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## **1.0 GENERAL**

### **1.1 SCOPE OF WORK**

- .1 Work primarily relates to closing and sealing openings made when performing work relating to fire protection systems.

## **2.0 PRODUCTS**

### **2.1 MATERIALS**

- .1 Wallboard: to ASTM C1396 / C1396M-14, reference product:
  - Grand Prix or CGC type from Armstrong, Certaineed
  - Materials or substitutes: approved by addendum in accordance with instructions to bidders.

Panels : , 6, 13 or 16 mm thick; thickness adjusted on site according to existing clearances, angled ends and feathered, rounded edges. Additives improving resistance to soiling: aluminium tristearate, calcium stearate or ammonium stearate.
- .2 Self-adhesive mesh, joint compound and filler as recommended by gypsum panel manufacturer.
- .3 Reinforcing panels: 13 mm plywood, construction.
- .4 Plaster for initial coats: reference product:
  - Durabond 90 by CGC, Armstrong, Certaineed
  - Materials or substitutes: approved by addendum in accordance with instructions to bidders.
- .5 Plaster for secondary coats: Gypsum finish plaster: to ASTM C28 / C28M-10.
- .6 Finish plaster: Plaster of Paris.
- .7 Metal mesh: galvanized steel.
- .8 Metal furring

### **2.2 MIXTURES**

- .1 Mix plaster to CSA A82.30 and manufacturer's recommendations.

### **2.3 FASTENERS**

- .1 Screws: self-tapping with chromate-based corrosion protection electro-plating (nocorod), 3 mils thick, to ASTM B117 for all new panels affixed to masonry on exterior walls.
- .2 Nails, screws and staples: to CSA A82.31-M91.
- .3 Laminating adhesive: to CSA A82.31-M91.

### **2.4 MISCELLANEOUS ACCESSORIES AND PRODUCTS**

- .1 Casing beads, corner reinforcement: commercial-grade sheet metal, 0.5 mm thick, G90 zining, to ASTM A653 / A653M-13; single-piece perforated flanges. Casing beads to be same as reference product:
  - model 200B by CGC or equivalent from Armstrong, Certaineed
  - Materials or substitutes: approved by addendum in accordance with instructions to bidders.
  - Expansion joint: reference product:
  - CGC No. 093 or equivalent from Armstrong, Certaineed stairwell. Moulding 200B: see details.
  - Materials or substitutes: approved by addendum in accordance with instructions to

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- bidder.
- .2 Bonding agent: CSA A82-31-M91, asbestos-free.
- .3 Finish caulking: tube of paintable latex caulking.

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### **3.0 EXECUTION**

#### **3.1 GYPSUM PANEL INSTALLATION**

- .1 Install gypsum panels after rough bucks, anchors, shims as well as mechanical and electrical installations have been approved.

#### **3.2 ACCESSORIES**

- .1 Erect accessories straight, plumb or level, rigid and at proper plane. Use full-length pieces wherever possible. Make joints tight, accurately aligned and rigidly secured. Mitre and fit corners accurately, free from rough edges. Affix with screws no more than 150 mm apart. Use of contact glue is not permitted.
- .2 Install casing beads around perimeter of specified details.
- .3 Install casing beads where gypsum panels meet surfaces with no joint cover and where indicated. Seal joints with sealant.
- .4 Install fire barrier sealant or fire barrier, as applicable, around all pipes or equipment that cross through or run on a fire barrier separation.

#### **3.3 MESH AND JOINT COMPOUND ON PANELS**

- .1 Finish face panel joints and internal angles with joint system consisting of joint compound, joint tape and taping compound installed according to manufacturer's directions and feathered out onto panel faces. Cover panels completely with a primary coat.
- .2 Cover panels with a second coat of gypsum compound to finish entire surface of panels. This secondary coat should produce a finish similar to that on plaster walls traditionally applied to wooden laths. Thus, surface evenness tolerance may vary from 2 to 5 mm over a rule 1,200 mm in length.
- .3 Allow drying time for aforementioned work; then apply a thin coat of plaster over all surfaces. Sand lightly to remove sharp edges and other imperfections.
- .4 Completed installation to be smooth, level or plumb, free from waves, except for tolerances stipulated in article 2.

