Tender

For

DESIGN, ENGINEERING, FABRICATION, SUPPLY AND ERECTION OF PORTA CABINS FOR CLASS ROOMS AT SHRI RAM COLLEGE OF COMMERCE (SRCC) UNIVERSITY OF DELHI, DELHI

ISSUED BY:

Shri Ram College of Commerce University of Delhi Maurice Nagar, Delhi-110007 Phone: 27667905, 27666519 Website: www.srcc.edu

PLACE: Delhi

DATE: 08.04.2022

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NOTICE INVITING TENDER (NIT)

Shri Ram College of Commerce (SRCC) invites sealed tenders on Plinth Area Rate basis from experienced and eligible Contractors for Design, Engineering, Fabrication, Supply and Erection of Porta Cabins for Class Rooms at Shri Ram College of Commerce (SRCC), University of Delhi, as per the schedule given under:

Tender No,	SRCC/AD - 221 /2022/Porta Cabin Classrooms/01
Name of the Work	Design, Engineering, Fabrication, Supply and Erection of Porta Cabins for Class Rooms at Shri Ram College of Commerce (SRCC), University of Delhi, Delhi
Estimated Cost	Rs 20.00 Lacs
Period of Completion	60 Days
Date & Time of Issue of Tender	Date: 08.04.2022 The Tender Document can be downloaded from SRCC website www.srcc.edu / Announcements (Tender cost Rs 500/-)
Last date & time of Submission of Tender	Date: 29.04.2022 Time: 9:00 am - 13:00 pm & 2:00 pm - 4:00 pm on all working days Place: Admin. Office, Shri Ram College of Commerce
Earnest Money Deposit	RS-50,000/- (Rupees Fifty Thousand Only) Earnest Money in the form of crossed Demand Draft (issued by any Nationalized or Scheduled Commercial Bank) and drawn in favour of PRINCIPAL SHRI RAM COLLEGE OF COMMERCE payable at New Delhi EMD DD should not be placed inside the financial bid envelope.
Date & Time of opening of Technical Bid	Date: 04.05.2022 at 11:30 am
	Will be intimated to the technically qualified bidders only
Validity of offer	90 days from the date of submission of tender.

Corrigendum or any other related notices, if any, will only be put on the College website www.srcc.edu. Bidders are advised to check the website regularly.

For any query and clarification the College Engineer may be contacted.

Principal

Shi Ram College of Commerce

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Notice Inviting Tenders (NIT):

- The interested parties are required to submit two separate Bids i.e. Technical Bid and Financial Bid, as per
 prescribed proforma. The two bids should be covered in two separate sealed envelopes titled as
 "Technical Bid for Design, Engineering, Fabrication, Supply and Erection of Porta Cabins for Class Rooms at
 SRCC" and "Financial Bid for Design, Engineering, Fabrication, Supply and Erection of Porta Cabins for Class
 Rooms at SRCC"
- 2. Both the sealed envelopes should be kept in a third sealed envelope superscribed "Tender for Design, Engineering, Fabrication, Supply and Erection of Porta Cabins for Class Rooms at SRCC. The sealed envelope of Tender Document should be submitted by hand or Post/Courier on/before the last Date and time of submission. Any delay in delivery by Post/Courier shall not be considered.
- 3. The Financial bids of only those Contractors will be opened who qualifies Technical Bid evaluation by the concerned Committee of the College (SRCC). The Financial Bids of all those Contractors who fails to qualify the Technical Bid will not be opened under any circumstances.
- 4. The College (SRCC) reserves the right to reject any / all Tenders without assigning any reason and shall not be bound to accept the lowest or any other Tender and to cancel the complete bidding/Tender process.
- 5. Contractor shall share the list of all the completed projects with completion credential.
- 6. The desirous parties can download the Tender Documents from the College Website <u>www.srcc.edu</u>. (Tender cost Rs 500/- to be submitted through Cash/Cheque/DD at the time of submission of Tender)
- 7. Tenderer is required to quote on Plinth Area Rate Basis, total tentative area of all class rooms is stated in Schedule of Quantities.. The payment will be made for the actually executed and measured Plinth Area of the Porta Cabins.
- 8. The tender shall remain valid for acceptance for 90 days from the last date of submission.
- 9. The successful Tenderer shall be intimated about the award of work by email at the given email ID & address in the Tender Document.
- 10. The site is available and is free from any encumbrances and each Tenderer shall be deemed to have visited the site and seen the site conditions before quoting his Tender. No claim on ground for lack of such knowledge / site inspection shall be entertained at any later stage. The Tenderer may make visit of the site after seeking approval from the College (SRCC).
- 11. Incomplete Tenders and Tenders submitted after the last date shall be rejected without any further reference.
- 12. Tender that is not filled properly, incomplete or containing incorrect calculations or cuttings without authentication or generally not complying with the conditions shall be rejected. Conditional tenders are liable to be summarily rejected.
- 13. All quoted rates shall include the cost of design & engineering, all materials & labour & transportation of materials to the site, with all taxes, including GST. Contractor's profit & overheads etc. and the fixing or placing in position for which the items of work is intended to be operated as per specifications.



