

## COSTED SCHEDULE OF WORK

Name / Work : Provn of qty 02 x Store Shelter in 56 Inf Div AOR.

Job No : OT/EC/3/56/2026-27/2135 (C)

Ser No	Description of work	Brief Specifications	A/U	Qty
1	Provn of qty 02 x Store Shelter (Shelter Part , Constr Mtrls including E/M items)	Provn of Store Shelter of Size 12.0m x 6.10m with 1.50m wide covered verandah, two steel doors (1.00m x 2.10m), four steel windows (1.20m x 1.20m), three steel trusses made of portal frame structure. Main column with web-100*300x4mm and flanges of 125x8mm thick, main rafter with web-250*100x4mm and flanges of 110x6mm and cantilever verandah rafter of same dimension. The three main portal frames provided at a distance 6.0 mtr centre to centre and interconnected by 'Z'/C' purlins at spacing all as given in the drawing No STR-01 (sheet No 1/6 to 6/6). Wall cladding is made of 0.5mm thick PPGI colour sheets fitted on 'Z' rafters. Roof cladding is made of 0.5mm PPGI colour coated sheets. Detailed specification of shelter part as per <b>Appx-'A', &amp; Appx -B</b> Store list is att as <b>Annx - I</b> .	Set	2
2	Provn of qty 02 x Store Shelter (Furniture Part & Misc Items)	<p><b>2.1 Store Rack</b> as per tech specifications given in <b>Appx 'C'</b>.</p> <p><b>2.2 Chair Writing</b> as per tech specifications given in <b>Appx 'D'</b>.</p> <p><b>2.3 Writing Table</b> as per tech specifications given in <b>Appx 'D'</b>.</p> <p><b>2.4 Almirah Steel Large</b> as per tech specifications given in <b>Appx 'D'</b>.</p> <p><b>2.5 Hand held trolley</b> as per tech specifications given in <b>Appx 'D'</b>.</p> <p><b>2.6 Hand held Fire extinguisher</b> as per tech specification given in <b>Appx 'D'</b>.</p> <p><b>2.7 Smoke Alarm</b> as per tech specification given in <b>Appx 'D'</b>.</p> <p><b>2.8 Heat Alarm</b> as per tech specification given in <b>Appx 'D'</b>.</p>	<p>Nos</p> <p>Nos</p> <p>Nos</p> <p>Nos</p> <p>Nos</p> <p>Nos</p> <p>Nos</p> <p>Nos</p>	<p>8</p> <p>2</p> <p>2</p> <p>2</p> <p>2</p> <p>6</p> <p>2</p> <p>2</p>

## TECHNICAL SPECIFICATIONS OF STORE SHELTER : SHELTER PART

### 1. Structure.

1.1 **Structural Frame Work.** The shelter main frame will be of Steel sections made using high tensile hot rolled steel plates having minimum YS of 345 Mpa and conforming to ASTM 572M, Gr 50 or IS 2062:350/Fe 490 of approved makes such as **SAIL/TATA/JSW/JSPL/ESSAR/Bhushan Steel/Bhushan power & Steel and Uttam Value Steels.** The steel structure will consist Portal frame, cold formed galvanized 'Z'/C' Purlins and Girts, sag rods, bracing rods. All the members will be suitably designed for relevant IS 800:1984 and loading shall be considered as per IS 875 and for earthquake IS : 1893 to be followed. Roof slope will be as per drawings attached.

1.1.1 All Hot Rolled sections, bracing, sagrods should conform to IS : 2062 : Fe 410. Minimum metal thickness for Hot Rolled will be as per drawing attached. Such steel will be procured from approved manufacturers and test certificates of same will be submitted by the supplier.

1.1.2 Secondary members comprising of mainly purlins and girts which are cold formed for 'Z' and 'C' shapes and will conform to ASTM A653M, Class I with minimum YS of 345 Mpa having zinc coating mass of 275 GSM. Elongated (oval shaped) holes to be provided for fixing with cleats to cater for some allowances/adjustments at the site.

#### 1.1.3 **Finishes.**

1.1.3.1 Surface preparation shall comprise of abrasive blast cleaning to minimum SA-2.5 SIS-055900 near - white blast cleaning on both external and internal surfaces.

1.1.3.2 Structural steel shall be provided with two coats of polyamide cured epoxy zinc phosphate grey primer of DFT 35 microns per coat of approved make conforming to IS 2074-1992 as primer.

1.1.3.3 Finishing two coats shall be provided with acrylic polyurethane cured - aliphatic isocyanate having DFT of 32 to 35 micron per coat and shall be procured from approved manufacturers. Finish coat to be applied by spray or brush in approved colour at factory itself and final finishing paint to be done at the place of delivery to cater for any scratches.

1.1.4 **Side Runners.** Side runners connecting the portal frame to be provided only at the top of the eaves and not at the bottom to avoid hassles while fitting the door frames. To be of same colour as of the outer colour of wall panels. The connecting plates of these side runners to be designed in such a way that there is no gap between the column flange and inner surface of the side runner to ensure proper alignment with wall panels. **Runner below Windows (Back & Front) also to be provided for fixing of back and front wall sheet.**

1.1.5 **Cleats.** Cleats provided on the rafters and columns for fixing 'Z/C' purlins should be made of MS plates, 8mm thick minimum along with suitable nuts and bolts only. **No** self tightening screws to be used for fitting these cleats.

1.2 **Fabrication.** All Fabrication work shall be done in accordance with IS: 800 and IS:7215 read in conjunction with relevant codes mentioned therein.

1.2.1 Mild steel rolled sections and plates shall be cut by sheering/plazma cutting and grinding the surfaces to true sizes and shapes. Gas cutting of mild steel may be permitted by the Consignee, provided that every cut face and edge is smoothed by grinding operation.

1.2.2 Extensive use of templates shall be made in doing fabrication work. Templates shall be clean and should have true surfaces prepared for every successive use.

1.2.3 All material shall be straight and free from twist and bends unless required to be curvilinear in form. If necessary, the material shall be straightened and/or flattened/ by pressure.

1.3 **Holing.** All holes shall be made at right angles to the surfaces of the member. Holes shall be clean cut without any torn or jagged edges. Holes shall be done by drilling. Punching shall not be resorted to, unless previously approved by the Consignee. In any case, punching of holes in materials having a thickness in excess of the connector diameter, or, for materials thicker than 16 mm, the hole shall be punched 3 mm less in diameter than the required size and then reamed to the full size. Holes shall not be formed or enlarged by burning or gas cutting under any circumstances.

1.4 **Welding.** In general, only Automatic submerged arc welding shall be used for fabrication. Subject to approval of the consignee, metal inert gas welding can be used for short length where access to the location of the weld does not permit submerged arc welding. For end plates MIG welding can be used. The welding work will conform to IS: 816/AWSD1.1, unless otherwise specified.

1.4.1 All welds shall be made only by welders and welding operators who have been properly trained and previously qualified by tests to perform the type of work required as prescribed in the relevant applicable standards.

1.4.2 All welds shall be free from defects like blow holes, slag inclusions, lack of penetrations, undercutting, cracks, etc. all welds shall be cleaned of slag or flux and show uniform sections, smoothness of weld metal, feather edges without overlap and freedom from porosity.

1.4.3 Members to be joined by fillet welding shall be brought and held as close together as possible and in no event shall be separated by more than 3 mm. If the separation is 1.2 mm or greater, the fillet weld size shall be increased by the amount of separation. This shall only apply in the case of continuous welds. The fit-up of joints at contact surfaces which are not completely sealed by welds shall be close enough to exclude water after painting.

1.4.5 The separation between fraying surfaces of lap joints and butt joints with backing plate shall not exceed 1.5 mm. Abutting parts to be butt welded shall be carefully aligned and the correct root gap maintained throughout the welding operation. Misalignments greater than 25 percent of the thinner plate or 3 mm whichever is smaller shall be corrected and in making the correction the parts shall not be drawn into a slope sharper than 2 degrees.

1.4.6 No welding shall be done when the surface of the members is wet, nor during periods of high winds unless the welding operator and the work are properly protected. In joints connected by fillet welds, the minimum sizes of single run fillet welds or first runs and minimum full sizes of fillet welds shall conform to the requirements of IS:823. Fillet welds larger than 8mm shall be made with two or more passes.

## 1.5 Inspection of Welds.

1.5.1 All welds shall be inspected for flaws by any of the methods described in these Specifications, and as per IS: 822.

1.5.2 The Suppliers shall arrange for all tests as called for in the schedule of quantities, at his own cost.

1.5.3 In case the tests uncover defective work, such tests shall be at the Suppliers cost and the Supplier shall correct such defects at his own cost, and prove the soundness of rectified work.

1.5.4 The correction of defective welds shall be carried out as directed by the Consignee without damaging the parent metal. When a crack in the weld is removed, magnetic particle inspection or any other equally positive means as prescribed by the Engineer shall be used to ensure that the whole of the crack and material up to 25 mm beyond each end of the crack has been removed.

1.6 **Material Testing.** If mill test reports are not available for any steel materials, the same shall be got tested by the Supplier to the satisfaction of the Consignee to demonstrate conformity with the relevant specification.

## 1.7 Tests on Welds.

1.7.1 **Ultrasonic Test.** Ultrasonic test shall be conducted by the supplier to detect gas inclusion (pores), slag inclusion, shallow welds, cracks, lamination and friability etc for the fillet joins.

1.7.2 **Dye Penetration Test.** Where welds are required to be examined by dye penetration inspection method, such tests shall be carried out in accordance with IS: 3658.

