



REQUEST FOR PROPOSAL
FOR
ESTABLISHMENT OF IT SKILL DEVELOPMENT &
TRAINING CENTER IN MCA OF MIZORAM

(RFP No. No. D.32015/1/2021-MSeGS)

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1. INTRODUCTION:

Government of India, Ministry of Minority Affairs, has identified three Minority Concentration Districts in the State of Mizoram viz. Mamit, Lunglei and Lawngtlai districts, for enabling focused attention of government programmes and schemes on these districts. The scheme of "Pradhan Mantri Jan Vikas Karyakram (PMJVK)" was evolved during the remaining period of 14th Finance Commission to sharpen the focus on the targeted communities. The PMJVK aims at improving socio-economic conditions of the minorities and providing basic amenities to them for improving quality of life of the people and reducing imbalances in the identified minority concentration areas. The projects to be taken up under PMJVK would be related to creation of infrastructure mainly in the sectors of education, health and skill development, besides innovative schemes for improving the socio-economic and living conditions of minority communities and the other communities living in the catchment area.

Mizoram has the second highest literacy rate in the country and it is therefore believed that Mizoram can also be one of the most IT literate state in the country which can further lead to a global center of excellence in IT Education, IT Training, and Software Development Centre. Keeping these objectives in mind, the Government of Mizoram has adopted the 'IT Policy of Mizoram, 2001.

With this project the Government wishes to setup IT Skill Development & Training Center in each of the 7 selected blocks and bring technology at the doorstep of the economically, socially and educationally backward sections of the people especially those living in the rural areas.

The Government of Mizoram is expected to provide 100% of the project cost estimated in the Detailed Project Report inclusive of cost of preparation of DPR and other charges. Items of work, Per Unit costs, locations, design and other specifications will be as stated in the Detailed Project Report (DPR).

2. TERMS OF REFERENCE:

2.1 Objectives:

The project aims at construction and establishment of state of the education infrastructure for development of students in the Minority Concentration Districts of the State of Mizoram. Components of the projects has been designed as per latest developments in technology, meeting international technical specifications. The buildings have been designed as per the requirements and specifications of the sanctioning authority.

2.2 Benefits:

Completion of the Project will provide the minority concentration areas basic Smart Education and infrastructures of international standard which will pave the way for development of education and therefore raise the general standard of living of the people of Minority Areas.

2.3 Scope of Work:

The scope of work to be performed by selected Agency will include (but is not limited to) the following tasks:

- a) The Agency shall get the work executed in accordance with the technical sanction and drawings, designs, and specification in the approved Working DPR and ensure completion of the project within the project cost and project period as specified in the Contract Document.
- b) Complete construction of projects including supply and installation on items and equipment required by the project mentioned in the Detailed Drawing and Estimates as per specifications laid down by the Implementing Agency, by way of time scheduling, monitoring, supervision, quality assurance/control etc. Agency shall be responsible for end to end till the final handover of the faculties. Written and specific instruction relating to the works may be issued time to time until the final completion as and when required by the Implementing Agency, which shall be bound to be complied with by the Agency.
- c) The Agency shall render all required support to the Implementing Agency for follow up action, as may be required, for early approval.
- d) The works mentioned below are included in the bid for Establishment of IT Skill Development & Training Center in MCA of Mizoram

3. VALUE OF WORK

Sl.No.	Name of VKC	Period of Completion	Tender Amount (includes Grand Total + Furniture & Equipments + Labour cess)	Earnest Money 2%	Performance Security 5%	Bank Guarantee for Mobilization Advance 10%
1	IT Skill Dev. & Training Center, Lungsen	18 Months	₹ 95,20,000.00	₹ 1,90,400.00	₹ 4,76,000.00	₹ 9,52,000.00
2	IT Skill Dev. & Training Center, Chawngte	18 Months	₹ 95,20,000.00	₹ 1,90,400.00	₹ 4,76,000.00	₹ 9,52,000.00
3	IT Skill Dev. & Training Center, West Bunglemun	18 Months	₹ 95,20,000.00	₹ 1,90,400.00	₹ 4,76,000.00	₹ 9,52,000.00
4	IT Skill Dev. & Training Center, Zawlnuam	18 Months	₹ 95,20,000.00	₹ 1,90,400.00	₹ 4,76,000.00	₹ 9,52,000.00
5	IT Skill Dev. & Training Center, West Phaileng	18 Months	₹ 95,20,000.00	₹ 1,90,400.00	₹ 4,76,000.00	₹ 9,52,000.00
6	IT Skill Dev. & Training Center, Diltlang	18 Months	₹ 95,20,000.00	₹ 1,90,400.00	₹ 4,76,000.00	₹ 9,52,000.00
7	IT Skill Dev. & Training Center, Bungtlang	18 Months	₹ 95,20,000.00	₹ 1,90,400.00	₹ 4,76,000.00	₹ 9,52,000.00
TOTAL		18 Months	₹ 6,66,40,000.00	13,32,800.00	₹ 33,32,000.00	₹ 66,64,000.00

NOTE: Bidder must bid for all locations, otherwise bid shall be rejected.

4. INFORMATION TO BIDDERS:

4.1. Eligibility Conditions:

The Implementing Agency, as approved and authorized by the Government of Mizoram, has decided to execute the project by **Open Tender by Quality & Cost Base Selection (QCBS)** process from all empaneled consultancy firms notified by Government of Mizoram, Finance Department vide No. A.46011/1/2020-F.Est/26-27 Dated 04/08/2020 & No. A.46011/1/2020-F.Est/30-39 Dated 29/09/2020 for selection of a private entity as the bidder to whom the execution of works may be awarded. The Executing Agency shall observe the highest standard of ethics during the selection and execution of the contract. Consortium of Joint Venture between two or more empaneled Consultancy Firms is allowed.

4.2. The complete process of tendering will be as per The Mizoram Public Procurement Rules, 2020, the General Financial Rules, 2017 as adopted by Government of Mizoram and as amended from time to time, the Central Public Works Department Manual, 2019 as amended from time to time and any other relevant rules being in force in the State of Mizoram.

Bidding documents are available in the Chief Executive Officer, Mizoram State e-Governance Society (MSEGS), Old Secretariat Building -1, Treasury Square, Aizawl for a non-refundable fee as indicated in the table, in the form of **Demand Draft (DD) on any Scheduled/Nationalized bank payable at Aizawl** in favor of the Chief Executive Officer, Mizoram State e-Governance Society.

4.3. Definitions:

For the purpose of clarity, the following words and expressions shall have the meanings hereby assigned to them:

- (a) **Approval:** means approval in writing by the designated officer of MSeGS.
- (b) **Contractor:** means the contractor or contractors or suppliers or agencies employed by the Executing Agency for the work or any connected work, including the Executing Agency itself in case any work is done directly by the Executing Agency.
- (c) **Implementing Agency:** means Mizoram State eGovernance Society, (an autonomous society under the ICT Department, Govt. of Mizoram), Aizawl Mizoram, and shall also include its administrators, executors and assignees.
- (d) **Executing Agency:** also referred to as 'Agency' means an agency appointed by MSeGS for execution of the works as may be defined in the agreement.

- (e) **Executing Agency Charges:** means the project executing charges payable to the Executing Agency as a percentage of the actual cost.
- (f) **Letter of Award (LOA):** As defined in Clause 5.5.
- (g) **Project/Work-** means execution and supervision of civil works to be undertaken as specified in the Detailed Project Report (DPR).

4.4. Brief Description of Bidding Process:

- (a) As mandated by the Mizoram Procurement Rules, 2020, the method of Two Bid System will be adopted for selection of Bidder for awarding the contract(s).
- (b) Tender should be forwarded by Bidder under their original memo/letter pad inter alia furnishing details like complete postal and e-mail address of their office.
- (c) The Technical Bid and the Financial Bid should be sealed by the Bidder in separate covers duly super scripted in BOLD letters

“TECHNICAL BID FOR ESTABLISHMENT OF IT SKILL DEVELOPMENT & TRAINING CENTER IN MCA OF MIZORAM”- for the Technical Bid and

“FINANCIAL BID FOR ESTABLISHMENT OF IT SKILL DEVELOPMENT & TRAINING CENTER IN MCA OF MIZORAM” - for the Financial Bid,

The two sealed covers should be put into a bigger cover which should also be sealed and duly superscripted with-

“BID FOR ESTABLISHMENT OF IT SKILL DEVELOPMENT & TRAINING CENTER IN MCA OF MIZORAM”

Tendering authority will not be responsible for accidental opening of the covers that are not properly superscripted and sealed.

- (d) Technical Bid WILL NOT contain any reference to cost.
- (e) Any erasure, cutting and overwriting will be duly authenticated by the person responsible for tender and with business stamp.
- (f) The Financial Bid will be inclusive of all types of Taxes, GST etc.,
- (g) The Financial Bid shall specify Validity of quotes for a period of 120 days from last date fixed for submission of bid.

4.5. Quotation Details:

Address and contact numbers for submission of quotation or seeking clarifications is given below:

(a)	Bids/ Queries to be addressed/ submitted to:	Mizoram State e-Governance Society, (An Autonomous Society under the Govt of Mizoram) Old Secretariat Building -I, Treasury Square, Aizawl - 796001, Mizoram e-mail: support.msegs@mizoram.gov.in Tel: 0389 2319637 Fax: 0389 2319632
(b)	Postal address for sending the Tenders:	Mizoram State e-Governance Society, (An Autonomous Society under the Govt of Mizoram) Old Secretariat Building - I, Treasury Square, Aizawl - 796001, Mizoram
(c)	Name and designation of the contact personnel:	Dr. Lalthlamuana, Chief Executive Officer Telephone : 0389-2319637
(d)	Email id of the contact personnel:	ceo.msegs@gmail.com

4.6. Mode of delivery of Bids:

Tender box marked "Bids for Establishment of IT Skill Development & Training Center in MCA of Mizoram" for dropping of quotation shall be placed at the office of the Mizoram State eGovernance Society, Aizawl, Mizoram, (address at 3.5 above) from the date of issue of this Request for Proposal, for receiving the bids. The Tender Box will be available for submission of bids during office hours on all working days. On the last day fixed submission, it would be available upto 3:00PM only. The bids can also be submitted by courier/registered post in sealed envelopes. Late tenders will be summarily rejected. No responsibility will be taken for postal delay or no-delivery/non-receipt of Tender documents. Tender sent by FAX or e-mail will not be considered.

4.7. Schedule of the Bidding process:

- (a) Last date for submission of Bids will be as per the tender notice as follows.

Last date for submission of written queries for clarifications	:	As per tender notice
Date of pre-bid conference	:	As per tender notice
Release of response to clarifications	:	As per tender notice
Last date (deadline) for submission of bids	:	As per tender notice
Technical Bid Opening	:	As per tender notice

- (b) Opening of Technical Bids will be at the office of **Mizoram State e-Governance Society, Aizawl, Mizoram** address given at Para 3.5(b). above, who, in the presence of the Bidders or representatives who choose to attend, will subsequently examine and determine whether each Bid is responsive to the requirements of this RFP. A bid shall be considered responsive only if:

- 1) It is received by the Bid due date including any extension thereof, if any.
- 2) It is signed, sealed and marked as stipulated.
- 3) It contains all information (Complete in all respects) as requested in this RFP.
- 4) It does not contain any conditions or qualifications.

Representatives are required to bring photo identity card and Authority Letter with photograph duly attested by the owners/company without which they will not be permitted to participate in the bid. This event will not be postponed due to non-presence of any Bidders or their representatives.

- (c) Post scrutiny of the Technical Bids, the Financial Bids of only those Bidders who qualify in the Technical Bids will be opened. Opening of Financial Bids will be done after determination of technically acceptable bids.

All Bidders or their representatives are requested to be present on the day of opening of Technical Bids. Representatives are required to bring photo identity card and Authority Letter with photograph duly attested by the owners/company without whom they will not be permitted to participate in the bid. This event will not be postponed due to non-presence of any Bidders or their representatives.

If due to any exigency, the due date for opening of the Technical Bids or Financial Bids is/are declared a closed holiday, the Bids will be opened on the next working day at the same time or any other day/ time, as intimated by the Mizoram State e-Governance Society, Aizawl, Mizoram.

After selected and approval, a Letter of Award (LOA) shall be issued by the Implementing Agency to the Selected Bidder(s) and the Selected Bidder(s) shall, within 7 (Seven) days of the issue of the LOA, acknowledge receipt of the same, indicating therein its acceptance or otherwise of the LOA and assignment.

(d) Signing of Contract Agreement will be within 14 days of LOA.

4.8. Bid Validity:

The Bid shall remain valid for acceptance for a period of 180 days after the date of Bid opening prescribed in the RFP Document. Any Bid valid for a shorter period shall be treated as non-responsive and ejected.

5. GENERAL TERMS OF BIDDING:

5.1 Tender fee/Earnest Money Deposit/Bid Security:

Each Bidder shall submit Rs. 2000 as tender fee during submission along with the bid document. Bidders are required to submit Earnest Money Deposit (EMD) for an amount as specified below along with their **Technical Bid**. The EMD may be submitted in the form of an Account Payee Demand Draft, Fixed Deposit Receipt or Bankers Cheque from any public sector banks, drawn in favor of **"Mizoram State eGovernance Society, Aizawl, Mizoram"**, payable at Aizawl. EMD is to remain valid for a period of 180 days from the date of submission of the tender. **No other mode of payment will be accepted.** EMD of the unsuccessful Bidders will be returned to them at the earliest before the 30th day after the award of the contract. The EMD of the successful Bidder(s) would be returned, without any interest whatsoever, after the receipt Performance Security (five percent of value of the contract) from them as called for in the contract. The EMD will be forfeited if the Bidder withdraws or amends impairs or derogates from the tender in any respect within the validity period of their tender. Bids without the EMD will be summarily rejected. Claim for exemption from submission of EMD will not be entertained for whatsoever reason it may be, unless accompanied with due notification details. Firms in the process of obtaining MSME registration will not be considered for EMD exemption.

Note: MSME Certificate/UDHYAM in lieu of Bid Security/EMD is accepted as per the Notification of Ministry of Finance, Department of Expenditure vide No. F.20/2/2014-PPD (Pt.) dated 25th July 2017.

Rates of Earnest Money Deposit:

- (1) For works estimated to cost up to Rs. 10 crores = 2% of the estimated cost.
- (2) For works estimated to cost more than Rs. 10 crores = Rs. 20 lakhs + 1% (one percent) of the estimated cost put to tender in excess of Rs. 10 crores.

5.2 Performance Guarantee:

To ensure due performance of the contract, Performance Security shall be obtained from the successful bidder(s) who are awarded the contract(s). Performance Security shall be for an amount of 3% (three percent) of the value of the contract. Performance Security may be furnished in the form of an Account payee Demand Draft, Fixed Deposit Receipt from a Commercial Bank, Bank Guarantee from the Commercial Bank in an acceptable form safeguarding the Implementing Agency interest in all respects. Performance Guarantee should be submitted within 21 (Twenty One) days from the date of receipt of Letter Of Acceptance. Performance Security will remain valid for a period of sixty days beyond the date of completion of all contractual obligations of the supplier including warranty obligations.

5.3 Security Deposit:

The contractor shall permit the Implementing Agency to deduct a sum at rate of 5% (five percent) of the gross amount from each running bill till release of the last and final bills of the works. The security deposit can also be deposited in cash or in the form of government securities or fixed deposit receipt. The security deposit shall be refunded after the expiry of the defect liability period.

In Preparing the Technical Proposal, bidders are expected to examine the documents comprising this RFP in detail. Material deficiencies in providing the information requested may result in rejection of a proposal.

5.4 The following details are to be furnished that will form a part of the Bid documents:

- (a) Name and year of establishment of the Agency.
- (b) Value and size of the civil construction projects handled by the Agency since its inception (with Completion certificates) as form mentioned in clause 1.3 & 1.4 of Annexures
- (c) Number of professional and technical staff with qualifications and experiences.
- (d) Audited Financial Report (audited by a registered Chartered Accountant) of the firm for the last three years, indicating Turnover and Net Profit figures. Clause 1.2 of Annexures.
- (e) List of Machineries & Equipment as format mentioned clause 1.5 of Annexures.
- (f) All forms mentioned in the Annexure are mandatory and should be furnish with the BID.

5.5 The Bidder shall provide all the information sought under this RFP and any other relevant information as deemed fit by the Bidder. The Implementing Agency will evaluate only those Bids that are complete in all respects.

5.6. The Bid and other documents shall be typed and signed by the authorized signatory of the Bidder whose power of attorney for signing the documents as mentioned in FORM-D of Annexure should be enclosed in the Bid documents.

5.7. If the envelope is not sealed and marked as instructed above, the Implementing Agency assumes no responsibility for the misplacement of premature opening of the contents of the Bid submitted and consequent losses, if any, suffered by the Bidder.

5.8. Bids received by the Implementing Agency after the specified time on the Bid due date shall not be eligible for consideration and shall be summarily rejected.