- 14. No alteration shall be made by the Tenderer in the Instructions to the Tenderers or N.I.T, Contract Form, Conditions of the Contract, Drawings and specifications. Any such alteration or any special condition attached by the Tenderer shall make the Tender Document invalid and liable to be rejected.
- 15. Sealed TENDERS with the Following documents shall be submitted by tenderer along with their quote.
 - a) Proposed site organization chart
 - b) Proposed schedule of construction.
 - c) Labour Deployment schedule.
 - d) List of equipment to be deployed for this project.

I/we hereby agree and undertake to abide by all above terms & conditions.

Signature of Contractor / Tenderer (Authorized Signatory with Seal)



Pre-Qualification Criteria:

The Contractor should have experience of having satisfactorily completed similar works during last 5 years should be either of the following:

One similar work costing 80% of estimated Cost.

OR

Two similar work each costing 60% of estimated Cost.

OR

Three similar work each costing 40% of estimated Cost.

Minimum 5 Years of work experience to be considered with the provision of enhancement of the cost of the previous projects @ 7% per year.

Note: In support of above pre-qualification criteria the contractor should attach the following document with the Technical Bid:

- Copy of Work Order for similar work from any Govt. Agency of State or Central or Private Agency.
- Copy of completion / satisfaction certificate in case of completed work from client or Payment Certificate in case of ongoing work.
- Certificate from a Chartered Account indicating the financial turnover during the last 5 years with audited report by auditor sealed and signed



Annexure-I

Following information to be furnished by the contractor is mandatory. Failing to submit the complete information will be liable to reject the Tender.

S.No	REQUIRED INFORMATIONS	CONTRACTOR'S CONFIRMATION
1	NAME OF THE COMPANY/FIRM	
2	FULL ADDRESS OF THE COMPANY/FIRM	
3	REGISTRATION NO. OF THE COMPANY/FIRM (With State Govt./Central Govt./Municipal Corporation)/Local Bodies)	
4	PAN NO. OF THE COMPANY/FIRM	
5	TIN NO. OF THE COMPANY/FIRM	
6	VALID GST NO. OF THE COMPANY/FIRM	
7	VALID REGISTRATION NO. with EPF & ESI	
8	NAME, DESIGNATION, TELEPHONE NOS., FAX NO. & E-MAIL ID OF THE CONTACT PERSON	

Date:	Signature of		
	Authorized Signatory with Sea		

Name of Signatory

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Annexure 'II'

DECLARATION

1.	Proprietor/Partner/Director/Authorized Signatory of
2.	I have carefully read and understood all the terms and conditions of the Tender and hereby conve my acceptance on the same.
3.	The information/document furnished along with the above application are true and authentic to the best of my knowledge and belief. I/We, am/are well aware of the fact that furnishing of any false information/fabricated document would lead to rejection of Tender Document at any stage, besides liabilities towards prosecution under appropriate law.
	Date: Signature of Place: Authorized Signatory with Seal
	Name of Signatory

The above declaration, duly signed and sealed by the authorized signatory of the company should be enclosed with Technical Bid.

