

Part 1 General

1.1 REFERENCES

- .1 Aluminum Association, Inc. (AAI)
 - .1 AAI DAF45-03, Designation System for Aluminum Finishes.
- .2 ASTM International Inc.
 - .1 ASTM A653/A653M-07, Standard Specification for Steel Sheet, Zinc-Coated, (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
 - .2 ASTM B32-04, Standard Specification for Solder Metal.
 - .3 ASTM B456-03, Standard Specification for Electrodeposited Coatings of Copper Plus Nickel Plus Chromium and Nickel Plus Chromium.
- .3 Canada Green Building Council (CaGBC)
 - .1 LEED Canada-NC Version 1.0-2004, LEED (Leadership in Energy and Environmental Design): Green Building Rating System Reference Package For New Construction and Major Renovations.
 - .2 LEED Canada-CI Version 1.0-2007, LEED (Leadership in Energy and Environmental Design): Green Building Rating System Reference Guide For Commercial Interiors.
- .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.
 - .4 CGSB 41-GP-6M-1983, Sheets, Thermosetting Polyester Plastics, Glass Fibre Reinforced. Reaffirmation of September 1976.
- .5 Canadian Standards Association (CSA International)
 - .1 CAN/CSA-G164-M92(R2003), Hot Dip Galvanizing of Irregularly Shaped Articles.
 - .2 CSA W47.2-M1987(R2008), Certification of Companies for Fusion Welding of Aluminum.
 - .3 CSA W59-03, Welded Steel Construction (Metal Arc Welding).
 - .4 CSA W59.2-M1991(R2003), Welded Aluminum Construction.
- .6 Canadian Sheet Steel Building Institute (CSSBI)
 - .1 CSSBI SSF 6-1995, Sheet Steel Facts #6, Metallic Coated Sheet Steel for Structural Building Products-July 1995.
- .7 Green Seal Environmental Standards
 - .1 Standard GS-11-2008, 2nd Edition, Paints and Coatings.

- .2 Standard GS-36-00, Commercial Adhesives.
- .8 Health Canada/Workplace Hazardous Materials Information System (WHMIS)
 - .1 Material Safety Data Sheets (MSDS).
- .9 South Coast Air Quality Management District (SCAQMD), California State
 - .1 SCAQMD Rule #1113-A2007, Architectural Coatings.
 - .2 SCAQMD Rule #1168-A2005, Adhesive and Sealant Applications.
- .10 The Master Painters Institute (MPI)
 - .1 Architectural Painting Specification Manual - February 2004.
 - .1 MPI #76, Quick Dry Alkyd Metal Primer.
 - .2 MPI #96, Quick Dry Enamel Gloss.

1.2 ADMINISTRATIVE REQUIREMENTS

- .1 Pre-Installation Meetings: convene pre-installation meeting one week prior to beginning work of this Section:
 - .1 Verify project requirements.
 - .2 Review installation and substrate conditions.
 - .3 Co-ordination with other building subtrades.
 - .4 Review manufacturer's installation instructions and warranty requirements.

1.3 ACTION SUBMITTALS

- .1 Provide submittals in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Shop Drawings:
 - .1 Shop drawings: submit drawings stamped and signed by professional engineer registered or licensed in the Province of Manitoba, Canada.
 - .2 Submit shop drawings and catalogue sheets.
 - .3 Indicate materials, thicknesses, sizes, finishes, colours, construction details, removable and interchangeable components, mounting methods, schedule of signs.
 - .4 Submit drawn-to-scale details for individually fabricated or incised lettering indicating word and letter spacing.
- .3 Samples:
 - .1 Submit duplicate representative sample of each type 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.

1.4 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.
- .3 Manufacturer's Reports:
 - .1 Manufacturer's Field Reports: submit manufacturer's written reports within 3 days of review, verifying compliance of Work, as described in PART 3, FIELD QUALITY CONTROL.

1.5 QUALITY ASSURANCE

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

1.6 DELIVERY, STORAGE AND HANDLING

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

1.7 LEED REQUIREMENTS

- .1 See Section 01 35 21 - LEED Requirements.
- .2 LEED Submittals: Submit LEED supporting documentation in accordance with Section 01 35 21 - LEED Requirements.
- .3 Waste Management and Disposal: Dispose of packaging and waste materials in appropriate on-site bins for recycling and disposal in accordance with Section 01 74 21 - Construction/Demolition Waste Management and Disposal.
- .4 Indoor Environmental Quality Credit EQ 4 – Low - Emitting Materials.
 - .1 LEED Indoor Environmental Quality Credit EQ 4.1 – Low-Emitting Materials: Adhesives and Sealants.
 - .1 Low VOC complying with SCAQMD Rule #1168, Latest edition.
 - .2 LEED Indoor Environmental Quality Credit EQ 4.2 – Low-Emitting Materials: Paints and Coatings.
 - .1 Architectural paints, coatings and primers applied to interior walls and ceilings to Green Seal Standard GS-11, latest edition.
 - .2 Anti-corrosive and anti-rust paints applied to interior ferrous metal substrates to Green Seal Standard GS-03, latest edition.
 - .3 Clear wood finishes, floor coatings, stains and shellacs applied to interior elements to SCAQMD Rule 1113, latest edition.

