

Name of Work : Renovation of Dist. Tejory Office At Bahumali Bhavan . Junagadh.

SPECIFICATION

Item No. 1 :-

Providing and Fixing Low Hieght Decorative Composite partiton of wooden, gap as per drawing or as directed by engineer-in-Charge, Using 8 mm thick ISI marked Ply on both side fixed on a teakwood framing grid of teakwood member Size 65 mm x 38 mm at 600 mm C/C on Vertical side and on horizontal side as per design or as directed by Engineer -in - Charge. Wooden portion consists of both side 12 mm thick ply with 1 mm thick vinyl wooden lamination sheet on outer side of ply Colour & Design of Lamination is as per Drawing or as directed by Engineer-in- Charge. Glass portion consist of 5 mm thick toughned glass with wooden framing. The Partion also includes door When necessary as per drawing by using 8mm ply on both side with 1 mm thick lamination including frame of 25mmx75mm included,beading on outer side, good quality door closer, godrej lock, SS hinges etc. Rates includes all Labour, Material, Screw, Khilli, Fevicol, PU finish on outer side of ply including all taxes Etc. complete. All Material to be used as approved by Engineer-in-Charge



(Image is only for references original work may be vary as per instruction of Department)

Low Height Decorative Composite partition of wooden, gap as per drawing or as directed by engineer-in-Charge, using 8 mm thick ISI marked Ply on both side fixed on a teakwood framing grid of teakwood member Size 65 mm x 38 mm at 600 mm C/C on Vertical side and on horizontal side as per design or as directed by Engineer -in - Charge. Wooden portion consists of both side 12 mm thick ply with 1 mm thick vinyl wooden lamination sheet on outer side of ply Colour & Design of Lamination is as per Drawing or as directed by Engineer-in- Charge. Glass portion consist of 5 mm thick toughened glass with wooden framing. The Portion also includes door When necessary as per drawing by using 8mm ply on both side with 1 mm thick lamination including frame of 25mmx75mm included, beading on outer side, good quality door closer, godrej lock, SS hinges etc. Height is approx Below 1.50 mt

There should be provision to separate the data, electrical & voice cable as per international standard. The provision for electrical accessories should be provided at desire level. Skeleton of partition must be strong and sturdy to sustain load of Doors, Table Top, hanging cupboards etc, must have secured fastening with floor and ceiling to ensure vibration free surface in long run. It has to be totally modular so as to reuse this material in different configuration with minimum losses in available modular parts.

1.0. Materials

Indian Teak wood shall conform to M-29. Glass shall conform to M-38. Iron screws on shall of best approved quality. Plywood asbestos shall conform to relevant specification of materials.

2.0. Workmanship

The work shall be done as per detailed drawing or as directed. The wooden frames shall be of sizes as indicated in the drawing and description of item. They shall be planed and finished smooth and even. The vertical styles and rails shall be framed by tenon and mortise joints. The panels which may be of planks, asbestos, plywood, glass or any other materials specified shall be fixed in the grooves made in styles and rails or by means of rebate and beading fixed by suitable screws. When glazing is used as panels the glass shall be fixed by using putty in addition to beading, (he putty shall be used before applying material.)

3.0. Mode of measurement and payment

Partitions shall be measured in square meters of the net area of the filler materials provided. Rates includes all Labour, Material, Screw, Khilli, Fevicol, PU finish on outer side of ply including all taxes

The rate shall be for a unit of one **sq. meter..**

Item No. 2 :-

Providing and Fixing Full Hieght Decorative Composite partiton of wooden, glass and gap as per drawing or as directed by engineer-in-Charge, Using 8 mm thick ISI marked Ply on both side fixed on a teakwood framing grid of teakwood member Size 65 mm x 38 mm at 600 mm C/C on Vertical side and on horizontal side as per design or as directed by Engineer -in - Charge. Wooden portion consists of both side 12 mm thick ply with 1 mm thick vinyl wooden lamination sheet on outer side of ply Colour & Design of Lamination is as per Drawing or as directed by Engineer-in- Charge. Glass portion consist of 5 mm thick toughned glass with wooden framing. The Partion also includes door When necessary as per drawing by using 8mm ply on both side with 1 mm thick lamination including frame of 25mmx75mm included,beading on outer side, good quality door closer, godrej lock, SS hinges etc. Rates includes all Labour, Material, Screw, Khilli, Fevicol, PU finish on outer side of ply including all taxes Etc. complete. All Material to be used as approved by Engineer-in-Charge



(Image is only for references original work may be vary as per instruction of Department)

Low Height Decorative Composite partition of wooden, gap as per drawing or as directed by engineer-in-Charge, using 8 mm thick ISI marked Ply on both side fixed on a teakwood framing grid of teakwood member Size 65 mm x 38 mm at 600 mm C/C on Vertical side and on horizontal side as per design or as directed by Engineer -in - Charge. Wooden portion consists of both side 12 mm thick ply with 1 mm thick vinyl wooden lamination sheet on outer side of ply Colour & Design of Lamination is as per Drawing or as directed by Engineer-in- Charge. Glass portion consist of 5 mm thick toughened glass with wooden framing. The Portion also includes door When necessary as per drawing by using 8mm ply on both side with 1 mm thick lamination including frame of 25mmx75mm included, beading on outer side, good quality door closer, godrej lock, SS hinges etc. Height is approx Above 1.50 mt

There should be provision to separate the data, electrical & voice cable as per international standard. The provision for electrical accessories should be provided at desire level. Skeleton of partition must be strong and sturdy to sustain load of Doors, Table Top, hanging cupboards etc, must have secured fastening with floor and ceiling to ensure vibration free surface in long run. It has to be totally modular so as to reuse this material in different configuration with minimum losses in available modular parts.

1.0. Materials

Indian Teak wood shall conform to M-29. Glass shall conform to M-38. Iron screws on shall of best approved quality. Plywood asbestos shall conform to relevant specification of materials.

2.0. Workmanship

The work shall be done as per detailed drawing or as directed. The wooden frames shall be of sizes as indicated in the drawing and description of item. They shall be planed and finished smooth and even. The vertical styles and rails shall be framed by tenon and mortise joints. The panels which may be of planks, asbestos, plywood, glass or any other materials specified shall be fixed in the grooves made in styles and rails or by means of rebate and beading fixed by suitable screws. When glazing is used as panels the glass shall be fixed by using putty in addition to beading, (he putty shall be used before applying material.)

3.0. Mode of measurement and payment

Partitions shall be measured in square meters of the net area of the filler materials provided. Rates includes all Labour, Material, Screw, Khilli, Fevicol, PU finish on outer side of ply including all taxes
The rate shall be for a unit of one **sq. meter..**

Item No. 3 :-

Providing and fixing of Sliding glass door without door frame. The Door with 12mm Clear Toughened Glass with slim profile frame in periphery of Glass with film on glass or as per mentioned in design. Door with Necessary Hardwares required like Top Bottom Patch fittings with top Sliding Chenal, Pull Handle & Floor Chenal. Door with designer film to maintain the privacy. Film with necessary Groove or design cutting if required by Architect. All materials like Aluminium Profiles, Hardwares and accessories should have to be from approved make list and with approval from consulting Architect & Engineer-in-charge. The work shall be done as per the approved shop drawings specifications, sample approved and as directed by the Architect and Engineer-in-charge



(Image is only for references original work may be vary as per instruction of Department)

1. Materials:

sliding glass door shall be used as per sample approved by EIC/Architect.

Hardware shall used of as per approved by EIC/Architect.

All type of material shall be used for Door as per approved make list and confirming to relevant IS codes and approved by EIC/Architect.

2. Workmanship:

Work complete as per above described specification.

Work complete including all type of joining material, tools, tackles, with finishing, proper even surface etc as per specification and suggestion.

The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of EIC/Architect.

3. Measurements:

The rate shall be consolidated for all above items.

The rate shall include the cost of all materials, finishing, labour, etc. to complete the whole work satisfactorily as per instruction of EIC/Architect.

No extra payment will be given for any of the reasons.

Rate to be inclusive of all material, wastage, necessary tools tackles etc for fixing at all heights and for all floors. Clear opening area shall be measured & paid in Square meter.

The rate shall be for a unit of Square meter

Item No. 4 :-

Providing And Arranging table top made of 36mm thick MR grade plywood with nail curvica Laminate finish. Leg & frame to be made from 50 x 50 x 1.6mm size & 50mm x 25mm x 1.8mm size CRC Square pipe powder coated 50 micron finish with levlar Apron 18 mm thick MR grade plywood with Laminate finish. side table top made of 36mm thick MR grade plywood with nail curvica Laminate finish. side & shutter made of 18 mm thick MR grade plywood with Laminate finish Including all materials and labour etc. Measurement on Table Top Complete as per drawing and instruction of engineer-in charge.

Table -1 - size : Depth 900 to 750 mm



(Image is only for references original work may be vary as per instruction of Department)

the Size of Working Table shall be Custom Maid or as directed by the Engineer-in-charge

- MR Grade Ply of 18+18 mm
- Top & apron finished with 1 mm thick curvica laminate
- Bottom is finished with 0.8mm thick balancing laminate
- Horizontal & vertical structure made of 50x50x1.6 mm & 50x25x1.8 mm ERW rectangular / square tube (CRC)
- Top frame is finished with 75x50mm indian teakwood
- Border is finished with 50x12 mm indian teakwood border patti with moulding edge
- Good quality shoe shall be used for legs.
- All steel parts in powder coated finish with standard quality powder after 10 tanks anti rust treatment
- All wooden and veneer surface is finished with melamine polish.

1. Materials

ERW rectangle / square pipe (CRC) shall confirm to IS 1239 Part-I 2004 and shall be of specified size as per drawings & of approved make
18 mm thick MR Grade plywood shall confirm to IS 303- Reaffirmed 2003 & of approved make

Fixtures & joineries shall confirm to General Specification

1mm/0.8mm thick laminate shall be of approved make

Adhesive shall confirm to General Specification

All required hardwares shall confirm to General Specification

Teakwood shall confirm to the standard specification of the booklet and confirm to M29

Powder coating shall confirm to General specification

2. Workmanship

The working table shall be of overall size 1200mm x 600mm x 750mm Skeleton

Entire skeleton shall be made from materials described in item Description and detailed drawing.

- Vertical and horizontal & supporting structure made of 50x50x1.6mm thick square and 50x25x1.8mm thick rectangular ERW pipe (CRC)
- MR grade ply of 18 mm & 6 mm thick as per the requirement
- 36 mm thick Top to be made by using 18mm thick ply and finished with 1.00 mm thick laminate
- Plywood top shall be finished with 75mm x 50mm solid teakwood as a frame and shall be melamine polished
- Apron to be made from 18 mm thick ply and finished with 1.00 mm thick laminate
- All edges shall be finished with T.W. Border patti of size 50mm x 12 mm bidding as directed by Engineer-in-charge.
- Bottom of working top and drawer inside of side table and MDU shall be finished with balancing laminate of 0.8mm thick.
- Good quality rubber shoes shall be used for legs as directed
- Epoxy powder coating shall be carried out confirming to General specification No.-
- Melamine polish shall be carried out as per the standard detail mentioned in the para 2.1(Direction of Melamine polishing on new surface)(a to f) of detailed specification
- All laminate shall be used without any bubbles and scratches in perfect style and shape shall be used as per drawing and directed by Engineer-in-charge. All the ply member for table and drawer box shall be exactly in right angle and true shape. The right angle checked from inside surface of ply frames of the respective members. All the member shall be straight without any wrap of bow and shall have smooth surface at all sides exposed in right angle to each other. Laminate sticking shall have airless pressing in true line, level and shape without any bubble as per drawing.
- All materials, hardware, accessories, adhesives, lamination sheet shall be as per IS specification.

3. Mode of Measurement

The rate shall be consolidated for all above items. The rate shall include cost of all materials, fixtures, joineries , hardwares etc & labour charges for all height to complete the work satisfactorily including supplying and arranging as per layout plan at site of work and as per the instruction of Engineer-in-charge.

Drawer Unit Are Include In this Measurement of Top of table only Measured in Clear Length and Width of top of Table. Top of Side Table Measured separately.

No Extra charge will be paid for any other reasons. The rate shall be for an unit of one SQm.

Item No. 5 :-

TABLE TYPE-01 (Custom Made Commissior Main Table) : Providing and fixing table unit consist main table with side storage ,back storage with pedestal unit with all necessary accessories keyboard, CPU stand ,cable manager, modesty panel etc with all required necessary accessories.