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Annexure-III

DECLARATION FOR ONLINE PAYMENT

1.0	COMPANY/ FIRM DETAILS:	
1.1	Name of Company/ Firm:	
1.2	Address:	
	Phone No.	
	E-mail ID:	
2.0	BANK DETAILS:	
2.1	Name of the Bank	¥
2.2	Address of the Branch Telephone No.	
2.3	9 Digit Code number of the Bank and Branch appearing on the MICR cheque issued by the Bank	
2.4	11 Digit NEFT/IFSC Code of the Bank Branch	
2.5	Account Type (SB/CC/CA)	
2.6	Bank Account No.(as appearing on the Cheque)	

SIGNATURE OF AUTHORISED SIGNATORY OF
THEFIRM NAME:
OFFICIALSEAL
DATE:

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Annexure-IV

(PART-B) FINANCIAL BID

DESIGN, ENGINEERING, FABRICATION, SUPPLY AND ERECTION OF PORTA CABINS FOR CLASS ROOMS AT SHRI RAM COLLEGE OF COMMERCE (SRCC), UNIVERSITY OF DELHI, DELHI

To,	
The Principal	
Shri Ram College of Commer	ce
University of Delhi, Delhi	

Dear Madam,

1.	In accordance with the Conditions of Contract, Specifications, Drawings and Bill of Quantities (BOQ), etc. for execution of the above named works, I/we the undersigned offer to construct and install such works and remedy any defect therein in conformity with the aforesaid contract documents quoted by us for different items included in the sheet named "Price Schedule" of Financial Bid (Part-II) (Plinth Area Rate to be quoted) The total amount of Bill of Quantities being the Contract Price comes to Rs
	taxes.
2.	I/We undertake, if my/our tender is accepted, to commence the works as stipulated in Clauses of General Conditions of Contract, after the receipt of the notice/order to commence work and to complete the whole of the works comprised in the Contract within the time stated in Notice Inviting Tender (NIT).
3.	I/We agree to abide by this Bid and it shall remain binding upon me/us and may be accepted at any time before the expiration of validity as per sub-cause: Bid Validity (Bids shall remain valid for a period of 90 days after the date of submission of bids).
4.	Unless and until a formal Agreement is prepared and executed, this Bid, together with your written acceptance thereof, shall constitute a binding Contract between us.
	I/We understand that you are not bound to accept the lowest or any bid you may receive. ed thisDay of2022
on l	natureduly authorized to sign bids for and behalf of(in block letters or typed)



FORM 'A'

DETAILS OF ELIGIBLE SIMILAR NATURE OF WORKS COMPLETED DURING THE LAST FIVE YEARS ENDING PREVIOUS DAY OF LAST DAY OF SUBMISSION OF TENDERS

S. No.	Name of work/project and location	Owner or sponsoring organization	Cost of work in f Rupees	Date of commencement as per contract	Stipulated date of completion	Actual date of completion	Litigation/ arbitration cases pending/ in progress with details	Name and address/ telephone number of officer to whom reference may be made	WHETHER THE WORK WAS DONE ON BACK TO BACK BASIS YES/ NO
1	2	3	4	5	6	7	8	9	10

Signature of Bidder(s)

A separate sheet may be used by the Contractor if the relevant information does not reflect in prescribed format.

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Following Documents shall form part of invitation to Technical and Financial Bids.

