

---

## **Part 1      General**

### **1.1          Related Work**

- .1      Section [01 33 00 - Submittal Procedures].
- .2      Section [01 74 21 - Construction/Demolition Waste Management and Disposal].
- .3      Section [01 78 00 - Closeout Submittals].

### **1.2          References**

- .1      Aluminum Association, Inc. (AA)
  - .1          Designation System for Aluminum Finishes -[1997].
- .2      American Society for Testing and Materials (ASTM)
  - .1          ASTM A653/A653M-[01a], Standard Specification for Steel Sheet, Zinc-Coated, (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
  - .2          ASTM B32-[00], Standard Specification for Solder Metal.
  - .3          ASTM B456-[95], Standard Specification for Electrodeposited Coatings of Copper Plus Nickel Plus Chromium and Nickel Plus Chromium.
- .3      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.
  - .4          CGSB 41-GP-6M-[1983], Sheets, Thermosetting Polyester Plastics, Glass Fibre Reinforced. Reaffirmation of September 1976.
- .4      Canadian Standards Association (CSA)
  - .1          CAN/CSA-G164-[M92(R1998)], Hot Dip Galvanizing of Irregularly Shaped Articles.
  - .2          CSAW47.2-[M1987(R1998)], Certification of Companies for Fusion Welding of Aluminum.
  - .3          CSA W59-[M1989(R2001)], Welded Steel Construction (Metal Arc Welding) (Imperial Version).
  - .4          CSA W59.2-[M1991(R1998)], Welded Aluminum Construction.
- .5      Canadian Sheet Steel Building Institute (CSSBI)
  - .1          Sheet Steel Facts # 6, Metallic Coated Sheet Steel for Structural Building Products-[July 1995].
- .6      The Master Painters Institute (MPI)
  - .1          Architectural Painting Specification Manual - [March 1998].

---

**1.3 Shop Drawings**

- .1 Submit shop drawings in accordance with Section [01 33 00 - Submittal Procedures].
- .2 Submit shop drawings, catalogue sheets [and] [full size templates].
- .3 Indicate materials, thicknesses, sizes, finishes, colours, construction details, removable and interchangeable components, mounting methods, and schedule of signs.
- .4 Submit [full size templates] for individually fabricated [or incised] lettering indicating word and letter spacing.

**1.4 Samples**

- .1 Submit samples in accordance with Section [01 33 00 - Submittal Procedures].
- .2 Submit representative sample of sign, sign image and mounting method.

**1.5 Quality Assurance**

- .1 Welding Certification in accordance with CSA W47.2.

**1.6 Waste Management and Disposal**

- .1 Separate and recycle waste materials in accordance with Section 01 74 21 - Construction/Demolition Waste Management and Disposal.
- .2 Remove from site and dispose of all packaging materials at appropriate recycling facilities.
- .3 Collect and separate for disposal [paper], [plastic], [polystyrene] and [corrugated cardboard] packaging material [in appropriate on-site bins] for recycling in accordance with Section 01 74 21 - Construction/Demolition Waste Management and Disposal.
- .4 Place materials defined as hazardous or toxic in designated containers.
- .5 Divert unused [metal] [and] [wiring] materials from landfill to metal recycling facility as approved by [Contract Administrator].
- .6 Unused paint or coating material must be disposed of at an official hazardous material collections site as approved by [Contract Administrator].
- .7 Fold up metal banding, flatten and place in designated area for recycling.
- .8 Do not dispose of unused paint material into sewer system, into streams, lakes, onto ground or in any other location where it will pose health or environmental hazard.

**1.7 Maintenance Data**

- .1 Provide maintenance data for illuminated signs for incorporation into manual specified in Section [01 78 00 - Closeout Submittals].

