

- 7.01a Providing and laying average 10 mm. thick single coat cement finish cement plaster in CM 1:4, on ceilings and stair soffits at all floors, all shapes, all heights with necessary scaffolding, curing, making grooves, forming pattas, hacking properly RCC surface etc. complete, with floating coat of cement slurry as directed by the Engineer-in-charge.**
- 1.0 Materials:** Water shall conform to M-1. The cement mortar of proportion 1:3 shall conform to M-11.
- 2.0 Workmanship:**
- 2.1 Scaffolding:** Wooden ballies, bamboo, planks, trestles and other Steel scaffolding shall be sound. These shall be properly examined before erection and use. Stage scaffolding shall be provided for ceiling plaster, which shall be independent of the walls. The sample shall be approved by engineer-in-charge before starting the work.
- 2.2 Preparation of background:**
- 2.2.1** The surface shall be cleaned of all dust, loose mortar droppings, traces of algae, efflorescence and other foreign matter by water or by brushing. Smooth surface shall be roughened by wire brushing if it is not hard and by dense hacking if it is concrete. In case of concrete surface, if a chemical retarder or shuttering oil has been applied to the form work, the surface shall be roughened by wire brushing and all the resulting dust and loose particles shall be cleaned off and care shall be taken that none of the retarder is left on the surface. Trimming of projections on brick/concrete surface wherever necessary shall be carried out to get an even surface.
- 2.2.2** Raking of joints in case of masonry wherever necessary shall be allowed to dry out for sufficient period before carrying out the plaster work.
- 2.2.3** Scaffolding for carrying out plastering work shall be double scaffolding having two sets of vertical supports so that the scaffolding is independent of the walls.
- 2.3 Preparation of Surface :**
- 2.3.1** All putlog holes in brickwork and junction between concrete and brickwork shall be properly filled in advance. Joints in brick work shall be raked about 10 mm. and concrete surface shall be hacked to provide grip to the plaster. Projecting burrs of mortars formed due to gaps at joints in shuttering shall be removed. The surface shall be scrubbed clean with wire brush/coir brush to remove dirt, dust etc., and the surface thoroughly washed with clean water to remove efflorescence, grease and oil etc., and shall be kept wet for a minimum of two hours before application of plaster.
- 2.3.2** For external plaster, the plastering operation shall be started from the top floor and carried downwards. For internal plaster, the plastering operations may be started wherever the building frame and cladding work are ready and the temporary supporting ceiling resting on the wall of the floor have been removed. Ceiling plaster shall be completed before starting plaster to walls.
- 2.4 Applications of Plaster :**
- 2.4.1** The plaster about 5 cm. x 5 cm., shall be first applied horizontally and vertically at not more than 2 m. intervals over the entire surface to serve as gauge. The surfaces of these gauges shall be truly in plane of the finished plastered surface. The mortar shall then be applied in uniform surface slightly more than the specified thickness, then brought to a true surface by working a wooden

straight edge reaching across the gauges with small upwards and sideways movements at a time. Finally, the surface shall be finished off true with a trowel or wooden float according to the texture, smooth or sandy granular, as may be required. Excessive Trowelling or over working the float shall be avoided. All corners, arises, angles and junctions etc. shall be carried out with proper templates to the size required. The surface shall be finished smooth using neat cement at the ratio of 2.2 kg/m<sup>2</sup>.

2.4.2 Cement mortar shall be used within half an hour after addition of water. Any mortar or plaster which is partially set shall be rejected and removed from the site.

2.4.3 In suspending the work at the end of the day, the plaster shall be left out, clean to line both horizontally and vertically. While recommencing the plaster, the edges of the old work shall be scrapped clean and wetted with cement putty before plaster is applied to the adjacent areas to enable the two to properly join together. Plastering work shall be closed at the end of the day on the body of the wall and shall not be nearer than 15 cm. to any corners or arises. Horizontal joints in plaster work shall not also occur on parapet tops and copings as these invariably lead to leakage. No portion of the surface shall be left out initially to be patched up later on.

2.4.4 Each coat shall be kept damp continuously till the next coat is applied or for a minimum period of 7 days. Moistening shall commence as soon as plaster is hardened sufficiently. Soaking of walls shall be avoided and only as much water as can be readily absorbed shall be used, excessive evaporation on the sunny or windward side of building in hot air or dry weather shall be prevented by hanging mats or gunny bags on the outside of the plaster and by keeping them wet.

### 3.0 Mode of Measurements & Payment :

3.1 The rates shall include for work at any height, position, and floor and for all necessary scaffolding, etc. as may be required. The rates shall also include for hacking and/or bush hammering to form key for plaster and for spatter dash treatment, as specified, as and where necessary.

