

TENDER

FOR

Construction of 32 Demonstration Houses using Expanded Polystyrene Core Panel System (EPS) Technology including Infrastructure Works on Design & Build basis at Bhubaneswar, Odisha

Composite Work

(Ref. No. BMT/CBM/1/2015/Odisha)



BUILDING MATERIALS & TECHNOLOGY PROMOTION COUNCIL

Ministry of Housing & Urban Poverty Alleviation, Govt. of India

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Lodhi Road, New Delhi-110003

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E-mail: bmtpc@del2.vsnl.net.in; Website: www.bmtpc.org



TENDER NOTICE

BMTPC invites sealed offers in two bid system from reputed, experienced, technically and financially sound Technology provider, companies, firms, contractors/ developers, Joint Venture (hereafter called Agency), public & private agencies for **construction of 32 Demonstration Houses (G+3) using Expanded Polystyrene Core Panel System Technology, including infrastructure works at Chandrasekharapur, Bhubaneswar, Odisha on Design & Build basis.** Interested parties may submit their bids within 30 days from the date of advertisement in the newspapers at the following address in the manner as described in the detailed Tender Document available on BMTPC's website **www.bmtpc.org**. Any further changes/relevant information would be intimated only through the website of the Council.

Building Materials & Technology Promotion Council, (Ministry of Housing & Urban Poverty Alleviation, Govt. of India), Core-5A, 1st Floor, India Habitat Centre, Lodhi Road, New Delhi-110003, Tel:011-24638096/97.

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Technology including Infrastructure Works on Design
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Part-A
TECHNICAL BID

INDEX

Name of Work: **Construction of 32 Demonstration Houses using Expanded Polystyrene Core Panel System (EPS) Technology including Infrastructure Works on Design & Build basis at Bhubaneswar, Odisha**

PART-A (TECHNICAL BID)

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निर्माण सामग्री एवं प्रौद्योगिकी संवर्द्धन परिषद

आवास और शहरी गरीबी उपशमन मंत्रालय, भारत सरकार

Building Materials & Technology Promotion Council

Ministry of Housing & Urban Poverty alleviation, Government of India

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TENDER NOTICE

1. Sealed tenders are invited under Two-Bid System from reputed, experienced, technically and financially sound Technology provider, companies, firms, contractors/ developers, Joint Venture (hereafter called Agency) for construction of 32 Demonstration Houses using Expanded Polystyrene Core Panel System Technology, including infrastructure works at Chandrasekharapur, Bhubaneswar, Odisha on Design & Build basis
 - i) The sub head of work: Construction of one ground+3 storied building block consisting of **32 dwelling units (8 units per floor)** using Prefabricated Expanded Polystyrene Core Panel System Technology, with internal sanitary & electrification works and **infrastructure works**, 32 Overhead Tanks of capacity 500 liters each at roof top, two external electric poles with LED bulbs run on solar based power, connection of water line, sewerage line & electric line of about 50 mt (for additional length charges would be paid extra) at Chandrasekharapur, Bhubaneswar, Odisha
 - ii) Estimated Cost: Rs 18500000/-
 - iii) Time allowed: Six Months to be reckoned after fifteen days of the date of written orders to commence the work or from the first day of handing over the site whichever is later.
 - iv) The site for the work has been allotted by Bhubaneswar Development Authority, and located at proposed EWS plot no.335(P),1953(P),385(P) Khata No. 619, Village- Chandrasekharapur, PS. New capital no.23, Bhubaneswar.
 - v) **Condition of the work:** The nature of the work is on Design & Build basis with vetting of structural design by Technical / Research institutions of repute. The details in this regard are included in Design Data & Specification head.
 - vi) EMD: Rs 370000/- (2% of Estimated Cost)

- vii) Cost of Tender Rs 1000/- (Non refundable)
- viii) Last date of submission of tender is **December 14, 2015 upto 1600 hrs.**
- ix) Pre Bid Meeting will be held on **December 4, 2015 at 1430 hrs.**
- x) Opening of Technical Bids will be on **December 16, 2015 at 1430 hrs.**

Tenders can be received from BMTPC Office by making the payment of Rs. 1000/- & can also be down-loaded through the BMTPC website: www.bmtpc.org. In case of down loading, the Agency shall have to pay the cost of Tender Form Rs 1000/- in the form of DD favoring BMTPC, New Delhi at the time of submission of tender. The tender is to be submitted on the prescribed format in Two Bids in separate cover in the following manner:

Part A - Bid containing Technical Specification, Earnest Money Deposit and Integrity pact.

Part B - Bid containing Financial Offer

The Envelope containing Technical Bid and Financial Offer should be marked as **Technical Bid** and **Financial Bid** separately and submitted in another envelope duly sealed and super scribed "**Tender for Construction of Demonstration Houses at Chandrasekharapur, Bhubaneswar, Odisha**".

The EMD, Cost of Tender & all requisite documents must be attached with the Technical Bid.

The Financial Bid shall contain the rates only.

NOTE: The Agencies are invited to be present in pre-bid meeting for clarifications if any. The suggestions by the agencies limited to issues found incompatible with technology in the tender document may only be accepted for consideration in pre-bid meeting. If some modifications are affected in pre-bid meeting, the same would be uploaded on BMTPC web site.

These bids will be opened in two stages. The bid containing Technical Specification and Earnest Money deposit will be opened at the 1st stage on and if the same is found to be acceptable by BMTPC the bid containing financial offer shall be opened in 2nd stage **on December 21, 2015 at 1430 hrs.** Only those Agencies would be informed whose technical bid are accepted.

Incomplete & Conditional tenders shall be summarily rejected.

The tender duly filled in should be sent by post only so as to reach BMTPC Office on or before due date and time at the following address. Tenders received late due to postal delay or some reasons will be the responsibility of the Agency, and shall not be accepted.

Agency should read the General Condition and Terms & Condition and instruction and other conditions carefully before filling the tender.

Address for Communication:

Executive Director
Building Materials & Technology Promotion Council (BMTPC)
Core-5A, 1st Floor,
India Habitat Centre, Lodhi Road,
New Delhi - 110 003

1.1 ELIGIBILITY CRITERIA

Reputed, experienced, technically and financially sound Technology provider, companies, firms, contractors/ developers, Joint Venture for construction of houses/buildings (hereafter called Agency) who will be able to meet the following eligibility criteria, shall be eligible to apply.

- i. Registered Agency having valid statutory VAT registration, PAN Number, WCT No, Service Tax Number, PF, labour etc.
- ii. The average Annual turnover of the agency / tenderer shall not be less than 100,000,00.00 (Rupees: One hundred lakhs) per year for the last three years.
- iii. The Agency who have been debarred from undertaking any work and blacklisted by any organization/ agency as on date of submission of tender, shall be summarily rejected. An affidavit shall be submitted by the Agency that the company is not blacklisted from the Government Organization.
- iv. **Work Experience:** The Agency should have experience of having successfully completed works using conventional technology and/or pre-fabricated technology (Building work) using expanded Polystyrene Core Panel System technology during the last five years ending last day of the month previous to the one in which applications are invited:
 - Three similar completed works costing each not less than the amount equal to 40% of estimated cost of work put to bid,
OR
 - Two similar completed works, each of value not less than 60% of the estimated cost put to bid

OR

- One similar completed work of value not less than 80% of the estimated cost put to bid

AND

- Out of the above at least one completed work of the value not less than 20% of the estimated cost shall be using expanded Polystyrene Core Panel System technology.
- Similar work here shall mean building works like Residential, Office complex, Institutional, Shopping complex and like other building works using conventional and/or EPS Core Panel System technology
- The value of executed works shall be brought to current costing level by enhancing the actual value of work at simple rate of 7% per annum; calculated from the date of completion to last date of receipt of applications for tenders

v. Certification of the Technology

The structural system of the technology shall be certified by any of the following;

- a) BMTPC (under its Performance Appraisal Certification Scheme)
- b) CBRI, Roorkee
- c) SERC, Chennai
- d) Any IIT's
- e) Any NIT's
- f) Any reputed National / International technical institutions.

For Agency other than Technology Provider or not as JV with technology provider must have undertaking for regular supply from single source of certified prefabricated panels conforming to the specifications as mentioned in the Design Data & Specification head to be used in the project. This Undertaking if applicable shall be part of the documents to be submitted with technical bid.

- vi. If any information furnished by the Agency is found incorrect at a later stage, he shall be liable to be debarred from further bidding and taking works. The Project Authority reserves the right to verify the contents / particulars furnished by the Agency independently including inspection of work completed by them.

1.2 The tender shall be valid for 120 days from the date of its submission.

1.3 Only one type of JV is allowed for any Agency, which is between the Technology provider and the Agency himself. In this case, the Agency shall submit all the documents regarding the technical & financial eligibility,

whereas the technology provider shall submit all the certificates related to the construction technology and vice-versa.

1.4 In case the Agency is JV, the members of the JV shall furnish a Power of Attorney designating one of the members, as per the JV agreement, as their Lead Member. The lead member shall be fully responsible for the satisfactory performance of the JV.

1.5 A copy of the JV Agreement registered should be submitted. The JV agreement entered into the members of the JV should be specific to the project only.

1.6 List of documents to be attached;

- i. The Demand Draft of EOI fee of Approved Bank in original.
- ii. Audited balance sheet of last five financial years
- iii. Audited certificate showing net worth of last five financial years
- iv. Income tax return of last 5 financial years.
- v. Copy the Bank Solvency certificate (not older than six months)
- vi. Certificate of work experience as mentioned in Eligibility Criteria
- vii. Performance certificate for the proposed technology as mentioned in eligibility Criteria
- viii. Performance Report
- ix. Detailed organizational structure including technical manpower.
- x. Details of construction Plants, equipment etc. available with the Agency.
- xi. Litigation Details
- xii. Certificate of registration of Company/Firm.
- xiii. Details of registration/empanelment with Central/State agencies/PSUs
- xiv. Copy of VAT registration, PAN No., WCT No, Service Tax No.
- xv. PF registration certificate.
- xvi. Valid license under Contract Labour (R&A) Act 1970.
- xvii. The certificate for the Structural System of the Technology & Vetting of structural design
- xviii. Any other relevant documents as desired by the Agency.

Chief (Building Materials)
For and on Behalf of BMTPC

2. DESIGN DATA & SPECIFICATIONS FOR THE PROJECT

The layout plan & architectural drawing of the proposed building (G+3) is attached. The plinth area of the building and total built up area as worked out from attached drawing is 273.69 sqm & 1094.76 sqm built up area respectively. In the construction drawing the carpet area, corridor & staircase area has to be maintained same as per the attached drawing.

The design data & specifications to be used are as below.

2.1. DESIGN DATA

The Agency is required to design & prepare the structural working drawings for the houses as per the Architectural drawings attached herewith for Tender purpose. The design shall be based on the following parameters & latest version of IS Codes shall be referred to;

- i) The safe bearing capacity of soil may be taken as 20 ton/sqmt & other geotechnical parameters are to be collected from site for designing purpose.
- ii) Dead load is to as per the actual load of Panel and other material used based on IS-875 Part-I & imposed load as per dwelling houses category of residential buildings as per IS 875 Part-II
- iii) Wind speed as per IS : 875 Part-III
- iv) Earth quake force as per IS 1893
- v) Special loads and load combinations as per IS 875 Part-V
- vi) Plinth level of Building is to be + 450 mm from adjacent road level
- vii) Height of Floor: - From Finished Floor level (FFL) to roof ceiling level= +2800mm at all floor.
- viii) Type of structure: G+3 Structure above plinth level

Provisions for the Block;

AT GF: - 8 Houses

AT FF: - 8 Houses

AT SF: - 8 Houses

AT TF: - 8 Houses

Terrace level: - Space for keeping OH Tanks

Common Stair case for all floors & Roof.

2.2. Vetting of Design & drawings

The design of the structure for structural and functional requirement shall be done for combined effect of applicable dead load, imposed load, earthquake forces, wind loads and other loads as per applicable Indian Standards and National Building Code of India and actual site conditions. It would be the responsibility of bidder to get the Design and Drawings of structure vetted by Technical / Research institutions of repute such as IITs, NITs, CSIR Labs, Govt. Research Institutions and/or by any reputed National/ International technical institutions as found acceptable by BMTPC.

2.3. Technical Specifications for building structure;

The technical specification would be entirely based on design parameters, however, the minimum specification as given below is recommended to be adhered to;

a) **Foundation:** The foundation shall be designed on the basis of soil condition of the site with tentative bearing capacity of 20 tonnes per Sqm and requirement of structural system under consideration by constructing RCC / Masonry continuous wall footing with lean concrete, up to plinth level. However bearing capacity may be further verified by the bidder at site. Anti termite treatment as per CPWD specification shall be provided.

b) *The requirement of Specifications of Raw Materials for EPS Panel is as below;*

i) Zinc Coated Cold Drawn Steel Wire – Shall be of 2.5/3.0 mm dia and zinc coating galvanizing shall be of $60 \text{ gm/m}^2 \pm 5 \text{ gm/m}^2$

Mechanical characteristics

Yield stress	: > 600 N/mm ²
Breaking load	: > 680 N/mm ²
Elongation	: > 8%

Chemical characteristics

% C	: < 0.24
% P	: < 0.055
% S	: < 0.055
% Ceq	: < 0.52

- ii) Expanded Polystyrene – Self-extinguishing type EPS 80 in accordance to UNI EN 13163:2013 (IS 4671: 1984) having density not less than 15 kg/m³

c) EPS Panels for wall

Walling shall be completed using factory made Expanded Polystyrene Core Panel (EPS) based electro welded wire mesh 3D panels manufactured using the specified EPS and Cold drawn wire and sprayed Structural plaster. The specification of panel shall not be less than the values given in **fig. 1 & 2** below. The sprayed fiber reinforced concrete of minimum thickness of 35 mm shall be done using required pneumatic device from both sides by trained artisans. The composition of spray shall be such as to give minimum characteristic strength of 25 N/mm². The maximum w/c ratio shall be 0.45. The thickness of the sprayed concrete & EPS wall shall be based on design requirements.

Single panel for structural uses

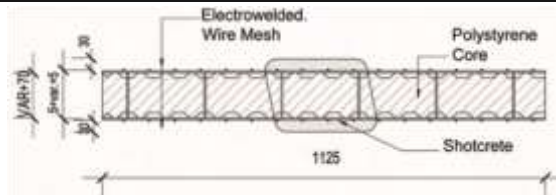
Longitudinal wire	Min 2.5 mm ϕ spaced @ 70 mm (Max.)	 <p>Typical Drawing</p>
Transverse wire	Min 2.5 mm ϕ spaced @ 70 mm (Max.)	
Cross steel wire	Min 3.0 mm ϕ approx 45 nos. / m ²	
polystyrene Core	Density >15 Kg/m ³ , Thickness not less than 80 mm	
Finished Masonry	Not less than 150 mm thick	
Grade of Shotcrete	Minimum M-25	

Fig.1

Single panel for internal partition and insulation

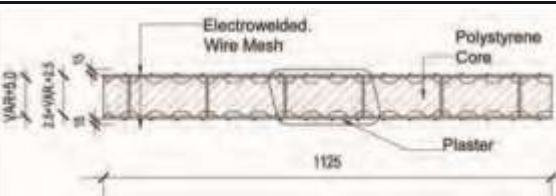
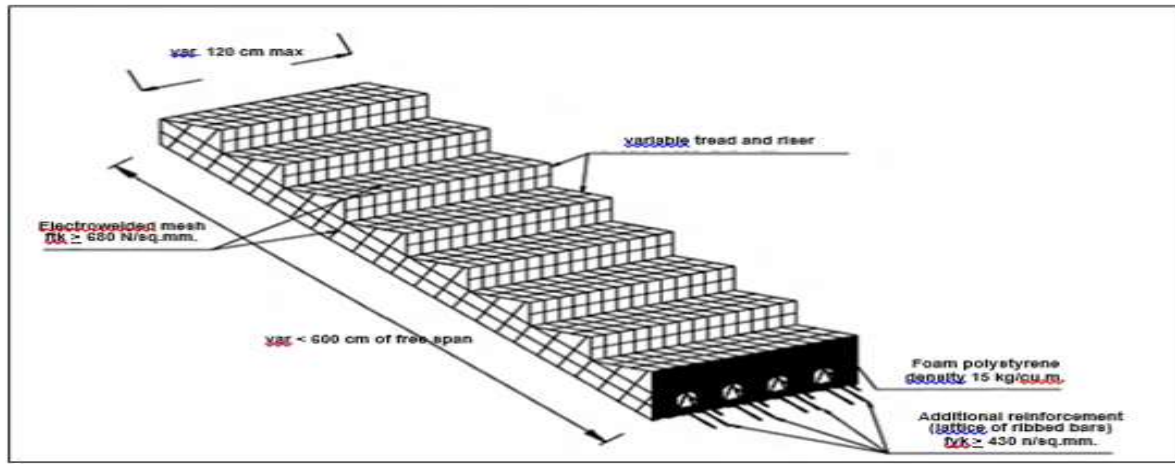
Longitudinal wire	Min 2.5 mm ϕ spaced @ 80 mm (Max.)	 <p>Typical Drawing</p>
Transverse wire	Min 2.5 mm ϕ spaced @ 75 mm (Max.)	
Cross steel wire	3.0 mm ϕ approx 45 nos. / m ²	
polystyrene Core	Density > 15 Kg/m ³ , Thickness 40 mm to 320 mm	
Finished Masonry	Min 90 mm	

Fig2

d) Staircase panel

The EPS panel based staircase would be preferred as per minimum specification given in **Fig.3**. However, the Agency can propose for construction of staircase in RCC or steel frame based staircase for approach on all floors up to terrace floor.