**END OF SECTION**

**1 GENERAL****1.1 WORK INCLUDED**

- .1 Steel piping
- .2 Smooth indoor plaster or gypsum, as indicated on drawings

**1.2 RELATED WORK**

- .1 Section 01 52 00 – Construction Facilities

**1.3 CONTROL**

- .1 Retain purchase orders, invoices and other documents to prove that material used meets requirements of specifications.
- .2 Provide Departmental Representative with aforementioned documents upon request.

**1.4 MOCK-UP**

- .1 Perform colour match test and submit to Departmental Representative prior to starting any work.
- .2 All existing colours remain identical for rehabilitation project.

**1.5 DELIVERY AND STORAGE**

- .1 Deliver and store painting materials and equipment in original packaging, ensuring manufacturer's label is kept intact.
- .2 Ensure painting materials and equipment delivered to construction site are dry and stored in same conditions.
- .3 Store painting materials and equipment in well-ventilated location with temperature range between 20 and 30o C.

**1.6 INSPECTION**

- .1 Analyze work site and notify Departmental Representative of structural weaknesses that could compromise safety during work to prepare surfaces for painting.
- .2 Notify Departmental Representative of any abnormal material deterioration on surfaces to be painted discovered during surface preparation.
- .3 Prior to start of work, notify Departmental Representative of any surfaces discovered to be treated, which were not clearly identified on drawings and specifications.
- .4 Steel restoration and cleaning work to be 100% completed in scaffolding sectors before painter begins painting work.

**1.7 CONDITIONS FOR APPLICATION**

- .1 Keep substrate and ambient temperature within limits prescribed by manufacturer.

**1.8 PROTECTION OF EXISTING STRUCTURES**

- .1 Protect all structures and surfaces not subject to work of this section from marks or any other damage. Protect structures adjacent to work from paint splattering. Use non-staining coverings.
- .2 Read Section 01 52 00 – Construction Facilities for instructions on protecting structures before starting painting work.

## **1.9 WORK SCHEDULE**

- .1 Submit work schedule including work start and end dates to Departmental Representative for approval.
- .2 Implement whatever measures necessary to meet deadlines. Change in schedule must be approved by Departmental Representative.
- .3 Co-ordinate execution with other work at site.

## **1.10 SUBSTITUTION**

- .1 Submit proposed product substitutions to Departmental Representative for approval.
- .2 Changing manufacturer brands and sources of painting material supply from those previously approved must be approved by Departmental Representative.
- .3 Submit requests for substitution in writing, and include requested technical data sheets as well as manufacturer's recommendations for products involved, in accordance with stipulations of section 01 33 00.

## **2.0 PRODUCTS**

### **2.1 MATERIALS**

- .1 For execution of work, use painting materials found on list of CGSB-approved products, issued by the *Commission interministérielle d'homologation des produits de peinture*, or according to the prescriptions found therein.
- .2 Paint materials for each coating formulae to be products of a single manufacturer.
- .3 Use paint materials to CGSB standards stipulated in Article 3.3 – Painting systems.
- .4 Water: potable, very clean and free of deleterious materials, salts and deposits.

### **2.2 TOOLS AND EQUIPMENT**

- .1 Provide all scaffolding, ladders, lifting platforms, paint buckets, striker plates, masks and other safety equipment, as well as tools for preparing or adjusting necessary equipment.
- .2 Use long-haired, nylon polyester brushes for all painting work.

### **2.3 MIXING PAINT**

- .1 Paint to be ready for application by brush or roller when received. Use containers with same lot number to ensure identical colour throughout work.
- .2 Obtain Departmental Representative's permission before adding paint thinner to paint for application with a brush or roller.
- .3 Mix paint in full containers up to 25-litre capacity with vibrator-mixer.
- .4 Mix paint in full containers up to 5-litre capacity with rod stirrer.

## **3.0 EXECUTION**

### **3.1 PREPARING FOR EXECUTING WORK**

- .1 Ensure equipment meets safety standards.
- .2 Encourage workers to report hazards inherent to their work.

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- .3 Place safety devices and signs near work area as indicated or directed by Departmental Representative. Once work is complete, post placards to warn public of freshly painted surfaces.

