
OUTDOOR SIGNAGE

PART 1 GENERAL**1.1 Description of Work**

- .1 These general conditions apply to the site Works and are requirements supplementary to this project and the specifications herein. All costs associated with implementing and applying these general conditions into the Work including all equipment, machinery, labour, materials, permits, engineering fees and shop drawings shall be deemed to be included in the Bid Document – Price Schedule.
- .2 The following Outdoor Signage manufacturers listed below are familiar with the City of Brampton Wayfinding Design Standards:
 - .1 Ari Hunt Signs Ltd. (905) 817-9917
 - .2 Knight Signs (647) 459-9965
 - .3 Sign-A-Rama (905) 460-9300
 - .4 WSI Sign Systems Ltd. (905) 857-8044
 - .5 ZIP Signs (905) 332-8332Bidders not restricted to use the above noted list of companies.

1.2 Utilities and Layout

- .1 The Contractor shall arrange and pay for all utility locates prior to construction.
- .2 The Contractor shall stakeout all signage locations and they shall be reviewed by the Consultant prior to commencement.

1.3 Removals and Excavation

- .1 The contractor shall protect all existing features to remain prior to the commencement of removals. All material including footing excavation spoils shall be removed off-site unless otherwise directed by the Consultant.

PART 2 PRODUCTS**2.1 Sign Construction Methodology**

- .1 All metal Works shall be fabricated in accordance with all pertinent building and safety codes, regulations, standards and Sign By-laws.
- .2 Because different systems of extrusions may result in slightly different dimensional requirements, the total height and width dimensions described in the sign construction on the drawings may be considered “nominal” for the purpose of bid submittal.

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- .3 Submit shop drawings of footings and signage for review by City Representative prior to any metal fabrication. Shop drawings shall show locations, marking, sizes, shapes and indicate all methods of connecting, anchoring, bracing and fastening.
- .4 Sign faces are to be fabricated using aluminium plate of varying thicknesses, as specified on design intent drawings, with a minimum thickness of 3mm unless otherwise noted.
- .5 All finishes are to be satin finish, free from fading, peeling or cracking. Paint preparation of all exterior metal surfaces of the sign to include removal of all scratches and imperfections, sanding and chemical etching. Substrate cleaning and prep to be in strict compliance with Matthews published recommendations. Successful vendor can use an alternative to Matthews, but must provide equivalent specifications for review. Acceleration of the drying process is not allowed. Exterior metal surfaces are to be painted as follows:
 - .1 First, apply two (2) full wet coats of Matthews 74760SP or 74766SP PT Filler, using the wet-on-semi wet method. If additional coats are required to achieve film build requirements, apply when last applied coat is still semi-wet. A dry film thickness (DFT) of .4 to .8 mls is required. (See Matthews Product Bulletin MPC121).
 - .2 Next, apply two (2) coats of a Matthews Paint Acrylic Polyurethane Satin Topcoat to achieve a DFT of 2 mls. (see Matthews Product Bulletin MPC102).
 - .3 Finally, apply two (2) coats of Matthews Paint Acrylic Polyurethane Clear Coat Containing UV inhibitors to achieve a DFT of 2 mls, to ensure excellent gloss retention and protection of the colour and substrate underneath. (see Matthews Product Bulletin MPC178 Satin Clear)
- .6 Except where approved otherwise by the Consultant, conceal fasteners. All exposed fasteners to be Stainless steel and tamper-proof.
- .7 Non-welded joints between various portions of signs must have a tight, hairline-type appearance, without gaps. Provide sufficient fastenings to preclude looseness, racking, or similar movement.
- .8 Provide drain holes as needed to prevent accumulation of water within signs. Holes must be inconspicuous and be in inconspicuous locations; holes must be located such that drainage does not occur

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onto signs, or other surfaces subject to staining. Provide internal system of baffles to prevent "light leaks" through drain holes of illuminated signs. Provide colour coordinated insect screening over drain holes.

