

**Part 1 General**

**1.1 REFERENCES**

- .1 National Building Code of Canada (NBC).
- .2 Manitoba Building Code (MBC).
- .3 ASTM International
  - .1 ASTM A167-99(2009), Standard Specification for Stainless and Heat-Resisting Chromium-Nickel Steel Plate, Sheet, and Strip.
  - .2 ASTM B456-03, Standard Specification for Electrodeposited Coatings of Copper Plus Nickel Plus Chromium and Nickel Plus Chromium.
  - .3 ASTM A653/A653M-09, Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
  - .4 ASTM A924/A924M-09, Standard Specification for General Requirements for Steel Sheet, Metallic-Coated by the Hot-Dip Process.
- .4 Canadian General Standards Board (CGSB)
  - .1 CAN/CGSB-1.81-M90, Air Drying and Baking Alkyd Primer for Vehicles and Equipment.
  - .2 CAN/CGSB-1.88-92, Gloss Alkyd Enamel, Air Drying and Baking.
  - .3 CGSB 31-GP-107MA-90, Non-inhibited Phosphoric Acid Base Metal Conditioner and Rust Remover.
- .5 CSA International
  - .1 CAN/CSA-B651-04, Accessible Design for the Built Environment.
  - .2 CAN/CSA-G164-M92(R2003), Hot Dip Galvanizing of Irregularly Shaped Articles.

**1.2 ACTION AND INFORMATIONAL SUBMITTALS**

- .1 Product Data:
  - .1 Provide manufacturer's printed product literature and data sheets and include product characteristics, performance criteria, physical size, finish and limitations.
- .2 Shop Drawings:
  - .1 Submit drawings in accordance with E3 – Shop Drawings.
  - .2 Indicate size and description of components, base material, surface finish inside and out, hardware and locks, attachment devices, description of rough-in-frame, building-in details of anchors for grab bars.

**1.3 CLOSEOUT SUBMITTALS**

- .1 Provide maintenance data for toilet and bath accessories for incorporation into manual specified in E5 – Operation and Maintenance Manuals.

#### **1.4 WASTE MANAGEMENT AND DISPOSAL**

- .1 Separate and recycle waste materials in accordance with D14 – Environmental Protection Plan.
- .2 Collect and separate plastic, paper packaging and corrugated cardboard in accordance with waste reduction workplan.

#### **1.5 MAINTENANCE MATERIAL SUBMITTALS**

- .1 Tools:
  - .1 Provide special tools required for assembly, disassembly or removal for toilet and bath accessories in accordance with E5 – Operation and Maintenance Manuals.
  - .2 Deliver special tools to Contract Administrator.

#### **1.6 DELIVERY, STORAGE AND HANDLING**

- .1 Deliver, store and handle materials in accordance with manufacturer's written instructions.
- .2 Delivery and Acceptance Requirements: deliver materials to site in original factory packaging, labelled with manufacturer's name and address.
- .3 Storage and Handling Requirements:
  - .1 Store materials off ground, indoors, in dry location and in accordance with manufacturer's recommendations in clean, dry, well-ventilated area.
  - .2 Store and protect toilet and bathroom accessories from nicks, scratches, and blemishes.
  - .3 Replace defective or damaged materials with new.

### **Part 2 Products**

#### **2.1 MATERIALS**

- .1 Sheet steel: to ASTM A653/A653M with ZF001 designation zinc coating.
- .2 Stainless steel sheet metal: to ASTM A167, Type 304, with bright polished finish.
- .3 Fasteners: concealed screws and bolts hot dip galvanized, exposed fasteners to match face of unit. Expansion shields fibre, lead or rubber as recommended by accessory manufacturer for component and its intended use.

#### **2.2 COMPONENTS**

- .1 Minimum standard is based on the following products as supplied by Frost Products Limited of Burlington, Ontario. Similar products by Bobrick, Bradley, Watrous of same materials, metal gauge and finishes are considered equal.
- .2 Toilet tissue dispenser: double roll type, surface mounted, chrome plated steel frame, capacity of two 500 double ply roll, roll under spring tension for controlled delivery.
  - .1 Acceptable model: Frost model 150 or
  - .2 Approved equal in accordance with B7 – Substitutes.