---

## Part 2 Products

### 2.1 Materials

- .1 Sheet aluminum: [anodizing] quality.
- .2 Prefinished sheet aluminum: [plain] [embossed] utility sheet with manufacturer applied baked enamel finish to designation AA [\_\_\_\_], [0.25] mm thick on face and [0.0076] mm thick on back.
- .3 Welding materials: to CSA W59.
- .4 Solder: to ASTM B32, Type [Sn50].
- .5 Adhesives, paints, sealants and solvents for sheet: type recommended by sheet manufacturer for applicable condition.
- .6 Acrylic top-coat: clear, non-yellowing, exterior grade, satin finish, acrylic polyester resin protective coating, compatible with [metal] surface of type recommended by sheet manufacturer.
- .7 Bituminous paint: to MPI [EXT 5.4D].

### 2.2 Sign Graphics

- .1 Sign graphics to be well defined, arranged for balanced appearance, and properly word and letter spaced.
- .2 Cut and spray process: mask surfaces, accurately cut-out image, then spray apply uniform coating to obtain [translucent] finish as selected by Contract Administrator.

### 2.3 Cut-Out Letters

- .1 Cut letters [and symbols] from [plain], [aluminum sheet].
- .2 [Optima] typeface, upper case; sizes and thicknesses as indicated. Make corners [cutter radius].
- .3 After fabrication finish aluminum with [anodizing] – Colour to be selected by Contract Administrator.
  - .1 Submit samples including, but not limited to: Clear anodized and Bronze anodized.

### 2.4 Channel Letter Signs

- .1 Prepare letters for, and supply non-corrosive, non-staining mounting hardware to [Contract Administrator's] approval:
  - .1 Style: Optima, typeface, Upper Case, Small Caps.
  - .2 Height: Large Cap (first of each word) to be 610mm.
  - .3 Depth: 38mm hollow depth.
  - .4 Material: Aluminium Sheet

- .5 Material Thickness:
- .6 Finish: Anodized finish. To be approved by Contract Administrator.
- .7 Mounting Method:

## 2.5 Wall Plates

- .1 Metal wall plates:
  - .1 Fabricate from [extruded] [sheet] aluminum sign plates, minimum [3.2] mm [4.8] mm [6.4] mm thick, with [[clear] [colour] anodized] [baked enamel] finish. Sizes as indicated.
  - .2 Sign graphics: apply by [silk screen] [engraving] [self-stick vinyl letters].
- .2 Fixed mounting: prepare wall plates for fixing by [surface fasteners with rosette covers] [concealed tamperproof clips to [Engineer's] [Contract Administrator's] approval] [self-stick foam tape]. Include back-up plates for fixing to uneven surfaces where required.
- .3 Bracket mounting: fabricate brackets for wall projecting or ceiling suspended sign plates as detailed: of [[clear] [white translucent] acrylic] ] [[clear] [coloured] anodized aluminum], [4.8] mm thick.

## 2.6 Door Plates

- .1 Fabricate sign faces of [clear] [colour] [acrylic sheet] [fibreglass] [sheet] [extruded] [[clear] [colour] anodized aluminum]. Size [[\_] x [\_] x [\_] mm thick] [as indicated].
- .2 Sign graphics: apply by [silk screen] [engraving] [self-stick vinyl letters].
- .3 Interchangeable mounting: supply door plates with approved type, semi-concealed, retaining holders that permit quick but vandal-resistant interchange of sign face. No exposed fasteners permitted. Exposed portions to match sign face.
- .4 Fixed mounting: use self-stick foam tape.
- .5 Mounting on transparent surfaces: use self-stick foam tape. Include blank back-up plate for opposite side.
- .6 Washroom pictographs: cut-out figures without backgrounds.

## 2.7 Number Plates

- .1 Fabricate number plates for [columns] [doors] [windows] of engraving sheet. Size [\_] x [\_].
- .2 Engrave [9.5] mm high, single line numerals incised to expose contrasting coloured core.

## 2.8 Fabrication

- .1 Fabricate signs in accordance with details, specifications and shop drawings.
- .2 Build units square, true, accurate to size, free from visual or performance defects.

