Part 1 General

1.1 REFERENCES

.1 Canadian General Standards Board (CGSB)

.1 CGSB 41-GP-6M-1983, Sheets, Thermosetting Polyester Plastics, Glass Fibre Reinforced.

.2 Canadian Standards Association (CSA International)

.1 CAN/CSA-G164-M92(R2003), Hot Dip Galvanizing of Irregularly Shaped Articles.

.3 Health Canada/Workplace Hazardous Materials Information System (WHMIS)

.1 Material Safety Data Sheets (MSDS).

1.2 ACTION SUBMITTALS

.1 Provide submittals in accordance with Section 01 33 00 - Submittal Procedures.

.2 Shop Drawings:

.1 Submit shop drawings, catalogue sheets and full size templates.

.2 Indicate materials, thicknesses, sizes, finishes, colours, construction details, removable and interchangeable components, mounting methods, schedule of signs.

.3 Submit full size templates for individually fabricated or incised lettering indicating word and letter spacing.

.3 Samples:

.1 Submit duplicate representative sample of each type of sign, sign image and mounting method including, but not limited to: graphics, cast letters, sign box installation method, channel letters, and wall plates fixed mounting installation method.

.4 Mock-up:

.1 Provide mock-up in accordance with Section 01 45 00 – Quality Control.

.2 Install door signage and wall signage at locations instructed by Departmental Representative. After review and approved by Departmental Representative signage may stay and be incorporated into the Work.

1.3 INFORMATIONAL SUBMITTALS

.1 Product Data:

.1 Submit manufacturer's printed product literature panel signage or components, specifications and datasheet and include product characteristics, performance criteria, physical size, finish and limitations.

.2 Manufacturer's Instructions: submit manufacturer's installation instructions and special handling criteria, installation sequence, and cleaning procedures.

1.4 CLOSEOUT SUBMITTALS

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

1.5 DELIVERY, STORAGE AND HANDLING

.1 Deliver, store and handle materials in accordance with Section 01 61 00 - Common Product Requirements.

.2 Packaging Waste Management:

.1 Remove for reuse and return by manufacturer of pallets, crates, paddling, and packaging materials in accordance with Section 01 74 21 - Construction/Demolition Waste Management and Disposal.

Part 2 Products

2.1 MATERIALS

.1 Acrylic sheet: polymethylmethacrylate (PMMA) cast sheet suitable for intended use in sign fabrication, colours to be provided.

.2 Engraving sheet: 2-ply laminated colour plastic engraving sheet (lamicoid), white core, thickness as indicated.

.3 Self-stick foam tape: 2.4 mm thick, 352.4 kg/m^3 density polyurethane open-cell foam tape for sign purposes, with synthetic self-stick adhesive on both sides.

.1 Width: to suit sign sizes.

2.2 SIGN GRAPHICS

.1 Sign graphics: well defined, arranged for balanced appearance, and properly word and letter spaced.

2.3 ROOM IDENTIFICATION SIGNS

.1 Signs are to be 50 x 250 mm x 1.6 mm thick, two-ply laminated colour plastic engraving sheet.

.2 Each sign is to be engraved through face material to expose core. Colours to be selected from manufacturer's complete range of colours.

.3 Signs to be complete with drilled holes and tamperproof screws for anchoring.

.4 Confirm signage lettering and location prior to fabrication.

.5 CMYK colours to be provided by Departmental Representative. Signage graphic to be based on one background colour(white) and four logo colours.

.6 The signage typeface is based on Helvetica medium.

2.4 DOOR NUMBER SIGNS

.1 Sign Holder: Channel sign holder fabricated from 4.0 mm plastic back, routed out for insert and 2.0 mm clear acrylic face plate.

.2 Size: 50mm high x 100 mm wide. Size of routed out area: 37 mm high x 100 mm wide x 2 mm deep.

.5 Inserts: 1.6 mm thick, two-ply laminated colour plastic engraving sheet, in colours as selected from manufacturer's standard range.