Part 2 Products

2.1 MATERIALS

- .1 Sheet aluminum: anodizing quality.
- .2 Welding materials: to CSA W59.

- .3 Solder: to ASTM B32, Type Sn50.

2.2 SIGN GRAPHICS

- .1 Sign graphics: well defined, arranged for balanced appearance, and properly word and letter spaced.
- .2 Engraving: apply sign images using pantograph mechanical engraving machine to obtain incised paint-filled letters as detailed or specified.

2.3 EXTERIOR SIGNAGE LETTERS

- .1 Signage to read: SINCLAIR PARK COMMUNITY CENTRE
 - .1 Confirm lettering and spelling with Contract Administrator.
 - .2 Cut letters from aluminum sheet.
 - .1 Thickness: 4mm
 - .2 Height: 305mm
 - .3 Helvetica typeface, upper case:
 - .1 Make corners square cut.
 - .2 Confirm font and letter arrangement with Contract Administrator.
 - .4 Black Anodized finish: to designation AA M10 C12 C22 A44 with film thickness of 7mils.
 - .1 Maximum VOC limit 50 g/L to Standard GS-11 and SCAQMD Rule #1113.
 - .5 Fastening:
 - .1 Provide 50mm deep aluminum attachment extrusions for each letter.
 - .1 Mount in inconspicuous locations behind letter.
 - .2 Minimum two per letter, evenly spaced at top and bottom of letter.
 - .3 Colour: Black.
 - .2 Fasten letters through extrusions into pressure treated 38mm horizontal wood strapping behind metal cladding.
 - .1 Horizontal strapping to be fastened into wall at each stud location.
 - .2 Punch neat openings in metal cladding to size required for accommodation of attachment extrusions.
 - .3 Wrap wall air barrier over strapping and seal at penetrations.

2.4 WALL PLATE SIGNAGE

- .1 Metal wall plates:
 - .1 Fabricate from sheet aluminum sign plates, minimum 3 mm thick, with clear anodized finish.
 - .1 50mm high by length required.
 - .2 Sign graphics: apply by engraving.
 - .3 Signage to read:

- .1 Sign #1: DESIGNATED SMOKING AREA
 - .2 Sign #2: RECYCLING COLLECTION AREA
 - .3 Sign #3: NO SMOKING NEAR ENTRANCE
 - .4 Sign #4: NO SMOKING NEAR ENTRANCE
- .2 Font:
- .1 Helvetica, 25mm high.
 - .2 Font colour: Black.
 - .3 Confirm font and letter arrangement with Contract Administrator.
- .3 Fixed mounting:
- .1 Prepare wall plates for fixing by tamper proof screws with finishing washers to Contract Administrator's approval.
 - .2 Include back-up plates for fixing to uneven surfaces where required.

2.5 DOOR PLATES

- .1 Fabricate sign faces of clear anodized aluminum.
 - .1 Size 150 x 150 x 3mm thick.
- .2 Sign graphics: apply by engraving.
- .3 Fixed mounting:
 - .1 Prepare wall plates for fixing by concealed tamperproof clips to meet Contract Administrator's approval.
 - .2 Include back-up plates for fixing to uneven surfaces where required.
- .4 Washroom pictographs: cut-out figures without backgrounds.
- .5 Signage:
 - .1 Men's washroom symbol for main and basement men's washrooms.
 - .2 Women's washroom symbol for main and basement women's washrooms.
 - .3 Family washroom symbol for two main floor family washrooms.

2.6 EXTERIOR PARKING SIGNAGE

- .1 Pre-manufactured exterior parking signage:
 - .1 Reflective Aluminum parking signs:
 - .1 To ASTM B209M, precut to required dimensions.
 - .2 Thickness to be 2 mm.
 - .3 Pre-drilled holes for mounting.
 - .4 Engineer grade reflective film.
 - .5 Print with UV resistant enamel inks.
 - .2 Sign supports.

- .1 Steel post: to CAN/CSA-G40.21, 3m long, flanged "U" shaped in cross section, measuring 65 mm wide by 30 mm deep. Metal thickness: 4.5 mm. Hot dipped galvanized: to CAN/CSA-G164, minimum zinc coating 5 g/m.
 - .2 Fasteners: bolts, nuts, washers and other hardware to be cast aluminum alloy, or galvanized steel.
 - .3 9.5mm holes punched 25.4mm o.c.
- .2 Signage required:
- .1 Provide and install four Barrier Free signs.
 - .1 Standard barrier free parking sign to meet locally applicable regulations and approval of Contract Administrator.
 - .2 300mm wide by 450mm high.
 - .3 Text to read "RESERVED PARKING"
 - .4 Sign to include international symbol of accessibility.
 - .5 Top of sign at 1500mm above grade.
 - .2 Provide and install two Carpooling signs.
 - .1 450mm wide by 300mm high.
 - .2 Text to read "RESERVED PARKING - CARPOOL ONLY"
 - .3 Top of sign at 1500mm above grade.
 - .3 Provide and install three Electric Vehicle Recharging Station signs.
 - .1 450mm wide by 300mm high.
 - .2 Text to read "RESERVED PARKING – ELECTRIC VEHICLE ONLY"
 - .3 Top of sign at 1500mm above grade.