Galvanized steel wire mesh:

Longitudinal wires:	2.5 mm dia
Transversal wires:	2.5 mm dia
Cross steel wire:	3.0 mm dia
Polystyrene slab density:	> 15 kg/m ³

Fig 3

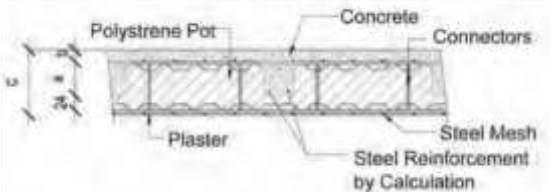
- e) **Flooring & Roofing;** Intermediate floor shall be composite EPS as per specification and shall be designed for combined effect of dead load, imposed load & other loading conditions. The specification of panel shall not be less than the values given in **fig. 4** below

Single Panel for horizontal structure for floor/ roof

Longitudinal wire	Min 2.5 mm ϕ spaced @ 80 mm	
Transverse wire	Min 2.5 mm ϕ spaced @ 75 mm	
Cross steel wire	Min 3.0 mm ϕ approx 45 nos. / m ²	
polystyrene Core	Density 15 - 25 Kg/m ³ Thickness 160 mm	
Finished Masonry	Min 155 mm mm thick	
Grade of Shotcrete/ concrete	Min M-25	

a = EPS Nominal Thickness (variable between 80 mm to 160 mm); b = Distance between steel meshes (a + 10 mm); c = Shotcrete thickness (average ≥ 25 mm); d = Total thickness ($2xc+a$)

Floor panel with reinforcement at joist

Longitudinal wire	Min 2.5 mm ϕ spaced @ 80 mm	
Transverse wire	Min 2.5 mm spaced @ 70 mm	
Cross steel wire	Min 3.0 mm ϕ approx. 45 nos. /m ²	
polystyrene Core	Density > 15 kg/m ³	

a = thickness of core; b = thickness of concrete; c = overall thickness

The Panels to be used for the floor and the roof system and reinforced in the joists with concrete casting on the site. The reinforcement of the panel can integrated during the panel assembly by additional reinforcing bars inside the joists as per the design.

Fig.4

f) Connections;

Jointing of the panels shall be ensured in such a way to make it safe from vertical load, lateral loads and impact loads. Jointing shall be sealed properly.

2.4. ELECTRICAL INSTALLATIONS SPECIAL CONDITIONS

General

1. These Special Conditions are part of the Contract and the contractor shall go through it as he shall not have any right to claim at any time for delays or for expenditure incurred by him in fulfilling the following special conditions.

Special Conditions of Contract (SCC) shall be read in conjunction with Technical Specifications, Schedule of Quantities, Tender Drawings and any other document forming part of this contract Agreement.

1.1. Electrical License

The Agency shall employee licensed supervisors and skilled workers having valid permits as per the regulations of Indian Electricity Rules and local Electrical Inspectors requirements.

1.2. Conformity to IE Act, IE Rules, and BIS standards

- a) All Electrical works shall be carried out in accordance with provisions of Indian electricity Act, 1910 and Indian Electricity Rules, 1956 amended up to date (Date of call of tender unless specified otherwise).

- b) The definition of terms shall be in accordance with IS: 732-1989 (Indian standard Code of Practice for Electrical wiring), except for the definitions of point, circuit and sub main wiring which are defined in the General specifications for Electrical Works Part-1 Internal 2013.
- c) All components shall conform to relevant Indian Standard (BIS) Specifications, wherever existing. Material with ISI certification mark shall be preferred.

1.3. Electrical drawings

The drawings appended separately are intended to show space allotted for various equipments. The equipments offered shall be suitable for installation in the spaces shown in these drawings.

The work shall be carried out in accordance with the symbolic drawings for internal Electrification enclosed with the tender documents and also in accordance with modification thereto from time to time as approved by BMTPC or his representative. However detailed drawing shall be developed by the bidder.

2.5. Solar Street Light – MS Pole 6 mt height over concrete pedestal, 15 Watt LED light Phillips/ Bajaj/Crompton or Suitable Equivalent.

2.6. Statutory Clearance(s)

- Approval /Clearance of the work shall be obtained by the contractor from Local bodies and other licensing authorities, wherever required. However, application shall be made available by the BMTPC to the contractor and any statutory fee, as applicable, shall be paid by the Contractor directly to the Govt. authorities concerned & the same would be reimbursed by BMTPC on production of proof of payment.
- Pay any licensing fee/submission fee/inspection fee payable to statutory authorities for obtaining above approvals.
- Complying with observations, if any, of Electrical Inspector /or any other Statutory Authority after completion of work in order to obtain a categorical clearance to start beneficial use.

2.7. Drawings/Documents to be furnished on completion of Project.

Three sets of all completion drawings (Architectural, Structural, Plumbing, electrification etc.) shall be submitted by the contractor both in the form of hard and soft form while handing over the project to BMTPC.

The specification for finishing items shall be as below;

S.No	Item of Work	Specification
1.	FOUNDATION & PLINTH	
1.1	Foundation Concrete for walls	No concreting less than M25 strength will be used for foundation work either for frame structure or raft foundation as per design. The type of mix, thickness and width shall depend on approved structural design. The base concrete will not be less than M7.5
1.2	Damp Proof Course / Plinth Beam	DPC shall be 40 mm thick of CC M-20 with bitumen coating of 1.7 kg/sqm according to CPWD Specifications 2009 having the projection of 25mm on outer walls. However, if plinth beam has been provided, DPC will not be required or as per the direction of Engineer- in charge.
1.3	Plinth Filling : a) Sand filling : / Concrete under floor :	Filling with available fly ash and earth (excluding rock) in trenches or embankment in layers (each layer should not exceed 15 cm), with intermediate layer of compacted earth (Soil density of 98%) after every four layers of compacted depth of fly ash, sides & top layer of filling shall be done with earth having total minimum compacted thickness 30 cm or as decided by Engineer -in-charge, including compacting each layer by rolling/ ramming and watering, all complete as per drawing and direction of Engineer-in-charge. with 100mm layer of CC 1:4:8 (1 cement : 4 coarse sand : 8 stone aggregate) 40 mm nominal size under floor.
1.4	Brick work in foundation & plinth :	Wherever provided cement mortar shall be with coarse sand minimum 1:6 (1 cement: 6 coarse sand) or richer mixes subject to the provisions of the approved structural drawings.
2	SUPER STRUCTURE WORK :	
2.1	Railing in staircase.	0.90mtr high M.S. railing in all the houses in staircase of approved pattern with hand railing 40 mm MS (medium class pipe) Minimum weight 14 kg per metre and vertical bars of 16mm dia square bar at 100mm c/c embedded in waist slab. The height of railing shall be 0.90mtr from finished level of steps.
3.	Wood / Steel work (Door, Windows & Ventilators)	
3.1	Door frame / shutters	The door frame will be of pressed steel door frame as per CPWD specification Profile "B" and All door shall be provided 35mm factory made laminated veneer lumber door shutter confirming to IS 14616 & TADS IS:2001 (Part B) of approved brand with 12 mm thick plain grade - 1, medium density flat pressed three layer particle board FPT - I or graded wood particle board FPTI, IS : 3087 marked, bonded with BWP type synthetic resin adhesive as per IS : 848 : duly painted with enamel paint as specified of approved colour with M.S. Butt hinges and oxidised MS fittings. as per CPWD specifications.
		Toilet/Bath Door Frame: Providing and fixing factory made uPVC door frame made of uPVC extruded sections having an overall dimension as below (tolerance ± 1 mm), with wall thickness 2.0 mm (± 0.2 mm), corners of the door frame to be Jointed with galvanized brackets and stainless steel screws, joints mitred and Plastic welded. The hinge side vertical of the frames reinforced by galvanized M.S. tube of size 19 X 19 mm and 1mm (± 0.1 mm) wall thickness and 3 nos. stainless steel hinges fixed to

S.No	Item of Work	Specification
		the frame complete as per manufacturer's specification and direction of Engineer-in-charge Extruded section profile size 48x40 mm
		Toilet/Bath Door Shutters: 24 mm thick factory made PVC door shutters made of styles and rails of a uPVC hollow section of size 59x24 mm and wall thickness 2 mm (± 0.2 mm) with inbuilt edging on both sides. The styles and rails mitred and joint at the corners by means of M.S. galvanised/plastic brackets of size 75x220 mm having wall thickness 1.0 mm and stainless steel screws. The styles of the shutter reinforced by inserting galvanised M.S. tube of size 20x20 mm and 1 mm (± 0.1 mm) wall thickness. The lock rail made up of 'H' section, a uPVC hollow section of size 100x24 mm and 2 mm (± 0.2 mm) wall thickness, fixed to the shutter styles by means of plastic/galvanised M.S. 'U' cleats. The shutter frame filled with a uPVC multi-chambered single panel of size not less than 620 mm, having over all thickness of 20 mm and 1 mm (± 0.1 mm) wall thickness. The panels filled vertically and tie bar at two places by inserting horizontally 6 mm galvanised M.S. rod and fastened with nuts and washers, complete as per manufacturer's specification and direction of Engineer-in-charge. (For W.C. and bathroom door shutter).
3.2	Windows and Ventilators	<p>Providing and fixing factory made ISI marked steel glazed doors, windows and ventilators, side /top /centre hung, with beading and all members such as F7D, F4B, K11 B and K12 B etc. complete of standard rolled steel sections, joints mitred and flash butt welded and sash bars tenoned and riveted, including providing and fixing of hinges, pivots, including priming coat of approved steel primer, Fixing with 15x3 mm lugs 10 cm long embedded in cement concrete block 15x10x10 cm of C.C. 1:3:6 (1 Cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) with safety bars not less than 12mm dia square bars placing 150mm c/c</p> <p>Providing & fixing glass panes with putty and glazing clips in steel doors, windows, clerestory windows, all complete with : 4.0 mm thick glass panes.</p>
3.3	Door fittings :	<p>ISI marked Copper Oxodised MS fittings e.g. Tower bolts, handles, door stopper etc. (IS1378)</p> <p>Handles 6"-2, Tower bolt 12mm dia 200mm length -2, L drop- 300mm long & 12mm dia-1, stopper-1, buffer -1</p>
3.4	Windows and Ventilators Fittings	M.S oxidized hinges, handles, stays etc. with Oxidized M.S. fittings for all houses and with glazing as per CPWD Specifications 2009 Vol. I & II with up to date correction slips.
3.5	Mumty Door Shutter	Providing and fixing 1mm thick M.S. sheet door with frame of 40x40x6 mm angle iron and 3 mm M.S. gusset plates at the junctions and corners, all necessary fittings complete, including applying a priming coat of approved steel primer. Using M.S. angels 40x40x6 mm for diagonal braces including cost of frame of Angle Iron as required
3.6	Collapsible Shutters at Entry	Providing and fixing in position collapsible steel shutters with vertical channels 20x10x2 mm and braced with flat iron diagonals 20x5 mm size, with top and bottom rail of T-iron 40x40x6 mm, with 40 mm dia steel pulleys, complete with bolts, nuts, locking arrangement, stoppers, handles, including applying a priming coat of approved steel primer.
4	FLOORING :	

S.No	Item of Work	Specification
4.1	Rooms & kitchen	a) Crazy ceramic tile flooring, with under layer 12 mm thick cement mortar 1:4 (1 cement: 4 coarse sand), with joints not exceeding 5 mm, including filling the gaps with white cement mixture & mixing with synthetic polyester fibre, triangular in shape having specific gravity of 1.34 to 1.40, cross section size ranging from 10 to 40 micron & length upto 6 mm , mixing fibre @ 125 grams per 50 kg of cement in cement mortar, including providing and mixing water proofing material in mortar @ 1 kg per 50 kg of cement , all complete as per direction of Engineer-in-charge. with a base of 1:4 CM with coarse sand wherever required.
4.2	Toilet & Bath	Toilet –ceramic tiles (300x300mm)antiskid of approved colour
4.3	Kitchen Counter Top	Marble work gang saw cut (polished and machine cut) of thickness 18 mm for wall lining (veneer work), backing filled with a grout of average 12 mm thick in cement mortar 1:3 (1 cement : 3 coarse sand), including pointing with white cement mortar 1:2 (1 white cement : 2 marble dust) with an admixture of pigment to match the marble shade (To be secured to the backing by means of cramps), Raj Nagar Plain white marble/ Udaipur green marble/ Zebra black marble. Area of slab over 0.50 sqm with base over RCC slab/ stone with nosing.
4.4	Commons Space	Kota stone slab flooring over 20 mm (average) thick base laid over and jointed with grey cement slurry mixed with pigment to match the shade of the slab, including rubbing and polishing complete with base of cement mortar 1 : 4 (1 cement : 4 coarse sand) : 25 mm thick
4.5	Staircase	Kota stone slabs 20 mm thick in risers of steps, skirting, dado and pillars laid on 12 mm (average) thick cement mortar 1:3 (1 cement: 3 coarse sand) and jointed with grey cement slurry mixed with pigment to match the shade of the slabs, including rubbing and polishing complete.
4.6	Skirting :	18mm/21mm thick 100mm high skirting with same finish as flooring.
4.7	Dados	White glazed tile dado upto 600 mm in W.C., 1200 mm high in bath and 600 mm high above working platform in kitchen shall be provided.
5	ROOFING	
5.1	Tarrace Treatment :	Providing and laying integral cement based water proofing treatment including preparation of surface as required for treatment of roofs, balconies, terraces etc consisting of following operations: a) Applying a slurry coat of neat cement using 2.75 kg/sqm of cement admixed with water proofing compound conforming to IS. 2645 and approved by Engineer-in-charge over the RCC slab including adjoining walls upto 300 mm height including cleaning the surface before treatment. b) Laying brick bats with mortar using broken bricks/brick bats 25 mm to 115 mm size with 50% of cement mortar 1:5 (1 cement : 5 coarse sand) admixed with (1 cement :5 coarse sand) admixed with water proofing compound conforming to IS : 2645 and approved by Engineer-in-charge to required slope and treating similarly the adjoining walls upto 300 mm height including rounding of junctions of walls and slabs c) After two days of proper curing applying a second coat of cement slurry using 2.75 kg/sqm of cement admixed joint less cement mortar of mix 1:4 (1 cement :4 coarse sand) admixed with water proofing compound conforming to IS : 2645 and approved by Engineer-in-charge including laying glass fibre cloth of approved quality in top layer of plaster and finally finishing the surface with trowel with neat cement slurry and making pattern of

S.No	Item of Work	Specification
		300x300 mm square 3 mm deep. e) The whole terrace so finished shall be flooded with water for a minimum period of two weeks for curing and for final test. All above operations to be done in order and as directed and specified by the Engineer in- Charge : With average thickness of 120 mm and minimum thickness at khurra as 65 mm.
5.2	Rain Water Pipes	PVC pipes of approved make with minimum specification of 6kg pressure/cm ² with making of khurra 45 x 45cm.
6	FINISHING :	
6.1	Plastering on walls (internal):	12/15mm cement plaster 1:6 (1 cement:6 fine sand) finished
6.2	Plastering on walls (External):	12/15mm cement plaster 1:6 (1 cement:6 fine sand) finished
6.3	Finishing bottom of RCC slab	6mm cement plaster 1:3 (1 cement:3 fine sand) for Finishing bottom RCC Slab, beams, plaster to ceiling etc.
6.4	Internal finish on walls	Distempering with 1st quality acrylic distemper, having VOC (Volatile Organic Compound) content less than 50 grams/ litre, of approved brand and manufacture, including applying additional coats wherever required, to achieve even shade and colour. Two coats
6.5	External finish on walls	Wall painting with acrylic emulsion paint, having VOC (Volatile Organic Compound) content less than 50 grams/ litre, of approved brand and manufacture, including applying additional coats wherever required, to achieve even shade and colour.
6.6	Primer :	As per CPWD Specification for wood work and steel work.
A		Applying priming coats with primer of approved brand and manufacture, having low VOC (Volatile Organic Compound) content.
B		With ready mixed pink or grey primer on wood work (hard and soft wood) having VOC content less than 50 grams/ litre
C		With ready mixed red oxide zinc chromatic on steel / iron works having VOC content less than 250 grams/ litre
6.7	Painting on wood work & steel work :	Painting with synthetic enamel paint, having VOC (Volatile Organic Compound) content less than 150 grams/ litre, of approved brand and manufacture, including applying additional coats wherever required to achieve even shade and colour. Two coats
7	MISCELLANEOUS :	
7.1	Plinth Protection	Making plinth protection 50 mm thick of cement concrete 1:3:6 (1 cement: 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) over 75mm thick bed of dry brick ballast 40 mm nominal size, well rammed and consolidated and grouted with fine sand, including finishing the top smooth.
7.2	Pathway	All pavement/paths will be of interlocking tiles (rubber moulded) up to 2 Mtr. Width shall be as per CPWD specification and drawing.
8	INTERNAL SANITARY / WATER SUPPLY INSTALLATIONS :	
8.1	W.C. Pan	One number white vitreous china, W.C.580 x 440mm Orisa Pan with long body P- trap with 10litre low level PVC flushing cistern of approved quality.
8.2	Soil & waste pipes	PVC Pipe. finolex/ kissan/ supreme or its equivalent
8.3	House Manhole	Brick masonry with brick of class designation 75 size 90x80x45cm with