Main Table top : 2000(L) x 1050(W) x 750 (H)mm

Side table - 1050 (L)x 600(W) x 750 (H)mm

side table unit -510 mm Dia (half Round as per DWG)

1. Main Table Top: 50 MM th top Made from beveled edge finish 4 mm th coloured glass Saint gobain /equivallant approved make and shade/ veneer + 19 MM th IS-710 ply + 19 mm th IS-710 ply+4 mm th veneer finish with semi gloss PU polish.

2.Main table front : As per detail drawing and reference image made form 19 mm th IS-710 ply with rwith veneer finish

3.Verticle support: As per detail drawing and reference image made form 61 mm th verticle support 4 mm th Veneer gurjan base ply + 19 MM th IS-710 ply +35x35 x 2.6 mm thick metal box of tata or equivalent+ 19 mm th IS-710 ply+ 4 mm th Veneer gurjan base ply with require edge finish teak wood/SS as per architect suggestion. Side storage: Storage body is made of 19mm IS-710 ply with veneer finish and inner side 1.5 mm thick laminate finish including require nos of drawer and shutter all type of fittings , fixtures, hardware

Hettich/Haffle make etc complete .SS 304 grade conceal handle shall be provide as per approved selection & detailed drawing and instruction of Architect/EIC. 8.Pedestal unit(500x500X545):Pedestal bodys made of 19mm IS-710 ply with veneer finish and inner side 1.5 mm thick laminate finish including require nos of drawer with all type of fittings , fixtures, hardware Hettich/Haffle make etc complete .SS 304 grade conceal handle shall be provide as per approved selection & detailed drawing and instruction of Architect/EIC.

Main Table top : 2000(L) x 1050(W) x 750 (H)mm

Side table - 1050 (L)x 600(W) x 750 (H)mm

side table unit -510 mm Di

4.Wire management: one way or two way open able flip top box mounted on table top squeeze :A special flexible rubber component that allows easy and safe passage of wires.

5.Writing pad: Made from approved leather finish with require accessories

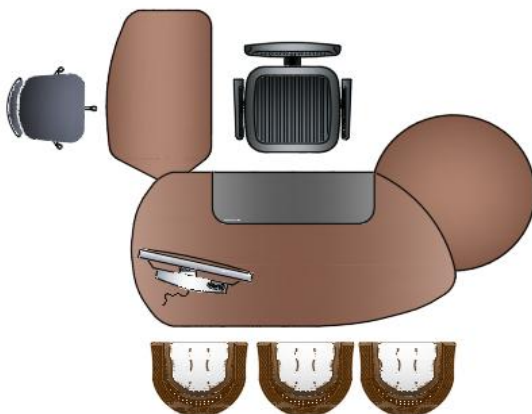


TABLE TYPE-01 custom-made Commissioner Main Table unit. The scope includes providing and fixing a complete L-shaped table unit with integrated side and back storage, a pedestal unit, and all necessary accessories such as keyboard tray, CPU stand, cable manager, modesty panel, and associated hardware and fittings. All materials must conform to the detailed drawings and instructions provided by the Architect/EIC.

TABLE TYPE-01 (Custom Made Commissioner Main Table) : Providing and fixing table unit consist main table with side storage ,back storage with pedestal unit with all necessary accessories keyboard, CPU stand ,cable manager, modesty panel etc with all required necessary accessories.

Main Table top : 2000(L) x 1050(W) x 750 (H)mm

Side table - 1050 (L)x 600(W) x 750 (H)mm

side table unit -510 mm Dia (half Round as per DWG)

1. Main Table Top: 50 MM th top Made from beveled edge finish 4 mm th coloured glass Saint gobain /equivalent approved make and shade/ veneer + 19 MM th IS-710 ply + 19 mm th IS-710 ply+4 mm th veneer finish with semi gloss PU polish.

2.Main table front : As per detail drawing and reference image made form 19 mm th IS-710 ply with rwith veneer finish

3.Verticle support: As per detail drawing and reference image made form 61 mm th vertical support 4 mm th Veneer gurjan base ply + 19 MM th IS-710 ply +35x35 x 2.6 mm thick metal box of Tata or equivalent+ 19 mm th IS-710 ply+ 4 mm th Veneer gurjan base ply with require edge finish teak wood/SS as per architect suggestion. Side storage: Storage body is made of 19mm IS-710 ply with veneer finish and inner side 1.5 mm thick laminate finish including require nos of drawer and shutter all type of fittings , fixtures, hardware Hettich/Haffle make etc complete .SS 304 grade conceal handle shall be provide as per approved selection & detailed drawing and instruction of Architect/EIC. 8.Pedestal unit(500x500X545):Pedestal bodys made of 19mm IS-710 ply with veneer finish and inner side 1.5 mm thick laminate finish including require nos of drawer with all type of fittings , fixtures, hardware Hettich/Haffle make etc complete .SS 304 grade conceal handle shall be provide as per approved selection & detailed drawing and instruction of Architect/EIC.

4.Wire management: one way or two way open able flip top box mounted on table top squeeze :A special flexible rubber component that allows easy and safe passage of wires.

5.Writing pad: Made from approved leather finish with require accessories

The TABALE specific dimensions:

Main Table Top measures 2000mm (L) x 1050mm (W) x 750mm (H);

Side Table (Return Unit) measures 1050mm (L) x 600mm (W) x 750mm (H); and the

Side Table Unit features a 510mm Diameter half-round extension as per drawing.

All side storage are constructed from 19mm IS-710 ply, finished with veneer on the exterior and a durable 1.5mm thick laminate on the interior. These units include required numbers of drawers and shutters utilizing high-quality fittings and hardware from approved makes like Hettich or Hafele. SS 304 grade concealed handles are specified for all storage units as per the approved selection.

The table incorporates essential accessories for a functional workspace, including a writing pad made from an approved leather finish material. A comprehensive wire management system is integrated, featuring a one-way or two-way openable flip-top box mounted on the table top, equipped with a flexible rubber "squeeze" component for safe and easy passage of cables

Mode of Measurement

The rate shall be consolidated for all above items. The rate shall include cost of all materials, fixtures, joineries , hardwares etc & labour charges for all height to complete the work satisfactorily including supplying and arranging as per layout plan at site of work and as per the instruction of Engineer-in-charge.

No Extra charge will be paid for any other reasons. The rate shall be for an unit of one number.

Item No. 6 :-**Medium Back Chair**

Providind and Arranging Medium Back Chair - Seat & back cushioned on ply, aluminum die casted arms with cushioned pad, Synchro mechanism with single back lock , gas lift , chrome base.Including all materials and labour etc.complete as per detail drawing and instruction of engineer-in charge.Size : max.Height 1070mm, Min.970mm,Seat: 490mm x 510 mm,Back : 640 mm x 510 mm



Medium back Chairs Height 1070mm, Min.970mm, Seat: 490mm x 510 mm, Back : 640 mm x 510 mm

1. Materials

All materials shall be as per item description as approved by EIC and specified item's Manufacturer's specifications.

2. Workmanship

Upholstered with Leatherite seat shall be made up of 12 MM +/- 1 MM thick hot pressed plywood and back in two Pieces - 12 MM Inner Back and 6 MM Rear Back. Moulded polyurethane foam with Fire Retardant Grade - (FR) used in making seat & back which shall be moulded with density 45+/- 2 kg/m³. Spine bracket should be made of M.S plate 8 MM Thickness connecting back with mechanism. Armrest top is soft touch upholstered with leatherette mounted on to an injection moulded fix type armrest which is fix on the Aluminium Pressure Die Casted (PDC) bracket with mirror finish and supported on powder coated twin pipe fittings. The mechanism of the chair shall have following features: 360° revolving type, synchronous. Mechanism, Tilt tension adjustment, Single position locking with Anti-Shock feature. The chair shall be provided with pneumatic height adjustment which shall have stroke of 100 +/-5 MM. The Base shall be made of tubular CRC fabricated chrome finish. It shall be fitted with 5Nos. twin wheel castor – 50 MM Diameter. The size of the base shall be - 640 +/- 1 MM pitch-centre-diameter. Load test as per BIFMA compliance. The twin wheel castors shall be made of Nylon injection moulded in black colour. Overall dimensions of Chair shall be, Width of Chair - 710 MM, Depth of seat -500 MM as measured from base below. Height of back from ground - min 970 to max 1070 MM. Seat height -min 475MM to max 575 MM. Dimensions tolerance / variations shall be within +/- 10mm

3. Mode of Measurement

The rate shall be consolidated for all above items. The rate shall include cost of all materials, fixtures, joineries, hardware's etc. & labour charges for all height to complete the work satisfactorily including supplying and arranging as per layout plan at site of work and as per the instruction of Engineer-in-charge.

No Extra charge will be paid for any other reasons. The rate shall be for an unit of one number.

Item No. 7 :-**Low Back Chair :**

Providing and Arranging Cushioned Seat & back, PP outer back cover, PP arms, Single back lock, Push back mechanism, gas lift for seat height adjustment, five prong Nylon base with twin wheel nylon castor. Including all materials and labour etc. Complete as per drawing and instruction of engineer-in charge. Size : Max. Height 1020mm Min. Height 930 mm, Seat : 500mm x 460mm , Back: 500mm x 440 mm



The Size of the Low Back chair shall have maximum height of 1020mm, Min. height of 930mm, Seat 500x460mm, Back 500x440mm and Medium back chair confirming to equivalent make

1. Materials

All materials shall be as per item description as approved by EIC and specified item's Manufacturer's specifications.

2. Workmanship

Upholstered with Leatherite seat shall be made up of 12 MM +/- 1 MM thick hot pressed plywood and back in two Pieces - 12 MM Inner Back and 6 MM Rear Back. Moulded polyurethane foam with Fire Retardant Grade - (FR) used in making seat & back which shall be moulded with density 45+/- 2 kg/m³. Spine bracket should be made of M.S plate 8 MM Thickness connecting back with mechanism. Armrest top is soft touch upholstered with leatherette mounted on to an injection moulded fix type armrest which is fix on the Aluminium Pressure Die Casted (PDC) bracket with mirror finish and supported on powder coated twin pipe fittings. The mechanism of the chair shall have following features: 360° revolving type, synchronous. Mechanism, Tilt tension adjustment, Single position locking with Anti-Shock feature. The chair shall be provided with pneumatic height adjustment which shall have stroke of 100 +/- 5 MM. The Base shall be made of tubular CRC fabricated chrome finish. It shall be fitted with 5Nos. twin wheel castor – 50 MM Diameter. The size of the base shall be - 640 +/- 1 MM pitch-centre-diameter. Load test as per BIFMA compliance. The twin wheel castors shall be made of Nylon injection moulded in black colour. Overall dimensions of Chair shall be, Width of Chair - 710 MM, Depth of seat - 500 MM as measured from base below. Height of back from ground - min 930 to max 1070 MM. Seat height - min 475MM to max 575 MM. Dimensions tolerance / variations shall be within +/- 10mm

3. Mode of Measurement

The rate shall be consolidated for all above items. The rate shall include cost of all materials, fixtures, joineries, hardware's etc. & labour charges for all height to complete the work satisfactorily including supplying and arranging as per layout plan at site of work and as per the instruction of Engineer-in-charge.

No Extra charge will be paid for any other reasons. The rate shall be for a unit of one number.

930 mm, Seat : 500mm x 460mm , Back: 500mm x 440 mm

Item No. 8 :-

(2 Seater sofa - Custom Made Sofa) :2100mm (L) x 750 mm (B) x 750 mm (H)

(2 Seater sofa - Custom Made Sofa) : 2100mm (L) x 750 mm (B) x 750 mm (H), The seat shall 150 mm th 40 density & back shall be 32 density foam & finished in Approved fabric upholstery as per the drawing/image and instruction from Architect/EIC all external & internal exposed woodwork to be finished in PU semi gloss finish polish. .The work shall be done as per the approved shop drawing (to be prepared by contractor), specifications, sample approved and as directed by the Architect and Engineer-in-charge. The rate shall be for complete item inclusive of all material, labour, wastages, necessary tools & tackles,approved make for all floors, all heights, all levels and all places within campus. Contractor shall do all the needful and shall fulfill Architect's design intent. No additional claims will be entertained for this. Rate shall inclusive of shop drawing ,mock up sample, all materials, loading, unloading, all taxes, transportation, placing at all floors and for all leads,all accessories as described in item description.As approval of architect..

**1. Material:**

Work complete as per relevant specification of Item No: 10.1 (A) in General specification R & B booklet for building works.

Frame: Indian Teak Wood shall be used as per approved make and sample by EIC/Architect.

