)		Amount (INR)
				In Figure	In Words	
	to give a fair finish including centring, shuttering, strutting, propping and centring with wooden battens and ballies in all heights below supporting floor to ceiling and removal of the same for insitu-reinforced concrete and plain concrete work upto all floor level in all heights in Beams, cantilevers, girders and lintels such as soffits of beams, beam haunching, cantilevers girder, bressumers and lintels of all height/thickness including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.					
6.06	Providing form work with mild steel plates 3.15 mm (three point one five millimetre) thick welded with angle iron in frames 30x30x5mm (Thirty into thirty into five millimetre) so as to give a fair finish including centring, shuttering, strutting, propping and centring with wooden battens and ballies in all heights below supporting floor to ceiling and removal of the same for insitu-reinforced concrete and plain concrete work upto all floor level in all heights in Columns, pillars, posts and struts, square rectangular/polygonal in plan including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	670.54	Per square metre			
6.07	Providing form work with mild steel plates 3.15 mm (three point one five millimetre) thick welded with angle iron in frames 30x30x5mm (Thirty into thirty into five millimetre) so as to give a fair finish including centring, shuttering, strutting, propping and centring with wooden battens and ballies in all heights below supporting floor to ceiling and removal of the same for insitu-reinforced concrete and plain concrete work upto all floor level in all heights in Stair Case with sloping of stepped soffits excluding landing but including preparing of the surface and finishing of nosing upto floor to all level including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	68.70	Per square metre			

Sr. No.	Description of Item	Qty	Unit	Unit Rate (INR)		Amount (INR)
				In Figure	In Words	
7	Providing and laying cement concrete mechanically mixed 1:6:12 (One cement : six sand : twelve graded/crushed stone aggregate 40mm (Forty millimetres) nominal size and curing complete in foundation and plinth including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	34.76	Per cubic metre			
8	Providing and laying cement concrete mechanically mixed 1:5:10 (One cement : five sand : ten graded/crushed stone aggregate 40mm (Forty millimetres) nominal size and curing complete in foundation and plinth including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	136.09	Per cubic metre			
9	Providing and laying cement concrete mechanically mixed 1:4:8 (One cement : four sand : eight graded/crushed stone aggregate 40mm (Forty millimetres) nominal size and curing complete in foundation and plinth including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	18.05	Per cubic metre			
10	Providing and laying cement concrete mechanically mixed 1:3:6 (One cement : three sand : six graded/crushed stone aggregate 20mm (Forty millimetres) nominal size and curing complete in foundation and plinth including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	38.80	Per cubic metre			
11.01	Providing and laying M-20 design mix reinforced cement concrete mixed and vibrated and curing complete excluding the cost of form work and reinforcement for reinforced concrete work upto all floor levels in all heights in Foundation footings bases of columns and the like and mass concrete including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of	88.99	Per cubic metre			

Sr. No.	Description of Item	Qty	Unit	Unit Rate (INR)		Amount (INR)
				In Figure	In Words	
	Engineer-in-Charge including all incidentals.					
11.02	Providing and laying M-20 design mix reinforced cement concrete mechanically mixed and vibrated and curing complete excluding the cost of form work and reinforcement for reinforced concrete work upto all floor levels in all heights in Suspended floor, roofs, landings, shelves and their support, balconies, beams, girders, bressumers and cantilever upto all floor level including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	148.74	Per cubic metre			
11.03	Providing and laying M-20 design mix reinforced cement concrete mechanically mixed and vibrated and curing complete excluding the cost of form work and reinforcement for reinforced concrete work upto all floor levels in all heights in Columns, pillars, posts and struts upto all floor level including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	65.50	Per cubic metre			
11.04	Providing and laying M-20 design mix reinforced cement concrete mechanically mixed and vibrated and curing complete excluding the cost of form work and reinforcement for reinforced concrete work upto all floor levels in all heights in Stair case except spiral stair cases excluding landing but including preparing of topsurface and finishing of nosing upto all floor height in all thickness including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	11.35	Per cubic metre			
11.05	Providing and laying M-20 design mix reinforced cement concrete mechanically mixed and vibrated and curing complete excluding the cost of form work and reinforcement for reinforced concrete work upto all floor levels in all heights in wall any thickness but not less than 0.10 mtr. (Zero point ten metres) thick attached pilasters buttersses plinth and string courses from top of foundation upto all floor level including	27.13	Per cubic metre			

Sr. No.	Description of Item	Qty	Unit	Unit Rate (INR)		Amount (INR)
				In Figure	In Words	
	entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.					
12	Providing mild or steel reinforcement for reinforcement cement concrete work including bending, binding and placing in position complete upto all floor level in all heights including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	65900.40	Per kilogram me			
13	Applying cement slurry on reinforced cement concrete slab or cement concrete work using 2.75kg (Two point seven five kilogramme) of cement per square metre of floor area before laying cement concrete flooring including roughening cleaning of the cement surface complete including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge and other incidentals.	653.16	Per square metre			
14	Providing RCC work smooth finishing of the exposed surface with cement mortar 1:3 (1 cement : 3 sand) upto all floor level in all heights including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	653.16	Per square metre			
15	Providing throating or plaster drip and moulding to RCC Chajja upto all floor level in all heights including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	1288.00	Per Running metre			
16	Providing and laying damp proof course with 38mm (Thirty eight millimeters) thick cement concrete 1:2:4 (One cement : two sand : four graded/crushed stone aggregate 12.5mm (Twelve point five millimeters) nominal size and curing complete in foundation and plinth including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	47.94	Per square metre			

Sr. No.	Description of Item	Qty	Unit	Unit Rate (INR)		Amount (INR)
				In Figure	In Words	
17	Applying a coat of hot bitumen maxphalt or equivlant 80/100 (Eighty oblique one hundred) using 1.70kg per sqm. (One point seven zero per square metre) on damp proof course after cleaning the surface with a piece of cloth lightly soaked with kerosene oil in foundation and plinth including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	47.94	Per square metre			
18	Brick work using second class common burnt clay building bricks in cement mortar 1:6 (One cement : six sand) in foundation and plinth including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge and other incidentals.	21.77	Per cubic metre			
19	Brick work using second class common burnt clay building bricks in cement mortar 1:4 (One cement : four sand) in foundation and plinth including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge and other incidentals.	21.85	Per cubic metre			
20	Brick work using second class common burnt clay building bricks in cement mortar 1:6 (One cement : six sand) in super structure above plinth level in all heights and depth including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge and other incidentals.	191.09	Per cubic metre			
21	Half brick masonry using second class common burnt clay building bricks in cement mortar 1:4 (One cement : four sand) in super structure upto all floor level in all heights including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge and other incidentals.	515.88	Per square metre			
22	Providing and fixing powder coated aluminium sheet 1mm (One millimetres) thick in expansion joint vertically fixed with screws and nails complete in all floor level & in all heights including	28.80	Per square metre			

Sr. No.	Description of Item	Qty	Unit	Unit Rate (INR)		Amount (INR)
				In Figure	In Words	
	entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.					
23.01	Providing and fixing anodized aluminium work/aluminium ornamental work for doors, windows, ventilators and partitions with Jindal aluminium extruded built up standard tubular and other sections of approved make confirming to IS-733 and IS-1285 anodized transparent or dyed to required shade according to IS- 1868 minimum anodic coating of grade AC15) fixed with rawl plugs and screws or with fixing clips or with expansion hold fasteners including necessary filling up of gaps at junctions at top bottom and sides with required PVC/neoprene felt etc. Aluminium sections shall be smooth, rust free, straight mitred and jointed mechanically where ever required including cleat angle, aluminium snap beading for glazing/ panelling, C.P. brass/stainless steel screws. All complete as per Architectural drawing upto all floor level in all heights. Doors, Windows and Ventilators and glazed partitions frames including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge for including all incidentals.	2739.00	Per kilogram			
23.02	Providing and fixing anodized aluminium work/aluminium ornamental work for doors, windows, ventilators and partitions with Jindal aluminium extruded built up standard tubular and other sections of approved make confirming to IS-733 and IS-1285 anodized transparent or dyed to required shade according to IS- 1868 minimum anodic coating of grade AC15) fixed with rawl plugs and screws or with fixing clips or with expansion hold fasteners including necessary filling up of gaps at junctions at top bottom and sides with required PVC/neoprene felt etc. Aluminium sections shall be smooth, rust free, straight mitred and jointed mechanically where ever required including cleat angle, aluminium snap beading for glazing/ panelling, C.P. brass/stainless steel screws. All complete as per Architectural drawing upto all floor level in all heights. Shutters of doors,	2223.55	Per kilogram			

Sr. No.	Description of Item	Qty	Unit	Unit Rate (INR)		Amount (INR)
				In Figure	In Words	
	windows and ventilators including providing and fixing hinges/pivots and making provisions for fixing of fitting wherever required including the cost of PVC/Neoprene gaskets as required including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge for including all incidentals.					
24	Providing and fixing aluminium grills/ornamental grills of required pattern in aluminium frame of windows or ventilator pattern complete in all respects upto all heights including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	134.35	Per square metre			
25	Providing and fixing glazing in aluminium/door, window, ventilators, shutters and partitions etcetera with PVC/neoprene gasket etcetera complete as per Architectural drawings in all floor level including entire carriage of materials in all leads and lifts as per the direction of Engineer-in-Charge (Cost of Aluminium snap, beading, sealing shall be paid in basic item) glazing with glass panes of 5.5mm (Five point five millimetres) thickness (weight not less than 10.00 kg/sqm) (Ten kilogramme per square metre) upto all floor level in all heights including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	134.55	Per square metre			
26	Providing and fixing 12mm (Twelve millimetre) thick prelaminated board both side bwp phenol bounded exterior/interior side grade with necessary screws in anodized aluminum work complete in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge and including all incidentals.	10.56	Per square metre			
27	Providing and fixing galvanized M.S. wire gauge of I.S. gauge designation No. 140G (One hundred forty) to door window and clerestory window with wire of dia 0.71mm (Zero point seven one millimetre) instead of I.S. gauge designation No. 85G (Eighty five) with the wire of dia 0.56mm (Zero point five six	70.76	Per square metre			