- .3 Soap dispenser: liquid, push-in valve, self contained 1 L tank, stainless steel piston and valve assembly, tamper proof filler lock, surface mounted, exposed metal components chrome plated.
  - .1 Acceptable material: Frost model 707-1L, or
  - .2 Approved equal in accordance with B7 - Substitutes
- .4 Hand dryer: listed under re-examination service of ULC and CSA approved.
  - .1 Acceptable Product: VERDEdri 208V, Model # Q-974A (White Aluminum cover).
- .5 Shower curtain: 0.178 mm thick translucent vinyl, anti-bacterial fire resistive self extinguishing vinyl laminated fabric shower curtain. Provide curtain hold-back hook and chain at each curtain.
- .6 Shower rods: stainless 38 mm dia. 2 mm wall thickness steel tubing of required length with satin chrome finished flanges, shower curtain hooks and curtain hold-back hook and chain. Shower rod material and anchorage to withstand downward pull of 0.9 kN.
- .7 Fold up seat: Impervious phenolic white slatted seat on folding stainless steel frame mechanism to securely hold seat in folded or unfolded position by means of single handed operation.
  - .1 Acceptable material: Frost model 975
  - .2 Approved equal in accordance with B7 - Substitutes.
- .8 Towel bar: 25 mm diameter chrome plated steel tubing, chrome plated cast brass end brackets, concealed fasteners, 610 mm long.
- .9 Grab bars: 29 mm round profile, brushed stainless steel with knurled or peened non slip finish, concealed stainless steel mounting hardware. Refer to drawings for general arrangement and locations.
  - .1 Acceptable material: Frost 1001 - SP series or
  - .2 Approved equal in accordance with B7 - Substitutes.
- .10 Soap holder: surface mounted, 5 mm thick stainless steel dished tray, self draining, flush screws.
- .11 Robe hook: stainless steel with 75 mm projection.
- .12 Waste receptacle: Wall mounted, rounded corners, 50 litre capacity, tight sealing head and spring loaded door, galvanized removable liner and 26" x 36" bag holding apparatus, white epoxy finish with galvanized liner.
  - .1 Acceptable material: Frost model 303, or
  - .2 Approved equal in accordance with B7 - Substitutes.
- .13 Mirrors: One piece 24 ga stainless steel channel frame assembly, concealed mounting, 4mm glass with shock resistant primary back. Full galvanized back panel. Overall size 450 mm wide x 900 mm high. One over each lavatory and one in shower room area.
  - .1 Acceptable material: Frost model 9416-1836, or
  - .2 Approved equal in accordance with B7 - Substitutes.
- .14 Shelf: surface mounted 150 deep, 400 wide, stainless steel.

- .15 Washroom signage: Durable engraved signage, self-adhesive backing, plastic face, uni-sex symbol. One at washroom door.
  - .1 Acceptable material: Frost model 960 and 961, or
  - .2 Approved equal in accordance with B7 – Submittals.

### **2.3 FABRICATION**

- .1 Weld and grind joints of fabricated components flush and smooth. Use mechanical fasteners only where approved.
- .2 Wherever possible form exposed surfaces from one sheet of stock, free of joints.
- .3 Form surfaces flat without distortion. Maintain flat surfaces without scratches or dents.
- .4 Back paint components where contact is made with building finishes to prevent electrolysis.
- .5 Hot dip galvanize concealed ferrous metal anchors and fastening devices to CAN/CSA-G164.
- .6 Shop assemble components and package complete with anchors and fittings.
- .7 Deliver inserts and rough-in frames to job site at appropriate time for building-in. Provide templates, details and instructions for building in anchors and inserts.
- .8 Provide steel anchor plates and components for installation on studding and building framing.

### **2.4 FINISHES**

- .1 Chrome and nickel plating: to ASTM B456, polished finish.
- .2 Baked enamel: condition metal by applying one coat of metal conditioner to CGSB 31-GP-107Ma, apply one coat Type 2 primer to CAN/CGSB-1.81 and bake, apply two coats Type 2 enamel to CAN/CGSB-1.88 and bake to hard, durable finish. Sand between final coats. Colour selected from standard range by Contract Administrator.
- .3 Manufacturer's or brand names on face of units not acceptable.