IS 710 ply shall be used as per approved make list and confirming to relevant IS codes and approved by EIC/Architect.

150 mm th 40 density & back shall be 32 density foam & finished in Approved fabric upholstery shall be used as per approved make list and confirming to relevant IS codes and approved by EIC/Architect.

PU Semi-Gloss finish polish shall be used as approved by EIC/Architect.

All type of material shall be used as per approved make list and confirming to relevant IS codes and approved by EIC/Architect.

Plywood shall confirm M-37 of GTS Booklet for building works.

2. Workmanship:

Frame: Indian teak Wood and finished with PU Matt polish.

Seat & back shall be in high density foam & finished in Approved fabric upholstery finish /with SS leveler as per the drawing/image and instruction from EIC/Architect.

All external & internal exposed woodwork to be finished in PU matt finish polish.

Work complete as per above specification.

Work complete including all types of tools, tackles, labour etc complete at any level and height.

The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of EIC/Architect.

3. Measurements:

The rate shall be consolidated for all above items.

The rate shall include the cost of all materials, labour, scaffolding etc. to complete the whole work satisfactorily as per instruction of EIC/Architect.

No extra payment will be given for any of the reasons.

Rate to be inclusive of all material, wastage, necessary tools tackles etc for fixing at all heights and for all floors.

The work done shall be measured in Numbers for area of work done.

The rate shall be for a unit of one Numbers

Item No. 9:-

Providing and Arranging corner table made from 37mm x 37 mm Indian teakwood leg and top frame made from 37mmx 75mm Indian teakwood having 18 mm thick Ply and 4mm thick Veneer with melamine polish and 0.8mm thick balancing laminate at bottom for shelf made with surrounding Indian teakwood frame of size 37 mm x 12 mm the top having 12 mm thick glass with edge finish to be placed properly in groove made. Surface to be finished with melamine polish Including all materials and labours etc. complete as per drawing and instruction of engineer-in charge.

Corner Table : size - 600mm x 450mm x 450mm



- from 37mm x 37 mm Indian teakwood leg and top frame made from 37mmx 75mm Indian teakwood having 18 mm thick Ply and 4mm thick Veneer
- Indian Teakwood shall be use for frame structure including legs of desired size and shape as shown in the drawings or as directed by engineer-in-charge.
- Top of shelf is finished with 4 mm thick Natural Teak veneer
- Bottom of shelf is finished with 0.8mm thick balancing laminate
- Plywood shelf border is finished with 25 x12 mm indian teakwood border patti with moulding edge
- Good quality adjustable stud / buffer/ shoe at bottom
- All wooden and veneer surface is finished with melamine polish.
- 12 mm thick clear glass shall be fixed on top resting on teakwood framing with edge finish..

1. Materials

18 mm thick MR Grade plywood shall confirm to IS 303- Reaffirmed 2003 & of approved make Fixtures & joineries shall confirm to General I.S. Specification

4 mm thick veneer shall be of approved make 0.8mm thick laminate shall be of approved make

Adhesive shall confirm to General Specification No.-3

All required hardwares shall confirm to General I.S. Specification

12 mm thick clear glass shall confirm to General Specification No.- 3

Teakwood shall confirm to the standard specification of the booklet and confirm to M-29

2. Workmanship

Table size : 600mm x 450mm x 450 mm (H)

Skeleton

Entire skeleton shall be made from materials described in item Description and detailed drawing.

- MR garde ply of 18 mm thick as per the requirement
- Whole unit shall be made of Indian teakwood having frame of size 75mm x 37mm ,frame support of size 75 mm x 37mm & legs of size 37mm x 37mm desired shape as specified in the drawing / Photograph or as directed by Engineer-in-charge.
- All edges shall be finished with indian teakwood border of specified size with melamine polish finish
- 12 mm thick clear glass shall be placed on teakwood framing with polished smooth edges.
- Top of the shelf shall be finished with 4.00 mm thick natural teak veneer and Bottom of shelf shall be finished with balancing laminate of 0.8mm thick.
- Shelf border shall be covered by indian teakwood border patti of size 25 mm x 12 mm with smooth surface and edges and shape as directed by engineer-in-charge.
- Melamine polish shall be carried out as per the standard detail mentioned in the Para 19.70 of Oil painting in Technical Specifications for Building work attached herewith
- Veneer and balancing laminate shall be used without any bubbles and scratches in perfect style and shape shall be used as per drawing and directed by Engineer-in- charge. All the ply member for table and drawer box shall be exactly in right angle and true shape. The right angle checked from inside surface of ply frames of the respective members.All the member shall be straight without any wrap of bow and shall have smooth surface at all sides exposed in right angle to each other. Veneer/ Laminate sticking shall have airless pressing in true line ,level and shape without any bubble as per drawing.
- All materials, hardware, accessories, adhesives, lamination sheet shall be as per IS specification.

3. Mode of Measurement

The rate shall be consolidated for all above items. The rate shall include cost of all materials, fixtures, joineries , hardwares etc & labour charges to complete the work satisfactorily including supplying and arranging as per layout paln at site of work and as per the instruction of Engineer-in-charge. No Extra charge will be paid for any other reasons. The rate shall be for an unit of one number

Item No. 10 :-

Providing and Arranging Center table made from 37mm x 37 mm Indian teakwood leg and top frame made from 37mmx 75mm Indian teakwood having 18 mm thick Ply and 4mm thick Veneer with melamine polish and 0.8mm thick balancing laminate at bottom for shelf made with surrounding Indian teakwood frame of size 37 mm x 12 mm. The top having 12 mm thick glass with edge finish to be placed properly in groove made. Surface to be finished with melamine polish including all materials and labours Etc. complete as per drawing and instruction of engineer-in charge.

Center Table : size - 900mm x 600mm x 450mm



- 37mm x 37 mm Indian teakwood leg and top frame made from 37mmx 75mm Indian teakwood having 18 mm thick Ply and 4mm thick Veneer
- Indian Teakwood shall be use for frame structure and legs of desired size and shape as shown in the drawings or as directed by engineer-in-charge.
- Top of shelf is finished with 4 mm thick Natural Teak veneer
- Bottom of shelf is finished with 0.8mm thick balancing laminate at bottom for shelf made with surrouding Indian Teak wood frame of size 37mm x 12mm.
- Top Surface shall be provided with 12mm thick glass with edge finish to be placed properly in groove made for the same.
- Good quality adjustable stud at bottom
- All wooden and veneer surface is finished with melamine polish.
- Surface to be finished with melamine polish

1. Materials

18 mm thick MR Grade plywood shall confirm to IS 303- Reaffirmed 2003 & of approved make

Fixtures & joineries shall confirm to General I.S. specification

4 mm thick veneer shall confirm to General I.S. Specification

0.8mm thick laminate shall be of approved make

Adhesive shall confirm to General I.S. Specification

All required hardwares shall confirm to General Specification No.- 3

12 mm thick glass shall confirm to M-39

2. Workmanship

Center Table size : 900mm x 600mm x 450 mm (H)

Skeleton

Entire skeleton shall be made from materials described in item Description and detailed drawing.

- MR grade ply of 18 mm thick as per the requirement
- Indian Teakwood shall be use for frame structure and legs of desired size and shape as shown in the drawings or as directed by engineer-in-charge.
- Top of shelf is finished with 4 mm thick Natural Teak veneer
- 12 mm thick glass shall be placed on teakwood framing with polished smooth edges and shall conform to M-39.
- Melamine polish shall be carried out as per the standard detail mentioned in the 19.70 of Oil painting in Technical Specifications for Building work attached herewith
- Veneer and balancing laminate shall be used without any bubbles and scratches in perfect style and shape shall be used as per drawing and directed by Engineer-in- charge. All the ply member for table and drawer box shall be exactly in right angle and true shape. The right angle checked from inside surface of ply frames of the respective members. All the member shall be straight without any wrap of bow and shall have smooth surface at all sides exposed in right angle to each other. Veneer/ Laminate sticking shall have airless pressing in true line, level and shape without any bubble as per drawing.

- All materials, hardware, accessories, adhesives, lamination sheet shall be as per IS specification.

3. Mode of Measurement

The rate shall be consolidated for all above items. The rate shall include cost of all materials, fixtures, joineries, hardwares etc & labour charges for all height to complete the work satisfactorily including supplying and arranging as per layout plan at site of work and as per the instruction of Engineer-in-charge. No Extra charge will be paid for any other reasons. The rate shall be for an unit of one number

Item No. 11 :-

Supplying, Fixing and commissioning of TV Cabinet Providing and fixing at site TV Cabinet of approved design & Drawings to be made up of 18.0mm BWP Ply, and finished with approved shade of Laminated finish, including all accessories, space for fixing of TV, Necessary shelves, all accessories etc complete



1. Material:

- IS 303 ply shall be used as per approved make and sample by EIC/Architect.
- Veneer shall be used as per approved make and sample by EIC/Architect.
- Hardware's shall be used as per approved make list and confirming to relevant IS codes and Approved by EIC/Architect.
- All type of material shall be used as per approved make list and confirming to relevant IS Codes and approved by EIC/Architect.

2. Workmanship:

- Top 18 MM thick: made from 18mm th IS 303 ply & veneer finish With matt PU finish.
- Storage body is made of 18 mm 303 MR ply with veneer finish and inner side 1.0 mm thick Laminate finish including require no's of drawer with all type of fittings, cut out for air Circulation, require fixtures, hardware Hettich/Haffle make etc. complete.
- SS 304 grade conceal handle shall be providing as per approved selection & detailed drawing and instruction of EIC/Architect. Rate shall inclusive require fabrication work considering Load capacity of AV equipment.
- Rate shall inclusive require fabrication work considering load capacity of AV equipment
- Work complete including all types of tools, tackles, labour etc complete at any level and Height.
- The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of EIC/Architect.
- The rate shall be consolidated for all above items.
- The rate shall include the cost of all materials, labour, scaffolding etc. to complete the whole Work satisfactorily as per instruction of EIC/Architect.

3. Measurements:

- No extra payment will be given for any of the reasons.
- Rate to be inclusive of all material, wastage, necessary tools tackles etc for fixing at all Heights and for all floors.
- The work done shall be measured in only Front area of finished work done. Length and breadth only
- The rate shall be for a Unit of Square Meter.

Item No. 12 :-

Providing & fixing Wooden cupboard size Custom and depth 0.60 mt using 12mm thick plywood all proof, on back side both side top bottom and shelves are of 19 mm thick ply & shutters are of 12mm thick ply all proof with teakwood batten & 1 mm lamination in single or double shade & colour as directed on all visible face and 1.00 mm lamination on all non visible faces including SS fixtures & fastening, Godrej lock etc. good quality as directed by engineer-in-charge etc. complete. Wooden Cupboard : size - Depth 600mm



MR Grade Ply of 12 mm thick

Top, sides & apron finished with 1 mm thick Natural laminated sheet

The self of the C.B. shall be constructed with 19 mm thick all proof plywood door inside.

- All faces shall be furnished with 1mm thick lamination sheet and out side decorative lamination sheet.
- Top & sides Border is finished with 50x12 mm Indian teakwood border Patti with moulding edge
- Apron border is finished & shaped with 25x12 mm Indian teakwood border Patti

Workmanship ::

The overall size of the Cup-board shall be 0.90 x 2.10 x 0.60 deep and shall be constructed as per approved design or as directed by the Engineer-in-charge.

The 12mm thick Outer side plywood frame with 19 mm thick plywood self and 12mm thick plywood door inside all face 1mm thick laminate and out side decorative laminate. The outer frame shall be provided with Teak wood battern patti of appropriate size.

All Fixtures and Fastenings should be S.S 304 Providing two SS Hinges (7.5cm) per shutter, one decorative Handle as per shutter, two Chain (up to 150mm) per shutter Magnet and Lock should be Godrej or Standard Quality or as directed.

Entire work shall be carried out confirming to the N.B.O. standards with accuracy and best workmanship like manner

Mode of Measurement

The rate shall be consolidated for all above items. The rate shall include cost of all materials, fixtures, joineries, hardwares etc & labour charges for all height to complete the work satisfactorily including supplying and arranging as per layout plan at site of work and as per the instruction of Engineer-in-charge.

No Extra charge will be paid for any other reasons. The rate shall be for an unit of one number.