.6 Fastenings: 2.4 mm thick, 352.4 kg/m³ density polyurethane open cell foam tape for sign purposes, with synthetic self-stick adhesive on both sides.

.7 Sign holders are to be installed one above the other, where multiple signs are required. All sign holders are to be the same length, length as specified except where the text would require a sign of greater length.

.8 Obtain specific sign instructions from Departmental Representative before fabrication.

2.5 WALL PLATES

.1 Plastic wall plates:

.1 Fabricate from two-ply laminated colour plastic engraving sheet, 2.4 mm total thickness. Sizes as indicated on drawings.

.2 Sign graphics: apply by engraving.

.3 Text height: 10 mm, unless noted otherwise.

.2 Fixed mounting:

.1 Prepare wall plates for fixing by self-stick foam tape.

.2 Include back-up plates for fixing to uneven surfaces where required.

.3 Each sign is to be engraved through face material to expose core. Colours to be selected from manufacturer's complete range of colours.

.4 The signage typeface is based on Helvetica medium.

2.6 FRAMED SLIDER SIGNS

.1 55mm high x 250 mm wide metal framed, sliding front panel, and engraving nameplates.

.2 Front panel to slide back and forth revealing pre-selected wording.

.3 Colours: frame, slider, and nameplate colours to be selected from manufacturers complete range of colours.

.4 Prepare wall plates for fixing by self-stick foam tape. Include back up plates for fixing to uneven surfaces where required.

2.7 OWNER SUPPLIED SIGNS

.1 Varying sizes will be provided by Owner for installation by Contractor.

.2 Prepare wall plates for fixing by Torx-Plus “Registered” security fasteners and to Departmental Representative's approval.

.3 Include back-up plates for fixing to uneven surfaces where required.

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 Fit and securely join sections to obtain tight, closed joints.

.4 Allow for thermal movement without distortion of components.

.5 Exposed inconspicuous fasteners of same finish and colour as base material permitted where approved by Departmental Representative.

.6 Polish exposed edges of plastic and metal to smooth, slightly convex profile.

.7 Apply bituminous paint to aluminum in contact with dissimilar metals, concrete or masonry.

.8 Manufacturer's nameplates are not permitted.

Part 3 Execution

3.1 INSTALLATION

.1 Manufacturer's Instructions: compliance: comply with manufacturer's written recommendations or specifications, including product technical bulletins, handling, storage and installation instructions, and data sheets.

.2 Erect and secure signs plumb and level at elevations as directed by Departmental Representative.

.3 Comply with sign manufacturer's installation instructions and approved shop drawings.

.4 Mechanical attachment:

.1 Torx-Plus “registered” fasteners for type A-13 and type C 1-5.

.5 Adhesive attachment:

.1 Unless otherwise noted, use self-stick adhesive foam tape to manufacturer's instructions to fix sign and prevent "rocking".

.2 Keep tape maximum 1.6 mm from edges.

3.2 CLEANING

.1 Proceed in accordance with Section 01 74 11 - Cleaning.

.1 On completion and verification of performance of installation, remove surplus materials, excess materials, rubbish, tools and equipment.

.2 Leave signs clean.

.3 Remove debris from interior of sign boxes.

.4 Touch up damaged finishes.

.2 Waste Management: separate waste materials for reuse and recycling in accordance with Section 01 74 21 - Construction/Demolition Waste Management and Disposal.

3.3 SCHEDULE – Refer to Drawing A7.1

.1 Room Numbers: one identification sign at every room – all floors.

.2 Door number: one door number sign at every door – all floors.

.3 Female Washrooms (A1): provide 5 wall plates.

.4 Male Washroom (A2): provide 8 wall plates.

.5 Unisex Washroom (A3): provide 2 wall plates.

.6 Stairs (A4): provide 27 wall plates.

.7 Coat Room (A5): provide 7 wall plates

.8 Electrical Room (A6): provide 1 wall plate.

.9 Elevator (A7): provide 5 wall plates

.10 Janitor Room (A8): provide 22 wall plates.