2.7 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 Contract Administrator.
- .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.
 - .1 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 permitted in non visible locations in completed work.

2.8 FINISHES

- .1 Anodized aluminum:
 - .1 Clear finish: to designation AA M32 C12 C22 A41 in uncoloured anodized finish with film thickness of 0.7 mils.
 - .1 Maximum VOC limit 50 g/L to Standard GS-11 to SCAQMD Rule #1113.

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 indicated.
- .3 Comply with sign manufacturer's installation instructions and approved shop drawings.
- .4 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.
 - .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: 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.
 - .1 Obtain Contract Administrator's approval before fixing to structural steel.
- .5 Single channel steel posts for parking signs:
 - .1 Top of post to be at 1800mm above grade.
 - .2 Drive to required depth without damage to posts. (1200mm deep)
 - .3 If rock or concrete is encountered, drill hole to required depth.
 - .4 Backfill with concrete or grout. Protect from adverse conditions until cured.

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.

END OF SECTION

Part 1 General

1.1 REFERENCES

- .1 American Society for Testing and Materials International (ASTM)
 - .1 ASTM A167-2004, Standard Specification for Stainless and Heat-Resisting Chromium-Nickel Steel Plate, Sheet, and Strip.
- .2 Canada Green Building Council (CaGBC)
 - .1 LEED Canada-NC Version 1.0-2004, LEED (Leadership in Energy and Environmental Design): Green Building Rating System Reference Package For New Construction and Major Renovations.
- .3 Canadian General Standards Board (CGSB)
 - .1 CAN/CGSB-71.20-M88, Adhesive, Contact, Brushable.
- .4 Canadian Standards Association (CSA International)
 - .1 CSA-B651-04, Accessible Design for the Built Environment.
- .5 Forest Stewardship Council (FSC)
 - .1 FSC-STD-01-001-2004, FSC Principle and Criteria for Forest Stewardship.
 - .2 FSC-STD-20-002-2004, Structure and Content of Forest Stewardship Standards V2-1.
 - .3 FSC Accredited Certification Bodies.
- .6 Health Canada/Workplace Hazardous Materials Information System (WHMIS)
 - .1 Material Safety Data Sheets (MSDS).
- .7 South Coast Air Quality Management District (SCAQMD), California State
 - .1 SCAQMD Rule 1168-05, Adhesives and Sealants Applications.

1.2 GENERAL

- .1 Plastic compartment work includes the following, where indicated:
 - .1 Floor-mounted overhead braced compartments.
- .2 Furnish all labour and materials necessary for the completion of work in this section as shown on the contract drawings and specified herein.
- .3 Work in this section shall include, but is not limited to:
 - .1 Toilet compartments, compartment doors, urinal screens, privacy screens and entry partitions.
 - .2 Hardware for toilet compartments and plastic partitions.
 - .3 Shop drawings and working drawings.
 - .4 Manufacturer's guarantee.

1.3 PERFORMANCE REQUIREMENTS:

- .1 A. Fire Resistance: Partition materials shall comply with the following requirements, when tested in accordance with the ASTM E 84: Standard Test Method for Surface
- .2 Burning Characteristics of Building Materials:
 - .1 Smoke Developed Index: Not to exceed 450
 - .2 Flame Spread Index: Not to exceed 75
 - .3 Material Fire Ratings:
 - .1 National Fire Protection Association (NFPA): Class B
 - .2 International Code Council (ICC): Class B

1.4 SUBMITTALS

- .1 Provide submittals in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Product Data:
 - .1 Submit manufacturer's printed product literature for toilet partitions or components, specifications and datasheet and include product characteristics, performance criteria, physical size, finish and limitations.
- .3 Shop Drawings:
 - .1 Shop drawings: submit drawings stamped and signed by professional engineer registered or licensed in Province of Manitoba, Canada.
 - .2 Indicate fabrication details, plans, elevations, hardware, and installation details.
- .4 Quality control submittals: submit following in accordance with Section 01 45 00 - Quality Control.
 - .1 Manufacturer's Instructions: submit manufacturer's installation instructions and special handling criteria, installation sequence, cleaning procedures.
 - .2 Manufacturer's Field Reports: submit manufacturer's written reports within 3 days of review, verifying compliance of Work, as described in PART 3 - FIELD QUALITY CONTROL.
- .5 Closeout Submittals:
 - .1 Provide maintenance data for plastic laminate for incorporation into manual specified in Section 01 78 00 - Closeout Submittals.

1.5 QUALITY ASSURANCE

- .1 Pre-Installation Meetings: convene pre-installation meeting one week prior to beginning work of this Section and on-site installation.
 - .1 Verify project requirements.
 - .2 Review installation and substrate conditions.
 - .3 Co-ordination with other building subtrades.
 - .4 Review manufacturer's installation instructions and warranty requirements.

- .2 Manufacturer's Qualifications: A company regularly engaged in manufacture of products specified in this section, and whose products have been in satisfactory use under similar service conditions for not less than 5 years.
- .3 Installer's Qualifications: A Company or Individual, regularly engaged in installation of products specified in this Section, with a minimum of 5 years experience.