Unit rate for payment shall be per 1-No. basis

Item No. 13 :-

Over hed File Storage Unit :- Size Custom Length and Depth 600mm Providing and Arranging Overhaed Unit with top 18mm overall thickness made from 18 mm thick MR grade plywood with 1.00 mm thick Laminate finished polish. Side made of 18mm thick MR grade plywood with 1.00 mm thick Laminate finish and inside 0.8mm thick balancing laminate of approved shade. Godrej make lock with Two keys and shutter fixed with auto hinges including . all necessary fixtures and fastening as approved and back of the unit with 6mm thick MR grade plywood with 0.1 mm thick laminate of approved shade with nylon bullet including all materials and labour etc. Complete as per drawing and instruction of Engineer-in charge

Over hed File Storage Unit : size - Depth 600mm



MR Grade Ply of 18 mm thick

Top, sides & apron finished with 1 mm thick Natural laminated sheet

The self of the C.B. shall be constructed with 18 mm thick all proof plywood door inside.

- All faces shall be furnished with 1mm thick lamination sheet and out side decorative lamination sheet.
- Top & sides Border is finished with 50x12 mm Indian teakwood border Patti with moulding edge
- Apron border is finished & shaped with 25x12 mm Indian teakwood border Patti

Workmanship ::

The overall size of the Cup-board shall be 1.55x1.83x0.45 deep and shall be constructed as per approved design or as directed by the Engineer-incharge.

The 18 mm thick Outer side plywood frame with 18 mm thick plywood self and 18mm thick plywood door inside all face 1mm thick laminate and out side decorative laminate. The outer frame shall be provided with Teak wood battarn patti of appropriate size.

Use Stainless steel instead of iron, brass, and aluminium.

All Fixtures and Fastenings should be S.S 304 Providing two SS Hinges (7.5cm) per shutter, one decorative Handle per shutter, two Chain (up to 150mm) per shutter Magnet and Lock should be Godrej or Standard Quality or as directed.

Providing one magnet per shutter and one lock Entire work shall be carried out confirming to the N.B.O. standards with accuracy and best workmanship like manner

Mode of Measurement

The rate shall be consolidated for all above items. The rate shall include cost of all materials, fixtures, joineries , hardwares etc & labour charges for all height to complete the work satisfactorily including supplying and arranging as per layout plan at site of work and as per the instruction of Engineer-in-charge. No Extra charge will be paid for any other reasons.

The consolidated item shall be only front side measured and paid on its breadth, length dimensions to those specified in plan or as directed The rate shall be for an unit of square meter .

Unit rate for payment shall be per square meter. basis

Item No. 14 :-

Fluted Wall PANELING With Polish/PU Finish: Providing & fixing with Sheet metal screws/Nylon grip screws of Corro-shield /Fischer and shall be supported by filling required size wedges /washers/ MS wall connectors or packings of teak wood /MS washers to ensure right angles and plumb level. Fluted panel, adhesive ,tape, headless nails etc ,finished with Polish/PU paint & in pattern as shown in the drawing. Rate shall be inclusive of grooves etc complete as per drawing or as directed by EIC/ Architect.

**1. Material:**

12 mm thick Fluted panel shall be used as per approved make and sample by EIC/ Architect.

Frame work shall be used as per approved make list and confirming to relevant IS codes and approved by EIC/ Architect

All type of material shall be used as per approved make list and confirming to relevant IS codes and approved by EIC/ Architect. Fixtures and fastenings shall confirm M-43 of GTS Booklet for building works.

2. Workmanship:

Installation: fixing 12 mm thick Fluted panel fixed on frame work.

The frame work shall be made from Aluminium section make JINDAL/ HINDALCO/DOMAL/ SAPA or Equivalent by Architect/EIC conforming to IS specification. In panelling, (intermediate, perimeter) & (at vertical or horizontal joint of ply & at turning point) shall be fixed to the wall/floor & ceiling with Sheet metal screws/Nylon grip screws of Corro-shield /Fischer and shall be supported by filling required size wedges /washers/ MS wall connectors or packings of teak wood /MS washers to ensure right angles and plumb level.

Paneling should be in complete level without any variation and deviation. There shall be no tolerance in regard to wall finish. Wherever required proper framing has to be executed to make the surface level.

Work complete including all type of tools, tackles, scaffolding etc complete at any level and height

The whole work is to be completed as per design; sample material & any other requirement shall be as per instruction of Employer's representative/employer

3. Measurements:

The rate shall be consolidated for all above items.

The rate shall include the cost of all materials, labour, scaffolding etc. to complete the whole work satisfactorily as per instruction of Employer's representative/employer

No extra payment will be given for any of the reasons.

Rate to be inclusive of all material, wastage, necessary tools tackles etc for fixing at all heights and for all floors.

Only the clear elevation area shall be measured and paid.

The work done shall be measured in square meter for area of work done.

The rate shall be for a unit of one Square meter.

Item No. 15 :-

Providing and fixing of planter/pots of frp or plastic with artificial indoor plants as per selection and complete the work satisfactorily as per instruction of Architect or Engineer-in charge

**PLANTER WITH ARTIFICIAL PLANTS**

Providing and fixing of planter/pots of frp or plastic with artificial indoor plants as per selection and complete the work satisfactorily as per instruction of Architect or Engineer-in charge.

Overall size of :- as per required or as per execution drawing. The whole work is to be completed as per design, sample, shade; drawing approval & any other requirement shall be as directed by Engineer in charge and as per instruction of architect

Material:-**PLANTER WITH ARTIFICIAL PLANTS**

Providing and fixing of planter/pots of frp or plastic with artificial indoor plants as per selection and complete the work satisfactorily as per instruction of Architect or Engineer-in charge.

Mode of Measurement and Payment :

The rate includes cost of all materials, tools, plants and labour involved in satisfactory completion of work etc.

The measurement & The measurement & rate shall be per Nos as per actual work done

Item No. 16 :-**Roller Blinds.**

Providing and Fixing Blackout Roller Blinds with fabric of 0.53mm thickness and Top channel of non-rusting aluminium alloy with 1.25mm thickness and bottom channel of 1.50mm thickness & 21mm diameter. Tilt channel of ABS plastic with 1.50mm polyester cord with 4.50mm balls with stop lock arrangement including all necessary fixture, fastners, fittings, labour material machinery etc complete as seletced and diretced by Engineer Incharge. Roller Blinds

**1. Material**

Type of Fabrics =Blackout or as directed by the Engineer-in-charge

Composition of Fab.= 100 % Polyester woven

Visibility=Zero

Light Transparent=Zero

Available Width=2.50 Mtrs.

Fabric Thickness=0.53 MM (+-0.05)

Weight=475 g/m2 (+-5%)

Tearing Strength=Very High

Hanging Properties=Excellent
Cleaning=Conditionally cleanable with damp cloth

WORKMANSHIP ::

Impulse Blackout Zebra Blinds with fabric of 0.53mm thickness and Top channel of nonrusting aluminium alloy with 1.25mm thickness and bottom channel of 1.50mm thickness & 21mm diameter. Tilt channel of ABS plastic with 1.50mm polyester cord with 4.50mm balls with stop lock arrangement

Top Channel

The Zebra Blind top channel extruded by Non rusting Aluminum alloy with 1.25mm thickness, with anodized for long life. The Channel is designed with support beam to keep it straight and shall have a pocket for holding the fabrics in position.

Bottom Channel

Bottom Channel of Roller Blinds is again non rusting Aluminum powder coated with 1.50mm thickness and 21 mm diameter. The fabric shall be enclosed in the suitably created pocket along with tube. The channel shall be closed from sides with the end caps to give a neat look. 10 colours available to match with the fabrics perfectly.

Tilt Chain

The tilt chain made by unbreakable ABS plastic, 1.50 mm polyester cord with 4.50 mm balls. The blind can be stop in desire position with help of stop lock.

Control Unit

This operating mechanism made by High strength ABS plastic, consist of a ultra smooth gear with spring booster. High carbon steel spring to transmit motion from driving to driven members. The mechanism shall be operate with the use of tilt chain.

Fixing Brackets

The Brackets are made by steel with powder coating to give greater finish. Brackets shall be accommodating overhead or side mounting with clutch assembly on either end of the blind.

2 Workmanship

The work shall be carried out with the best practice followed in the industry. The contractor shall make sure that the item to be installed is in its perfect state as per the standards established by its manufacturer. Additionally, the items installed shall not be damaged and shall be free from any dents or scratches. It is the duty of the contractor to make proper arrangements for protection of the items during stacking, transporting, loading/unloading till handover. The contractor shall get the items inspected and approved by the architect and/or EIC before installation. Any claim, upon rejection of any item by the EIC will not be entertained. The contractor shall install the item as directed by EIC at all floors/all heights and all levels.

3 Made of measurement

The rate shall be consolidated for all above items. The rate shall include cost of all materials, fixtures, joineries, hardware's etc. & labour charges for all height to complete the work satisfactorily including supplying and arranging as per layout plan at site of work and as per the instruction of Engineer-in-charge. Only the clear elevation area of the fabric shall be measured and paid No Extra charge will be paid for any other reasons.

The rate shall be for an unit of one Square Meter base of complete item including cost of all materials, tools, required fixtures and fastening, all labour charges, conveyance charges and all the taxes and levies as may be admissible from time to time.

Item No. 17 :-

Providing and Fixing fibre acoustic false ceiling of size 595 x 595 x 20mm thick is made fine micro glass fibre as per the below mentioned specifications. Colour: Plain White, Black, Core: Soft fibre, suspended ceiling system which includes silhout main-T of size 38x15x0.35mm at every 1200 c/c and cross T of size 38x15x0.35mm are fixed to Main T at 1200/600 mm c/c. Wall angle of size 22x22x0.40mm then fixed along the perimeter of wall with the suitable fasteners. The suspension is done with all accessories like Soffit cleat, levelling clips & wire rods as per dwgs. T-Grid System. Characteristics: 0.9 NRC broadband sound absorption, highest for modular ceilings. White surface finish with fine monolithic texture for high light reflectance, less lighting requirements. Black surface for full light absorption. At 1.5-3kgs/m², does not contribute significantly to structural load of building including all accessories, material & labour complete as directed by Architect / Engineer

Providing and Fixing fibre acoustic false ceiling of size 595 x 595 x 20mm thick is made fine micro glass fibre as per the below mentioned specifications. Colour: Plain White, Black, Core: Soft fibre, suspended ceiling system which includes silhout main-T of size 38x15x0.35mm at every 1200 c/c and cross T of size 38x15x0.35mm are fixed to Main T at 1200/600 mm c/c. Wall angle of size 22x22x0.40mm then fixed along the perimeter of wall with the suitable fasteners. The suspension is done with all accessories like Soffit cleat, levelling clips & wire rods as per dwgs. T-Grid System. Characteristics: 0.9 NRC broadband sound absorption, highest for modular ceilings. White surface finish with fine monolithic texture for high light reflectance, less lighting requirements. Black surface for full light absorption. At 1.5-3kgs/m², does not contribute significantly to structural load of building including all accessories, material & labour complete as directed by Architect / Engineer

Mode of Measurement :

Rate shall include cost of making of all cut-outs for light fixtures, electrical fixtures, air conditioners, grills, defusers, gadgets, gizmo, pelmets, grooves, beads and also provide support/template where ever required. All curved surfaces, recesses, waffles

and corbellings shall be a part of the Ceiling and shall not paid extra for it. The rate shall be consolidated for all above items. The rate shall include cost of all materials, fixtures, joineries , hardwares , scaffolding , tools, tackles for all height etc & labour charges to complete the work satisfactorily including supplying and arranging as per layout paln at site of work including making groove and dhar polishing, as per the instruction of Engineer-in-charge. Area of cut-outs/opening shall not be deducted and no extra payment shall be considered for additional sections provided. Only clear visible plan area be measured in sqm and shall be considered for payment.

No Extra charge will be paid for any other reasons. The rate shall be for an unit of one Sq.Mt.

Item No. 17 :-

Providing and fixing Key Board pull out tray made out of high quality foil pressed on pre-laminated MDF with side mouse pad tray having height adjustment on mounting brackets with smooth sliding operation and with removable drawer with latches having load carrying capacity of 12.00 kg incl. all necessary fixtures, fasteneres , labour and material as diretced by Engineer-in-charge.

Key Board Tray (705 x 284 mm size)



1. Material :

Materials shall be as per item description and material specifications. Tray must be as per sample approved by EIC.