- .3 Accurately fit and securely join sections to obtain tight, closed joints.
- .4 Allow for thermal movement without distortion of components.
- .5 Exposed fasteners permitted only where indicated or approved by [Contract Administrator] and to be inconspicuous and same finish and colour as base material, or as noted.
- .6 Polish exposed edges of [metal] to smooth, slightly convex profile.
- .7 Do [steel welding to CSA W59] [and] [aluminum welding to CSA W59.2]. Finish exposed welds flush and smooth.
- .8 Apply bituminous paint to aluminum in contact with dissimilar metals, concrete or masonry.
- .9 Manufacturer's nameplates on sign surface locations visible in completed work not acceptable.

## **2.9 Finishes**

- .1 Anodized aluminum:
  - .1 Clear finish: to designation AA-DAF in uncoloured anodized finish with film thickness of [\_\_\_\_].
  - .2 Colour finish: to designation AA-DAF to [Contract Administrator's] approval.
- .2 Galvanized finish: on irregular shaped articles, [381] g/m<sup>2</sup> zinc coating to CAN/CSA G164.

## **Part 3 Execution**

### **3.1 Installation**

- .1 Erect and secure signs plumb and level at elevations [indicated] and [as directed by [Contract Administrator]].
- .2 Comply with sign manufacturer's installation instructions and approved shop drawings.
- .3 Mechanical attachment:
  - .1 To concrete or solid masonry use lag screws and expansion bolts or screws and fibre plugs, as appropriate for stresses involved.
  - .2 To hollow masonry use toggle bolts or equivalent.
  - .3 To steel use bolts with nut and lock washers, self-tapping screws.
    - .1 Do [steel welding to CSA W59] [and] [aluminum welding to CSA W59.2]. Finish exposed welds flush and smooth.
  - .4 To wood use screws.
  - .5 Secure into framing members behind stud walls or above ceilings.
  - .6 Mechanical fasteners on exterior to be non-staining, non-ferrous type.

- 
- .7 Fabricate special fasteners as required for installation conditions.
  - .8 Mechanical fasteners and methods of attachment subject to Contract Administrator 's approval. Obtain Contract Administrator 's approval before fixing to structural steel.
- .4 Adhesive attachment:
- .1 Use self-stick adhesive foam tape to manufacturer's instructions to adequately fix sign and prevent "rocking". Keep tape maximum [1.6] mm from edges.

**3.2 Cleaning**

- .1 Leave signs clean.
- .2 Touch up any damaged finishes.

**END OF SECTION**

## **Part 1 General**

### **1.1 Related Sections**

- .1 Section 01 33 00 - Submittal Procedures.
- .2 Section 01 45 00 - Quality Control.
- .3 Section 01 74 21 - Construction/Demolition Waste Management and Disposal.
- .4 Section 10 28 10 - Toilet And Bath Accessories.

### **1.2 References**

- .1 American Society for Testing and Materials International, (ASTM).
  - .1 ASTM A167-99, Specification for Stainless and Heat-Resisting Chromium-Nickel Steel Plate, Sheet, and Strip.
  - .2 ASTM A240/A240M-02, Specification for Chromium and Chromium-Nickel Stainless Steel Plate, Sheet, and Strip for Pressure Vessels and for General Applications.
  - .3 ASTM A480/A480M-03, Specification for General Requirements for Flat-Rolled Stainless and Heat Resisting Steel Plate, Sheet, and Strip.
  - .4 ASTM A653/A653M-02a, Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
- .2 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 CAN/CGSB-1.104M-91, Semigloss Alkyd, Air Drying and Baking Enamel.
- .3 Canadian Standards Association (CSA International).
  - .1 CAN/CSA-B651-95(R2001), Barrier-Free Design.

### **1.3 Submittals**

- .1 Product Data:
  - .1 Submit manufacturer's printed product literature, specifications and data sheet in accordance with Section 01 33 00 - Submittal Procedures.
  - .2 Submit two copies of WHMIS MSDS - Material Safety Data Sheets in accordance with Section 01 33 00 - Submittal Procedures. Indicate VOC's:
    - .1 For caulking materials during application and curing.
- .2 Shop Drawings:
  - .1 Submit shop drawings in accordance with Section 01 33 00 - Submittal Procedures.