	PART-A (Technical Bid)	
1	Forwarding Letter	
2	Undertaking	+
3	Format for contractor information to be filled up. (All relevant documents must be attached)	Annexure-I
4	Declaration	Annexure-II
5	Declaration of online payment	Annexure-III
6	Similar work Detail (All relevant documents must be attached)	Form-A
7	Earnest Money Deposit (EMD)	Crossed DD
8	Copy of Blank Tender documents duly signed and stamped on each page by the Bidder	
9	a) The printed literature, catalogue/brochure giving full technical details to verify the specifications quoted in the tender b) Proposed site organization chart c) Proposed schedule of construction d) Labour Deployment schedule e) List of equipment to be deployed for this project	
	PART-B (Financial Bid)	
1	Financial Bid Format	Annexure-IV
2	Priced Bill of Quantities	Annexure-V



INSTRUCTIONS TO TENDERERS AND GENERAL CONDITIONS OF CONTRACT:

- Tender that is not filled properly, incomplete or containing incorrect calculations or cuttings without authentication or generally not complying with the conditions shall be rejected. Conditional tenders are liable to be summarily rejected.
- 2. TENDERERS should quote their rates both in figures and in words.
- 3. If the tender is submitted by or on behalf of a company incorporated under the Company Act., it shall be signed by The Secretary or by one of the Directors duly authorized on their behalf. If it is, submitted by a partnership firm it shall be signed with the Co-partnership firm name by a member of the firm who shall sign his own name & give the name & address of each partner of the firm and attach a copy of Power of attorney with the tender authorizing him to sign on behalf of the partners. A certified copy of the registered partnership deed shall also be submitted along with the Tender. The tender should be in the sealed cover.
- 4. The printed literature, catalogue/brochure giving full technical details should be included with the Technical bid to verify the specifications quoted in the tender.
- 5. Schedule of approximate quantity for various items/plinth area is liable to alteration by omission, deductions or additions at the discretion of the College (SRCC) without affecting the terms of contract and without any extra claim on account of any reason or reasons.
- 6. Quoted rates shall include the cost of design & engineering, all materials & labour & transportation of materials to the site, all taxes such as GST, Turnover Tax, Work Contract Tax, Royalties, Toll Tax, Income Tax, Excise Duty, Octroi, etc including GST. Contractor's profit & overheads etc., and the fixing or placing in position for which the items of work is intended to be operated as per specifications.
- 7. Tender selected for the Design, Engineering, Fabrication, Supply and Erection of Porta Cabins for Class Rooms will have to provide Performance Security in form of DD from any scheduled bank situated in India, equivalent to 5% of the cost of the work order, within 10 days after the award of work.
- 8. No alteration shall be made by the Tenderer in the Instructions to the Tenderers or N.I.T, Contract Form, Conditions of the Contract, Drawings and specifications. Any such alteration or any special condition attached by the Tenderer shall make the Tender Document invalid and liable to be rejected.
- 9. The acceptance of the tender rests with the College (SRCC), who reserves the right of rejecting any or all the tenders including the lowest tender without assigning any reasons what so ever.
- 10. The Contractor shall not be entitled to any compensation for any loss suffered by hindrance on account of delays in commencing or executing the work, whatever the cause for such delays may be, including delays in procuring Government controlled or other materials.
- 11. After acceptance of the Tender the Tenderer shall sign the necessary contract papers on Non-judicial stamp paper of Rs 100/- within 10 days from the receipt of the above intimation.
- 12. Weather: No extension of time will be allowed to the Contractor due to weather conditions prevalent in the area. The contractor is expected to take all the precautions at his own risk and cost so that the workmanship, the materials and progress of work are not affected in the inclement weather.