S.No	Item of Work	Specification
		SFRC light duty cover.
8.4	Pipes Internal :	Polyethylene- Aluminium- Polyethelene (PE-ALPE) Composite Pressure Pipes conforming to IS - 15450, U.V. stabilized with carbon black having thermal stability for hot & cold water supply, capable to withstand temperature up to 800 C, including all special fittings of composite material as per CPWD Specification. Soil waste pipes: shall be of 110/160 mm dia with the wall thickness of 3.8 mm SWR pipes of UPVC of finolex / kissan/ supreme or its equivalent with all fitting etc as required.
8.5	Pipes Exposed:do.....
8.6	Fittings	ISI marked Brass bib cocks and brass stop cocks – 15/20mm as per drawing.
8.7	Overhead Tank	HDPE water storage tank for drinking and non-drinking purpose of 500 lit capacity for each flat. on raised platform of minimum 200mm height.
9	INTERNAL SEWERAGE :	
9.1	Pipes	S&S, NP2 RCC pipe with rubber ring joints & filling the joint with CM 1:2 (1 cement: 2 fine sand) of required diameter including testing of joints as per approved design. For connection of sewer pipes from toilet & bath to vertical stack the enclosed drawing shall be referred to.
9.2	Manholes	Manholes of required size as per depth with brick wall in cement mortar 1:4 (1 cement: 4 coarse sand) with foundation concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) with stone aggregate inside cement plaster 1:4 (1 cement : 4 coarse sand) with floating coat of neat cement, outside (Refer Drawing) cement plaster 1:4 (1 cement : 4 coarse sand) with SFRC. In sub-soil or adverse soil conditions, manholes & encasing pipes shall be as per approved credible structural design to avoid sinking and settlement of lines/manholes. All the manholes inside the building to be lined with sand stone lining from outside upto bottom level.
11	NUMBERING OF HOUSES ETC.	
11.1	Numbering of houses	The numbering of size 100mm in height shall be printed on glazed tiles above the entrance door. As per instructions of Engineer In-charge.
INTERNAL ELECTRIC INSTALLATION (IEI)		
1	The work will be carried out in recessed PVC conduit wiring system in accordance of C General Specifications for Electrical Works Part-I (Internal)-2005 and Part-II (External)-1994 amendments up to the date of opening of tenders and the governing specifications including m for some of the important materials to be used in the work. In case of ambiguity between the the specifications shall prevail.	
2	FRPVC insulated Copper conductor wires will be used for points, circuit & sub-main wiring.	
3	Contractor shall execute the work as per attached inventory after obtaining neces approval of the layout for internal electrification of HIG houses staircase Engineer-in-charge. The staircase lighting shall be in group control system.	
4	All internal electrification work will be carried out as per CPWD Specifications, NBC, IE Rule Codes etc. as amended up to the date of tender. In case for any part of the specification is not available in the aforesaid mentioned documents then part of the work will carried out in accordance with sound engineering practice and as per directions of Engi in-charge.	
5	Modular type switches, sockets and stepped type fan regulators, bell push along	

S.No	Item of Work	Specification
		matching mounting boxes of same make shall be used.
6	Brass angle/batten holder shall be provided on light points in Kitchen, WC& Bath Room	
7	Suitable rain protection covers made of 16SWG galvanized MS sheet wherever req	shall be provided.
8	Meter Boards & Main Distribution Boards as per specification of Local Govt. shall als	provided by the contractor.

Note:

1. Before installation of Panel system, the agency shall have to produce evidence of quality of material at site if asked for. The testing of materials can be carried out at discretion of Engineer In charge of BMTPC.
2. Any Material or Component (it's ratio thereof.) not defined or missing, may be adopted by the Agency in consultation & approval of BMTPC Engineer In-Charge.

3. GENERAL CONDITIONS & INSTRUCTION TO THE AGENCIES

- 3.1** Incomplete and conditional tenders shall be summarily rejected.
- 3.2** Rates are to be quoted in words and figures. All correction must be attested by the Agency.
- 3.3** The amount of each item in the financial bid should be worked out separately and requisite total given. All the columns of the Tender Form shall be duly and properly filled in separately. The rates and units shall not be over written in the price scheduled.
- 3.4** The Agency should fully understand the site condition and have proper assessment of work. They are advised to visit the site and know the actual ground condition, means of access to the site the accommodation they may require and in general shall themselves obtain all necessary information as to risks contingencies and other circumstances which may influence or affect their tender. A Agency shall deemed to have full knowledge of the site whether he inspects it or not and no extra charges consequent on any misunderstanding or otherwise shall be allowed. The Agency shall be responsible for arranging and monitoring at his own cost all materials, tools and plants water, electricity access, facilities of workers and other services required for execution of the work unless otherwise specifically provided for in the contract document. Submission of tender by Agency implies that he has read the notice and all other contract documents and made himself aware of the scope and specification of the work to be done.
- 3.5** Prescribed enclosures are attached with Technical Bid.
- 3.6** Technical Bid and Price Bid should be signed by the same authorized signatory.
- 3.7** Any additional information required by BMTPC in respect of the work experience shall be submitted by the tenders within three days, failing which the offer shall not be entertained.
- 3.8** Sales-tax/VAT (except service tax), purchase tax, turnover tax or any other tax applicable in respect of this contract shall be payable by the Contractor and BMTPC will not entertain any claim whatsoever in respect of the same. However, in respect of service tax, same shall be paid by the contractor to the concerned department on demand and it will be reimbursed to him by the Engineer-in-Charge after satisfying that it has been actually and genuinely paid by the contractor.

- 3.9** The Agency shall furnish a declaration to this effect (In case of downloaded tender) that no addition / deletion / correction have been made in the tender document submitted and it is identical to the tender document appearing in the website. Every page of downloaded tender shall be signed by the Agency with stamp seal of his firm / organization.
- 3.10** The Agency should give full and correct address alongwith the tender. If there is any change of address during currency of contract the same should be intimated to the department immediately, otherwise BMTPC is not responsible for wrong delivery or delay of the notices etc. served to the above works.
- 3.11** Technical Bid received without EMD of Rs.370000/- and cost of tender in the form of Demand Draft / Bankers Cheque shall be summarily rejected.
- 3.12** In the event of the tender being submitted by a firm, it must be signed separately by each partner thereof or in the event of the absence of any partner thereof, it must be signed on his behalf by a person holding a power of attorney authorizing him to do so, such power of attorney to be produced with the tender and it must disclose that the firm is duly registered under the Indian Partnership Act.
- 3.13** Wherever the Agency furnishes power of attorney the same should be registered and accompanied with an affidavit from Agency.
- 3.14** Receipts for payments made on account of a work, when executed by a firm must also be signed by the several partners, except where the Agencies are described in their tender as a firm, in which case the receipt must be signed in the name of the firm by one of the partners, or by some other person having authority to give effectual receipts for the firm.
- 3.15** Tenders which propose any alternation in the work specified in the said form of invitation of tender or in the time allowed for carrying out the work, or which contain any other condition of any sort, will be liable to rejection.
- 3.16** The Agency whose tender is accepted will be required to furnish by way of Security Deposit for due fulfillment of his contract, such sum as will amount to 10% of the tender value of work, subject to a maximum of Rs. 12.00 lakhs only. The security deposit will be collected by deductions from the running bills of the Agency at the rates mentioned above and the earnest money, if any deposited at the time of tender, will be treated as a part of the security deposit. Out of this 5% of the project cost would be kept as performance guarantee for defect liability period of 30 months from the date of completion of the work, & balance security deposit would be refunded to the agency after handing over the project to BMTPC.

The Defect Liability Period of the project shall be of 30 months after completion of the project. The Performance Guarantee amount shall be released in the following manner:

After 12 months of completion of project	40%
After 24 months of completion of project	40%
After 30 months of completion of project provided that there is no defect detected within the said period	20%

- 3.17** The acceptance of tender will rest with the Competent Authority who does not bind himself to accept the lowest tender and reserves to himself the authority to reject any or all of the tenders received, without assigning any reasons. All tenders in which any or all of the prescribed conditions are not fulfilled or are incomplete in any respect including that of conditional rebate is put forth by the Agency are liable to be rejected.
- 3.18** Tenders containing any condition leading to unknown/indefinite liabilities are liable to be summarily rejected.
- 3.19** If at all any rebate(s) is/are to be offered, the Agency shall first quote his rates strictly on the terms and conditions stipulated in the tender document and then show separately any rebate(s). Failure to follow this procedure will render to summary rejection.
- 3.20** Canvassing in connection with tenders is strictly prohibited and the tender submitted by the Agencies who resort to canvassing will be liable to rejection.
- 3.21** All rates shall be quoted only on the proper form of the tender.
- 3.22** On acceptance of the tender, the name of the accredited representative(s) of the Agency who would be responsible for taking instructions from the Engineer-in-charge shall be communicated to the Engineer-in-charge.
- 3.23** All the taxes as applicable under Govt. of India rules shall be deducted from the bills of the Agency.
- 3.24** No Engineer of Gazetted Rank or other Gazetted Officer employed in Engineering or administrative duties in an Engineering Department of the Govt. of India is allowed to work as a Agency for a period of two years of his retirement from Govt. service without the prior permission of the Govt. of India. This contract is liable to be cancelled if either the Agency or any of his employees is found at any time to be such a person who had not obtained the permission of the Govt. of India as aforesaid before submission of the tender or engagement in the Agency service.

- 3.25** Tender for work shall remain open for acceptance for a period of 120 days from the date of opening of tenders. Should the Agency fail to keep the tender open for acceptance as stated above or if the Agency withdraws his tender before the expiry of the said period or makes any modifications in the terms and conditions of the tender which are not acceptable to the Council, then the Council without prejudice to any other right or remedy be at liberty to forfeit the Earnest Money.
- 3.26** The Agency shall submit list of works, with value which were executed by him so far and which are in hand at present in the Technical Bid.
- 3.27** The Agency submit list of manpower & machinery available with them for execution of work.
- 3.28** In the event of any unforeseen event directly interfering with the execution of work arising during the currency of the contract, such as insurrection, restraint imposed by the Government act of legislative or other authority, wars, hostilities, act of the public enemy, civil commotion, sabotage, fire, floods, explosions, epidemics, quarantine restrictions strikes, lockouts, or act of God, the Agency shall within a week, from the commencement thereof, notify the same in writing to the Engineer-in-charge with reasonable evidence thereof. If the Force Major condition(s) mentioned above be in force for a period of 90 days or more at any time, the Engineer-in-charge shall have the option to terminate the contract on expiry of 90 days of commencement of such major by giving 14 days notice to the Agency in writing. In case of such termination, no damages shall be claimed by either party against the other, except those which had occurred under any other clause of this contract prior to such termination.
- 3.29** The Agency should furnish a legal document in the form of an Affidavit in the prescribed proforma for guaranteeing the truth and accuracy of all statements and all answers / questions made. The affidavit will also authorize BMTPC to approach anyone to verify the statements or enquire about the Agency, competence and general reputation.
- 3.30** BMTPC will open tenders in the presence of intending Agencies who may be present at the time.
- 3.31** The Agency shall have to bear the cost of non-judicial stamp paper of appropriate value for preparation of Contract Agreement of the work.
- 3.32** Government Departments are exempted from making payments towards cost of Tender Document & Earnest Money.
- 3.33** A Tender be liable to disqualification if he has:

- a) Made misleading or false representation or deliberately suppressed the information in the form, statements and enclosures required in the part qualification documents.
- b) Records of poor performance such as abandoning work, not properly completing the contract, of financial failures/ weakness, etc.

Accepted by me
(Signature of the Agency)
With Complete Address and Seal

Name: _____

Address: _____

Tel No. _____

Fax No. _____

Tender Form No. _____

Last date of submission _____

TECHNICAL BID PROFORMAS/DETAILS

Note: Agency must read carefully the Instructions & Conditions before filling the particulars in this part.

4 Credentials of the Agencies:

- 4.1 Name of the Agency with Regn. No.
- 4.2 Office Address and Contact No.
- 4.3 Legal status of the agency (attach copies of original document(s) defining legal status. _____)
- 4.4 Organization Chart (Please attach) _____
- 4.5 Designation of individual who is authorized to act for organization.
- 4.6 WCT No. (Attach proof)
- 4.7 PAN No. (with documentary evidence)
- 4.8 Annual turnover last three years supported with documentary evidence) To be submitted in prescribed proforma **Appendix 'A'**.
Details by the agencies is to be furnished duly supported by figures in Balance sheet/ profit and loss account, duly certified by the Chartered accountant as submitted by the Agency in Income Tax Department (copies attached)

Other details

- i) Past Experience (last five years with all necessary documentary evidence) & Ongoing projects To be submitted in prescribed proforma **Appendix 'B'**.

Performance Report of works executed are required to be submitted in the prescribed proforma at **Appendix "C"**

- ii) Particular of registration with various Govt. bodies (attach attested Photocopies Organization/place
a) -----

- b) -----
c) -----

- iii) Has the firm been ever debarred/ Black Listed by any organization?
If 'Yes' the details thereof.
- iv) Was the applicant ever required to suspend construction for a period of more than six months continuously after commencement of construction? If so, give the name of the project and reasons thereof.
- v) Has the applicant or his constituent partner even abandoned the work awarded to him incomplete? If so give the name of the project and reason thereof)
- vi) Was the applicant or any constituent partner, in case of partnership firm ever been convicted by a Court of Law/ If so the details.
- vii) Particularly of Demand Draft paid as Earnest Money

Amount : Rs **3,70000/- and ` 1000/-**

DD Nos. : _____

Issuing Bank with date of issue : _____

(Signature of the Agency)

With Compete address and seal

Name: _____

Address: _____

Tel No. _____

Fax No. _____

Email _____

FINANCIAL INFORMATION

Turnover in last three years

	2012-2013	2013-2014	2014-2015	Average
	T1	T2	T3	<u>T1+T2+T3</u>
Turn Over in Rs. in Lakh(T)				
Gross Annual turnover as construction work				
Profit / Loss				

Appendix 'B'

DETAILS OF ALL WORKS COMPLETED & ONGOING WITH CONVENTIONAL AND ALTERNATE TECHNOLOGY DURING THE LAST FIVE CONSECUTIVE YEARS ENDING LAST DAY OF THE PREVIOUS MONTH IN WHICH TENDER IS ISSUED

Sl. No	Name of work/project & location i/c number of stories and height of building	Owner or sponsoring organization	Cost of works in crore	Date of commencement as per contract	Stipulated date of completion	Actual date of completion	Built up area in sq. meter	Litigation/ arbitration pending/ in progress with details*	Name of address/ telephone of office to whom reference may be made	Remarks (Mention Alternate/ Emerging technology used in construction)
1	2	3	4	5	6	7	8	9	10	11
Completed Works										
Ongoing Works including works which have been awarded										
						NA				
						NA				
						NA				
						NA				

Signature of applicants (s)

*Indicate gross amount claimed and amount awarded by the Arbitrator

**PERFORMANCE REPORT OF WORKS
(To be submitted separately for each project)**

1. Sr. No.
2. Name of work / Projects and Location
3. For Building works:
 - I. Nature of building
 - a. Load bearing
 - b. RCC Framed Structure
 - II. Height of building & numbers of floor
4. Agreement No.
5. Client name:
6. Amount of Work:
7. Date of Starting of project:
8. Stipulated date of completion:
9. Actual date of completion:
10. Completion cost:
11. Justification for Delay, if any:
12. Amount of compensation
 - a. Levied for delayed completion, if any
 - b. Amount of reduced rate items, if any
13. Litigation tendency:
14. Feedback from client:

i. Quality of work	Very good	Good	Fair	Poor
ii. Finance Soundness	Very good	Good	Fair	Poor
iii. Technical Proficiency	Very good	Good	Fair	Poor
iv. Resourcefulness	Very good	Good	Fair	Poor
v. General behaviour	Very good	Good	Fair	Poor

Third party feedback, if any:

Signature of applicant

Signature & Stamp of client

TENDER FOR PACKAGE WORK

I/We hereby tender for the execution for the BMTPC work specified in the underwritten memorandum within the time specified in such memorandum at the rates, specified therein, and in accordance in all respects with the specifications, designs, drawings and instructions and the Terms & Conditions of Contract including CPWD General Conditions of Contract 2014 as applicable and in all respects in accordance with such conditions so far as possible.

i) General Description

Construction of 32 Demonstration Houses including Infrastructure Works at Chandrasekharapur, Bhubaneswar, Odisha

- ii) Estimated Cost: Rs.1850000/-
- iii) Earnest Money: Rs 370000/-
- iv) Security deposit: @ 10% of the tendered value of work put to tender subject to a maximum of Rs 12.0 Lacs.
- v) The security deposit will be collected by deductions from the running bills of the Agency at the rates mentioned above and the earnest money, if deposited at the time of tender, will be treated as part of security deposit.
- vi) Time allowed Six months to be reckoned after fifteen days of the date of written orders to commence the work or from the first day of handing over the site whichever is later.
- vii) Defect Liability as per General Condition & Instruction to the Agencies

Should this tender be accepted, in whole or in part, I/We agree:

- a) To abide by and fulfill all the terms and provisions of the said conditions annexed hereto and all the terms and provisions contained in notice inviting tender so far as applicable, and/or in default thereof to forfeit and pay to the BMTPC, the sum of money mentioned in the said conditions. A sum of Rs 370000/-is hereby forwarded in demand draft of a scheduled bank as earnest money. If I/We fail to commence the work specified in the memorandum, I/We agree that the said BMTPC, shall without prejudice to any other right or remedy, be at liberty to the said earnest money absolutely, otherwise the said earnest money shall be retained by them towards security deposit mentioned against clause (d) of the above mentioned memorandum.
- b) To execute all the works referred to in the tender documents upon the terms and conditions contained or referred to therein and to carry out

such deviations as may be ordered, upto a maximum of 30% (percent), at the rates quoted in the tender documents and those in excess of that limit, at the rates to be determined based on analysis on market rates with prior approval of the Competent Authority.