Sr. No.	Description of Item	Qty	Unit	Unit Rate (INR)		Amount (INR)
				In Figure	In Words	
	millimetres) and fixing with MS flat 12mmx5mm (Twelve millimetre into five millimere and necessary screws etcetera complete in all respect and as per drawings and technical specifications as per the direction of Engineer-in-Charge and including all incidentals.					
28	Providing and Fixing 35mm(Thirty five millimeter) thick flush door shutters including black enamelled MS butt hingesinterior grade, commercial type, core of block board construction with frame of first class hard wood and well matched commercial three ply veneering with vertical grains of cross bands and face veneers on both faces of shutters. complete in all respect and as per drawings and technical specifications as per the direction of Engineer-in-Charge and including all incidentals.	93.03	Per square metre			
29.01	Providing and fixing 300x16mm (Three hundred into sixteen millimetre) anodized aluminium sliding door bolts anodized colour or shade with bolts and nuts screws etcetera complete including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	22.00	Each			
29.02	Providing and fixing 250x16mm (Two hundred fifty into sixteen millimetre) anodized aluminium sliding door bolts anodized colour or shade with bolts and nuts screws etcetera complete including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	22.00	Each			
30.01	Providing and fixing 300x10mm (Three hundred into ten millimetres) nominal size. aluminium tower bolts (barrel type) anodized transparent or dyed to required shade and colour with screws including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	88.00	Each			
30.02	Providing and fixing 250x10mm (Two hundred fifty into ten millimetres) nominal size aluminium tower bolts (barrel type) anodized transparent or dyed to required shade and colour with screws including entire carriage of materials in all leads	392.00	Each			

Sr. No.	Description of Item	Qty	Unit	Unit Rate (INR)		Amount (INR)
				In Figure	In Words	
	and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.					
31.01	Providing and fixing 125mm (One hundred twenty five millimetres) aluminium handles anodized transparent including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	100.00	Each			
31.02	Providing and fixing 100mm (One hundred millimetres) aluminium handles anodized transparent including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	284.00	Each			
32	Providing and fixing 100mm (One Hundred millimetre) bright finished brass floor door stopper with rubber cushion screw etcetera to suit shutter thickness upto all floor level in all heights including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	53.00	Each			
33	Providing and fixing aluminium hooks and eyes 200mm (Two hundred millimetres) including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	200.00	Each			
34	Providing and fixing hydraulic door closer of approved brand and manufacture in all heights including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	35.00	Each			
35	Providing and fixing brass curtain rail with rollers stop ends and brackets in pelmets instead of wooden curtain rod 25mm (Tewnty five millimeter) dia and brackets of first clas deodar wood (actuallength) of rails to be measured. entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	90.70	Per Running metre			

Sr. No.	Description of Item	Qty	Unit	Unit Rate (INR)		Amount (INR)
				In Figure	In Words	
36	Providing and fixing glazing with glass panes of 4mm (four millimetre) thickness (weight not less than 10kg/sqm (Ten kilogramme) per square metre complete in all respect including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	38.15	Per square metre			
37	Kota Stone 55x55cm (Fifty five into fifty five centimetres) minimum size having one shade only alongwith Jaiselmer yellow marble brands 7.5 (Seven point five) wide as per pattern to detail. Which shall be mirror polished in flooring tread of steps, landings mirror polished of uniform colour slab 20mm (Twenty millimetres) average thick base of cement mortar 1:4 (One cement : four sand) laid over and joints with grey cement slurry round with pigment to match the shade of slab including rubbing and polishing complete 25mm. (Twenty five millimetres) thick complete in all floor level & in all heights including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	439.09	Per square metre			
38	Providing and laying Kota stone slab 25mm (Twenty five millimetres) thick in risers of steps skirting dado and pillars laid on 12mm (Twelve millimetres) thick in cement mortar 1:4 (One cement : four sand) and jointed with grey cement slurry mixed with pigment to match of the shade of the slab including rubbing, polishing and mirror finish complete upto all floor level in all heights including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge and other incidentals.	134.01	Per square metre			
39	Providing and laying 10mm (Ten millimetres) thick antiskid water proof stain and impact resistant heavy duty vitrified tiles Nitco or its equivalent 600x600x10mm (Six hundred into six hundred into ten millimetres) manufactured of approved shade and colour in flooring, tread of steps and landings laid over 12mm (Twelve millimetres) thick cement mortar 1:3 (One	52.33	Per square metre			

Sr. No.	Description of Item	Qty	Unit	Unit Rate (INR)		Amount (INR)
				In Figure	In Words	
	cement : Three sand) jointed with cement slurry mixed with pigment to match the shade of tiles as required complete upto all floor level in all heights including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.					
40	Providing and laying 10mm (Ten millimetres) thick antiskid water proof stain and impact resistant heavy duty vitrified tiles Nitco or its equivalent 600x600x10mm (Six hundred into six hundred into ten millimetres) manufactured of approved shade and colour in skirting riser of steps and dado laid over 12mm (Twelve millimetres) thick cement mortar 1:3 (One cement : Three sand) jointed with cement slurry mixed with pigment to match the shade of tiles as required complete upto all floor level in all heights including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	8.75	Per square metre			
41	Providing and fixing spartic ceramic tiles 5.5mm (Five point five millimetres) thick in flooring, 300x300mm (Three hundred into three hundred) size non slipry Nitco/Kazaria make in pattern finish treads of steps laid on a bed of 12mm (Twelve millimetre) thick cement mortar 1:3 (One cement : three sand) finished with flush pointing in white cement complete including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	63.16	Per square metre			
42	Providing and laying white glazed tile 6mm (Six millimetres) thick in skirting risers of steps and dado 12mm (Twelve millimetres) thick cement mortar 1:3 (One cement : three sand) and jointed with cement slurry (Kazaria standard brand) complete in all respect within all leads and lifts as directed by the Engineer-in-Charge including entire carriage of materials in all leads and lifts and including all incidentals.	285.66	Per square metre			
43	Providing and laying granite stone in flooring 20mm (Twenty	8.75	Per			

Sr. No.	Description of Item	Qty	Unit	Unit Rate (INR)		Amount (INR)
				In Figure	In Words	
	millimetres) average thickness base of cement mortar 1:3 (One cement : three sand) laid over and jointed with grey cement slurry mixed with pigment to match the shade of granite stone including rubbing and polishing complete 20mm (Twenty millimetres) thick upto all floor level in all heights including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.		square metre			
44	Providing and laying 40mm (Forty millimetre) thick heavy duty precast cement concrete interlocking paver blocks vibro compacted upto M-50 grade including border or kurb block grey or coloured over sub-base of concrete with 25mm (Twenty five millimetre) thick average thickness of cement mortar 1:4 (One cement : four sand) laid over and jointed with neat cement slurry mixed with pigment to match the shade of blocks including curing rubbing & polishing complete (Sub base concrete floor to be paid for separately) including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	239.75	Per square metre			
45	40mm (Forty millimetres) thick cement concrete flooring 1:2:4 (One cement : two sand : four graded / crushed stone aggregate 20mm (Twenty millimetres) nominal size laid in one layer finished with floating coat of neat cement upto all floor level in all heights including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	30.47	Per square metre			
46	Cement plaster skirting upto any height with cement mortar 1:3 (One cement : three sand) finished with a floating coat of neat cement, including rounding of junction with floor 15mm (Fifteen millimetres) thick upto all floor level in all heights including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge and other incidentals.	7.46	Per square metre			
47	Extra for making moulded nosing in terrazzo including returned	147.00	Per			

Sr. No.	Description of Item	Qty	Unit	Unit Rate (INR)		Amount (INR)
				In Figure	In Words	
	moulded ends and angles to mouldings upto all floor level in all heights including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.		Running metre			
48	50mm (Fifty millimetres) thick cement concrete flooring 1:2:4 (One cement : two sand : four graded / crushed stone aggregate 20mm (Twenty millimetres) nominal size laid in one layer finished with floating coat of neat cement upto all floor level in all heights including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	5.64	Per square metre			
49	Providing and fixing 0.60mm (Zero point sixty millimetres) thick prepainted steel sheet roofing over steel trusses providing and fixing koler metal or its equivalent. Prepainted single skin rapezoidal profile sheeting 0.60mm ht. (Zero point sixty millimetre height) having 1060mm (One thousand sixty millimetres) cover width (overall width 1126mm (One thousand one hundred twenty six millimetres) 28mm (Twenty eight millimetres) crest depth at 353+2 C/C crest distance. There will be two ribs at the center for stiffening having depth of 2.5mm (Two point five millimetres). The main crest width at top of 25mm (Twenty five millimetres) & at the lower 81mm (Eighty one millimetres) base metal of cold rolled steel coil with zinc coating. Top coat with regular modified polyester coating of approved shade & balancing reverse coat with polyester paint. Fixing of sheet shall be with self drilling & self tapping screws of size 5.5mm (Five point five millimetres) dia 5.5mm (Five point five millimetres) length with EDPMC seal. The material supply will be accompanied by test certificate & 20 years warranty from company against corrosion fading of colour and manufacturing defects. The shade and sample of prepainted sheet shall be got approved from the Engineer-in-Charge with all accessories as required as per the direction of Engineer-in-Charge in all heights complete including entire carriage of materials in all leads and lifts and as per drawings and technical	418.53	Per square metre			