- 13. Cleaning up & handing over: Upon completion of the work all the site area should be cleaned. All works shall be cleaned in manner which will render the work acceptable to the College (SRCC). All garbge/malba/waste shall be removed from the site and shall not be dumped in the surrounding area.
- 14. The Contractor shall not be allowed to possess any space or rooms inside the premises without prior permission of the SRCC.
- 15. The Contractor should quote their offer keeping in view the basic minimum rates of labour wages with upto date corrections as on the day of submission of the Tender as per notification by state government administration.
- 16. TDS will be deducted from the bills of the Contractor as per Law.
- 17. The rate quoted by the Contractor shall remain firm till the work is completed.
- 18. Contractor shall cover its staff/labour/workers under insurance for accidents and/or death while on duty/work and the College (SRCC) undertakes no liability or obligation in this regard.
- 19. <u>Insurance policies</u>:-Contractor shall obtain "Contractors All Risk Policy" within two weeks from the date of award of work to cover entire contract sum including insurance for Owner's supplied materials if any and all enabling works for loss or damage to the works, plant and materials, equipment or property, and personnel injury or death to any employee of the Contractors, Owner, Owner's Project Manager, consultant or a member of the general public indemnifying the Owner & Owner's Project Manager etc for the same.
- 20. The Contractor shall be fully responsible for the tests required at site/ specified labs (3rd party Labs) for all the Materials supplied by contractor / Owner as per the instruction of College (SRCC).
- 21. No request for additional payment on account of escalation shall be entertained.
- 22. **Site safety:**-Safe methods of working shall be a main consideration in all operations. Contractors will provide Owner with details of their methods of work, highlighting the safety aspects and they will update this information as necessary. It is the responsibility of all persons employed on this project to act responsibly to prevent accidents to themselves and others. Contractor is responsible for the safety of his work by:
 - Providing safe plant, equipment and working conditions.
 - Ensuring the establishment of safe working procedures.
 - Providing suitable protective equipment / clothing, like gloves, ear muffs, goggles etc.
 - Providing adequate job training.
 - Providing fire extinguishers and first aid box.
 - Reporting all accidents and dangerous occurrences, with copies to Owner.
 - Ensuring that hazardous materials, if necessary on site, are stored and used in a safe manner.
- 23. Samples and Detailed/Shop Drawings:- After the award of the Contract, the Contractor shall furnish Detailed/Shop drawing and samples for the approval of the College (SRCC) within 10 days.



- 24. **Assignment or Sub-letting:-** The Contractor shall not without the written consent of the College (SRCC) assign or sub-let this Contract.
- 25. **Variations:** The College (SRCC) shall have power to make any alterations or omissions, additions, substitution for the original specifications, drawings, design and instructions, that may appear to it to be necessary during the progress of the work.
- 26. Materials and Workmanship:- All materials and workmanship shall be of approved quality and make and the Contractor shall immediately remove from the works any material and/or workmanship which in the opinion of the College (SRCC) are defective or unsuitable and shall substitute proper material and or workmanship at his/her own cost. The term approval used in connection with this contract shall mean the approval of the College (SRCC).
- 27. **Electricity:** The contractor will make his own arrangement for electricity. The electric connection if required will be arranged by the Contractor himself. Necessary cabling etc. will be done by him at his cost and he will also pay for consumption at the prevailing rates of charges as per bills. The Contractor will purchase or hire generator to meet the requirement of electricity for the works and its cost for running / maintenance will be borne by contractor himself. The OWNER will have no responsibility in this connection.
- 28. Water: Contractor will make his own arrangement for water & further storage and piping etc. No. responsibility lies with the OWNER. The water used should be suitable for construction purpose and should be got tested from approved laboratory by Contractor at his own cost before start of the work. The running and maintenance shall be done by the Contractor at his own cost.
- 29. **Storage:** Contractor shall at his own cost, make all arrangements for storage and safe custody of material. The Contractor shall construct suitable godown at the site of work for storing material safe against damage due to sun, rain, dampness, fire theft etc. He should also employ necessary watch & ward establishment for purpose.
- 30. Labour: The Contractor shall employ no child labour less than 18 years of age on the work. If female labours engaged, the Contractor shall make necessary provision for safeguarding small children and keeping them clear of the site of operations. No labourer shall reside within the compound except authorized guards.
- 31. **Site Engineer:** The Contractor shall constantly keep on his work during its progress qualified and competent Site Engineer who will be responsible for the carrying out of the works to the true meaning of the Drawings, Specifications and Schedule of the Quantities.
- 32. **Contract Bills:** Upto date monthly measurements relating to the work shall be recorded at the end of the month by the ENGINEER-IN-CHARGE in presence of Contractor's representative and Contractor shall submit his Bill in duplicate in approved proforma every month for payment. All such payments shall be considered as advance payment against final bills.
- 33. **Extra Item:** The rate for necessary extra and substituted items shall be determined on the basis of actual cost of materials & labour etc. (for this contractor shall produce the sufficient proof) plus 10% to cover Contractor's all over-heads and profits. Contractor to get approval of Rate of extra items from College prior to the execution of the same at site.
- 34. All disputes and differences arising between the Parties to this Agreement shall be subject to the exclusive jurisdiction of the Courts at Delhi.