I/We hereby declare that I/We shall treat the tender documents drawings and other records connected with the work as secret/ confidential documents and shall not communicate information / derived there from to any person other than a person to whom I/We am/are may authorize to communicate the same or use the information in any manner prejudicial to the safety of the BMTPC.

Dated _____ The _____ day of _____ 200 _____

Witness* _____

Address _____

Tel No. _____ Fax No. _____

Occupation _____

AGENCY **

Name: _____

Address: _____

Tel No. _____

Fax No. _____

Email _____

* Signature of witness to Agency's signature.

** Signature of the Agency

UNDERTAKING / DECLARATION (on the letterhead)

I/We have read the CPWD General Conditions of Contract 2014 with all its amendments/ modification and agree to abide by all the terms and conditions of the above said pamphlet. I/We also agree that the same shall also form part of the contract.

Signature of Authorized
Representative of the Agency

Name: _____

Address: _____

Tel No. _____

Fax No. _____

Email _____

5. ADDITIONAL CONDITIONS & SPECIFICATIONS

5.1 GENERAL SPECIFICATIONS

- i) The Civil works shall be carried out as per Central Public Works Department Specifications 2009 Volume I & II (Civil works) with upto date correction slips. In case of civil works, should there be any difference between the Central Public Works Department specifications mentioned above and the specifications of schedule of quantities, the latter i.e. specification of schedule of quantities, shall prevail. For items of work not covered in C.P.W.D. specifications or where the C.P.W.D. specifications are silent on any particular point, the relevant specification or code of practice of the Bureau of Indian Standard shall be followed. For items of emerging technologies, BMTPC/IIT/NIT/Research Institutions/ International Technical Institution specifications would be followed.
- ii) This is a technology oriented project and therefore, sound technological base and adequate exposure in the field of emerging building materials and technologies is desirable.
- iii) Should any clarification be needed regarding the specifications of any work the written instructions from the Engineer-in-charge shall be obtained.
- iv) Main Civil Agency appointed for this work shall also execute the electrical works. He should either be an eligible Agency himself or associate with himself an electrical Agency for execution of electrical work.
- v) The materials to be used must be got approved from the Competent Authority of the Council.

5.2 SPECIAL CONDITIONS

- 1. No tools and plant will be supplied by the Council and the Agency will have to make their own arrangements for providing necessary tools and plant required for proper completion of work.
- 2. The work shall be executed as per programme drawn by the Agency in consultation with the Engineer-in-charge including on holidays and beyond office hours.

3. Any damage done by the Agency to any existing work, structure during the course of execution of the work tendered for shall be made good by him at his own cost, to the satisfaction of the Engineer-in-Charge.
4. The Agency shall maintain in good condition the work executed till the completion of the entire work allocated to the Agency, as well as, during the maintenance period.
5. No compensation shall be paid to the Agency for any damage caused by rain, floods, natural calamity & human made disaster during the execution of the work. He should make good all such damages at his cost and no claim on this account will be entertained.
6. Royalty or any nature of tax at prevalent rates shall have to be paid by the Agency on all the materials collected by him for execution of the work directly to the revenue authority of the State Government.
7. The samples of material are got to be tested in approved laboratory as and when desired & should be approved from the Engineer-in-Charge before the sample is bought to the site of work/used in the work.
8. The Agency has to remove all malba etc. from the premises, throw it outside the municipal limits and has to hand over the site in a neat and clean manner at his own cost.
11. The Agency shall make his own arrangement for electricity & water required for execution of the work and nothing extra shall be paid for the same.
12. In case of composite contracts wherein Electrical works form a part of the composite works, the main Agency shall ensure that the Electrical works are executed by the sub Agency (who shall be approved by the tender accepting authority) having appropriate registration for electrical work of this magnitude and possessing prescribed Electrical license for undertaking such work. Name(s) of the party (ies) should be indicated while submitting the tender. Soon after the award of work separate agreement for Electrical work shall be concluded with the OM (Elect) of the Council for execution and finalization of payments regarding Electrical sub-work.
13. The work shall be carried out as per IE Rules/CPWD General Specifications 2013 Part -I for Internal & Part -II for External Electrical work with upto date correction slips. For Non-scheduled items, BIS/Manufacturer's specifications shall be followed.
14. The work shall be carried out by an Electrical Agency of appropriate class possessing requisite license and authority to handle this type of installation covered by the contract.

15. Requirement, if any of local Electricity Authority/Electrical Inspectorate in respect of approval of the installation and sanction of Electrical power shall also be complied with the Agency on furnishing requisite documents; plans, schematic diagrams etc.
16. All inter-connections on the main board and distribution boards shall be done with suitable size of cables drawn in conduits and end-terminations with appropriate lugs/ thimbles.
17. All steel poles, switch boards, sheet metal panels, MS clamps, etc. shall be applied with primer coat of paint before erection. Final painting shall be done in two coats after erection.
18. Execution of work shall be supervised by technical personnel of appropriate rank as required under the rules.
19. The Agency will co-relate electrical works with the progress of civil engineering works. He will ensure that the electrical works are completed, installation test reports submitted to Electrical supply authorities and approved by the Electrical Inspectorate concerned immediately after the civil works are completed.
20. The Agency shall submit a detailed programme of execution of work showing activities distinctly along with Bar Chart within fifteen days of the award of work.
21. The Agency shall provide & erect a display board of required size & shape and print over it the details about the salient features of the project as desired by the Engineer-in-Charge.
22. The Agency shall take precautions to avoid accidents and shall follow the 'Safety procedure' as per appendix 'C' CPWD specifications referred above.
23. In case of any dispute, the decision of Executive Director, BMTPC shall be final and binding on both the parties.
24. Legal jurisdiction shall be Courts of Delhi/New Delhi only.
25. Income Tax and Surcharge other taxes; All the taxes fixed by Ministry of Finance, GOI, shall be deducted from all the running bills of the Agency should there be any increase in rate of Income Tax and surcharge during execution of contract, the same shall be payable by the Agency.
26. **Schedule of running Payment:** Schedule of running payment may be based on following breakup of the lump sum.

S. No	Particular	Stage wise percentage	Cumulative percentage
	Building Works		
1.	Up to Plinth complete in all respect with lean concrete for floors including antitermite treatment	12	12
2.	Ground floor wall & slab panel casting including circulation & staircase area	10	22
3.	First Floor wall & roof panel casting (with fitting of Ground floor door & window frames) including circulation & staircase area	12	34
4.	Second Floor wall & roof panel casting (with fitting of First floor door & window frames) including circulation & staircase area	12	46
5.	Third Floor wall & roof panel casting (with fitting of second floor door & window frames) including circulation & staircase area	12	58
6	Construction of Mumty, parapet wall etc ,Terrace floor complete including fitting of third floor door & window frames	8	66
7.	Internal Electrification & Internal water supply and sanitary work (Excluding P/F of Bib cocks etc)	10	76
8	Flooring including circulation & staircase area & finishing complete	10	86
9.	On completion of all outer development work including uotp connection points for services (water supply, sewerage & external electrification including Feeder pillar)	9	95
10	After site clearance and handing over the site	5	100

Note: The contracting Agency needs to pay applicable VAT/WCT on the payment received to the Concerned Govt. department and proof of the same is required to be submitted along with subsequent bills.

Chief (Building Materials)
For and On Behalf of BMTPC

Accepted by me

Signature of Agency & Seal

Name:_____

Address:_____

Tel No. _____

Fax No. _____

Email_____

6. SALIENT FEATURES/ INTERPRETATION OF VARIOUS CLAUSES OF THE GENERAL CONDITION OF CONTRACT OF CPWD

- | | | | |
|-----|--|---|---|
| 1. | Officer inviting tender | : | Chief (Building Materials) |
| 2. | Engineer-in- Charge | : | Dy.Chief (S&PD) |
| 3. | Accepting Authority | : | Executive Director |
| 4. | Clause 2 --- Authority for fixing compensation | : | Executive Director |
| 5. | Clause –2A | : | Applicable |
| 6. | Clause 5 ---Authority to give fair & reasonable Extension of Time for completion of work | : | Executive Director |
| 7. | Clause 10 | : | Not Applicable |
| 8. | Clause 10 A | : | Applicable |
| 9. | Clause 10 B (i) | : | Applicable |
| 10. | Clause 10 B (ii) | : | Not Applicable |
| 11. | Clause 10 B (iii) | : | Not Applicable |
| 12. | Clause 10 B (iv) | : | Not Applicable |
| 13. | Clause 10 B (v) | : | Not Applicable |
| 14. | Clause 10 C & 10 CA | : | Not Applicable |
| 15. | Clause 10 CC | : | Not Applicable |
| 16. | Clause 11 | : | Specifications for Civil & Electrical works to be followed as given in the contract |

17. Clause 12 :
a. Deviation limit beyond : 30%
which Clauses 12.2 &
12.3 shall apply for
Building work &
infrastructure work
b. Deviation limit beyond : NA
which Clauses 12.2 &
12.3 shall apply for
Foundation work
18. Clause 16 : Executive Director
Competent Authority for
deciding reduced rates
upto 5% of contract value
for Civil & Electrical works
19. Clause 17 : Applicable
Maintenance Period
-

Note:

- i) In General Condition of Contract (GCC)-2014, wherever, President of India / Director General / Chief Engineer/ Superintending Engineer appears it will be meant as Executive Director, BMTPC.
- ii) In place of Government / Technical examiner it will be BMTPC in this case.

7. ORGANISATION CHART

The Agency shall list below key men (including qualified technical officers) giving short resume of their experience together with estimated peak and average force that he proposes to employ on this contract.

S. No.	Designation of key Personnel	Name and short resume of experience	Numbers

LABOUR FORCE

Estimated Peak Force.....

Estimated Average Force.....

Signature of Agency

Name: _____

Address: _____

Tel No. _____

Fax No. _____

Email _____

8. LIST OF PREFERRED MAKES FOR CIVIL / SANITARY WORKS

S.No.	Material	Preferred Make
1.	(i) Ordinary Portland Cement (Grey) Or Pozzollona Portland Cement (PPC) (ii) White Cement	: ACC, L&T, Vikram, Birla, J&K, JP Rewa, 43 grade (Con forming to IS:8112) Conforming to IS:1489 (Part 1) Birla White / J.K. White
2.	Steel	: SAIL, TISCO, Rashtiya Ispat (RINL)
3.	Veneered Particle Board	: Novapan, Kitply, Anchor, National
4.	Laminated Particle Board	: Novapan, Kitply, National
5.	Flushdoor shutters	: Kutty Flush door, Kitply Swastik, Green Ply woods, Inds., Vidya Ply and Board Pvt. Ltd. (Kanchan).
6.	Factory made paneled door shutters	: Pioneer Timber products Chandigarh, Everest Pathankot, Drone Timber, Timber Mohali, M/s Jain Door Private Ltd. Kundli.
7.	Steel Windows / Pressed Steel frames	: San Harvic Steelman Industries, Metal Windows, AGEW.
8.	Water Proofing Compound	: Fosroc, Cico, Pidilite. Impermo by M/s Snowcem, Sika.
9.	M.S. Pipe	: Tata, Jindal (Hissar), Jindal (Ghaziabad), Surya
10.	PVC Pipe and Fittings	: Supreme, AKG, Finolex, Prince
11.	Oil Bound Distemper	: Nerolac Washable OBD, Burger Bison Acrylic) Asian Paints (Tractor Acrylic)
12.	Acrelic Dry Distemper	: Burger /Asian or equivalent
13.	Synthetic Enamel Paint	: ICI (Dulux Gloss), Nerolac Burger (Luxol Hugloss), Asian Paints (Premium Apcolite Gloss)
14.	Steel Primer	: ICI, Narolac, Burger, Asian Paints
15.	Wood Primer	: ICI, Narolac, Burger, Asian Paints
16.	Mosaic Tiles	: Nitco, Modern, NTC
17.	Ceramic Glazed Tiles	: Kajaria, NITCO, Ssoman, Orient
18.	Dash / Anchoring Fasteners	: HILTI/Fischer
19.	Nuts/Bolts and Screws	: GKW, Atul
20.	Stainless Steel Sink (Out of Salem Steel only)	: Neelkanth, Nirali, Jayna
21.	Float Valve	: IVC, Leader
22.	Admixtures	: Fosroc, MBT, Sika, CICO, Asian Shiellicon Chembond
23.	Viterous China Sanitary Ware	: Parryware, Hindustan Sanitaryware, Neycer, Cera
24.	Plastic seat cover of W.C.	: Commander, Diplomate, Hindware
25.	PVC Flushing Cistern	: Commander, Coral, Hindware (Slim line)

26.	CP Fittings / Mixer Pillar taps Washers	:	Jaquare, MARC, Kingstone Gem, Parko
27.	CP Accessories	:	MARC, Jaquar, Kingston, Parko, Gem.
28.	Centrifugally Cast (Spun) Iron Pipes	:	R.I.F., NECO, B.C., SKF, HIF & fittings
29.	G.I. Pipes	:	B.S.T., Tata, Jindal Hissar
30.	G.I. Fittings	:	R, Unik, Ks, RM
31.	C.I. Pipes (Class LA/A)	:	Electrasteel, Kesoram
32.	Gun metal Vaalves	:	Leader, Zoloto, Kilburn, CIM, Valves, Sant
33.	Brass stop and Big Cock	:	Zoloto, Sant, L&K, Leaer
34.	Stoneware pipes and Gully traps	:	Prefect, Hind
35.	Mirror Glass	:	Atul, Modi Guard, Golden
36.	Aluminium	:	Indal/Hindalco/Jindal
37.	Masking tapes	:	Suncontrol/Wonder Polymer
38.	Stainless steel screw for fabrication and fixing of windows	:	Kundan / Punja / Atul
39.	Proposed Treatment on MS bracket		Galvanized brackets as per IS:4759-1996, 610 gms/sqm.(Microns) 80-90
40.	Stainless steel bolts/washers and nuts	:	Kundan / Punja / Atul
41.	Stainless steel pressure plate screw	:	Kundan / Punja / Atul
42.	Stainless steel friction stay	:	Earl Behari / Anand
43.	EPDM gasket	:	Roop / Anand
44.	6mm thick clear float glass	:	Modi / St. Gobain / Gujarat Guardian Ltd. / Float Glass of India
45.	Weather silicon make and grade	:	Dow Corning / Wacker / GE
46.	PVC continuous fillet for periphery packing of glazing/curtain wall	:	Roop / Anand / Forex Plastic
47.	Stone Door / Window Frame	:	Mechanically Made

BUILDING MATERIALS & TECHNOLOGY PROMOTION COUNCIL

9. PROFORMA FOR AGREEMENT

THIS AGREEMENT made thisday of between the BMTPC, established under the MoHUPA, having its Office at Core 5A, 1st Floor, India Habitat Centre, Lodhi Road, New Delhi – 110003 (which expression shall mean and include its successor or successors in office and assignee) acting through the Executive Director, BMTPC, New Delhi hereinafter called, 'The Council' on the one part and M/s/Sri

..... hereinafter called the "Agency" which expression shall mean and include their heirs, executors, administrators and assignee) on the other part.

WHEREAS, BMTPC, is desirous of construction of **(NAME OF WORK)** (hereinafter referred to as the "PROJECT") on behalf of the **(NAME OF OWNER/MINISTRY)** (hereinafter referred to as "OWNER"), had invited tenders as per Tender documents vide NIT No.

AND WHEREAS **(NAME OF CONTRACTOR)** had participated in the above referred tender vide their tender dated _____ and BMTPC has accepted their aforesaid tender and award the contract for (NAME OF PROJECT) on the terms and conditions contained in its Letter of Intent No. _____ and the documents referred to therein, which have been unequivocally accepted by **(NAME OF CONTRACTOR)** vide their acceptance letter dated _____ resulting into a contract.

NOW THEREFORE THIS DEED WITNESSETH AS UNDER:

ARTICLE 1.0 – AWARD OF CONTRACT

1.1 SCOPE OF WORK

BMTPC has awarded the contract to **(NAME OF CONTRACTOR)** for the work of **(NAME OF WORK)** on the terms and conditions in its letter of intent No. _____ dated _____ and the documents referred to therein. The award has taken effect from **(DATE)** i.e. the date of issue of aforesaid letter of intent. The terms and expressions used in this agreement shall have the same meanings as are assigned to them in the "Contract Documents" referred to in the succeeding Article.