.11 Vending Machine Room (A9): provide 1 wall plate.

.12 Mechanical Room (A10): provide 6 wall plates.

.13 Elevator Machine Room (A11): provide 1 wall plate.

.14 Laundry (A12): provide 2 wall plates.

.15 Door release (A13): provide 13 wall plates.

.16 Storage Room (A14): provide 7 wall plates.

.17 Observation Areas (A15): provide 9 wall plates.

.18 Briefing Room (A16): provide 1 wall plate.

.19 High Security Zone (A17): provide 5 wall plates.

.20 Simulation Area (A18): provide 7 wall plates.

.21 Polishing tables (A19): provide 7 wall plates.

.22 Slider signs (B1 – B8 inclusive): provide one of each type of slider sign.

END OF SECTION

Part 1 General

1.1 REFERENCES

.1 American Society for Testing and Materials International (ASTM)

.1 ASTM E90-09, Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements.

.2 Underwriters Laboratories' of Canada (ULC)

.1 CAN/ULC-S102-10, Standard Method of Test for Surface Burning Characteristics of Building Materials and Assemblies.

1.2 DESIGN REQUIREMENTS

.1 Design and fabricate folding partitions with minimum STC of 52 tested to ASTM E90.

.2 Use vinyl fabric for covering with maximum:

.1 flame spread -25;

.2 fuel contributed -35;

.3 smoke developed -50; when tested to CAN/ULC-S102.

1.3 SUBMITTALS

.1 Provide submittals in accordance with Section 01 33 00 - Submittal Procedures.

.2 Product Data:

.1 Submit manufacturer's printed product literature, specifications and datasheet and include product characteristics, performance criteria, physical size, finish and limitations.

.2 Submit WHMIS MSDS - Material Safety Data Sheets in accordance with Section 02 81 01 - Hazardous Materials.

.3 Shop Drawings:

.1 Submit drawings stamped and signed by professional engineer registered or licensed in Provinces of Saskatchewan, Canada.

.1 Indicate installation requirements including dimensions, head and jamb conditions, track layout, stacking arrangement, switching, hardware, finish and colour, operating mechanism, electrical requirements and location.

.4 Samples:

.1 Submit duplicate 300 x 300 mm samples of partition finish for each colour selected.

.5 Quality assurance/control submittals: submit following in accordance with Section 01 45 00 - Quality Control.

.1 Test reports: submit certified test reports for folding panel partitions from approved independent testing laboratories, indicating compliance with specifications for specified performance characteristics and physical properties.

.2 Submit test data indicating compliance with design requirements regarding sound transmission and fire hazard classification.

.3 Submit acoustical test data to ASTM E90 and ensure construction details and weight are provided.

.4 Certificates: submit certificates signed by manufacturer certifying that materials comply with specified performance characteristics and physical properties.

.5 Manufacturer's Instructions: submit manufacturer's installation instructions. Indicate special handling criteria, installation sequence, and cleaning procedures.

.6 Closeout Submittals:

.1 Provide operation and maintenance data for folding panel partitions for incorporation into manual specified in Section 01 78 00 - Closeout Submittals.

1.4 WASTE MANAGEMENT AND DISPOSAL

.1 Separate waste materials for reuse and recycling in accordance with Section 01 74 21 - Construction/Demolition Waste Management and Disposal.

Part 2 Products

2.1 MATERIALS

.1 Folding partitions.

.1 Manual, paired panel, centre hung, top supported, expandable end closure panel, top and bottom seals, equal number of panels.

.2 Panel construction: nominal 75mm thick panel; horizontal and vertical framing from 16 ga formed steel with overlapped and welded construction; steel skin and acoustical insulation core.

.3 Panel Face: Heavy duty vinyl-coated fabric wall covering: 30 oz per lineal yard reinforced with woven backing, selected from manufacturer’s full range of colours.

2.2 COMPONENTS

.1 Overhead suspension system:

.1 Track: manufacturer's standard painted cold rolled steel channel housing designed to support partitions.

