

## **VOLUME II - TECHNICAL SPECIFICATIONS**

### **PART: B1**

#### **TECHNICAL SPECIFICATION OF ARCHITECTURAL WORKS**

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## **1. SCOPE**

This specification covers the general requirements for miscellaneous architectural works.

The works under this specification shall consist of furnishing of all tools, plants, labor, materials, and everything necessary for execution.

## **2. PARTITIONS**

### **2.1 PARTITION WALL WITH TWO LAYERS OF 12.5MM THICK GYPSUM PLASTERBOARD**

Design, Supply and installation of partition wall with two layers of 12.5mm thick gypsum plasterboard, on either side of GI frame 50x50x1mm cold rolled galvanized channels, installed on RCC Floors, with a sandwich layer of 50mm thick fiberglass wool of 24kg/ m<sup>3</sup> density (Owens Corning or equivalent). The specialist contractor must ensure that the fiberglass wool is wire-braced to prevent it from 'lumping down' over a period of time. Specialist contractor must demonstrate knowledge of best installation practices as per ASTM E 497 or equivalent. The joints of each layer of gypsum plasterboard have to be butted and filled with a continuous thin band of jointing compound. Tape is then pressed into the band of jointing compound, firmly embedded, and free from trapped air bubbles to ensure good adhesion and to be finished to receive paint. Care should be taken that the joints between the different building elements, that is, the partition wall and the floor, partition wall and the true ceiling, partition wall and the doors are all securely caulked with jointing compound to prevent any flanking noise leakage. Cost of the partition shall be inclusive of necessary additional bracing of the frames at the slab level for stability and making necessary cutouts for electrical / data and other service outlets and also for passing through ducts, cable trays and other service requirements. (Elevational area of the executed work shall be measured and paid for.

### **2.2 1200 HIGH PARTITION WALL**

Design, Supply and installation of 50 mm Thk 1200 high partition wall equivalent to 'HNI-BP Ergo Connect 50' Panel based partition system made of Aluminium and CRCA skeletal structure, with composition of Powder coated CRCA Bottom panel and soft board upper panel and edges faced with Aluminum rounded top and vertical trims with cable management systems inbuilt to the partition complete and suitable for reuse and relocation in future.

### **2.3 WALL PANELING ON MASONRY WALL**

Designing, supplying fitting & fixing of wall paneling on masonry wall with similar skeletal work faced with composition of 12mm ply faced with polished veneer and alminate as per approved

design, providing recess for switch, video panel , lights etc. , complete with grooves, finished interface with ceiling etc as per overall interior design.

## **2.4 WALL PANELING ON GYPSUM WALL**

Designing , supplying fitting & fixing of wall panelling on gypsum wall with 19mm ply faced with polished veneer and laminate as per approved design, providing recess for switch, video panel , lights etc. , complete with grooves, finished interface with ceiling etc as per overall interior design.

## **3. FULL HEIGHT GLASS PARTITIONS**

### **3.1 GLASS PARTITION**

Design and Installation of glass partition along with S.S. patch fittings. The prices include installation of interface components such as sealants, extruded capping(if required), insulations, brackets and any support framework from ceiling as required. (Glass to be min. 10 mm thk. toughened glass)

### **3.2 FULL GLASS DOOR**

Supplying and providing full glass single leaf door with a pair of 22mm dia(approx) and 250mm high SS pull handle (Godrej), compatible floor spring (of Godrej) and all other applicable SS patch fittings. (Glass to be min. 10 mm thk. toughened glass)

## **4. CEILING**

### **4.1 DECORATIVE TEXTURED GYPSUM BOARD TILES**

Providing & fixing false ceiling with tiles of decorative textured gypsum board tiles of size 595x595 mm in true horizontal level suspended on interlocking metal grid of hot dipped galvanized steel sections (galvanized @170 gsm / sqm) consisting of main "T" runner suitably spaced at joints to get required length and of size 24x38 mm made from 0.03mm thick sheets paced at 1200 mm center to cross "T" of size 24x25 mm made of 0.03 thick sheet, 1200 mm long spaced between main "T" at 600 mm center to center to form a grid of 1200x600 mm and secondary cross "T" of length 600 mm and size 24x25 mm made of 0.03 mm thick sheet to be interlock at middle of the 1200x600 mm panel to form grids of 600x600 mm and laying false ceiling tiles of approved texture in the grid including wherever required cutting / making, opening for services like diffusers grills ,light fittings , fixtures smoke detectors etc. Main "T" runners to be suspended from ceiling using GI slotted clits fixed to ceiling with 6mm dia and 50

mm long dash fasteners, 4mm GI adjustable rod with bottom exposed width of 24 mm of all T-sections shall be as per specification drawings and as directed by engineer in charge