1.6 DELIVERY, STORAGE AND HANDLING

- .1 Deliver, store and handle materials in accordance with Section 01 61 00 - Common Product Requirements.
- .2 Protect finished laminated plastic surfaces during shipment and installation. Do not remove until immediately prior to final inspection.

1.7 LEED REQUIREMENTS

- .1 See Section 01 35 21 - LEED Requirements.
- .2 LEED Submittals: Submit LEED supporting documentation in accordance with Section 01 35 21 - LEED Requirements.
- .3 Waste Management and Disposal: Dispose of packaging and waste materials in appropriate on-site bins for recycling and disposal in accordance with Section 01 74 21 - Construction/Demolition Waste Management and Disposal.
- .4 Recycled Content: Supply building materials with recycled materials (post consumer plus ½ post-industrial content) in accordance with LEED Materials and Resources Credits MR 4.1 & 4.2 – Recycled Content.
- .5 Indoor Environmental Quality Credit EQ 4 – Low - Emitting Materials.
 - .1 LEED Indoor Environmental Quality Credit EQ 4.1 – Low-Emitting Materials: Adhesives and Sealants.
 - .1 Low VOC complying with SCAQMD Rule #1168, Latest edition.
 - .2 LEED Indoor Environmental Quality Credit EQ 4.2 – Low-Emitting Materials: Paints and Coatings.
 - .1 Architectural paints, coatings and primers applied to interior walls and ceilings to Green Seal Standard GS-11, latest edition.
 - .2 Anti-corrosive and anti-rust paints applied to interior ferrous metal substrates to Green Seal Standard GS-03, latest edition.
 - .3 Clear wood finishes, floor coatings, stains and shellacs applied to interior elements to SCAQMD Rule 1113, latest edition.

Part 2 Products

2.1 MATERIALS

- .1 Manufacturer:

- .1 Toilet partitions and screens to be supplied by SCRANTON PRODUCTS (Santana/Comtec/Capitol),Scranton, PA, or approved equal.
- .2 Materials:
 - .1 Doors, panels and pilasters shall be 1" thick constructed from High Density Polyethylene (HDPE) resins.
 - .2 Core material: To contain 100 % recycled material by LEED definition. (Post consumer plus ½ post-industrial content.)
 - .3 Material shall meet the VOC intent and requirements of LEED NC – EQ 4.3
 - .4 Manufacturer shall meet the intent and requirements for LEED Canada NC – Environmental Quality Credit 4.
 - .5 Partitions shall be fabricated from polymer resins compounded under high pressure, forming a single component which is waterproof, non-absorbent and has a self-lubricating surface that resists marks from pens, pencils, markers and other writing instruments. All plastic components shall be covered with a protective plastic masking.
- .3 Construction:
 - .1 Doors, panels, and pilasters shall be 1" (25.4mm) thick with all edges rounded to a radius.
 - .2 Doors and dividing panels shall be 55" (1397mm) high and mounted at 14" (356) above the finished floor.
 - .3 Pilasters shall be 82" (2082mm) high (standard) and fastened into a 3" high pilaster shoe with a stainless steel tamper resistant torx head sex bolt.
- .4 Door Hardware:
 - .1 Hinges shall be 8" (203mm) and fabricated from heavy-duty extruded aluminum (6463-T5 alloy) with bright dip anodized finish with wrap-around flanges, through bolted to doors and pilasters with stainless steel, torx head sex bolts.
 - .2 Hinges operate with field adjustable nylon cams. Cams can be field set in 30-degree increments.
 - .3 Door strike/keeper shall be 6" (152mm) long and made of heavy-duty extruded aluminum (6436-T5 alloy) with a bright dip anodized finish and secured to the pilasters with stainless steel tamper resistant torx head sex bolts. Bumper shall be made of extruded black vinyl.
 - .4 Latch and housing shall be made of heavy-duty extruded aluminum (6463-T5 alloy). The latch housing shall have a bright dip anodized finish, and the slide bolt and button shall have a black anodized finish.
 - .5 All doors to swing out.
 - .6 Each door shall be supplied with one coat hook/bumper and door pull made of chrome plated zamak. Handicapped doors shall be supplied with a second door pull and out swing doors with one door stop made of chrome plated zamak.
- .5 Mounting: Floor-Mounted Overhead-Braced Solid Plastic Toilet Compartments.
 - .1 Pilaster shoes shall be 3" high (76mm) (type 304, 20 gauge) stainless steel. Pilaster shoes shall be secured to the pilaster with a stainless steel tamper resistant torx head sex bolt.

- .2 Wall brackets shall be 1½" (38mm) stirrup type made of heavy-duty aluminum (6463-T5 alloy) with a bright dip anodized finish. Stirrup brackets shall be fastened to pilasters and panels with stainless steel tamper resistant torx head sex bolts.
- .3 Headrail shall be made of heavy-duty extruded aluminum (6463-T5 alloy) with anti-grip design and integrated curtain track. The headrail shall have a clear anodized finish and shall be fastened to the headrail bracket by a stainless steel tamper resistant torx head sex bolt, and fastened at the top of the pilaster with stainless steel tamper resistant torx head screws.
- .4 Headrail brackets shall be 20 gauge stainless steel with a satin finish and secured to the wall with a stainless steel tamper resistant torx head screws.