ARTICLE 2.0 – CONTRACT DOCUMENTS

2.1 The contract shall be performed strictly as per the terms and conditions stipulated herein and in the following documents attached herewith (hereinafter referred to as “Contract Documents”).

a) BMTPC Notice Inviting Tender vide No. _____ date _____ and BMTPC’s tender documents consisting of:

- i) General Conditions of Contract (GCC) alongwith amendments/errata to GCC (if any) issued (Volume-I).
- ii) Special Conditions of Contract including Appendices & Annexures, Volume-II.
- iii) Bill of Quantities along with amendments/corrigendum of schedule items, if any
- iv) _____
- v) _____
- vi) _____

b) **(NAME OF CONTRACTOR)** letter proposal dated _____ and their subsequent communication:

- i) Letter of Acceptance of Tender Conditions dated _____
- ii) _____
- iii) _____

2.2 BMTPC’s detailed Letter of Intent No. _____ dated _____ including Bill of Quantities. Agreed time schedule, Contractor’s Organisation Chart and list of Plant and Equipments submitted by Contractor.

2.3 All the aforesaid contract documents referred to in Para 2.1 and 2.2 above shall form an integral part of this Agreement, in so far as the same or any part thereof column, to the tender documents and what has been specifically agreed to by BMTPC in its Letter of Intent. Any matter inconsistent therewith, contrary or repugnant thereto or deviations taken by the Contractor in its “TENDER” but not agreed to specifically by BMTPC in its Letter of Intent, shall be deemed to have been withdrawn by the Contractor without any cost implication to BMTPC. For the sake of brevity, this Agreement alongwith its aforesaid contract documents and Letter of Intent shall be referred to as the “Contract”.

ARTICLE 3.0 – CONDITIONS & CONVENANTS

3.1 The scope of Contract, Consideration, terms of payments, advance, security deposits, taxes wherever applicable, insurance, a greed time schedule, compensation for delay and all other terms and

condition contained in BMTPC's Letter of Intent No. _____ dated _____ are to be read in conjunction with other aforesaid contract documents. The contract shall be duly performed by the contractor strictly and faithfully in accordance with the terms of this contract.

- 3.2 The scope of work shall also include all such items which are not specifically mentioned in the Contract Documents but which are reasonably implied for the satisfactory completion.
- 3.3 Contractor shall adhere to all requirements stipulated in the Contract documents.
- 3.4 Time is the essence of the Contract and it shall be strictly adhered to. The progress of work shall conform to agreed works schedule /contract documents and Letter of Intent.
- 3.5 This agreement constitutes full and complete understanding between the parties and terms of the presents. It shall supersede all prior correspondence to the extent of inconsistency or repugnancy to the terms and conditions contained in Agreement. Any modification of the Agreement shall be effected only by a written instrument signed by the authorized representative of both the parties.
- 3.6 The total contract price for the entire scope of this contract as detailed in Letter of Intent is Rs. _____ (Rupees _____ only), which shall be governed by the stipulations of the contract documents

ARTICLE 4.0 – NO WAIVER OF RIGHTS

- 4.1 Neither the inspection by BMTPC or the Engineer-in-Charge or Owner or any of their officials, employees or agents nor order by BMTPC or the Engineer-in-Charge for payment of money or any payment for or acceptance of, the whole or any part of the work by BMTPC or the Engineer-in-Charge or any extension of time nor any possession taken by the Engineer-in-Charge shall operate as waiver of any provisions of the contract, or of any power herein reserved to BMTPC, or any right to damage herein provided, nor shall any waiver of any breach in the contract be held to be a waiver or any other or subsequent breach.

ARTICLE 5.0 – GOVERNING LAW AND JURISDICTION

- 5.1 The Laws applicable to this contract shall be the laws in force in India and jurisdiction of Delhi Court (s) only.
- 5.2 Notice of Default
Notice of default given by either party to the other party under the Agreement shall be in writing and shall be deemed to have been

duly and properly served upon the parties hereto, if delivered against acknowledgment due or by FAX or by registered mail duly addressed to the signatories at the address mentioned herein above.

IN WITNESS WHEREOF, the parties through their duly authorized representatives have executed these presents (execution whereof has been approved by the Competent Authorities of both the parties) on the day, month and year first above mentioned at New Delhi.

For and on behalf of: For and on behalf of:

SIGNED AND DELIVERED FOR AND ON BEHALF OF M/s /Shri

.....

.....

IN THE PRESENCE OF

WITNESS 1.
2.

SIGNED AND DELIVERED FOR AND ON BEHALF OF
BUILDING MATERIALS & TECHNOLOGY PROMOTION
(BMTPC)

COUNCIL

IN THE PRESENCE OF

WITNESS 1.
2.

INTEGRITY PACT

(To be submitted on Company letter head)

To,

Executive Director
BMTPC,
Core – 5A, 1st Floor,
India Habitat Centre, Lodhi Road,
New Delhi: 110 0 14

Name of Work: Construction of 32 Demonstration Houses using Expanded Polystyrene Core Panel System (EPS) Technology including Infrastructure Works on Design & Build basis at Bhubaneswar, Odisha

Ref. No. : BMT/1/2015/-Bhubaneswar Odisha

Dated :

Dear Sir,

I/We acknowledge that BMTPC is committed to follow the principles thereof as enumerated in the Integrity Agreement enclosed with the tender/bid document.

I/We agree that the Notice Inviting Tender (NIT) is an invitation to offer made on the condition that I/We will sign the enclosed integrity Agreement, which is an integral part of tender documents, failing which I/We will stand disqualified from the tendering process. I/We acknowledge that THE MAKING OF THE BID SHALL BE REGARDED AS AN UNCONDITIONAL AND ABSOLUTE ACCEPTANCE of this condition of the NIT.

I/We confirm acceptance and compliance with the Integrity Agreement in letter and spirit and further agree that execution of the said Integrity Agreement shall be separate and distinct from the main contract, which will come into existence when tender/bid is finally accepted by BMTPC. I/We acknowledge and accept the duration of the Integrity Agreement, which shall be in the line with Article 1 of the enclosed Integrity Agreement.

I/We acknowledge that in the event of my/our failure to sign and accept the Integrity Agreement, while submitting the tender/bid, BMTPC shall have unqualified, absolute and unfettered right to disqualify the Agency/bidder and reject the tender/bid in accordance with terms and conditions of the tender/bid.

Yours faithfully

(Duly authorized signatory of the Agency)

INTEGRITY PACT

To be signed by the bidder and same signatory competent / authorised to sign the relevant contract on behalf of BMTPC.

INTEGRITY AGREEMENT

This Integrity Agreement is made at on this day of2015.

BETWEEN

BMTPC represented through **Executive Director, BMTPC, Core -5A, 1st Floor, India Habitat Centre, Lodhi Road, New Delhi**, on behalf of **Construction of Demonstration Housing Project at Odisha**). (Hereinafter referred as the 'Principal/Owner', which expression shall unless repugnant to the meaning or context hereof include its successors and permitted assigns)

AND

.....
(Name and Address of the Individual/firm/Company)
through (Hereinafter referred to as the
(Details of duly authorized signatory)

"Bidder/Contractor" and which expression shall unless repugnant to the meaning or context hereof include its successors and permitted assigns)

Preamble

WHEREAS the Principal / Owner has floated the Tender (NIT No.) (hereinafter referred to as **"Tender/Bid"**) and intends to award, under laid down organizational procedure, contract for: **Construction of Demonstration Housing Project at Bhubaneswar Orisa.**

Ref. No. BMT/CBM/1/2015/ **Odisha Dated:** hereinafter referred to as the **"Contract"**.

AND WHEREAS the Principal/Owner values full compliance with all relevant laws of the land, rules, regulations, economic use of resources and of fairness/transparency in its relation with its Bidder(s) and Contractor(s).

AND WHEREAS to meet the purpose aforesaid both the parties have agreed to enter into this Integrity Agreement (hereinafter referred to as **"Integrity Pact"** or **"Pact"**), the terms and conditions of which shall also be read as integral part and parcel of the Tender/Bid documents and Contract between the parties.

NOW, THEREFORE, in consideration of mutual covenants contained in this Pact, the parties hereby agree as follows and this Pact witnesses as under:

Article 1: Commitment of the Principal/Owner

- 1) The Principal/Owner commits itself to take all measures necessary to prevent corruption and to observe the following principles:
 - a) No employee of the Principal/Owner, personally or through any of his/her family members, will in connection with the Tender, or the execution of the Contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.
 - b) The Principal/Owner will, during the Tender process, treat all Bidder(s) with equity and reason.

The Principal/Owner will, in particular, before and during the Tender process, provide to all Bidder(s) the same information and will not provide to any Bidder(s) confidential / additional information through which the Bidder(s) could obtain an advantage in relation to the Tender process or the Contract execution.
 - c) The Principal/Owner shall endeavor to exclude from the Tender process any person, whose conduct in the past has been of biased nature.
- 2) If the Principal/Owner obtains information on the conduct of any of its employees which is a criminal offence under the Indian Penal code (IPC)/Prevention of Corruption Act, 1988 (PC Act) or is in violation of the principles herein mentioned or if there be a substantive suspicion in this regard, the Principal/Owner will inform the Chief Vigilance Officer and in addition can also initiate disciplinary actions as per its internal laid down policies and procedures.

Article 2: Commitment of the Bidder(s)/Contractor(s)

- 1) It is required that each Bidder/Contractor (including their respective officers, employees and agents) adhere to the highest ethical standards, and report to the Government / Department all suspected acts of fraud or corruption or Coercion or Collusion of which it has knowledge or becomes aware, during the tendering process and throughout the negotiation or award of a contract.
- 2) The Bidder(s)/Contractor(s) commit himself to take all measures necessary to prevent corruption. He commits himself to observe the following principles

during his participation in the Tender process and during the Contract execution:

- a) The Bidder(s)/Contractor(s) will not, directly or through any other person or firm, offer, promise or give to any of the Principal/Owner's employees involved in the Tender process or execution of the Contract or to any third person any material or other benefit which he/she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the Tender process or during the execution of the Contract.
 - b) The Bidder(s)/Contractor(s) will not enter with other Bidder(s) into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to cartelize in the bidding process.
 - c) The Bidder(s)/Contractor(s) will not commit any offence under the relevant IPC/PC Act. Further the Bidder(s)/Contractor(s) will not use improperly, (for the purpose of competition or personal gain), or pass on to others, any information or documents provided by the Principal / Owner as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.
 - d) The Bidder(s)/Contractor(s) of foreign origin shall disclose the names and addresses of agents / representatives in India, if any. Similarly Bidder(s)/Contractor(s) of Indian Nationality shall disclose names and addresses of foreign agents/representatives, if any. Either the Indian agent on behalf of the foreign principal or the foreign principal directly could bid in a tender but not both. Further, in cases where an agent participate in a tender on behalf of one manufacturer, he shall not be allowed to quote on behalf of another manufacturer along with the first manufacturer in a subsequent/parallel tender for the same item.
 - e) The Bidder(s)/Contractor(s) will, when presenting his bid, disclose any and all payments he has made, is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the Contract.
- 3) The Bidder(s)/Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.
- 4) The Bidder(s)/Contractor(s) will not, directly or through any other person or firm indulge in fraudulent practice means a willful misrepresentation or omission of facts or submission of fake/forged documents in order to induce

public official to act in reliance thereof, with the purpose of obtaining unjust advantage by or causing damage to justified interest of others and/or to influence the procurement process to the detriment of the Government interests.

- 5) The Bidder(s)/Contractor(s) will not, directly or through any other person or firm use Coercive Practices (means the act of obtaining something, compelling an action or influencing a decision through intimidation, threat or the use of force directly or indirectly, where potential or actual injury may befall upon a person, his/ her reputation or property to influence their participation in the tendering process).

Article 3: Consequences of Breach

Without prejudice to any rights that may be available to the Principal/Owner under law or the Contract or its established policies and laid down procedures, the Principal/Owner shall have the following rights in case of breach of this Integrity Pact by the Bidder(s)/Contractor(s) and the Bidder/ Contractor accepts and undertakes to respect and uphold the Principal/Owner's absolute right:

- 1) If the Bidder(s)/Contractor(s), either before award or during execution of Contract has committed a transgression through a violation of Article 2 above or in any other form, such as to put his reliability or credibility in question, the Principal/Owner after giving 14 days notice to the contractor shall have powers to disqualify the Bidder(s)/ Contractor(s) from the Tender process or terminate/determine the Contract, if already executed or exclude the Bidder/Contractor from future contract award processes. The imposition and duration of the exclusion will be determined by the severity of transgression and determined by the Principal/Owner. Such exclusion may be forever or for a limited period as decided by the Principal/Owner.
- 2) **Forfeiture of EMD/Performance Guarantee/Security Deposit:** If the Principal/Owner has disqualified the Bidder(s) from the Tender process prior to the award of the Contract or terminated/determined the Contract or has accrued the right to terminate/determine the Contract according to Article 3(1), the Principal/Owner apart from exercising any legal rights that may have accrued to the Principal/Owner, may in its considered opinion forfeit the entire amount of Earnest Money Deposit, Performance Guarantee and Security Deposit of the Bidder/Contractor.
- 3) **Criminal Liability:** If the Principal/Owner obtains knowledge of conduct of a Bidder or Contractor, or of an employee or a representative or an associate of a Bidder or Contractor which constitutes corruption within the meaning of IPC Act, or if the Principal/Owner has substantive suspicion in this regard, the

Principal/Owner will inform the same to law enforcing agencies for further investigation.

Article 4: Previous Transgression

- 1) The Bidder declares that no previous transgressions occurred in the last 5 years with any other Company in any country confirming to the anticorruption approach or with Central Government or State Government or any other Central/State Public Sector Enterprises in India that could justify his exclusion from the Tender process.
- 2) If the Bidder makes incorrect statement on this subject, he can be disqualified from the Tender process or action can be taken for banning of business dealings/ holiday listing of the Bidder/Contractor as deemed fit by the Principal/Owner.
- 3) If the Bidder/Contractor can prove that he has resorted / recouped the damage caused by him and has installed a suitable corruption prevention system, the Principal/Owner may, at its own discretion, revoke the exclusion prematurely.

Article 5: Equal Treatment of all Bidders/Contractors/Subcontractors

- 1) The Bidder(s) / Contractor(s) undertake(s) to demand from all subcontractors a commitment in conformity with this Integrity Pact. The Bidder/Contractor shall be responsible for any violation(s) of the principles laid down in this agreement/Pact by any of its Sub- contractors/sub-vendors.
- 2) The Principal/Owner will enter into Pacts on identical terms as this one with all Bidders and Contractors.
- 3) The Principal/Owner will disqualify Bidders, who do not submit, the duly signed Pact between the Principal/Owner and the bidder, along with the Tender or violate its provisions at any stage of the Tender process, from the Tender process.

Article 6- Duration of the Pact

This Pact begins when both the parties have legally signed it. It expires for the Contractor/Vendor 12 months after the completion of work under the contract or till the continuation of defect liability period, whichever is more and for all other bidders, till the Contract has been awarded.

If any claim is made/lodged during the time, the same shall be binding and continue to be valid despite the lapse of this Pacts as specified above, unless it is discharged/determined by the Competent Authority, BMTPC.

Article 7- Other provisions

- 1) This Pact is subject to Indian Law, place of performance and jurisdiction is the **Head quarters of the Division** of the Principal/Owner, who has floated the Tender.
- 2) Changes and supplements need to be made in writing. Side agreements have not been made.
- 3) If the Contractor is a partnership or a consortium, this Pact must be signed by all the partners or by one or more partner holding power of attorney signed by all partners and consortium members. In case of a Company, the Pact must be signed by a representative duly authorized by board resolution.
- 4) Should one or several provisions of this Pact turn out to be invalid; the remainder of this Pact remains valid. In this case, the parties will strive to come to an agreement to their original intentions.
- 5) It is agreed term and condition that any dispute or difference arising between the parties with regard to the terms of this Integrity Agreement / Pact, any action taken by the Owner/Principal in accordance with this **Integrity Agreement/ Pact or interpretation thereof shall not be subject to arbitration.**

Article 8- LEGAL AND PRIOR RIGHTS

All rights and remedies of the parties hereto shall be in addition to all the other legal rights and remedies belonging to such parties under the Contract and/or law and the same shall be deemed to be cumulative and not alternative to such legal rights and remedies aforesaid. For the sake of brevity, both the Parties agree that this Integrity Pact will have precedence over the Tender/Contact documents with regard any of the provisions covered under this Integrity Pact.

