

Part 1 General

1.1 REFERENCES

- .1 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.
- .2 Aluminum Association, Inc. (AA)
 - .1 Designation System for Aluminum Finishes
- .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.
- .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.
- .6 The Master Painters Institute (MPI)
 - .1 Architectural Painting Specification Manual

1.2 SHOP DRAWINGS

- .1 Submit representative sample of each type of sign, sign image and mounting method, including, but not limited to graphic, cast letters, sign box installation method, channel letters and wall plates fixed mounting installation method.
- .2 Indicate materials, thicknesses, sizes, finishes, colours, construction details, removable and interchangeable components, mounting methods, schedule of signs.
- .3 Submit drawn-to-scale details for individually fabricated or incised lettering indicating word and letter spacing.

- .4 Submit representative sample of each type sign, sign image and mounting method.
- .5 Submit manufacturer's printed product literature panel signage or components, specifications and datasheet and include product characteristics, performance criteria, physical size, finish and limitations.
- .6 Submit manufacturer's installation instructions and special handling criteria, installation sequence and cleaning procedures.

1.3 MAINTENANCE DATA

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

1.4 QUALITY ASSURANCE

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

Part 2 Products

2.1 MATERIALS

- .1 Aluminum extrusions: to AA 6063-T5 or AA 6006-T5.
- .2 Sheet aluminum: utility quality.
- .3 Prefinished sheet aluminum: plain utility sheet with manufacturer applied baked enamel finish 0.25 mm thick on face and 0.0076 mm thick on back.
- .4 Casting aluminum: CSA HA Series - HA.9-SG7ON-T6.
- .5 Prefinished sheet steel: conforming to CSSBI - Sheet Steel Facts #6: for normal environments.
- .6 Galvanized steel sheet to ASTM A653/A653M: Commercial Quality
- .7 Acrylic sheet: polymethylmethacrylate (PMMA) cast sheet suitable for intended use in sign fabrication, colours as indicated.
- .8 Engraving sheet: lamicoid 3.2 mm thick plastic sheet, white core.
- .9 Self-stick foam tape: 1.6 mm thick, 352.4 kg/m³ density polyurethane open-cell foam tape for sign purposes, with synthetic self-stick adhesive on both sides. Width: to suit sign sizes.
- .10 Adhesives, paints, sealants and solvents for acrylic sheet: type recommended by sheet manufacturer for applicable condition.
- .11 Acrylic top-coat: clear, non-yellowing, exterior grade, satin finish, acrylic polyester resin protective coating, compatible with acrylic surface of type recommended by sheet manufacturer.
- .12 Bituminous paint: to CAN/CGSB-1.108, type 2.

2.2 EXTERIOR NAME

- .1 Name and size of letters as indicated on the drawings
 - .1 14" (356 mm) high CNC cut letters, Century Gothic typeface, finish to be 'autophoretic' coating, black colour
- .2 **Materials: Aluminum, 1/4" (6 mm) thickness.**

2.3 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 opaque finish.
- .3 Silk screen process: apply multi-colour photographic produced silk screen printed images to back side of transparent sign faces; face side of opaque sign faces.
- .4 Engraving: apply sign images using pantograph mechanical engraving machine to obtain incised letters as detailed or specified.
- .5 Self-stick vinyl film: individual letters and numerals and symbols die cut from 0.1 mm thick black integral colour, matte finish, exterior grade PVC film, with self-stick adhesive backing.
- .6 Decals: silk screened or printed images on 0.038 mm, clear matte finish, mylar film, with self-stick adhesive backing. Protect image with laminated film overlay of same material as decal base.

2.4 CUT-OUT LETTERS

- .1 Cut letters and symbols from coloured acrylic.
- .2 Century Gothic typeface, upper and lower case; sizes and thicknesses as indicated. Make corners square cut.

2.5 WALL, DOOR AND NUMBER PLATES

- .1 Refer to Section 10 14 67 – Barrier Free Signage.

2.6 GENERAL FABRICATION REQUIREMENTS

- .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 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 on sign surface locations visible in completed work not acceptable.

Part 3 Execution

3.1 INSTALLATION, GENERAL

- .1 Erect and secure signs plumb and level at elevations indicated.
- .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 in accordance with B6.
 - .3 To steel use bolts with nut and lock washers, self-tapping screws, welding, as appropriate for stresses and metal thicknesses.
 - .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 approval. Obtain Contract Administrator 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 INSTALLATION, EXTERIOR NAME

- .1 Mounting method for 14" (356 mm) high **aluminum** letters to be 5" long x ¼" thick stainless steel threaded rod, drilled and tapped to back of letter, minimum 4 locations per letter (except for letter 'l'). 3/8" diameter holes drilled into concrete wall to accommodate threaded rod (pins). Rod set into holes with construction grade adhesive, c/w 2" spacer sleeve.

3.3 CLEANING

- .1 Leave signs clean. Remove debris from interior of sign boxes.
- .2 Touch up any damaged finishes.

3.3 SCHEDULE

- .1 Exterior Signage (all signage to be Century Gothic Typeface):
 - .1 **356 mm (14") high aluminum letters reading: MAYFAIR RECREATION CENTRE**

- .2 **356 mm (14") high aluminum letters reading: MAYFAIR RECREATION CENTRE**
- .3 1676 mm (5'-6") high white vinyl letters reading: 40
- .4 458 mm (1'-6") high white vinyl letters reading: 40
- .5 89 mm (3.5") high white vinyl letters reading: MAYFAIR RECREATION CENTRE
- .2 Refer to elevations for locations and further info.

END OF SECTION