1.7.3 **Radiographic Inspection.** Whether instructed by the Consignee, or not, all 'Butt' welds shall be fully inspected by radiographic examination method. Such examination shall be done in accordance with the IISIS: recommendations of IS: 1182.

2. **Roof / Wall PPGI Sheets.** Roof sheet will be of PPGI 0.50 mm with guard film. The PPGI sheet shall have minimum coating of 4-5 micron epoxy primer and 18-20 micron polyester top coat. The top of 0.50 mm PPGI will have a guard film of 30-40 micron on the finished surface only for protection against scratches. The Pre coated GI sheet will conform to IS-14246-1995. Base metal of PPGI will be of CRCA as per IS-513 and galvanized as per IS-277 having zinc coating mass of 120 GSM. Same type of sheets will be utilized for walling in case of store shelter.
3. **Doors and Windows for Store Shelter.** Refer drawing No 6/6 attached with STR -01 giving details of doors and windows.
4. **Hardware and Fasteners.** All anchor bolts/foundation bolts will conform to IS: 2062 Grade 4.6. Connection bolts and fasteners will be as per IS:1364 latest Grade 8.8. One washer will be supplied with each bolt confirming to IS : 2016.
5. **Sunshades.** Suitable sunshades made out of PPGI sheets and angle iron frame will be provided to all external windows and doors not covered in verandah. The min projection for the sunshades will be 450 mm and 300 mm wider than the width of the opening. Necessary arrangement shall be made to fix angle iron frame on to the iron members. Frame shall not be fixed on to the wall panels.
6. **Wind Tie.** Flat iron of size 30mm x 3mm thick covering the entire length of the shelter including roof sheet projections will be provided **@ 05 Nos per shelter**. Elongated holes on the strips to enable fixing of 'J' hooks with two additional bitumen washers at a spacing in alignment with ridge of PPGI sheets.
7. **Fan Hooks.** Hooks for fixing of ceiling fans are to be provided with supporting rod connected with the 'T' joint supporting the false ceiling panels with proper arrangements for securing it with help of nuts and bolts along with safety locking pin.
8. **Base Plates.** Necessary base plates be provided as per the number of columns of the shelter for proper alignment of the anchor bolts.
9. **Minor Details.** Details not mentioned in the specification but required, as per good and sound engineering practice will be provided by the supplier. Necessary modifications with the frame may be carried out to suit the same. Only superior modification will be acceptable, as per standard engineering practice.
10. Various members and their quantities to be provided with each shelter as given drawings enclosed is tentative and an indicative only. The exact quantities to be provided with each shelter shall be as per actual requirement.
11. **References of drawings.** Following references would be adhered to while selecting the drawings for each type of shelter.
  - 11.1 Store shelter - STR-01 (SH 1 of 6, 2 of 6, 3 of 6, 4 of 6, 5 of 6 & 6 of 6).
12. **Minor Details.** Details not mentioned in the specifications but required as per sound and good engineering practice should be provided by the supplier.

**NOTE:**

1. The supplier will be whole and sole responsible to supply the items and materials required for construction as per specifications and good engineering practice including minor extras.

## **Appx 'B'**

(Refer to Ser No 1 of CS - 01 to TS No 1 of Job No OT/EC/3/56/2026-27/2135(C))

### **TECHNICAL SPECIFICATIONS OF CIVIL WORKS: STORE SHELTER**

1. **PCC Foundation.** PCC Foundation will be made by using 400 x 200 x 200mm pre cast cement concrete block, in cement mortar 1:6 over 100 mm thick PCC 1:4:8 over 150 mm thick Hard Core all as shown in Drg No 01 of 02 (Fdn details) att. 15mm thick Cement plaster in cement mortar 1:4 will be done on block masonry above ground level on the external surfaces.
2. **RCC Foundation.** 06 Nos x RCC column of size 300 x 450mm with footing of size 1200 x 900mm over 100 mm thick PCC 1 : 4 : 8 over 150 mm thick hard core all as shown in Drg No 01 of 01, (RCC fdn details) att. 16mm dia foundation bolts of main portal frame base plate has to be suitably aligned and placed in the RCC column.
3. **Plinth Protection.** All around the shelter, plinth protection of 750 mm wide, 75mm thick with PCC 1:3:6 type C1 shall be laid over 100 mm thick hard core over compacted soil.
4. **DPC.** 50mm thick PCC 1: 2: 4: Type B-1 to be provided over cement concrete block masonry wall surface.
5. **Tiled Flooring.** Industrial Heavy Duty full body Vitrified Ceramic 600x600 x16 mm tiles thick laid over 20mm thick screed bed in CM 1:4 over 50mm thick PCC 1:2:4 grade B1 using 20 mm graded stone aggregate Over 100mm thick PCC 1:4:8 using 40 mm graded stone aggregate over 150mm thick hard core laid over compacted soil.
6. **Pathway.** Pathway 15 M x 1M with Chequered Tile of size 250 mm x 250 mm x 25 mm) thick laid over 20mm thick screed bed in CM 1:4 over 75 mm thick PCC 1:4:8 over 100 mm thick hardcore laid over compacted soil.
7. **Steps.** A step shall be constructed out of PCC solid block masonry in CM 1:6 in front of the verandah in alignment with each door with riser as 200mm and treads as 300mm.
8. **Earthing & LC.** Safe Earthing system will be provided using GI Earthing plate, Common Salt and charcoal method.
9. List of constr mtrl for Store Shelter is att as per **Annx-I.**
10. **Electrification.** Electrical points for lights/fans/power shall be provided as given in the store list attached in **Annexure-I.** In addition, the main switchboard/MCB DBs comprising of SP/ DP MCB's shall be provided. All electrical items (MCB/Switches/Cables etc) shall be ISI marked and conforming to relevant IS specifications.
11. **Minor Details.** Details not mentioned in the specifications but required as per sound and good engineering practice should be provided by the supplier.

**NOTE:**

1. The supplier will be whole and sole responsible to supply the items and materials required for construction as per specifications and good engineering practice including minor extras.

**Appx 'C'**

(Refer to Ser No 2.1 of CS - 01 to TS No 1 of  
Job No 2135(C) /2026-27

**TECHNICAL SPECIFICATIONS FOR STORE RACK**

1. **Rack Platform.** Four platforms, each made of angle iron of size 40mm x 40mm x 5mm, welded to form a rigid frame work to hold 4' x 2' ply wood. Suitable holes (two Nos) to be provided at each corner to fit the platform to four vertical angles. Refer drg No. SR-1/1.
2. **Vertical Columns.** Four Nos vertical legs made of angle iron of size 40mm x 40mm x 5mm with a MS plate of size 80mmx80mmx8mm welded at the bottom. Suitable holes at intervals as shown in drg attached be provided for fitting these vertical columns to four rigid platforms with nut & bolts to make a store rack.
3. **Plywood.** 12mm thick BWR wooden Ply of size 8' x 4' board to be taken and cut into four pieces of size 4' x 2' each for optimal utilization and reduction in wastage. Ply to be fixed on rack platform at four places by using flat head self-tightening screws. Plywood to be ISI marked, water resistant, termite resistant and treated with preservative as per IS-5539-1969 ply rating.
4. **Bracing.** Two Nos MS flat of size 40mm x 5mm to be provided at the rear as shown in the drg to act as bracing for the rack. Suitable holes to be provided for fixing the same with nut & bolts.
5. **Finishes.** All steel surfaces of the store rack shall be painted with two coats of anticorrosive red oxide primer at the time of supply. Before application of paint all the steel surface shall be thoroughly cleaned to make the same free of rust, mill scale, dirt, oil etc either by mechanical or chemical means. Finally, the store rack shall be painted with two coats of olive green paint at factory or on site by the supplier.
6. **Hardware.** Suitable nut & bolts of size 10mm to be provided for fitting the platform to the vertical columns. Additional 10 Nos nuts and bolts be provided with each rack as spare. Exact holes to be made accordingly where necessary to avoid any play at a later stage after fitting the rack in one piece.
7. **Minor Details.** Details not mentioned in the specifications but required as per sound and good engineering practice should be provided by the supplier.
8. **Reference of Drawing.** Drawing No 1/1 of Store Rack.

**Note: Rubber Shoe Cover will be provided in all the furniture items.**

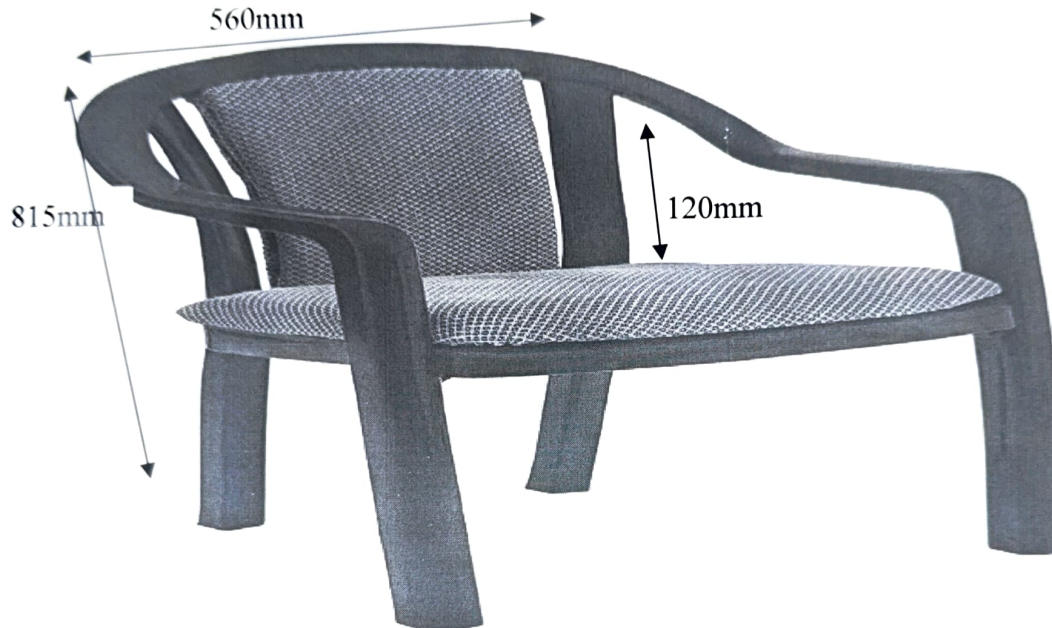
**Appx 'D'**

(Refer to Ser No 2.2 to 2.8 of CS to TS No-1 of Job No Job No 2135(C) /2026-27

**TECHNICAL SPECIFICATIONS FOR FURNITURE**

1. **Chair Writing.** The Writing Chair will be Lacquer finish, synthetic resin and medium back with arms, seat & back cushion.