The rates shall also include for all work in narrow width, arises, rounded angles, chamfered external angles, drip moulds, grooves and for making good after all trades.

The rate shall also include for groove with cement finish upto 12 mm. x 6 mm. to be formed in plaster at junction of slab and beam and slab and brick without any extra charge. The rate shall also include for similar grooves in plaster at the junction of masonry and wood or steel door/window/ventilator frame or at bottom of beam/lintels as drip moulds without extra charge.

3.2 All plastering shall be measured in m<sup>2</sup>, unless otherwise specified. Length, breadth or height shall be measured correct to a centimetre.

3.3 Thickness of the plaster shall be exclusive of the thickness of the key i.e. grooved or open joints in brick work, stone work, etc. or space between laths. **Thickness of plaster shall be average thickness with minimum 10 mm., at any point on the surface.**

3.4 The measurement of wall plastering shall be taken between the walls or partitions (dimensions before plastering being taken) for length and from the top of floor or skirting to ceiling for height. Depth of cover of cornices if any shall be deducted.

3.6 Soffits of stairs shall be measured as plastering on ceilings. Flowing/folding soffits shall be measured separately.

- 3.7 For jambs, soffits, sills, etc., openings exceeding 0.5 sqm and not exceeding 3.0 sqm, area deductions and additions shall be made in the following manner: -  
 (a) No deductions shall be made for end joints, beams, posts, etc. for openings not exceeding 0.5 sqm. each and no addition shall be made for reveals, jambs, soffits, sills, etc. of these opening for finish to plaster around ends of joints, beams, posts, etc.  
 (b) Deduction for openings exceeds 0.5 sqm. but not exceeding 3.0 sqm. each shall be made as follows and no addition shall be made for reveals, jambs, soffits, sills, etc. of these openings.  
 (i) When both faces of any wall are plastered with same plaster, deduction shall be made for one face only.  
 (ii) When two faces of any wall are plastered with different types of plasters or if one faces is plastered and the other pointed, deductions shall be made from the plaster or pointing on the side of frame for door, windows, etc. on which width of reveals is less than that on the other side but no deductions shall be made on the other side. Where width of reveals on both faces of all are equal, deductions of 50% of area of opening on each face shall be made from area of plaster and/or pointing as the case may be.
- 3.8 For openings having door frames equal to projection beyond the thickness of wall, full deduction for opening shall be made from each plastered face of the wall. Jambs , soffits and sills shall be measured separately and paid for.
- 3.9 In case of openings having area above 3.0 m<sup>2</sup>. each, full deduction shall be made for the opening but jambs, soffits, and sills shall be measured additionally.
- 3.10 The rate shall be for an unit of one m<sup>2</sup>.

**G01 Providing and laying average 12mm thick single coat mala finish Plaster in CM 1:3 (Cement 1: Sand 3) finished smooth with steel trowel including scaffolding, curing, etc.; complete for all INTERNAL SURFACES for ceiling, walls, sills, jambs, etc; complete all as per specifications for all floors / all heights, all levels for all shapes with necessary scaffolding, curing, making grooves, forming pattas, hacking properly to existing /new RCC surface (75 hacks/sqft) etc. complete all as per specifications.**

The relevant specification of item no. 7.01a shall be followed except that the proportion of mortar shall be 1:3 instead of 1:4 and mala finish shall be provided instead of Cement finish cement plaster. Instead of even and smooth finish with neat cement slurry, mala finish without applying neat cement slurry shall be carried out by rubbing aluminium patti and steel trowel untill cement slurry is seen on the surface evenly. Sample shall be got approved by the Engineer-in-charge before starting the work. The mode of measurement shall be for a unit of sqm. The mode of measurement and payment shall be as per 7.01a

**7.02a Providing and laying average 15 mm. thick single coat cement finish cement plaster in CM 1:4 on fair side of brickwork, at all floors, all shapes and all heights with necessary scaffolding, curing, making grooves, forming pattas and drip moulds, hacking the RCC surface etc. complete, with floating coat of cement slurry as directed by the Engineer-in-charge.**

**1.0 Materials & Workmanship:** The relevant specifications of item no. 7.01a shall be followed same except that the thickness shall be 15 mm. instead of 12 mm. The surface shall be finished smooth using neat cement at the ratio of 2.2 kg/m<sup>2</sup>.

**2.2 Mode of Measurements & Payment:**

2.1 The mode of measurement and payment shall be the same as in item no. 7.01a.

2.2 The rate shall be for an unit of one m<sup>2</sup>.

**G02 Providing and laying average 15 mm thick single coat mala finish plaster in CM 1:3 (cement 1: sand 3) finished smooth with steel trowels on EXTERNAL SURFACES for all types of surfaces RCC / AAC Blocks / Brick Works for walls, ceiling, sills, jambs for all floors / all levels / at all heights for, all shapes with necessary scaffolding, curing, making grooves, forming pattas, hacking properly to existing & newly constructed RCC surface (75-100 hacks/sqft) etc. complete all as per specifications.**

The relevant specification of 7.01b shall be followed except that the thickness of the plaster shall be 15mm instead of 12 mm.