- 5.9. The Bidders shall be responsible for all the costs associated with the preparation of the Bids and their participation in the bidding process. The Implementing Agency should not be responsible or in any way liable for such costs, regardless of the conduct or outcome of the Bidding process.
- 5.10. Bidders are encouraged to submit their respective Bids after visiting the Project/work sites and ascertain for themselves the site condition, location, surroundings, climate, availability of power, water and other utilities for construction, access to site, handling and storage of materials, applicable laws & regulation and any other matter considered relevant by them.
- 5.11. Notwithstanding anything contained in this RFP, the Implementing Agency reserves the right to reject any bid and to annul the Bidding process and reject all Bids at any time without any liability or any obligation for such rejection of annulment, and without assigning any reasons thereof.
- 5.12. Information relating to examination, evaluation and recommendation for the Bidders shall not be disclosed to any person who is not officially concerned with the process or is not officially assisting the Implementing Agency concerning the Bidding Process. Implementing Agency may not divulge any such information unless it is directed to do by any statutory entity that has the power under law to require its disclosure or it's to enforce or assert any right or privilege of the statutory entity and/or the Implementing Agency or as many be required by law or in connection with any legal process.

5.13. Pre Bid Meeting/Clarification Regarding Contents of the RFP:

A Bidder who requires clarification regarding the contents of the Bid documents shall notify the Implementing Agency about the clarifications sought well in advance (at least 3 working days) to the date of Pre Tender Meeting.

5.14. Modification or Withdrawal of Tender:

Withdrawal of Bid will not be entertained once the same is deposited/dropped in the Tender Box or received. Bidders may submit a modified Tender before the last date of receipt of Tender, wherein, the lowest financial tender shall be considered for evaluation.

5.15. Clarification Regarding Contents of the Tender:

During evaluation and comparison of Bids, the Implementing Agency may, at its discretion, ask the Bidders for clarification of hos Bid. The request for clarification will be given either in writing or verbally and no change in prices or substance of the Bids will

be sought, offered or permitted. No post-tender clarification on the initiative of the Tenderer will be entertained.

- 5.16. No increase in price because of any statutory increase in or fresh imposition of custom duty, excise duty, or any other tax or duty levied in respect of stores will be accepted once the bid is submitted.
- 5.17. High standard of workmanship, quality of material and timely supply are the prime requisite of the contract.
- 5.18. **The Mizoram State e-Governance Society, Aizawl, Mizoram,** has the authority to change the quantity of items demanded as per requirement at a later date.

6. SCOPE OF WORK & PROJECT TIMELINE:

6.1 The Scope of Work

a) Civil Work:

The successful bidders will have to construct one (1) RCC building for IT Skill Development & Training Center in the following selected location. (Detail Specification and Unit can be seen at Annexure- I)

- 1) Chawngte Block - Inside campus of Govt. Kamalanagar College
- 2) Lawngtlai Block – Inside campus of Diltlang H/S
- 3) Bungtlang S Block – Inside campus of Govt. Bungtlang ‘S’ H/S
- 4) Zawlnuam Block – Inside campus of Govt. Zawlnuam College
- 5) West Phaileng Block – Inside campus of Sport School
- 6) Lungsen Block – Inside campus of Lungsen H/S
- 7) West Bunghmun Block - Inside campus of West Bunghmun H/S

The civil work shall include the following items but not limited to-

- 1) Site Development & Earth Work
- 2) PCC
- 3) RCC
- 4) Brick Works
- 5) Stone Works
- 6) Wood Work
- 7) D&W Fittings
- 8) Plastering
- 9) Painting
- 10) Aluminium Work
- 11) Flooring
- 12) Furnitures (Table, Chair, Desk, Podium etc.)

b) IT Infrastructure:

The list of IT Infrastructure required for IT Skills & Training Center is listed below (Detail Specification and Unit can be seen at Annexure- II)

S.N	Description	Physical Target for 1 Block
1.	Laptop for Trainer	1
2.	Computer set for Trainee	50
3.	UPS (5 KVA Online) incld. battery	1
4.	Digital Multifunctional Copier Machine	1
5.	Smartboard with CPU	1

6.	Digital Podium	1
7.	Local Area Network	1

6.2 Project Implementation Timeline

The Implementing Agency is keen to initiate this project at the earliest and complete the project within a time frame of 18 months.

S.N	Project Activity	Time in months
1.	Award of contract and signing of agreement	T + 0
2.	Construction of Building	T + 3
3.	Installation of IT equipment	T + 15
4.	Testing of IT equipment	T + 16
5.	Hand over	T + 18

7. OPENING AND EVALUATION OF BIDS:

- 7.1. The Implementing Agency shall open the Bids at specified time mention in the tender notice in the **office of the Mizoram State e-Governance Society, Aizawl, Mizoram**, in the presence of the Bidders who choose to attend.
- 7.2. The Implementing Agency will subsequently examine and determine whether each Bid is responsive to the requirements of this RFP. A bid shall be considered responsive only if.
- (a) It contains Bid Security in the prescribed format.
 - (b) It is received by the Bid due date including any extension thereof, if any.
 - (c) It is signed, sealed and marked.
 - (d) It contains all information (Complete in all respects) as requested in this RFP.
 - (e) It contains all the prescribed forms and requirements.
 - (f) It does not contain any condition or qualification.
- 7.3. Implementing Agency reserves the right to reject any Bid which is non-responsive and no request for alteration, modification, substitution or withdrawal shall be entertain by the Implementing Agency in respect of such Bids.

The Implementing Agency also reserves the right to accept in part or in full any bid or reject any or more Bid(s) without assigning any reason or to cancel the Bidding process and reject all the Bids at any time, without incurring any liability, whatsoever to the affected Bidder or Bidders.

7.4. Technical Evaluation

- a) To evaluate the Tender the department shall formulate a Tender Evaluation Committee (TEC) (also referred to as "Evaluation Committee"). The Evaluation Committee shall evaluate the Technical and Financial bids as per the following process:
- b) Tender Evaluation Committee shall evaluate and compare the technical bids that have been determined to be substantially responsive.
- c) Tender Evaluation Committee shall review the Technical Proposal along with Eligibility Criteria. To assist in the examination, evaluation, and comparison of the bids, and qualification of the Bidders, Evaluation Committee may, at its discretion, ask any Bidder for a clarification of its bid. .
- d) Eligible bidders scoring 60% or more in the Technical evaluation shall only be considered for financial bid evaluation.

- e) The Financial Proposals/Bids of only those Bidders who have been qualified in the Technical Proposal will be opened in the presence of their representatives, who may choose to attend the session on the specified date, time and address mentioned in the Bid Data Sheet.
- f) Technical Proposals of bidders shall be evaluated by the Tender Evaluation Committee as per the criteria mentioned below and allot technical scores to the bidders.
- g) The Bid will be evaluated on the basis of the following evaluation criteria (See Rule 75 of the Mizoram Public Procurement Rules, 2019):

Sl. No	Details	Maximum Marks
1	Experience of the firm <ul style="list-style-type: none"> • 3 or more Projects = 20 points • 2 Projects = 15 Points • 1 Project = 10 Point 	20
2	Methodology, work plan and understanding of TOR <ul style="list-style-type: none"> • Proposed site preparation plan and hardware deployment strategy = 20 Points • Implementation Plan & Methodology = 20 Points • Support & Maintenance = 5 Points 	45
3	Suitability of key personnel for the assignment <ul style="list-style-type: none"> • 10 or more qualified technical manpower = 25 Points • Less than 10 technical manpower = 10 points 	25
4	Capability of Transfer of Knowledge	10
	TOTAL	100

Note to bidders:

- Implementing Agency or any other authorized representatives reserves right to visit (or conduct telephonic verification) bidder's customers where such a similar project execution has taken place.
- Bidders who score overall 60 points or higher in the technical evaluation, as per the criteria mentioned above, shall be considered for financial evaluation.

7.5. Financial Evaluation

- a) The Financial Bids of technically qualified bidders (i.e. scoring ≥ 70 points) will be opened on the prescribed date in the presence of authorized representatives of bidders.

- b) The Financial scores will be calculated as

$$Fn = Fmin / Fb * 100$$

where,

Fn = Normalized financial score of the bidder under consideration

Fb = Evaluated cost for the bidder under consideration

Fmin = Minimum evaluated cost by any bidder

- c) Only fixed price financial bids indicating total price for all the deliverables and services specified in this bid document will be considered.
- d) The bid price will include all taxes and levies and shall be in Indian Rupees and mentioned separately.
- e) Any conditional bid will be rejected.
- f) If there is a discrepancy between words and figures, the amount in words will prevail".
- g) If there is no price quoted, the bid shall be declared as disqualified.
- h) In the event that there are 2 or more bidders having the same value in the financial bid, the bidder securing the highest technical score will be adjudicated as the "Best responsive bid" and will be given preference for engagement.

7.6 Selection of the Bidder(s)

- a) Quality and Cost Based Selection (QCBS) as per procedure laid down under the Mizoram Public Procurement Rules, 2020 will be followed for selection of consultant/firms, where quality of the work is the prime concern.
- b) Only those responsive proposals that have achieved at least minimum specified qualifying score in quality of technical proposal will be considered further.
- c) After opening and scoring, the financial proposals of responsive technically qualified bidders, a final combined score will be arrived at by assigning weightages for the score of quality of the technical proposal and the score of financial proposal.
- d) The final evaluation of the overall score will be calculated as follows:

$$Bn = 0.70 * Tn + 0.30 * Fn$$

where,

Bn = overall score of bidder under consideration

Tn = Technical score for the bidder under consideration

Fn = Normalized financial score of the bidder under consideration

Note:

MSEGS reserves the right to negotiate with the Bidder whose proposal has been ranked first on the basis of best value.

- 7.7. After selection, a Letter of Acceptance (LOA) shall be issued by the MSeGS to the Selected Bidder and the Selected Bidder shall, within 2 (Two) days of the issue of the Letter of Acceptance (LOA), acknowledge receipt of the same indicating therein its acceptance or otherwise of the Letter of Acceptance (LOA) and the assignment.
- 7.8. After acknowledgement of the Letter of Acceptance (LOA) as aforesaid by the Selected Bidder, a Deed of Agreement shall be executed between the MSeGS and the Selected Bidder within 21 (Twenty One) days.
- 7.9. The method for calculation of marks and relative weightages will be as prescribed under Rule 76, (Appendages 1.9) of the Mizoram Public Procurement Rules, 2020.
- 7.10. Bids shall be deemed to be under consideration immediately after they are opened and until such time the MSeGS makes official intimation of award to the Selected Bidder, While Bids are under consideration, Bidder and/ or their representatives of other interested parties are advised to refrain, save and except as required under the Bidding Documents, from contacting by any means, the MSeGS on matters related to the Bids under consideration.

8. GENERAL TERMS AND CONDITIONS:

Bidders should read these conditions carefully and strictly comply while submitting their bids.

8.1. GENERAL:

8.1.1. Subject to the provision of Clause 6.2.4 below, the Successful Bidder shall be paid the actual cost for construction of items specified in the latest Working Detailed Project Report.

8.1.2. Executing Agency charges shall be based on prevailing rates in the PWD SOR as approved by the State Government which is in-built in the Detailed Project Report (DPR)

8.1.3. All incidental charges including the GST and other tax or cess as applicable on the execution of the project shall be incorporated as part of Clause 6.2.2 above.

8.1.4. The following expenses will be borne from the Project Cost:

- i) Cost paid by Implementing Agency to local government any other statutory body or bodies for getting approvals for the project.
- ii) Cost of laboratory charges for testing of materials, etc. for the purpose of ensuring Quality Control.

8.2. ROLE AND RESPONSIBILITIES OF THE EXECUTING AGENCY:

8.2.1. Subsequent to the signing of the agreement and the approval of the project, the Executing Agency shall forthwith take possession of the site from Implementing Agency and shall nominate qualified Engineer (s) for execution of the Project under intimation to Implementing Agency.

In case Implementing Agency advised the Executing Agency for replacement of the Site Engineer the same will be duly considered by it and suitable replacement shall be provided.

8.2.2. Executing Agency executes the works at approved cost as per approved technical designs and drawings.

8.2.3. The Executing Agency shall be wholly, solely and fully responsible for the timely completion of the project, the quality of works as per approved designs and the structural safety during & after completion of the project.

8.2.4. Implementing Agency or Agency as mentioned in 6.8.1 can inspect and check the construction work from time to time to see that the buildings are being constructed as per drawings & specifications. If any defects are found or

deviation(s) from the Plan in the DPR without the written permission of the Implementing Agency is noticed during the inspections, the same will be rectified by the Executing Agency.

- 8.2.5. During the various stages of execution, Executing Agency shall submit monthly progress reports with site photographs with minimum 6 site photographs of size 4"x6"
- 8.2.6. The Executing Agency shall be responsible for proper execution of structure, specifications and workmanship.
- 8.2.7. Liability for all defects in the construction work by the executing agency shall lie with them for a **period of 18 (Eighteen) months** from the date of its handing over-site complete in all respect to the Implementing Agency. Executing Agency shall be responsible for satisfactory rectification of defects.
- 8.2.8. Any defects discovered and brought to the notice of the Executing Agency during the period aforesaid shall be rectified by Executing Agency forthwith at its own cost and expenses. In the event of the failure on the part of the Executing Agency to rectify the defects, the same may without prejudice to any other rights available to the Implementing Agency in law can be got rectified by the Implementing Agency for and on behalf of Executing Agency and at the cost and expense of the Executing Agency, after due notice of 30 days to the Executing Agency.
- 8.2.9. The Implementing Agency shall have the right to deduct or set off the expenses incurred by it in rectifying the defects as aforesaid from or against any amount due and payable or becoming due and payable by the Implementing Agency to the Executing Agency under this agreement or from any other amount due. The Implementing Agency shall be entitled to claim the balance due with interest and recover the same from the Executing Agency, if the amount claimed is not paid in demand.
- 8.2.10. The Executing Agencies shall unless otherwise specified, be fully responsible for procurement of all materials and services for the construction activity.
- 8.2.11. Executing Agency shall be responsible for acts or omissions committed by it.
- 8.2.12. The Executing Agency shall be fully responsible to defend any suits or arbitration cases arising in respect of the project in connection with the Work between the Executing Agency and its sub-agency/workers at its own cost.

8.2.13. The Executing Agency shall, whenever required, obtain in writing approval of the local bodies or statutory bodies for the planning, construction as contemplated in this agreement. However, the Implementing Agency shall render necessary support to the Executing Agency regarding getting such approvals.

8.2.14. The Executing Agency shall be fully responsible for observance of all labour laws and other laws applicable and shall indemnify and keep indemnify the Implementing Agency against effect of non-observance of any such laws by it or the sub-agency.

Further, the Implementing Agency shall not be responsible in any manner whatsoever or Damages/compensation Act or any other law in torts or in civil law to the employees of Executing Agency and/or Contractor(s) and/or labourer employed.

8.2.15. The Executing Agency shall send completion report with as-built drawings and maintenance schedules for all the services to the office of the Implementing Agency in writing within 15 days of completion of work.

8.2.16. Responsibility to obtain Completion Certificate and Occupancy Certificate rests with the executing agency, and the project shall be deemed to have been completed and at the stage of handing over only when these are obtained from the local body(ies).

8.2.17. All plans, drawings, specifications, designs, report and other documents prepared by the Agency in performing the Services shall become and remain the property of the Implementing Agency, and the Agency shall, not later than upon termination or expiration of this Agreement, deliver all such documents to the Implementing Agency, together with a detail inventory thereof. The Agency may retain a copy of such documents.

8.2.18. The Agency, their Sub-Agency/Third party and personnel of either of them shall not, either during the term or within two (2) years and 6 (six) months after the expiration of the Contract period, disclose any proprietor or confidential information relation to the project, the Services, the Contract or the Implementing Agency business or operation without the prior written consent of the Implementing Agency.

8.3. RESONSIBILITIES OF THE IMPLEMENTING AGENCY:

The Implementing Agency shall make available the site for the work to the Executing Agency.

8.3.1. The Implementing Agency will not be responsible to the contractors/supplier of the items required for execution of contract.

8.3.2. The Implementing Agency shall make payment due under this agreement to the Executing Agency. However, the Implementing Agency may levy compensation upon the Executing Agency due to non-fulfillment of any clause of the contract or bad work or deficiency in services or any other reasons whatsoever deemed appropriate under relevant rules and regulations.

8.4. COMPLETION OF THE PROJECT:

8.4.1. The date of the start of work i.e. execution and completion shall be reckoned from the 15th day after signing of the Agreement.

8.4.2. Each work shall be completed in all respect within period given in the schedule under clause 2.4.(d) from the 15th day after signing of the Agreement.

8.5. PENALTY:

Executing Agency shall be required to complete the construction work within the stipulated period. In case of delay which may occur due to reasons beyond the control of the Executing Agency, Executing Agency will approach the Implementing Agency with full details for extension of time limit for completion of works. In case of delay due to sole default on part of Executing Agency, or its Contractors/ Subcontractors, the Executing Agency shall be liable to pay to the Implementing Agency compensation (Not amounting to penalty) at the rate of not exceeding ¼ % (One quarter percent) of the total anticipated Executing Agency charges per week of delay subject to maximum of 10% (Ten percent) of the total Agency charges. However, the Implementing Agency may reduce the same at its sole discretion. The Implementing Agency will be the sole authority to decide on the nature and cause of delay and its decision will be final.