- .2 Indicate fabrication details, plans, elevations, hardware, and installation details.
- .3 Manufacturer's Instructions:
  - .1 Submit manufacturer's installation instructions.
- .4 Manufacturers' Field Reports: submit copies of manufacturers' field reports.

#### **1.4 Quality Assurance**

- .1 Test Reports: certified test reports showing compliance with specified performance characteristics and physical properties.
- .2 Certificates: product certificates signed by manufacturer certifying materials comply with specified performance characteristics and criteria and physical requirements.
- .3 Pre-Installation Meetings: conduct pre-installation meeting to verify project requirements, manufacturer's installation instructions and manufacturer's warranty requirements.

#### **1.5 Waste Management and Disposal**

- .1 Separate and recycle waste materials in accordance with Section 01 74 21 - Construction/Demolition Waste Management and Disposal.
- .2 Remove from site and dispose of packaging materials at appropriate recycling facilities.
- .3 Collect and separate for disposal paper, plastic, polystyrene, corrugated cardboard, packaging material in appropriate on-site bins for recycling in accordance with Section 01 74 21 - Construction/Demolition Waste Management and Disposal.

### **Part 2 Products**

#### **2.1 Acceptable Products**

- .1 Hadrian, overhead braced.
- .2 GSS, overhead braced.
- .3 Shanahan, overhead braced.

#### **2.2 Materials**

- .1 Metal toilet partitions.
  - .1 Acceptable material: Powder coated galvaneal steel.
- .2 Sheet steel: commercial quality to ASTM A 480 with ZF001 designation zinc coating.
- .3 Minimum base steel thickness:
  - .1 Panels and doors: 0.8 mm galvaneal.
  - .2 Pilasters: 0.9 mm galvaneal.



- .3 Reinforcement: 3.0 mm galvanized.
- .4 Stainless steel sheet metal: to ASTM A 167, Type 304, with #4 finish.
- .5 Headrails: 25mm by 41 mm with wall thickness of 1.5 mm, clear anodized, extruded aluminum, anti grip design, preformed socket brackets, rigid installation.
- .6 Pilaster shoe: 0.8 mm stainless steel, 75 mm high, Type 304, with #4 finish.
- .7 Attachment: stainless steel tamperproof type screws and bolts.

### **2.3 Components**

- .1 Hinges:
  - .1 Heavy duty chrome plated wrap-around non-ferrous alloy castings.
  - .2 Latching: Chrome plated non-ferrous slide bolt type with combination door stop and keeper.
  - .3 Swing: outward except as shown otherwise.
  - .4 Return movement: upper and lower gravity type hinge.
  - .5 Adjustable to hold door open at any angle up to 90°.
  - .6 Emergency access feature.
- .2 Barrier free latch set: concealed, combination latch, door-stop, keeper and bumper, chrome plated non-ferrous, emergency access feature.
- .3 Wall and connecting brackets: heavy-duty chrome plated non-ferrous extrusion or die-cast ZAMAC.
- .4 Coat hook: combination hook and 19 mm  $\varnothing$  rubber door bumper, chrome plated non-ferrous casting.
- .5 Door pull: Barrier-free type suited for all out swinging doors, chrome plated non-ferrous.

### **2.4 Fabrication**

- .1 Doors, panels and screens: 25 mm thick, two steel sheets faces pressure bonded to honeycomb core:
  - .1 Dividing panel: 1460 mm high by width shown.
  - .2 Standard door: 1460 mm high by width shown.
  - .3 Barrier free door: 813 mm wide x 1460 mm high.
- .2 Pilasters: 32 mm thick, constructed same as door.
- .3 Provide formed and closed edges for doors, panels and pilasters. Miter and weld corners and grind smooth.
- .4 Provide internal reinforcement at areas of attached hardware and fittings. Temporarily mark location of reinforcement for tissue holders and grab bars.

- .5 Provide 0.8 mm thick type 304 stainless steel protective shields on urinal side of toilet floor mounted partition panels next to urinals and on urinal screens. Make protective shields 1000 mm high with top of shield 1200 mm above finished floor. Make shields to full width of partition or screen panel. Fasten with stainless steel screws.