#### **4.2 CALCIUM SILICATE FALSE CEILING**

Providing and Fixing 15 mm thick densified tegular edged eco friendly light weight calcium silicate false ceiling tiles of approved texture spin tone /cosmos / Hexa or equivalent of size 595 x 595 mm in true horizontal level, suspended on inter locking metal grid of hot dipped galvanized steel sections (galvanizing @ 120 grams per sq m including both side) consisting of main 'T' runner suitably spaced at joints to get required length and of size 24x38 mm made from 0.33 mm thick (minimum) sheet, spaced 1200 mm centre to centre, and cross "T" of size 24x28 mm made out of 0.33 mm (Minimum) sheet, 1200 mm long spaced between main 'T' at 600 mm centre to centre to form a grid of 1200x600 mm and secondary cross 'T' of length 600 mm and size 24 x28 mm made of 0.33 mm thick (Minimum) sheet to be inter locked at middle of the 1200x 600 mm panel to form grid of size 600x600 mm, resting on periphery walls /partitions on a Perimeter wall angle pre-coated steel of size(24x24X3000 mm made of 0.40 mm thick (minimum) sheet with the help of rawl plugs at 450 mm centre to centre with 25 mm long dry wall screws @ 230 mm interval and laying 15 mm thick densified edges calcium silicate ceiling tiles of approved texture (Spintone / Cosmos/hexa) in the grid, including, cutting/ making opening for services like diffusers, grills, light fittings, fixtures, smoke detectors etc., wherever required. Main 'T' runners to be suspended from ceiling using G.I. slotted cleats of size 25x35x1.6 mm fixed to ceiling with 12.5 mm dia and 50 mm long dash fasteners, 4 mm G.I. adjustable rods with galvanized steel level clips of size 85 x 30 x 0.8 mm, spaced at 1200 mm centre to centre along main 'T', bottom exposed with 24 mm of all T-sections shall be pre-painted.

### **5. DOOR**

#### **5.1 TIMBER FLUSH DOOR (VENEER ON OUTSIDE AND LAMINATE ON INSIDE)**

Providing and fixing 35 mm thick Timber flush doors having solid core of block board construction (waterproof quality), with 12 mm thick teak wood lipping on all edges, fully rebated not visible on face, providing approved veneer on outside and laminate on inside surface, translucent vision panel with clear float glass, 600 x 600 wooden louvre at lower part, including fixing to door frame, finishing with polish, fixing of all hardwares including cutting, drilling, etc, and labour, complete. (At toilet)

#### **5.2 TIMBER FLUSH DOOR (VENEER ON BOTH SIDES)**

Providing and fixing 35 mm thick flush doors having solid core of block board construction (waterproof quality), with 12 mm thick teak wood lipping on all edges, fully rebated not visible on face, providing approved veneers on both sides, vision panel with clear float glass, including

fixing to door frame, finishing with polish, fixing of all hardware including cutting, drilling, etc, and labour, complete.

### 5.3 **PRESSED STEEL DOOR FRAME**

Supplying, fitting & fixing in masonry/RCC, pressed steel door frame OF 1.6 MM thk CRCA sheet bent to size suitable for 35mm thick shutter, with all necessary inserts , hardwares, matching edges with shutter, painting, cleaning complete in all respect as per manufacturers specification.

### 5.4 **PRESSED STEEL DOOR SHUTTER**

Supplying, fitting & fixing steel 35mm Pressed steel flush door shutter of thickness 1.2 mm for hollow shutter or 0.8 mm for paper honey comb infill shutter (single leaf) complete in all respect with all necessary hardwares as per specific manufacturer's specification

### 5.5 **VISION PANEL IN SHUTTER**

200 mm x 400 mm vision panel with 6mm clear float glass

## 6. **WINDOW**

Fixed Glass Window in powder coated aluminum RECTANGULAR frame within gypsum wall

## 7. **ACCESS FLOORING**

Providing and fixing removable raised/false access flooring made of modular GI backed cement tiles having antistatic top surface, with system and its components of approved make for different plenum height with possible height adjustment upto 50 mm, comprising of modular load bearing floor panels supported on G.I. rectangular stinger frame work and G.I. Pedestal etc. all complete, as per the architectural drawings, as specified and as directed by Engineer-in-charge consisting of :

a) Providing at required spacing to form modular framework, pedestals made out of GI tube of thickness minimum 2 mm and 25 mm outer diameter, fully welded on to the G.I. Base plate of size 100mmx100mmx3mm at the bottom of the pedestal tube, G.I. pedestal

head of size 75mmx75mmx3.5 mm welded with GI fully threaded stud 16mm outer diameter with two GI Check nuts screwed on the stud for level adjustment upto 50mm, locking and stabilizing the pedestal head in position at the required level. The pedestals shall be fixed to the subfloor (base) through base plate using epoxy based adhesive of approved make or the machine screw with rawl plug.