APPENDIX TO GENERAL CONDITIONS OF CONTRACT SCHEDULE OF FISCAL ASPECTS

Name of work	:	DESIGN, ENGINEERING, FABRICATION, SUPPLY AND ERECTION OF PORTA CABINS FOR CLASS ROOMS AT SHRI RAM COLLEGE OF COMMERCE (SRCC), UNIVERSITY OF DELHI, DELHI
DEFECT LIABILITY PERIOD	•	12 months after completion of entire work. During. Defect Liability Period of 12 months the contractor will depute his staff for attending to all types of defects included under his scope of contract and rectify the defects free of cost.
PERIOD OF FINAL MEASUREMENTS AND VALUATION	:	Within 1 (One) month from date of handing over the work.
DATE OF COMMENCEMENT		Within 5 days of issue of the award letter from the Owner.
TIME FOR COMPLETION		The whole works shall be completed within 60 Days
Performance Security DD		Equivalent to 5% of the cost of the work to be submitted within 10 days after the award of work.
AGREED LIQUIDATED DAMAGES		The quantum of liquidated damages shall be 0.5% per week of delay with a maximum of 5.0% of the Value of Work.
SECURITY DEPOSIT PERCENTAGE	:	10 % from Gross amount of each bill as per conditions of contract.
LIMIT OF SECURITY DEPOSIT	:	10% of the Gross amount of work done
REFUND OF SECURITY DEPOSIT AFTER VIRTUALCOMPLETION	:	50% shall be released after completion of work subject to finalization of bills and rest 50% after defect liability period of 12 months subject to all defects rectified by the Contractor.



FORWARDING LETTER

From:		Date:
То		
	CIPAL COLLEGE OF COMMERCE (SRCC), TY OF DELHI, DELHI	
		PLY AND ERECTION OF PORTA CABINS DIMMERCE (SRCC), UNIVERSITY OF DELH
Dear Mada	am,	
perform, pr	rovide, execute & complete the above we	the above work, I/ We do hereby offer to ork in conformity with the drawings, terms & own in the schedule of quantities attached
agreement	, conditions of contract & specifications e within the specified period, and fully und	nditions of site and have read the articles of tc. and we understand that the work is to be derstood that the time will be the essence of
Yours faith	fully	
S. No.	Name(s) of Authorized Signatory	Signature
3.110.	Nume (s) of Numerical signatury	o.g.retwo



UNDERTAKING

I/we do hereby undertake that I have not been convicted in past for any offence or not indulged in any act of indiscipline or moral turpitude.

Name of the Authorized Signatory :

Father's Name :

Residence Address :

Mobile/ Telephone No. :

Email ID :

Name of the Firm :

Seal of the Firm :

Signature :

17

Date

TECHNICAL SPECIFICATION:

- 1. **Scope of Work:** Design, Engineering, Fabrication, Supply and Erection complete in all respect the Porta Cabin suitable for Class Rooms.
- 2. Design Criteria:
 - i. Seismic Co-efficient and Wind Pressure: As per Delhi Zone
 - ii. Roof Slope: 1:4
 - iii. Water Absorption/penetration: as per standard criteria
 - iv. Termite Proofing: Termite Proof
 - v. Fire resistant: Fire resistant and should not emit toxic flames/fumes
 - vi. Ease of Construction: Shelter should be modular in design
 - vii. Design Load: As per Indian standards
 - viii. Specifications: CPWD Specifications and relevant Indian Standards (Latest with upto date Correction slips) shall be followed
 - ix. Structure Stability Certificate: The Firm will have to give structure stability Certificate and the firm will stand warranty for that.
- 3. Wall Panel: Providing and fixing of 50mm thick Aerocon composite modular Panels consisting of 2 fiber reinforced cement sheets (4.2mm. thick) on either side of light weight concrete core consisting of 30% fly ash, 61.5% cement, 5.5% mica and sand aggregate fixed between min 50x25x0.63mm G.I. C sections from top & bottom side. Min size 50x50x1.2mm MS tubular pipe fixed after every maximum 10' distance for roof and wall strength. Texture paint coating from both side of the wall super fine make brand etc. (Asian / Jenson & Nicholson / Berger Paint) The rate shall be inclusive of making openings for AC/ Windows/Doors/Exhaust fans wherever required
- 4. **Roof:** Roof slope shall be 1:4 approx. Span of structure is approx 6.1m. Roof shall be done with 0.5 mm pre coated, pre profiled sheets conforming to latest IS-14246 for steel components. These sheets are laid over a frame works of trusses, columns and purlins fixed using suitable fasteners like screw with washers and bitumen washers etc., a ridge cover of min size 225x225x0.5 mm made from precoloured steel sheet is to be fixed on top junctions of the roof using suitable fasteners.
- 5. **Insulation:** 40 mm Thick Glass wool will be placed in between the Roof and Ceiling.
- 6. **Roof Projection:** The roof shall have min projection of 0.40m from the eaves wall and 0.30m from the end walls. Purlins will also be provided on the roof at the eaves and at the gable roof extension (outside the structure) made from RHS section of min size 66x33x2.9mm conforming to latest IS-4923 with open hollow and closed with welded 4mm thick MS plate.
- 7. Roof Structure Frame Work: The roof shall be laid over a frame work of trusses,

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purlins and columns fixed using suitable GI fasteners, nuts and bolts, steel and bitumen washers etc.

The trusses shall be made using rectangular hollow section of min size 66x33x2.9mm conforming to latest IS: 4923. The trusses shall be provided at suitable distance of total length and shall be supported on columns made using rectangular hollow steel section of min size 96x48x3.2mm conforming to latest IS-4923 with each using 10mm thick MS end plate end shall be fixed to the foundation bolt min 16mmx450mm long through this plate.

The purlins shall be made using rectangular hollow steel sections of min size 66x33x2.9mm conforming to latest IS-4923, provided on the trusses at a max. pitch of 1m or less and are fixed on the top of trusses.

Detailed/Shop drawing for the proposed structure will have to be submitted to the Architect / Engineer in Charge for approval, prior to execution at site.

<u>Size of Steel member mentioned here is as per minimum requirement</u>; Contractor has to confirm the suitability of the each and every component as per the structural and other requirements. <u>If there is any change in the member size & its arrangement</u>, same shall be highlighted properly, in the Technical Bid.

8. **False Ceiling:** False ceiling made out of PVC coated gypsum tiles, suspended on grid frame GI 'L' section of size 30mmx20mmx1.25mm thick and 'T' section of size 30mmx35mmx0.80mm thick with fixing at site complete in all respect.

Foundation: A suitable foundation will be provided with brick masonry wall above Ground Level to Plinth Level over a brick masonry step foundation in cement mortar 1:6, 15mm thick cement plster in cement mortar 1:6 will be done on brick masonry above Ground Level. The Plinth height shall be 450mm above average GL. Detailed/Shop drawing for the proposed foundation will have to be submitted to the Architect / Engineer in Charge for approval, prior to execution at site. Plinth Protection as per the standard shall also be provided.