## **2.5 Finishes**

- .1 Clean, degrease and neutralize steel components with phosphate or chromate treatment.
- .2 Apply primer to CAN/CGSB-1.81, 1 coat.
- .3 Finish with a high performance powder coating, electrostatically applied and oven cured to provide a uniform, smooth protective finish.
- .4 Finish: doors and pilaster/panels same colour as selected from manufacturer's standard colours, total two colours for project.
- .5 Colour selected from a choice of colour range including textures as shown by manufacturer.

## **Part 3 Execution**

### **3.1 Manufacturer's Instructions**

- .1 Compliance: comply with manufacturer's written data, including product technical bulletins, product catalogue installation instructions, product carton installation instructions, and data sheets.

### **3.2 Installation**

- .1 Ensure supplementary anchorage, if required, is in place.
- .2 Do work in accordance with CAN/CSA-B651.

### **3.3 Erection**

- .1 Partition erection.
  - .1 Install partitions secure, plumb and square.
  - .2 Leave 12 mm space between wall and panel or end pilaster.
  - .3 Anchor mounting brackets to masonry/concrete surfaces using screws and shields: to hollow walls using bolts and toggle type anchors, to steel supports with bolts in threaded holes.
  - .4 Attach panel and pilaster to brackets with through type sleeve bolt and nut.
  - .5 Provide for adjustment of floor variations with screw jack through steel saddles made integral with pilaster. Conceal floor fixings with stainless steel shoes.
  - .6 Equip each door with hinges, latch set, and each stall with coat hook mounted on door, mounting heights 1600 mm. Adjust and align hardware for easy, proper

- function. Set door open position at 30° to front full open. Install door bumper mounting.
- .7 Equip all out swinging doors with door pulls on inside and outside of door in accordance with CAN/CSA-B651.
  - .8 Install hardware and grab bars.
- .2 Floor supported partition erection.
- .1 Secure pilasters to floor with pilaster supports anchored with minimum 50 mm penetration in structural floor.
  - .2 Level, plumb and tighten installation with leveling device.
  - .3 Secure pilaster shoes in position.
  - .4 Set tops of doors level with tops of pilasters when doors are in closed position.
- .3 Screens erection.
- .1 Wall by others.
  - .2 Stainless steel sheet mounted to side of gypsum wall.
    - .1 Size: 600 mm x 600 mm.
    - .2 Attachment: adhesive.

### **3.4 Field Quality Control**

- .1 Have manufacturer of products supplied under this Section review Work involved in handling, installation/application, protection and cleaning of its products, and submit written reports in acceptable format to verify compliance of Work with Contract.
- .2 Manufacturer's field services: provide manufacturer's field services consisting of product use recommendations and periodic site visits for inspection of product installation in accordance with manufacturer's instructions.
- .3 Schedule site visits to review Work at stages listed:
  - .1 After delivery and storage of products, and when preparatory Work on which Work of this Section depends is complete, but before installation begins.
  - .2 Twice during progress of Work at 25% and 60% complete.
  - .3 Upon completion of Work, after cleaning is carried out.
- .4 Obtain reports within three days of review and submit.

### **3.5 Adjusting**

- .1 Adjust doors and locks for optimum, smooth operating condition.
- .2 Lubricate hardware and other moving parts.

### **3.6 Cleaning**

- .1 Perform cleaning after installation to remove construction and accumulated environmental dirt.
- .2 Clean surfaces after installation using manufacturer's recommended cleaning procedures.

- .3 Clean aluminum with damp rag and approved non-abrasive cleaner.
- .4 Clean and polish hardware and stainless components.
- .5 Upon completion of installation, remove surplus materials, rubbish, tools and equipment barriers.

**END OF SECTION**

## **Part 1      General**

### **1.1      Related Sections**

- .1      Section 01 33 00 - Submittal Procedures.
- .2      Section 01 74 21 - Construction/Demolition Waste Management and Disposal.
- .3      Section 08 80 50 - Glazing: Mirrors.