2. Workmanship :

The work shall be carried out with the best practice followed in the industry. The contractor shall make sure that the item to be installed is in its perfect state as per the standards established by its manufacturer. Additionally, the items installed shall not be damaged and shall be free from any dents or scratches. It is the duty of the contractor to make proper arrangements for protection of the items during stacking, transporting, loading/unloading till handover. The contractor shall get the items inspected and approved by the architect and/or EIC before installation. Any claim, upon rejection of any item by the EIC will not be entertained. The contractor shall install the item as directed by EIC at all floors/all heights and all levels. The pre-laminated MDF with side mouse pad tray having height adjustment on mounting brackets with smooth sliding operation and with removable drawer with latches having load carrying capacity of 12.00 kg incl. all necessary fixtures, fasteneres , labour and material as diretced by Engineer-in-charge

3. Mode of Measurement

The rate shall be consolidated for all above items. The rate shall include cost of all materials, fixtures, joineries , hardwares etc & labour charges for all height to complete the work satisfactorily including supplying and arranging as per layout plan at site of work and as per the instruction of Engineer-in-charge. No Extra charge will be paid for any other reasons. The rate shall be for an unit of one number

Item No.218:-

CPU Trolley

Providing and fixing Telescopic CPU stand made from M.S slim stores CPU under the table with soft anti vibration pads and adjustment width of 45mm to 100 mm having height adjustment from 310mm to 530 mm and safe load carrying capacity of 20.00 kg finished with powder coating of 50 micron thickness incl. all necessary fixtures , fasteners , labour and material as directed by Engineer-in-charge.



Material :

Materials shall be as per item description and material specifications. Trolley must be as per sample approved by EIC.

Workmanship :

The work shall be carried out with the best practice followed in the industry. The contractor shall make sure that the item to be installed is in its perfect state as per the standards established by its manufacturer. Additionally, the items installed shall not be damaged and shall be free from any dents or scratches. It is the duty of the contractor to make proper arrangements for protection of the items during stacking, transporting, loading/unloading till handover. The contractor shall get the items inspected and approved by the EIC before installation. Any claim, upon rejection of any item by the EIC will not be entertained. The contractor shall install the item as directed by EIC at all floors/all heights and all levels.

The CPU trolley shall be with soft anti vibration pads and adjustment width of 45mm to 100 mm having height adjustment from 310mm to 530 mm and safe load carrying capacity of 20.00 kg finished with powder coating of 50micron thickness Mode of Measurement The rate shall be consolidated for all above items. The rate shall include cost of all materials, fixtures, joineries , hardwares etc & labour charges for all height to complete the work satisfactorily including supplying and arranging as per layout plan at site of work and as per the instruction of Engineer-in-charge. No Extra charge will be paid for any other reasons. The rate shall be for an unit of one number.

Item No.20:-

Providing and Arranging FOOT REST made up of high impact polystyrene having over all size 450 mm x 350 mm with tilts of 0o to 20o for angular movement and non slippy platform surface including all materials and labour etc. complete as per drawing / Photographs and instruction of engineer-in charge.



1 Material :

Materials shall be as per item description and material specifications. Trolley must be as per sample approved by EIC.

2 Workmanship :

The work shall be carried out with the best practice followed in the industry. The contractor shall make sure that the item to be installed is in its perfect state as per the standards established by its manufacturer. Additionally, the items installed shall not be damaged and shall be free from any dents or scratches. It is the duty of the contractor to make proper arrangements for protection of the items during stacking, transporting, loading/unloading till handover. The contractor shall get the items inspected and approved by the EIC before installation. Any claim, upon rejection of any item by the EIC will not be entertained. The contractor shall install the item as directed by EIC at all floors/all heights and all levels. FOOT REST made up of high impact polystyrene having over all size 450 mm x 350 mm with tilts of 0o to 20o for angular movement and non slippy platform surface including all materials and labour etc. complete as per drawing / Photographs and instruction of engineer-in charge

3. Mode of Measurement

The rate shall be consolidated for all above items. The rate shall include cost of all materials, fixtures, joineries , hardwares etc & labour charges for all height to complete the work satisfactorily including supplying and arranging as per layout plan at site of work and as per the instruction of Engineer-in-charge. No Extra charge will be paid for any other reasons. The rate shall be for an unit of one number

Item No.21: -

Providing and Arranging three seater gang seater having seat and back made from CRCA capsular Tubular frame welded with perforated Die moulded CRCA sheet. base frame made from round Tubular welded with horizontal beam Two side armrest welded with frame including finishing metal parts with epoxy polyester powder coating of 50 micron thickness Including all materials and labour etc. Complete as per drawing and instruction of engineer-in charge



1.Materials

All materials shall be as per item description as approved by EIC and specified item's Manufacturer's specifications.

Overall size of 3 Seater Dimension (L*D*H): 1590*480*880mm

2. Workmanship

The Three Seater waiting chairs shall be prepared from CRC pipe powder coated 50-micron finish.

The work shall be carried out with the best practice followed in the industry. The contractor shall make sure that the item to be installed is in its perfect state as per the standards established by its manufacturer. Additionally, the items installed shall not be damaged and shall be free from any dents or scratches. It is the duty of the contractor to make proper arrangements for protection of the items during stacking, transporting, loading/unloading till handover. The contractor shall get the items inspected and approved by the EIC before installation. Any claim, upon rejection of any item by the EIC will not be entertained. The contractor shall install the item as directed by EIC at all floors/all heights and all levels.

3. Mode of Measurement

The rate shall be consolidated for all above items. The rate shall include cost of all materials, fixtures, joineries, hardware's etc. & labour charges for all height to complete the work satisfactorily including supplying and arranging as per layout plan at site of work and as per the instruction of Engineer-in-charge.

No Extra charge will be paid for any other reasons. The rate shall be for a unit of one number.

Item No. 32: -

Providing and fixing Four track sliding window standard extruded colour anodized aluminum section equivalent to jindal series E (30mm) section numbers frame bottom track 21198 frame top & sides 21204, shutter & bottom top rail 20993, side rails 205553, interlock rails 20550. with Three Shutter 5 mm thick transparent Tinted Float glass, and Two shutter with Stainless Steel Wire mesh shutters {In Single Track}, rubber gasket, air lock strip and finishing joints with silicon sealant, with standard extruded colour anodized aluminium coated fittings and fixture & fastening etc complete. {Colour as directed by Engineer in charge & Aluminium section shall be Jindal or equivalent brand and glass of Modiguard, AIS or equivalent brand

Material & Workmanship:-

Alluminium alloy used in the manufacturing of extruded section for windows shall confirm to HE9-WP of I.S 733 – 1956 and also hollow alluminium section confirm to IS designation HV9 – WP – IS – 1285 – 1958. Alluminium section of approved weight shall be procured at site. Fabrication shall be done as per I.S 1948 – 1961 & drawing or as directed. Details of the anodized powder coating section **as shown in item of work and glass shall be 5 mm thick**

Float Glass:

5 mm thick tinted glass of the make As approved by Engineer-in-charge shall be used & shall be conforming to relevant I.S code. Necessary colour anodized alluminium glazing clips shall confirm to relevant IS code. Transparent Silicon Gasket and PVC track rubber shall confirm to quality approved by engineer in charge.

Fixtures & fastenings:

Fixtures and fastenings shall be provided as per requirement & as directed by Engineer in charge

Section used shall be single or double type as per requirement. Window - frame without shutter shall be prepared as per drawing or as directed by the Engineer in – Charge. Whole framework shall be finished and erected in true line and level. The section shall be fixed with necessary screws & wooden peg nails required.

Size of glass for glazing at panels shall be as per drawing and shall be fixed in such a way so as to allow a clearance of 2.50 mm between the edges of glass and aluminium glazing clips surround clearance may be increased if directed. All stains from the surfaces of glass shall be removed and cleaned with thinner or spirit without any extra payment. Working of all hinges shall be smooth and free. If any hinges or locking arrangement found faulty, shall be replaced to the satisfaction of Engineer – in - Charge without claiming any extra charges. panels shall be as per drawing or as directed by Engineer-in-charge. The entire work shall be executed to the satisfaction of Engineer – in - Charge. The window shall be fully sliding as per drawing or as directed by Engineer – in – Charge

CONDITIONS FOR ALUMINUM WORKS

The glazing shall be fixed with the External finished surface (either stone cladding/external plaster) and hence all the necessary rubber strips, packing and polysulphide polymer (between the frame and concrete or other surface all around) shall be provided within the rate quoted so as to make the junctions fully water tight/air tight.

Approved make selected glass of thickness as specified shall be used in doors. Wired glass louvers shall be provided wherever shown on drawings.

Necessary locking arrangement of approved design (by Architect) shall be provided without any extra cost.

Wherever necessary, PVC lining (silver grey or white only) etc. shall be provided for air/water tightness.

Necessary operating device (as per design) for operation of louvers of windows, ventilators, sky lights, including necessary rods shall be provided without any extra cost. The rates quoted shall be inclusive of manufacture, supply and installation at Site, and inclusive of all the necessary accessories rubber strips, locks, rods, excise duty, taxes, octroi, transport, labour charges, insurance, storage and safe custody, etc. complete.

The rates shall also be inclusive of providing and applying with gun as per latest I.S., of Dow Corning or equivalent and making the joints around glazing watertight, on the external periphery of the building at the junction of two different materials as directed by the Architect and site engineer.

Necessary provision for rain water disposal shall be done in the bottom guides/frames as directed and approved by Architect.

Work must be in accordance with detailed drawings with dimensions of aluminum sections in frames and shutters as shown in drawing. It shall be accompanied by the detailed drawing if any deviation is proposed.

All the door shutters shall have double action hydraulic floor springs/hinges as per approved shop drawings, of approved make with minimum one year guarantee. The floor springs shall be of least possible thickness.

Details/arrangements for after sales/maintenance services shall be furnished.

Work shall be carried out in co-operation and in coordination with all other agencies working at Site.

The civil work as required for fixing of floor springs, hold fast or other works required for the erection and completion of doors/windows etc. shall be done by the Contractor without any extra cost.

Any damage, if caused to the existing work done by other agencies, shall be reinstated by the Contractor to its original condition without any extra cost.

During the course of work, the Contractor shall pay due care to avoid any stains on the powder coating work and if required, the Contractors shall provide necessary protective arrangement as directed by the Architects for which no extra payments shall be made. After the installation is completed, if required by the Architects, the aluminum work shall be washed with mild solution of non alkali soap and water.

The Contractor shall be responsible for the windows/doors/grills etc. being set straight, in plumb level and for their satisfactory operations after the fixing is completed. (s) Wherever required and as directed strengthening of members shall be done by providing steel/M.S. concealed members without extra cost.

The door shutters may have hydraulic door closer of approved make with minimum one year guarantee as and where shown in the drawings and as directed.

Mode of measurement & payment:

The rate for window shutter with frame shall include the cost of materials & labour involved to finish the work.

The dimension of the window shall be measured clear size of the frame in closed position of shutter between the two outer edges of the frame.

The payment shall be made on completion of work.

The unit rate for the item shall be for a unit of one square meter

Item No. 33 :-

Providing and fixing Three track sliding window standard extruded color anodized aluminum section equivalent to jindal series C (30mm) section numbers frame bottom track 21203 frame top & sides 20387, shutter & bottom top rail 20993, side rails 205553, interlock rails 20550. with Two Shutter 5 mm thick transparent Tinted Float glass, and one shutter with Stainless Steel Wiremesh shutters {In Single Track}, rubber gasket, air lock strip and finishing joints with silicon sealant, with standard extruded colour anodized aluminium coated fittings and fixture & fastening etc complete. {Colour as directed by Engineer in charge & Aluminium section shall be Jindal or equivalent brand and glass of Modiguard, AIS or equivalent brand

Material & Workmanship:-

Aluminium alloy used in the manufacturing of extruded section for windows shall confirm to HE9-WP of I.S 733 – 1956 and also hollow aluminium section confirm to IS designation HV9 – WP – IS – 1285 – 1958. Aluminium section of approved weight shall be procured at site. Fabrication shall be done as per I.S 1948 – 1961 & drawing or as directed. Details of the anodized powder coating section **as shown in item of work and glass shall be 5 mm thick**

Float Glass:

5 mm thick tinted glass of the make As approved by Engineer-in-charge shall be used & shall be conforming to relevant I.S code. Necessary colour anodized aluminium glazing clips shall confirm to relevant IS code. Transparent Silicon Gasket and PVC track rubber shall confirm to quality approved by engineer in charge.

Fixtures & fastenings:

Fixtures and fastenings shall be provided as per requirement & as directed by Engineer in charge

Section used shall be single or double type as per requirement. Window - frame without shutter shall be prepared as per drawing or as directed by the Engineer in – Charge. Whole framework shall be finished and erected in true line and level. The section shall be fixed with necessary screws & wooden peg nails required.