b) Stringers system in all steel construction hot dipped galvanized of rectangular size 570x20x30x0.80mm thick having holes at both ends for securing the stringers on to the pedestal head using fully threaded screws ensuring maximum lateral stability in all directions, the grid formed by the pedestal and stringer assembly shall receive the floor panel, this system shall

provide adequate solid, rigid support for access floor panel, the system shall provide a minimum clear uninterrupted clearance between the bottom of the floor for electrical conduits and wiring etc. all complete as per the architectural drawings, as specified and as directed by the Engineer-in-charge. c) Providing and fixing Access Floor panel of 600x600x32 mm medium grade Filled Steel anti static high pressure Lamination of 800H grade (FS800H). Access Floor panel shall be steel welded construction with an enclosed bottom pan with uniform pattern of 64 hemispherical cones. The top and bottom plates of Steel Gauges: top 0.6 mm and bottom 0.7 mm fused spot welded together (minimum 64 welds in each dome and 20 welds along each flange). The panel should be Corrodesist epoxy coated for lifetime rust protection and cavity formed by the top and bottom plate is filled with Pyrogrip noncombustible Portland cementitious

core mixed with lightweight foaming compound. The access floor shall be factory finished with Anti-static High Pressure laminate with Non Warp technology upto 1mm thickness for superior adhesion and Surface flatness within 0.75mm. The panel is to withstand a Concentrated Load of 363 kgs applied on area 25mm x 25mm without collapse in the centre of the panel which is placed on four steel blocks. The panel will withstand and Uniformly Distributed Load (UDL) minimum 1250 kg/sqm and an impact load of 50kg all complete as per the approved manufacturers specification and as per the direction of Engineer-in-charge. All specification must be printed on the side of the panel to ensure the quality of the product.

300 mm Finished Floor Height (FFH)

## **8. SKIRTING**

Providing & fixing 100 high Aluminum anodized approved extruded aluminum skirting fixed over masonry wall /opaque partition to proper line & level. The installed skirting shall be provided with approved matching colour PVC capping, Complete as per manufacturer's specification, installation guidelines & instructions of the Architect.

## **9. PAINTING**

Providing and applying to interior surfaces two coats of low VOC acrylic emulsion paint of approved manufacture, colour and shade including preparation of surfaces, scaffolding, etc., complete Without primer, over wall putty.

## **10. COUNTER TOP AND DADO**

Providing and fixing in position Pantry counters up to 550 mm deep at an height of 760 mm from Finished floor level, consisting of 20 mm thick polished granite stone topping over 19 mm thick BWR grade plywood ( painted with synthetic enamel paint) and with nosing / flat edge mirror polishing, and 50 mm high facia patti, including making chases in walls and floor and finishing neat with cement mortar 1:2 and providing supporting arrangement with GI wall brackets, cleaning, curing, etc. complete. Item shall include making cutouts with flat edge mirror polish on the cut profile and mortar filling and fixing wash basins in the counter top. Item shall

also include making all holes / cutouts for installation of faucets & sink and other accessories as per approved drawing. (Supply of sinks/ basins shall be under scope of sanitary, plumbing items, fixing shall be included in rates) Base price of Granite shall be Rs. 2200 per sq m.

## **11. ROLLER BLINDS**

Providing and fixing Roller blinds of approved make as per the manufacturer's specifications with drive unit, End plug, support brackets, roller tube, bottom rail, ball chains all described below. Drive unit to be of molded plastic with straight rectangular support pin & inserted into the tube end. It shall be driven by a ball chain pulley and can be positioned at right or left side of the shade. The shade when lowering or raising shall automatically be lockable upon release of the ball chain by means of friction lock. End plug shall be molded to plastic locking pin. The plug shall be inserted into the tube end. Support brackets shall be of zinc plated steel & provided with molded plastic covers & used in right or left hand positions differentiated by acceptance of the rectangular drive unit support or the round idler plug pin. Roller tube shall be made out of roll formed steel of thick. Suitably protected against corrosion, & keyway integral with the tube to accommodate the spline, Outside diameter of the roller tube shall be 25mm. Bottom rail shall be a stiffening element inserted into a bottom rod pocket. Tube shall be of steel or timber. Ball chain shall be 2mm diameter cord with acetyl balls molded co-axially to it on 6mm pitch to form ball chain etc Complete as directed by Engineer In Charge

## **12. WHITE BOARD**

White board 1200 x 900 as per manufacturer's specification and installation guide.

## **13. FLOOR MAT**

Supplying and placing in position Floor mat of make 3M Corporation SYNTHETIC DOOR MATS (4'-0" x 2'-0") as per manufacturer's specification and installation guide.