### **1.2      References**

- .1      American Society for Testing and Materials (ASTM)
  - .1      ASTM A167-99, Standard Specification for Stainless and Heat-Resisting Chromium-Nickel Steel Plate, Sheet, and Strip.
  - .2      ASTM B456-95, Standard Specification for Electrodeposited Coatings of Copper Plus Nickel Plus Chromium and Nickel Plus Chromium.
  - .3      ASTM A653/A653M-99, Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
  - .4      ASTM A924/A924M-99, Standard Specification for General Requirements for Steel Sheet, Metallic-Coated by the Hot-Dip Process.
- .2      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      CAN/CGSB-12.5-M86, Mirrors, Silvered.
  - .4      CGSB 31-GP-107Ma-90, Non-inhibited Phosphoric Acid Base Metal Conditioner and Rust Remover.
- .3      Canadian Standards Association (CSA)
  - .1      CAN/CSA-B651-95, Barrier-Free Design.
  - .2      CAN/CSA-G164-M92, Hot Dip Galvanizing of Irregularly Shaped Articles.

### **1.3      Shop Drawings**

- .1      Submit shop drawings in accordance with Section 01 33 00 - Submittal Procedures.
- .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.

### **1.4      Samples**

- .1      Submit samples in accordance with Section 01 33 00 - Submittal Procedures.
- .2      Samples to be returned for inclusion into work.

**1.5 Closeout Submittals**

- .1 Provide maintenance data for toilet and bath accessories for incorporation into manual specified in Section 01 78 00 - Closeout Submittals.

**1.6 Waste Management And Disposal**

- .1 Separate and recycle waste materials in accordance with Section 01 74 21 - Construction/Demolition Waste Management and Disposal.
- .2 Collect and separate plastic, paper packaging and corrugated cardboard in accordance with Waste Management Plan.

**1.7 Extra Materials**

- .1 Provide special tools required for accessing, assembly/disassembly or removal for toilet and bath accessories in accordance with requirements specified in Section 01 78 00 - Closeout Submittals.
- .2 Deliver special tools to Contract Administrator.

**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.
- .3 Stainless steel tubing: Type, commercial grade, seamless welded, 1.2 mm wall thickness.
- .4 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 Toilet tissue dispenser: double roll type, surface mounted, heavy duty cast aluminum, capacity of 2000 sheets, roll under spring tension for controlled delivery.
  - .1 Acceptable material: Bobrick, B-2740 or approved alternative.
- .2 Combination towel dispenser/waste receptacle: recessed wall unit, approximately 355 mm wide, 710 mm high, 100 mm deep. Interior of 0.8 mm galvanized steel, exterior of 0.8 mm stainless steel. Suitable for dispensing folded or roll paper towels. Removable galvanized steel waste receptacle, lockable access door with continuous full height stainless steel hinge.
  - .1 Acceptable material: Bobrick, B-4369 or approved alternative.
- .3 Soap dispenser: liquid or lotion soaps push button valve 64 mm spout, self contained 1.50 L refill tank, polymer, grey colour, wall mounted.

- .1 Acceptable material: Bobrick, B-5090 Matrix series antibacterial soap dispenser or approved alternative.
- .4 Feminine napkin disposal bin: 0.8 mm gauge stainless steel, surface unit including rough-in frame, continuous hinged door, self closing, embossed with "napkin disposal" "receptacle de serviette-sanitaire " universally accepted symbol, removable stainless steel receptacles fitted with spring clip for deodorizer block.
  - .1 Acceptable material: Bobrick, B-254 or approved alternative.
- .5 Grab bars: 40 mm dia x 915 mm long x 1.6 mm wall tubing of stainless steel, 76 mm diameter wall flanges, concealed screw attachment, flanges welded to tubular bar, provided with steel back plates and all accessories. Knurl bar at area of hand grips. Grab bar material and anchorage to withstand downward pull of 2.2 kN.
  - .1 Acceptable material: Bobrick B-5806 or approved alternative.
- .6 Channel Frame Mirrors: wall mounted unit, 6 mm to CAN/CGSB-12.5, stainless steel frame. Size: 457 mm x 762 mm.
  - .1 Acceptable material: Bobrick, B-165-1830 or approved alternative.
- .7 Electrical Automatic Hand Dryer:
  - .1 Acceptable material: Bobrick B-710 or approved alternative.
- .8 Deodorant block holders.
  - .1 .1 Acceptable material: Bobrick or approved alternative.