**7.02c Extra for providing lime neeru finish on walls and corner to be finished with cement slurry at all floors, all shapes and all heights, to the plastered surface @ 2.2 Kg/sq.m including cost of lime, scaffolding, rubbing with small trowel, watering, etc. complete as directed.**

**1.0 Materials:** Water shall conform to M-1. The cement mortar of proportion 1:4 shall conform to M-11. Lime shall conform to M-2. Otherwise, the relevant specifications of item no. 7.02a shall be followed except that the surface shall be finished smooth using lime @ 2.2 kg/m<sup>2</sup>. The plastered surface shall be rubbed with small trowel as specified.

**7.02d Reduction in item no. 7.02a for providing wired finish instead of floating coat of cement slurry.**

The relevant specifications of item no. 7.02a shall be followed except that the surface shall not be finished smooth using cement @ 2.2 kg/m<sup>2</sup>. The rate shall be reduction in the rate for providing wired finish instead of floating coat of cement slurry.

**7.03 Providing & laying average 18 mm. thick cement plaster in two coats at all heights, all shapes and all levels with first coat in CM 1:4 (1 cement: 4 coarse sand) rough wired finish and second coat in CM 1:3 cement mala finish (finished with steel trowel) including scaffolding, curing, making grooves, forming pattas and drip mould, hacking RCC surface etc. complete, as directed by Engineer-Incharge**

**1.0 Materials & Workmanship:** The relevant specifications of item No. 7.01a shall be followed except that the thickness of the plaster shall be average 18 mm. and shall be carried out as specified in the item. The base coat shall be carried in CM 1:4 having average 12-15 mm. thickness. Before the plastered surface hardens roughing shall be done to receive the second coat. Second coat shall be applied only after minimum curing of 72 hours. The second coat shall be carried out in CM 1:3 having average 8-5 mm thickness. The surface shall be finished smooth with steel trowel (Mala finish).

**2.0 Mode of Measurements and Payment:**

2.1 The relevant specifications of item No. 7.01a shall be followed.

2.2 The rate shall be for an unit of one m<sup>2</sup>.

**7.03.a Providing & laying average 18mm thick cement plaster for 230mm brick wall in single coat,**

**CM 1:4 with cement finish cement plaster on unfair side of brickwork (finished with floating coat of neat cement slurry @2.2kg/m<sup>2</sup>) at all floors, all shapes and all height including scaffolding, curing, making grooves, forming pattas and drip mould, etc. complete as directed.**

The relevant specifications of item no. 7.01a shall be followed except that the plaster is carried out in single layer of 18-mm. thickness, in CM 1:4.

- 7.03.b Providing and laying average 20mm thick double coat smooth finish with steel float (mala finish) plaster on internal surfaces for all floors / all levels / all heights / all shapes / jambs / sills / soffits / comprising of first coat / base layer of average 12-15mm thick in CM 1:4 (1 cement : 4 coarse river sand) and average 6mm thick uniform coat using steel trowel finish, in CM 1:3 (1 cement : 3 sand), including scaffolding, forming grooves, pattas, drip moulds, hacking RCC Surfaces, curing etc. complete., using special tools etc. complete as per specifications and direction of Engineer - in - charge. for all civil, plumbing & electrical works.**

The relevant specification of item no. 7.01b shall be followed. Before applying the second coat of plaster, the wall surface shall be sprinkled/ sprayed with cement mortar 1:3 to cover the undulation of unfair face of the brickwork. The second coat shall be applied after 3 days of curing. The cement mortar proportion of second coat shall be 1:3.

- 7.04.a Providing and laying average 18-20 mm. thick Sand faced cement plaster on walls upto any height above ground level and for all shapes / jambs sills / soffits, consisting of first coat / base layer of average 12-15 mm. thick in CM 1:4 (1 cement: 4 coarse sand) and average 6 mm. thick uniform grained textured finish coat using wooden Gutka, in CM 1:2 (1 cement: 2 sand), including scaffolding, forming grooves, drip moulds, pattas, closed hacking RCC surface, curing etc. complete as per specifications and direction of engineer-in-charge. for all civil, plumbing & electrical works.**

- 1.0 Materials :** Water shall conform to M-1. Cement mortar shall conform to M-11.