8.6. ASSIGNMENT OF THE AGREEMENT:

The Executing Agency shall not assign or transfer or part with any of the rights, duties of obligations, wholly or in part, under this agreement to any other part without the previous consent in writing of the Implementing Agency, except as provided under the agreement.

8.7. PAYMENT AND SCHEDULE OF PAYMENT:

8.7.1. Mobilization Advance: Mobilization Advance shall be limited to 10% of Tendered Amount at 10% simple interest per annum.

The mobilization advance shall be released only after obtaining a bank Guarantee bond from a schedule bank for the amount of advance to be released and valid for the contract period. This shall be kept renewed time to time to cover the balance amount and likely period to complete recovery together with interest. The advance will be released in two installments. The interest on the advance shall be calculated from the date of payment to the date of recovery, both days inclusive.

It shall be ensured that at any point of time, Bank Guarantee is available for the amount of outstanding advance.

The recovery should be commenced after 10% of work is completed and the entire amount together with interest shall be recovered by the time 80% of the work is completed.

8.7.2. Secured Advance:

- a. Secured Advances on the security of materials brought to the construction site may be made to the contractors for items which are to be used on work.
- b. The MSeGS can sanction the secured advance up to an amount not exceeding 75 percent of the value of the materials as assessed by the Engineer-in-charge, or an amount not exceeding 75 percent of the material element cost in the tendered rate of the finished item of work, whichever is lower.
- c. A formal agreement should be drawn up with the contractor under which Government secures a lien on the materials and is safeguarded against losses due to the contractor postponing the execution of the work or due to shortage or misuse of the materials, and against the expense entailed for their proper watch and safe custody.
- d. Payment of such advances should be made only on the certificate of an officer not below the rank of Sub-Divisional Officer that:
 - i. The quantities of materials for which the advances are made have actually been brought to site;

- ii. Full quantities of the materials, for which advance is to be made, are required by the contractor for use on items of work for which rates for finished works have been agreed upon;
 - iii. The quality of materials is as per the specifications.
- e. Recoveries of advances so made should not be postponed until the whole of the work entrusted to the contractor is completed. They should be made from his bills for work done as the materials are used, the necessary deductions being made whenever the items of work in which they are used are billed for.
- i. Secured advance shall be granted only for non-perishable items. The Officer- in-charge shall identify whether an item is perishable or not;
 - ii. Where stage payments are stipulated in certain contracts, like for Electrical and Mechanical (E&M) and other specialized works, such payments shall not be treated as secured advance.

The Executing Agency shall give the reimbursement bill Monthly/Quarterly along with their expenditure claim (that may include agency charges). Copy of the expenditure statement duly certified by a representative of Executing Agency on the project for reimbursement/adjustment of expenditure incurred from the funds advanced to the Executing Agency.

8.7.3. The remaining fund will be released to the Executing Agency on actual execution basis on on-site measurements.

8.7.4. On completion of work, the accounts of the work shall be closed and a final bill/ expenditure statement audited by a Chartered Accountant shall be submitted for settlement.

8.8. MONITORING:

8.8.1. Effective monitoring shall be carried out by the Agency, and by the Implementing Agency to monitor the progress and quality of the works in implementation of the Project. To this end, Agency shall furnish all the data and information, as may be prescribed by the Implementing Agency from time to time, in a prescribed/relevant format.

8.8.2. The Agency shall monitor the progress of the works by maintaining full information of contractors, contractor-wise status report of cost of work done and payments made, list of completed works and value of work done in the prescribed format.

8.8.3. The Agency shall ensure that best practices are applied for quality management of works. The Executing Agency shall intimate the Implementing

Agency of details of the Quality Control System operational at the Agency level.

- 8.8.4. The first tier of quality control will be executed at the Agency level.
- 8.8.5. The Implementing Agency, besides the Technical Wing of the Department, may also appoint Independent Quality Monitors as required.
- 8.8.6. The Agency shall submit quarterly progress reports along with photographs of works undertaken.
- 8.8.7. **Patents and Other Industrial Property Rights:**

The prices stated in the present contract shall be deemed to include all amounts payable for the use of patents, copyrights, registered charges, trademarks and payments for any other industrial property rights. The Seller shall indemnify the Buyer against all claims for a third party at any time in account of the infringement of any or all the rights mentioned in the previous paragraphs, whether such claims arise in respect of manufacture or use.

8.9. ARBITRATION:

Every dispute, difference, or question which may at any time arise between the parties hereto or any person claiming under them, touching or arising out of or in respect of this agreement or the subject matter thereof, shall first be endeavored to be amicably resolved at the Top Management level of the parties. However, in the event of such dispute, difference or question, etc., remaining unsolved, the same shall be referred to the arbitration by a sole arbitrator appointed mutually by both the parties as per provisions of the Arbitration & Conciliation Act, 1996 as applicable. The place of such arbitration shall be at Aizawl, Mizoram.

8.10. FORCE MAJEURE:

The work(s) (whether fully completed or not) and all materials, machines, tools & plants, scaffolding, temporary buildings & other things connected therewith shall be at the risk of the Agency until the work has been delivered to the Implementing Agency and a certificate from him to that effect obtained. In the event of the work of any materials properly brought to the Site for Incorporation in the work being damaged or destroyed in consequence of hostilities or war-like operations, Agency shall, when ordered in writing by the Implementing Agency, remove any debris from the Site, collect and properly remove or/and stack in store all serviceable materials salvaged from the damaged work & shall be paid at the Contract rates in accordance with the provisions of this Contract for the work of cleaning the site of debris, stacking removal of

serviceable materials and for the reconstruction of all works ordered by the Implementing Agency, such payment being in addition to compensation up to the value of work originally executed before being damaged or destroyed but not already measured and paid for, the compensation shall be assessed by the Agency and by the Implementing Agency. The Agency shall be paid for the damaged/destruction suffered and for restoring the material at the rates based on the analysis of rates tendered for in accordance with the provisions of the contract. The certificate of the Implementing Agency regarding the quality and quantity of the materials and the purpose for which they were collected shall be final & binding on all parties to the contract.

Provided always that no compensation shall be payable for any loss in hostilities or war-like operations.

- i) Unless the Agency that no compensation shall be payable for any loss in hostilities or war-like operations.
- ii) For any materials etc. not on the site of the work or for any tools and plant, machinery, scaffolding temporary buildings and other things not intended for the Work.

In the event of the Agency having to carry out reconstruction as aforesaid, he shall be allowed such extension of time for its completion as is considered reasonable by the Engineer-in-Charge

In the event of any loss or damage to the work or any part thereof from any of the Excepted Risks, the following shall have effect.

- i) The Agency shall, as may be directed in writing by the Implementing Agency, remove from the Site any debris of so much of the Work as shall have been damaged.
- ii) The Agency shall, as may be directed in writing by the Implementing Agency, proceed with the erection & Completion of the Work under and in accordance with the provisions and conditions of the Contract. Payment of such additional works, if any, shall be made as per terms of the Contract.

Provided always that the Agency shall not be entitled to payment under the above provisions in respect of such loss or damage as has been occasioned by any failure on his part to perform his obligations under the Contract or not taking precautions to prevent loss or damage.

---- FORMS ----

FORM-A
QUALIFICATION INFORMATION

This Section contains all the criteria that the Implementing Agency shall use to evaluate Bids and qualify Bidders.

The information to be filled in by the Bidder in the following pages will be used for purposes of Qualification. This information will not be incorporated in the contract.

1. Qualification Information of the Bidder:

Constitution or Legal status of Bidder : [Attach copy]

Place of Registration :

Principal place of business :

Power of attorney of signatory of Bid : [Attach copy]

1.1. Total value of Works performed in the last three year (immediately preceding the financial year in which bids are received):

Year	Description of work	Nodal Officer	Value (₹ in lakhs)
2019 to 2020			
2020 to 2021			
2021 to 2022			

1.2. 1.2 Experience in works of similar nature Work performed as prime contractor: work performed in the past as a nominated sub-contractor will also be considered provided the Sub-Contract involved execution of all main items of work described in the Bid Document, provided further that all other qualification criteria are satisfied (in the same name) on works of similar nature over the last five years (immediately preceding the financial year in which Bids are received).

Project name	Name of MSEGS*	Description of work	Contract No	Value of Contract (₹ in Lakh)	Date of issue of work order	Stipulated period of completion	Actual date of completion*	Remarks explaining reasons for delay & work completed

* Attach certificates from the Engineer/Officer-in-Charge

Information on Bid Capacity (works for which Bids have been submitted and works which are yet to be completed) as on date of Bid

A) Existing commitments and on-going works:

Description of work	Place & State	Contract No	Name & address of the Implementing Agency	Value of contract (₹ in lakh)	Stipulated period of completion	Value of remaining works to be completed	Anticipated date of completion

B) Works for which bids already submitted.

Description of work	Place & State	Name & address of the Implementing Agency	Estimated Value of work (₹ in lakh)	Stipulated period of completion	Date when decision is expected	Remarks

1.3. Availability of key Contractor's Equipment essential for carrying out the works. The Bidder should list all the information requested below.

Item of Equipment	Requirement		Availability proposal			Remarks (From whom to be leased/ purchased)
	No	Capacity	Owned/leased to be procured	Nos./ Capacity	Age/ Condition	

1.4. Qualifications and experience of key personnel for administration and execution of the contract.

Position	Name	Qualification	Year of experience (General)	Year of experience in proposed position

1.5. Proposed Sub-Contracts and Firms involved.

Sanctions of the work	Value of Sub-Contract	Sub-Contractor (Name & Address)	Experience in similar works

Note: Attach copies of Certificates on possession of valid license for executing Electrical works.

Financial reports for the last five years: balance sheets, profitand loss statements, auditors Reports, etc. List them below and attach copies.

Financial Information	Historical information for the last 5 years from to						
	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Avg	Avg.ratio
Information from Balance sheet							
Total assets							
Total liabilities							
Net worth							
Current asset							
Current liabilities							
Information from income statement							
Total revenue							
Profit before taxes							

- 1.6. Evidence of access to financial resources to meet the qualification requirements: cash in hand lines of credit, etc. List them below and attach copies of support documents

Sl. No	Source of Funding	Amount	Remarks
1			
2			
3			
Total			

- 1.7. Name, address and telephone, telex and fax numbers of the Bidders' bankers who may references if contacted by the Implementing Agency.

Sl. No	Name of Bank	Address	Contact Phones/Telex/fax	Remarks

- 1.8. Information on litigation history in which the Bidder is involved

Other Parties	Implementing Agency	Cause of dispute	Amount involved	Remarks (present status)

1.9. Statement of compliance to be undertaken.

(Name of Consultant engaged for Project preparation is _____)

I, the undersigned, do hereby certify and declare that our Firm, _____ or any of our employees is neither associated, nor has been associated, directly or indirectly, with the Consultant or any other entity that has prepared the design, specifications, and other documents for the Project or being proposed as Project Manager for the Contract.

(Signature of authorized Signatory of the Firm) _____

Name of the signatory _____

Title of the signatory _____

Date _____

1.10. Proposed work method and schedule. The Bidder should attach descriptions, drawings and charts as necessary to comply with the requirements of Bidding Documents.

- i. Site Organization
- ii. Method Statement
- iii. Mobilization Schedule
- iv. Construction Schedule
- v. Contractor's Equipment
- vi. Key Personnel
- vii. Others

2. Additional Requirements

Bidders should provide any additional information required to fulfill the requirement of ITB, if applicable

- i) Affidavit as per Form – E
- ii) Certificate of Understanding as per Form – H (not applicable for Construction Tenders).

Form-B

FORM OF TECHNICAL BID

Name of Work _____

Bid No: _____

To

_____ [MSeGS]

_____ [Address]

Sir,

We, the undersigned, declare that:

1. We have examined and have no reservations to the Bidding Document, including Addenda.
2. We offer to execute the Works described above and remedy any defects therein in conformity with the Conditions of Contract including Special Conditions, Specifications, Drawings, Bill of Quantities.
3. We undertake, if our Bid is accepted, to commence the work as stipulated in this Contract, and to complete the whole work comprised in the Contract within the time stated in the Contract Document.
4. We agree to abide by this Bid for the period of days from the date fixed for receiving the same, and it shall remain binding upon us and may be accepted at any time before the expiration of that period;
5. We undertake that unless and until a formal Agreement is prepared and executed, this Bid, together with your written notification of Letter of Acceptance shall constitute a binding contract between us.
6. We understand that you are not bound to accept the lowest or any tender you may receive.
7. I/We do hereby submit our Technical Bid, complete with all the required information as stipulated in your Bidding Documents.

Signature of authorized signatory.....

Name.....

Title

Date

Form-C
FORM OF FINANCIAL BID

Name of Work: _____

Bid No: _____

To

_____ [MSeGS]

_____ [Address]

Sir,

We, the undersigned, declare that:

1. We have examined and have no reservations to the Bidding Document including Addenda.
2. We offer to execute the Works described above and remedy any defects therein in conformity with the Conditions of Contract including Additional Conditions and Special Conditions, Specifications, Drawings, Bill of Quantities accompanying this Bid for a sum of _____ (Rupees _____) only.
3. We undertake to abide by the Final Sum coming out of the correction of arithmetical errors as indicated in the General Conditions of Contract.
4. We also undertake, if our Bid is accepted, to commence the work within the period as indicated in the Contract Document and to complete the whole work comprised in the Contract within the time stated in the Contract Document.
5. We agree to abide by this Bid for the period of ____ days from the date fixed for receiving the same, and it shall remain binding upon us and may be accepted at any time before the expiration of that period;
6. We undertake that unless and until a formal Agreement is prepared and executed, this Bid, together with your written notification of Letter of Acceptance shall constitute a binding contract between us.
7. We understand that you are not bound to accept the lowest or any tender you may receive.
8. I/We do hereby submit our Financial Bid, complete with all the required information as stipulated in your Bidding Documents.

9. Items rates to be listed as below:

S.N	Line Item	No of Items	Unit Price in ₹. (inclusive of all taxes, levies etc)	Total Price (in ₹.)
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
	Grand Total			

Signature of authorized signatory.....

Name.....

Title.....

Date.....

Form-D

Power of Attorney for signing of BID

Know all men by these presents, We..... (name of the Bidder/Firm and address of the registered office) do hereby irrevocably constitute, nominate, appoint and authorize Mr./Ms (name),.....son/daughter/wife of.....and presently residing at....., who is presently employed with us as our true and lawful attorney (hereinafter referred to as the "Attorney") to do in our name and on our behalf, all such acts, deeds and things as are necessary or required in connection with or incidental to submission of our BID(s) for the.....[name of Work] proposed by the.....(name of Department) including but not limited to signing and submission of all BIDs, and other documents and writings, participate in conferences/meetings and providing information/responses to the Authority, representing us in all matters before the Authority, signing and execution of all contracts and undertakings consequent to acceptance of our bid[s], and generally dealing with the Authority in all matters in connection with or relating to or arising out of our bid for the said Work[s] and/or upon award thereof to us and/or till the entering into of the contract with the Authority.

AND we hereby agree to ratify and confirm and do hereby ratify and confirm all acts, deeds and things lawfully done or caused to be done by our said Attorney pursuant to and in exercise of the powers conferred by this Power of Attorney and that all acts, deeds and things done by our said Attorney in exercise of the powers hereby conferred shall and shall always be deemed to have been done by us.

In witness whereof we,, the above-named principal has executed this power of attorney on this.....day of.....

For (Signature)

(Name, Title and Address) Witnesses:

- 1. Accepted
- 2. Accepted

.....

(Signature)

(Name, Title and Address of the Attorney)

(Notarized)

Person identified by me/ personally appeared before me/ signed before me/Attested/Authenticated*

(*Notary to specify as applicable)

(Signature, Name and Address of the Notary) Seal of the Notary

Registration Number of the Notary

Date:_____

- Notes: 1. The mode of execution of the Power of Attorney should be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the executant(s) and when it is so required, the same should be under common seal affixed in accordance with the required procedure.
2. Also, wherever required, the BIDDER should submit for verification the extract of the charter documents and documents such as a resolution/ power of attorney in favour of the person executing this Power of Attorney for the delegation of power hereunder on behalf of the BIDDER.

Form – E AFFIDAVIT

1. I, the undersigned, do hereby certify that all the statements made in the required attachments are true and correct.
2. The undersigned also hereby certify that neither our firm M/S.....
..... has abandoned any works in India nor any contract awarded to us have been rescinded during the last five years prior to the date of this Bid.
3. The undersigned hereby authorize and request any Bank, person, firm or corporation to furnish pertinent information deemed necessary and required by the Department to verify this statement or regarding my (our) competence and general reputation.
4. The undersigned understand and agree that further information may be requested and agrees to furnish any such information at the request of the Department

(Signature of Authorised Signatory of the Firm)____

Name of the signatory_____

Title of the signatory_____

Date_____

Form – F

UNDERTAKING

I, the undersigned do hereby undertake that our Firm M/S_____would invest a minimum cash up to 25% of the value of the Work during implementation of the Contract.