Size of glass for glazing at panels shall be as per drawing and shall be fixed in such a way so as to allow a clearance of 2.50 mm between the edges of glass and aluminium glazing clips surround clearance may be increased if directed. All stains from the surfaces of glass shall be removed and cleaned with thinner or spirit without any extra payment. Working of all hinges shall be smooth and free. If any hinges or locking arrangement found faulty, shall be replaced to the satisfaction of Engineer – in - Charge without claiming any extra charges. panels shall be as per drawing or as directed by Engineer-in-charge. The entire work shall be executed to the satisfaction of Engineer – in - Charge. The window shall be fully sliding as per drawing or as directed by Engineer – in – Charge

CONDITIONS FOR ALUMINUM WORKS

The glazing shall be fixed with the External finished surface (either stone cladding/external plaster) and hence all the necessary rubber strips, packing and polysulphide polymer (between the frame and concrete or other surface all around) shall be provided within the rate quoted so as to make the junctions fully water tight/air tight.

Approved make selected glass of thickness as specified shall be used in doors. Wired glass louvers shall be provided wherever shown on drawings.

Necessary locking arrangement of approved design (by Architect) shall be provided without any extra cost.

Wherever necessary, PVC lining (silver grey or white only) etc. shall be provided for air/water tightness.

Necessary operating device (as per design) for operation of louvers of windows, ventilators, sky lights, including necessary rods shall be provided without any extra cost The rates quoted shall be inclusive of manufacture, supply and installation at Site, and inclusive of all the necessary accessories rubber strips, locks, rods, excise duty, taxes, octroi, transport, labour charges, insurance, storage and safe custody, etc. complete.

The rates shall also be inclusive of providing and applying with gun as per latest I.S., of Dow Corning or equivalent and making the joints around glazing watertight, on the external periphery of the building at the junction of two different materials as directed by the Architect and site engineer.

Necessary provision for rain water disposal shall be done in the bottom guides/frames as directed and approved by Architect.

Work must be in accordance with detailed drawings with dimensions of aluminum sections in frames and shutters as shown in drawing. It shall be accompanied by the detailed drawing if any deviation is proposed.

All the door shutters shall have double action hydraulic floor springs/hinges as per approved shop drawings, of approved make with minimum one year guarantee. The floor springs shall be of least possible thickness.

Details/arrangements for after sales/maintenance services shall be furnished.

Work shall be carried out in co-operation and in coordination with all other agencies working at Site.

The civil work as required for fixing of floor springs, hold fast or other works required for the erection and completion of doors/windows etc. shall be done by the Contractor without any extra cost.

Any damage, if caused to the existing work done by other agencies, shall be reinstated by the Contractor to its original condition without any extra cost.

During the course of work, the Contractor shall pay due care to avoid any stains on the powder coating work and if required, the Contractors shall provide necessary protective arrangement as directed by the Architects for which no extra payments shall be made. After the installation is completed, if required by the Architects, the aluminum work shall be washed with mild solution of non alkali soap and water.

The Contractor shall be responsible for the windows/doors/grills etc. being set straight, in plumb level and for their satisfactory operations after the fixing is completed. (s) Wherever required and as directed strengthening of members shall be done by providing steel/M.S. concealed members without extra cost.

The door shutters may have hydraulic door closer of approved make with minimum one year guarantee as and where shown in the drawings and as directed.

Mode of measurement & payment:

The rate for window shutter with frame shall include the cost of materials & labour involved to finish the work.

The dimension of the window shall be measured clear size of the frame in closed position of shutter between the two outer edges of the frame.

The payment shall be made on completion of work.

The unit rate for the item shall be for a unit of one square meter

Item No. 37 : -

Repairing and Refixing existing window/door providing & fixing necessary all fixtures and fastening cutting edges for smooth opening, damaged part of glass and Wooden member like bottom rail, style and shutter glass etc. and closing including fixing the shutter on stone / wooden / MS frame with labour including cutting bottom edge of door to match with flooring with necessary repairing to frames etc. complete

Relevant item specification Repairing and Refixing existing wooden or any type of door shutters & providing & fixing necessary all fixtures and fastening cutting edges for smooth opening, damaged part of Wooden member like bottom rail, style etc. and closing including fixing the shutter on stone / wooden / MS frame with labour including cutting bottom edge of door to match with flooring with necessary repairing to frames including oil painting two coats etc. complete using Country wood. The work should be carried out as per item description and as per the instruction of Engineer in-charge.

All the parts of doors and windows shall be checked thoroughly. The doors and windows, which are to be repaired, shall be removed from the opening. Due care shall be taken not to disturb adjoining masonry). Frames and shutters shall be changed, if required and as directed by engineer in charge. All damaged fittings and fixtures shall be replaced with the new fittings and fixtures as approved by engineer in charge.

Specified timber shall be used for repair work. Sawing shall be truly straight and square and in the direction of grains. The scanllings shall be accurately planed smooth to the full dimensions and rebates roundings and mouldings shown in the drawings. Palching or pluggig of any kind shall not be permitted.

Broken glasses shall be removed and old putty shall be rocked out with hack knito. The glass panes shall confirm the relevant IS. The pieces of glass panes as found useful shall be handed over to the engineer in charge of the work. All other work shall be carried out as , directed by engineer in charge.

Joints :

Joints shall be simple, neat and strong. All joints shall fit in fully and accurately without wedging or fittings. The joints shall be as per detail drawings or as directed by the Engineer in charge. Before the frames are fixed in position these shall be inspected and passed by the Engineer in charge.

Fixing :

After repair all doors and windows shall be fixed to the positions. The sides of frames of doors and windows to be embedded in masonry shall be painted with two coats of cool tar before being placed in position. The frames then shall be inserted in position with their holdfasts bolted tight. The frams shall then be adjusted to proper line and plumb and secured in position by temporary branchings, which shall not be disturbed or removed until the holdfasts are embedded in the masonry and the latter shall have set. The concrete to be used for embedding holdfasts shall be 1:3:6 mix (1 cement : 3 course sand : 6 graded stone aggregates 20 mm nominal size).

After surface surrounding the holdfasts has sufficiently dried it shall be cleaned of dust etc. and welled, it shall then be plastered with cement mortar 1:4 (1 cement : 4 fine sand) flush with the surrounding plasterwork. Any other portion of the wall opening, if damaged, shall be repaired in similar way.

After the cement plaster patched have been thoroughly cured and have dried, they shall either be white washed or colour washed as required unless otherwise specified. All malba and debris obtained from cutting etc. shall be disposal of to the painting coat.

The oil paint of two coats shall be don over the painting coat. Mode of measurement and payment

Mode of measurement & payment:

The contract rate shall be for a unit of **One Square Meter** basis of complete item.

Item No.38 : -

Providing and fixing FRP frame size 100x50 mm and 28mm thick FRP depress panel shutter having extra reinforcement on sides & edges in Gel coat finish. The core of the shutter & frame is to be filed up with injected fire retardant grade polyurethane foam done in situ along with embedded wooden pieces for stiffening & also taking hinges & fixtures. The whole FRP frame & shutter is to be water proof weather proof, termite proof & resistance to mild acid/alkali. Rates are to be inclusive of S.S hinges with necessary screws & aluminium fixtures & fastenings & fastener sleeve.

1.0 SHUTTER AND FRAME MATERIAL :

28 mm thick FRP shutter in depress panel single or double shutter shall be having frame size 100 x 50 mm FRP thickness fire retardant grade FRP skin and embedded wooden pieces for stiffening as well as holding hinges and fixtures all moulded into one piece shutter. Core material shall be injected fire retardant grade rigid polyurethane foam done in situ having density 32 to 36 Kg/m³, compressive strength 1.8 to 2.0 kg/cm², flexural strength 3.5 to 4.5 kg/cm². Whole shutter shall be water proof, weather proof, termite proof and mild acid / alkali resistance.

2.0 SHUTTER :

28 mm thick depress panel FRP shutter shall be joint less. It shall be straight and smooth and of standard shape finished in gel coat. All necessary fixtures and fastening shall be fixed where wooden piece provided.

3.0 SHUTTER WORKMANSHIP :

Shutter shall be fixed in line, level and proper manner having 2.0 to 3.0 mm play i.e. air space for smooth and easy working. Three S.S. hinges shall be fixed properly with necessary screws.

4.0 SHUTTER TOLERANCE :

1.5 mm tolerance will be allowed in thickness of shutter.

5.0 SHUTTER FIXTURES AND FASTENING :

All fixtures & fastening like S.S. aldrop, tadi or baby-latch, stopper, handle shall be fixed with shutter in usual manner. The shutter shall be fixed to frame using fixing necessary Khila or screws including drilling in granite frame as directed. During fixing of shutter if the granite frame is damage the same will be replaced by contractor's own cost without any extra payment.

Product is from reputed company having ISO 9001-2000 certificate and with three years performance guarantee.

6.0 MODE OF MEASUREMENT AND PAYMENT :

Rate includes the cost of all materials, S.S. fixtures and fastening with necessary screws for fixing in position, labour, tools, equipment etc. required for satisfactory completion of item as directed by the Engineer in charge with all lead and lift.

Item No.39 : -

Providing and fixing 25 cm Wide & 3mm thick exterior composite panel on existing expansion joint horizontally & vertically with all material, hardware, accessories & fittings etc completed.

1. Scope of work

The covers the work for providing and fixing open faces of beams and columns.

2. Workmanship:-

The covering shall be carried out using 25 mm wide & 3 mm thick Exterior grade composite panel cladding.

The frame work for cladding shall be carried out as per detail drawing / as directed by Engineer in Charge

3 Mode of Measurement and Payment :-

The payment shall be made on **Sq.Mt.** basis of complete item as directed by Engineer in Charge

Item No.40 : -

Providing and filling the expansion joint by Thioflex 600 polymer or equivalent confirm to BS 4254-1983 as per required shade and manufactured specification by making groove of 50 mm x 12.5 mm lather by cutting or by repairing groove and removing mortar drop or any other foreign materials including applying primer and filling required size (oversize of joint PU foam etc. complete.

Material:

Sealant of size 50 mm x 12.5 mm shall conform to B.S 4254-1983 of best quality.

Sealant shall have density of 1650 kg per cum.

1. Sealant materials shall be handled with care and stored under cover by the Contractor to prevent damage.
2. Any damage occurring after delivery shall be made good to the satisfaction of the Engineer and at the expense of the Contractor.
3. Joint gaps shall be constructed as shown on the drawings. Surfaces joint grooves shall be thoroughly cleaned with a wire brush to remove all loose materials and dirt and debris, then washed or jetted out.
4. Sealant shall not be placed in position until immediately prior to the placing of the abutting material. If the two adjacent surfaces of the joint are to be placed at different times, this type of joint sealant shall not be placed until the second face is about to be placed.
5. Sealants shall be installed in accordance with the manufacturers recommendations and all appropriate requirements for joint face priming.
6. Sealants shall be finished approximately 3 mm below the upper surfaces of the joint
7. Sealant spilt or splashed onto finished surfaces of the structural member during joint filling operations shall be removed and the surfaces made good to the Engineer's approval.

Workmanship:

The primer part of I and II shall be mixed thoroughly together in required proportion as prescribed, so that a uniform mixture obtained. The mixed solution shall be supplied to two sides of the joint in such a way that it covers the sides complete. Sealant of required quantity as mentioned in materials specifications shall be used. Sealant shall be filled in the joints keeping it in the joints up to the required depth. The sealant filled in the joints shall be pressed and fixed by required instrument till air trapped is removed. The top surface of the sealant shall be smooth and level. The depth required as per specification shall be maintained. The work shall be carried out in the best workmanship as directed the Engineer in charge in required line and level and shall be carried out for all height. No joint shall be sealed until inspected by the Engineer and approval is given to proceed with the work. The edges of R.C.C. members near expansion joints shall be finished with rich mortar without any extra work includes providing sealant in the joints and measurement of sealant only shall be taken.

Mode of measurement & payment:

The rate shall be for a unit of one running meter of the joint finished with sealant

Item No.42: -

Providing sandwich type granite 18 mm thick cooking platform of 60 cm width and 70 cm height including 25 mm thick polish kota stone at bottom of granite and bottom flooring using 20 mm thick C.M.1:6 including vertical and bottom polish kota stone for kitchen sink, granite panipatti and vertical support for granite, all labour and material half round moulding etc. Complete as per design excluding cost of kitchen sink and vertical, horizontal support and shelves for storage.