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 General contractor to provide and coordinate location of wood blocking inside mounting walls.
- .2 General contractor to provide and coordinate location of steel attachment angles in ceiling.
- .3 Do work in accordance with CSA-B651.

3.3 ERECTION

- .1 Install partitions rigid, straight, plumb, and level manor, with plastic laid out as shown on shop drawings and manufacturer's installation instructions.
- .2 All doors and panels to be mounted at 14" above finished floor.
- .3 Clearance at vertical edges of doors shall be uniform top to bottom and shall not exceed 3/8". (10mm)
- .4 No evidence of cutting, drilling, and/or patching shall be visible on the finished work.
- .5 Finished surfaces shall be cleaned after installation and be left free of all imperfections.

3.4 FIELD QUALITY CONTROL

- .1 Manufacturer's Field Services:
 - .1 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.

3.5 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, 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.

1.2 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 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.

1.6 LEED REQUIREMENTS

- .1 See Section 01 35 21 - LEED Requirements.
- .2 LEED Submittals: Submit LEED supporting documentation in accordance with Section 01 35 21 - LEED Requirements.
- .3 Waste Management and Disposal: Dispose of packaging and waste materials in appropriate on-site bins for recycling and disposal in accordance with Section 01 74 21 - Construction/Demolition Waste Management and Disposal.
- .4 Indoor Environmental Quality Credit EQ 4 – Low - Emitting Materials.
 - .1 LEED Indoor Environmental Quality Credit EQ 4.1 – Low-Emitting Materials: Adhesives and Sealants.
 - .1 Low VOC complying with SCAQMD Rule #1168, Latest edition.
 - .2 LEED Indoor Environmental Quality Credit EQ 4.2 – Low-Emitting Materials: Paints and Coatings.
 - .1 Architectural paints, coatings and primers applied to interior walls and ceilings to Green Seal Standard GS-11, latest edition.
 - .2 Anti-corrosive and anti-rust paints applied to interior ferrous metal substrates to Green Seal Standard GS-03, latest edition.
 - .3 Clear wood finishes, floor coatings, stains and shellacs applied to interior elements to SCAQMD Rule 1113, latest edition.

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 302, 304, 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: 9” Twin , surface mounted.

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- .1 Acceptable material: Merfin #2200.
 - .2 Supplied by others, installed by Contractor.
 - .2 Towel dispenser: surface mounted. Suitable for dispensing roll paper towels.
 - .1 Acceptable material: Merfin, #1002.
 - .2 Supplied by others, installed by Contractor.
 - .3 Soap dispenser: liquid or lotion soaps push button spout, polymer, grey colour, wall mounted.
 - .1 Acceptable material: ZEP.
 - .2 Supplied by Others, installed by Contractor
 - .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. Located in each stall of the women's washrooms M21 and B09 and in family washroom's M15 and M18.
 - .1 Acceptable material: Bobrick, B-254 or approved equivalent in accordance with B6 Substitutes.
 - .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 equivalent in accordance with B6 Substitutes.
 - .6 Electrical Automatic Hand Dryer:
 - .1 See Electrical Drawings and Specifications.
 - .8 Shower: ADA Compliant 1600 x 864 x 2007 mm. Complete with grab bars and rectangular fold-up seat. Standard colour.
 - .1 Acceptable material: Maax Professional, Outlook BFS-60F or approved equivalent in accordance with B6 Substitutes.
 - .9 Shower Curtain: Vinyl Shower Curtain, opaque, matte white vinyl, 0.2 mm thick, contains antibacterial and flame retardant agents. Nickel-plated brass grommets.
 - .1 Acceptable material: Bobrick 204-2 or approved equivalent in accordance with B6 Substitutes.
 - .10 Shower Curtain Hook: type 304 stainless steel for 25 and 30 mm diameter shower curtain rods.
 - .1 Acceptable material: Bobrick 204-1 or approved equivalent in accordance with B6 Substitutes.
 - .11 Collapsible Clothes Hook: 12 gauge, type 204 stainless steel bracket with 7 gauge stainless steel hook. Hook pivots down for safety if excessively loaded.
 - .1 Acceptable material: Bobrick B-981 Vandal-Resistant Collapsible Clothes Hook or approved equivalent in accordance with B6 Substitutes.

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: Coordinate and install wood blocking or steel back-plate to studs prior to plaster or drywall finish.
 - .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 and as follows.

.2 Toilet tissue dispenser: one in each toilet compartment, mounting height 1000 mm F.F.F.

.3 Soap dispenser: one at each wash basin.

.4 Feminine napkin disposal bin: one in each female washroom stall and family washroom compartment, mounting height 1200 mm F.F.F.

.5 Hand dryer: one in each washroom. Maximum height of dispenser and operable part from floor 1200 mm.

.6 Paper Towel Dispenser: one in each washroom. Maximum height of dispenser and operable parts from finished floor 1200 mm.