.1 Equip track with integral or separate brackets for hanger attachment.

.2 Provide anchor bolts, and threaded steel rods and nuts type hangers and stabilizers.

.2 Trolley: steel wheels with ball bearings, equipped with thrust bearing and steel pendant bolt at each wheel assembly for height adjustment.

.2 Hardware:

.1 Hinges: full leaf butt hinges attached directly to panel frame with welded hinge anchor plates within panel. Lifetime warranty on hinges. Hinges mounted into panel edge (not on face or astragal).

.2 Equip partition with manufacturer's heavy duty hardware. Hardware finish selected from manufacturer's standard finishes.

.3 Install heavy duty latch.

.3 Sound seals:

.1 Use automatic floor retractable seal providing minimum 50mm operating range.

.2 Top seal to be continuous contact extruded vinyl bulb shape with pairs of non-contacting vinyl fingers to prevent distortion without the need for mechanically operated parts.

.3 Design retractable seals to secure panel in position.

.4 Use interlocking astragal for jamb and panel joint seal.

2.3 ACCESSORIES

.1 Provide manufacturer's horizontally expanding panel edge, with operator.

Part 3 Execution

3.1 MANUFACTURER'S INSTRUCTIONS

.1 Compliance: comply with manufacturer's written recommendations or specifications, including product technical bulletins, handling, storage and installation instructions, and datasheets.

3.2 INSTALLATION

.1 Secure and level track.

.2 Install folding partitions in accordance with reviewed shop drawings and manufacturer's printed instructions.

.3 Touch up damaged finishes, repair damage to partitions to match original finish.

.4 Clean folding partition system and protect from damage.

.5 Adjust and leave partitions in smooth operating condition.

3.3 CLEANING

.1 Proceed in accordance with Section 01 74 11 - Cleaning.

.2 On completion and verification of performance of installation, remove surplus materials, excess materials, rubbish, tools and equipment.

END OF SECTION

Part 1 General

1.1 REFERENCES

.1 American Society for Testing and Materials (ASTM)

.1 ASTM A167-99(2009), Standard Specification for Stainless and Heat-Resisting Chromium-Nickel Steel Plate, Sheet, and Strip.

.2 ASTM A653/A653M-11, Standard 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 CGSB 31-GP-107Ma-90, Non-inhibited Phosphoric Acid Base Metal Conditioner and Rust Remover.

.3 Canadian Standards Association (CSA)

.1 CAN/CSA-B651-07(2012), Barrier-Free Design.

.2 CAN/CSA-G164-M92(R2003), Hot Dip Galvanizing of Irregularly Shaped Articles.

1.2 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.

1.3 SAMPLES

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

.2 Samples to be returned for inclusion into work.

1.4 CLOSEOUT SUBMITTALS

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

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 Collect and separate plastic, paper packaging and corrugated cardboard in accordance with Waste Management Plan.

1.6 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 Departmental Representative.

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 302, with satin finish.

.3 Stainless steel tubing: Type 302, 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, chrome plated steel frame, capacity of 500 double ply roll, roll under spring tension for controlled delivery.

.1 Match existing

.2 Paper towel dispenser:

.1 Provided by Owner

.3 Soap dispenser: liquid push-in valve spout, self-contained, 340 mL translucent polyethylene, tamper proof filler lock, surface mounted.

.1 Match existing.

.4 Feminine napkin disposal bin: stainless steel, surface unit, continuous hinged door, embossed with universally accepted symbol, removable plastic receptacles fitted with spring clip for deodorizer block.

.1 Acceptable manufacturer:

.1 Bobrick Contura Series B-270.

.2 Frost 622.

.3 Bradley 4781-15

.4 Approved alternate.

.5 Feminine napkin dispenser: stainless steel, recessed or semi-recessed with stainless steel skirt to suit partition depth, adjustable for $0.50 to $0.00 cost.