1.0 Materials

- 1.1 Kota stone shall conform to M 49
- 1.2 Granite stone shall conform to Relevant IS
- 1.3 Mortar shall conform to M-11

2.0 Workmanship

The item covers preparation platform of mirror polished granite top with 30 mm thick kota stone for bottom with cement mortar 1:1 for sandwich and fixed as directed by Engineer in Charge. the front of sandwich shall be covered the appropriate size granite patti with top edge full round & mirror polished. Necessary precaution shall be taken for fixing so it can not dropped. The platform shall be fixed on vertical supports of sandwiched type support. Outer supports of granite and kota stone & inner supports of kota stone..

The cement mortar 1:3 shall be used for filling between kota stone and granite slab. The average thickness of mortar shall not be more than 25 mm.

3.0 Mode of Measurement and Payment

The measurement shall be taken on Sq.Mt. basis of platform prepared as directed by Engineer in Charge. the measurement shall be taken on clear area of platform. The rate includes the cost of necessary supports. No extra payment shall be made for support.

Payment shall be made on Sq.Mt. basis of complete item as directed by Engineer in Charge

Item No.43: -

Providing and fixing AISI 316 Grade stainless steel knock down railing system comprising 50mm dia railing fixed on 38mm dia SS Balustrade of 900mm height placed at maximum 1200mm C/C distance along with three SS horizontal members of 19mm dia connected at the side of baluster with SS brackets. The balustrade shall be mounted on floor with base plate using specially designed anchor fasteners and concealed by AISI 316 Grade SS base cover cap (Wall thickness of pipes shall be taken as 1.50mm along with all visible component developed in high grade SS and wherever required, joints to be filled with bushings for extra strength)

1.0 MATERIAL

1.1 50 mm diameter hollow stainless steel pipe for railing

Hollow stainless steel pipe conform to I.S. 226-1985: The Hollow stainless steel pipe shall be free from the defects mentioned in I.S. 226-1975 and shall have a smooth finish. The material shall be free from loose mill scale, rust pits or other defects affecting the strength and durability. River bars shall conform to I.S. 1148-1973.

When the stainless steel pipe is supplied by the Contractor test certificate of the manufacturers shall be obtained according to I.S. 226-1975 and other relevant Indian Standards.

Hollow stainless steel Pipe for railing shall be of 50 mm diameter and confirming general Indian standards. Hollow pipe shall be free from the defects and shall have smooth finish.

Vertical support shall be fixed in RCC slab at 90 cm C/C incl. S.S. pipe of 19mm Q of 16 gauge at equal distance fixed by 19 mm S.S. pipe with balastrode incl. accessories.

2.0. Workmanship

2.1. Vertical supports of to get 85 cm height of railing shall be fixed as directed and round hollow pipe shall be fixed by welding in true line and level and slope the railing shall be powder coated finish as per standards

2.0 Mode of Measurement & Payment :

2.1 The payment will be made on Running Meter basis of the finished work.

2.3 All necessary labour materials, equipments, tools and plant, conveyance including loading and unloading etc. shall be provided by the Contractors directed by the Engineer in charge.

2.4 The S.S. railing shall be measured for its length, limiting dimensions to those specified on plan or as directed and shall be measured in running meters.

2.5 The rate shall be for a unit of one Running meter.

Item No. 49 : -

Providing laying and jointing in true line and level 15mm dia. U.P.V.C. Pipe (SCH- 40) for cold water including fittings as approved by Engineer In Charge. Pipe shall be fixed on the wall with the help of clamp at every two metre C/C or shall be concealed as directed including necessary fittings etc. including testing of pipe and joints and fixing the same with adhesive solvent, including cost of all materials.

1.0. Materials

1.1. The pipes shall be standard I.S.I. mark U.P.V.C. pipe (SCH-40) of specified dia.

1.2. The fittings, clamps etc. required for specified dia. bore pipes shall be of best quality and makes as approved by the Engineer-in-charge. Necessary accessories with inner/ outer brass thread shall be used as required and instruction by Engineer in charge.

2.0. Workmanship

2.1. Cutting, Laying & Jointing

2.1.1. When the tubes are to be cut or rethreaded, the ends shall be carefully filed out so that no obstruction to bore in offered. The ends of the tubes shall then be threaded conforming to the requirements of I.S. 554-1955 with pipe dies and taps carefully in such a manner that it will not result in slackness of joints when the two pieces are screwed together.

2.1.2. The taps and dies shall be used only for straightening screw threads which have becoming bent or damaged and shall not be used for turning of the threads so as to make them slack as the latter procedure may not result in the water tight joint. The screw threads for tube and fitting shall be protected form edge until they are fitted.

- 2.1.3.** In jointing the tubes, the inside of the socket and the screwed end of the tubes shall be oiled and smeared with white or red lead and wrapping around with a few turns of fine spun yarn round the screwed end of the tube. The end shall then be tightly screwed in the socket, tees, etc. with a pipe wrench. Care shall be taken that all times free from dust and dirt during fixing. But from the joints shall be removed after screwing. After laying the open ends of the pipes shall be temperately plugged to prevent access of water, soil, or any other foreign matter. Jointing shall be carried out with proper chemical adhesive material and allow to dry.
- 2.1.4.** Any threads exposed after jointing shall be painted or in the case of underground piping thickly coated with approved anti-corrosive paint to prevent corrosion.
- 2.2. Fixing concealed to wall, ceiling & floors.**
- 2.2.1.** In case of fixing concealed cement point to walls or ceilings, these shall run on the surface of the wall, or ceiling (not in chase) unless otherwise specified. The fixing shall be done by means of standard pattern, holder clamps keeping the pipes about 15 mm. clear of the wall. When it is found necessary to pattern, holder clamps keeping the pipes about 15 mm. clear of the wall. When it is found necessary to conceal the pipes and when specified so, chasing may be adopted or pipe fixed in ducts or recesses etc. provided that there is sufficient space to work on the pipe with usual tools. The pipe shall not ordinarily be buried in walls or solid floors, where unavoidable, pipe may be buried for short distances provided that adequate protection is given against damage and where so required joints are not buried. Where required M.S. tube sleeve shall be fixed at a place a pipe is passed through a wall or floor for expansion and contraction and other movements. In case the pipe is embedded in walls or floors, it should be painted with anti-corrosive bitumastic paint of approved quality. The pipe should not come in contact with lime mortar or lime concrete as the pipe is affected by lime. Under the floors, the pipe shall be laid in layer of sand filling.
- 2.2.2.** All pipes and fittings shall be fixed truly vertical and horizontal unless unavoidable. The pipes shall be fixed to walls with standard pattern clamps of required size and shape, one end of which shall be properly plugged or cemented into walls with cement mortar 1:3 (1 cement : 3 coarse sand) and the other tightened round the pipes to hold it securely. These clamps shall be spaced at regular intervals in straight lengths at 2 MC/C interval in horizontal run and 2.5 m. interval in vertical run. For pipe of 15 mm. dia. up to 25 mm. dia the holes in the walls and floors shall be made by drilling with chisel or jumper and not by dismantling the brick work or concrete. However for bigger diameter pipes the holes shall be carefully made (1 cement : 3 coarse sand), and properly finished to match the adjacent surface.
- 2.3. Testing of joints:**
- 2.3.1.** After laying and jointing, the pipes and fillings shall be inspected under working conditions of pressure and flow. Any joints found leaky shall be redone, and all leaking pipes removed and replaced without extra cost.
- 2.3.2.** The pipes and fittings after they are laid shall be tested to hydraulic pressure of 6 Kg./Sq cm. The pipe shall be slowly and carefully charged with water allowing all air to escape and avoiding all shocks and water hammer. The draw off takes and stop cock shall then be closed and specified hydraulic pressure shall be applied gradually. The pressure gauge must be accurate. The pipes and fittings shall be tested in sections as the work laying proceeds, keeping, the joints exposed for inspection during the testing.
- 3.0. Mode of measurements and payment**
- 3.1.** The description of the item shall, unless otherwise stated be held to include where necessary conveyance and delivery, handling, unloading, storing fabrication, hoisting, all labour for finishing to required shape and size, setting, fitting in position straight, cutting and waste return of packing etc.
- 3.2.** The length shall be measured on running meter basis of finished work. The length shall be taken along the centre line of the pipe and fittings. The pipes fixed to wall, ceiling. floors etc shall be measured and paid under this item.

- 3.3. All the work shall be measured in decimal system as fixed in its place, subject to tolerance given below unless otherwise stated.
 - (i) Dimension shall be measured to the nearest 0.01 meter.
 - (ii) Area shall be worked out to the nearest 0.01 sq. meter.
- 3.4. All measurements of cutting shall unless otherwise stated be held to include the consequent waste.
- 3.5. In case of fitting of unequal bore, the target bore shall be measured for the test.
- 3.6. Testing of pipe line fittings, and joints include for providing all plant appliances necessary for obtaining access to the work to be tested and carrying out the tests.
- 3.7. The rate includes U.P.V.C. pipe (SCH-40) with screwed socket joints to gather with all fittings (such as bends, sockets, springs, elbows, tees, crosses, short pieces, clamps and plugs, unions etc.) and fixing complete with clamping wall hooks, wooden plug etc. and also curing, screwing and waste and for making forged (or hand made) bends on piping as required. Connector shall be inserted where required or directed. The rate also includes cutting through walls, floors etc. and their making good and painting exposed threads with anti-corrosive paint as above and testing where tubes are to be fixed to wall, ceiling and flooring, the rates shall not include painting of pipes, providing sleeves and sand filling under floor for which separate payment shall be made.
- 3.8. The rate shall be for a unit of one running meter.

Item No. 50 : -

Providing laying and jointing in true line and level 25mm dia. U.P.V.C. Pipe (SCH- 40) for cold water including fittings make as approved by Engineer in Charge. Pipe shall be fixed on the wall with the help of clamp at every two metre C/C or shall be cancelled as directed including necessary fittings etc. including testing of pipe and joints and fixing the same with adhesive solvent, including cost of all materials.

The relevant specifications of **Item No. 49** shall be followed except for the work of **Providing laying and jointing in true line and level 25mm dia. U.P.V.C. Pipe (SCH- 40) for cold water including fittings make as approved by Engineer in Charge. Pipe shall be fixed on the wall with the help of clamp at every two metre C/C or shall be cancelled as directed including necessary fittings etc. including testing of pipe and joints and fixing the same with adhesive solvent, including cost of all materials.**

Item No. 51: -

Providing laying and jointing in true line and level 40mm dia. U.P.V.C. Pipe (SCH- 40) for cold water including fittings make as approved by Engineer in Charge. Pipe shall be fixed on the wall with the help of clamp at every two metre C/C or shall be cancelled as directed including necessary fittings etc. including testing of pipe and joints and fixing the same with adhesive solvent, including cost of all materials.

The relevant specifications of **Item No. 49** shall be followed except for the work of **Providing laying and jointing in true line and level 40mm dia. U.P.V.C. Pipe (SCH- 40) for cold water including fittings make as approved by Engineer in Charge. Pipe shall be fixed on the wall with the help of clamp at every two metre C/C or shall be cancelled as directed including necessary fittings etc. including testing of pipe and joints and fixing the same with adhesive solvent, including cost of all materials.**

Item No 52: -

Providing, laying and jointing in true line and level 110 diameter U.P.V.C (Type B) conforming to IS 13592-1992 with one end plain and other end socketed with rubber ring, & fittings conforming to ISI 14735-1999 of approved make for drainage system pipe line, pipe shall be jointed with each other with rubber lubricant, pipe shall be fixed on wall using of PVC clamp of the size

110 mm diameter x 149 mm length x 145 mm height at every 2000 mm center to center or shall be concealed in walls as directed including necessary fittings such as bends, shoes etc. including testing of pipes and joints and jointed with adhesive solvent cement including cost of all materials.

1.0. Materials

- 1.1.** The specified dia. of **U.P.V.C. Type B pipe conforming to IS 13592-1992 (I.S.I.)** shall conform M-68.
- 1.2.** The fittings, clamps etc. required for specified dia. bore pipes shall be of best quality and makes as approved by the Engineer-in-charge. Necessary accessories with inner/ outer brass thread shall be used as required and instruction by Engineer in charge.