.7 Shower rod and curtain: one at each shower compartment mounting height 1930 mm F.F.F.

.8 Collapsible hooks:

.1 One adjacent to each side of shower unit (for total of two per shower) mounting height 1500 mm F.F.F.

.2 One in each toilet stall and family washroom, mounting height 1500mm F.F.F.

.3 25 for each main floor change room (for total of 50) equally spaced above change room benches, mounting height 1500mm F.F.F.

.9 Grab bar:

.1 two in each handicapped toilet compartment. Height of grab bar from floor minimum 760 mm. Side grab bar: maximum distance from rear wall 300 mm, minimum distance passed front edge of toilet 450 mm.

.2 One either side of lowered urinal in men's washroom.

END OF SECTION

Part 1 General

1.1 REFERENCES

- .1 Canada Green Building Council (CaGBC)
 - .1 LEED Canada-NC Version 1.0-2004, LEED (Leadership in Energy and Environmental Design): Green Building Rating System Reference Package For New Construction and Major Renovations.
- .2 Health Canada/Workplace Hazardous Materials Information System (WHMIS)
 - .1 Material Safety Data Sheets (MSDS).
- .3 National Fire Protection Association (NFPA)
 - .1 NFPA 10-2006, Standard for Portable Fire Extinguishers.

1.2 SUBMITTALS

- .1 Provide submittals in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Product Data:
 - .1 Submit manufacturer's printed product literature and datasheet and include product characteristics, performance criteria, physical size, finish and limitations.
 - .2 Submit two copies WHMIS MSDS - Material Safety Data Sheets in accordance with Section 02 81 01 - Hazardous Materials.
- .3 Provide shop drawings.
- .4 LEED Submittals: in accordance with Section 01 35 21 - LEED Requirements.
- .5 Quality control submittals: submit following in accordance with Section 01 45 00 - Quality Control.
 - .1 Manufacturer's Instructions: submit manufacturer's installation instructions and special handling criteria, installation sequence and cleaning procedures.
 - .2 Manufacturer's Field Reports: submit manufacturer's written reports within 3 days of review, verifying compliance of Work, as described in PART 3, FIELD QUALITY CONTROL.
- .6 Closeout Submittals:
 - .1 Provide operation and maintenance data for incorporation into manual specified in Section 01 78 00 - Closeout Submittals.

1.3 DELIVERY, STORAGE AND HANDLING

- .1 Packing, shipping, handling and unloading:
 - .1 Deliver, store and handle materials in accordance with Section 01 61 00 - Common Product Requirements.

1.4 LEED REQUIREMENTS

- .1 See Section 01 35 21 - LEED Requirements.
- .2 LEED Submittals: Submit LEED supporting documentation in accordance with Section 01 35 21 - LEED Requirements.
- .3 Waste Management and Disposal: Dispose of packaging and waste materials in appropriate on-site bins for recycling and disposal in accordance with Section 01 74 21 - Construction/Demolition Waste Management and Disposal.
- .4 No Halons, CFCs or HCFCs permitted.

Part 2 Products

2.1 MULTI-PURPOSE DRY CHEMICAL EXTINGUISHERS

- .1 Cartridge operated type or Stored pressure rechargeable type with hose and shut-off nozzle, ULC labeled for A, B and C class protection. Size 4.5kg.

2.2 EXTINGUISHER BRACKETS

- .1 Type recommended by extinguisher manufacturer.

2.2.3 CABINETS

- .1 Semi-recessed type constructed of 1.6 mm thick steel, 180 degrees 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.

2.3.4 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 MANUFACTURER'S INSTRUCTIONS

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

3.2 INSTALLATION

- .1 Install and mount extinguishers in cabinets and in accordance with NFPA 10.

3.3 FIELD QUALITY CONTROL

- .1 Manufacturer's Field Services:
 - .1 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.

3.4 SCHEDULE

- .1 Provide and install 5 extinguishers and semi-recessed cabinets. Locations to be site confirmed with Contract Administrator.
- .2 See Mechanical Drawings for additional fire extinguisher requirements. Provide cabinets for same.

END OF SECTION

Part 1 General

1.1 SECTION INCLUDES

- .1 Materials and installation of standard manufactured catalogue items such as waste containers, benches, planters, tables, bike racks and playground equipment.

1.2 SUBMITTALS

- .1 Submit product data and shop drawings in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Indicate dimensions, sizes, assembly, anchorage and installation details for each furnishing specified.
- .3 Provide maintenance data for care and cleaning of site furnishings for incorporation into manual specified in Section 01 78 00 - Closeout Submittals.