Sr. No.	Description of Item	Qty	Unit	Unit Rate (INR)		Amount (INR)
				In Figure	In Words	
	specifications as per the direction of Engineer-in-Charge including all incidentals.					
50	Providing and fixing ridges or hips 60cm (Sixty centimetres) overall with 0.60mm (Zero point six zero millimetres) thick prepainted steel sheets in roofing with hot dipped metallic zinc coated sheets with top coat of regular modified polyesters organic coating of 20 (Twenty) microns over 5 (Five) microns primer coating plus back coat of polyester of 5 (Five) microns over 5 (Five) microns primer coating including fixing with prepainted iron J or L hooks, bolts & nuts 6mm (Six millimetres) dia and prepainted G.I. limpet and bitumen washer complete with all accessories as required in all heights including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	75.33	Per Running metre			
51	Providing and fixing valleys 60cm (Sixty centimetres) (overall 0.60mm (Zero point six zero millimetres) thick prepainted steel sheet in roofing with hot dipped metallic zinc coated sheet with top coat of regular modified polyester organic coating of back coat of polyesters of 5 (five) microns over 5 (five) microns primer coating including fixing with prepainted iron J or L hooks bolts & nuts 6mm (Six millimetres) dia with prepainted G.I. limpet & bitumen washers complete with all accessories as required in all heights including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	15.00	Per Running metre			
52	Providing and fixing flushing 38cms (Thirty eight centimetres) overall with 0.60mm (Zero point six zero millimetres) thick prepainted sheet in roofing with hot dipped metallic zinc coated sheet with top coat of regular modified polyester organic coating of 20 (Twenty) microns over 5 (Five) micron primer coating plus back coat polyester of 5 (Five) microns over 5 (Five) microns primer coating including fixing with prepainted iron J or L hooks bolts and nuts 6mm dia and prepainted GI	95.80	Per Running metre			

Sr. No.	Description of Item	Qty	Unit	Unit Rate (INR)		Amount (INR)
				In Figure	In Words	
	limpet bitumen washer complete with all accessories as required including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.					
53	Providing and fixing MS BP Sheet 1.66mm to 2.00mm (One point sixty six to two millimetres) thick in eaves board, fascia, soffits, ceiling including cutting fixing and welding to steel roof members and applying a coat of red lead primer complete as per instruction of Engineer in Charge in all heights including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	92.90	Per square metre			
54	Providing and fixing PVC plain bend 100mm (One hundred millimetres) dia on wall face PVC D-Plast accessories for rain water pipes including filling the joints with approved adhesive complete upto all floor level in all heights including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	10.00	Each			
55	Providing and fixing 100mm (One hundred millimetre) nominal diametre size pipe C.I. holder bats including steel bats to sand iron pipes of embedded in and including cement blocks 100mmx100mmx100mm (One hundred into one hundred into one hundred millimetres) 1:2:4 (One cement : two sand: four graded/ crushed stone) mix aggregate 20mm (Twenty millimetres) nominal size including cost of cutting holes and making good the wall complete including entire carriage of materials in all leads and lifts and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	64.00	Each			
56	Providing and fixing angle iron door, window, clerestory window framemanufactured from M.S. Angle iron section of 50X50X6 mm (Fifty into fifty into six millimeter) ,thicknessincluding hinges jamb, lock jamb,beed and if required angle threshold of mild steel angle 50X25 mm(Fifty into twenty five millimeter) welded or rigidly fixed by mechanical means,	314.60	Per Running metre			

Sr. No.	Description of Item	Qty	Unit	Unit Rate (INR)		Amount (INR)
				In Figure	In Words	
	lugs with split end tails to each jamb including steel butt hinges 2.5 mm thick with provision for locking arrangement and shock observer as specified and applying a coat of approved steel primer after pretreatment of the surface as directed by Engineering- Charge complete upto all floor level in all heights including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.					
57.01	Steel work welded in built up sections including cutting, hoisting, fixing in position and applying a priming coat of red lead paint upto all floor level in all heights In trusses and trussed purlins in building including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	167.41	Per Quintal			
57.02	Steel work welded in built up sections including cutting, hoisting, fixing in position and applying a priming coat of red lead paint upto all floor level in all heights In grating, framed guard bars ladders, railing brackets and similar works including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	46.09	Per Quintal			
58	Providing and fixing moulded hand rail of M.S. hollow pipe 50mm (fifty millimeter)dia welded in straight length over M.S. flat at top of vertical balusters including one coat of red oxide priming coat complete (M.S. flat & balusters of railings shall be measured & paid separately including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	30.00	Per Running metre			
59	Providing and Fixing M.S. round holding down or anchor bolts with nuts and washers plates complete including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	3.50	Per Quintal			

Sr. No.	Description of Item	Qty	Unit	Unit Rate (INR)		Amount (INR)
				In Figure	In Words	
60	Providing and fixing false ceiling with 12mm (Twelve millimeter) thick plain /semiperforated or with design ceiling tiles of BWP phenol formaldehyde synthetic resin bonded pressed particle board confirming to IS:3087 finished with a coat of aluminium primer on both sides & edges and two coats of synthetic enamel paint of approved quality on exposed face fixed to the grid made out of anodised aluminium and thermal insulation with resin bonded fiber glass wool confirming to IS:8183 having density 24Kg/Cum (Twenty four Kilogramme per cubic meter) ,50mm (Fifty millimeter) thick,wrapped in 200G Virgin Polythene Bags complete) complete within all leads and lifts as directed by the Engineer-in-Charge including entire carriage of materials in all leads and lifts and including all incidentals.	211.67	Per square metre.			
61	15mm (Fifteen millimetre) cement plaster in single coat on fair side of brick/concrete/stone walls for interior plastering upto any floor level including arrises, internal rounded angles, chamfers, grooves and/or rounded angles not exceeding 80mm (Eight millimetres) in girth and finished even and smooth in cement mortar 1:6 (One cement : six sand) upto all floor level in all heights including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	1809.29	Per square metre			
62	15mm (Fifteen millimetre) cement plaster in single coat on rough side of brick/concrete/stone walls for interior plastering upto any floor level including arrises, internal rounded angles, chamfers, grooves and/or rounded angles not exceeding 80mm (Eight millimetres) in girth and finished even and smooth in cement mortar 1:4 (One cement : four sand) upto all floor level in all heights including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	994.91	Per square metre			
63	20mm (Fifteen millimetre) cement plaster in single coat on fair side of brick/concrete/stone walls for interior plastering upto any floor level including arrises, internal rounded angles,	73.55	Per square metre			

Sr. No.	Description of Item	Qty	Unit	Unit Rate (INR)		Amount (INR)
				In Figure	In Words	
	chamfers, grooves and/or rounded angles not exceeding 80mm (Eight millimetres) in girth and finished even and smooth in cement mortar 1:4 (One cement : four sand) upto all floor level in all heights including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.					
64	Applying priming coat over new wood and wood based surfaces after and including preparing the surface by thoroughly cleaning oil, grease, dirt and other foreign matter sand papering and knotting ready mixed paint brushing wood primer pink upto all floor level in all heights including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	275.55	Per square metre			
65	Painting two coats (excluding priming coat) on new wood and wood based surfaces with enamel paint, brushing to give an even shade including cleaning of all dirt, dust and other foreign matter, sand papering and stopping with paint other than white paint complete within all leads and lifts as directed by the Engineer-in-Charge including entire carriage of materials in all leads and lifts and including all incidentals.	275.55	Per square metre			
66	Painting two coats (excluding priming coat) on new steel and other metal surface with enamel paint brushing to give an even shade including cleaning the surface all dirt, dust and other foreign matter with enamel paint other than white complete within all leads and lifts as directed by the Engineer-in-Charge including entire carriage of materials in all leads and lifts and including all incidentals.	157.30	Per square metre.			
67	Applying Birla white wall care putty over plastered surfaces after thoroughly brushing the surface free from mortar dropping, dust, loose materials and other foreign matter sand papered smooth to give fine finish to the surface complete upto all floor level in all heights including entire carriage of materials in all leads and lifts and as per drawings and technical	3516.18	Per square metre			

Sr. No.	Description of Item	Qty	Unit	Unit Rate (INR)		Amount (INR)
				In Figure	In Words	
	specifications as per the direction of Engineer-in-Charge including all incidentals.					
68	Distempering with dry distemper of approved brand and manufacture (Two coats) and of required shade on undecorated wall/ ceiling surface to give an even shade over and including primer coat of whiting after thoroughly brushing the surface free from mortar droppings and other foreign matter including preparing the surface even and sand papered smooth complete upto all floor level in all heights including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	711.98	Per square metre			
69	Wall painting (two Coats) with acrylic emulsion paint of approved brand and manufacture (Asian make) for interior grade an undecorated concrete/stone/plastered wall surface give an even shade including thoroughly brushing the surface to give an even shade including thoroughly brushing the surface free from mortar droppings and other foreign matte and sand papered smooth applying a putty as required for melting the surface including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	1523.63	Per square metre			
70	Finishing wall with exterior grade emulsion of approved design (Apex Ultima Asian Paints) or its equivalents on undecorated wall surface (two coats) to give an even shade and final finish after thoroughly cleaning the surfaces to remove all dirt dust and other foreign matter etc. including sand papered smooth complete upto all floor level in all heights including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals. .	1214.51	Per square metre			
71	Providing plinth protection 50mm (Fifty millimeters) thick in cement concrete 1:3:6 (One cement : three sand : six graded crushed stone aggregate 20mm (Twenty millimeters) nominal size) including entire carriage of materials in all leads and lifts	58.00	Per square metre			