1.1	Brand	-	Supreme/Nilkamal/Cello
1.2	Material	-	Plastic
1.3	Color	-	Ornate Rose wood, Brown
1.4	Dimension	-	Height - 815mm, Width – 560mm & Depth – 120mm
1.5	Cushion	-	Back & Seat



2. **Writing Table.** Table of **size 1145 x 610 x 760mm** shall be provided. Table top shall be 19mm thick pre-laminated decorated particle board fixed with hollow section frame with screw @ 200mm c/c. The frame work of table shall be of MS hollow section of size 25 x 25mm all as per drg. End of legs will be sealed with MS sheet 1:6 mm thick with proper welding process to avoid the dust entry. 6mm thick teak wood lipping shall be provided on all the exposed edges of MDF duly treated with French polish as specified. All steel surface will have two coats of synthetic enamel paint over a coat of red oxide primer. The legs will be fitted with hard PVC shoe. Refer Drg No WT 1/1.

2. **Almirah Steel Large.** Almirah steel large shall as per drawing of **size 1985 x 1300 x 485mm** made up of 18mm thick MS sheet. Four number of shelves shall be provided equally spaced to make five compartments. One chromium plated handle 150mm long with 3 way locking device shall be provided. In addition one Hasp and Staple of size 150mm long shall be provided for alternative locking arrangements. All steel surfaces internally and externally to be painted with 2 coats of synthetic enamel paint over a coat of red oxide primer. Refer Drg No ASL 1/1.

4. **Powder based Fire Extinguisher (Red) – 1.** Dry powder fire extinguisher of 1 Kg Capacity in confirmation with ISO/CE certified with stand for holding. It shall be helium leak tested and with 3 years warranty. Make - Ceasefire / Supremex / Ecofire



6. **Smoke Alarm**- Provn, of individual standalone plastic body heat alarm with adequate provision for fixing on wall/ceiling/roof. The unit to have sensor capable of detecting fixed temperature of 58 degree celsius and actuating an inbuilt alarm with loudness minimum 80 DB. Smoke alarm to be powered by 9 volt lithium batteries with an arrangement to test the battery and indicator to warn for low battery, including supply two Nos of battery.

**Make: Fire End/AFO/Safe Guard**

7. **Heat Alarm** -Provn of individual standalone plastic body heat alarm with adequate provision for fixing on wall/ceiling/roof. The unit to have sensor capable of detecting fixed temperature of 58 degree celsius and actuating an inbuilt alarm powered by 9 volt lithium batteries with an arrangement to test the battery and indicator to warn for low battery, including supply two Nos of battery.

**Make: Fire End/AFO/Safe Guard**

**NOTE:**

1. The supplier will be whole and sole responsible to supply the items and materials required for construction as per specifications and good engineering practice including minor extras.

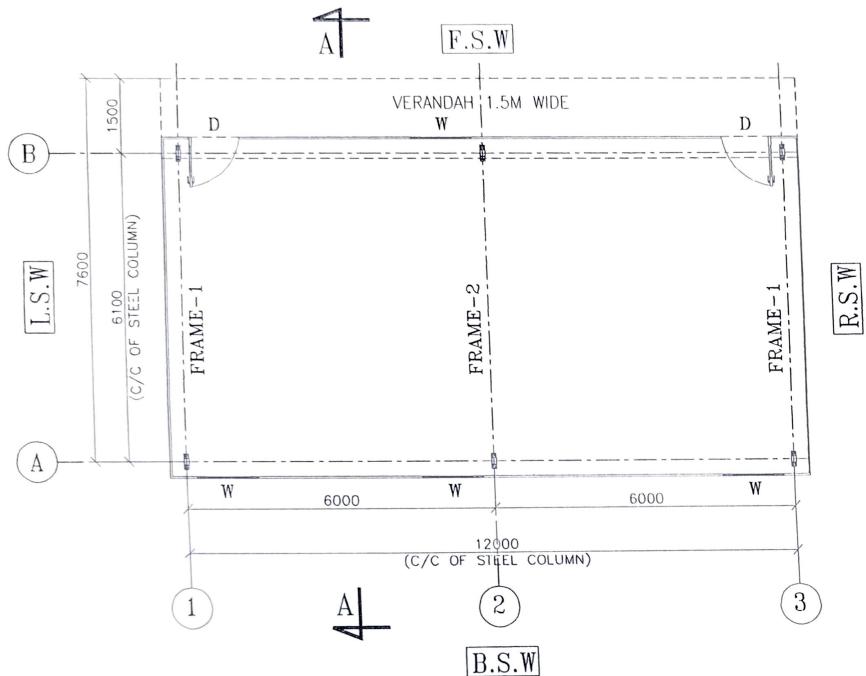
**STORE LIST OF CONSTR MTRL FOR EACH STORE SHELTER**

S No	Items	A/U	Qty	Remarks
1	<b>Shelter Part</b>	<b>Set</b>	<b>1</b>	
<b>Constr Material</b>				
1	Cement :Portland pozzolana cement : PPC Cement IS-1489 (part-2) for clained clay based PPC and IS 1489 (part-1) for fly ash based PPC) packed in 50 Kgs HDPE bag conforming to IS 11652/2000 <b>Make : Ambuja/ ACC/ Ultra tech/ Dalmia/ Ramco / Birla/ CCI)</b>	Bags	145	
2	<b>Coarse Sand</b> : Sand shall be clean, sharp, angular hard and durable free from adherent coating and shall not contain clay, mica and other impurities. The maximum quantities of clay and fine silt in sand shall not be more than 5% by mass as per IS-383-1970.	Cum	14	
3	<b>20mm Stone Aggregates</b> : Stone aggregate shall be crushed stone 20mm graded conforming to IS-383 -1970 and shall be clean hard tough, durable and of uniform quality throughout. The aggregate shall be free from soft disintegrated materials, vegetable and other organic impurities.	Cum	9	
4	<b>40mm Stone Aggregates</b> : Stone aggregate shall be crushed stone 40mm graded conforming to IS-383 -1970 and shall be clean hard tough, durable and of uniform quality throughout. The aggregate shall be free from soft disintegrated materials, vegetable and other organic impurities.	Cum	14	
5	<b>Hardcore 63 mm Stone Aggregates</b> : Stone aggregate shall be crushed stone not exceeding 63mm graded conforming to IS-383 -1970 and shall be clean hard tough, durable and of uniform quality throughout. The aggregate shall be free from soft disintegrated materials, vegetable and other organic impurities.	Cum	28	
6	PCC Solid block 400 x 200 x 200mm (+/- 10mm) minimum strength 50 Kg/Sqcm. PCC shall conform to IS-2185 (Part I) 2005. Solid block made out of PCC 1;3;6 having the compressive strength 5 KN/Sqmm.	Nos	681	
7	Chequered Cement Concrete tiles of size 250x250x25mm thick	Nos	252	
8	Industrial Heavy Duty full body Vitriified Cermic 600x600 x16 mm tiles	Nos	267	
9	TMT Bar 8mm dia.(Make - TATA/ SAIL/SRMB/ KAMDHENU)	Kgs	90	
10	TMT Bar 10mm dia.(Make - TATA/ SAIL/ SRMB/ KAMDHENU)	Kgs	170	
11	Water proof Plywood 8'x4'x18mm thick. Make : Everest Ply/National/Green Ply.)	Nos	4	
12	Wooden scantling 50mm x 50mm x 3 mtr long	Nos	3	
13	Nails assorted size (2", 3" & 4")	Kgs	3	
14	Binding Wire 0.9 mm	Kgs	5	
15	White Cement,(Make:- JK/Birla)	Kgs	5	
16	Water proofing compound (Make- Dr. Fixit/ Perma plast-O-proof Std)	Kg	5	
17	Lime unslaked of best quality.	Kgs	10	