1.3 LEED REQUIREMENTS

- .1 See Section 01 35 21 - LEED Requirements.
- .2 LEED Submittals: Submit LEED supporting documentation in accordance with Section 01 35 21 - LEED Requirements.
- .3 Waste Management and Disposal: Dispose of packaging and waste materials in appropriate on-site bins for recycling and disposal in accordance with Section [01 74 21 - Construction/Demolition Waste Management and Disposal].
- .4 Recycled Content: Supply building materials with recycled materials (post consumer plus ½ post-industrial content) in accordance with LEED Materials and Resources Credits MR 4.1 & 4.2 – Recycled Content.
- .5 Regional Materials: Supply building materials that are regionally extracted, harvested, or recovered within 800km of the project location when shipped by truck, or within 2400km of the project location when shipped by rail, in accordance with LEED Materials and Resources Credit MR 5.1 & 5.2 – Regional Materials.
- .6 Indoor Environmental Quality Credit EQ 4 – Low - Emitting Materials.
 - .1 LEED Indoor Environmental Quality Credit EQ 4.1 – Low-Emitting Materials: Adhesives and Sealants.
 - .1 Low VOC complying with SCAQMD Rule #1168, Latest edition.
 - .2 LEED Indoor Environmental Quality Credit EQ 4.2 – Low-Emitting Materials: Paints and Coatings.
 - .1 Architectural paints, coatings and primers applied to interior walls and ceilings to [Green Seal Standard GS-11], latest edition.
 - .2 Anti-corrosive and anti-rust paints applied to interior ferrous metal substrates to Green Seal Standard GS-03, latest edition.

- .3 Clear wood finishes, floor coatings, stains and shellacs applied to interior elements to SCAQMD Rule 1113, latest edition.
- .3 LEED Indoor Environmental Quality Credit EQ – 4.4 Low-Emitting Materials: Composite Wood and Laminate Adhesives.
 - .1 No added urea-formaldehyde resins.
 - .2 Adhesives for fabrication of laminated assemblies to contain no urea-formaldehyde.

Part 2 Products

2.1 RECYCLED PLASTIC LUMBER

- .1 Taylors recycled plastic products or approved equivalent in accordance with B6 Substitutes.
 - .1 38mm x 140mm by lengths required.
- .2 Recycled Content: To contain $\geq 50\%$ recycled material by LEED definition. (Post consumer plus $\frac{1}{2}$ post-industrial content.)
- .3 Regional Materials: To meet LEED Regional Materials requirements.
- .4 Low VOC to LEED Requirements: See LEED 01 35 21 – LEED Requirements.

2.2 SMOKING AREA BENCH:

- .1 Acceptable Product: HSS Steel Bench, model MLB 400 BM by Maglin.
- .2 Dimensions:
 - .1 Height: 432 mm.
 - .2 Length: 1778 mm.
 - .3 Depth: 432 mm.
- .3 Finish: E-coat Rust Proofing.
- .4 Weight: 45kg
- .5 Anchor to ground with corrosion proof anchors or similar complete with tamper resistant fasteners. To be provided by manufacturer.

2.3 BICYCLE RACKS

- .1 Acceptable Product: “Hoop Rack” model MBR 500 by Maglin or approved equal.
 - .1 Dimensions:
 - .1 Height: 936mm
 - .2 Width: 192mm
 - .2 Finish: E-coat rust proofing.
 - .3 Weight: 7.7 kg.

- .4 Install with 3/8" corrosion proof anchors complete with tamper resistant fasteners. To be provided by rack manufacturer.
- .5 (5) racks to be installed as per Site Plan.
- .6 Space Requirements: as per Site Plan.

2.4 DIRT RETENTION ENTRANCE FLOOR MAT SYSTEM

- .1 Dirt capture grate system for entrance vestibules.
- .2 Acceptable Product: Model G-212D EnvIRONtread II grate with double tread by Arden Architectural Specialties, or approved equivalent in accordance with B6 Substitutes.
 - .1 Thickness: 12mm deep,
 - .2 6063-T52 aluminum alloy divider bars and two recycled buffed rubber treads; spaced 42.9mm o.c.
 - .3 F-12 aluminum surface mount frame.
 - .4 Front vestibule: 1800mm x 1800mm size.
 - .5 Rear vestibule: 2200mm wide by 1800mm long. (Site confirm to full vestibule size.)
 - .6 Install perpendicular to direction of traffic, in accordance with manufacturer's instructions.
 - .7 Recycled Content: To contain $\geq 70\%$ recycled material by LEED definition. (Post consumer plus $\frac{1}{2}$ post-industrial content.)

2.5 TACTILE WARNING SURFACES

- .1 Replaceable Cast in Place Tactile strips.
 - .1 Acceptable Product: Armor-Tile Replaceable Cast in Place Tactile System or approved equivalent in accordance with B6 Substitutes.
 - .1 ADA Compliant truncated dome tactile surface.
 - .2 Replaceable system.
 - .3 Vitrified Polymer Composite construction.
 - .2 Size:
 - .1 610mm x 914mm at ramp locations indicated on site plan.
 - .2 610mm x 1524mm at stair and ramp locations indicated on site plan.
 - .3 Colour: Red # 22144.
 - .4 Installation:
 - .1 Install in wet concrete in accordance with manufacturer's installation instructions.
 - .2 Recess tile such that top of truncated domes are flush to concrete, in accordance with manufacturer's 'cold weather climates' installation instructions. Ensure positive drainage on down-slope side of tile.
- .2 Detectable Guidance Strip.
 - .1 Acceptable Product: Armor-Tile Detectable Directional System or approved equivalent in accordance with B6 Substitutes.
 - .1 ADA Compliant.