2.0. Workmanship

2.1. Cutting, Laying & Jointing

- 2.1.1.** When the tubes are to be cut or rethreaded, the ends shall be carefully filed out so that no obstruction to bore is offered. The ends of the tubes shall then be threaded conforming to the requirements of I.S. 554-1955 with pipe dies and taps carefully in such a manner that it will not result in slackness of joints when the two pieces are screwed together.
- 2.1.2.** The taps and dies shall be used only for straightening screw threads which have become bent or damaged and shall not be used for turning of the threads so as to make them slack as the latter procedure may not result in the water tight joint. The screw threads for tube and fitting shall be protected from edge until they are fitted.
- 2.1.3.** In jointing the tubes, the inside of the socket and the screwed end of the tubes shall be oiled and smeared with white or red lead and wrapping around with a few turns of fine spun yarn round the screwed end of the tube. The end shall then be tightly screwed in the socket, tees, etc. with a pipe wrench. Care shall be taken that all times free from dust and dirt during fixing. But from the joints shall be removed after screwing. After laying the open ends of the pipes shall be temperately plugged to prevent access of water, soil, or any other foreign matter. Jointing shall be carried out with proper chemical adhesive material and allow to dry.
- 2.1.4.** Any threads exposed after jointing shall be painted or in the case of underground piping thickly coated with approved anti-corrosive paint to prevent corrosion.

2.2. Fixing concealed to wall, ceiling & floors.

- 2.2.1.** In case of fixing concealed cement point to walls or ceilings, these shall run on the surface of the wall, or ceiling (not in chase) unless otherwise specified. The fixing shall be done by means of standard pattern, holder clamps keeping the pipes about 15 mm. clear of the wall. When it is found necessary to pattern, holder clamps keeping the pipes about 15 mm. clear of the wall. When it is found necessary to conceal the pipes and when specified so, chasing may be adopted or pipe fixed in ducts or recesses etc. provided that there is sufficient space to work on the pipe with usual tools. The pipe shall not ordinarily be buried in walls or solid floors, where unavoidable, pipe may be buried for short distances provided that adequate protection is given against damage and where so required joints are not buried. Where required M.S. tube sleeve shall be fixed at a place a pipe is passed through a wall or floor for expansion and contraction and other movements. In case the pipe is embedded in walls or floors, it should be painted with anti-corrosive bitumastic paint of approved quality. The pipe should not come in contact with lime mortar or lime concrete as the pipe is affected by lime. Under the floors, the pipe shall be laid in layer of sand filling.
- 2.2.2.** All pipes and fittings shall be fixed truly vertical and horizontal unless unavoidable. The pipes shall be fixed to walls with standard pattern clamps of required size and shape, one end of which shall be properly plugged or cemented into walls with cement mortar 1:3 (1 cement : 3 coarse sand) and the other tightened round the pipes to hold it securely. These clamps shall be spaced at regular intervals in straight lengths at 2 MC/C interval in horizontal run and 2.5 m. interval in vertical run. For pipe of 15 mm. dia. up to 25 mm. dia the holes in the walls and floors shall be made by drilling with chisel

or jumper and not by dismantling the brick work or concrete. However for bigger diameter pipes the holes shall be carefully made (1 cement : 3 coarse sand), and properly finished to match the adjacent surface.

2.3. Testing of joints:

- 2.3.1.** After laying and jointing, the pipes and fillings shall be inspected under working conditions of pressure and flow. Any joints found leaky shall be redone, and all leaking pipes removed and replaced without extra cost.
- 2.3.2.** The pipes and fittings after they are laid shall be tested to hydraulic pressure of 6 Kg./Sq cm. The pipe shall be slowly and carefully charged with water allowing all air to escape and avoiding all shocks and water hammer. The draw off takes and stop cock shall then be closed and specified hydraulic pressure shall be applied gradually. The pressure gauge must be accurate. The pipes and fittings shall be tested in sections as the work laying proceeds, keeping, the joints exposed for inspection during the testing.

3.0. Mode of measurements and payment

- 3.1.** The description of the item shall, unless otherwise stated be held to include where necessary conveyance and delivery, handling, unloading, storing fabrication, hoisting, all labour for finishing to required shape and size, setting, fitting in position straight, cutting and waste return of packing etc.
- 3.2.** The length shall be measured on running meter basis of finished work. The length shall be taken along the centre line of the pipe and fittings. The pipes fixed to wall, ceiling, floors etc shall be measured and paid under this item.
- 3.3.** All the work shall be measured in decimal system as fixed in its place, subject to tolerance given below unless otherwise stated.
- (i) Dimension shall be measured to the nearest 0.01 meter.
- (ii) Area shall be worked out to the nearest 0.01 sq. meter.
- 3.4.** All measurements of cutting shall unless otherwise stated be held to include the consequent waste.
- 3.5.** In case of fitting of unequal bore, the target bore shall be measured for the test.
- 3.6.** Testing of pipe lines fittings, and joints include for providing all plant appliances necessary for obtaining access to the work to be tested carrying out the tests.
- 3.7.** The rate includes U.P.V.C. Type B pipe with screwed socket joints to gather with all fittings (such as bends, sockets, elbows, tees, crosses, short pieces, clamps and plugs, unions etc.) and fixing complete with clamping wall hooks, wooden plug etc. and also curing, screwing and waste and for making forged (or handmade) bends on piping as required. Connector shall be inserted where required or directed. The rate also includes cutting through walls, floors etc. and their making good and painting exposed threads with anti-corrosive paint as above and testing where tubes are to be fixed to wall, ceiling and flooring, the rates shall not include painting of pipes, providing sleeves and sand filling under floor for which separate payment shall be made.
- 3.8.** The rate shall be for a unit of **one running meter**.

Item No.65 : -

Providing erecting and fixing double coated Syntex PVC. (ISI) water tank of required capacity each with all necessary fittings and connection etc. complete on terrace.

The Double coated P.V.C. water tank of brand as approved by the Engineer in charge and required storage capacity as per direction of the Engineer-in-charge shall be supplied and fixed on terrace or at the place as directed fixing shall be done with over flow pipe, inlet out let and other attachment as required during the process with all lead and lift

1.0 GENERAL

The work shall be carried out as per instructions of the Engineer-in-Charge. The Double Coated water tank shall be Linear Low density polyethylene water storage tank (LLDP) having unit rate of 18 Gram/1-Liter moulded in one tough pieces without any

seams. Joints to joints or welds by an exclusive rotational molding process special FDA approved grade of polyethylene. PVC Water tank shall be fixed as and where directed by the Engineer in-Charge.

2.0 MATERIALS

PVC water tank shall be made from dense polyethylene framed polyethylene and shall be molded at atmosphere.

3.0 MODE OF WORK

1.0 Double coated PVC water tank shall be fixed as and where directed by the Engineer-in-Charge over platform support structure. The support structure either from brick or mild steel training work. The Payment of same shall be made separately in respective items.

2.0 Fixtures and fastenings required, for overflow, wash out, supply and delivery line shall be of required size and approved quality and make.

3.0 necessary arrangement, shall be made for all fittings like G.I. Pipes valves and other accessories connected with them water tank.

4.0 After fixing of the P.V.C. tank on terrace or place as directed by the Engineer-in-charge shall be got tested and during checking any leakage or damage is found to the Tank the entire tank shall be replaced by the contractor at his own cost.

4.0 MODE OF MEASUREMENT AND PAYMENT

1.0 The rate includes supplying and fixing water tank on site with all fittings labour etc. as required.

2.0 The payment shall be made in liter capacity of water tank fixed on site.

3.0 The volume of tank shall be work out by measuring clean inside dimension of tank, diameter for round tank or length & breadth for rectangular tank and height shall be measured from bottom to highest level of water can filled up.

4.0 Unit rate for payment of this item Shall be per 1-Liter basis.

Item No.68 : -

Providing and fixing pre-cast Rubber Dye / steel Dye inter locking concrete block 60mm thick with grade of concrete M300 pneumatic compressed / vibrated mechanically and as per approved design Confirming to IS 15658 : 2006 including 35 mm Sand layer for levelling and filling the joint with sand in proper line and level as per guidelines of IRC : SP 63-2018 etc. Complete.

General

This work shall consist of providing and laying precast **Rubber Dyed interlocking concrete block 60 mm thick** with grade of concrete M-250 as per approved design over a base layer of 75 mm thick layer of sand of the shape and dimensions shown on the drawings and conforming to these specifications or as approved by the Engineer in charge.

1.0 MATERIAL

Water shall conform to M-1. Cement shall conform to M-3.

1.0 Rubber Dyed interlocking concrete block paving tiles

Rubber Dyed interlocking concrete block paving tiles shall be of approved size brand and make as approved by Engineer in charge.

1.1 The size shape and design of rubber Dyed interlocking concrete block paving tiles shall generally be as per manufacturers product or as directed by the Engineer in charge and Architect.

1.2 The rubber Dyed interlocking concrete block paving tiles shall satisfy the tests as regards compress strength transverse strength resistance to wear and water absorption.

1.3 The colour size shape and design of the rubber Dyed interlocking concrete block paving tiles shall be directed by Engineer or Architect.

1.4 The rubber Dyed interlocking concrete block paving tiles shall be of best quality as approved by the Engineer In charge. They shall be flat and true to shape. They shall be free from cracks, crazing spots, chipped edges and corners. The glazing shall be of uniform shade.

2.0 SAND

- 2.1** Sand shall be natural sand, clean well graded, hard strong durable and gritty particular free from immures amounts of dust, clay, kankar modules.
- 2.2.** For masonry works sand shall confirm to the requirements of IS: 2116.
- 2.3.** For plain and reinforced cement concrete (PCC and RCC) or pre stressed concrete (PSC) works fine aggregates shall consist of clean, hard strong and durable prices of crushed stone, crushed gravel or suitable combination of natural sand crushed stone or gravel, They shall not contain dust lumps soft or flaky materials mica or other deleterious materials in such quantities as to reduce the strength and durability of concrete, or to attack the embedded steel. Motorized sand washing machines should be used to remove impurities from sand. Fine aggregate having positive alkali-silica reaction shall not be used. All fine aggregates shall conform to IS L 383 and tests for conformity shall be carried out as per IS : 2386 (Part I to VIII) The contractor shall submit to the Engineer in charge the entire information indicated in Appendix A of IS : 383. The fineness modulus of fine aggregate shall neither be less than 2.00 nor greater than 3.5.
- 2.4.** Sand fine aggregates for structural concrete shall conform to the following grading requirements as shown in the table below.
- 2.5** **Fine Sand:** The fineness module shall not exceed 1.0 the sieve analysis of fine sand be as under:

IS. Sieve Designation	% by wt. passing		
	Zone I	Zone II	Zone III
10 mm	100	100	100
4.75 mm	90-100	90-100	90-100
2.3 6mm	60-95	75-100	85-100
1.18 mm	30-70	55-90	75-100
600 MC	15-34	35-59	60-79
300 MC	5-20	8-30	12-40
150 MC	0-10	0-10	0-10

- **Coarse Sand:** The fineness modules of coarse sand shall not be less than 2.5 and shall not exceed 3.0. The sieve analysis of coarse sand be as under:

I. S. Sieve Designation	% by wt. passing
4.75 mm	100
2.36mm	90 to 100
1.18 mm	70 to 100
600 MC	30 to 100
300 MC	85 to 70
150 MC	00 to 50

3.0 WORKMANSHIP

- 3.1** The rubber Dyed interlocking concrete block paving tiles shall be laid on a layer 7.5 cm thick layer of coarse sand. The slope in the floors shall be provided in the sub grade. The base layer shall be properly watered, rammed and consolidated.

Before laying the pavers blocks, it shall be moisture. Plinth masonry offset shall be depressed so as to allow the sub grade concrete to rest on it.

3.2 Rubber Dyed interlocking concrete block paving tiles of approved quality shape and design and shall be laid evenly to level and slope as directed by Engineer in charge over a bed of a base layer consisting of 75mm thick sand layer.

3.3 **Laying:** The rubber Dyed interlocking concrete block paving tiles shall be laid in plain, diagonal or other pattern as directed. The cement concrete blocks shall be laid properly and set home by gentle tapping.

3.4 End portion of pavement shall be finished with C.M. 1:3 as per detailed drawing etc. complete.

4.0 MODE OF MEASUREMENT AND PAYMENT

4.1 The unit rate rubber Dyed interlocking concrete block paving tiles flooring shall include the cost of all materials, tools and plant required for supplying and laying material like brick bats sand pavers blocks, laying of base layer in true level and slope as required applying & placing pavers blocks in position, compacting, finishing, curing.

4.2 The length and breadth shall be measured correct to a Square meter correct to 2 places of decimal. Length and breadth shall be measured to correct to a centimeter and between the finished the finished face of the skirting, dedo or wall plaster and no deduction shall be made nor extra paid for any opening in floors or areas up to 0.1 square meter.

4.3 The rate shall be for a unit of **one Square meter.**

**Dy. Executive Engineer
City R & B. Sub Division
Junagadh**

**Executive Engineer
R. & B. Division
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