- 2.0 Workmanship :**

- 2.1** The work shall be carried out in two coats. The **backing coat (base coat) shall be 12-15mm thick in CM 1:4 ( 1 cement : 4 coarse sand)** and the relevant specifications of item no. 7.01a and 7.03 shall be followed. Before the first coat hardens its surface shall be beaten up by edges of wooden tapers and close-wired finish shall be made on the surface. The subsequent coat shall be applied after this coat has been allowed to set for 3 to 5 days depending upon the weather conditions. The surface shall not be allowed to dry during this period. Before applying the second coat neat cement slurry shall be applied on the wall surface.

- 2.2** The second coat shall be completed to **average 6 mm. thickness in CM 1:2** as described above. The surface shall then be tapered to uniform grained texture by using Wooden **Gutka/ float** only, as specified. The sample of sand face shall be got approved before the work is started. The whole work shall be carried out uniformly as per the sample approved.

- 2.3 Curing :** The curing shall be started overnight after finishing of the plaster work. The plaster shall be kept wet for a period of 7 days. During this period, it shall be protected from all damages.

### 3.0 Mode of Measurements and Payment:

3.1 The relevant specifications of item No.7.01a shall be followed. The rate shall be for all floors, all heights, all levels and all shapes.

3.2 The rate shall be for an unit of one m<sup>2</sup>.

**G03 Providing and laying average 20mm thick Sand faced cement plaster on EXTERNAL SURFACES comprising of a base layer of 13mm thick in cement mortar 1:5 (1 cement : 5 coarse sand) and a top layer of 7mm thick in cement mortar 1:1 (1 cement : 1 coarse sand) finished rough with proper rounder grains by using wooden float (tippani) including scaffolding, all lift charges, curing, etc; complete all as per specifications. for all floors / all levels / at all heights for , all shapes with necessary scaffolding, curing, making grooves, forming pattas, hacking properly to existing & newly constructed RCC surface (75-100 hacks/sqft) etc. complete all as per specifications.**

Relevant specification of item no. 7.04a to be followed.

**7.04.b Providing and laying average 18-20 mm. thick Sand face cement plaster on walls upto any height above ground level consisting of average 12-15 mm. thick backing coat of CM 1:4 (1 cement : 4 coarse sand) and average 6 mm. thick finishing coat using sponge, in CM 1:2 (1 cement : 2 sand), including scaffolding, curing, making grooves, drip moulds, hacking the RCC surface etc. complete.**

The relevant specifications of item no. 7.04.a shall be followed except that the finishing coat shall be tapped to an uniform grain texture using **Sponge** instead of Wooden Gutka.

**7.04.c Providing and laying average 18 mm. thick single coat sand face cement plaster on walls upto any height above ground level and all shapes consisting of average 15 mm. thick coat of CM 1:4 (1 cement : 4 sand) and finishing coat 3mm thick using special tools/machine, in CM 1:2 (1 cement : 2 sand), etc. complete.**

The relevant specifications of item no. 7.04.a shall be followed except that the finishing coat shall be tapped to an uniform grain texture using **Special tools/machine** instead of Gutka. The first coat plaster shall be provided to give rough finish.

**7.05 Providing and applying rough cast plaster consisting of wet plastic mix of 3 part cement, 6 part sand and 4 parts of 6 mm. to 10 mm. size crushed stone aggregate, applied with a scoop or trowel and finished to uniform texture to exterior faces, at all floors, at any height, including forming grooves, bends, pattas, etc. as directed and providing and applying a base plaster, 12-15 mm. thick in CM 1:4, with necessary scaffolding, curing, etc. as per the pattern in drawings including grooves etc. all complete as directed.**

**1.0 Materials :** Water shall conform to M-1. Sand shall conform to M-6. Stone aggregate shall conform to M-8. Cement mortar shall conform to M-11.

### 2.0 Workmanship :

2.1 The work shall be carried out in two coats. The base coat shall be in CM 1:4 and the relevant specifications of item no. 7.02a, 7.02b, 7.02c, 7.02d shall be followed. Before the first coat hardens its surface shall be beaten up by edges of wooden tappers and close- wired surface shall be made on the surface. The subsequent coat shall be applied after this coat has been allowed to

set for 3 to 5 days depending upon the weather conditions. The surface shall not be allowed to dry during this period.

- 2.2 The second coat shall be completed to 8 mm. average thickness in CM 1:2 using crushed stone aggregate as described above. This mix is thrown on to the wall by means of a scoop or plaster's trowel to produce an uniform rough appearance. This is called rough cast. After second coat, the surface shall be washed with water and sponge to remove excess slurry.

**3.0 Mode of Measurements and Payment :**

- 3.1 The relevant specification of item no. 7.01a shall be followed.