## **Part 3 Execution**

### **3.1 EXAMINATION**

- .1 Verification of Conditions: verify that conditions of substrates and surfaces to receive toilet and bathroom accessories previously installed under other Sections or Contracts are acceptable for product installation in accordance with manufacturer's instructions prior to toilet and bathroom accessories installation.
- .2 Inform Contract Administrator of unacceptable conditions immediately upon discovery.
- .3 Proceed with installation only after unacceptable conditions have been remedied and after receipt of written approval from Contract Administrator.

### **3.2 INSTALLATION**

- .1 Install and secure accessories rigidly in place as follows:

- .1 Stud walls: install steel back-plate to stud prior to plaster or drywall finish. Provide plate with threaded studs or plugs.
- .2 Hollow masonry units, existing plaster or drywall: use toggle bolts drilled into cell or wall cavity.
- .3 Solid masonry, marble, stone or concrete: use bolt with lead expansion sleeve set into drilled hole.
- .4 Toilet and shower compartments: use male to female through bolts.
- .2 Install grab bars on built-in anchors provided by bar manufacturer.
- .3 Use tamper proof screws/bolts for fasteners.
- .4 Fill units with necessary supplies shortly before final acceptance of building.
- .5 Install mirrors in accordance with Section 08 80 50 - Glazing.

### **3.3 ADJUSTING**

- .1 Adjust toilet and bathroom accessories components and systems for correct function and operation in accordance with manufacturer's written instructions.
- .2 Lubricate moving parts to operate smoothly and fit accurately.

### **3.4 CLEANING**

- .1 Progress Cleaning:
  - .1 Leave Work area clean at end of each day.
- .2 Final Cleaning: upon completion remove surplus materials, rubbish, tools and equipment.

### **3.5 PROTECTION**

- .1 Protect installed products and components from damage during construction.
- .2 Repair damage to adjacent materials caused by toilet and bathroom accessories installation.

### **3.6 SCHEDULE**

- .1 Locate accessories where indicated on drawings and generally as follows:
- .2 Toilet tissue dispenser: one in washroom.
- .3 Soap dispenser: one at each wash basin.
- .4 Hand dryer: one in each washroom.
- .5 Shower rod and curtain: one at each shower compartment. Mounting height: 1830 mm above finished floor.
- .6 Shower seat: one at each shower, mounting height from floor 450 mm.
- .7 Towel holder: one at each shower, mounting height from floor 1000 mm.
- .8 Grab bar: as shown on drawings.
- .9 Soap holder: one at each shower. Maximum height from floor: 900 mm.

- .10 Robe hook: one in washroom and two in shower, mounting height 1200 mm above finished floor.
- .11 Waste receptacle: one in washroom.
- .12 Mirror: one at each accessible wash basin, see drawings for mounting height.
- .13 Shelf: one in each washroom, mounting height from floor 1000 mm.

**END OF SECTION**

**PART 1 General**

**1.1 REFERENCES**

- .1 American National Standards Institute (ANSI)
  - .1 ANSI/NFPA 10-2010, Portable Fire Extinguishers.
- .2 Underwriters' Laboratories of Canada (ULC)
  - .1 CAN/ULC-S508-M90(R1995), Rating and Fire Testing of Fire Extinguishers and Class "D" Extinguishing Media.

**1.2 ACTION AND INFORMATIONAL SUBMITTALS**

- .1 Submit in accordance with E3 – Shop Drawings.
- .2 Product Data:
  - .1 Submit manufacturer's instructions, printed product literature and data sheets for fire extinguishers and include product characteristics, performance criteria, physical size, finish and limitations.
- .3 Manufacturer's Instructions: provide to indicate special handling criteria, installation sequence, and cleaning procedures.
- .4 Shop Drawings:
  - .1 Indicate on drawings:
    - .1 Equipment and capacity.
    - .2 Dimensions, internal and external construction details, recommended method of installation, sizes and location of mounting bolt holes.
- .5 Closeout Submittals:
  - .1 Provide maintenance data for incorporation into manual specified in E5 - Operation and Maintenance Manuals.

**PART 2 Products**

**2.1 MULTI-PURPOSE DRY CHEMICAL FIRE EXTINGUISHERS**

- .1 Stored pressure rechargeable type with hose and shut-off nozzle, ULC labelled for A, B and C class protection, USCG approved with proper bracket, red powder paint finish, nameplates, rechargeable, pressure gauge, c/w wall mounting bracket.
- .2 Size 4.5 kg.
- .3 Acceptable Product: Pyro-chem or approved equivalent in accordance with B7.
- .4 Refer to drawing M01 for fire extinguisher locations.