Signed by an Authorized Signatory of the firm: _____

Title of the Signatory_____

Name of Firm _____

Date _____

FORM-G

BID VALIDITY FORM

I, the undersigned do hereby undertake that the bid submitted by our firm M/s _____ (Name and address of the bidder) is valid for a period of _____ days and valid till _____.

Signed by the Authorized Signatory of the Firm _____

Title of the Signatory _____

Name of the Firm _____

Date _____

FORM - H

BID SECURITY DECLARATION

Date: _____
Bid No.: _____
Name of Work: _____

To
_____ [MSeGS]
_____ [Address]

We, the undersigned, declare that:

We understand that, according to your conditions, bids must be supported by a Bid Security Declaration.

We accept that we will automatically be suspended from being eligible for bidding in any contract with the Implementing Agency for the period of 1 year stating on _____, 2021, if we are in breach of our obligation(s) under the bid conditions, because we:

- a. have withdrawn our Bid during the period of bid validity specified in the RFP; or
- b. having been notified of the acceptance of our Bid by the Mizoram State e-Governance Society during the period of bid validity;
- c. fail or refuse to execute the Contract, if required, or (ii) fail or refuse to furnish the Performance Security, in accordance with Conditions of Contract/Agreement.

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

Signed: _____
Name: _____
Designation: _____
Seal: _____

[Note: In case of a Joint Venture, the Bid-Securing Declaration must be in the name of all partners to the Joint Venture that submits the bid.]

ANNEXURE-I DEED OF AGREEMENT

THIS AGREEMENT is made at Aizawl on _____, 2021 between the **Mizoram State e-Governance Society, Aizawl, Mizoram**, , having its principal office at Secretariat Building, Treasury Square, Aizawl-796001, hereinafter called the 'Implementing Agency' (and the term 'Implementing Agency' shall mean and include its administrators, executors and assignees), on the FIRST PART.

AND

,hereinafter called the 'Executing Agency' (and the term the 'Executing Agency' shall mean and include its administrators, successors and assignees) on the SECOND PART.

NOW, IT IS HEREBY AGREED BY AND BETWEEN THE PARTIES HERETO AS UNDER:

1. **DEFINITIONS:**
 - 1.1. **Approval** – means approval in writing by the designated officer of MSeGS.
 - 1.2. **Contractor** – means the contractor or contractors or suppliers or agencies employed by the Executing Agency for the work or any connected work, including the Executing Agency itself in case any work is done directly by the Executing Agency.
 - 1.3. **The Implementing Agency** – means the Mizoram State eGovernance Society (MSeGS) represented by the -----, Govt. of Mizoram and shall also include its administrators, executors and assignees.
 - 1.4. **Executing Agency** – means any agency appointed by MSeGS for execution of the works under the project as may be defined in the agreement.
 - 1.5. **Executing Agency Charges** – means the project executing charges payable to the Executing Agency as a percentage of the actual cost.
 - 1.6. **Project/work** – means execution and supervision of civil works to be undertaken as specified in the Detailed Project Report (DPR).
 - 1.7. **Works Advisory Board**- means Works Advisory Board constituted by the MSeGS/ICT Department, Govt. of Mizoram, Aizawl, Mizoram, or Mizoram State e-Governance Society.
2. **GENERAL TERMS:**

2.1. Within 14 (Fourteen) days of issue Letter of Award and 7 (seven) days after signing of Agreement, the successful bidder shall deliver a Performance Guarantee of the value of 5% (Five percent) of the actual cost of work in the form of a bank draft drawn in favour of The Mizoram State eGovernance Society (MSeGS), payable at Aizawl, Mizoram as Performance Guarantee Deposit. Failure to comply with any of the clauses of this agreement will entail forfeiture of the Performance Guarantee Deposit.

2.2. The expression "actual project cost" shall include the following:

- a) All charges of the Executing Agency payable to the contractor and suppliers in respect of the project.
- b) All final payments made to the contractor for construction of the building, services rendered and other related charges. These shall include the Work, contract tax, service tax, GST and any other tax or cess applicable in the execution of work.
- c) All cost of materials required for the project and used in the work, including storage charges, carriage and any other incidental charges connected with such materials but excluding the materials not incorporated in the Project.
- d) Actual cost of site survey, including the cost of cartage of samples to and from the laboratory including cost of field laboratory.
- e) The service tax including any other cess applicable on the Executing Agency charges.
- f) The cost of Geo-technical investigation to be borne by the Executing Agency from fund apportioned from contingencies.
- g) "Actual Project cost" shall not include the following for the purpose of calculation-
 - i) Cost of land.
 - ii) Cost paid by MSeGS to local government or any other statutory body or bodies for getting approvals for the project.
 - iii) Cost of laboratory charges for testing of materials, etc.

3. ROLE AND RESPONSIBILITIES OF THE EXECUTING AGENCY:

- a) Subsequent to the signing of the agreement, the Executing Agency shall forthwith take possession of the site from the Implementing Agency and shall nominate a qualified Engineer(s) for execution of the Project under intimation to the Implementing Agency. In case the Implementing Agency advise the Executing Agency for replacement of the site Engineer, the same will be duly considered by it and suitable replacement will be provided.

- b) The Executing Agency shall get the work executed as per the technical sanction and drawings, design, specification and estimate in the approved Detailed Project Report (DPR). The work shall be carried out with sound engineering practices and with instructions issued by the Implementing Agency from time to time.
- c) Executing Agency shall execute the works at approved cost as per approved technical designs and drawings and ensure completion of the project within the project period.
- d) The Executing Agency shall be wholly, solely and fully responsible for the timely completion of the project, the quality of works as per approved designs and also the structural safety during and after completion of the project.
- e) The Implementing Agency or any person authorized by it can inspect and check the construction work from time to time to see the buildings are constructed as per drawings and specifications. If any defects or variations made without the written permission of the Implementing Agency are found during the inspection, the same shall be rectified by the Executing Agency.
- f) During various stages of execution, Executing Agency shall submit quarterly progress reports with site photographs with minimum 6 site photographs of size 4"x6".
- g) The Executing Agency shall be responsible for proper execution of structural specifications and high quality workmanship.
- h) Liability for all defects in the constructions work by executing agency shall rest with them for a period of twelve months from the date of its handing over site complete in all respect to the Implementing Agency. Executing Agency shall be responsible for satisfactory rectification of defects.
- i) Any defects discovered and brought to the notice of the Executing Agency during the period aforesaid shall be rectified by the Executing Agency forthwith at its own cost and expenses. In the event of failure on the part of the Executing Agency to rectify the defects, the same may without prejudice to any other rights available to the Implementing Agency in law, can be got rectified for and on behalf of the Executing Agency after due notice of 30 days to the Executing Agency.
- j) The Implementing Agency shall have the right to deduct or set off the expenses incurred by it in rectifying the defects as aforesaid from or against any amount due and payable or becoming due and payable by the Implementing Agency to the Executing Agency under this Agreement. The Implementing Agency shall be entitled to claim the balance due with interest and recover the same from the Executing Agency, if the amount claimed is not paid on demand.

- k) The Executing Agency shall, unless otherwise specified, be fully responsible for procurement of all materials and services for the construction activity.
- l) Executing Agency shall be fully responsible for acts or omissions committed by it.
- m) The Executing Agency shall be fully responsible to defend any suits or arbitration cases arising in respect of the project in connection with the Work between the Executing Agency and its contractor(s) at its own cost.
- n) The Executing Agency shall wherever required, obtain in writing approval of the local bodies or statutory bodies for the work as contemplated in this agreement. However, the Implementing Agency shall assist the Executing Agency to the extent of writing letters to local bodies to obtain such approvals.
- o) The Executing Agency shall be fully responsible for observance of all labour laws and other laws applicable, and shall indemnify and keep indemnified the Implementing Agency against effect of non-observance of any such laws by it or by the contractors/sub agencies.

Further, the Implementing Agency shall not be responsible in any manner whatsoever, for Damages/compensation under Workmen Compensation Act or any other law or in torts or in civil law to the employees of the Executing Agency and/or Contractor(s) and/or labourers employed.

- p) The Executing Agency shall send completion report with as-built drawings and maintenance schedules for the services to the office of the Implementing Agency in writing within 15(fifteen) days of completion of work.
- q) Responsibility to obtain Completion Certificate and Occupancy Certificate rests with the Executing Agency, and the project shall be deemed to have been completed and at the stage of handing over only when these are obtained from the local body(ies).
- r) All documents including drawings, specifications plans and reports prepared by the Agency in performing the services shall become and remain the property of the Implementing Agency, and the Agency shall, not later than upon termination or expiration of this agreement, deliver all such documents to the Implementing Agency, together with a detailed inventory thereof. The Agency may retain a copy of such documents.
- s) The Agency, their Sub Agency/Third Party and the personnel of either of them shall not, either during the term or within two(2) years and six(6) months after the expiration of this contract, disclose any proprietary or confidential information

relating to the project, the Services, this Contract or MSeGS's business or operations, without the prior consent of the Implementing Agency.

4. RESPONSIBILITIES OF THE IMPLEMENTING AGENCY:

- a) The Implementing Agency shall make available the site for the work to the Executing Agency.
- b) The Implementing Agency will not be responsible to the contractors/suppliers of the items required for execution of contract.
- c) The Implementing Agency shall make payment due under this agreement to the Executing Agency after submission of Utilization Certificate and Completion Certificate. These Certificates should be supported by the report of Independent Quality Monitor if appointed by the Implementing Agency.
- d) The Implementing Agency may levy compensation upon the Executing Agency due to non-fulfillment of any clause of the contract or bad work or deficiency in services or any other reasons whatsoever deemed appropriate under relevant rules and regulations.

5. COMPLETION OF THE PROJECT:

- a) The date of starting of the work i.e execution and completion shall be reckoned from the 15th day after signing of the agreement.
- b) The work shall be completed in all respect within a period as specified under Clause 2.4(d). in the RFP from the 15th day after signing the Agreement.
- c) Executing Agency shall be required to complete the construction work within the stipulated period. In case of delay which may occur due to reasons beyond the control of the Executing Agency, Executing Agency will approach the Implementing Agency with full details for extension of time limit for completion of works. In case of delay due to sole default on part of Executing Agency, or its Contractors/ Subcontractors, the Executing Agency shall be liable to pay to the Implementing Agency compensation (Not amounting to penalty) at the rate of not exceeding ¼ % (One quarter percent) of the total anticipated Executing Agency charges per week of delay subject to maximum of 10% (Ten percent) of the total Agency charges. However, the Implementing Agency may reduce the same at its sole discretion. The Implementing Agency will be the sole authority to decide on the nature and cause of delay and its decision will be final.
- d) The Implementing Agency could terminate the Contract Agreement, by giving prior notice to the Executing Agency, on account of failure on the part of the Executing

Agency to Execute the Project work as per time schedule indicated in the DPR and on account of failure to complete the project within the period indicated in sub clause (b) above.

6. ASSIGNMENT OF THE AGREEMENT:

The Executing Agency shall not assign or transfer or part with any of the rights, duties of obligations, wholly or in part, under this agreement without the previous consent in writing of the Implementing Agency, except as provided under the agreement.

7. SCOPE OF WORK

a) Civil Work:

The successful bidders will have to construct one (1) RCC building for IT Skill Development & Training Center in the following selected location. (Detail Specification and Unit can be seen at Annexure- I)

- 1) Chawngte Block - Inside campus of Govt. Kamalanagar College
- 2) Lawngtlai Block – Inside campus of Diltlang H/S
- 3) Bungtlang S Block – Inside campus of Govt. Bungtlang 'S' H/S
- 4) Zawlnuam Block – Inside campus of Govt. Zawlnuam College
- 5) West Phaileng Block – Inside campus of Sport School
- 6) Lungsen Block – Inside campus of Lungsen H/S
- 7) West Bungmun Block - Inside campus of West Bungmun H/S

The civil work shall include the following items but not limited to-

- 13) Site Development & Earth Work
- 14) PCC
- 15) RCC
- 16) Brick Works
- 17) Stone Works
- 18) Wood Work
- 19) D&W Fittings
- 20) Plastering
- 21) Painting
- 22) Aluminum Work
- 23) Flooring
- 24) Furniture (Table, Chair, Desk, Podium etc.)

b) IT Infrastructure:

The list of IT Infrastructure required for IT Skills & Training Center is listed below (Detail Specification and Unit can be seen at Annexure- II)

S.N	Description	Physical Target for 1 Block
8.	Laptop for Trainer	1
9.	Computer set for Trainee	50
10.	UPS (5 KVA Online) incld. battery	1
11.	Digital Multifunctional Copier Machine	1
12.	Smartboard with CPU	1
13.	Digital Podium	1
14.	Local Area Network	1

8. PROJECT IMPLEMENTATION TIMELINE

The Implementing Agency is keen to initiate this Project at the earliest and complete the project within a time frame of 18 months.

S.N	Project Activity	Time in months
1.	Award of contract and signing of agreement	T + 0
2.	Construction of Building	T + 3
3.	Installation of IT equipment	T + 15
4.	Testing of IT equipment	T + 16
5.	Hand over	T + 18

9. PAYMENT & SCHEDULE OF PAYMENT:

9.1 Mobilization Advance: Mobilization Advance shall be limited to 10% of Tendered Amount at 10% simple interest per annum.

The mobilization advance shall be released only after obtaining a bank Guarantee bond from a schedule bank for the amount of advance to be released and valid for the contract period. This shall be kept renewed time to time to cover the balance amount and likely period to complete recovery together with interest. The advance will be released in two installments. The interest on the advance shall be calculated from the date of payment to the date of recovery, both days inclusive.

It shall be ensured that at any point of time, Bank Guarantee is available for the amount of outstanding advance.

The recovery should be commenced after 10% of work is completed and the entire amount together with interest shall be recovered by the time 80% of the work is completed.

9.2 Secured Advance:

- a. Secured Advances on the security of materials brought to the construction site may be made to the contractors for items which are to be used on work.
- b. The MSeGS can sanction the secured advance up to an amount not exceeding 75 percent of the value of the materials as assessed by the Engineer-in-charge, or an amount not exceeding 75 percent of the material element cost in the tendered rate of the finished item of work, whichever is lower.
- c. A formal agreement should be drawn up with the contractor under which Government secures a lien on the materials and is safeguarded against losses due to the contractor postponing the execution of the work or due to shortage or misuse of the materials, and against the expense entailed for their proper watch and safe custody.
- d. Payment of such advances should be made only on the certificate of an officer not below the rank of Sub-Divisional Officer that:
 - i. The quantities of materials for which the advances are made have actually been brought to site;
 - ii. Full quantities of the materials, for which advance is to be made, are required by the contractor for use on items of work for which rates for finished works have been agreed upon;
 - iii. The quality of materials is as per the specifications.
- e. Recoveries of advances so made should not be postponed until the whole of the work entrusted to the contractor is completed. They should be made from his bills for work done as the materials are used, the necessary deductions being made whenever the items of work in which they are used are billed for.
 - i. Secured advance shall be granted only for non-perishable items. The Officer-in-charge shall identify whether an item is perishable or not;
 - ii. Where stage payments are stipulated in certain contracts, like for Electrical and Mechanical (E&M) and other specialized works, such payments shall not be treated as secured advance.

The Executing Agency shall give the reimbursement bill Monthly/Quarterly along with their expenditure claim (that may include agency charges). Copy of the expenditure statement duly certified by a representative of Executing Agency on the project for reimbursement/adjustment of expenditure incurred from the funds advanced to the Executing Agency.

- 9.3 The remaining fund will be released to the Executing Agency on actual execution basis on on-site measurements.

- 9.4 On completion of work, the accounts of the work shall be closed and a final bill/ expenditure statement audited by a Chartered Accountant shall be submitted for settlement.

10. MONITORING:

- 10.1. Effective monitoring shall be carried out by the Agency, and by the Implementing Agency to monitor the progress and quality of the works in implementation of the Project. To this end, Agency shall furnish all the data and information, as may be prescribed by the Implementing Agency from time to time, in a prescribed/relevant format.
- 10.2. The Agency shall monitor the progress of the works by maintaining full information of contractors, contractor-wise status report of cost of work done and payments made, list of completed works and value of work done in the prescribed format.
- 10.3. The Agency shall ensure that best practices are applied for quality management of works. The Executing Agency shall intimate the Implementing Agency of details of the Quality Control System operational at the Agency level.
- 10.4. The first tier of quality control will be executed at the Agency level.
- 10.5. the Implementing Agency, besides the Engineer-in-charge of the Department, may also appoint Independent Quality Monitors as required.

11. ARBITRATION:

Every dispute, difference, or question which may at any time arise between the parties hereto or any person claiming under them, touching or arising out of or in respect of this agreement or the subject matter thereof, shall be endeavored to be amicably resolved at the Top Management level of the parties. However, in the event of such dispute, difference or question, etc., remaining unsolved, the same shall be referred to the arbitration by a sole arbitrator appointed by the Implementing Agency as per the provisions of the Arbitration & Conciliation Act, 1996 as applicable. The place of such arbitration shall be at Aizawl, Mizoram.