IN WITNESS WHEREOF the parties have signed and executed this Integrity Pact at the place and date first above mentioned in the presence of following witnesses:

..... (For and on behalf of Principal/Owner)

..... (For and on behalf of Bidder/Contractor)

WITNESSES:

1)
.....
(Signature, Name & Address)

2)
.....
(Signature, Name & Address)

Construction of 32 Demonstration Houses with,
Expanded Polystyrene Core Panel System (EPS)
Technology including Infrastructure Works at
Bhubaneswar, Odisha

(Composite Work)
(Ref. No. BMT/CBM/1/2015/Odisha)

Part-B
Financial Bid



निर्माण सामग्री एवं प्रौद्योगिकी संवर्द्धन परिषद
आवास और शहरी गरीबी उपशमन मंत्रालय, भारत सरकार
Building Materials & Technology Promotion Council
Ministry of Housing & Urban Poverty alleviation, Government of India
Core-5A, 1st Floor, India Habitat Centre, Lodhi Road, New Delhi
Phone: +91-11-24636704, Fax: +91-11-24642849
Website: www.bmtpc.org Email: bmtpc@del12.vsnl.net.in

Name of Work: Construction of 32 Demonstration Houses using Expanded Polystyrene Core Panel System (EPS) Technology including Infrastructure Works on Design & Build basis at Bhubaneswar, Odisha

PROFORMA FOR QUOTING

Bill of Quantity (BOQ)

SCHEDULE OF WORK

(The Agency is to enter the Agency address and Values only)

Sl. No.	Description of Work	Qty.	Unit	Rate in Rs.		Amount (in Rs.)
				In Figures	In Words	
A	Housing					
1.	Construction of four storied 32 nos houses using Expanded Polystyrene Core Panel System Technology. As per specification and approved drawings, Including internal water supply connections with 500 lit HDPE storage tank (included), sanitary installation, internal electrical installation complete including Mumty at terrace. [Note : The built-up area of the unit may vary from drawing	32	Nos			

Sl. No.	Description of Work	Qty.	Unit	Rate in Rs.		Amount (in Rs.)
				In Figures	In Words	
	enclosed due to change in wall thickness as per design requirement, however the carpet area of unit & circulation area (Corridor & Staircase) need to be maintained same as per enclosed drawing]					
B	Infrastructure					
1	Making plinth protection 50 mm thick of cement concrete 1:3:6 (1 cement: 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) over 75mm thick bed of dry brick ballast 40 mm nominal size, well rammed and consolidated and grouted with fine sand, including finishing the top smooth all along the building	60	sqmt			
2	Providing & Fixing required water supply pipe with Gun metal valve for Connection of houses with External laid main Water Supply line upto 50 mt length (for additional length the amount will be paid extra)	50	Rmt			
3	Providing & Making/ Laying required Man-holes, RCC NP2 pipes for Connection of	50	Rmt			

Sl. No.	Description of Work	Qty.	Unit	Rate in Rs.		Amount (in Rs.)
				In Figures	In Words	
	houses with External laid main Sewer line upto 50 mt length (for additional length the amount will be paid extra)					
4.a	Feeder Pillar Floor mounting totally enclosed compartmentalised cubical, dust vermin proof and outdoor type with required plate Earthing complete including connections etc.	1	Job			
4b	Providing and Laying require Electrical cable for providing electrical supply to houses, as approved.	50	Rmt			
5a	Supply, installation and commissioning of SPV Solar Street Light (white LED Based) System as per specifications - MS Pole 6 mt height over concrete pedestal, 15 Watt LED light Phillips/ Bajaj/ Crompton or Suitable Equivalent.	2	No			
5b	Supply, installation and commissioning of Solar Panel with 500 Watt for 20 number lighting points in common areas (corridor & Staircase) at suitable locations including LED bulbs with 15 Watt	1	Job			
6	Providing and laying	120	Sqm			

Sl. No.	Description of Work	Qty.	Unit	Rate in Rs.		Amount (in Rs.)
				In Figures	In Words	
	60mm thick factory made cement concrete interlocking paver block of M -30 grade made by block making machine with strong vibratory compaction, of approved size, design & shape, laid in required colour and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with fine sand etc. all complete .					
Total in Figures						
Total in Words		Rupees only				

Signature of Agency

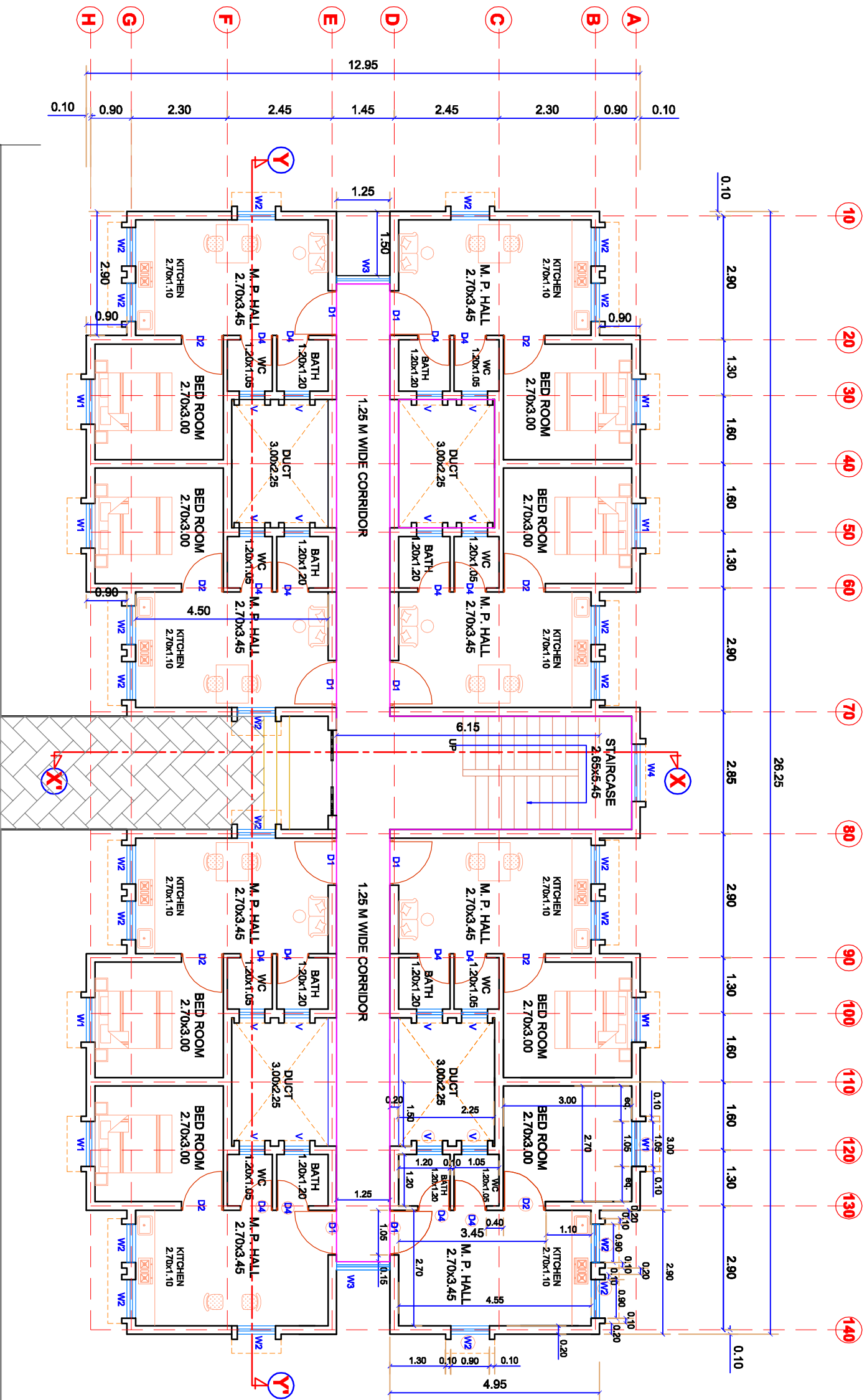
Name:_____

Address:_____

Tel No. _____

Fax No. _____

Email_____



PROJECT

PROPOSED DEMONSTRATION HOUSES USING EXPANDED POLYSTYRENE CORE PANEL SYSTEM AT BHUBANESWAR

PROJECT

DRG. TITLE

LAYOUT PLAN

DATE

SCALE

NORTH

DEALT BY

APP. BY



DRG. NO.

DH/ORA-01

BUILDING MATERIALS & TECHNOLOGY PROMOTION COUNCIL
MINISTRY OF HOUSING/URBAN POVERTY ALLEVATION (Govt. of India)
CORE-5A, 1st FLOOR, INDIA HABITAT CENTRE,
LODHI ROAD, NEW DELHI-110003
PHONE-011-24638096, 011-24638097. Website: www.bmpc.org.



Client :
BHUBANESWAR DEVELOPMENT
AUTHORITY (BDA)

NATURE OF REVISION SPECIFICATION

DESIGNED BY

CHECKED BY

AREA DETAILS

Living Room	= 2.70x3.45	= 9.31 sq.mts
Bed Room	= 2.70x3.00	= 8.10 sq.mts
Cooking Space	= 2.70x1.10	= 2.97 sq.mts
Bath Room	= 1.20x1.20	= 1.44 sq.mts
W.C	= 1.20x1.05	= 1.26 sq.mts
Total Carpet Area		= 23.085 sq.mts

Plinth Area of Unit	=	<u>28.23sq.mts</u>
Area of staircase & Passage (per unit)	=	5.98 sq.mts

Total Area of Unit = 34.21 sq.mts

No. of Unit per Floor = 8 DUNo. of Floors = G+3

Total Area per Floor = 273.69 sqmts

Total Area Of Blocks = 1094.76 sqmts

SCHEDULES OF DOORS AND WINDOWS

NAME	SIZE	SILL LEVEL
D1	1.05 x 2.10	_____
D2	.975 x 2.10	_____
D3	.825 x 2.10	_____
D2	.750 x 2.10	_____
W1	1.05 x 1.35	.750
W2	0.90 x 1.10	1.00
W3	1.25 x 1.35	.750
W4	1.20 x .900	_____
V1	0.60 x 0.60	.450
CD1	2.40x2.10	Collapse steel door

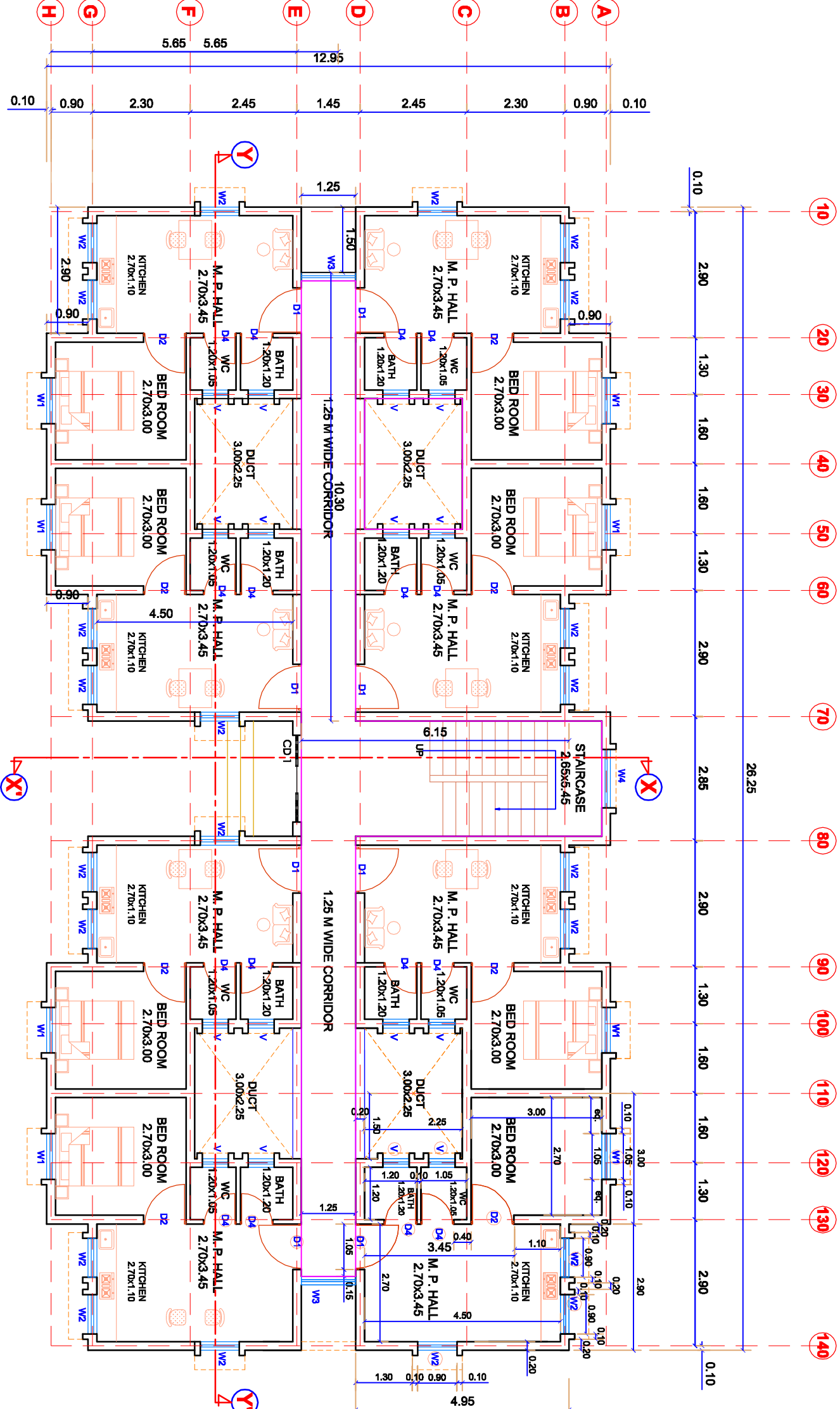
NATURE OF REVISION SPECIFICATION	DRAWN BY	CHECKED BY

**Client :
BHUBANESWAR DEVELOPMENT
AUTHORITY (BDA)**



BUILDING MATERIALS & TECHNOLOGY PROMOTION COUNCIL
MINISTRY OF HOUSING&URBAN POVERTY ALLEVATION,(Govt of India)
CORE-5A, 1st FLOOR, INDIA HABITAT CENTRE,
LODI ROAD, NEW DELHI -110003
PHONE-011-24638096,011-24638097. Website:www.btmipc.org.

GROUND FLOOR PLAN



PROJECT

PROPOSED DEMONSTRATION HOUSES USING EXPANDED POLYSTYRENE CORE PANEL SYSTEM AT BHUBANESWAR

DRG.TITLE

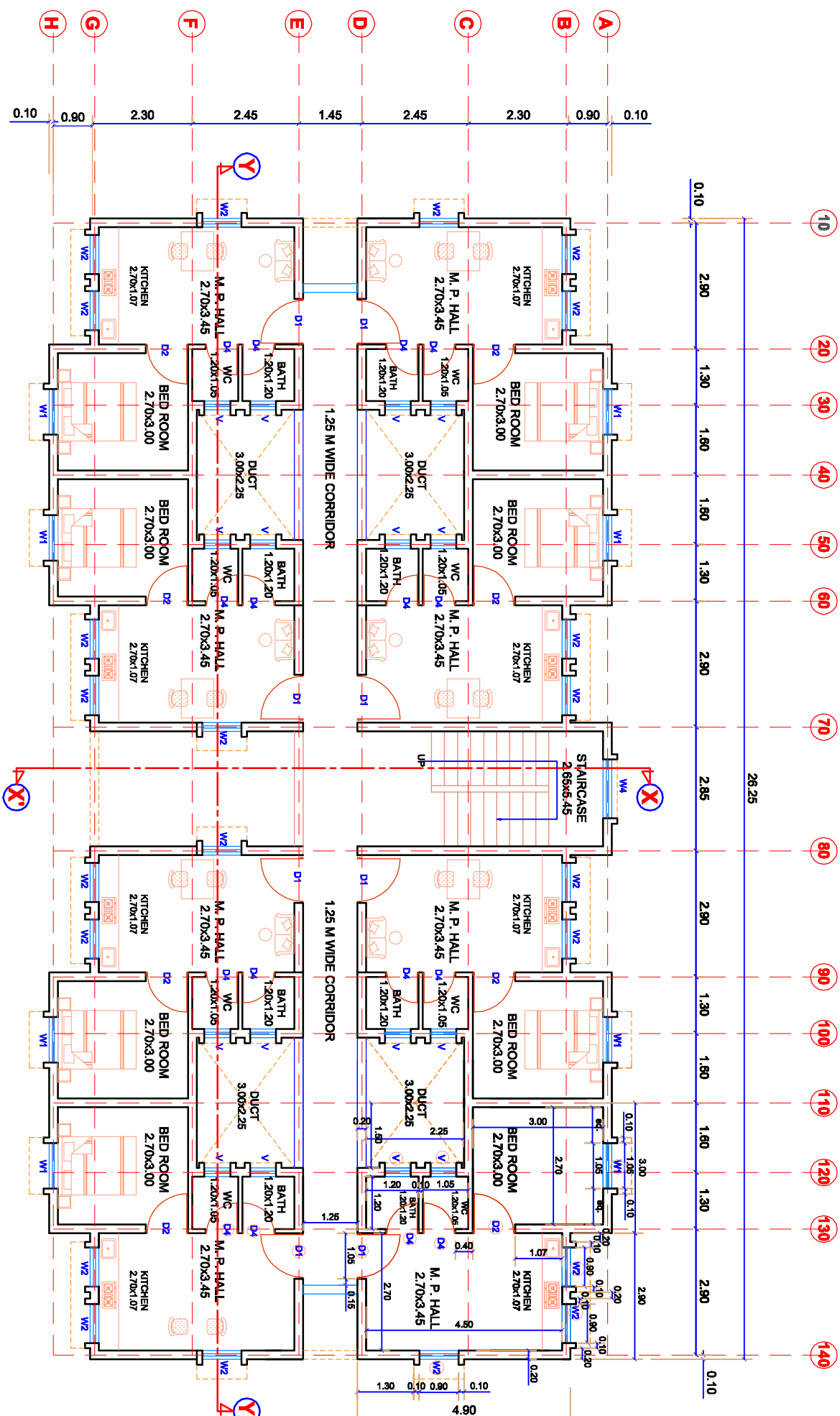
GROUND FLOOR PLAN

DATE	SCALE	NORTH
DEALT BY	APP. BY	

DRG.NO. **DH/OR/A-02**

DH/OR/A-02

SPECIFICATION	
Foundation	Strip Foundation in M-25 Concrete
Wall/Slab Roof	Expanded Polystyrene Core Panel System With Sprayed Concrete Structural Plaster
Door Frames	Pressed Steel Door Frame With Prelaminated Vertical Lumber Slidler PVC Door Frame & Slidler in Toilet M.S. Section
Window Frame	M.S. Section Window Frame With Guard Rail & Glazed Slidler
Flooring	Crazy Tile Flooring in Rooms, Ceramic Tile Flooring in WC & Bath Kola Stone in Passage
Kitchen Counter	RCC Cooking Counter Top With Green Marble
Staircase	EPS Staircase With Kola Stone Flooring
Wall Finishing	Acrylic Distemper on Internal Wall Surface Acrylic Emulsion Paint on External Wall Surface