- .9 Non-illuminated sign faces are to have lettering and graphics created as surface-applied vinyl typography using Avery or 3M exterior grade, minimum 5-year warranty. Certain applications are to be engineer-grade reflective vinyl as specified in the Details and Design Intent Drawings.
- .10 Non-illuminated inserts will minimally be ink-jet printed at 600 DPI using water-based inks on a white, satin finish substrate, matte UV laminated and fused to a 10 mls. vinyl backer.
- .11 Fibreglass panels with embedded artWork are to be fabricated using a 3/16" thick fibreglass panel with permanently embedded digital graphics (printed at a minimum of 600 DPI using exterior inks). The panel must be a solid, one-piece panel with all graphic elements inseparable from the fibreglass in which they are embedded (Pannier, 1-800-544-8428) or approved alternate.
- .12 Visible metal joints must adhere to a fit tolerance of .01".
- .13 Unlit channel letter faces must be .25" aluminium. Channel letter returns must be .080" aluminium.
- .14 City will provide digital file(s) for scroll Work to successful vendor.

2.2 Fonts and Typefaces

- .1 The fonts used for this project were selected specifically for this project by the Consultant. It is the responsibility of the fabricator to purchase the fonts.
- .2 No substitution of any other typefaces may be made. Under no circumstances are typefaces to be electronically distorted ("squeezed" or "extended") for purposes of fitting to the specified sign or general alteration of the sign face composition unless noted in the drawings. This includes (but is not limited to) stretching, squeezing, tilting, outlining or shadowing.
- .3 All letterforms, symbols or graphics shall be reproduced either by photographic or computer generated means. Hand-cut characters are not acceptable. Cutting shall be done in such manner that edges and corners of finished letterforms will be sharp and true. Letterforms with nicked, cut, ragged, rounded corners and similar disfigurements will not be acceptable.

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- .4 All letterforms shall be made from material and gauge as indicated on design intent drawings. Typefaces shall be replicated as indicated on the drawing.
- .5 Silk-screened and vinyl copy is to match the sheen of the copy panel background (satin). Edges of letters shall be straight and corners sharp. Surface of letters shall be uniform in colour finish, and free from pinholes and other imperfections.
- .6 Silk-screened images shall be executed with photo screens prepared from original art. No hand-cut screens will be accepted. Original art shall be defined as artWork that is a first generation reproduction of the specified art.
- .7 Silk-screening shall be highest quality, with sharp lines and no sawtooths or uneven ink coverage. Screens shall be photographically produced. Application of inks through screens shall consist of one flood pass and one print pass. Images shall be uniform in colour and ink thickness. Images shall be free from squeegee marks and lines resulting from improper print stroke or screen off contact height. Signs shall be placed in adequate drying racks with minimum of 2 inches between racks for ample airflow. Sign racks shall have system of forced airflow between layers to provide proper drying and curing of inks. After signs have dried completely according to the ink manufacturer's time allowance, signs may be packaged.
- .8 "Pushed-through" copy must fit accurately into routed portions of cabinet with tight, hairline joints and snugly into back of formed (channel) letters.
- .9 The edges and corners of routed letterforms shall be sharp and true. Letterforms with nicked, cut, ragged, rounded (positive or negative) corners, and similar disfigurements will not be acceptable. Letterforms shall be aligned so as to maintain a base line parallel to the sign format, with margins and layout as indicated on design intent drawings and approved shop drawings. Vertical strokes shall be plumb. Mechanically fasten center of letters to acrylic plastic as required.
- .10 Vinyl graphics and letterforms shall be computer-cut.

PART 3 EXECUTION**3.1 Concrete Footings**

- .1 All excavated material to be disposed off-site at no additional cost to

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the contract.