### **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 Brake form sheet metal work with 1.5 mm radius bends.
- .4 Form surfaces flat without distortion. Maintain flat surfaces without scratches or dents.
- .5 Back paint components where contact is made with building finishes to prevent electrolysis.
- .6 Hot dip galvanize concealed ferrous metal anchors and fastening devices to CSA G164.
- .7 Shop assemble components and package complete with anchors and fittings.
- .8 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.
- .9 Provide steel anchor plates and components for installation on studding and building framing.

### **2.4 Finishes**

- .1 Chrome and nickel plating: to ASTM B456, satin 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 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 Wood block in stud wall.
- .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.

### **3.2 Schedule**

- .1 Locate accessories where indicated and as follows:
  - .1 Toilet tissue dispenser: one in each toilet compartment mounting height 600 mm F.F.F.
  - .2 Combination towel dispenser/waste receptacles: one in men's washroom where indicated. Maximum height of dispenser and operable part from floor 1200 mm.
  - .3 Wall mounted Soap dispenser: Wall mounted dispenser. Locate one between two sinks and 2 as a minimum.
  - .4 Feminine napkin disposal bin: one in the Female toilet compartment mounting height 1220 mm F.F.F.
  - .5 Grab bar: two in each handicapped toilet compartment. Height of grab bar from floor 750 mm. Side grab bar: maximum distance from rear wall 300 mm, minimum distance passed front edge of toilet 450 mm.
  - .6 Deodorant block holders: one for two urinals.
  - .7 Mirror: one over each wash basin, height of bottom edge of mirror from floor 1100 mm. Washroom 125 only. Public washrooms mirrors under Section 08 80 50 – Glazing.
  - .8 Mount one electrical hand dryer in each Washroom on the Main floor.

**END OF SECTION**



## **Part 1      General**

### **1.1          Related Sections**

- .1      Section 01 33 00 - Submittal Procedures.
- .2      Section 01 74 21 - Construction/Demolition Waste Management and Disposal.
- .3      Section 01 78 00 - Closeout Submittals.
- .4      Section 06 10 00 – Rough Carpentry.
- .5      Section 09 91 23 – Painting.

### **1.2          References**

- .1      American National Standards Institute (ANSI)
  - .1          ANSI/NFPA 10-1998, 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.

### **1.3          Shop Drawings and Product Data**

- .1      Submit shop drawings and product data in accordance with Section 01 33 00 - Submittal Procedures.

### **1.4          Closeout Submittals**

- .1      Provide maintenance data for incorporation into manual specified in Section 01 78 00 - Closeout Submittals.

## **Part 2      Products**

### **2.1          Extinguisher Brackets**

- .1      Type recommended by extinguisher manufacturer.

### **2.2          Cabinets**

- .1      Semi-recessed type as indicated, constructed of 1.6 mm thick steel, 180 ø opening door of 2.5 mm thick steel with latching device.
- .2      Cabinet to maintain fire resistive rating of construction in which they occur.
- .3      Cabinet door: with 5 mm full glass panel.
- .4      Finish:

- .1 Tub: prime coated.
- .2 Door and frame: No.4 satin finish stainless steel.

### **2.3 Identification**

- .1 Identify extinguishers in accordance with recommendations of ANSI/NFPA 10 CAN/ULC-S508.
- .2 Attach bilingual tag or label to extinguishers, indicating month and year of installation. Provide space for service dates.

## **Part 3 Execution**

### **3.1 Installation**

- .1 Install or mount extinguishers in cabinets:
  - .1 Relocate existing extinguishers from Mutipurpose Room to Gymnasium 114.
  - .2 Quantity: 2.
  - .3 Construct and install new cabinets.

**END OF SECTION**