TYPICAL FLOOR PLAN
(AREA=272.40 SQ.M)

SCHEDULES OF DOORS AND WINDOWS		
NAME	SIZE	SILL LEVEL
D1	1.05 x 2.10	_____
D2	.975 x 2.10	_____
D3	.825 x 2.10	_____
D2	.750 x 2.10	_____
W1	1.05 x 1.35	.750
W2	0.90 x 1.10	1.00
W3	1.25 x 1.35	.750
W4	1.20 x .825	_____
V1	0.60 x 0.60	.450

[illegible]

**Client :
BHUBANESWAR DEVELOPMENT
AUTHORITY (BDA)**

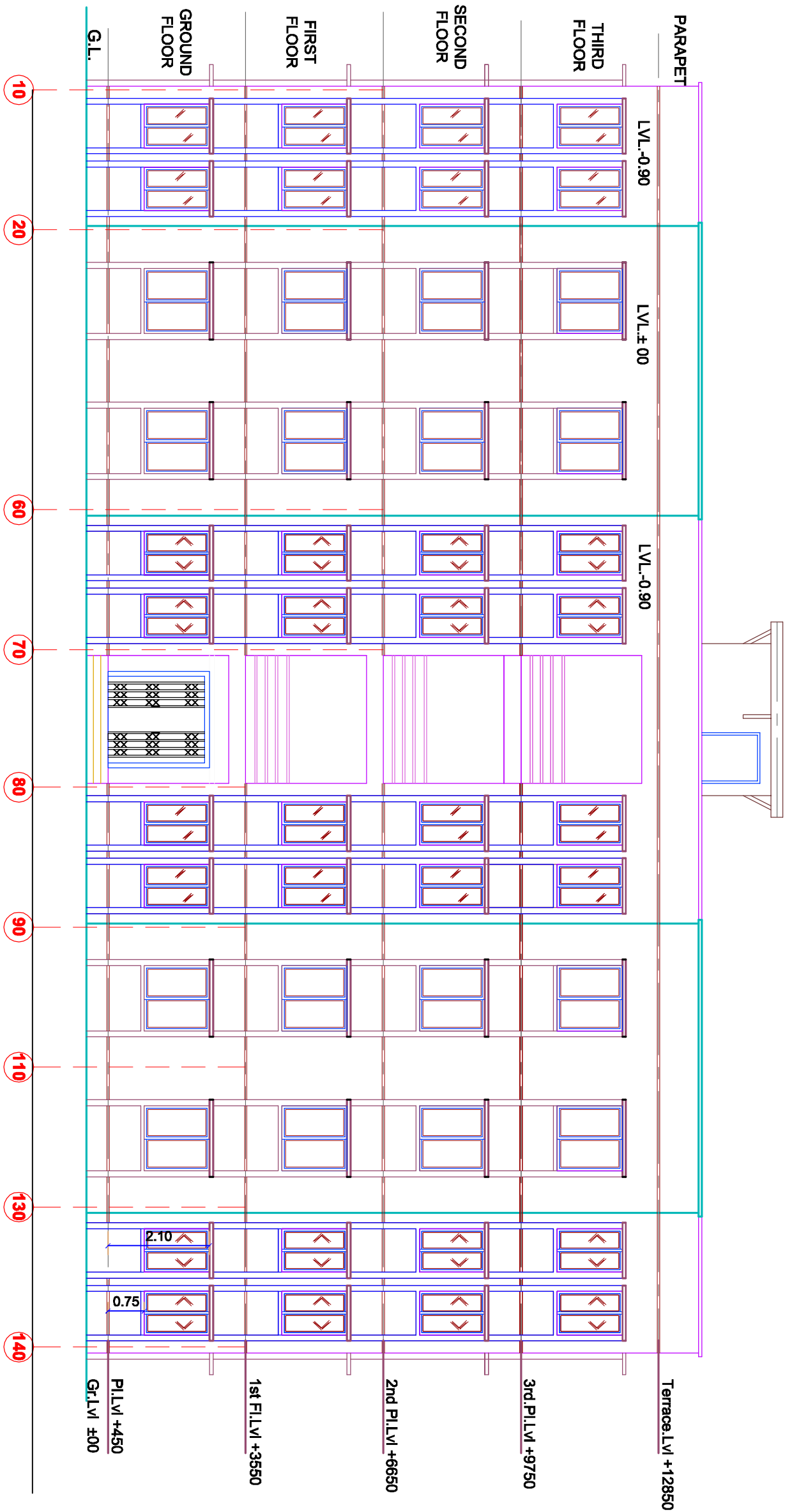


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MINISTRY OF HOUSING&URBAN POVERTY ALLEVATION,(Govt of India)
CORE-5A, 1st FLOOR, INDIA HABITAT CENTRE,
LODI ROAD, NEW DELHI-110003
PHONE-011-24638036,011-24638097. Website:www.bmtpc.org.

DRG.NO.
DH/OR/A-03

PROJECT

PROPOSED DEMONSTRATION HOUSES USING EXPANDED POLYSTYRENE CORE PANEL SYSTEM AT BHUBANESWAR



PROJECT

PROPOSED DEMONSTRATION HOUSES USING
EXPANDED POLYSTYRENE CORE PANEL SYSTEM AT
BHUANESWAR

DRG. TITLE

FRONT ELEVATION

DATE


SCALE

DEALT BY

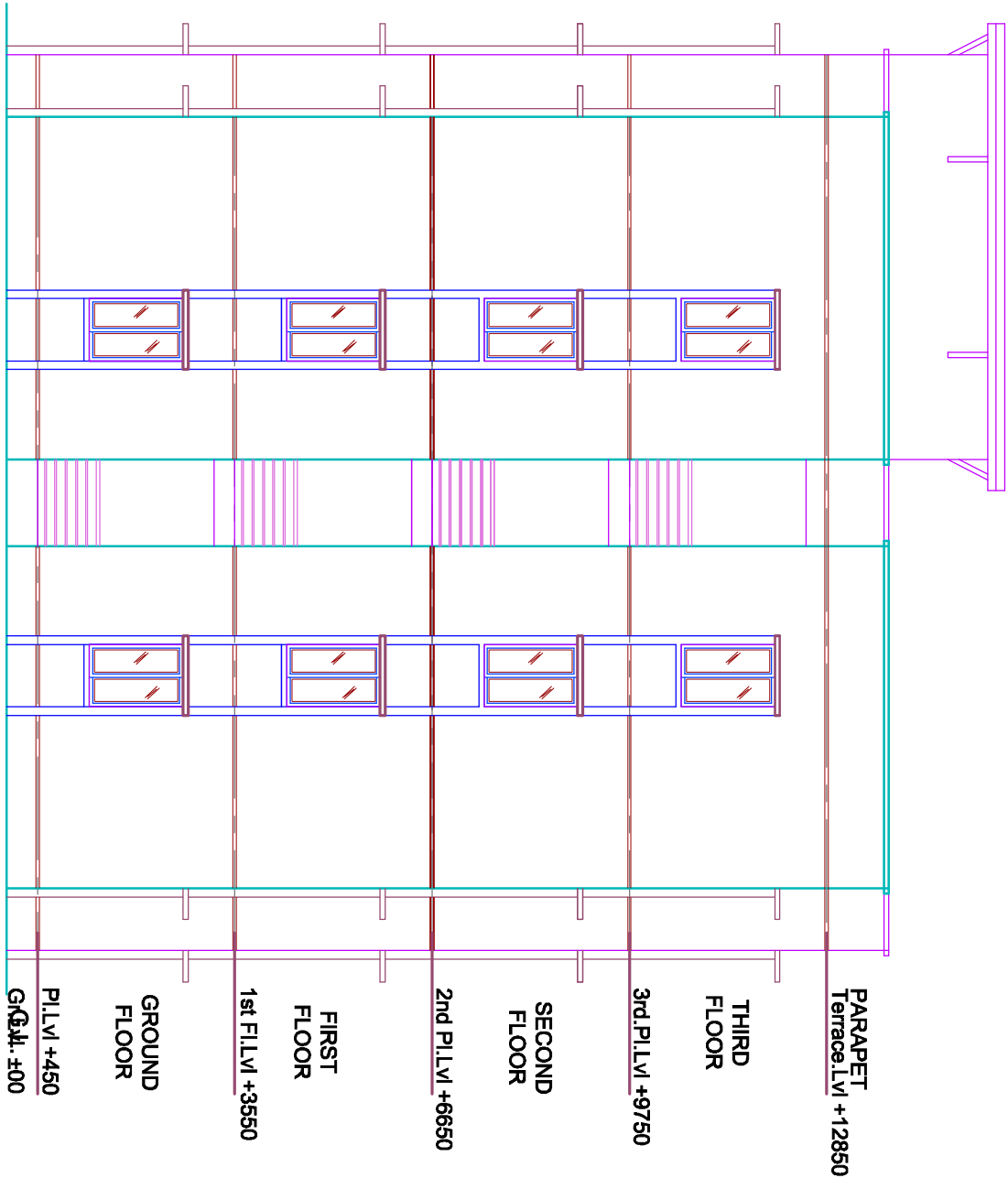
NORTH

APP. BY

BUILDING MATERIALS & TECHNOLOGY PROMOTION COUNCIL
MINISTRY OF HOUSING & URBAN POVERTY ALLEVIATION (Govt of India)
CORE-5A, 1st FLOOR, INDIA HABITAT CENTRE,
LODHI ROAD, NEW DELHI -110003
PHONE-011-24638086, 011-24638087. Website: www.bmtpc.org.

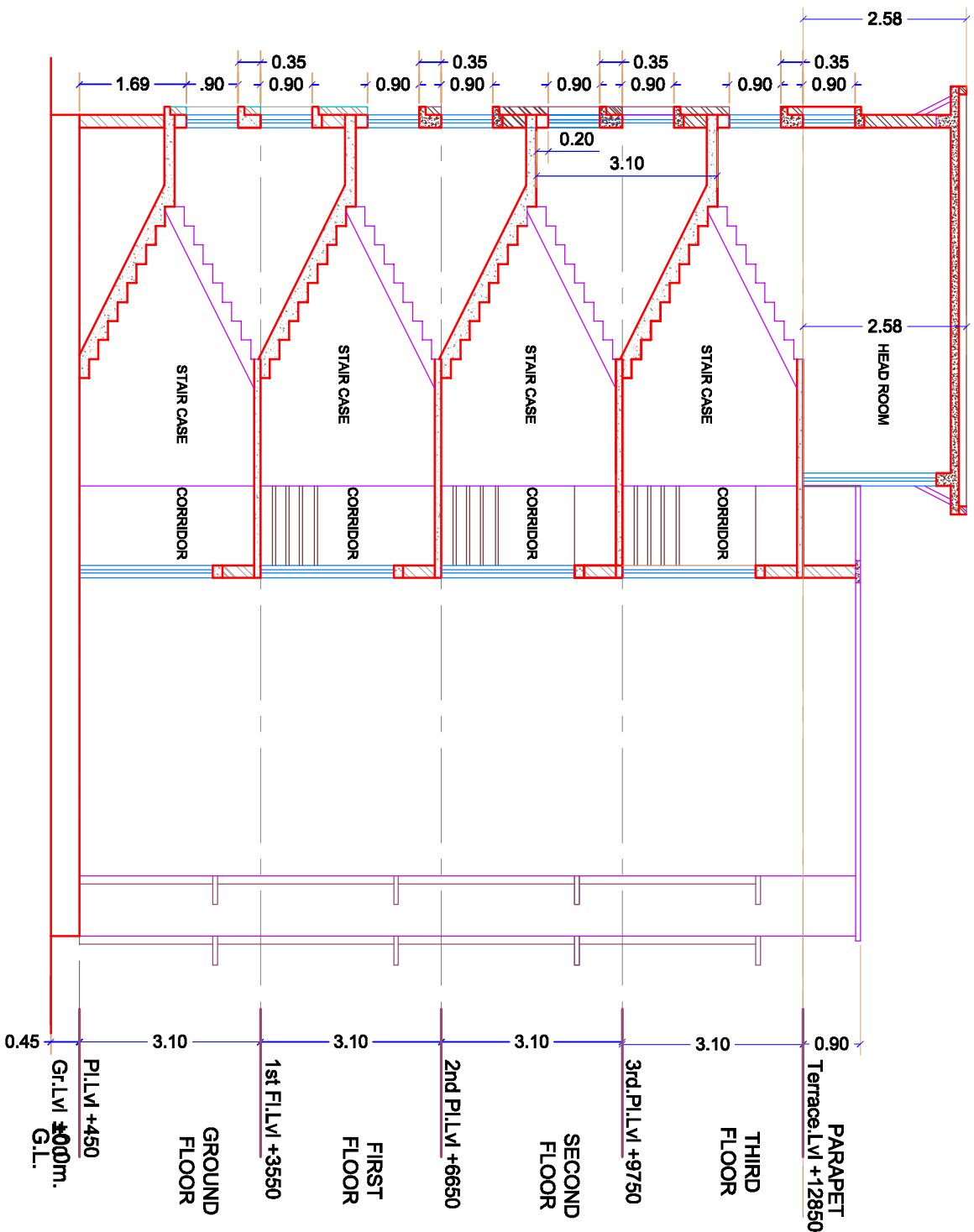


DRG. NO. **DH/OR/AR-04**




SIDE ELEVATION

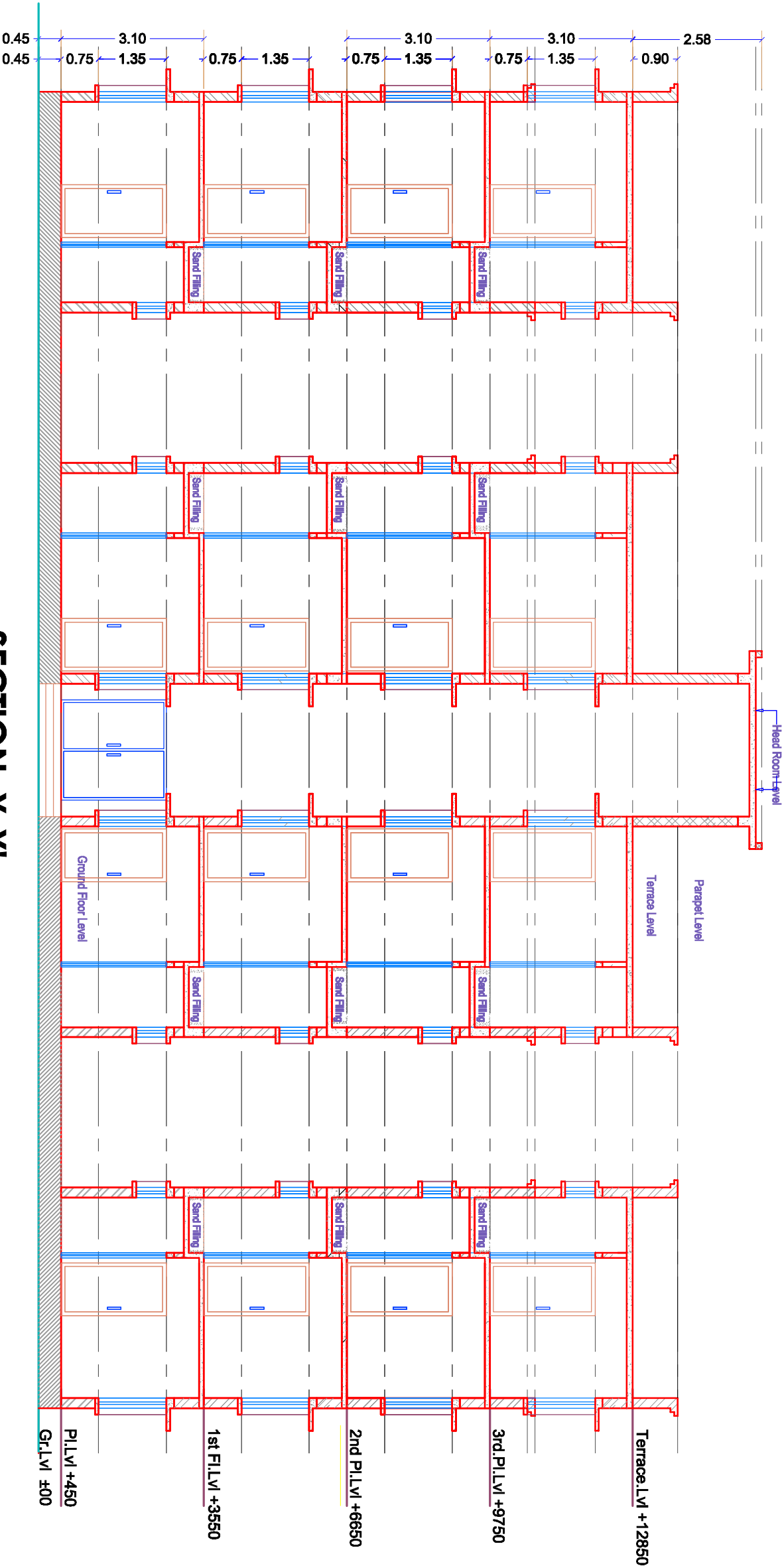
PROJECT			DRG. TITLE			<div>BMPAC</div> <div>BUILDING MATERIALS & TECHNOLOGY PROMOTION COUNCIL MINISTRY OF HOUSING&URBAN POVERTY ALLEVIATION,(Govt of India) CORE-5A, 1st. FLOOR, INDIA HABITAT CENTRE, LODI ROAD, NEW DELHI -110003 PHONE-011-24638086,011-24638087. Website:www.bmtpc.org.</div>
PROPOSED DEMONSTRATION HOUSES USING EXPANDED POLYSTYRENE CORE PANEL SYSTEM AT BHUBANESWAR						
SIDE ELEVATION						
DATE	SCALE	NORTH				
DEALT BY		APP. BY		DRG.NO.		
				DH/OR/ AR-05		