.1 Acceptable manufacturer:

.1 Bobrick “Trimline” B37063 (B370634) 25

.2 Frost (matching model to Bobrick)

.3 Bradley (matching model to Bobrick)

.6 Waste Receptacle: Surface mounted stainless steel, size 20 gal capacity with liner, dimensions: W 420 mm, H 585 mm, D 320 mm.

.7 Mirror: salvage from existing to be removed.

.8 Grab bars: 32 mm dia 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. Peened surface at area of hand grips. Grab bar material and anchorage to withstand downward pull of 2.2 kN.

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 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 Hollow masonry units or existing plaster/drywall: use toggle bolts drilled into cell/wall cavity.

.3 Solid masonry, marble, stone or concrete: use bolt with lead expansion sleeve set into drilled hole.

.4 Toilet/shower compartments: use male/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.

3.2 SCHEDULE

.1 Locate accessories where indicated. Exact locations determined by Departmental Representative.

.2 Room 303

.1 1 mirror at each sink
.2 1 toilet tissue dispenser at each toilet compartment
.3 2 soap dispensers (mount between sinks)
.4 1 paper towel dispenser
.5 1 waste disposal

.3 Room 304

.1 1 mirror at each sink
.2 2 soap dispensers (mount between sinks)
.3 1 paper towel dispenser
.4 1 waste disposal
.5 1 feminine napkin disposal bin at each toilet compartment
.6 1 feminine napkin dispenser
.7 1 toilet tissue dispenser at each toilet compartment

.4 Rooms 354 and 446

.1 1 feminine napkin disposal bin at each toilet compartment
.2 1 feminine napkin dispenser

.5 Room 417

.1 1 soap dispenser
.2 1 paper towel dispenser

.6 Room 433

.1 1 toilet paper dispenser
.2 1 paper towel dispenser
.3 1 soap dispenser

.4 1 feminine napkin dispenser

.5 2 grab bars. Height of grab bar from floor 850 mm. Side grab bar: maximum distance from rear wall 300 mm, minimum distance passed front edge of toilet 450 mm.

.6 1 waste disposal

END OF SECTION

Part 1 General

1.1 REFERENCES

.1 CAN/CGSB-44.40-2001, Steel Clothing Locker.

1.2 SHOP DRAWINGS

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

.2 Indicate type and class of locker, thicknesses of metal, fabricating and assembly methods, assembled banks of lockers, tops, rods, hooks, shelves, bases, trim, numbering, filler panels, end/back panels, doors, handles, locking method, ventilation method, and finishes.

1.3 SAMPLES

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

.2 Submit duplicate 50 x 50 mm samples of colour and finish on actual base metal.

1.4 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.

.3 Fold up metal banding, flatten and place in designated area for recycling.

Part 2 Products

2.1 MANUFACTURED UNITS

.1 Lockers: to CAN/CGSB-44.40, Type 2 - Double tier locker and Type 3 - Six tier lockerettes, Class 2 - A bank of two or more lockers, floor and wall mounted.

.1 Size: 305 mm wide x 305 mm deep x 1930 mm high, steel thickness No.16 MSG.

.2 Assembly: welded.

.3 Top: flat.

.4 Doors: one-piece double-wall envelope construction, steel thickness No.20 MSG, door swing left hand hinged.

.5 Door handle: recessed handle steel with bright chromium finish.

.6 Baked enamel finish, colour selected by Departmental Representative.

2.2 ACCESSORIES

.1 Locking system: built-in keyed locks. Each locker to be keyed differently. Provide master keying system. Provide three master keys for each MK group.

.2 Options: to CAN/CGSB-44.40, steel base, steel end panels, steel trim including corner angles, jamb trim, and fillers, and number plates meeting manufacturer's standards.

Part 3 Execution

3.1 INSTALLATION

.1 Assemble and install lockers in accordance with manufacturer's written instructions.

.2 Securely fasten lockers to wall surface and nailing strips.

.3 Install filler panels (false fronts) where indicated and where obstructions occur.

.4 Install finished end panels to exposed ends of locker banks.

.5 Install locker numbers and locks.

END OF SECTION