S No	Items	A/U	Qty	Remarks
<b>Earthing Items</b>				
18	<p>Electric Earthing Set complete with items as given below :-</p> <p>18.1 GI Earthing plate 600mm x 600mm x 6mm thick with two Nos holes - 01 No.</p> <p>18.2 GI pipe 20mm light grade for watering - 1.2 Mtr. Make : Tata/Jindal/Prakash</p> <p>18.3 GI wire 4mm dia - 02 Kgs.</p> <p>18.4 GI funnel with wire mesh suitable for 20mm dia GI pipe - 01 No</p> <p>18.5 GI strip (32mm x 6mm x 4.00mtr)</p> <p>18.6 Common salt - 50 Kgs.</p> <p>18.7 FRP earthing pit with cover - 01 No.</p> <p>18.8 GI nut bolt with washer of size 10mm dia 25mm long - 2 Nos.</p> <p>18.9 Charcoal - 50 Kgs.</p>	Set	1	
19	<p><b>LC set with safe chemical</b></p> <p>19.1 Zinc &amp; Alloy Coated Safe Earthing Electrode (76.3mm dia) 2 mtr long with back frilled compound conductotile - 2 Bags CPRI approved</p> <p>19.2 Air Terminal single pointed aluminium rod 12mm dia and 600mm. - 01 Set</p> <p>19.3 GI pipe med graded 6 mtr long 40mm dia. Make TATA/JINDAL/BANSAL - 01 Nos</p> <p>19.4 Insulator with screw - 10 Nos</p> <p>19.5 Aluminium cable 70Sqmm multi standed single core. Make PLAZA/HAVELLS/ RALLISON ISI Marked - 10 RM.</p> <p>19.6 Testing point terminal box made out of gun metal of phosphorus of size 75mmx75mmx5mm with screw.</p> <p>19.7 Nut and bolts 2" x 1/2" - 08 Nos</p> <p>19.8 Foundation Nuts &amp; bolts 16mm x 400mm - 04 Nos.</p> <p>19.9 Aluminium lugs 70Sqmm for connection of cable with nut &amp; bolts of suitable size - 02 Nos.</p> <p>19.10 Earthing pit FRP Incl Cover - 01 Nos.</p> <p>19.11 PCC Brick size 230x100x75 mm - 15 Nos</p> <p>19.12 Sand - 0.15 Cum</p> <p>19.13 Stone Agg 20 mm - 0.25 Cum</p> <p>19.14 Cement - 1 Bags</p>	Set	1	
<b>Elect Items :-</b>				
20	Surface and wall mounted LED tube rod 15 watt, 1600 lumens output with suitable fitting frame. Frame shall be powder coated with aesthetically designed dual colour ends caps with bipin holder, connector block complete. Make :- Crompton / Havells / Philips.	Nos	8	
21	Pixel bulk head fittings in deep drawn anodized aluminium body, epoxy white powder coated and heat resistant prismatic glass cover with specially designed gasket with LED lamp 1 X 15 watt. Make :- Bajaj/Crompton / Havells / Philips/Surya.	Nos	4	
22	LED 12 W Rechargeable Emergency Inverter LED Bulb complete with inbuilt Li-ion battery, B22 base, all accessories	Nos	2	
23	Ceiling Fan 1200mm sweep with 5 step fan regulator one modular, confirm to IS:2312, ISI marked with double ball bearing with with modular fan regulator. Fan hook with MS clamps, bolt and nuts. Make : Usha/Bajaj/ Crompton Greaves /Khaitan. Modular fan regulator : Havells/Legrand/ Bajaj	Nos	4	

S No	Items	A/U	Qty	Remarks
24	PVC insulated, heavy duty, 1100 volt grade cable with aluminium conductor, twin core, 6 sqmm, served with sheathing of PVC tape and overall PVC sheathed, flat or circular. Make:- Paragon/Finolex/Havells/Plaza	RM	90	
25	Porcelain insulating hangers	Nos	50	
26	PVC sheathed unarmoured stranded copper conductor cable of size 1.0 sqmm dia conform to IS 694/1990 (green in color of 90 m roll) Make : - Finolex/Havells/ Paragon/Plaza.	Roll	2	
27	PVC sheathed unarmoured stranded copper conductor cable of size 1.5 sqmm dia conform to IS 694/1990 (red / black in color of 90 m roll) Make : - Finolex/Havells/ Paragon/Plaza.	Roll	4	
28	PVC sheathed unarmoured stranded copper conductor cable of size 2.5 sqmm dia conform to IS 694/1990 (red / black in color of 90 m roll) Make : - Finolex/Havells/ Paragon/Plaza.	Roll	2	
29	PVC sheathed unarmoured stranded copper conductor cable of size 4 sqmm dia conform to IS 694/1990 (red / black in color of 90 m roll) Make : - Finolex/Havells/ Paragon/Plaza.	Roll	2	
30	Modular switch piano flush type 6 Amp 240 volts single pole one way conform to IS 1293. Make :- Havells/ Anchor/Legrand/Roma	Nos	18	
31	Modular switch piano flush type 16 Amp 240 volts single pole one way conform to IS 1293. Make :- Havells/ Anchor/Legrand/Roma	Nos	2	
32	Modular socket outlet multipurpose 2 in 1 of 6 & 16 Amps flush button type. Make : Havells/Legrand	Nos	2	
33	Modular socket outlet multipurpose 2 in 1 of 16 Amps flush button type. Make : Havells/Legrand	Nos	2	
34	Surface mounting Modular boxes suitable for modular switches 12 module of size 8" x 6". (Make :- Havells/ Anchore/Legrand).	Nos	1	
35	Surface mounting Modular boxes suitable for modular switches 6 module of size 8" x 3". (Make :- Havells/ Anchore/Legrand).	Nos	2	
36	Combined cover plate with frame (Inner & outer) white suitable for modular switch/socket of 12 module. (Make :- Havells/ Anchore/Legrand).	Nos	1	
37	Combined cover plate with frame (Inner & outer) white suitable for modular switch/socket of 8 module. (Make :- Havells/ Anchore/Legrand).	Nos	2	
38	Ceiling Rose, surface bakelight, 65 x 50mm, 2 to 3 terminal. (Make :- Anchor/Havells)	Nos	15	
39	PVC Flexible pipe heavy duty 20mm dia	Mtr	10	
40	MCB DB 6 Way SPN, 240 volt conform to IS 13032, (Make :- Anchor/Legrand/Havells/ Indoasian).	Nos	1	
41	MCB 10 A SP, 240 volt breaking cap 10 KA conform to IEC-60898(2002) and IS 8828(1996). Make :- Havells/Indoasian/Legrand/Anchor.	Nos	2	
42	MCB 20 SP, 240 volt breaking cap 10 KA conform to IEC-60898(2002) and IS 8828(1996). Make :- Havells/Indoasian/Legrand/Anchor.	Nos	2	
43	MCB 32 DP, 240 volt breaking cap 10 KA conform to IEC-60898(2002) and IS 8828(1996). Make :- Havells/Indoasian/Legrand/Anchor.	Nos	1	

S No	Items	A/U	Qty	Remarks
44	PVC casing capping 38mm wide, not less than 2 mm thick. (Make :- Finolex/Polycab/Surya/ Indoplast/ Richa)	Mtr	80	
45	PVC coupler for 38mm casing and capping pipe. (Make :- Finolex/Polycab/Surya/Indoplast/Richa)	Nos	20	
46	PVC Tee for 38mm casing and capping pipe. (Make :- Finolex/Polycab/Surya/Indoplast/Richa)	Nos	15	
47	PVC sockets for 38mm casing and capping pipe. (Make :- Finolex/Polycab/Surya/Indoplast/Richa)	Nos	12	
48	PVC corner bend for 38 mm casing and capping pipe. (Make :- Finolex/Polycab/Surya/ Indoplast/ Richa)	Nos	15	
49	PVC elbow for 38mm casing and capping pipe. (Make :- Finolex/Polycab/Surya/Indoplast/Richa)	Nos	12	
50	PVC junction linker, 75 x 75mm Make : - Prestoteak/ Polycab/Suncab/Indoplast	Nos	15	
51	House service bracket (Hook type) complete with 3 m long GI pipe 40 mm dia medium grade, with two Nos 90 degr bends, MS hooks/clamps and stay or guy.	Nos	1	
52	PVC Conduit pipe 20mm dia Make :- (Finolex/Surya/ Polycab/Richa)	RM	18	
53	PVC coupler for 20mm dia conduit pipe Make :- (Finolex/ Surya/ Polycab/Richa)	Nos	5	
54	PVC Elbow for 20mm dia conduit pipe Make :- (Finolex/ Surya/ Polycab/Richa)	Nos	5	
55	PVC space bar saddles for 20mm dia PVC pipe Make :- (Finolex/ Surya/ Polycab/Richa)	Nos	15	
56	Insulation tape 19mm width, 25m long. Make - Steel grip/Anchor	Nos	3	
57	No 8 x 19 CSK screw full threaded	Pkt	1	
58	No 8 x 32 CSK screw full threaded	Pkt	1	
59	No 8 x 50 CSK screw full threaded	Pkt	1	
60	No 8mm x 75mm Bolts and Nut full threaded	Nos	4	



**LEGENDS:**

FSW = FRONT SIDE WALL ELEVATION  
 BSW = BACK SIDE WALL ELEVATION  
 RSW = RIGHT HAND SIDE WALL ELEVATION  
 LSW = LEFT HAND SIDE WALL ELEVATION