12. FORCE MAJEURE:

The work(s) (whether fully completed or not) and all materials, machines, tools & plants, scaffolding, temporary buildings & other things connected therewith shall be at the risk of the Agency until the work has been delivered to the Implementing Agency and a certificate from him to that effect obtained. In the event of the work of any materials

properly brought to the Site for Incorporation in the work being damaged or destroyed in consequence of hostilities or war-like operations, Agency shall, when ordered in writing by the Implementing Agency, remove any debris from the Site, collect and properly remove or/and stack in store all serviceable materials salvaged from the damaged work and shall be paid at the Contract rates in accordance with the provisions of this Contract for the stated work and for reconstruction of all the works ordered by the Implementing Agency, such payment being in addition to compensation up to the value of work originally executed before being damaged or destroyed but not already measured and paid for, the compensation shall be assessed by the Agency and by the Implementing Agency. The Agency shall be paid for the damaged/destruction suffered and for restoring the material at the rates based on the analysis of rates tendered for in accordance with the provisions of the contract. The certificate of the Implementing Agency regarding the quality and quantity of the materials and the purpose for which they were collected shall be final & binding on all parties to the contract.

Provided always that no compensation shall be payable for any loss in hostilities or war-like operations,

- i) Unless the Agency had taken all such precautions against Air raids as are deemed necessary by the Implementing Agency.
- ii) For any materials etc. not on the site of the work or for any tools and plant, machinery, scaffolding temporary buildings and other things not intended for the Work.

In the event of the Agency having to carry out reconstruction as aforesaid, he shall be allowed such extension of time for its completion as is considered reasonable by the Engineer-in-Charge.

In the event of any loss or damage to the work or any part thereof from any of the Excepted Risks, the following shall have effect-

- i) The Agency shall, as may be directed in writing by the Implementing Agency, remove from the Site any debris of so much of the Work as shall have been damaged.
- ii) The Agency shall, as may be directed in writing by the Implementing Agency, proceed with the erection & completion of the Work under and in accordance with the provisions and conditions of the Contract. Payment of such additional works, if any, shall be made as per terms of the Contract.

Provided always that the Agency shall not be entitled to payment under the above provisions in respect of such loss or damage as has been occasioned by any failure

on his part to perform his obligations under the Contract or not taking precautions to prevent loss or damage.

IN WITNESS WHEREOF, the parties hereto have set their hands and seals the day and year first above written.

For and on behalf of

WITNESSES

1. _____

2. _____

For and on behalf of

Mizoram State eGovernance Society
(MSeGS)

WITNESSES

1. _____

2. _____

ANNEXURE-II

DETAILED SPECIFICATIONS FOR IT PERIPHERALS

Sl No.	Description
1.	<p>Laptop -</p> <ul style="list-style-type: none"> - Branded. i5 8th Gen Processor or equivalent - Operating System: Preloaded Windows 10 Home with Lifetime Validity Pre-installed software: None - Display: 14-inch (35.56cms) screen with (1920x1080) FHD Antiglare display Graphics: Intel UHD Graphics Audio: HD Audio, Stereo speakers, 1.5W x2, Dolby Audio Supports up to 2 independent displays - Ports: 1x USB 2.0 2x USB 3.1 Gen 1 1x HDMI 1.4b 1x Card reader 1x Headphone / microphone combo jack (3.5mm) 1x Power connector - Keyboard: 6-row, spill-resistant, multimedia Fn keys Touchpad: Buttonless Mylar surface multi-touch touchpad - Connectivity: 802.11ac 1x1 Wi-Fi + Bluetooth 4.2 Laptop Design: Thin & Light, 180 Degree Hinge - Battery Life: Upto 5.5 hours* as per MobileMark Integrated Li-Polymer 30Wh battery, with 65W AC adapter
2.	<p>Computer Set -</p> <ul style="list-style-type: none"> - Branded. i3 9th Gen Processor or equivalent - 4GB DDR4 RAM - 1 TB SATA HDD - 22" TFT Monitor - CD ROM and NIC included - Standard Keyboard and Mouse - Windows 10 - Including UPS 725 VA
3.	<p>UPS (5 KVA)</p> <ul style="list-style-type: none"> - LCD Panel - Load Level, Battery Level, AC Mode, Battery Mode, Bypass Mode and Fault Indicator Via LCD - Battery Mode : Sounding every 5sec. Low Battery: Sounding every 2 Sec. Overload: sounding every Sec. Fault: Continuously <p>INPUT</p> <ul style="list-style-type: none"> - Capacity - 5000VA/5000W - Voltage - 220/230/240 VAC - Voltage Range - 110-280 VAC@50%Load ; 176-280 VAC@100% Load - Phase - Single Phase With Ground

	<ul style="list-style-type: none"> - Frequency Range : 46Hz - 54Hz or 56Hz - 64Hz - Power Factor - >0.98 @ Nominal Voltage (100% LOAD) - Input Current Harmonic Distortion THD(i) - >8% <p>OUTPUT</p> <ul style="list-style-type: none"> - Output Nominal Voltage - 220/230/240 VAC - AC Voltage Regulation - +1% (BATTERY MODE) - Frequency Range - Synchronized Range: 50Hz System: 47-53Hz / 60Hz System: 57-63Hz - Battery Mode: 50Hz+0.1[^] or 60 Hz+0.1% - Current Crest Ratio - 3:1 (Max) - Harmonic Distortion - < 3% THD (Linear Load) : < 5% THD (Non-Linear Load) - AC/DC Transfer Time - Zero - Inverter To Bypass Transfer Time - 4ms (Typical) - Wave Form - Pure Sine Wave on AC Input Power Mode & 54 VDC on Battery Mode - On Full Charged Battery Efficiency - Line Mode : 95% / ECO MODE: 99.5% / Battery Mode: 92.0% <p>Battery</p> <ul style="list-style-type: none"> - Battery Voltage - 48V (42 nos.) - Battery Type - Lithium-ion or Lead Acid Battery* - Floating Charge Voltage - 52 VDC (Configurable up to 58 VDC From LCD) - Overcharge Protection - 60 VDC - Charging Current (MAX.) - 60 A (Configurable 10A / 20A / 30A / 40A / 50A / 60A From LCD) <ul style="list-style-type: none"> - Operating Humidity / Temp. - 0-95% RH & Non-Condensing / 0.50°C - Storage Temperature : -15°C to 60°C
<p>4.</p>	<p>Digital Multifunctional Printer Machine</p> <ul style="list-style-type: none"> - Print Resolution: 600 x 600 dpi - Print Speed: 18 ppm - Print Technology: Laser - Connectivity: USB 2.0 - Supported Media Types: Paper, Envelopes, Transparencies, Labels, Cardstock, Postcards - Functionality: Print, scan, copy - Power Consumption: Maximum 375 Watts - Energy saving features

<p>5.</p>	<p>SmartBoard with CPU</p> <ul style="list-style-type: none"> - All in one Smart Classroom - Type: LED 60Hz - Atleast Quad Core with 1.5 Hz - Atleast 20 simultaneous touch points - Atleast 65" smartboard - Precision +/- 1mm - Aspect Ratio 16:9 - Colors – 1.07B (10 Bit) - Resolution: 3840 x 2160 (4K UHD) - Embedded OS - Cross platform support - Wireless Collaboration & Document upload - Wifi : IEEE 802.11a/b/g/n - Built-in Speaker (15W x 2)
<p>6.</p>	<p>Digital Podium</p> <ul style="list-style-type: none"> - Podium made of premium quality of wood/steel - Touch/Pen Interactive Panel mounted on customized housing - Adequate space for Amplifier and Microphones - Input/Output Port - 2xUSB, 1x XLR, 1 HDMI, VGA In & Out, Audio In & Out, LAN, Power Socket, LED Light with Switch, Central Power Control with desired number of power output plugs - Switching and splitting for number of devices as per requirement - High quality cable/connectors management - Equipments/Gadgets used in the podium are based on International Qualitative Standard
<p>7.</p>	<p>Local Area Network accessories</p>

ANNEXURE-III
SPECIFICATIONS FOR CIVIL WORKS

DETAILED ESTIMATE FOR CONSTRUCTION OF IT SKILL DEVELOPMENT AND TRAINING CENTRE FOR ONE CENTRE

S/No	SOR	Description	No	L	B	H	Qty	Unit	Rate (Rs)	Amount (Rs)
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Sub Head 1 : Earthwork

1.1	2.06	Earthwork in excavation over areas (exceeding 30cm in depth, 1.5m in width as well as 10sqm on plan) including disposal of excavated earth, lead upto 50m and lift upto 1.5m, disposed earth to be levelled and neatly dressed.								
		(a) Ordinary and hard soil	1	20.00	15.00	0.592	177.60	cum		
		Total				0.592	177.60	cum	₹	-
1.2	2.07	Earthwork in excavation in foundation trenches or drains etc. (not exceeding 1.5m in width or 10sqm on plan) including dressing of sides and ramming of bottoms, lift upto 1.5m including getting out excavated soil and disposal of surplus excavated soil as directed within a lead of 50 metres.								
		(b) Hard Soil (pick work)								
		<i>Foundations</i>								
		Type-1	20	1.50	1.50	1.80	81.00	cum		
		Total				1.80	81.00	cum	₹	-
1.3	2.18	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m.								
		<i>Foundations</i>								
		Type-1	20	1.5	1.5	1.3	58.50	cum		
		S.Total=				1.3	58.50	cum		
		<i>Deduct (Col. Upto G.L.)</i>								
		<i>Sqr. Columns</i>								
		Type-1								
		n					20			
		b					0.30 m			
		d					0.30 m			
		h					1.25 m			
		b*d*h*n					2.25 cum			
		Total				1.3	58.50	cum	₹	-
Sub Head 1 Total										₹ -

Sub Head 2 : PCC

2.1	4.03	Providing and laying in position cement concrete of specified grade excluding cost of centering and shuttering - All work upto plinth level:								
		(a) 1:3:6 (1 cement : 3 course sand : 6 stone aggregate 20mm nominal size)								
		<i>Foundations</i>								
		Type-1	20	1.50	1.50	0.10	4.50	cum		
		Total				0.10	4.50	cum	₹	-
Sub Head 2 Total										₹ -

Sub Head 3 : RCC

3.1	5.35	Providing and laying in position machine batched, machine mixed and machine vibrated design mix M-20 grade reinforced cement concrete excluding cost of centering and shuttering and reinforcement in -								
		a) All work upto plinth level.								
		<i>Foundations</i>								
		<i>Rectangular portions</i>								
		Type-1	20	1.5	1.5	0.45	20.25	cum		

S/No	SOR	Description	No	L	B	H	Qty	Unit	Rate (Rs)	Amount (Rs)
<i>Columns upto plinth level</i>										
<i>Sqr. Columns</i>										
<i>Type-1</i>										
		n					20			
		b					0.30 m			
		d					0.30 m			
		h					1.25 m			
		b*d*h*n					2.25 cum			
						S.Total=	22.50 cum			
<i>Level 1 Beam (TB)</i>										
		TB (14.6m)	4	14.60	0.20	0.18	2.10 cum			
		TB (9.6m)	5	9.60	0.20	0.18	1.73 cum			
		TB (1.2m)	5	1.20	0.20	0.18	0.22 cum			
						Total	46.80 cum		₹	-
b)All work above plinth level upto floor V level.										
<i>Columns above plinth level</i>										
<i>Sqr. Columns</i>										
<i>Type-1</i>										
		n					20			
		b					0.30 m			
		d					0.30 m			
		h					3.30 m			
		b*d*h*n					5.94 cum			
						Total	5.94 cum		₹	-
<i>Level 2 Beam</i>										
		B1 (14.6m)	4	14.60	0.25	0.28	4.09 cum			
		B1 (9.6m)	5	9.60	0.25	0.28	3.36 cum			
		B1 (1.2m)	5	1.20	0.25	0.28	0.42 cum			
						Total	7.87 cum			
<i>Slab</i>										
		Ground floor slab	1	Area =	140.16	0.12	16.82 cum			
		Roof slab	1	Area =	140.16	0.12	16.82 cum			
						Total	33.64 cum			
<i>Staircases</i>										
		Waist slab	3	1.00	14.60	0.12	5.26 cum			
		Steps	1.5	14.60	0.15	0.30	0.49 cum			
						Total	5.75 cum			
						G.Total	47.26 cum		₹	-
3.2	5.21	Steel reinforcement for RCC work including straightening, cutting, bending, placing in position and binding all complete.								
c) Cold Twisted bars										
		<i>Foundations</i>	@	100.00 kg/cum	20.25	2025.00 kg				
		<i>Columns</i>	@	310.00 kg/cum	28.44	8816.40 kg				
		<i>Beams</i>	@	270.00 kg/cum	11.92	3218.40 kg				
		<i>Slabs</i>	@	100.00 kg/cum	33.64	3364.00 kg				
		<i>Staircase</i>	@	120.00 kg/cum	5.75	690.00 kg				
					Total Rebar=	18113.8 kg			₹	-
3.3	5.11	Centering and shuttering including strutting,propping etc. And removal of form for:								
a) Foundations, footings, bases of columns etc. for mass concrete.										
<i>Foundations</i>										
		$A=n*(2L+2B)*t$	n	L	B	t	Area			
		Type-1	20	1.5	1.5	0.45	54.00 sqm			
						Total	54.00 sqm		₹	-
c) Columns, pillars, piers, abutments, posts and struts.										
<i>Columns</i>										
<i>Rec. Column</i>										
		$A=n*L*(2b+2d)$	n	b	d	L				
		Type-1	20	0.30	0.30	4.55	109.20 sqm			
						Total	109.20 sqm		₹	-

S/No	SOR	Description	No	L	B	H	Qty	Unit	Rate (Rs)	Amount (Rs)
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d) Lintels, beams, plinth beams, girders, bressumers and cantilevers, etc.

Beams

$A=n*L*(b+2d)$

Level 1 beam

TB (14.6m) 4 14.6 0.20 0.18 32.70 sqm

TB (9.6m) 5 9.6 0.20 0.18 26.88 sqm

TB (1.2m) 5 1.2 0.20 0.18 3.36 sqm

Level 2 Beam

B1 (14.6m) 4 14.60 0.25 0.28 47.30 sqm

B1 (9.6m) 5 9.60 0.25 0.28 38.88 sqm

B1 (1.2m) 5 1.20 0.25 0.28 4.86 sqm

Total 153.98 sqm

₹ -

(e)Suspended floors, roofs, landings, shelves and their support, balconies and chajjaj,etc.

Ground floor slab 1 Area= 140.16 140.16

Roof slab 1 Area= 140.16 140.16

Total 280.32 sqm

₹ -

(f)Staircases (except spiral staircase) excluding landings.

Waist slab 3 1.00 14.60 43.80 sqm

Steps 1.5 14.60 0.15 3.29 sqm

Total 47.09 sqm

₹ -

3.5 19.20 Extra for providing and mixing water proofing chemical (plastocrete or equivalent chemical) in plain and reinforced cement concrete work 1:1.5:3 @ 2% by weight of cement

Roof slab 1 Area= 140.16 0.12 16.82 cum

Total 16.82 cum

₹ -

Sub Head 3 Total	₹ -
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Sub Head 4 : Brick Works

4.1 6.06 Half brick masonry with first class brick in superstructure above plinth level upto floor V level.

a) in cement mortar 1:3 (1 cement : 3 fine sand)

Ground Floor

8 3.65 3.30 96.36 sqm

8 3.20 3.30 84.48 sqm

8 0.20 3.30 5.28 sqm

3 1.40 3.30 13.86 sqm

Parapet 1 48.50 1.00 48.50 sqm

S Total 248.48 sqm

Deduction

D1 2 1.20 2.10 5.04 sqm

D2 2 1.00 2.10 4.20 sqm

D3 1 0.70 2.10 1.47 sqm

W1 3 2.00 1.80 10.80 sqm

W2 1 1.00 2.25 2.25 sqm

V1 1 1.00 0.45 0.45 sqm

V2 1 0.60 0.45 0.27 sqm

S Total 24.48 sqm

Total (A) 224.00 sqm

₹ -

4.2 6.07 Extra for providing and placing in position 2 nos 6mm dia. MS bars at every third course of half brick masonry.

Quantity same as item no 4.1

224.00 sqm

Total 224.00 sqm

₹ -

Sub Head 4 Total	₹ -
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S/No	SOR	Description	No	L	B	H	Qty	Unit	Rate (Rs)	Amount (Rs)
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Sub Head 6 : Wood Works

- 6.1 9.05 Providing 1st class teak wood dressed in frames of chaukhat for doors, windows, clerestory windows fixed in position.

Chaukhats

Doors

D1	4	2.10	0.10	0.10	0.08 cum
	1	1.20	0.10	0.10	0.01 cum
D2	4	2.10	0.10	0.10	0.08 cum
	1	1.00	0.10	0.10	0.01 cum
D3	2	2.10	0.10	0.10	0.04 cum
	1	0.70	0.10	0.10	0.01 cum

Total 0.23 cum

₹ -

- 6.2 9.11 Providing and fixing 1st class local wood panelled shutters for doors etc. including M.S. butt hinges with necessary screws, etc. complete.

a)40 mm thick.