Sr. No.	Description of Item	Qty	Unit	Unit Rate (INR)		Amount (INR)
				In Figure	In Words	
	and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.					
72	Providing under layer for plinth protection of 75 mm (Seventy five millimeters) thick (unconsolidated) bed dry brick/stone aggregate 40mm (Forty millimeters) nominal size with rammed and consolidated and grouted with fine sand including preparation of ground including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	58.00	Per square metre			
73	Constructing coarse rubble hammer dressed 'U' shape open surface drain with side wall 15x22 cms (Fifteen into twenty two centimeters) in cement mortar 1:6 (One cement : six sand) and inside plastering with cement plaster 1:3 (One cement : three sand) including earth work and laying 10cm (Ten centimeters) cement concrete in 1:5:10 (one cement : five sand : ten graded crushed stone aggregate 40mm (Forty millimeters) nominal size) and 7.5 cm (Seven point five centimeters) cement concrete 1:2:4 (One cement : Two sand : four graded crushed stone aggregate 20mm (Twenty millimeters) nominal size and finished with a floating coat of neat cement complete as per standard design including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	58.00	Per Running metre			
74	Providing weep holes in brick masonry/stone masonry plain/reinforced concrete abutment, wing walls, return wall with 100mm (One hundred) dia PVC pipe extending through the full width of the structures with slope of 1(v): 20 (H) towards drawing faces complete as per drawing and technical specifications Clause 614, 708, 1204 including entire carriage of materials in all leads and lifts as per the direction of Engineer-in-Charge.	20.00	Each			
WATER SUPPLY AND SANITARY INSTALLATION						
75	Providing and fixing vitreous china wash down water closet	1.00	Each			

Sr. No.	Description of Item	Qty	Unit	Unit Rate (INR)		Amount (INR)
				In Figure	In Words	
	squatting pan (Indian Type W.C. pan) size 580x440mm (Five hundred eighty into four hundred forty millimetres) (Earth Work, bed concrete foot rest and trap to be measured and paid for separately) (Orrissa Pattern) in white shade I.S.I. marked of Hindware/Parryware or its equivalent make including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.					
76	Providing and fixing vitreous China wash down water closet of Cameilia No. 2080 EWC of Cera/Kholer its equivalent (European Type W.C. Pan) with integral P or S trap including jointing and trap with soil pipe in cement mortar 1:1 (One cement : One sand) seat and cover to be measured and paid for separately Anglo Indian (Universal Closet) of Cera or its equivalent make including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	10.00	Each			
77	Providing and fixing PVC 100mm (One hundred millimetres) size P or S trap for water closet (squatting pan) I.S.I. marked including jointing the trap with the pan and sail pipe in cement mortar 1:1 (One cement : one sand) complete including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	1.00	Each			
78	Providing and fixing 10.00/12.50/15.00 ltr (Ten oblique twelve point five zero oblique fifteen litres) PTMT coloured/white high density polyethylene/poly propylene (full flush) European standard control low level flushing cistern of Cera or its equivalent make with a pair of C.I. or mild steel brackets complete with fitting such as lead valve, syphon 15mm (Fifteen millimetres) nominal size brass/PVC ball valve with polythene float, with push button unions and couplings for connection with inlet and outlet and over flow pipe 40mm (Forty millimetres) dia CP flush bend including cutting holes in walls and making good the same and connecting the flush bend with	11.00	Each			

Sr. No.	Description of Item	Qty	Unit	Unit Rate (INR)		Amount (INR)
				In Figure	In Words	
	cistern and closet (over flow pipe to be measured and paid for separately) including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.					
79	Providing and fixing plastic seat (solid/Hollow type) and cover for wash down water closet with CP brass hinges and rubber buffers solid type white plastic seat and cover of cera or its equivalent make made including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	10.00	Each			
80	Providing and fixing flat back 550x400mm(Five hundred fifty into four hundred millimetres) vitreous China wash basin cera make with single hole for pillar tap with cast iron or mild steel brackets painted white including cutting holes and making good the same excluding fitting complete in all respect as per satisfaction of the Engineer-in-Charge in I.S.I. marked I.S.No.2556 white shade within all leads and lifts as directed by the Engineer-in-Charge including entire carriage of materials in all leads and lifts and including all incidentals.	14.00	Each.			
81	Providing and fixing 32mm (Thirty two millimetres) dia CP waste for wash basin or sink complete including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	15.00	Each			
82	Providing and fixing vitreous china pedestal for wash basin complete recessed at the back for the reception of pipes and fittings within all leads and lifts as directed by the Engineer-in-Charge including entire carriage of materials in all leads and lifts and including all incidentals.	14.00	Each.			
83	Providing and fixing 32mm (Thirty two millimetres) dia PVC waste pipes for wash basin or sink complete including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	15.00	Each			

Sr. No.	Description of Item	Qty	Unit	Unit Rate (INR)		Amount (INR)
				In Figure	In Words	
84	Providing and fixing 600mmx450mm (Six hundred into four hundred fifty millimetres) bevelled edge mirror of superior glass mounted on 6mm (Six millimetres) thick Asbestos cement sheet or plywood sheet and fixed to wooden plugs with CP brass screws and washers complete including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	14.00	Each			
85	Providing and fixing CP brass towel rail complete with CP brass brackets fixed to wooden plugs with CP brass screws etcetera complete 600 x 20mm (Six hundred into twenty millimetres) including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	14.00	Each			
86	Providing and fixing 600mm x120mm (Six hundred into one hundred twenty millimetres) glass shelf with CP brass bracket and guard rail complete fixed to wooden plugs with CP brass screws etc. complete including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	14.00	Each			
87	Providing and fixing chromium plated brass soap dish with CP brass brackets fixed to wooden cleats with CP brass screws etc. complete including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	15.00	Each			
88	Providing and fixing CP Brass pillar tap with capstan head 15mm (Fifteen millimetres) dia of Jaquar/Jal made including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	17.00	Each			
89	Providing and fixing CP brass bib tap with capstan head 15mm (Fifteen millimetres) dia of Jaquar/Jal made including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-	18.00	Each			

Sr. No.	Description of Item	Qty	Unit	Unit Rate (INR)		Amount (INR)
				In Figure	In Words	
	Charge including all incidentals.					
90	Providing and fixing C.P. angle cocks 15mm (Fifteen millimetres) dia of Jaquar/Jal made including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	26.00	Each			
91	Providing and fixing PVC connections pipe with brass unions 45cm (Forty five centimetres) length 15 mm (Fifteen millimetres) nominal bore including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	26.00	Each			
92.01	Providing and fixing 15mm (Fifteen millimetres) nominal dia brass full way valve with wheel including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	4.00	Each			
92.02	Providing and fixing 20mm (Twenty millimetres) nominal bore brass full way valve with wheel including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	2.00	Each			
93	Providing and fixing 20mm (Twenty millimetres) nominal bore brass ball valve (horizontal plunger type) high pressure with polythene floats including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	2.00	Each			
94	Providing and fixing 15mm (Fifteen millimetres) nominal bore ferrule including boring and taping the main including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	1.00	Each			
95.01	Providing and fixing 75mm (Seventy five millimeter) nominal size PVC door bend with oval access door insertion rubber	4.00	Each			

Sr. No.	Description of Item	Qty	Unit	Unit Rate (INR)		Amount (INR)
				In Figure	In Words	
	washer 3mm thick bolts and nuts complete including fixing with approved adhesive etc including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.					
95.02	Providing and fixing 110mm (One hundred ten millimeter) nominal size PVC door bend with oval access door insertion rubber washer 3mm thick bolts and nuts complete including fixing with approved adhesive etc including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	4.00	Each			
96.01	Providing and fixing 75mm (Seventy five millimeter) nominal size PVC single equal branch with oval access door insertion rubber washer 3mm thick bolts and nuts complete including fixing with approved adhesive etc including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	10.00	Each			
96.02	Providing and fixing 110mm (One hundred ten millimeter) nominal size PVC single equal branch with oval access door insertion rubber washer 3mm thick bolts and nuts complete including fixing with approved adhesive etc including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	10.00	Each			
97.01	Providing and fixing 75mm (Seventy five millimeter) nominal size PVC double equal branch with oval access door insertion rubber washer 3mm thick bolts and nuts complete including fixing with approved adhesive etc including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	5.00	Each			
97.02	Providing and fixing 110mm (One hundred ten millimeter) nominal size PVC double equal branch with oval access door	5.00	Each			