PROPOSED DEMONSTRATION HOUSES USING
EXPANDED POLYSTYRENE CORE PANEL SYSTEM AT
BHUBANESWAR

PROJECT			DRG. TITLE			DRG. NO.		
PROPOSED DEMONSTRATION HOUSES USING EXPANDED POLYSTYRENE CORE PANEL SYSTEM AT BHUBANESWAR			SECTION X-X'			 BUILDING MATERIALS & TECHNOLOGY PROMOTION COUNCIL MINISTRY OF HOUSING & URBAN POVERTY ALLEVIATION (Govt of India) CORE-5A, 1st FLOOR, INDIA HABITAT CENTRE, LODHI ROAD, NEW DELHI - 110003 PHONE-011-24638086, 011-24638087. Website: www.bmpac.org.		
DATE			SCALE			NORTH		
DEALT BY			APP. BY					

DRG. NO. DH/OR/AR-06



SECTION Y-Y'

PROJECT

PROPOSED DEMONSTRATION HOUSES USING
EXPANDED POLYSTYRENE CORE PANEL SYSTEM AT
BHUBANESWAR

DRG. TITLE

SECTION Y-Y'

DATE


SCALE

DEALT BY








APP. BY

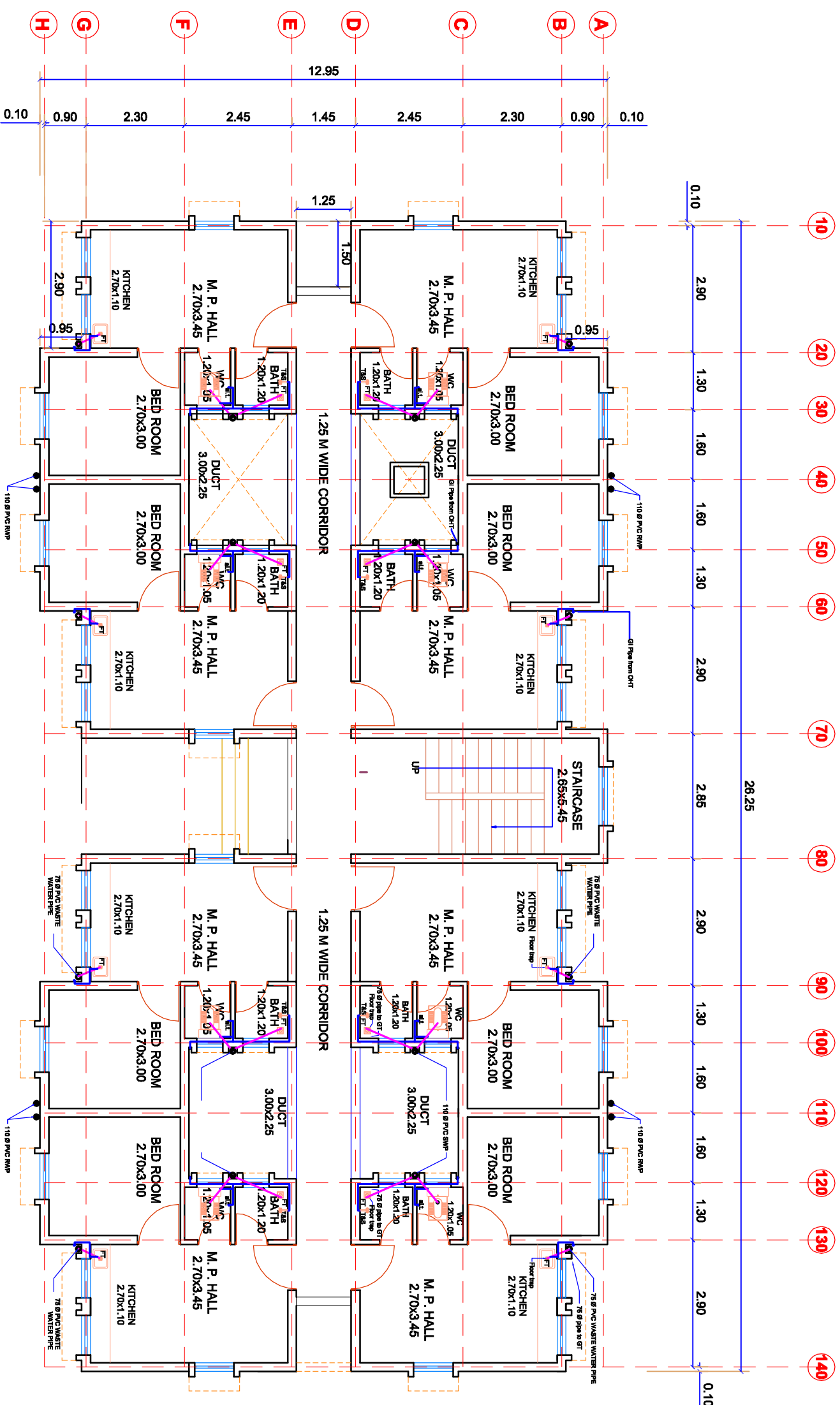
NORTH

BUILDING MATERIALS & TECHNOLOGY PROMOTION COUNCIL
MINISTRY OF HOUSING & URBAN POVERTY ALLEVIATION (Govt of India)
CORE-5A, 1st FLOOR, INDIA HABITAT CENTRE,
LODHI ROAD, NEW DELHI -110003
PHONE-011-24638086, 011-24638087. Website: www.bmtpc.org.


DRG. NO. DH/OR/AR-07

LEGEND

- | | |
|---|---------------------------|
|  | GI WATER PIPE FROM TANK |
|  | 75 Ø PVC WASTE WATER PIPE |
|  | 110 Ø PVC SWP |
|  | 110 Ø PVC RWP |
|  | FLOOR TRAP |
|  | GULLY TRAP |
|  | MANHOLE |



TYPICAL FLOOR PLAN

Services Plan

PROJECT

PROPOSED DEMONSTRATION HOUSES USING EXPANDED POLYSTYRENE CORE PANEL SYSTEM AT BHUBANESWAR

DRG.TITLE

Sewer & Water Supply
Layout at Typ.FI.

DATE _____

SCALE

NORTH

DEALT BY

APP.BY

DRG.NO.
DH/OR/A-09







bimpac

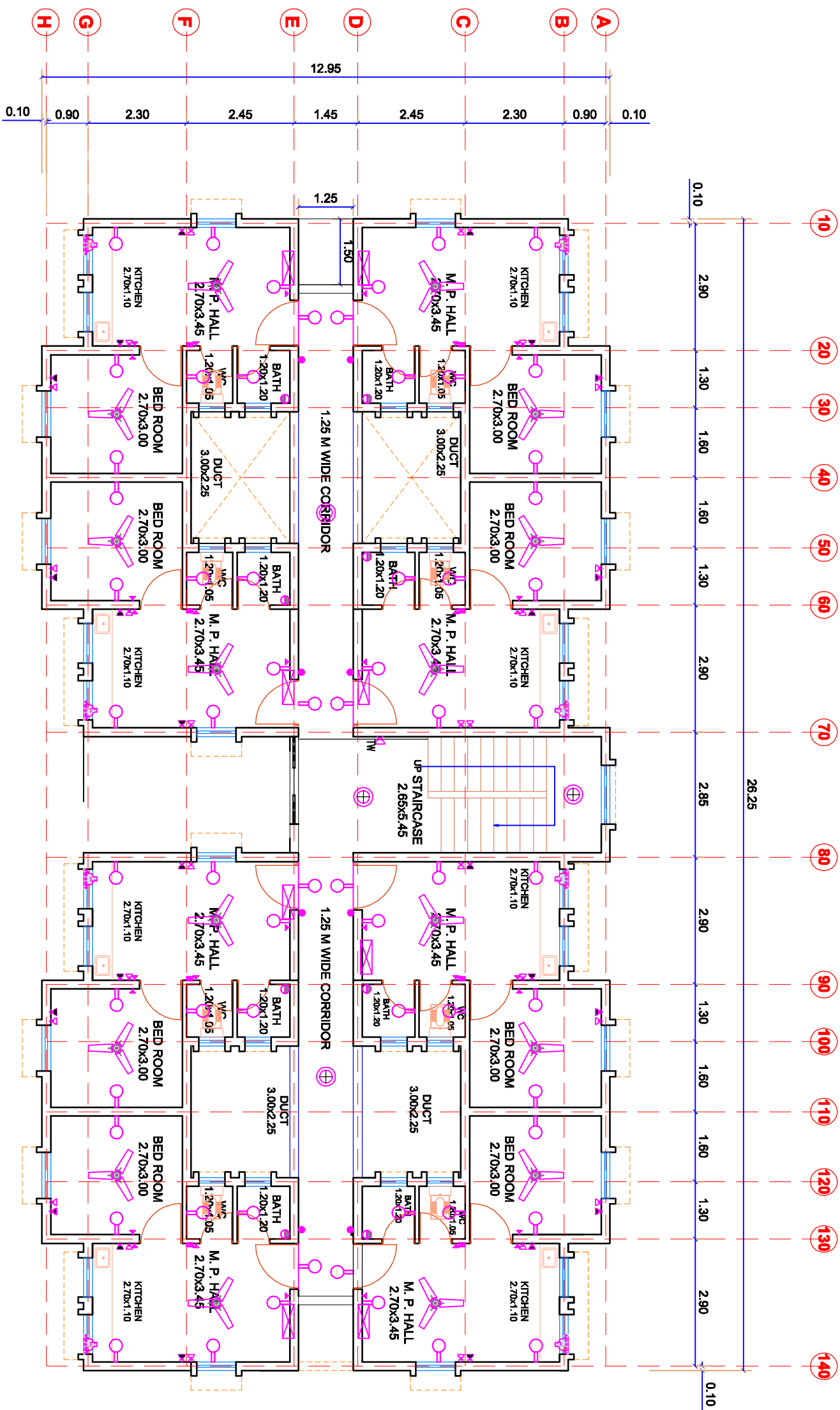
BUILDING MATERIALS & TECHNOLOGY PROMOTION COUNCIL
MINISTRY OF HOUSING&URBAN POVERTY ALLEVATION,(Govt of India)
CORE-5A, 1st FLOOR, INDIA HABITAT CENTRE,
LODH ROAD, NEW DELHI -110003
PHONE-011-24638086/011-24638087/ Website-www.bimpac.org.

**Client :
BHUBANESWAR DEVELOPMENT
AUTHORITY (BDA)**

NATURE OF REVISION SPECIFICATION	DESIGNED BY	CHECKED BY
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DESIGNED BY	CHECKED BY
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LEGEND		
SYMBOL	DESCRIPTION	QUANTITY
	CEILING FAN	2 Nos.
	WALL BRACKET LIGHT	8 Nos.
	CEILING PENDANT (Common Area)	4 No / floor
	5A POWER OUTLET	3 No.
	15A POWER OUTLET	3 Nos.
	SWITCH BOARD WITH 5 A PLUG	4 Nos.
	TWO WAY SWITCH (FOR COMMON)	
	GEYSER OUTLET	1 No.
	EXHAUST FAN	1 No.
	CALLING BELL SWITCH	1 No.
	CALLING BELL RECEIVER	1 No.
	DISTRIBUTION BOARD	1 No.

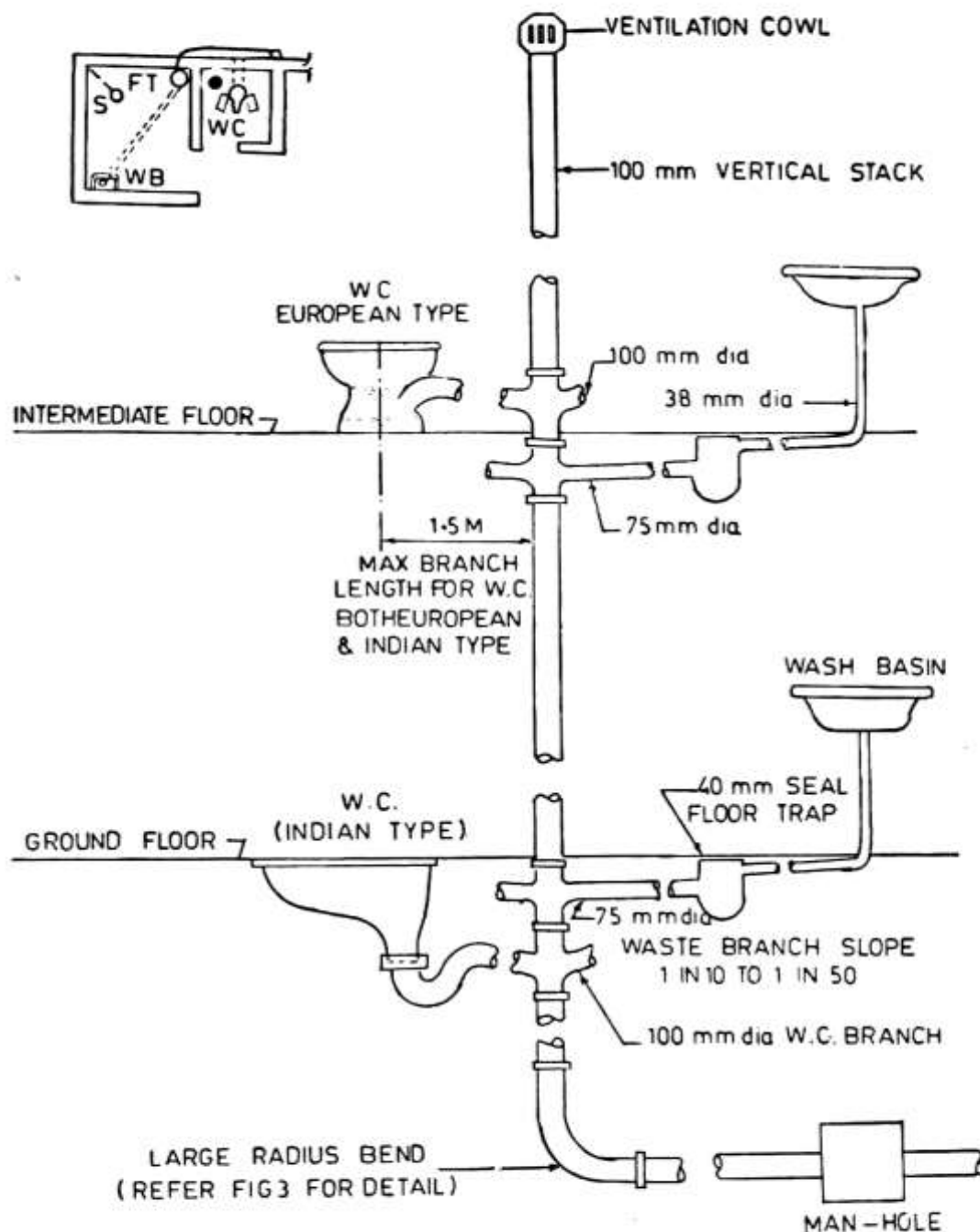


TYPICAL FLOOR PLAN

PROJECT

PROPOSED DEMONSTRATION HOUSES USING EXPANDED POLYSTYRENE CORE PANEL SYSTEM AT BHUBANESWAR

DRG. TITLE		 BUILDING MATERIALS & TECHNOLOGY PROMOTION COUNCIL MINISTRY OF HOUSING&URBAN POVERTY ALLEVIATION(Govt of India) CORE-5A, 1st FLOOR, INDIA HABITAT CENTRE, LODI ROAD, NEW DELHI -110003 PHONE-011-24638096,011-24638097; Website:www.bimpcc.org.	
<u>Electrical Layout at</u>			
<u>Typ.Floor</u>			
DATE	SCALE	NORTH	
DEALT BY	APP. BY		
DRG.NO.		DH/OR/A-10	



SINGLE STACK SYSTEM OF PLUMBING
(INDIAN PRACTICE)