- 7.06 Providing and applying pebble-dash plaster consisting of average 10 mm. thick coat of wet mix of 1 part cement, 1 part dolomite powder and 6 mm. to 10 mm. size selected river shingle, applied with a scoop or trowel and finished to an uniform texture to exterior faces, at all floors, all shapes at any height, including forming grooves, bends, pattas, etc. as directed and providing and applying a base plaster of 12-15 mm. thick in CM 1:4, with necessary scaffolding, curing, hacking RCC surface etc. as per the pattern in drawings including grooves etc. all complete, as directed.**

- 1.0 Materials :** Water shall conform to M-1. Sand shall conform to M-6. Selected shingle of 6 mm. to 10 mm. size shall be well washed. Cement mortar shall conform to M-11.

**2.0 Workmanship :**

- 2.1 The work shall be carried out in two coats. The base coat shall be in CM 1:4 and the relevant specifications of item no. 7.02a shall be followed. Before the first coat hardens its surface shall be beaten up by edges of wooden tappers and close wired surface shall be made on the surface. The subsequent coat shall be applied after this coat has been allowed to set for 3 to 5 days depending upon the weather conditions. The surface shall not be allowed to dry during this period.

- 2.2 The second coat shall be completed to 10 mm. average thickness in CM 1:6 using selected shingle of size 6 mm. to 10 mm. as described above. This mix is thrown on to the wall by means of a scoop or plaster's trowel to produce an uniform pebbly appearance. This is called pebble-dash plaster. After second coat, the surface shall be washed with water and sponge to remove excess slurry.

- 3.0 Mode of Measurements and Payment :** The relevant specification of item no. 7.01a shall be followed.

- 7.07 Providing and laying average 25 mm. thick Stonecrete Plaster comprising of two coats, first coat of 15 mm. thick plaster in CM 1:4 and second coat of 10 mm. thickness shall be with specially prepared mixture of 1 part of cement, 1.25 part of crushed stone chips, 1 part dolomite powder with suitable pigment (as approved by Engineer-in-charge), at all heights with necessary scaffolding including forming grooves, bends, drip moulds, patta, curing etc. as per the pattern in drawings including grooves etc. complete. The stone chips shall be**

- a) Jaisalmer stone
- b) Kota stone
- c) Red madras
- d) Black Khadappa

- 1.0 Materials :** The relevant specification of item no. 7.01a shall be followed except that the thickness of the base coat shall be 15 mm. and proportion of mortar shall be CM 1:4. The crushed stone chips shall be of number 0,1,2 & 3 of approved colour, source as approved by Engineer-in-charge. The proportion of cement, stone chips and dolomite powder shall be 1:1.25:1.
- 2.0 Workmanship :**
- 2.1 The relevant specification of item no. 7.01a shall be followed. The base surface shall have keys for receiving finishing coat. It shall be cured for 48 hours and then allowed to dry out, before being treated again with water as in the case of original surface.
- 2.2 The final coat shall be of a specially prepared mixture of ordinary grey cement and white cement with the required pigment blended with it (if required), crushed stone sand of approved grade and shade in the proportion as described above applied to a finished thickness of 10 mm. It shall be pressed, level trowelled and finished with a steel trowel. Trowelling should be kept to a minimum as excessive Trowelling may cause hair cracks and crazing. Floating shall be carried out only after the final rendering has slightly dried out. The impression of joints to the pattern shown in the drawings or as directed by the Engineer-in-charge shall then be marked on the face of the topping by pressing a light string with a trowel.
- 2.3 Grooves shall then be formed with the help of Aluminium channel of required size as per the drawings and they shall be finished neatly. The whole work shall be done as per the pattern of the sample approved by the Engineer-in-charge.
- 2.4 After the surface has been cured for about 48 hours and the surface hardened sufficiently, the face shall be dressed with fine chisel very carefully to give the appearance of chisel dressed stone of the pattern desired.
- 3.0 Mode of Measurements and Payment:**
- 3.1 The relevant specification of item no.7.01a shall be followed.
- 7.08 Providing and laying average 15 mm. thick Silcrete Plaster using white cement, having two coats, first coat of 12mm thick plaster in CM 1:4 and second coat of 3mm avg. thickness shall be in cement plaster of proportion 1:1:1 (1 part cement, 1 part of marble chips no. 0 to 1 with 1 part dolomite powder (as approved by Engineer in charge)), at all heights with necessary scaffolding including forming grooves, bends, drip moulds, patta etc. complete.**
- 1.0 Materials :** The relevant specification of item no. 7.07 shall be followed. The marble chips shall be of number 0 to 1, of approved colour and source as approved by the Engineer-in-charge. The proportion of cement, marble chips with dolomite powder and sand shall be 1:1:1.
- 2.0 Workmanship :**
- 2.1 The relevant specification of item no. 7.07 shall be followed. The base surface shall have keys for receiving the finishing coat. It shall be cured for 48 hours and then allowed to dry out, before being treated again with water as in the case of original surface.
- 2.2 The final coat shall be of a specially prepared mixture of ordinary grey cement and/or white cement with the required pigment blended with it (if required), marble chips with dolomite and sand in proportion as described above and shall be applied to a finished thickness of 3 mm. It