**DOOR & WINDOW SCHEDULE**

S.NO.	MARK/SYMBOL	SIZE	SILL LVL.	LINTEL LVL.	QUANTITY
1	D	1000x2100	00	2100	02
2	W	1200x1200	900	2100	04

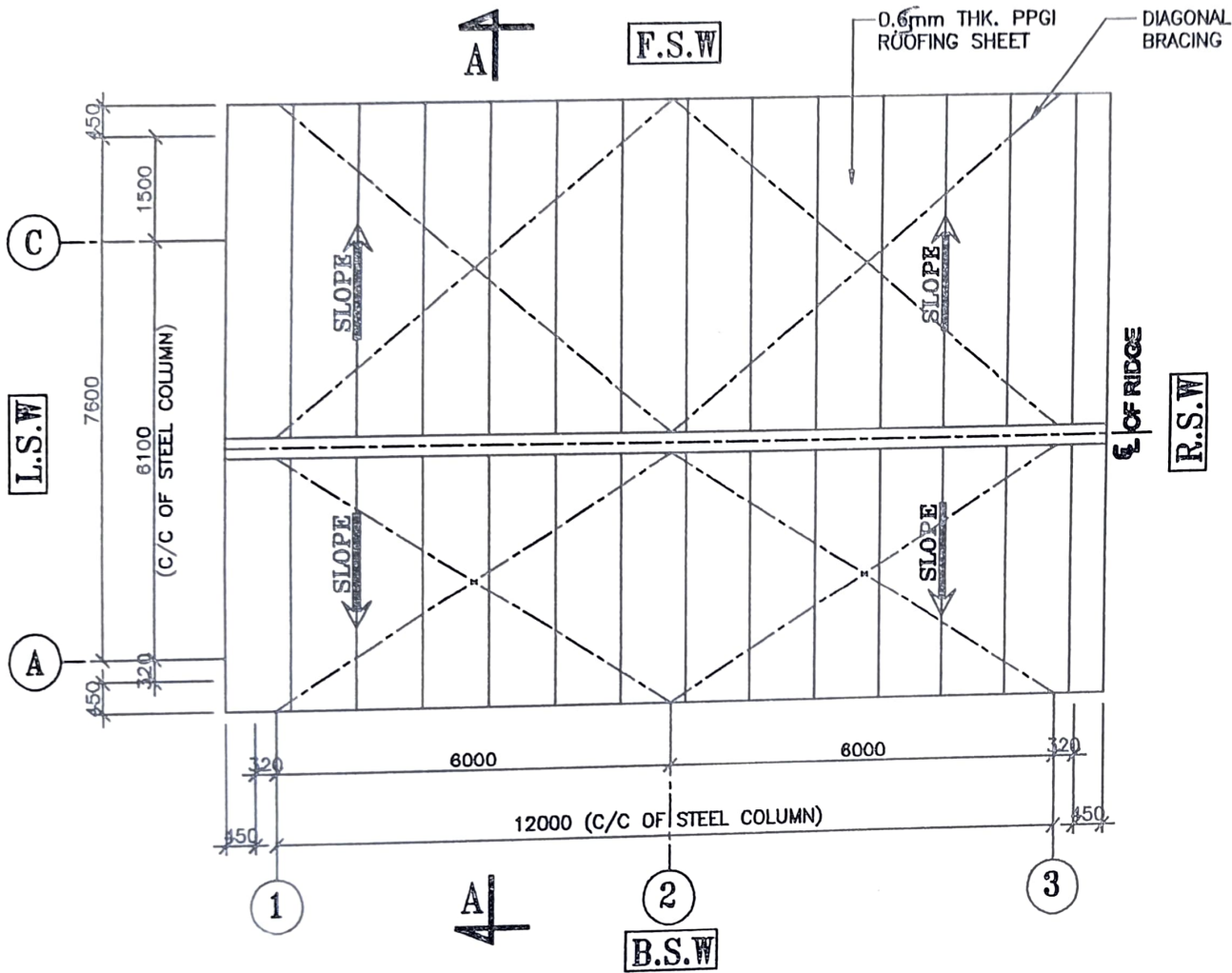
**NOTES:-**

- ALL DIMENSIONS ARE IN mm & ALL LEVELS ARE IN Mtr.

Rev.	Date	Description	Name	Checked
REVISIONS				
<b>STORE</b>				

COLUMN LAYOUT PLAN FOR STORE

COLUMN LAYOUT PLAN FOR STORE

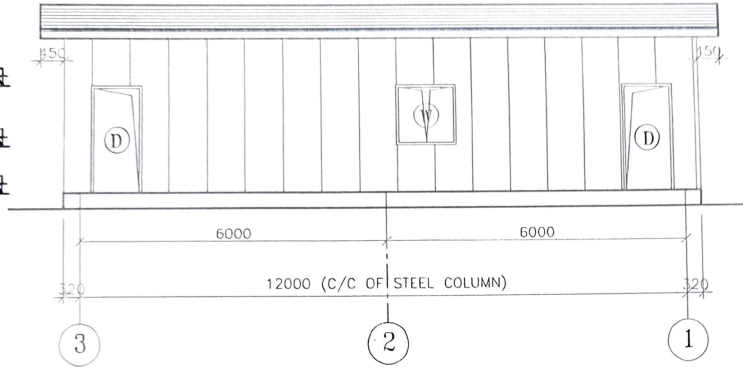


ROOF SHEETING PLAN

LVL +2.10 M  
TOP OF ROOF SLAB

LVL +0.00 M  
BOTTOM OF WALL PANEL

LVL ±0.00 M  
BOTTOM OF BASE SLAB

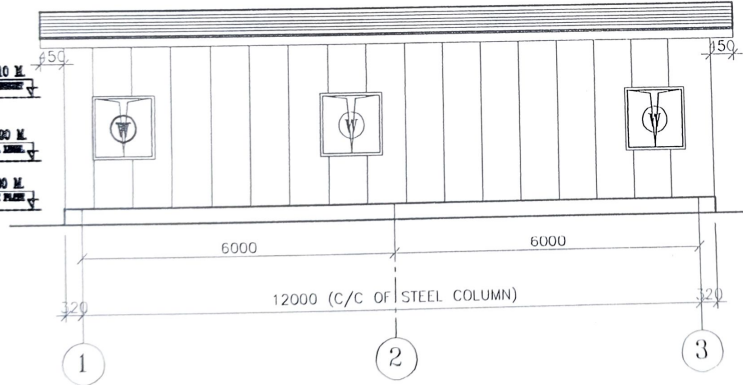


FRONT SIDE WALL ELEVATION

LVL +2.10 M  
TOP OF ROOF SLAB

LVL +0.00 M  
BOTTOM OF WALL PANEL

LVL ±0.00 M  
BOTTOM OF BASE SLAB



BACK SIDE WALL ELEVATION

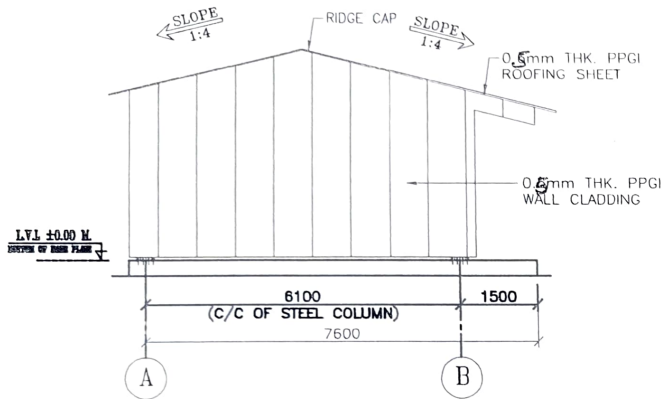
NOTES:-

1. ALL DIMENSIONS ARE IN mm & ALL LEVELS ARE IN Mtr.

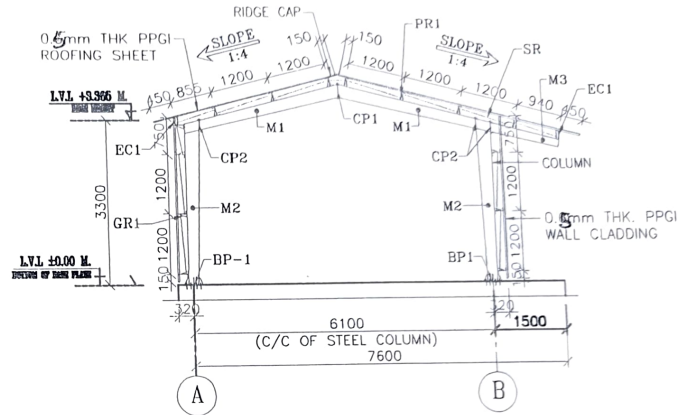
Rev.	Date	Description	Name	Checked
REVISIONS				

**STORE  
ELEVATIONS**

DATE -	2018	HQ 3 CORPS, ENGRS BRANCH	SHT No
DWN -			3/6
CND -		DRG No : STR - 01	
SCALE -			



RIGHT SIDE WALL ELEVATION (AS SHOWN)  
LEFT SIDE WALL ELEVATION (READ MIRROR)



**SECTION A-A**

QUANTITY OF STRUCTURAL MEMBER'S			
PART DESCRIPTION	PART MARK	LENGTH IN MM	QUANTITY IN Nos.
RAFTER	M1	2625	06
COLUMN	M2	3300	06
CANTILEVER RAFTER	M3	1470	03
Z-PURLIN	PR1	6650	14
EAVE CEE PURLIN	EC1	6650	04
Z-GIRT	GR1	6740	06
		6520	12
		1420	04
		1300	40
SAG ROD	SR	925	04
		900	04
		700	12
		450	04
ROOF BRACING	RB	7440	04
		6665	04
ANCHOR BOLT	AB	600	24

MEMBER'S SIZE		
PART MARK	WEB SIZE	FLANGE SIZE
M1	250-150x5	100x8
M2	300-200x5	125x8
M3	250-150x5	110x8
M4	SHS 90x90x3.8	
PR1	175x2MM THK. (GRADE-345MPA)	
EC1	185x2MM THK. (GRADE-345MPA)	
RB	20# ROD (GRADE-245MPa)	
SR	12# ROD (GRADE-245MPa)	
CONNECTION PLATE SIZE		
PART MARK	CONNECTION PLATE	BOLT SIZE (Nos. OF BOLT)
BP-1	300x200x16 THK. PL.	20# 4
CP-1	250x180x16 THK. PL.	16# 4
CP-2	450x200x16 THK. PL.	16# 8
CP-3	150x150x12 THK. PL.	12# 4

QUANTITY OF ROOF, WALL PANEL & CEILING	
PART DESCRIPTION	QUANTITY
ROOF SHEETING AREA	122.75 Sq.mtrs.
GABLE END CLADDING AREA	50.00 Sq.mtrs.
SIDE WALL CLADDING AREA	63.75 Sq.mtrs.