## **14. KITCHEN STORAGE CABINET**

### **14.1. FLOOR MOUNTED UNDER COUNTER KITCHEN STORAGE CABINET**

Providing & fixing in position 525 mm deep storage cabinet below kitchen platform made of 19 mm BWR ply at top, front & sides and with 19 mm BWR ply at back, with 19 mm ply intermediate rack and crockery holders, finished with 1 mm thick laminate (high gloss) to all exposed surface & 0.8 mm thick laminate to all internal surface with, locking & handle arrangements of approved make, with open able type shutter (with/ without glass panel), PVC edge banding to exposed ply edges and finishing etc. The rate shall include all necessary hardware fittings like soft close hinges, SS pull handle, complete in all respect as per instructions of Architect/Engineer.

### **14.2. WALL MOUNTED STORAGE KITCHEN CABINET**

Providing & fixing in position 400 mm deep & 600mm high storage cabinet 600 above kitchen platform made of 19 mm BWR ply at top, front & sides and with 19 mm BWR ply at back, 19mm ply intermediate rack, finished with 1 mm thick laminate (high gloss) to all exposed surface & 0.8 mm thick laminate to all internal surface with, locking & handle arrangements of approved make, with open able type shutter (with/ without glass panel), PVC edge banding to exposed ply edges and finishing etc. The rate shall include all necessary hardware fittings like soft close hinges, SS pull handle, complete in all respect as per instructions of Architect/Engineer.

## **15. DUCT SHUTTER**

Modification of duct shutter with application of 2 mm thk veneer and laminate, hardwares, polishing of frame complete

## **16. INTERIOR SIGNAGE**

Interior signage will be of following types –

- i) Stainless steel name plate with satin finish and black PVC lettering
- ii) Clear Acrylic sheet name plate with black PVC lettering
- iii) Frosted acrylic with auto glow vinyl exit, toilet, direction, reception signage
- iv) Removable type Name plate holder for work stations

## **17. STAINLESS STEEL SINK**

Providing and fixing 510 mm x 510mm x 200 mm deep stainless steel sink of Nirali make or approved equivalent having 1 mm thick stainless steel sheet with Grohe Stainless Steel 28 mm Bauloop Kitchen Sink Mixer -Silver (or eqv), fittings and fixtures, like bottle trap, C.P. drain pipe etc complete as directed by Engineer In Charge.

## **18. GSCL LOGO**

As per design approved by GSCL

## **19. FURNITURE**

### **19.1 RECEPTION TABLE**

Supply and installation in position of modular decorative reception table size 1800x750 with drawers and storage and laminated timber top.

### **19.2 CENTRE TABLE**

Supply and installation in position of modular decorative center table size 500x750 with with 10 mm thick toughened glass top.

### **19.3 SIDE TABLE**

Supply and installation in position of modular decorative side table size 550x550 with with 10 mm thick toughened glass top.

### **19.4 SOFA**

- i) Supply and installation in position of decorative Two seater sofa as per manufacturer's specification and installation procedure of approved design.
- ii) Supply and installation in position of decorative three seater sofa as per manufacturer's specification and installation procedure of approved design.

### **19.5 SOFA**

Modular computer workstation with all necessary fittings and fixtures as per manufacturer's specification and installation procedure of approved design.

### **19.6 CHAIRS**

- i) Chair for computer workstation
- ii) Chair for common visitors
- iii) Chair for cabin owners
- iv) Chair for CFO and MD
- v) Visitors attending CFO & MD's room

All chairs will be as per manufacturer's specification and installation procedure of approved pattern selected from catalogue

### **19.7 CONFERENCE TABLE SMALL**

Supply and installation in position of modular decorative conference table size 3200x1200 , laminated timber top , with provision of electrical socket and other necessary arrangement for

services like LAN, VC connection cable etc as per manufacturer's specification and installation procedure of approved design

### **19.8 CONFERENCE TABLE BIG**

Supply and installation in position of modular decorative conference table size 3600x2400 , laminated timber top , with provision of electrical socket , laptop charging point and other necessary arrangement for services like LAN, VC connection cable etc. as per manufacturer's specification and installation procedure of approved design

### **19.9 EXECUTIVE TABLES**

- i) Table for MD, as per manufacturer's specification and installation procedure of approved design
- ii) Table for CFO, as per manufacturer's specification and installation procedure of approved design
- iii) Table for other executives in cubicles

All tables will be as per manufacturer's specification and installation procedure of approved pattern selected from catalogue.

### **19.10 STORAGE CABINETS**

Supply and installation of modular steel storage cabinet as per manufacturer's specification and installation procedure of approved pattern selected from catalogue.

## **20. MISCELLANIOUS ITEMS**

Specification for such items as will be identified in course of design and installation should be submitted for approval and work should be executed as per approved specification.

## **21. PREFERRED MAKES**

For preferred makes of all architectural item Annexure - I to be referred. For items where preferred makes are not specifically mentioned, contractor to propose suitable brand and get the same approved by client.