shall be pressed, level trowelled and finished with a steel trowel. Trowelling should be kept to a minimum as excessive trowelling may cause hair cracks and crazing. Floating shall be carried out only after the final rendering has slightly dried out. The impression of joints to the pattern shown in the drawings or as directed by the Engineer-in-charge shall then be marked on the face of the topping by pressing a light string with a trowel. Grooves shall then be formed with the help of Aluminum channel of required size as per the drawings and they shall be finished neatly. The whole work shall be done as per the pattern of the sample approved by the Engineer-in-charge.

- 2.3 After the surface has been cured for about 48 hours and the surface has hardened sufficiently, the face shall be dressed with fine chisel very carefully to give the appearance of chisel dressed stone of the pattern desired.

### 3.0 Mode of Measurements and Payment :

- 3.1 The relevant specification of item no. 7.01a shall be followed.

- 7.09 **Providing & laying in line and level stone cladding on exterior wall average 20 mm. thick stone and length and width not exceeding 1.2 m. & 0.6 m. respectively, rough or polished sand stone of approved quality like Karoli red or equivalent, selected and sorted for its uniform colour, in cladding to external and internal surfaces as per design, including grouting with 1:2 cement mortar 12 mm. average thickness, joints are to be filled with approved colour pigments of approved shade & white cement/ grey cement whichever required as specified by the Engineer-in-charge etc. complete. The rate should also include for necessary gun metal/ SS clamps and copper clips for fixing arrangements etc. including cleaning, polishing, scaffolding complete.**

- 1.0 **Materials :** Sand stone slabs of approved shade, variety, size and thickness as specified in the item shall be used. They shall be of selected quality, dense, uniform and homogeneous in texture and free from cracks or other structural defects. The exposed face shall have no veins or unsightly stains and defects. They shall have uniform milky white or coloured shade or patterns of colours as approved by the Engineer-in-charge. Samples shall be got approved by the Engineer-in-charge before ordering the slabs. The surface shall be fine polished and sides machine cut, true to square.

### 2.0 Workmanship :

- 2.1 Sand stone or any other Stone in Facia or Dado:

When a single course of sand stone slab is to be fixed as in dado etc., the slabs shall be fixed as described below. Mortar pads of 1:2 CM of uniform width shall be stuck on to the wall at close intervals and the sand stone slabs with machine cut edges shall be pressed on to them firmly. The remaining cavities if any, shall then be filled with thin grout of cement mortar of the same proportion. The sound coming, on gently tapping of the slab will indicate if there are any hollows. When the hollow cannot be filled with grout and the finished slab continues to give a hollow sound on tapping the slab shall be removed and reset.

- 2.2 For facia work, where more than one course is required, the sand stone slabs shall be fixed in the same way as described above except that at horizontal joints of the slabs and adjacent slabs shall be held together by mechanical non corrosive- gunmetal, copper or Stainless steel clamp. The sample shall be approved by the Engineer in charge.

- 2.3 The stones shall be secured to the backing by non corrosive strips 20X3mm and suitable length embedded in the bcking. The adjoining stone shall be secured to each other by 4 mm. dia., 35

mm. long non corrosive pin dowels. The clamps and pin dowels shall be spaced not more than 600 mm. apart. The samples of pins dowels and clamps shall be got approved from the Engineer-in-charge. One end of the fish tailed clamp shall be positioned in the groove on the top edge of the stone and the other end in the backing. The cladding shall be laid layer by layer. Each layer shall be grouted with cement mortar 1:2.

- 2.4 In addition, copper holdfasts/dowels shall be provided to anchor the slabs to the wall. The holdfast shall be counter-sunk into the joints of the slab and it shall be located about a meter apart subject to a minimum of one for each slab for each horizontal joint. The facing shall be fixed truly in plumb and in perfect line or curves as shown on the plans. The courses and joints shall be as directed by Engineer-in-charge. The surface shall be protected from sun and rain and cured for ten days and shall be finally hand polished. The rate shall include erecting and removing double scaffolding, equipment etc.

### 3.0 Mode of Measurements and Payment :

- 3.1 The relevant specification of item no. 7.01 shall be followed and only clear visible area will be measured and paid. These shall include clamps, pins, non corrosive fasteners, screws etc.