**NOTES:-**  
1. ALL DIMENSIONS ARE IN mm & ALL LEVELS ARE IN Mtr.

Rev.	Date	Description	Name	Checked

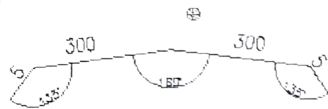
**REVISIONS**

**STORE**

**SIDE ELEVATION & SECTION**

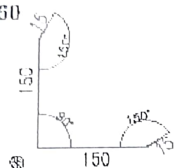
DATE -	2018	HQ 3 CORPS,	SHT No
DRN -		ENGRS BRANCH	4/6
CRD -			
SCALE -		DWG No: STR-01	

FT-01  
010



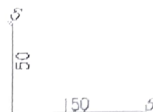
RIDGE CAP

FT-02  
360



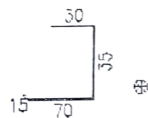
OUTER CORNER

FT-03  
210



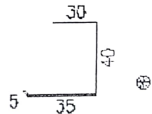
TOP FLASHING

FT-04  
150



WINDOW FLASHING  
& DOOR FLASHING

FT-05  
110



GABLE END

FT-07  
MS 75 X 50 X 2

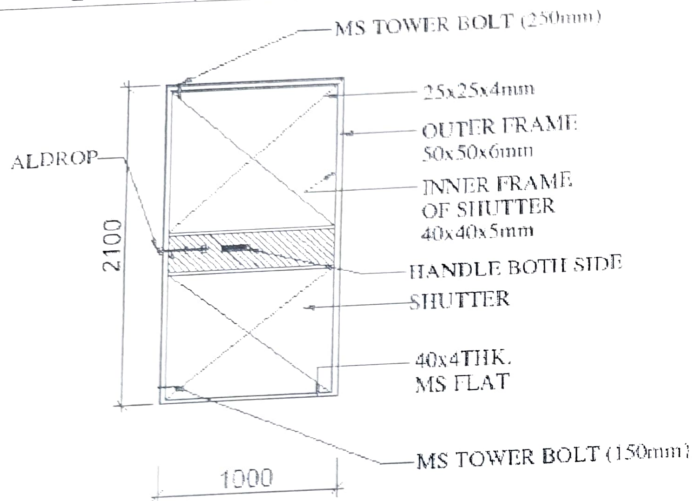


RAKE ANGLE

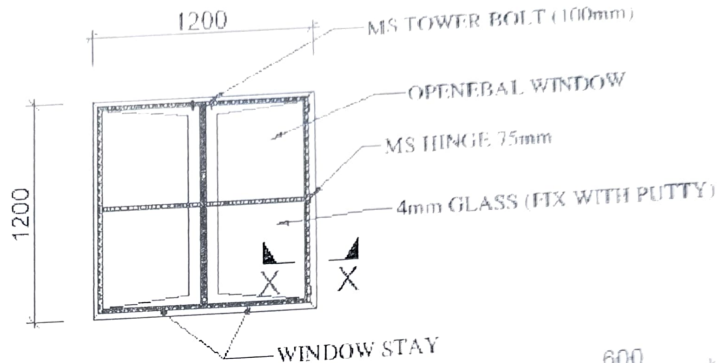
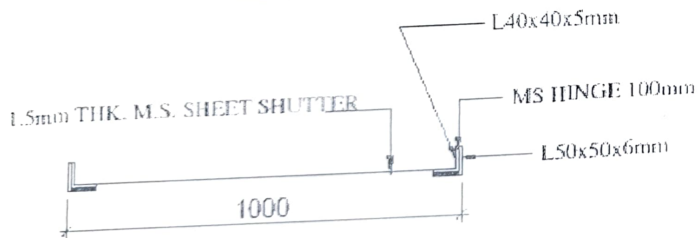
**STORE**

**TRIM & FLASHING DETAIL FOR NON PUF SHELTERS**

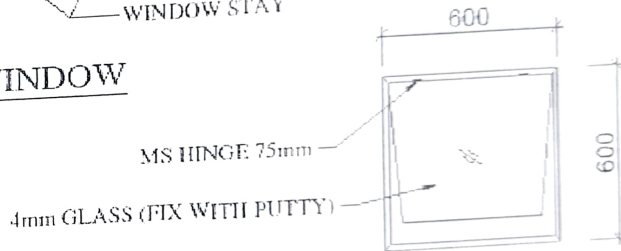
DATE -	2016	HQ 3 CORPS, ENGRS BRANCH	SHT No
DRN -			5/6
CKD -		DRG No : STR -01	
SCALE -			



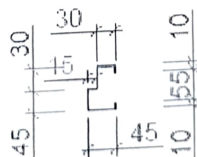
DOOR



WINDOW



VENTILATOR

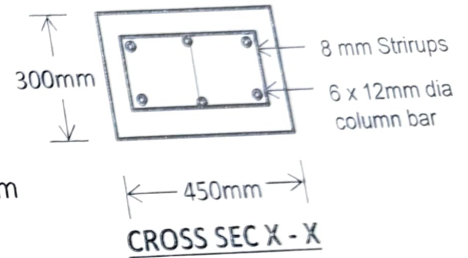
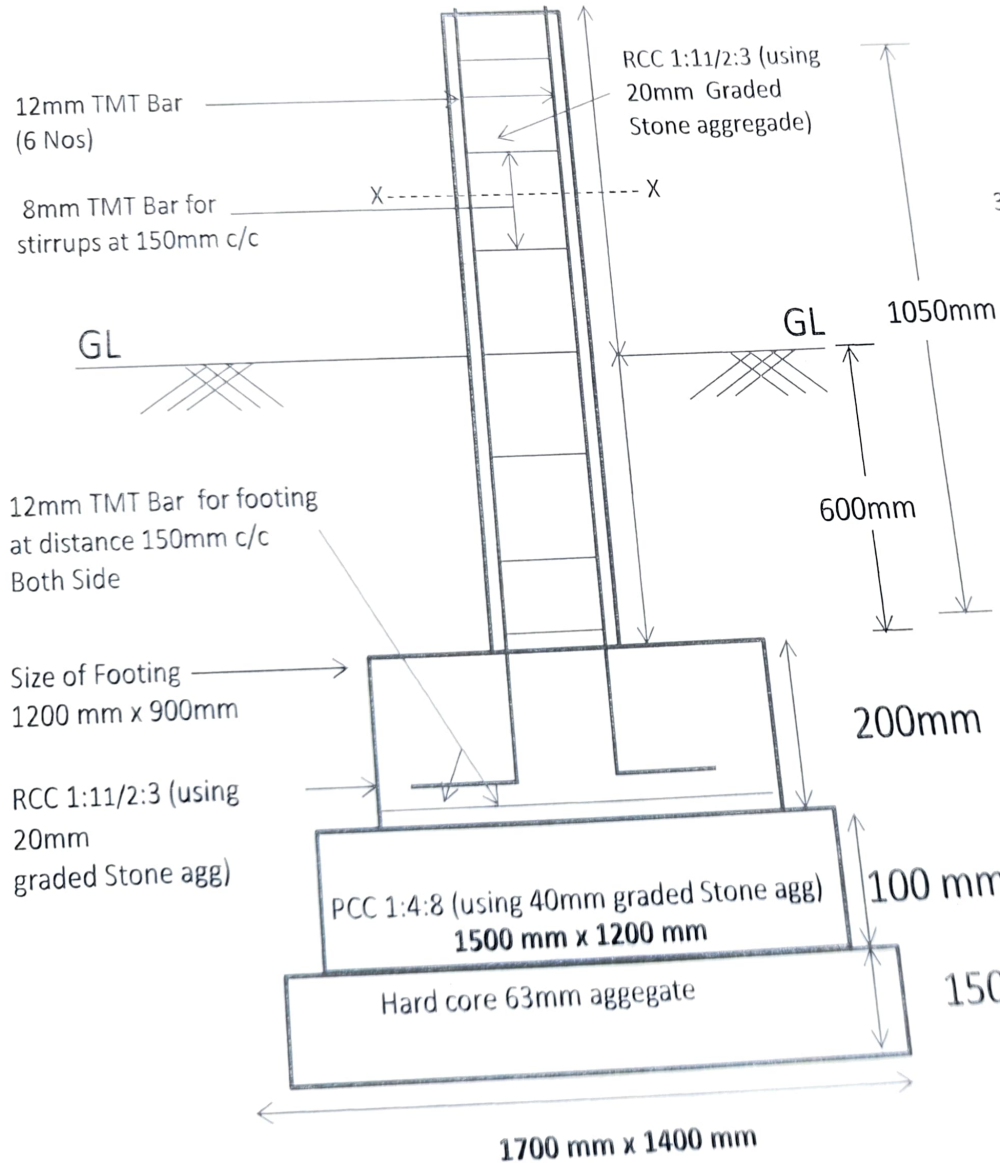