### 3.2 SURFACE PREPARATION

- .1 Before starting to paint, remove light switch covers, electrical outlet covers, surface hardware and all other surface accessories or items that are easily replaceable. Store items with care; clean and replace upon completion of painting work. Ensure no solvent that could permanently affect lacquer finish on hardware is used to clean it. Adequately protect items to remain in place during work, to Departmental Representative's approval.
- .2 Prepare surfaces to CGSB 85-GP-1. Fill nail holes with wood filler to CGSB 1-GP-103.
- .3 Fill or repair nail holes, cracks and scratches to ensure uniform surface after priming coat; when finish coat is transparent, ensure compound is tinted to match finish.
- .4 Inspect factory finishes to ensure surfaces are smooth, free of machining or surface marks and that nail heads are countersunk. Sand knots and sapwood (where painted) with sealant intended for that purpose.
- .5 Sand existing finishes on shiny surfaces to be repainted and refreshed by hand before repainting to ensure base coat adheres properly.

### 3.3 PAINT APPLICATION

- .1 Work to be performed by competent workers with finest quality materials to obtain uniform and meticulous finish.
- .2 Mix, prepare and apply materials under prescribed conditions and according to manufacturer's printed instructions relating specifically to material used and coat to apply. Clear materials as needed, according to manufacturer's printed instructions for specific material and coating.
- .3 Prime all surfaces to be painted.
- .4 Sand and remove dust between application of each layer of paint to correct defects visible from a distance of 1.5 m.
- .5 Upon completion of work, surface finish to be uniform, free of stains, brush or roller strokes, free of differences in colour shade and overlap or paint marks, uniform in lustre and free of all other types of imperfections. Surfaces to be uniformly covered everywhere.

### 3.4 PAINT SYSTEMS

- .1 For metal:
  - .1 Primer coat:, all-purpose anti-corrosion primer,
    - DEVOE, DEVGUARD 4190 series
    - IsoRust 4350/4370 or
    - Sico 922-260.
    - Materials or substitutes: approved by addendum in accordance with instructions to bidders
  - .2 Finish coats: Two (2) finish coats of
    - DEVOE, 379-UVA series or
    - IsoRust 4000 series by MF, or
    - Corrostop 922 series by Sico, aliphatic urethane base, high filling power gloss enamel paint.
    - Materials or substitutes: approved by addendum in accordance with instructions to bidders
- .2 Plaster walls:
  - .1 Primer coat: One coat of primer, 2 to 3 mil thick (DFT), such as
    - Expert latex 870-130 series by Sico or

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- Proline 6070-0 by MF, or
  - Ultra K534 by Benjamin Moore.
  - Materials or substitutes: approved by addendum in accordance with instructions to bidders
- .2 Finish coats: 2 finish coats (3 coats for dark colours) with kitchen and bath latex finish paint for stairwells and hallways, melamine for other walls and flat for ceilings such as
- 875 series by SICO,
  - Expert or Proline 8030 by MF or
  - Ultra K538 by Benjamin Moore.
  - Materials or substitutes: approved by addendum in accordance with instructions to bidders

### **3.5 EXECUTION**

- .1 All painting work to be carried out by qualified personnel, to specifications of this section and product manufacturers' recommendations.

### **3.6 FIELD QUALITY CONTROL**

- .1 Examine surface for adequate preparation.
- .2 Check all materials and ensure they comply with prescriptions.
- .3 Supervise during paint work and ensure work is performed appropriately.
- .4 Measure air humidity rate and comply with manufacturer's prescriptions. Measure humidity in the morning before starting work and toward end of work day.
- .5 Verify surface temperature: verify application temperatures with DEVOE strip thermometer to determine ideal temperature, which may vary between 10 and 35 degrees Celsius.
- .6 Ensure proper ventilation by providing space above and below netting that covers scaffolding; control heat and humidity.

### **3.7 CLEANING**

- .1 Avoid splashing paint on exposed surfaces not to be painted. Clean smears and spatters immediately, using compatible solvent.
- .2 Avoid scuffing newly applied paint.

### **3.8 PROTECTION OF COMPLETED WORK**

- .1 Protect area where paint has been applied.
- .2 When work of this Contract is complete, clear construction site of all remaining materials, tools, equipment and waste. Leave construction site clean and in good order, to Departmental Representative's full satisfaction.

**END OF SECTION**