D1	2	1.20		2.00	4.80 sqm
D2	2	0.90		2.00	3.60 sqm
D3	1	0.80		2.00	1.60 sqm

Total 10.00 sqm

₹ -

- 6.3 9.56 Providing and fixing wooden pelmet with 25mm dia wooden curtain rod and bracket including wooden plugs etc. complete (to be fixed on masonry or concrete work)

(B)1st class local wood

a) 12mm thick 100mm wide pelmet.

Doors

$L=(W + (0.2*2))*n$

D1	2	1.20			3.20 rm
D2	2	0.90			2.60 rm
D3	1	0.80			1.20 rm

Windows

W1	3	2.00			7.20 rm
W2	1	1.00			1.40 rm

Total 15.60 rm

₹ -

Sub Head 6 Total	₹ -
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Sub Head 7 : D&W Fittings

- 7.1 14.28 Providing and fixing brass sliding door bolts (aldrops) bright finished with nuts and screws etc. complete.

a) 300 x 16 mm

D1	2		1		2.00 no
D2	2		1		2.00 no
D3	1		1		1.00 no

Total 5.00 no

₹ -

- 7.2 14.29 Providing and fixing Brass Tower Bolts (Socket Bolts) bright finished with necessary screws etc. complete.

a) 300 mm

Doors

D1	2	4.00			8.00 no
D2	2	4.00			8.00 no
D3	1	4.00			4.00 no

Total 20.00 no

₹ -

- 7.3 14.32 Providing and fixing brass handles with necessary screws, etc. complete

a) 150 mm

Doors

S/No	SOR	Description	No	L	B	H	Qty	Unit	Rate (Rs)	Amount (Rs)
		D1	2	4.00			8.00	no		
		D2	2	4.00			8.00	no		
		D3	1	4.00			4.00	no		
		Total					20.00	no	₹	-
7.4	9.54	Providing and fixing dressed & chamfered 1st class teak wood door and window architrave of size fixed with b) 75x12mm L=n*(mb+4h)	n	b	m	h	L			
		D1	2	2.20	2	2.00	24.80	m		
		D2	2	1.50	2	2.00	22.00	m		
		D3	1	1.20	2	2.00	10.40	m		
		Total					57.20	m	₹	-
7.5	14.01	Providing 40 x 5mm flat iron hold fast 40 cm long including fixing to frame with 10mm dia. bolts, nuts and wooden plugs and embeddings in cement concrete block 30 x 10 x 15cm 1:3:6 mix (1 cement : 3 sand : 6 well graded stone aggregate 20 mm nominal size)								
		D1	2	6			12	no		
		D2	2	6			12	no		
		D3	1	6			6	no		
		Total					30	no	₹	-
7.6	14.36	Providing and fixing bright finished brass hanging type floor door stopper with necessary screws, etc. complete.	5	2.00			10.00	no		
		Total					10.00	no	₹	-
Sub Head 7 Total									₹	-

Sub Head 8 : Plastering

8.1	20.15	20mm cement plaster 1 : 3 (1 cement : 3 fine sand) Wall (both sides) 2*Qty SI. No. 4.10					Total (A) Total (A)	448.00 sqm		
							Total	448.00 sqm	₹	-
8.2	20.21	15mm cement plaster 1 : 3 (1 cement : 3 fine sand) finished with a floating coat of neat cement. Column Qty vide Column Shuttering Areas						109.20 sqm		
							Total	109.20 sqm	₹	-
8.3	20.07	12mm cement plaster to ceiling 1 : 3 (1 cement : 3 fine sand) Qty vide Beam shuttering Areas Qty vide Slab shuttering Areas Qty vide Stair shuttering Areas						153.98 sqm 280.32 sqm 47.09 sqm		
							Total	481.39 sqm	₹	-
Sub Head 8 Total									₹	-

Sub Head 9 : Painting

9.1	20.65	Applying one coat of cement distemper primer of approved brand and manufacture on wall surface. Qty vide 15mm plaster area Qty vide 12mm plaster area						109.20 sqm 481.39 sqm		
							Total	590.59 sqm	₹	-
9.2	20.67	Distemping with 1st quality acrylic washable distemper of approved brand and manufacture and of required shade and colour to give an even shade on new work (two or more coats). Qty vide Distemper Primer area						590.59 sqm		
							Total	590.59 sqm	₹	-

S/No	SOR	Description	No	L	B	H	Qty	Unit	Rate (Rs)	Amount (Rs)
9.3	20.68	Finishing walls with water proofing cement paint of approved brand and manufacture and of required shade on new work (three or more coats) to give an even shade. Qty vide 20mm plaster area					448.00 sqm			
							Total	448.00 sqm	₹	-
9.4	20.51	Applying priming coat with ready mixed primer of approved brand and manufacture on wood work and plywood complete. a) Ready mix pink/grey primer. Qty vide Panel Door area					10.00 sqm			
							Total	10.00 sqm	₹	-
9.5	20.72	Painting with synthetic enamel paint of approved brand and manufacture in all shades on new work (two or more coats). b) High gloss Qty vide Wood Primer Areas					10.00 sqm			
							Total	10.00 sqm	₹	-
9.6	20.76	Varnishing with varnish of approved brand and manufacture on new work (two or more coats) of glue sizing over an under coat of flattening varnish. Qty vide Architrave Areas					5.72 sqm			
			0.1		57.20		Total	5.72 sqm	₹	-
Sub Head 9 Total										₹ -

Sub Head 10 : Flooring

10.1	12.12	Providing & laying vitrified floor tiles in different sizes (thickness to be specified by the manufacture) with water adsorption less than 0.08% and conforming to IS:15622, of approved make, in all colours and shades, laid on bed of 20mm thick cement mortar 1 : 4 (1 cement : 4 coarse sand), including the joints with white cement and matching pigments etc. complete as per design colours. (b) Nano Tech (Single Charge) Ground Floor Skirting					Area= 142.90 Area= 8.45 Total 151.35	sqm sqm sqm		
									₹	-
10.2	12.11	Providing & laying vitrified floor tiles in different sizes (thickness to be specified by the manufacture) with water adsorption less than 0.08% and conforming to IS:15622, of approved make, in all colours and shades, in skirting/dado, riser of steps, laid with cement based high polymer modified quick set tile adhesive (water) based conforming to IS:15477, in average 6mm thickness, including grouting of joints (payment for grouting of joints to be made separately) colours. (b) Nano Tech (Single Charge) Ground Floor Toilet Block Skirting	1 1	Area= Area=	14.10 1.41		14.10 1.41 Total 15.51	sqm sqm sqm		
									₹	-
Sub Head 10 Total										₹ -

S/No	SOR	Description	No	L	B	H	Qty	Unit	Rate (Rs)	Amount (Rs)
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Sub Head 12 : Aluminium Works

12.1 11.01 Providing and fixing anodised aluminium work for doors, windows, ventilators and partitions with extruded built up standard sections/ other sections of approved make conforming to IS : 733 and IS : 1285 fixing with dash fasteners of required dia and size, including necessary filling up of gaps at junctions, at top, bottom and sides with required PVC/ neoprene gaskets etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, aluminium snap beading for glazing /panelling, CP brass /stainless steel screws all complete including fixing of glasses but excluding cost of glasses.

(a) 2 - track sliding windows/ventilators.
(All aluminium section should be atleast 2mm thick)

W1	3	2.00	1.80	10.80	sqm
W2	1	1.00	2.25	2.25	sqm
V1	1	1.00	0.45	0.45	sqm
V2	1	0.60	0.45	0.27	sqm
S Total			13.77	13.77	sqm
Total			13.77	13.77	sqm

₹ -

12.2 11.02 Supplying of glass panes at site.
d) 5mm thick plate sheet glass.

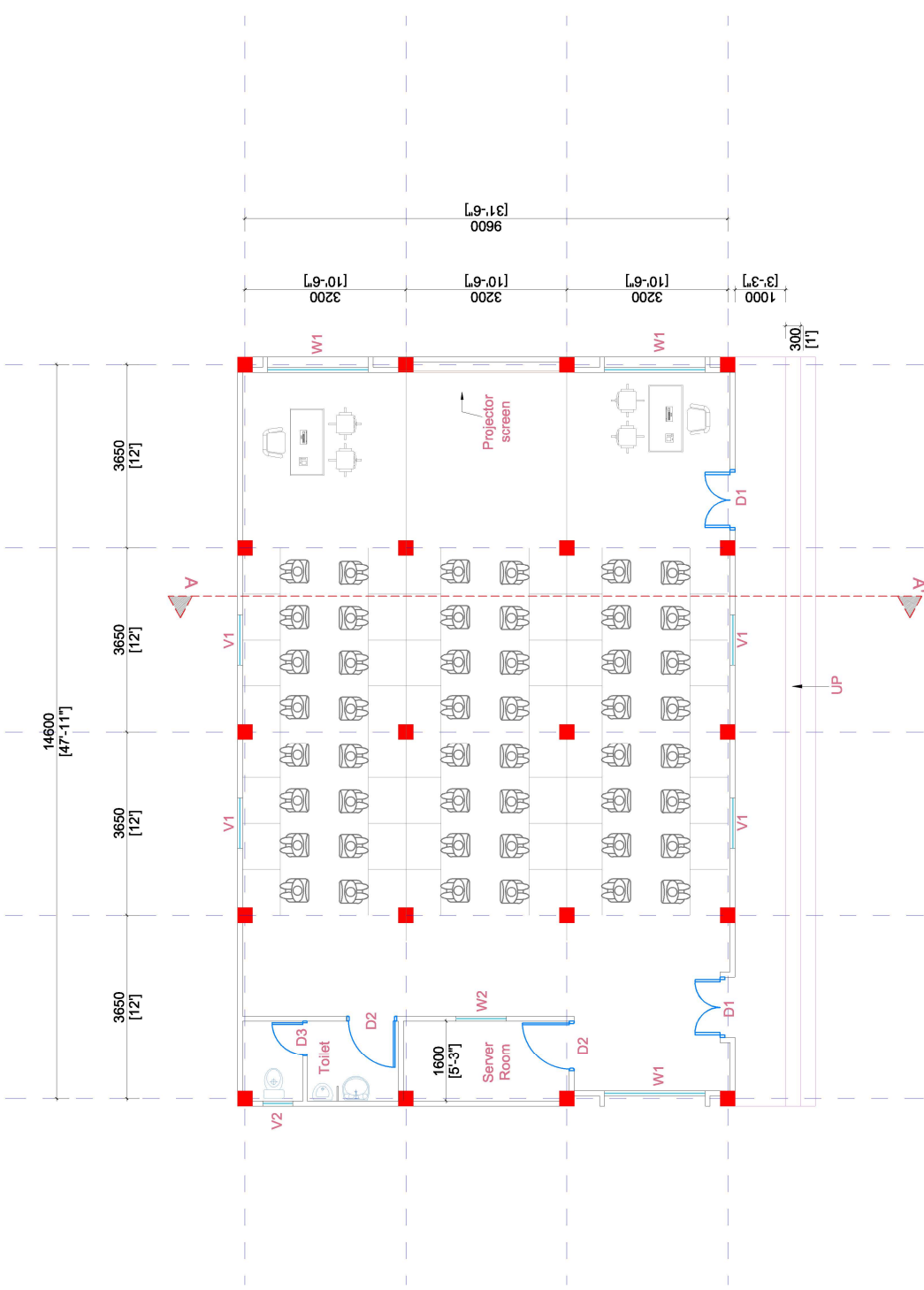
W1	3	2.00	1.80	10.80	sqm
W2	1	1.00	2.25	2.25	sqm
V1	1	1.00	0.45	0.45	sqm
V2	1	0.60	0.45	0.27	sqm
Total			13.77	13.77	sqm

₹ -

Sub Head 12 Total	₹ -
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Total Rs ₹ -

ARCHITECTURAL AND STRUCTURAL DRAWING



GROUND FLOOR PLAN

GENERAL NOTES:

1. All dimensions are in mm unless otherwise specified.
2. No changes shall be made in the design, layout and drawing without the prior consent of the Architect.
3. No changes shall be made in the design, layout and drawing without the prior consent of the Architect.
4. Any discrepancy between the architectural, structural or service drawings shall be brought to the attention of the Architect.

PROJECT TITLE:

CONSTRUCTION OF IT SKILL DEVELOPMENT AND TRAINING CENTRE

LOCATION:
DATE:

ARCHITECT:

DRAWN BY:

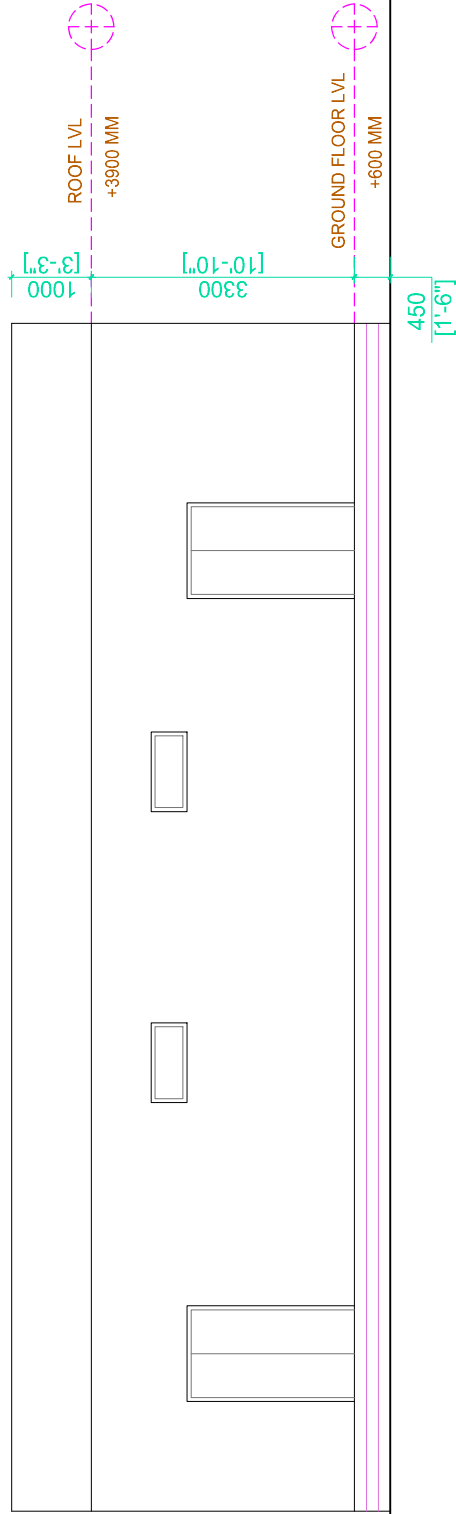
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SHEET:

DRAWING TITLE:

GROUND FLOOR PLAN



FRONT ELEVATION

GENERAL NOTES:

1. All dimensions are in mm unless otherwise specified.
2. All work shall be in accordance with the relevant standards.
3. No changes shall be made in the design, layout and drawing without the prior consent of the Architect.
4. Any discrepancy between the architectural, structural or service drawings shall be brought to the attention of the Architect.

PROJECT TITLE:

CONSTRUCTION OF IT SKILL DEVELOPMENT AND TRAINING CENTRE

TOP3/20K

CLB/20

ARCHITECT:

DRAWN BY:

DATE:

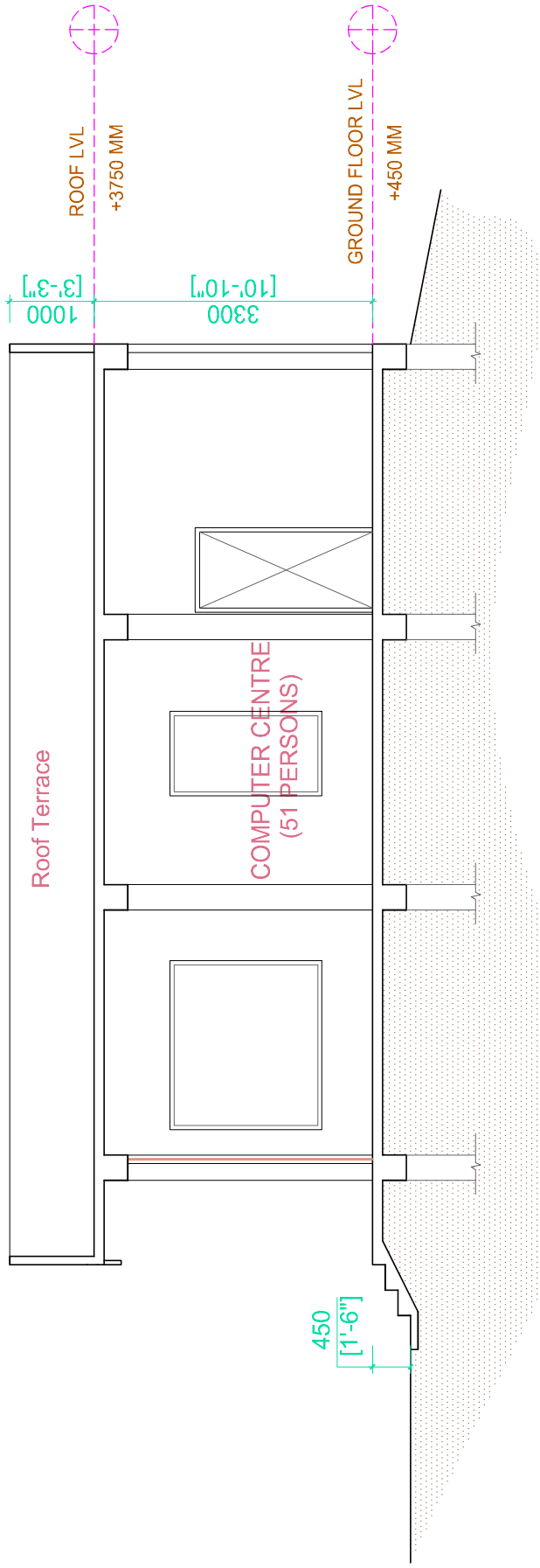
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SHEET:

DRAWING TITLE:

FRONT ELEVATION



SECTION AT AA'

GENERAL NOTES:

- All dimensions are in mm unless otherwise specified.
- No dimensions are to be scaled from this drawing.
- No changes shall be made in the design, layout and drawing without the prior consent of the Architect.
- Any discrepancy between the architectural, structural or service drawings shall be brought to the attention of the Architect.