SECTION X-X

THICKNESS=1.25mm OR SHEET  
C FOR WINDOW & VENTILATOR

STORE			
TD FOR DOORS, WINDOWS & VENTS			
DATE -	2018	HQ 3 CORPS,	SHT No
DRN -		ENGRS BRANCH	6/6
CKD -		DRG No : STR-01	
SCALE -			
			GSD 1 (OP WKS)

# DETAILS OF RCC COLUMN WITH FOOTING



All dimensions are in mm

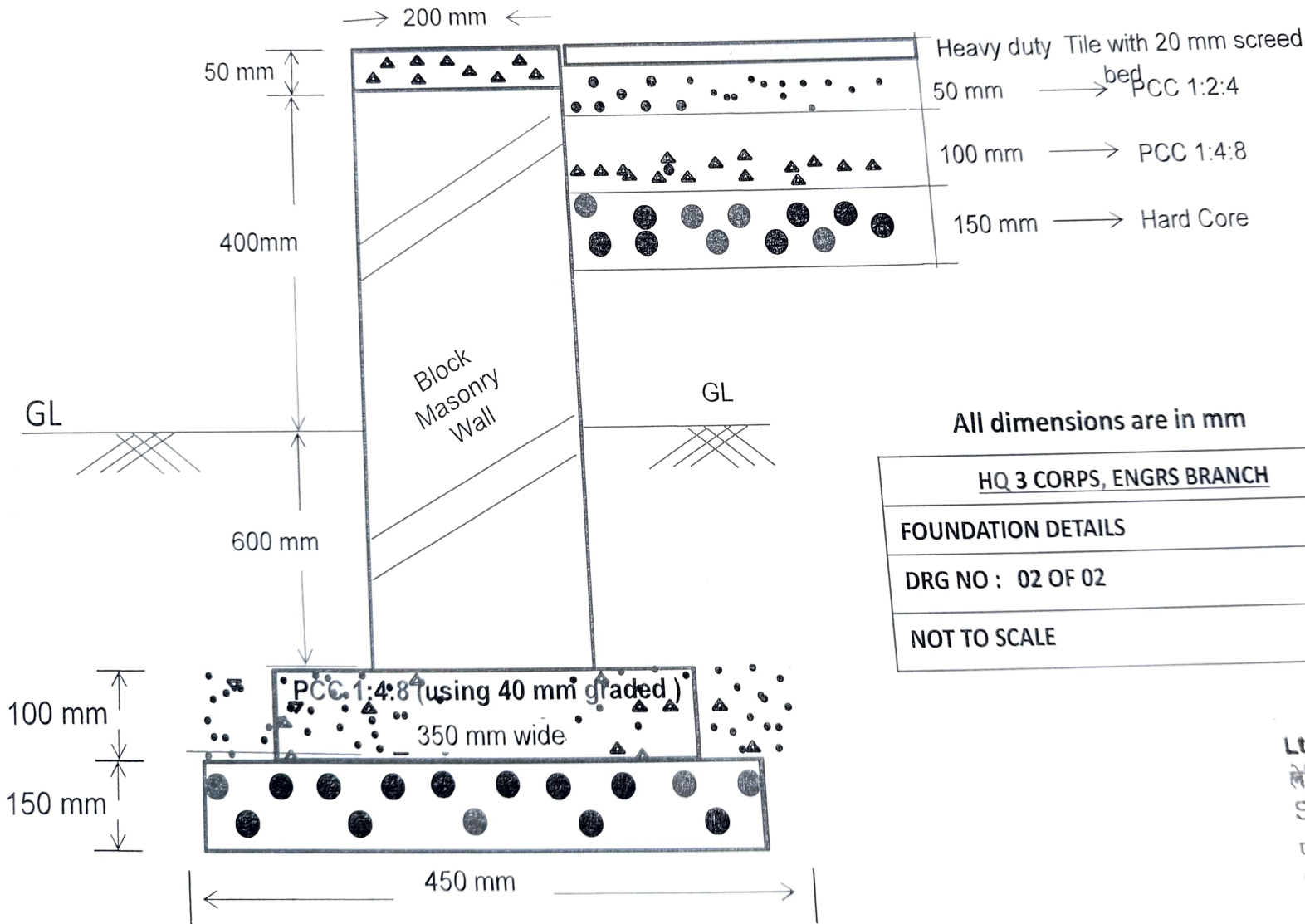
HQ 3 CORPS, ENGRS BRANCH

RCC FOUNDATION DETAILS

DRG NO : 01 OF 02

NOT TO SCALE

# FOUNDATION & FLOORING DETAILS



All dimensions are in mm

HQ 3 CORPS, ENGRS BRANCH

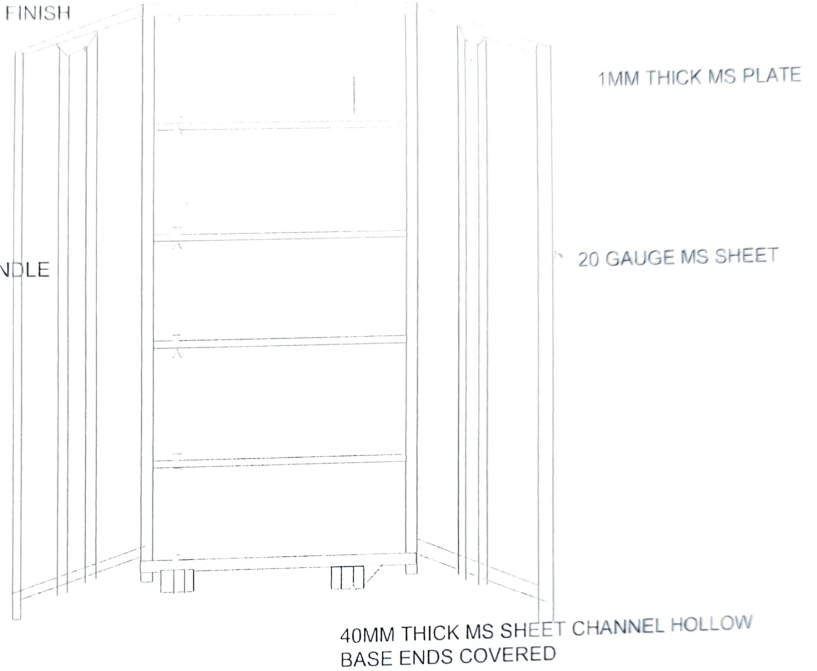
FOUNDATION DETAILS

DRG NO : 02 OF 02

NOT TO SCALE

# ALMIRAH STEEL LARGE

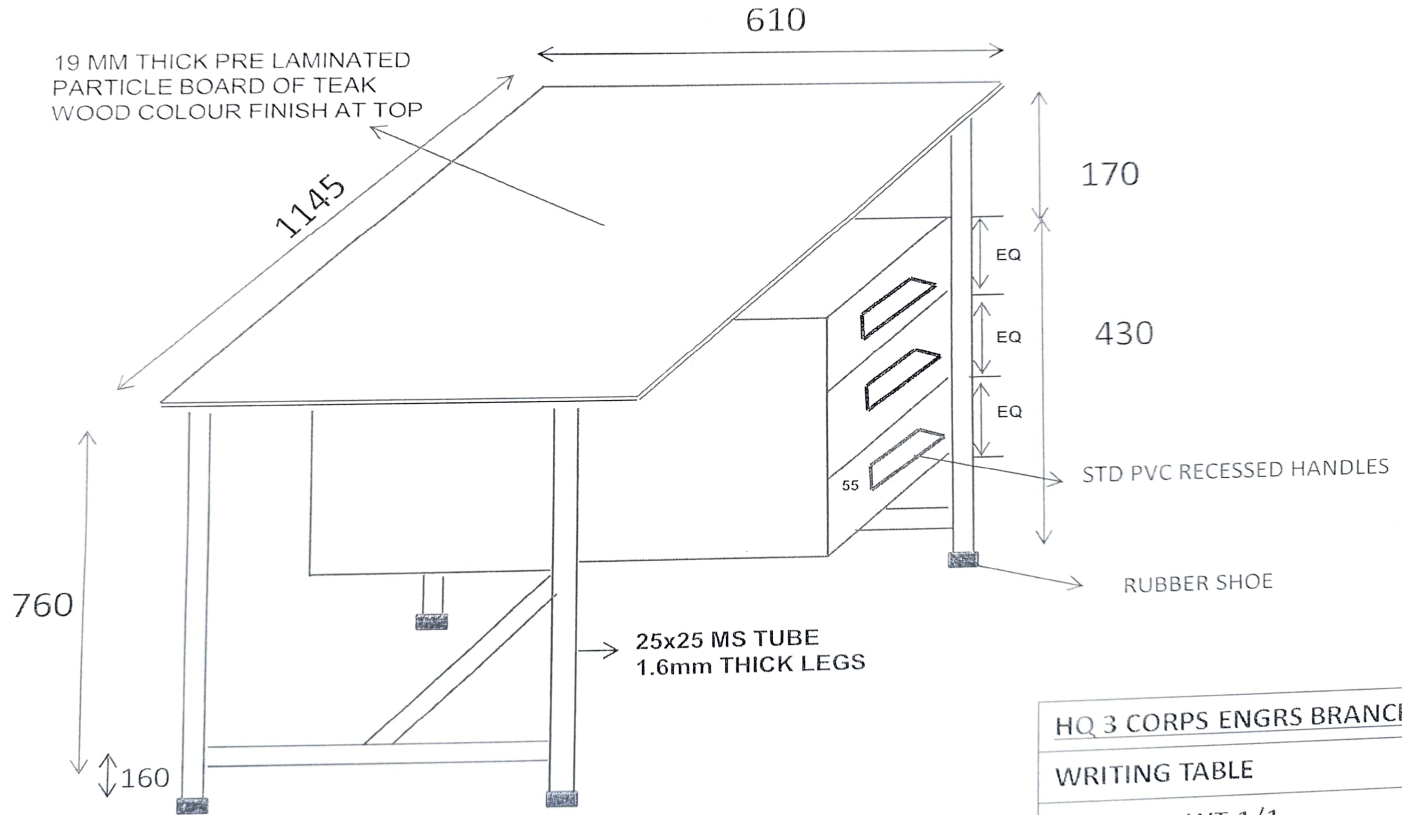
POWDER COATED PRETREATED FINISH



**NOTE :** ALL DIMENSIONS ARE IN MM  
AND DRAWING NOT TO SCALE

H Q 3 CORPS, ENGRS BRANCH
ALMIRAH STEEL LARGE
DRG NO : <b>ASL 1/1</b>
GSO 1 (OP WKS)