**2.2 PRESSURIZED WATER EXTINGUISHER**

- .1 ULC Rating: 2-A, Capacity: 9.5 L, Range: 10.7 m
- .2 Squeeze grip, stainless steel shell and brass chrome-plated valve. Schrader valve allows for easy recharge in the field. Waterproof stainless steel gauge.
- .3 Dimensions: 648 mm height, 229 mm width, 178 mm depth

- .4 Acceptable Product: Pyro-Chem model PWS-25G or approved equivalent in accordance with B7.

### **2.3 EXTINGUISHER BRACKETS**

- .1 Type recommended by extinguisher manufacturer.

### **2.4 IDENTIFICATION**

- .1 Identify extinguishers in accordance with recommendations of NFPA 10.
- .2 Attach tag or label to extinguishers, indicating month and year of installation. Provide space for service dates.

## **PART 3 Execution**

### **3.1 INSTALLATION**

- .1 Install extinguishers in complete accordance with NFPA 10.

**END OF SECTION**



**Part 1 General**

**1.1 REFERENCES**

- .1 Canadian General Standards Board (CGSB)
  - .1 CAN/CGSB-44.40-01, Steel Clothing Locker.

**1.2 ACTION AND INFORMATIONAL SUBMITTALS**

- .1 Product Data:
  - .1 Provide manufacturer's printed product literature and data sheets for metal lockers and include product characteristics, performance criteria, physical size, finish and limitations.
- .2 Shop Drawings:
  - .1 Submit drawings in accordance with E3 – Shop Drawings.
  - .2 Indicate on drawings: type and class of locker, thicknesses of metal, fabricating and assembly methods, assembled banks of lockers, tops, hooks, shelves, bases, trim, numbering, filler panels, end/back panels, doors, handles, locking method, ventilation method and finishes.

**1.3 DELIVERY, STORAGE AND HANDLING**

- .1 Provide and maintain dry, off-ground weatherproof storage.

**Part 2 Products**

**2.1 MANUFACTURED UNITS**

- .1 Lockers: to CAN/CGSB-44.40, Type 1-Single full-height locker, Class 2 - A bank of two or more lockers, freestanding.
  - .1 Size: 305 mm wide x 380 mm deep x 1829 mm high, steel thickness No. 16 MSG.
  - .2 Assembly: welded, bolted construction.
  - .3 Top: sloped.
  - .4 Doors: one-piece double-wall envelope construction No .20 MSG.
  - .5 Door handle: recessed handle steel with nickel-plated finish.

**2.2 ACCESSORIES**

- .1 Locking system: padlocks or cylinder locks supplied by The City.
- .2 Options: to CAN/CGSB-44.40, hanger rods, steel base, steel trim including corner angles, number plates, coat hooks.

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**Part 3 Execution**

**3.1 EXAMINATION**

- .1 Verification of Conditions: verify conditions of substrates and surfaces to receive metal lockers previously installed under other Sections or Contracts are acceptable for product installation in accordance with manufacturer's instructions prior to metal locker installation.
- .2 Inform Contract Administrator of unacceptable conditions immediately upon discovery.
- .3 Proceed with installation only after unacceptable conditions have been remedied.

**3.2 INSTALLATION**

- .1 Assemble and install lockers in accordance with manufacturer's written instructions.
- .2 Securely fasten lockers to grounds and nailing strips.
- .3 Install wall trim around recessed locker banks.
- .4 Install filler panels (false fronts) where indicated and where obstructions occur.
- .5 Install finished end panels to exposed ends of locker banks.
- .6 Install locker numbers.

**3.3 ADJUSTING**

- .1 Adjust metal lockers for correct function and operation in accordance with manufacturer's written instructions.
- .2 Lubricate moving parts to operate smoothly and fit accurately.

**3.4 CLEANING**

- .1 Progress Cleaning: Leave Work area clean at end of each day.
- .2 Final Cleaning: upon completion remove surplus materials, rubbish, tools and equipment.

**3.5 PROTECTION**

- .1 Protect installed products and components from damage during construction.
- .2 Repair damage to adjacent materials caused by metal locker installation.

**END OF SECTION**