PROJECT TITLE:

CONSTRUCTION OF IT SKILL DEVELOPMENT AND TRAINING CENTRE

LOCATION:
CLIENT:

ARCHITECT:

DRAWN BY:

DATE:

SCALE:
N.T.S.

SHEET:

DRAWING TITLE:

SECTION AT AA'

GENERAL NOTES

1. GENERAL :

- 1.1 Please do not scale the drawings. Work to written dimensions only.
- 1.2 All dimensions are in mm unless otherwise stated.
- 1.3 These notes are to be followed in conjunction with construction drawings and the specifications for civil and structural works.
- 1.4 Drawings shall be read in conjunction with architectural drawings.
- 1.5 Number of reinforcement bars shall not be counted from the drawings.
- 1.6 Structural design is done based on architectural drawing

3. DESIGN CONSIDERATIONS :

3.1 FOUNDATIONS :

- 3.1.1 The SBC of foundation soil is assumed as 200KN/m² in the design of foundations.
If the actual value is less than this, the foundations shall be redesigned. If the actual value is considerably more than assumed, the foundations shall be redesigned to achieve economy.
- 3.1.2 Actual testing of the foundation soil to determine the SBC is strongly suggested.

3.2 LOADINGS :

- 3.2.1 **Dead Loads :** The dead loads considered for structural design are weight of slabs, beams, columns, walls and floor finishes.
Thickness and materials of walls and floor finishes are taken as per architectural drawing and specifications.
Unit weight of materials are taken as below :-
Reinforced Cement concrete = 25 KN/m³.
Brick masonry = 19 KN/m³.
Floor finishes = As per unit weight of the material.
- 3.2.2 **Live Loads :** Imposed loads on floors due to various services and occupancy of rooms are taken as per IS : 875 (Part - 2) -1987.
- 3.2.3 **Dynamic Loads :** Dynamic loads due earthquake forces are taken as per IS : 1893 (Part - 1) -2002.
- 3.2.4 **Wind Loads & Snow Loads :** Wind loads and snow loads are not considered as earthquake loads is more prominent.
- 3.2.5 **Combination of Loads :** Combination of loads (for Limit State Design) are taken as per IS : 1893 (Part -1) -2002 in the analysis and design.

3.3 ANALYSIS AND DESIGNS :

- 3.3.1 Analysis and design are carried out using SAP2000 Software.
- 3.3.2 Dynamic analysis is done using Response Spectrum Method based on IS : 1893 (Part - 1) -2002.
- 3.3.3 All sections are designed using Limit State Design Method.
- 3.3.4 Detailments of reinforcements are done as per IS : 13920 -1993, IS : 456 -2000, IS : 4326 -1993 and IS : 2502 -1963.

4. GENERAL SPECIFICATIONS :

- 4.1 **EARTHWORK AND FOUNDATIONS :**
 - 4.1.1 Just prior to laying PCC the final 150 depth of soil shall be excavated and recompacted to the optimum density.
 - 4.1.2 PCC 1:3:6 150mm thick shall be laid for levelling course below footings.
 - 4.1.3 Back filling shall be done in layers not exceeding 200mm thickness. Each layer shall be compacted to the optimum density.
 - 4.1.4 All works below ground level shall be executed in dry conditions.
 - 4.1.5 Minimum depth of foundation shall be 1.5m below firm ground.

4.2 MATERIALS :

- 4.2.1 All RCC shall be of controlled grade in accordance with IS : 456- 2000.
- 4.2.2 Minimum grade of concrete shall be M25.
- 4.2.3 Grade of Steel shall be HYSD bars conforming to IS : 1786 unless otherwise mentioned.
- 4.2.4 Mild Steel bars if specified shall conform to IS : 432.
- 4.2.5 All bars shall be sheared, flame cutting shall not be permitted. The bars shall be bent cold.

4.3 STRUCTURES :

- 4.3.1 Clear covers shall be maintained as per IS : 456- 2000 as below :-
Foundations = 50mm
Columns = 25mm
Beams = 25mm
Slabs = 15mm
Staircases = 15mm
Chajjas, etc. = 15mm
- 4.3.2 Lap Splices shall be staggered in such a way that not more than 50% of bars are lapped at one particular section.
- 4.3.3 Lap length of reinforcement bars shall not be less than the following :-
Footings = 30 x dia. of bar
Columns = 30 x dia. of bar
Beams = 30 x dia of bar
Slabs = 30 x dia of bar
- 4.3.4 Anchorage length of bars shall be maintained as in the drawings.
- 4.3.5 Extension of Hoop length of beam stirrups and lateral ties of column shall be maintained as in the drawings.

2. ABBREVIATIONS AND SYMBOLS :

1. F : Footings.
2. C : Columns.
3. S : Slabs.
4. SBC : Bearing Capacity of Soil.
5. HYSD : High Yield Strength Deformed bars.
6. MS : Mild Steel bars.
7. PCC : Plain Cement Concrete.
8. RCC : Reinforced Cement Concrete.
9. IS : Indian Standard.
10. KN : Kilo Newton.
11. m³ : Cubic metre.
12. m : Metres.
13. Lu : Wires.
14. Ld : Development length of bars.
15. Db : Diameter of bar.
16. dia : Diameter.
17. > : greater than.
18. > : at the rate of.
19. ⊙ : centre to centre.
20. c/c : centre to centre.

GENERAL NOTES:

- 1 All dimensions are in mm unless otherwise specified.
 - 2 No dimensions are to be scaled from this drawing.
 - 3 No changes shall be made in the design layout without the prior consent of the Architect.
- REVISION: _____
DATE: _____
SCALE: _____
N.T.S.

PROJECT TITLE:

CONSTRUCTION OF IT SKILL DEVELOPMENT AND TRAINING CENTRE

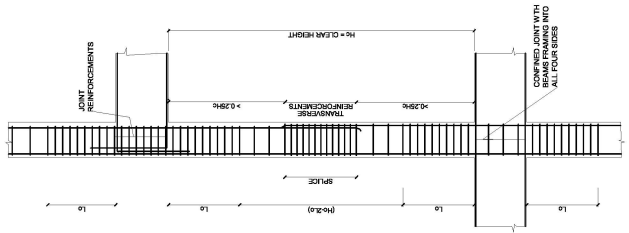
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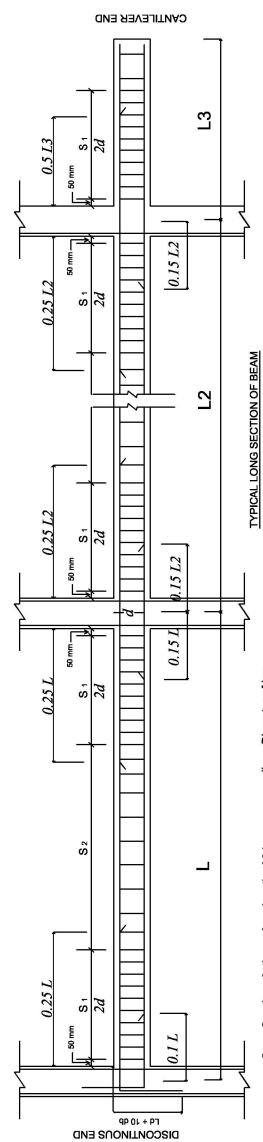
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DATE: _____
SHEET: _____

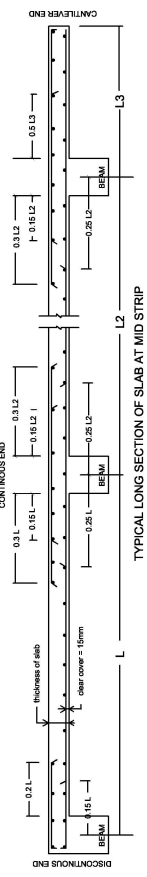


COLUMN AND JOINT DETAILING

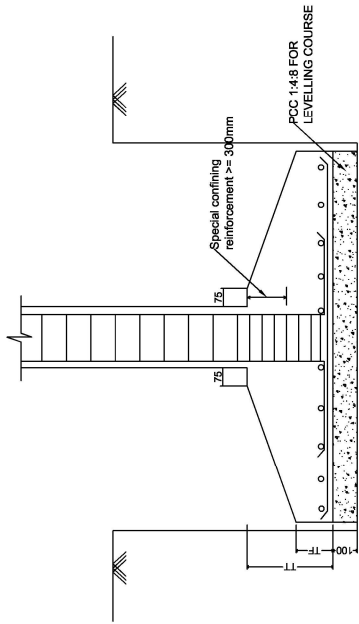


TYPICAL LONG SECTION OF BEAM

- S₁ : Spacing of stirrups for a length of 2d
- S₂ : Spacing of stirrups for a length of clear span minus two times S₁
- L_d : Development length of bar in tension.
- db : Diameter of bar.
- d : Effective depth of beam.
- L : Length of beam (centre to centre of column).



TYPICAL LONG SECTION OF SLAB AT MID STRIP



TYPICAL SECTION OF ISOLATED FOOTING

GENERAL NOTES:

1. All dimensions are in mm unless otherwise specified.
2. No dimensions are to be scaled from this drawing.
3. No changes shall be made in the design, layout and drawing without the prior consent of the Architect.
4. Any discrepancy between the specification, schedule of items drawings shall be brought to the attention of the Architect.

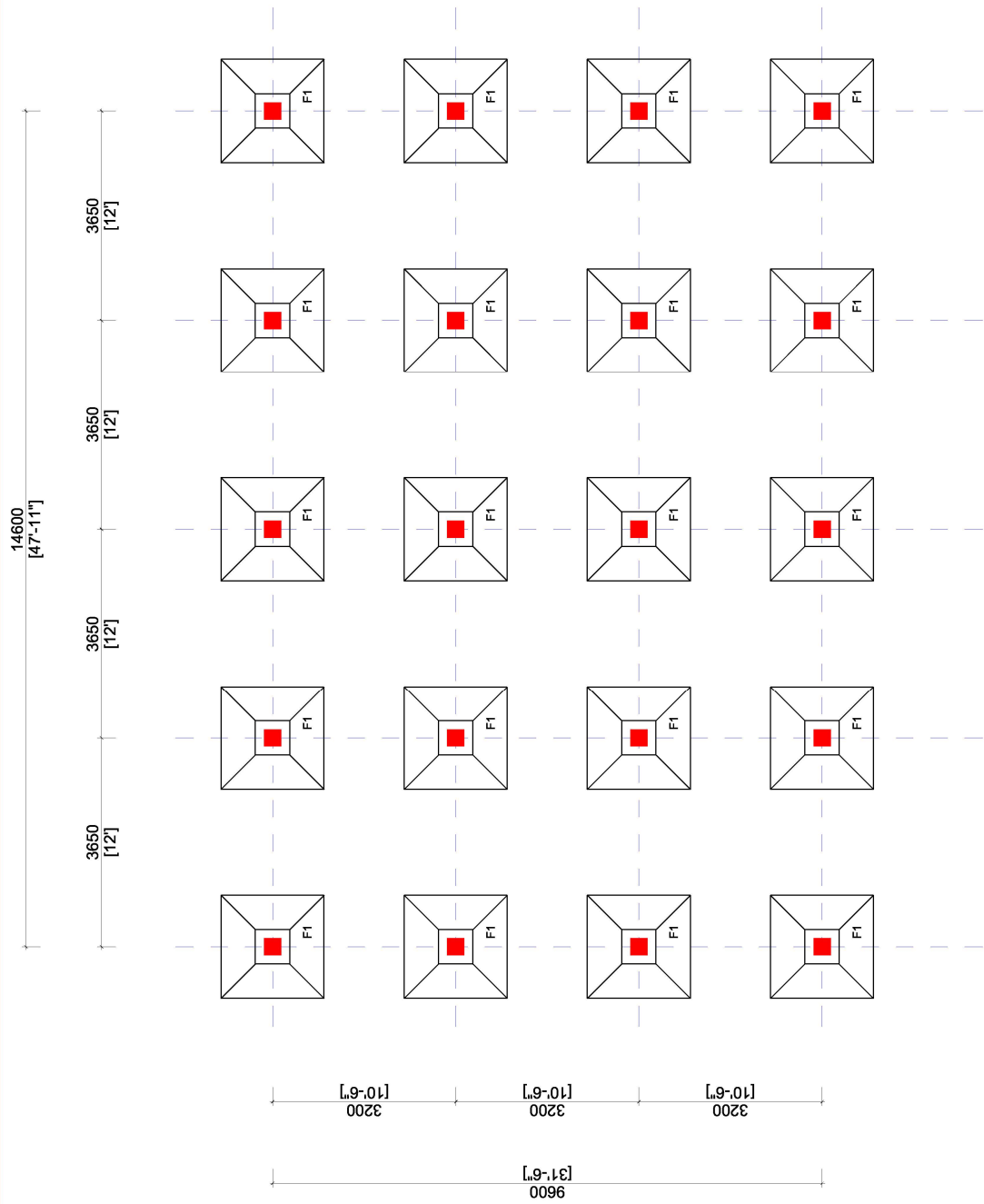
PROJECT TITLE:
CONSTRUCTION OF IT SKILL DEVELOPMENT AND TRAINING CENTRE

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DATE: _____
SHEET: _____
SCALE: N.T.S.

DRAWING TITLE: _____



FOOTING LAYOUT

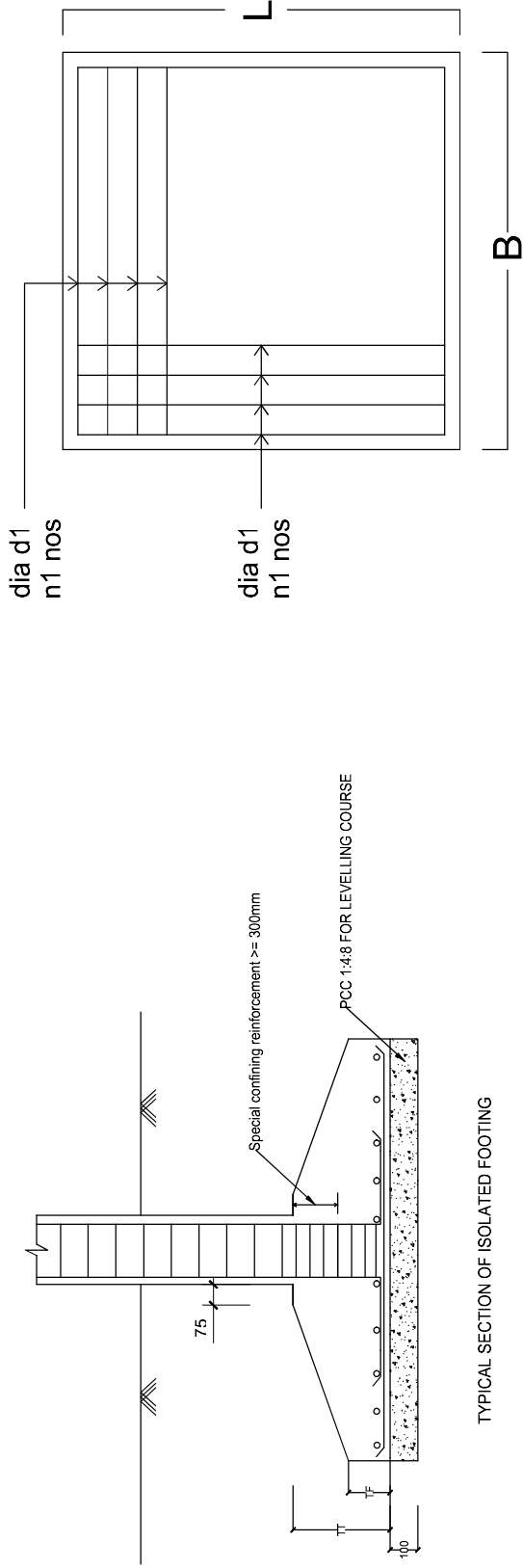
GENERAL NOTES:
 1. All dimensions are in mm unless otherwise specified.
 2. No changes shall be made in the design, layout and drawing without the prior consent of the Architect.
 3. No changes shall be made in the design, layout and drawing without the prior consent of the Architect.
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PROJECT TITLE:
 CONSTRUCTION OF IT SKILL DEVELOPMENT AND TRAINING CENTRE
 LOCATION:
 DATE:

ARCHITECT:
DRAWN BY:

DATE:
SCALE: N.T.S.
SHEET:
DRAWING TITLE: FOOTING LAYOUT

FOOTING	SIZE (L x B) mm	DEPTH mm	THICKNESS AT FREE END (TF)	TOTAL THICKNESS (TT)	REINFORCEMENTS			
					ALONG 'L' (TOP)		ALONG 'B' (BOTTOM)	
					dia d1	No n1	dia d2	No n2
F1	1500x1500	1800	200	450	12Ø	10	12Ø	10



TYPICAL SECTION OF ISOLATED FOOTING

GENERAL NOTES:

- All dimensions are in mm, unless otherwise specified.
- Reinforcement shall be as per the design.
- No changes shall be made in the design, layout and drawing without the prior consent of the Architect.
- Any discrepancy between the architectural, structural or service drawings shall be brought to the attention of the Architect.