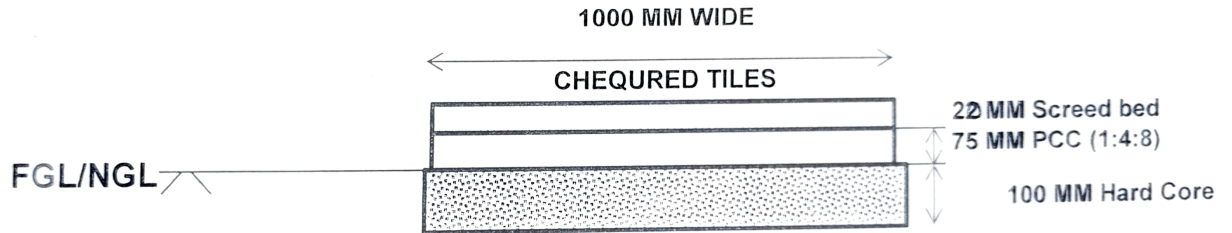
# WRITING TABLE



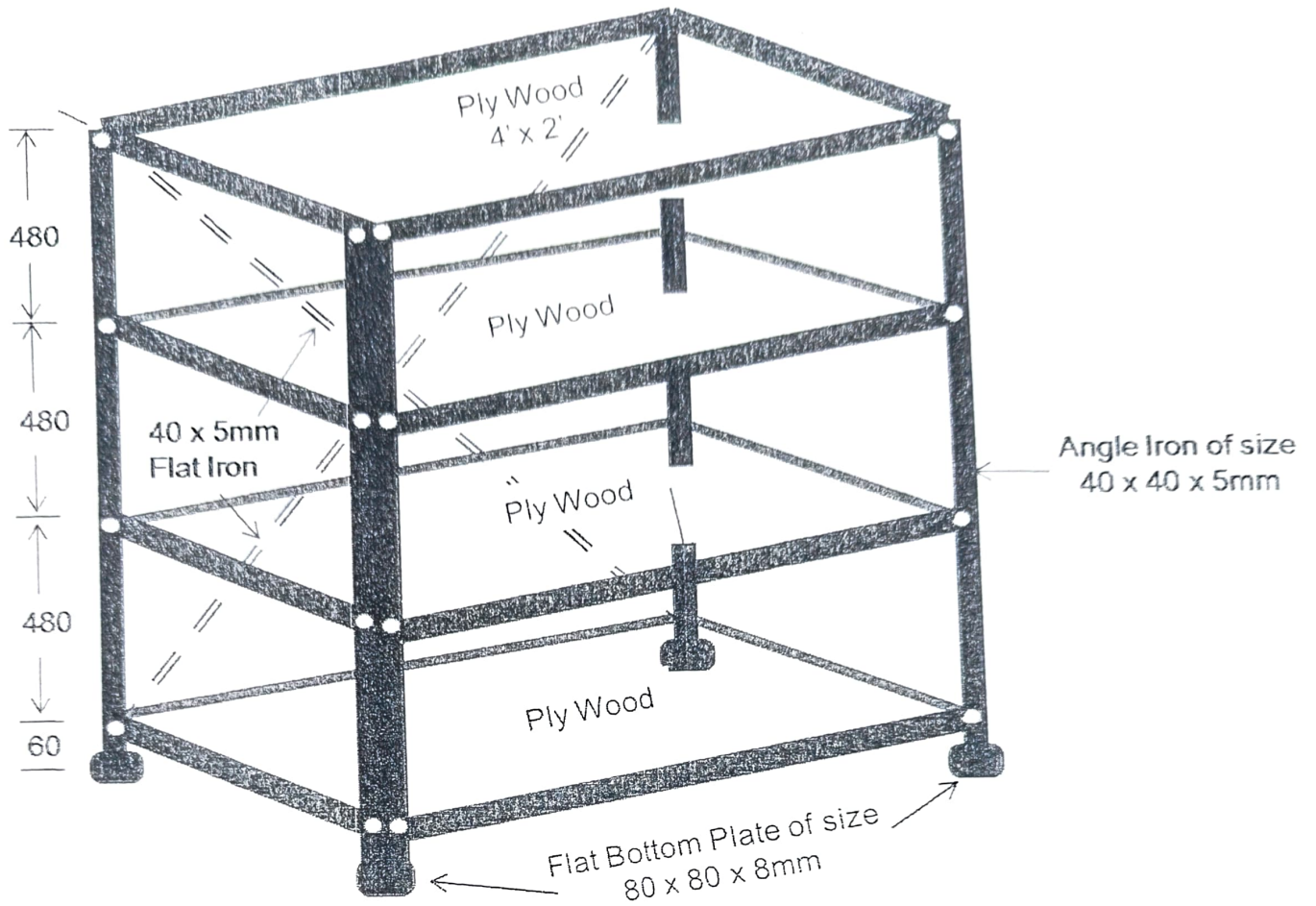
NOTE : ALL DIMENSIONS ARE IN MM AND NOT TO SCALE

HQ 3 CORPS ENGRS BRANCH
WRITING TABLE
DRG NO : WT 1/1
GSO1 (OP WKS)

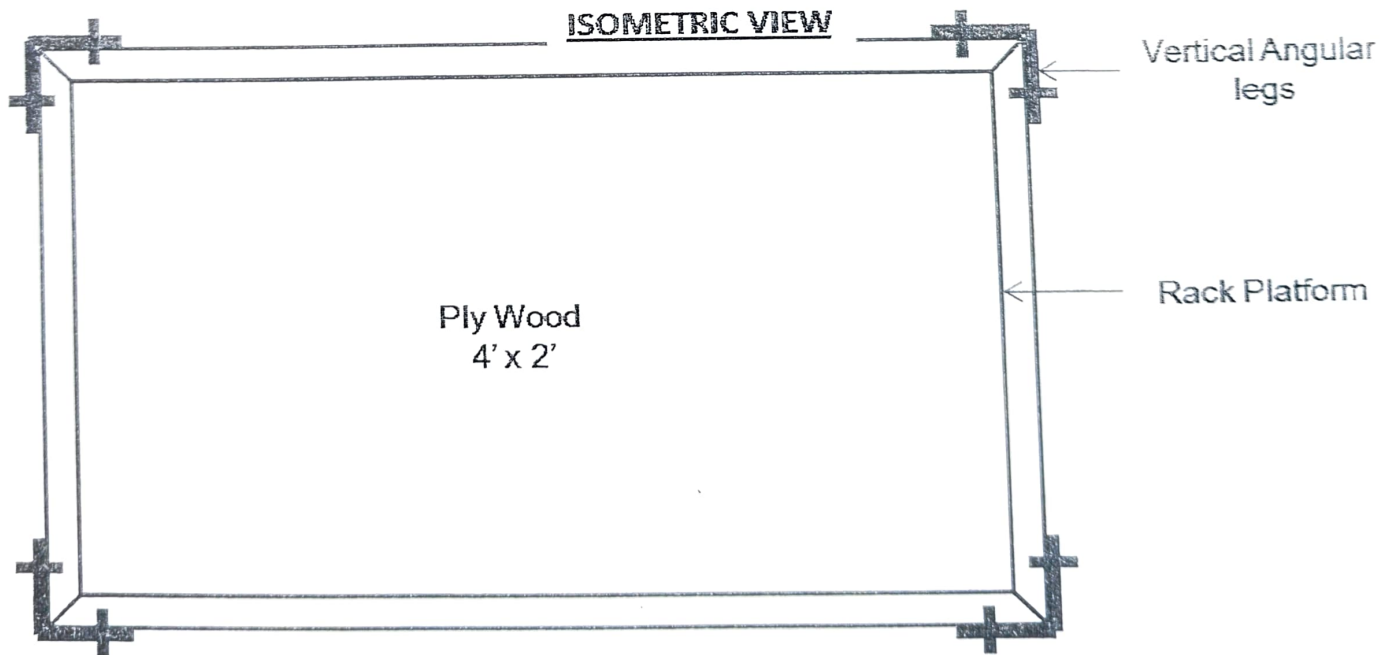
# PATHWAY ( 15M x 1M)



# STORE RACK



## ISOMETRIC VIEW



## TOP VIEW