- 7.10 **Providing & laying stone cladding in line and level, average 20 mm. thick and length and width not exceeding 1.2 m. & 0.60 m. respectively, white or pinkish sand stone of approved quality like Bansipahadpur, or equivalent, selected and sorted for uniform colour, in cladding to external and internal surfaces as per design, including 1:2 cement mortar bedding of 12 mm. average thickness, joints are to be filled with approved colour pigments of approved shade & white cement wherever required, as specified by the Engineer-in-charge etc. complete. The rate should also include for necessary gun metal clamps and copper clips for fixing arrangements etc. complete.**

The relevant specification of item no. 7.09 shall be followed except that sand stone shall be pinkish white Dholpur in place of Red sand stone.

- 7.11 **Providing & laying stone cladding in line and level, average 20 mm. thick and length and width not exceeding 1.2 m. & 0.45 m. respectively, Jesalmer stone of approved colour, quality, selected and sorted for uniform colour, in cladding to external and internal surfaces as per design, including 1:2 cement mortar bedding of 12 mm. average thickness, joints are to be filled with approved colour pigments of approved shade & white cement wherever required as specified by Engineer-in-charge etc. complete. The rate should also include for necessary gun metal clamps and copper clips for fixing arrangements etc. complete.**

The relevant specification of item no. 7.09 shall be followed except that Jesalmer stone is used in place of Red sand stone.

- G04 Providing and fixing GI chicken wire mesh of size 12mm size of 22g at the junction of dissimilar surfaces of brick masonry wall and R C C surfaces (such as columns , beams) including necessary nails for fixing etc, complete all as per specifications for all floors/ all levels /at all heights.**

- 1.0 **Material:** Chicken wire mesh having openings 12mm x22 gauge shall be provided as directed.

### 2.0 Workmanship:

- 2.01 The mesh is to be fixed with nails and cement paste at the junctions of different materials (column and brickwork, at beam bottom level- on the face of beam and brickwork) to avoid cracks in the

plaster

s

2.02 Chicken mesh shall be fixed in advance of the plasterwork. Chicken mesh shall be fixed in such a way that it is totally concealed in the plaster. Chicken mesh shall be fixed in such a way that minimum 75mm mesh is provided on either side of the joint. The mesh shall be fixed with both the elements with the help of nail/ screws. Drilling shall be carried out if required in RCC member.

2.03 The mesh shall be over lapped by 15 cms in the length while joining the two pieces of mesh and also at corners.

### 3.00 Mode of measurement and payment:

3.01 The item will be measured and paid in sqm. Only clear visible area will be measured and paid. No extra payment shall be done for over lapping of mesh.

7.13.a **Providing flush Pointing on brick work/ concrete block/ stone masonry with cement mortar 1:2 (1 cement : 2 sand), at all heights with necessary scaffolding ,curing etc complete as per sample approved by Engineer-in-charge.**

1.0 **Materials :** Water shall conform to M-1. Cement mortar shall conform to M-11.

### 2.0 Workmanship :

2.1 The flush pointing work shall be carried out with cement mortar of proportion 1:2 (1 part of cement and 2 parts of coarse sand) by volume.

### 2.2 Preparation of surface :

2.2.1 The joints shall be raked to such a depth that the average of new mortar measured from either the sunk surface of finished pointing or from the edge of the brick shall be average 10 mm.

2.2.2 The joints shall then be cleaned with a wire brush and wetted thoroughly for 6 hours before pointing is commenced.

### 2.3 Application of Mortar & Finishing :

2.3.1 The mortar shall be pressed into the raked out joints with a pointing trowel according to the type of pointing specified in item. The mortar shall not spread over the corner edges or surface of the masonry. The pointing shall then be finished with the pointing tools and horizontal joints false lined with masons string

2.4 **Curing :** The pointing shall be cured for 7 days. During this period, it shall be suitably protected from all damages.

### 3.0 Mode of Measurements and Payment :

3.1 No deductions shall be made for end of joints, beams and posts, etc. for openings not exceeding 0.5 m<sup>2</sup> each and no addition shall be made for reveals, jambs, soffits, sill, etc. of these openings.

3.2 Deductions for openings exceeding 0.5 m<sup>2</sup> but not exceeding 3.0 m<sup>2</sup>. each, shall be paid as follows and no addition shall be made for reveals, jambs, soffits, sills, etc. of these openings.

- (i) When both faces of walls are pointed with same type of pointing deduction shall be made for one face only.
- (ii) When two faces of walls are pointed with different type of pointing or if one face is plastered and the other is pointed, deduction shall be made in the plaster or pointing on the side of frame for door, windows, etc, on which the width of reveals is less than that on the other side but on the other side but no deduction shall be made from plaster or pointing on the other side.
- (iii) When only one face is treated and the other face is not treated, full deduction shall be made, if the width of the reveals on the treated side is less than on the untreated side, but if the width of the reveal is more, then no deduction shall be made nor any addition shall be made for reveals jambs soffits, sills, etc.