Sr. No.	Description of Item	Qty	Unit	Unit Rate (INR)		Amount (INR)
				In Figure	In Words	
	insertion rubber washer 3mm thick bolts and nuts complete including fixing with approved adhesive etc including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.					
98.01	Providing and fixing 75mm (Seventy five millimeter) nominal size PVC Collars ISI Marked including fixing with approved adhesive etc. including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	12.00	Each			
98.02	Providing and fixing 110mm (One hundred ten millimeter) nominal size PVC Collars ISI Marked including fixing with approved adhesive etc. including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	12.00	Each			
99.01	Providing and fixing 75mm (Seventy five millimeter) nominal size PVC Plain bend ISI Marke including fixing with approved adhesive etc. including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	10.00	Each			
99.02	Providing and fixing 110mm (One hundred ten millimeter) nominal size PVC Plain bend ISI Marke including fixing with approved adhesive etc. including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	10.00	Each			
100	Providing and fixing 75mm (Seventy five millimeter) nominal size PVC Cowl including fixing with approved adhesive etc. including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	2.00	Each			
100	Providing and fixing 110mm (One hundred ten millimeter) nominal size PVC Cowl including fixing with approved adhesive etc. including entire carriage of materials in all leads and lifts	2.00	Each			

Sr. No.	Description of Item	Qty	Unit	Unit Rate (INR)		Amount (INR)
				In Figure	In Words	
	and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.					
101	Constructing manhole with RCC top slab in 1:2:4 mix (One cement : two sand : four graded/crushed stone aggregate) 20mm (Twenty millimetres) nominal size foundation concrete 1:4:8 (One cement : four sand : eight graded/crushed stone aggregate 40mm (Forty millimetres) nominal size) inside plastering 15mm (Fifteen millimetres) thick with cement mortar 1:3 (One cement : three sand) finished with a floating coat of neat cement and making channels in cement concrete 1:2:4 (One cement : two sand : four graded/crushed stone aggregate 20mm (Twenty millimetres nominal size) finished smooth complete in all respect including curing and testing Inside size 800mmx800mmx500mm (Eight hundred into eight hundred into five hundred millimetres)) deep including cast iron cover with frame (Light duty single seal : Pattern) 450mmx 610mm (Four hundred fifty into six hundred ten millimetres) internal dimensions total weight of cover and frame to be not less than 38kg (Thirty eight kilogramme) weight of cover 23kg (Twenty three kilogramme) and weight of frame 15 kg (Fifteen kilogramme) with 200mm (Two hundred millimetres) thick walls of brick masonry using common burnt clay building bricks in cement mortar 1:3 (One cement : three sand) including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	7.00	Each			
101	Constructing manhole with RCC top slab in 1:2:4 mix (One cement : two sand : four graded/crushed stone aggregate) 20mm (Twenty millimetres) nominal size foundation concrete 1:4:8 (One cement : four sand : eight graded/crushed stone aggregate 40mm (Forty millimetres) nominal size) inside plastering 15mm (Fifteen millimetres) thick with cement mortar 1:3 (One cement : three sand) finished with a floating coat of neat cement and making channels in cement concrete 1:2:4 (One cement : two sand : four graded/crushed stone aggregate	7.00	Each			

Sr. No.	Description of Item	Qty	Unit	Unit Rate (INR)		Amount (INR)
				In Figure	In Words	
	20mm (Twenty millimetres nominal size) finished smooth complete in all respect including curing and testing Inside size 1200x900 and 1000mm (One thousand two hundred into nine hundred and one thousand millimetres) deep including cast iron cover with frame (Medium duty single seal : Pattern) 500mm (Five hundred millimetres) internal diametres total weight of cover and frame to be not less than 116kg (One hundred sixteen kilogramme) (weight of cover 58kg (Fifty eight kilogramme) and weight of frame 58 kg (Fifty eight kilogramme) with 200mm (Two hundred millimetres) thick walls of brick masonry using common burnt clay building bricks in cement mortar 1:3 (One cement : three sand) including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.					
102	Providing and fixing stone ware gully trap grade 'A' complete with CI grating brick masonry chamber in cement mortar 1:5 (One cement : five sand) and water tight C.I. cover with frame of 100x100mm (One hundred into one hundred millimetres) size (inside) the weight of cover to be not less than 4.53kg (Four point five three kilogramme) and frame to be not less than 2.78 kg (Two point seven eight kilogramme) square mouth trap 100x100mm (One hundred into one hundred millimetres) size P-Type including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	6.00	Each			
103	Providing and fixing 15mm (Fifteen millimetres) nominal bore to wall ceiling and floor galvanized mild steel tubes (Medium Grade) tube fitting and clamps including making good the wall ceiling and floor upto all heights including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	362.00	Per Running metre			
103	Providing and fixing 20mm (Twenty millimetres) nominal bore to wall ceiling and floor galvanized mild steel tubes (Medium	150.00	Per Running			

Sr. No.	Description of Item	Qty	Unit	Unit Rate (INR)		Amount (INR)
				In Figure	In Words	
	Grade) tube fitting and clamps including making good the wall ceiling and floor upto all heights including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.		metre			
104	Providing and fixing 75mm (Seventy five millimetres) nominal size high pressure PVC spigot and socket soil waste and ventilating pipes ISI marked including fixing with approved adhesive etc including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	314.00	Per Running metre			
104	Providing and fixing 100mm (One hundred millimetres) nominal size high pressure PVC spigot and socket soil waste and ventilating pipes ISI marked including fixing with approved adhesive etc including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	175.00	Per Running metre			
105	Providing and fixing 75mm (Seventy five millimetre) nominal diametre size pipe C.I. holder bats including steel bats to sand iron pipes of embedded in and including cement blocks 100mmx100mmx100mm (One hundred into one hundred into one hundred millimetres) 1:2:4 (One cement : two sand: four graded stone) mix aggregate 20mm (Twenty millimetres) nominal size including cost of cutting holes and making good the wall complete including entire carriage of materials in all leads and lifts and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	80.00	Each			
105	Providing and fixing 100mm (One hundred millimetre) nominal diametre size pipe C.I. holder bats including steel bats to sand iron pipes of embedded in and including cement blocks 100mmx100mmx100mm (One hundred into one hundred into one hundred millimetres) 1:2:4 (One cement : two sand: four graded stone) mix aggregate 20mm (Twenty millimetres) nominal size including cost of cutting holes and making good the wall complete including entire carriage of materials in all	60.00	Each			

Sr. No.	Description of Item	Qty	Unit	Unit Rate (INR)		Amount (INR)
				In Figure	In Words	
	leads and lifts and technical specifications as per the direction of Engineer-in-Charge including all incidentals.					
106	Providing and fixing 75mm (Seventy five millimetres) nominal diametre PVC floor trap I.S.I. marked of self cleaning design with sand cast iron screwed down on hinged grating with out vent arm including cost of cutting and making goods the walls and floors upto all floor level including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	30.00	Each			
107	Providing and fixing PVC water storage tank of Sintex or equivalent make (ISI marked triple layer) 2000 Ltr. (Two thousand litre) capacity with 15mm (Fifteen millimetres) nominal size bore galvanized mild steel scour tube with fittings 25mm (Twenty five millimetres nominal bore) galvanized mild steel overflow pipe with fittings and mosquito proof coupling of approved design 15mm (Fifteen millimetres nominal bore ball valve and mosquito proof PVC cover with locking arrangement including providing pads of required size of inlet or outlet, compete in all respect including hoisting upto all heights above ground level including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge and other incidentals.	2.00	Each			
108	Providing and fixing 100mm (One Hundred millimetres) nominal diametre C.P. /M.S. grating for floor trap/gully trap including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	30.00	Each			
109	Providing and fixing CP brass Jet Jaquar/Jal make with connection pipe and other fitting for (European Type) WC pan complete. including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	10.00	Each			
110	Providing and laying in trenches 4.5kg/T/cm ² working pressure unplasterized PVC pipes (conforming for IS complete with	80.00	Per Running			

Sr. No.	Description of Item	Qty	Unit	Unit Rate (INR)		Amount (INR)
				In Figure	In Words	
	fittings (earth work in trenches to be measured and paid for separately 150mm (One hundred fifty millimetres) diametre V(Outside) including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.		metre			
111	Providing and fixing stainless steel sink 460x560x229 (Four hundred sixty into five hundred sixty into two hundred twenty nine) No 1022xD of prayag polymor or its equivalent stainless steel sink or equivalent complete including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	1.00	Each			
112	Providing and fixing white vitreous china bowl pattern urinal including connection the urinal with waste pipe by means of white lead mixed with chopped hemp (waste pipe to be measured and paid for separately) Flat back type size 430x260mmx350mm size (Four hundred thirty into two hundred sixty into three hundred fifty millimeter) white in colour including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	6.00	Each			
113	Providing and fixing 10.00/12.50/15.00 ltr (Ten oblique twelve point five zero oblique fifteen litres) PVC automatic flushing cistern with a pair of C.I. or mild steel brackets complete with fitting such as Cl syphonic apparatus mosquitos proof Id CP brass union , unions and couplings for connecting with inlet, outlet and overflow pipes inlet and outlet and over flow pipe 40mm (Forty millimetres) dia CP flush bend including cutting holes in walls and making good the same and connecting the flush bend with cistern and closet (over flow pipe to be measured and paid for separately) including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	6.00	Each			
114	Providing and fixing vitreous china division plate for urinals 600mmx300mm (Six hundred millimetres into three hundred	4.00	Each			

Sr. No.	Description of Item	Qty	Unit	Unit Rate (INR)		Amount (INR)
				In Figure	In Words	
	millimetres) in all floor level & in all heights including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.					
115	Providing and fixing 200mm (two hundred millimeter) wide CI rungs with channel or ribed non slip surface including fixing in man hole with 200x100mm(two hundred into one hundred millimeter) Cement Concrete 1:3:6 (one cement : three Sand : six Graded crushed stone aggregate20mm(twenty millimeter nominal size) in all floor level & in all heights including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	16.00	Each			
116	Supplying and fixing cast iron cover without frame for man holes for frame of internal dimension 455x610mm (Four hundred fifty five into six hundred ten millimetres rectangular cast iron cover (light duty single seat pattern-I) the weight of cover to be not less than 23kg (Twenty three kilogramme) including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	5.00	Each			
117	Construction of chamber 300mmx300mmx500mm (Three hundred into three hundred into five hundred millimetres) inside size for stop cock with cast iron surface box 100mmx100mmx75mm (one hundred into one hundred into seventy five millimetres) inside with hinged cover fixed in cement concrete 1:2:4(one cement two sand four graded stone aggregate) 20mm (Twenty millimetres) nominal size 75mm(Seventy five millimetres) thick foundation concrete 1:5:10(one cement five sand ten graded stone aggregate) 40mm (Forty millimetres)nominal size in side plastering with cement mortar 1:3(one cement three sand)finished with a floating coat of neat cement including curing concrete with 100mm (One hundred millimetre) cast insitu plain cement concrete walls in 1:2:4 (One cement : Two sand : Four graded	10.00	Each.			

