

Part 1 GENERAL

1.1 REFERENCES

- .1 Government of Canada:
 - .1 Federal Government FIP (Federal Identity Program) Standards
- .2 Transportation Association of Canada:
 - .1 Manual of Uniform Traffic Control Devices for Canada.
- .3 American Association of State Highway and Transportation Officials (AASHTO)
 - .1 Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals, (Latest Edition).
- .4 New Brunswick Department of Transportation and Infrastructure, Latest Addition

1.2 SUBMITTALS

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

1.3 DELIVERY, STORAGE AND HANDLING

- .2 Deliver, store and handle materials in accordance with Section 01 61 00 - Common Product Requirements and manufacturer's written instructions.
- .3 Delivery and Acceptance Requirements: deliver materials to site in original factory packaging, labelled with manufacturer's name and address.
- .4 Storage and Handling Requirements: Store materials in dry location and in accordance with manufacturer's recommendations in clean, dry, well-ventilated area.
- .5 Replace defective or damaged materials with new.
- .6 Defective materials to be replaced, as directed by the Departmental Representative.

1.4 DESIGN REQUIREMENTS

- .7 All signage must meet the requirements of FIP, TAC, AASHTO, and the New Brunswick Department of Transportation and Infrastructure Standards.
- .8 Sign supports to be capable of withstanding the summation of the signboard dead load and required supports and

appurtenances, as well as the wind, ice and snow loads for the local environment.

- .9 Structural deflections and vibration in accordance with American Association of State Highway and Transportation Officials (AASHTO), "Specifications for the Design and Construction of Structural Supports for Highway Signs".

Part 2 PRODUCTS

2.1 SIGNAGE AND FASTENERS

- .1 Fasteners to be approved by sign and post manufacturer. All fasteners to be aluminum alloy or galvanized steel.
- .2 Reflective Sheeting and Lettering:
 - .1 All background sheeting applied to flat sheet and extruded panel signs must be in accordance with ASTM D4956, Type III, IV, VII, VIII, IX or XI retroreflective sheeting and must have Class 1, 3, or 4 adhesive backing. Retroreflective sheeting must be high intensity that is an unmetallized micro prismatic reflective material.
 - .2 Retroreflective sheeting must have sufficient adhesion, strength and flexibility such that the sheeting can be handled, processed and applied according to the manufacturer's recommendations without appreciable stretching, tearing, cracking or other damage.
- .3 Non-reflective Lettering and Symbols:
 - .1 Non-reflective lettering and symbols: cut from vinyl film as specified in CGSB 62-GP-9M, or paint using required colour of finish paint or silk screen transparent ink.
- .4 Sign identification:
 - .1 Apply sign number and date of installation with 25mm high stencil painted black letters on lower left back face of each signboard.

Part 3 EXECUTION

3.1 SIGN POSTS

- .1 Erect posts and supports as indicated. Where separate concrete footings have been placed, erect posts with base plates resting on levelling nuts and restrained with nuts

and washers. Permissible tolerance: 12 mm maximum departure from vertical

- .2 Drill holes as indicated.

3.2 LOCATION AND POSITION OF SIGNS

- .3 Locate and erect all signs in accordance with the drawings and MUTCD.
- .4 Signs should be vertically mounted at right angles to the direction of, and facing, the traffic that they are intended to serve.
- .5 Where mirror reflection from the sign face is encountered to such a degree as to reduce legibility, turn the sign slightly away from the road.
- .6 Turn signs that are placed 9 m or more from the pavement edge toward the road.
- .7 On curved alignments, determine the angle of placement by the direction of approaching traffic rather than by the roadway edge at the point where the sign is located.
- .8 Mounted signs must present a smooth flat surface varying no more than 10 mm from a 1.2 m straightedge placed in any position on the face of the sign after erection.
- .9 Mount signs on traffic signal posts with strap or clamp type sign supports.
- .10 Each installed sign will be inspected by the Departmental Representative prior to acceptance.
- .11 Correct defects, identified by Departmental Representative, in sign message, consistency of reflectivity, colour or illumination. Correct angle of signboard and adjust luminaire aiming angle for optimum performance during night conditions to approval of Departmental Representative.

3.3 INSTALLATION

- .1 Excavate holes for footings and sign posts such that when installed the installation is at least the required minimum depth in the ground.
- .2 Footings shall be backfilled with selected fill which meets the Departmental Representative's approval. Backfill material shall not contain stones larger than 150 mm in any one dimension.
- .3 Backfill materials shall be placed in layers of thickness not greater than 150 mm. Each layer shall be thoroughly compacted before the successive layer is placed.

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- .4 Backfill material around the sign post installations shall be brought up level with the surrounding ground and surplus excavated materials together with surplus backfill material shall be disposed of on the sides of fill, or as directed by the Departmental Representative.

3.4 PROTECTION

- .5 Place temporary covering on signboards where signage does not describe current conditions, and as directed by the Departmental Representative. Covering to be capable of withstanding rain, snow and wind and be non-injurious to signboard. Replace deteriorated covering and remove covers as directed by Departmental Representative.

3.4 CLEANING

- .6 Proceed in accordance with Section 01 74 11 - Cleaning.
- .7 On completion and verification of performance of installation, remove surplus materials, excess materials, rubbish, tools and equipment.

END OF SECTION