3.3 In case of openings of area above 3.0 m<sup>2</sup> each, deduction shall be made for opening but jambs, sills and soffits, shall be measured.

3.4 The rate shall be for an unit of one m<sup>2</sup>. The rate shall include scaffolding etc. complete.

**7.13.b Pointing on brick work with cement mortar 1:2 (1 cement : 2 sand), flush inclined type pointing.**

The relevant specifications of item no. 7.13.a shall be followed except that the pointing shall be flushed inclined instead of flushed.

**7.13.c Pointing on brick work with cement mortar 1:2 (1 cement : 2 sand), grooved pointing.**

The relevant specifications of item no. 7.13.a shall be followed except that the pointing shall be grooved instead of flushed.

**7.13.d Pointing on brick work with cement mortar 1:2 (1 cement : 2 sand), struck pointing.**

The relevant specifications of item no. 7.13.a shall be followed except that the pointing shall be struck instead of flushed.

**7.13.e Pointing on brick work with cement mortar 1:2 (1 cement : 2 sand), V-grooved pointing.**

The relevant specifications of item no. 7.13.a shall be followed except that the pointing shall be V-grooved instead of flushed.

**7.13.f Pointing on brick work with cement mortar 1:2 (1 cement : 2 sand), V-pointing.**

The relevant specifications of item no. 7.13.a shall be followed except that the V-pointing shall be done instead of flushed.

**7.14 Providing cement vata, 10 cm. x 10 cm. size, quarter round concave/ triangular in cement concrete 1:2:4 including neat cement finishing, curing, hacking the RCC surface, etc. complete.**

**1.0 Materials :** Water shall conform to M-1. Cement mortar shall conform to M-11.

**2.0 Workmanship :** The work of cement vata of 10 cm. x 10 cm. size shall be carried out at junctions of parapets and terraces as directed. The vata shall be finished in quarter round shape. The work shall be carried out in the best workman-like manner. The internal portion of rain water pipe shall be rounded off properly during constructing the vata. The work shall be cured for 7

days.

### 3.0 Mode of Measurement and Payment :

3.1 The work shall be measured for finished item in rmt.

3.2 The rate shall be for an unit of one rmt. The rate shall include hacking the RCC surface, curing etc. complete.

7.15a Providing and laying average 10 mm thick single coat Portland cement based Perlite plaster in 1:4 proportion ( 1 part cement and 4 parts perlite aggregate) as per the manufacturers specifications and direction given by Engineer-incharge.

7.15b Providing and laying average 19 mm thick double coat Portland cement based Perlite plaster in 1:4 proportion for both coats ( 1 part cement and 4 parts perlite aggregate) as per the manufacturers specifications and direction given by Engineer-incharge.

7.15c Providing and laying average 22 mm thick three coat Portland cement based Perlite plaster, first and second coat in 1:4 CM (1 cement and 4 parts perlite aggregate) and finishing coat in 1:3 CM (1 cement and 3 parts perlite aggregate) as per the manufacturers specifications and direction given by Engineer-incharge.

### 1.0 Material

Water shall conform to M-1. Cement shall conform to M-3 and Perlite aggregate shall be as per M-72A. Air entraining agent shall be of approved make.

### 2.0 Workmanship:

Relevant specification of item no. 7.01a shall be followed

2.1 **Preparation of surface:** The surface shall be prepared as per item no. 7.01a.

2.2 **Preparation of mortar:** The proportion shall be as per the item description. The mortar shall be mixed on a dry platform. Perlite and Portland cement is mixed in paddle type plaster mixer. Required amount of water approx 0.1 lit/ bag and air entraining agent as per manufactures specification shall be mixed in the mixer followed by cement and mix until slurry is formed.

2.3 Add perlite aggregate to the mix until required wet density is achieved. The thickness of perlite portland cement plaster for single, double and three coat shall be 10mm, 19mm and 22mm respectively. The plaster shall be cured for a period of 48 hours.

### 3.0 Mode of measurement:

Relevant specification of item no. 7.01a shall be followed. Actual area which is plastered shall be paid for. The rate shall be for a unit of one sqm.

**G05 Providing and applying Silicone paint SILRES(R) BS 290 of Wacker -1 liter & 13 liter solvent of recommended make over exposed concrete and brickwork /stone surfaces/Dholpur stone cladding works (Two coats on wet on wet applied ) etc for all places / all levels / all heights complete as directed by the Engineer-in-charge, so as original look does not change. The contractor shall furnish a minimum 5 years guarantee bond on stamp paper.**

**Note: The quoted Rate to be inclusive of the recommended solvent.**

**a) For RCC surface/ natural stone/ exposed brick work.**

**3.0 Mode of Measurement and Payment**

3.1 The item shall be measured and paid in sqm.