- 9. **Flooring and Skirting:** Anti skid vitrified floor tiles 600 x 600mm (with water absorption less than 0.08 % and conforming to I.S. 15622) of SOMANY \ KAJARIA\Equivalent make, of approved colour & shade over 20mm thick cement mortar 1:4 (1 Cement: 4 coarse sand) including grouting the joints with white cement and matching pigment etc. complete (Base rate of tile is Rs. 60 \ Sqft.), over 75mm thick PCC sub base 1:4:8 using 20-40mm graded stone aggregate over compacted sand filling. 100mm high skirting shall be provided on all walls of class rooms
- 10. Door (Two doors per Classroom): Door frame shall be made from GPCC (Galvanized Plane Colour Coated) of suitable size and thickness. The shutter for door shall be made out of 32mm thick wood flush door as per IS-2201(Part 1) 1991. The door shutters shall be fixed with the door frame with 4 nos hinges 100mm length. The door shall be provided with 2 nos aldrops on each sides of 300mm length, tower bolts of size 200mm at the top and 100mm at the bottom on each shutter and two nos 150mm long handles.

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- 11. Window (4 to 6 windows per classrooms as per the size of classroom): Providing and fixing power coated Aluminium anodized window of powder coating minimum 40 micron anodised (min. 20 micron) of approved shade of window size 1.2mx0.9m each with two sliding panels and suitable size of aluminium frame section weighing as per relevant IS codes, including supplying and fixing the frame and sub frame with expansion bolts / screws, necessary cleats for jointing with cadmium coated screws/ bolts nuts including providing and fixing glazing using 5 mm thick float glass with EPDM gasket felt, filling the gap between masonry/concrete/stone surface of soffit/jambs/cill and outer frame by approved gun grade suitable silicon sealant of matching colour, etc complete as per approved drawing and as directed. The frame shall be provided with Aluminium grill of approved pattern, dia/thickness of guard bars not less than 8mm. Aluminium window shall be of Jindal/Hindalco/Balco make.
- 12. Surface Finish: (i) Interior Surface of the wall :- Providing and applying superfine texture paint of approved make and desired shade. (ii) Exterior Surface of wall :- Providing and applying superfine texture paint of approved make and desired shade. (iii) Foundation Walls will be finished with two or more coats water proofing cement paint of required shade applied at 3.8 kg. / 10 Sqmt. over proper finished base complete. (iv) Enamel Paint for Steel door frame. (v) All wooden surfaces shall be treated with two coats of synthetic enamel paint over one coat of primer.
- 13. Electric Wiring and Fitments: Complete electrical wiring with DB's, MCB's, LED light fittings and Switch sockets for lights, fans, power, Air Conditioners etc. shall be provided of Havel or equivalent makes. Wires will be of Havel/Finolex/equivalent makes. Approx 6 nos Light Points, 6 nos Fan Points, 6 nos multipurpose power points and 2-3 nos A/C points to be provided in each classroom as per the size of the classroom. Contractor to submit the detailed/shop drawings for approval prior to the execution at site.
- 14. Contractor will submit detailed/shop drawings to the College for approval, prior to the execution of the work.
- 15. As per the outer dimension of the plinth, actual plinth area of class rooms shall be paid under their respective rates. No payment shall be made for roof projection beyond built up plinth area of Porta Cabins.

Annexure-V

BILL OF QUANTITIES

Shri Ram College of Commerce, University of Delhi, Delhi-110 007

Design, Engineering, Fabrication, Supply and Erection of Porta Cabins for Class Rooms

S. No.	Description	Unit	Approx Plinth Area Quantity	Rate (Rs) inclusive of all Taxes & GST etc		Amount (Rs)
				In Figures	In Words	
1	Design, Engineering, Fabrication, Supply and Erection of Porta Cabins of size upto approx 35' x 20' x11' each, complete in all respect including Foundation, Plinth Protection, Civil, Structural, Finishing and Electrical works complete in all respect as per the Technical Specifications	Square Feet	2000			

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