Sr. No.	Description of Item	Qty	Unit	Unit Rate (INR)		Amount (INR)
				In Figure	In Words	
	stone aggregate) 20mm (Twenty millimetre) nominal size including form work including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge and including all incidentals.					
118	Air Quality - one location at construction site, thrice a year (one sample pre construction and 6 samples during construction phase; total 7 samples) including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	7.00	Sample			
119	Water Quality- One ground water sample from construction site (one sample pre construction and 6 samples during construction phase; total 7 samples) including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	7.00	Sample			
120	Noise Quality-One location at project site (one sample pre construction and 6 samples during construction phase; total 7 samples) 1 in all heights including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	7.00	Sample			
	Training for Capacity Building of stakeholders					
121	Air Quality -one location at CLC site, during the Defect Liability Period including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	3.00	Sample			
122	Water Quality -one ground water sample at CLC site, during Defect Liability Period. complete including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	3.00	Sample			
123	Noise Quality- one location at CLC site, during Defect Liability Period complete including entire carriage of materials in all	3.00	Sample			

Sr. No.	Description of Item	Qty	Unit	Unit Rate (INR)		Amount (INR)
				In Figure	In Words	
	leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.					
124	Providing and fixing Male thread connector 1620x20mm (One thousand six hundred twenty into twenty millimetre) composite end seal compression fitting as per IS-15450-2004 for cold water supply e.g. tees, elbows, reducers, connectors, couplers and clamps with jointing testing and fittings complete including cutting and making good the wall etcetera including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	6.00	Each			
124	Providing and fixing Female thread connector 1620x20mm (One thousand six hundred twenty into twenty millimetre) composite end seal compression fitting as per IS-15450-2004 for cold water supply e.g. tees, elbows, reducers, connectors, couplers and clamps with jointing testing and fittings complete including cutting and making good the wall etcetera including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	6.00	Each			
125	Providing and fixing PVC water storage tank of Sintex or equivalent make (ISI marked triple layer) 500 Ltr. (Five hundred litre) capacity with 15mm (Fifteen millimetres) nominal size bore galvanized mild steel scour tube with fittings 25mm (Twenty five millimetres nominal bore) galvanized mild steel overflow pipe with fittings and mosquito proof coupling of approved design 15mm (Fifteen millimetres nominal bore ball valve and mosquito proof PVC cover with locking arrangement including providing pads of required size of inlet or outlet, compete in all respect including hoisting upto all heights above ground level including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge and other incidentals.	1.00	Each			
126	Providing and fixing Submersible Pump/Tulu Pump of 2 HP	1.00	Each			

Sr. No.	Description of Item	Qty	Unit	Unit Rate (INR)		Amount (INR)
				In Figure	In Words	
	capacity alongwith complete fitting including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.					
127	Providing and fixing BOSCH make solar water heating systems, flat plate, collector, glass enamel tank, 1C (Non-Heating exchanger type) Tank, Full plate Absorber collector with Advanced Toughened Solar Glass (02 No.) including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	1.00	Each			
128	Wiring for light point / fan point / exhaust fan / call bell point with 1.5 Sq. mm.(one point five square millimeter) PVC insulated heat resistant flame retardant (HRFR) and low smoke single core (flexible) copper conductor cable in surface/recessed steel conduit and earthing the light point with 1.5 Sq.mm. (one point five square millimeter) HRFRLS/PVC insulated single core copper conductor cable as required. cable :Havells, L & T and switches Anchor ,SSK make Group C including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	252	Point			
129	Wiring for twin control light point with 1.5 Sq. mm. (one point five square millimeter) PVC insulated heat resistant flame retardant (HRFR) and low smoke single core (flexible) copper conductor cable in surface/recessed steel conduit with 2-way, 5/6 amps. piano type switch and earthing the light point with 1.5 Sq.mm. (one point five square millimeter) HRFRLS/PVC insulated single core copper conductor cable as required.Havells, L & T and switches Anchor ,SSK make Group C including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals	14	Point			
130	Supplying and fixingS.P. 5/ 6 Amps one way switch, piano type. switch /socket on the existing switch box / cover including	17	each			

Sr. No.	Description of Item	Qty	Unit	Unit Rate (INR)		Amount (INR)
				In Figure	In Words	
	connections etc. as required..make Anchor ,SSK. including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidental					
130	Supplying and fixing5 pin 5/ 6 Amps socket outlet, porcelain base/ piano type.. switch /socket on the existing switch box / cover including connections etc. as required..make Anchor ,SSK. including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidental	17	each			
131	Supplying and fixing metal box of 180mmx100mmx60mm deep (one hundred eighty into hundred into sixty millimeter) (nominal size) on surface/recess with suitable size phenolic laminated sheet cover in the front including providing and fixing 5 pin 5/6 amps socket outlet and 5/6 amps, piano type switch, connections, painting etc. as required..make Anchor ,SSK including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidental	32	each			
132	Supplying and fixing metal box of 180mmx100mmx60mm deep (one hundred eighty into hundred into sixty millimeter) (nominal size) on surface/recess with suitable size phenolic laminated sheet cover in the front including providing and fixing 6 pin 15/16 amps socket outlet and 15/16 amps, piano type switch, connections, painting etc. as required..make Anchor ,SSK including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	31	each			
133	Wiring 2x1.5 Sq. mm. (Two into one point five square millimeter) for circuit/sub-main with following size PVC insulated heat resistant flame retardant (HRFR) and low smoke single core (flexible) copper conductor cable in surface/recessed steel conduit along with 1 No.HRFRLS/PVC insulated single core copper conductor cable of same size for earthing as required..Make L&T,Havells,Finolexincluding entire	290	Per Running metre			

Sr. No.	Description of Item	Qty	Unit	Unit Rate (INR)		Amount (INR)
				In Figure	In Words	
	carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.					
133	Wiring 2x2.5 Sq. mm. (Two into two point five square millimeter) for circuit/sub-main with following size PVC insulated heat resistant flame retardant (HRFR) and low smoke single core (flexible) copper conductor cable in surface/recessed steel conduit along with 1 No.HRFRLS/PVC insulated single core copper conductor cable of same size for earthing as required.Make L&T,Havells,Finolex including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	207	Per Running metre			
133	Wiring 2x6Sq. mm. (Two into six square millimeter) for circuit/sub-main with following size PVC insulated heat resistant flame retardant (HRFR) and low smoke single core (flexible) copper conductor cable in surface/recessed steel conduit along with 1 No.HRFRLS/PVC insulated single core copper conductor cable of same size for earthing as required.Make L&T,Havells,Finolex including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	130	Per Running metre			
133	Wiring 2x 10Sq. mm. (Two into ten square millimeter) for circuit/sub-main with following size PVC insulated heat resistant flame retardant (HRFR) and low smoke single core (flexible) copper conductor cable in surface/recessed steel conduit along with 1 No.HRFRLS/PVC insulated single core copper conductor cable of same size for earthing as required.Make L&T,Havells,Finolex including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	120	Per Running metre			
134	Wiring for circuit / sub-main with 4x16 Sq. mm. (Four into sixteen square millimeter) PVC insulated heat resistant flame	45	Per Running			

Sr. No.	Description of Item	Qty	Unit	Unit Rate (INR)		Amount (INR)
				In Figure	In Words	
	retardant (HRFR) and low smoke single core (flexible) copper conductor cable in surface/recessed steel conduit along with 2 No.16 Sq.mm. (4x16+2x16) HRFRLS/PVC insulated single core copper conductor cable for earthing as required. Make L&T, Havells, Finolex including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.		metre			
135	Wiring for power plug with 2x4 Sq. mm. (Two into four square millimeter) PVC insulated heat resistant flame retardant (HRFR) and low smoke single core (flexible) copper conductor cable in surface/recessed steel conduit along with 1 No.4 Sq.mm. HRFRLS/PVC insulated single core copper conductor cable for earthing as required. Make L&T, Havells, Finolex including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals	195	Per Running metre			
136	Wiring for power plug with 4x4 Sq. mm. (Four into four square millimeter) PVC insulated heat resistant flame retardant (HRFR) and low smoke single core (flexible) copper conductor cable in surface/recessed steel conduit along with 2 No.4 Sq.mm. (Four square millimeter) HRFRLS/PVC insulated single core copper conductor cable for earthing as required. Make L&T, Havells, Finolex. including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	110	Per Running metre			
137	Supplying and fixing 25(Twenty five) amp power unit with 4 (four) modular plate starter plug and socket complete. Havells make including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	14	each			
138	Providing, Installation, testing and commissioning of K.Lite make Glazed LED 22 (Twenty two) Watt Batten Cat. No. 1595 22 W LED T-5 TL High quality design aluminum extruded	9	each			