PROJECT TITLE:

CONSTRUCTION OF IT SKILL DEVELOPMENT AND TRAINING CENTRE

LOCATION:

CLIENT:

ARCHITECT:

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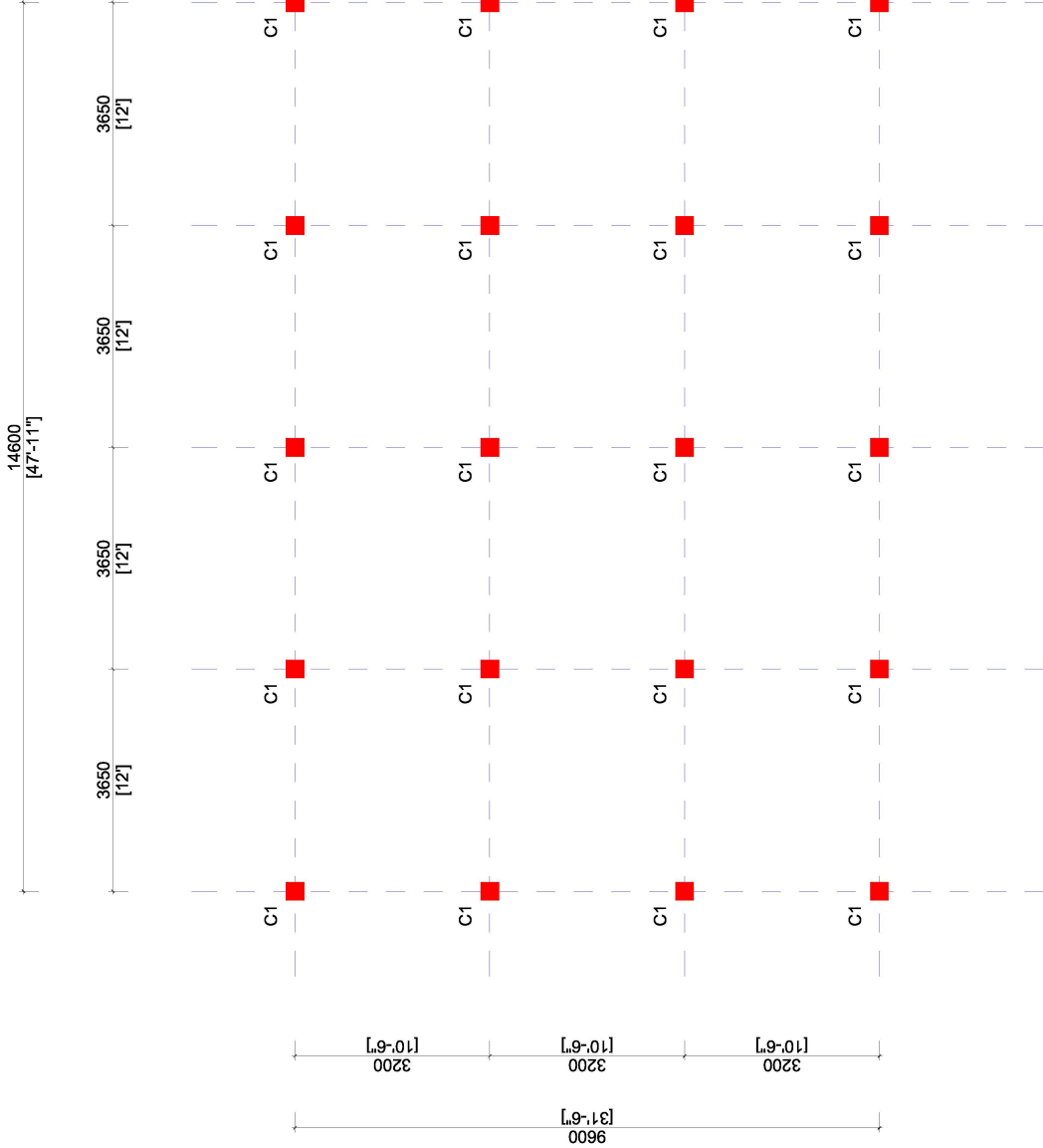
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SHEET:

N.T.S.

DRAWING TITLE:

FOOTING DETAILS



COLUMN LAYOUT

GENERAL NOTES:

- 1 All dimensions are in millimeters unless otherwise specified.
- 2 No changes shall be made in the design, layout and drawing without the prior consent of the Architect.
- 3 No changes shall be made in the design, layout and drawing without the prior consent of the Architect.
- 4 Any discrepancy between the architectural, structural or service drawings shall be brought to the attention of the Architect.

PROJECT TITLE:

CONSTRUCTION OF IT SKILL DEVELOPMENT AND TRAINING CENTRE

LOCATION:

CLIENT:

ARCHITECT:

DRAWN BY:

DATE:

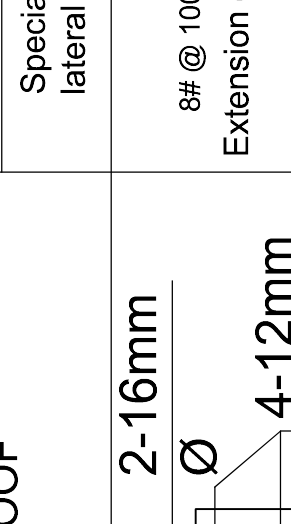
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SHEET:

DRAWING TITLE:

COLUMN LAYOUT

<p>COLUMN MARKED</p> <p>C1</p>	<p>FOUNDATION TO ROOF</p>	<p>LATERAL REINFORCEMENT</p>
		<p>Special confining lateral ties (L1)</p> <p>8# @ 100mm c/c</p> <p>Extension of hoop = 10 x dia. of bar >= 75mm = 80mm</p>
<p>Mid lateral ties (L2)</p> <p>8# @ 150mm c/c</p> <p>Extension of hoop = 10 x dia. of bar >= 75mm = 80mm</p>		

GENERAL NOTES:

- All dimensions are in mm unless otherwise specified.
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- Any discrepancy between the architectural, structural or service drawings shall be brought to the attention of the Architect.

PROJECT TITLE:
CONSTRUCTION OF IT SKILL DEVELOPMENT AND TRAINING CENTRE

LOCATION:

CLIENT:

ARCHITECT:

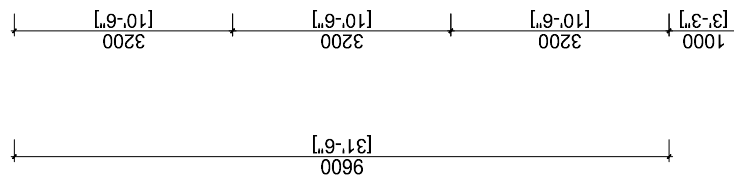
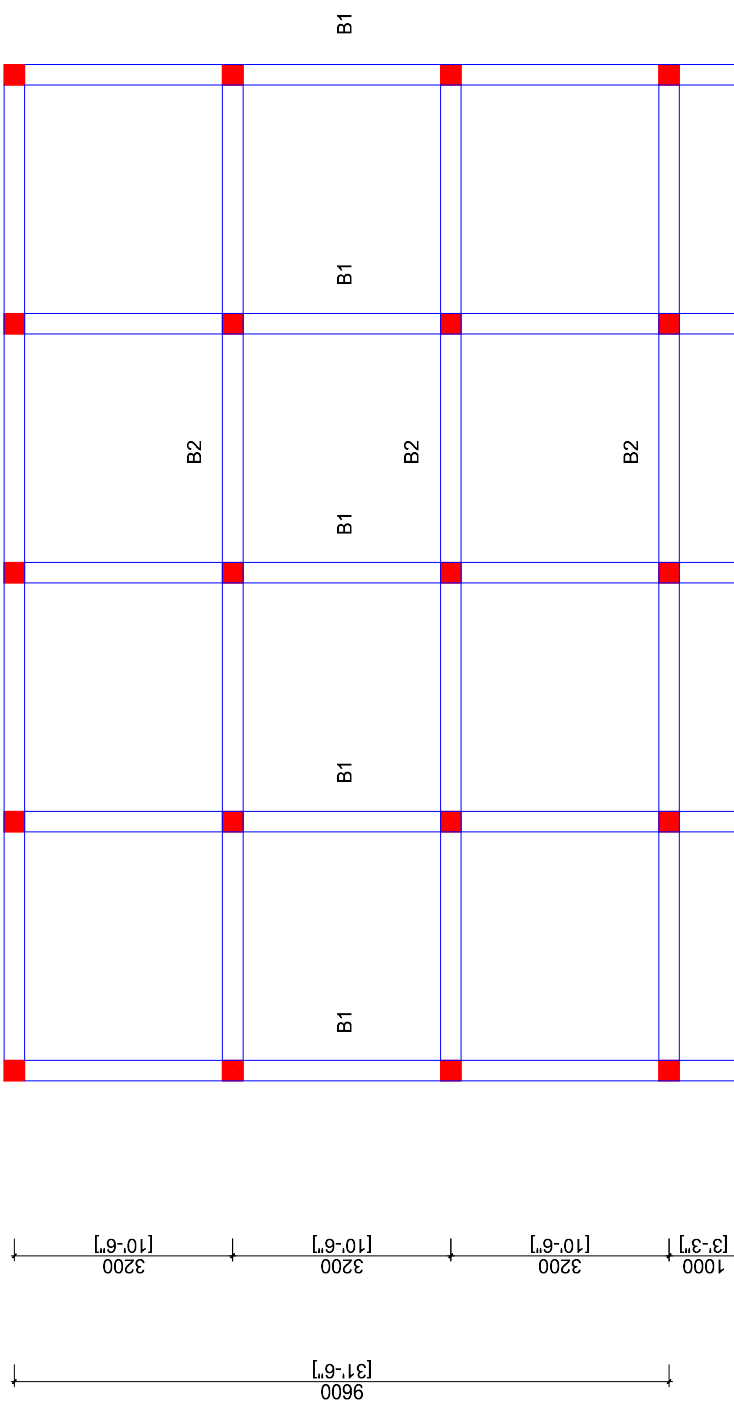
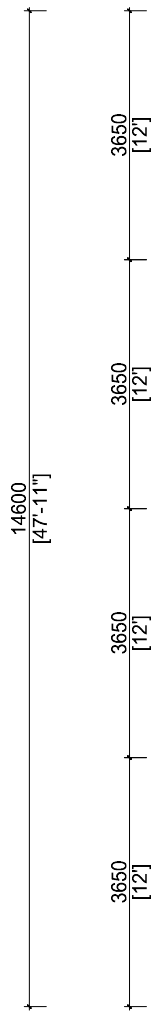
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SHEET:

SCALE:
 N.T.S.

DRAWING TITLE:
COLUMN DEATILS



BEAM LAYOUT (PLINTH - ROOF)

GENERAL NOTES:
 1. All dimensions are in mm unless otherwise specified.
 2. No changes shall be made to the design, layout and drawing without the prior consent of the Architect.
 3. No changes shall be made to the design, layout and drawing without the prior consent of the Architect.
 4. Any discrepancy between the architectural, structural or service drawings shall be brought to the attention of the Architect.

PROJECT TITLE:
CONSTRUCTION OF IT SKILL DEVELOPMENT AND TRAINING CENTRE
 TOBATAK
 CLIENT:

ARCHITECT:
 DRAWN BY:

DATE:
 SHEET:
 SCALE:
 N.T.S.

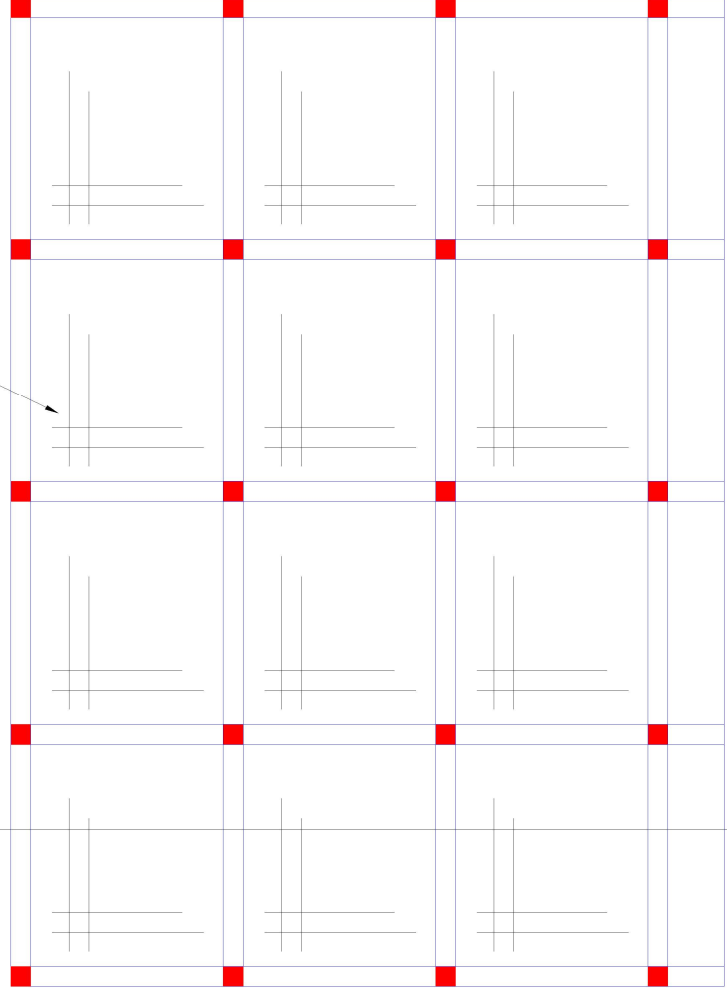
DRAWING TITLE:
BEAM LAYOUT

14600 [47'-11"]

3650 [12] 3650 [12] 3650 [12] 3650 [12]

x

10mm dia @ 150mm c/c in both directions for top and bottom reinforcement



9600 [31'-6"]
 3200 [10'-6"] 3200 [10'-6"] 3200 [10'-6"] 1000 [3'-3"]

SLAB LAYOUT (PLINTH - ROOF)

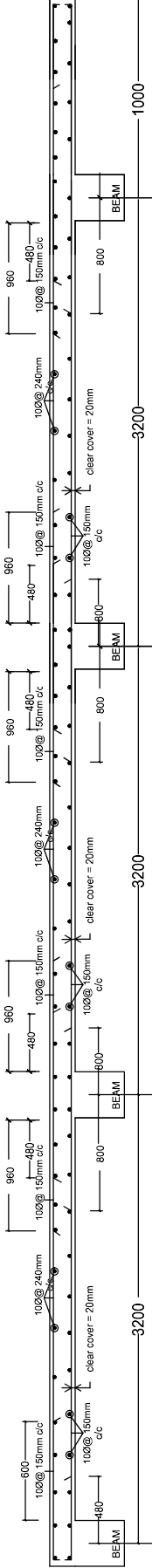
x

GENERAL NOTES:
 1. All dimensions are in mm unless otherwise specified.
 2. All dimensions are to be taken as per the drawing.
 3. No changes shall be made in the design, layout and drawing without the prior consent of the Architect.
 4. Any discrepancy between the architectural, structural or service drawings shall be brought to the attention of the Architect.

PROJECT TITLE:
 CONSTRUCTION OF IT SKILL DEVELOPMENT AND TRAINING CENTRE
 LOCATION: _____
 CLIENT: _____

ARCHITECT:
 DRAWN BY: _____

DATE: _____
SCALE: N.T.S.
SHEET: _____
DRAWING TITLE: SLAB LAYOUT



SECTION - XX

GENERAL NOTES:

1. All dimensions are in mm unless otherwise specified.
2. All dimensions are to be taken as shown.
3. No changes shall be made in the design, layout and drawing without the prior consent of the Architect.
4. Any discrepancy between the architectural, structural or service drawings shall be brought to the attention of the Architect.

PROJECT TITLE:

CONSTRUCTION OF IT SKILL DEVELOPMENT AND TRAINING CENTRE

LOCATION:
CLIENT:

ARCHITECT:

DRAWN BY:

DRAWING TITLE:

SLAB DETAILS

DATE:

SHEET:

SCALE:
N.T.S.