- .2 All concrete shall conform to CAN3-A23.1 and all safety standards and specifications.
- .3 Inspection and Testing Company shall be certified under CSA A283, Qualification Code for Concrete Testing laboratories, for Category 1 Certification.
- .4 Concrete shall be 31 MPa compressive strength at 28-day curing length, with 5-7% air entrainment.
- .5 Use tools and handling equipment that are absolutely clear of rust, salts, hardened concrete and other harmful and foreign materials.
- .6 The contractor shall take necessary precautions to protect the concrete from vandalism during the initial curing process.
- .7 All costs associated with the inspection or testing of any material or Work shall be borne by the contractor, including additional testing that may be required as a result of deficient Work. Testing shall be one at one test per load of concrete.
- .8 All exposed concrete surfaces shall be formed by sonotube and trowel-finished. Exposed concrete shall be finished to have a minor slope to ensure positive drainage away from signage and off concrete face.
- .9 All edges shall be free of sharp edges, burrs, holes, and defective forms upon finish.
- .10 Concrete that does not conform to lines; detail or grade as directed by the Contractor shall be repaired or replaced and finished at no additional cost.
- .11 Any concrete bases for signage are to be poured in place and are to extend beneath the frost line, or deeper to meet code. Concrete and reinforcement specifications shall be shown on shop drawing submittals. The successful Contractor is responsible for the necessary templates, mounting plates and hardware for concrete and masonry bases. A minimum 15cm concrete pad must be added around each concrete base as protection from landscaping maintenance.
- .12 All masonry (concrete block, poured concrete, brick, slab, veneer, mortar, etc.) is to be properly treated and protected to maintain the structural integrity of the masonry Work with exposure to all

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environmental conditions found at the site. For exposed or visible masonry, this shall include the application of protective sealers or similar finishes to diminish the effects of close-proximity sprinkling or irrigation systems.

- .13 Signs are to be mounted on J-bolt footings, engineered per code, unless otherwise specified in the design intent drawings.

3.2 Wind Load

- .1 Signs, banners and mounting devices shall be engineered to withstand a minimum 30-psf wind load normal to the sign, or greater as per local code, in addition to the weight of the sign. The successful Contractor shall determine appropriate method of anchoring signs to the locations specified to meet these requirements as well as all local code requirements.

3.3 Mounting

- .1 All signs to be mounted level and true. All exposed hardware is to be touch-up painted on site as required. All bolts, nuts, washers, or other fasteners shall be stainless steel and tamper-proof. Sizes to be established during shop drawing process.
- .2 While sign type drawings may specify or indicate possible mounting and hardware details, the successful Contractor will be able to substitute equal or better hardware and techniques, based upon their experience with similar mounting situations and as long as the visual appearance of the sign is not compromised from that shown in the design intent drawings.
- .3 All signage products must be installed such that there are no misalignments between visible components. Sign elements intended to be removable or changeable after installation must function as intended without binding, sticking or blocking. It will be the responsibility of the successful Contractor to correct any installation misalignments at no charge.
- .4 The Contractor and their installers are expected to have knowledge of Ontario Disability Act, mounting guidelines, general sign locating practices, and any particular unique installations defined by the Consultant. It is expected that the successful Contractor follow these guidelines as well as architectural cues in installing for the best visual placement, keeping a reasonable distance from protruding objects. Any signage that is improperly located is to be moved to the proper location by the successful Contractor, and repairs to wall surfaces and signage are to be at the successful Contractor's

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expense.

- .5 If the installers are unable to make a decision about any sign locations, they can contact the Consultant, providing a graphic representation of the questionable area, or for onsite options.

3.4 Grading

- .1 All grades surrounding signage shall ensure positive drainage. Grades shall not exceed 6:1 to match existing.
- .2 Restore all areas disturbed during construction with topsoil, fine grading and sod. Supply and install topsoil to a minimum depth of 150 mm.
- .3 Cut existing sod to provide a flush seam with new sod.
- .4 Stake sod where required to secure the new sod to the existing grade.
- .5 Owner will water and maintain sod after Substantial Performance of the Works

3.5 Dewatering

- .1 Keep excavations free of water, ice and snow.
- .2 Protect open excavations against flooding and damage due to surface runoff.
- .3 Dispose of water in a manner not detrimental to public and private property, or any portion of Work completed under construction.

END OF SECTION - 10440