Sr. No.	Description of Item	Qty	Unit	Unit Rate (INR)		Amount (INR)
				In Figure	In Words	
	decorative end caps or its equivalent as per best satisfaction of Engineer-in-charge including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.					
139	Supplying and fixing Surface mounting Bema LED down lighters (Square) polycarbonate diffuser (chrome finish frame) 16 (Sixteen) watts K.Lite make Cat. No.7325 complete with connections etc. as required including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	72	each			
140	Supplying and fixing Surface mounting Bema LED down light round 10 (Ten) watt k-light make Code No. 7665 complete with connections etc. as required including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	22	each			
141	Supplying and fixing Recess mounting LED.10 (Ten) watts "DIVYA ROUND" Low height backlit round LED downlight with non integral drive k-lightmake Cat.No.7665 complete with connections etc,as required. including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	5	each			
142	Supplying and fixing Recess mounting LED.18(eighteen) watts "DIVYA SQUARE" Low height backlit SQUARE LED downlight with non integral drive k-lightmake Cat.No.7669 complete with connections etcetera ,as required including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	42	each			
143	Providing, Installation, testing and commissioning of Ceiling Fan 1200 mm (One thousand two hundred millimeter) sweep, Havells make Category-A with regulator, including wiring the	40	each			

Sr. No.	Description of Item	Qty	Unit	Unit Rate (INR)		Amount (INR)
				In Figure	In Words	
	down rods of standard length (up to 30 cm) with 16/0.20 mm twin twisted flexible, cotton braided, copper cable, including providing and fixing phenolic laminated sheet cover on the fan box and earthing etc. as required:- Havells velocity,Bajaj ultima,Usha technix including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.					
143	Providing, Installation, testing and commissioning of Ceiling Fan 1400 mm (One thousand four hundred millimeter) sweep,Havells make Category-A with regulator, including wiring the down rods of standard length (up to 30 cm) with 16/0.20 mm twin twisted flexible, cotton braided, copper cable, including providing and fixing phenolic laminated sheet cover on the fan box and earthing etc. as required:- Havells velocity,Bajaj ultima,Usha technix including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	6	each			
144	Supplying and fixing of Exhaust fan (Plastic) with Louver shutter 300mm (Three hundred millimeter) 1000RPM '1125 Air Delivery (CMM) Bajaj make DDxl Model on the existing opening complete with connections etc. as required.Bajaj,crompton,Greaves. including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	10	each			
145	Supply and fixing exhaust fan lower shutter for 300/380mm (three hundred/ three hundred eighty millimeters) exhaust fan on the existing wall painting etc. as required including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	1	each			
146	Providing and installation of Exhaust Fan, Heavy duty, (Domestic) 300 mm (three hundred millimeters) sweep in the	1	each			

Sr. No.	Description of Item	Qty	Unit	Unit Rate (INR)		Amount (INR)
				In Figure	In Words	
	existing opening, including making the hole to suit the size of the above fan, making good the damages, connections, testing and commissioning etc. as required:-Bajaj,crompton,Greaves including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.					
147	Supplying and fixing of LED 24 (Twenty four) watt bulk head fitting "Frontier Half frame" Model K.Lite/Philips make code No. 4038 complete with all accessories including making connections, testing etc. as required.including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	8	each			
148	Supplying and fixing following rating Telephone socket outlet, piano type. Piano-type switch /socket on the existing switch box / cover including connections etc. as required. Anchor,SSK.including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	21	each			
149	Supplying and fixing Computer board, comprising 3Nos. of 5 (five) amp. switches and 3 nos 5 (five) amp socket and One no metal box 200 X 250 X 100 mm deep (Two hundred into two hundred fifty into one hundred millimeters) , 1 No metal box size 100x100x60mm deep (One hundred into one hundred into sixty millimeters) ,1 No phenolic laminated sheet size 200x250mm (two hundred into two hundred fifty millimeters) (i.e of size 8"x10")one No phenolic laminated sheet size 100 x100mm (one hundred into one hundred millimeters) (i.e 5"x5") 3 mm thick and 1 No computer Jack with shutter including connections etc as required complete in all respect.MAKE :- Anchor,SSK.including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	14	each			
150	Providing, Installation, testing and commissioning of K-	5	each			

Sr. No.	Description of Item	Qty	Unit	Unit Rate (INR)		Amount (INR)
				In Figure	In Words	
	Light/Philips make mirror light LED 10 Watt TL Cat. No. 1597 Modern surface mounting Luminaire two traditional down light solution in the fixture and the driver are designed to provide value technology ideally suited to Indian condition or its equivalent as per best satisfaction of Engineer-in-charge as per price list K-light Jan 2017 as required complete in all respect.including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.					
151	Supplying and erection of Single pole. Cat-A. 6 amps. to 32 (thirty two) amps. rating, 10 (ten) KA breaking capacity, 240 (two hundred forty) volts, 'C' curves, miniature circuit breaker of following poles in the existing MCB DB complete with connections etc. as required including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	102	each			
152	Supplying and fixing of Double door-4 (four) way single pole and neutral sheet steel MCB distribution board, 240 (Two hundred forty) volts, on surface / recess, complete with tinned copper bus- bar, wire-set, neutral link, earth bar, din-bar, detachable gland plate, blanking plate, cable, identification labels interconnections, phosphatized and powder painted, including earthing etc. as required including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	7	each			
152	Supplying and fixing of Double door-8 (eight) way single pole and neutral sheet steel MCB distribution board, 240 (two hundred forty) volts, on surface / recess, complete with tinned copper bus- bar, wire-set, neutral link, earth bar, din-bar, detachable gland plate, blanking plate, cable, identification labels interconnections, phosphatized and powder painted, including earthing etc. as required including entire carriage of materials in all leads and lifts and as per drawings and technical	5	each			

Sr. No.	Description of Item	Qty	Unit	Unit Rate (INR)		Amount (INR)
				In Figure	In Words	
	specifications as per the direction of Engineer-in-Charge including all incidentals.					
152	Supplying and fixing of Double door-12 (Twelve) way single pole and neutral sheet steel MCB distribution board, 240 (two hundred forty) volts, on surface / recess, complete with tinned copper bus- bar, wire-set, neutral link, earth bar, din-bar, detachable gland plate, blanking plate, cable, identification labels interconnections, phosphatized and powder painted, including earthing etc. as required including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	12	each			
153	Supplying and erection of 40/50/63 (Forty/ fifty/sixty three) amps rating, 10 (ten) KA breaking capacity, 240 (Two hundred forty) volts, 'C' curves, miniature circuit breaker of Double pole. Cat-A poles in the existing MCB DB complete with connections etc. as required including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	18	each			
154	Supplying and fixing 40 (Forty) Amps. Cat-A. rating, double pole (single phase & neutral) 240 (two hundred forty) volts, residual current circuit breaker (RCCB), having a sensitivity current up to 300 (Three hundred) milliampers in the existing MCB DB complete with connections, testing and commissioning etc. as required. including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	17	each			
155	Providing and fixing 100 (One hundred) Amp. -10 (ten) KA rating and breaking capacity MCCB in the existing cubical panel board including drilling holes in the cubicle panel, making connections, etc. as required.Cat-A including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge	9	each			

Sr. No.	Description of Item	Qty	Unit	Unit Rate (INR)		Amount (INR)
				In Figure	In Words	
	including all incidentals.					
155	Providing and fixing 200 (Two hundred) Amp. -16 (sixteen) KA rating and breaking capacity MCCB in the existing cubical panel board including drilling holes in the cubicle panel, making connections, etcetera as required.Cat-A including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	1	each			
156	Supplying and fixing copper strip bus-bars suitable for 200 (two hundred) Amp. 415 (Four hundred fifteen) volts capacity 4 (Four)No. each of cross-sectional area (38.10mmx6.35mm) (thirty eight point ten into six point three five millimeters) in the existing enclosure with all accessories including connections etc. as required including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	1.8	Per Running metre			
157	Providing and fixing 63 (Sixty three) Amps rating, four pole, 415 (Four hundred fifteen) volts, On-Load change over switch unit, panel mounting, front handle operation, including drilling holes in the cubical, making connections, etc. as required.Cat-A including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	1	each			
158	Supplying and erection of 300 mm (Three hundred millimeters) deep (nominal) depth sheet metal cubical pedestal of suitable dimensions with plus-minus 5 cm (Five centimeters) variation, made from 1.6 mm (one point six millimeter) thick M.S. sheet duly fabricated in a segregated manner for housing of switch fuse units, by welding each compartment on five sides & front side hinged, complete with locking arrangement, with sufficient No. vertical and horizontal intermediate switchgear housing compartments. The cubical pedestal shall have cable entry box at one or two sides, with epoxy powder coated approved paint and bonding to the existing earth etc. The same	2.25	Sq. mtr. of face area			