- .2 Vitrified Polymer Composite construction.
- .3 Colour matched, corrosion resistant flat head drive anchors by manufacturer.
- .4 Adhesive and sealants by manufacturer.
- .2 Size: 152mm x 1219mm units – quantity and location as indicated on site plan.
- .3 Colour: Red # 22144.
- .4 Installation: In accordance with Manufacturer’s instructions
 - .1 Cut and clean installation grooves.
 - .2 Set tiles in grooves with adhesives and finish with colour matched urethane sealant. Coordinate with Section 07 92 00 – Joint Sealants.
 - .3 Mechanically fasten to concrete with stainless steel impact anchors – by manufacturer.

2.6 STAINLESS STEEL CORNER GUARDS

- .1 Acceptable Product: Bobrick 18-8 S, type 304, 18 ga. (1.2mm) stainless steel with satin finish or approved equal.
- .2 90mm plate either side of corner, height 1800mm.
- .3 No sharp corners. Exposed edges and corners rounded to 3mm.
- .4 Mechanically fastened with flat head stainless screws @ 300mm o.c.
 - .1 Holes to be predrilled.
 - .2 No adhesive attachment permitted unless manufacturer can supply evidence that adhesive meets LEED requirements.

2.7 OPERABLE PARTITIONS

- .1 Acceptable Product: Hufcor Paired Panel Series 5500 ECO or approved equivalent in accordance with B6 Substitutes.
 - .1 Gypsum and Steel components to contain 40% recycled content. (Post consumer plus ½ post-industrial content.)
 - .2 No added urea formaldehyde.
 - .3 Mineral wool insulation.
- .2 Standards:
 - .1 Fire hazard classification : ASTM E84.
 - .2 Sound transmission classification: ASTM E90.
 - .3 Noise insulation classification : ASTM E336, ASTM E413.
- .3 Dimensions to be site confirmed: 92mm thickness, 2450mm height, 4000mm length.
- .4 Panel skins shall be ecological material laminated to appropriate structural and acoustical backing, mounted in full perimeter protective steel frames. Panel faces must be removable and replaceable on site. Channels made of 18 gage steel to be installed horizontally inside every panel spaced at 610mm to 762mm c/c. Channel dimensions will be 51mm X 51mm and will insure a higher impact and torsionnal capacity.

- .5 Frames shall fully enclose and protect all edges of the surface material. The panel framing will be made of steel with black powder coated finish
- .6 Vertical sound seals between panels to be tongue and groove configuration consisting of steel astragals incorporating vinyl acoustical seals. An alignment moulding will be installed on the edge of each panel in order to insure proper alignment when setting up the panels as well as a good acoustical seal.
- .7 Retractable top and bottom seals are made from formed steel, incorporating 6mm vinyl strips for proper acoustical seal upon activating. Horizontal fixed top seals shall be of twin-finger continuous contact type.
 - .1 Fixed top and retractable bottom seal.
- .8 Suspension system shall consist of anodized thermally treated architectural grade extruded aluminum track (painted steel track not acceptable), connected to the structural support by pairs of threaded steel rods.
- .9 Built-in ceiling trim shall be of anodized aluminum finish providing enclosure of plenum sound barrier on both sides of track for maximum sound control. A section of track will be removable in order to make it possible for a panel to be removed from the track for later maintenance. Each panel shall be supported by one trolley assembly consisting of steel ball bearing wheels.
- .10 Ecological Panel Finish: Panel faces shall be factory applied and selected from the Eco Composite line.
- .11 Perimeter frame color: Black
- .12 Partitions shall be top supported, manually operated individual panels. Friction disc/puck type carrier and track systems are not allowed.
- .13 Final partition closure to be by Lever Closure Panel.
- .14 STC : 50
- .15 Installation to be by an authorized factory-trained installer.

2.8 **MAILBOX**

- .1 Stainless Steel Mailbox: Standard horizontal style with hinged lid.
 - .1 Salsbury #4510 stainless steel mailbox complete with 4511 security kit, or approved equivalent in accordance with B6 Substitutes.
 - .2 20ga. stainless steel.
 - .3 Satin finish.
 - .4 368mm length x 279mm height x89mm depth.
 - .5 Factory installed locking kit with 2 keys.
 - .6 Site confirm location with Contract Administrator. Provide backing in wall for mounting.

2.9 VANDALPROOF STACK JACK FLASHING

- .1 Acceptable Product: SJ-31A-6" Thaler Vandalproof Stack Jack Flashing.
 - .1 Thaler SJ-31, 457 mm high Vandalproof STACK JACK Flashing.
 - .2 1.6 mm mill finish 1100-T alloy aluminum.
 - .3 Diameter as required.
 - .4 To CSA B272-93.
 - .5 Aluminum hood and perforated collar,
 - .6 Thick premolded urethane insulation liner and EPDM Base Seal.
- .2 Install at all roof vent penetrations – Coordinate to Mechanical drawings and specifications.

Part 3 Execution

3.1 INSTALLATION

- .1 Verify that installation condition meet manufacturer requirements.
- .2 Assemble and install in strict accordance with manufacturer's installation instructions.
- .3 Touch-up damaged materials / finishes to approval of Contract Administrator.

END OF SECTION