Sr. No.	Description of Item	Qty	Unit	Unit Rate (INR)		Amount (INR)
				In Figure	In Words	
	shall be erected in the 1:2:4 cement concrete (One cement : two sand : four graded / crushed stone aggregate 20mm (Twenty millimetres) nominal size plat-form of suitable dimensions 15 cm (fifteen centimeters) high from ground level and 45 cm (Forty five centimeters) thick. The cubical pedestal shall be 15 cm (Fifteen centimeters) from the top of cement concrete plat-form including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.					
159	Supplying and Fixing indicator set RY &B with 3 (Three) Nos Kit kat (LED type) to shown the three indicating in the existing pannel complete etc as required including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	3	each			
160	Supplying and Fixing Ebrit digital mounting voltmeter 3 (Three) phase class A of size 96x96 sq. mm (Ninety six into ninety six square millimeters) flush mounting in existing pannel cat No WDS301FEVOO L&T make complete with connections etcetera as required. including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	1	each			
161	Supplying and Fixing Ebrit digital mounting Ammeter 33 (Three) phase class A of size 96x96 sq. mm (Ninety six into ninety six square millimeters) flush mounting in existing pannel cat No WDS301FCA00 L&T make complete with connections etc as required including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	1	each			
162	Earthing with copper earth plate 600 mmx600 mmx 3 mm (six hundred into six hundred into three millimeters) thick, including accessories and providing masonry enclosure with cover plate having locking arrangement and watering pipe	3	set			

Sr. No.	Description of Item	Qty	Unit	Unit Rate (INR)		Amount (INR)
				In Figure	In Words	
	etcetera (but without charcoal or coke and salt) complete as required including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.					
163	Supplying and fixing Ding-Dong / Electronic musical bell, suitable for D.C./A.C. single phase, 230 (two hundred thirty) volts complete as required including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	13	each			
164	Providing and fixing 25mm x 5mm (twenty five into five millimeters) copper strip in 40 mm dia. (Forty millimeters diameter) G.I. pipe from earth electrode etcetera as required including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	30	Per Running metre			
165	Providing and fixing 25mm x 5mm (twenty five into five millimeters) copper strip on surface or in recess for earth connections etcetera as required including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	20	Per Running metre			
166	Providing and fixing 8 SWG (4 mm dia.) (Four millimeters) copper wire on surface or in recess for loop earthing as required including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	5	Per Running metre			
167	Extra for using salt and charcoal for pipe earth electrode complete as required including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	3	Set			
168	Supplying and fixing of 1.5 ton(One point five) split type air conditioner as per Voltas Hot & Cold better start rating 2(two) virus safe filter triple filter e-saver mode white display auto	9	each			

Sr. No.	Description of Item	Qty	Unit	Unit Rate (INR)		Amount (INR)
				In Figure	In Words	
	clean anti bacteria filter jet cool on of timer slip mode compressure code less remote complete in all respect suitable to operate 230/240 (two hundred thirty/two hundred forty) volts + - 10% AC supply capable to perform the function of cooling dehuminification air circulation bantilation and fitting in the size of nominal cooling capacity complete with 4KBA auto matic voltage stabeliser whirl pool make cat No-DMC-LX-1640 confirming to ISI specification. The stabiliser should have high voltage trip and MCB high low voltage trip and time relay complete including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.					
169	Supplying and fixing of 2 (Two) ton split type air conditioner as per Voltas hot and cold better start rating 2 virus safe filter triple filter e-saver mode white display auto clean anti bacteria filter jet cool on of timer slip mode compressure code less remote complete in all respect suitable to operate 230/240 (two hundred thirty/two hundred forty) volts + - 10% AC supply capable to perform the function of cooling dehuminification air circulation bantilation and fitting in the size of nominal cooling capacity complete with 5KVA auto matic voltage stabeliser whirl pool make cat No-DMC-LX-1650 confirming to ISI specification. The stabiliser should have high voltage trip and MCB high low voltage trip and time relay complete including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	4	each			
170	Providing and installation of stationary storage type 35 (thirty five) Liter capacity water heater (Cat-A) Electric water heater (Geyser) of various sizes by means of Expansion-bolts with nuts and washers, including embedding of expansion-bolts in the wall, providing and fixing of Non-return valve, Dead weight safety valve, 2 No C.P. connection rods 18" long, making good the damages, electrical connections, safety valve connections, testing and commissioning etc. as required including entire	2	each			

Sr. No.	Description of Item	Qty	Unit	Unit Rate (INR)		Amount (INR)
				In Figure	In Words	
	carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.					
171	Supplyin and drawing LAN cable Cat 6 Finolex make,solid copper conductor protected with PVC Sheathed in Existing surface/recessed ,steel /PVC Conduit as required including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	312	each			
172	Supplying and drawing 2 (two) pair of Fire Retardant, PVC insulated 0.5 sq.mm.(zero point five square millimeters) (FR-Flexible) copper conductor, flat, unarmoured, telephone cable in existing surface / recessed, steel / PVC conduit as required including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	312	Per Running metre			
173	Supplying and fixing of 25mm (Twenty five millimeters) dia of PVC conduit along with the accessories in surface / recess including cutting the wall and making good the same in case of recessed conduit as required including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	580	Per Running metre			
174	Supplying & fixing 100mm.x100mm.x60mm.(one hundred into one hundred into sixty millimeter) Deep metal box of following sizes (nominal size) on surface or in recess suitable for fixing phenolic laminated sheet cover in front including painting etc. as required including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	21	each			
175	Supplying and laying H.D.P.E.PE-80 PVC pipe 32mm (thirty two) dia Pressure dia in ground 1.00 Mtr. Below ground level for laying the wires/cable etc. as required including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-	46	EACH			

Sr. No.	Description of Item	Qty	Unit	Unit Rate (INR)		Amount (INR)
				In Figure	In Words	
	Charge including all incidentals.					
176	Providing, laying and fixing of one No. aluminium conductor, PVC insulated and PVC sheathed, armoured/XLPE power cable, working voltage 1100 (one thousand one hundred) volts grade on surface etc. of the Armoured cable 6 sq. mm (twin core) size Havell,L&T including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	46	Per Running metre			
176	Providing, laying and fixing of one No. aluminium conductor, PVC insulated and PVC sheathed, armoured/XLPE power cable, working voltage 1100 (one thousand one hundred) volts grade on surface etc. of the Armoured cable Armoured cable 25 sq. mm (twenty five square millimeters)(3.5 core) size Havell,L&T including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	45	Per Running metre			
176	Providing, laying and fixing of one No. aluminium conductor, PVC insulated and PVC sheathed, armoured/XLPE power cable, working voltage 1100 (one thousand one hundred) volts grade on surface etc. of the Armoured cable Armoured cable Armoured cable 35 sq. mm (thirty five square millimeters (3.5 core) size Havell,L&T including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	20	Per Running metre			
176	Providing, laying and fixing of one No. aluminium conductor, PVC insulated and PVC sheathed, armoured/XLPE power cable, working voltage 1100 (one thousand one hundred) volts grade on surface etc. of the Armoured cable Armoured cable Armoured cable 95 sq. mm (ninety five square millimeters (3.5 core) size Havell,L&T including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	50	Per Running metre			

Sr. No.	Description of Item	Qty	Unit	Unit Rate (INR)		Amount (INR)
				In Figure	In Words	
177	Supplying and fixing CT coil of rating 200/5 amp including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all	3	each			
178	Supplying and drawing 3x1.5 Sq. mm.(three into one point five square millimeters) size of PVC insulated, heat resistant, flame retardant (HRFR) and low smoke single core (flexible) copper conductor cable in existing surface / recessed, Steel/PVC conduit as required including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	143	Per Running metre			
179	Supplying and fixing selector switch in the existing pannel complete with connections etc as required including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	2	each			
180	Supplying and fixing stair light Havells make as per Cat No-LHDL07150099 - 15 (Fifteen)watt but excluding the cost CFL complete with testing and commissioning etc as required including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	8	each			
181	Supplying and fixing LED 10WATT Retrofit 10 (Ten) watts E-27 Havells make in the existing batten holder including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	22	each			
182	Supplying and fixing Shock treatment chart on the existing wall etc as required including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	1	each			
183	Supplying and fixing rubber mat 1x2 meter(one into two) long 12mm (twelve millimeter) thick in front of main panel as required including entire carriage of materials in all leads and	1	each			

Sr. No.	Description of Item	Qty	Unit	Unit Rate (INR)		Amount (INR)
				In Figure	In Words	
	lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.					
184	Supplying and fixing Bulk head fittiing k-light make as per Cat No-4039 , 25(twenty five) LED watt complete with testing and commissioning etc as required including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	8	each			
185	Supplying and fixing of Post top lantern LED 33 (thirty three) watts ,K light make cat No-OVIYA -CUTOFFProduct code No-4973 33 watt LED TR including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	6	each			
186	Supplying and erection of wall mounted metal boards for switch gear mounting of suitable size, with permissible variation in size of plus minus 5mm, welded frame work made of M.S. angle iron 50 mm x 50 mm x 6 mm thick (fifty into fifty into six millimeters) duly welded complete with 3mm (three millimeter) thick M.S. sheet fixed with hinges as open able front, complete with locking arrangement including painting and bonding to the existing earth as required including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	1	Per Square meter			
187	Supplying and fixing of 4 (Four) pole DPX 250 MCCB Enclosure of Legrand make (Ekinoxe distribution board)with cat no-607945 etc as required complete in all respect including entire carriage of materials in all leads and lifts and as per drawings and technical specifications as per the direction of Engineer-in-Charge including all incidentals.	6	each			
Total Bid Price						