

Bridge Identification Standard

Ministry of Forests, Lands and Natural Resource Operations

Each bridge shall have the following identification information described in this section placed on a primary outer bridge girder on at least one side of the superstructure.

- The label, "Province of BC"
- The ministry assigned structure number (e.g., N6-140)
- The design vehicle configuration (e.g., BCL-625, L-100, etc.)
- The manufacturer's name
- The date of manufacture (month and year) in the following format: May 2009

Note: For "All Steel Portable" bridges, and "All Timber Portable" bridges, the identification information shall be located on the outside of each individual bridge module.

For example, the completed identification shall appear as follows (modified for the specific structure):

Province of BC
Ministry Structure # N6-140
BCL-625
John Doe Welding
May 2009

Identification Options

The identification shall consist of one of the following options:

- a) painted lettering applied directly to the girder (this option is not allowed for timber girders), or
- b) an engraved aluminum or steel plaque permanently attached to the girder (for the purposes of this document, punching or stamping shall be considered as a method of engraving).

General Requirements for all Identification Options

- a) The work shall be carried out so that the identification information is clearly legible for the design life of the structure (typically 45 years).
- b) The identification shall be located approximately 1 to 2m from the end of the superstructure on an exterior girder surface, in a location that could be easily found and accessed for reading, by personnel inspecting the bridge in its final as-constructed location.
- c) The identification shall be located on the web of I-girders and steel box girders; on the side of concrete slab bridges; and on the side of timber girders/stringers.
- d) The identification shall be located in an area which would be least prone to exposure to the elements or direct "wear and tear."
- e) The lettering shape and spacing shall be consistent, bold, and professional in appearance.

Painted Lettering

- a) The paint type shall be high performance self-priming Epoxy Polyamide (> 50% min. vol. solids) surface tolerant epoxy, such as the following approved products:
- Amerlock 400 (Ameron Canada),
 - Clovagard 8315 Series (Cloverdale Paint), and
 - Macropoxy 646 FC B58-600 Series (Sherwin Williams)

Equivalent alternatives may be considered, however they shall not be used without prior approval from the ministry.

- b) Unless otherwise noted in these specifications, paint products shall be utilized and applied in accordance with manufacturer's specifications, including thinning if required.
- c) The paint shall be applied by stencil, or some other lettering application technique that will result in an equivalent professional looking image (hand written information is not acceptable).
- d) The height of individual letters shall be between 50 mm and 100 mm, and the width of the paint lines that make up each letter shall be a minimum of 5 mm in thickness.
- e) The colour of the lettering shall be in strong contrast to the material surface it is located upon.
- f) Steel surfaces:
- prior to painting, steel surfaces shall be dry and thoroughly cleaned of all surface contaminants including salt, oil, grease, rust, loose millscale, dust, etc., and shall be roughened to ensure good surface bond;
 - cleaning of steel surfaces and paint application shall follow the general specification SSPC PA1 Shop, Field, and Maintenance Painting of Steel. In case of contradiction between the manufacturer's specification and SSPC PA1, follow the manufacturer's specification;
 - paint shall be applied to steel as soon as possible after surface preparation, to avoid any possibility of the formation of surface rust;
 - paint colour shall be yellow.
- g) Concrete surfaces:
- concrete surfaces shall be dry and thoroughly cleaned of all surface contaminants including salt, oil, grease, concrete laitance, dust, etc., and shall be roughened to ensure good surface bond;
 - paint colour shall be black.

Engraved Plaques

- a) Plaques shall be aluminum or steel, with minimum dimensions of: 250 mm width x 190 mm height x 1.5 mm thickness.
- b) The height of the engraved lettering on plaques shall be 8 mm minimum.
- c) The depth of the engraving shall be 0.5 mm minimum.
- d) Plaques shall be attached, as a minimum, by one of the following methods:
 - two - 10 mm diameter galvanized bolts for steel girders;
 - two - 10 mm diameter galvanized bolts inserted into concrete girders;
 - two - 12 mm, 100 mm long galvanized lag screws for timber girders/stringers;
 - welding to steel girders; or
 - glueing with an adhesive to concrete or steel girders in accordance with detailed instructions below:
 - The adhesive shall be LePage PL400 (a synthetic rubber based adhesive), applied as per manufacturer's specifications;
 - Surfaces to be joined shall be dry and thoroughly cleaned of all surface contaminants including salt, oil, grease, rust, loose mill scale, concrete laitance, and dust, and shall be roughened to ensure good surface bond;
 - Apply the adhesive to both surfaces to be joined; apply it to the plaque as a continuous bead about 40 mm in from the edge perimeter of the plaque and an "X" bead extending from corner to corner;
 - After applying the adhesive and joining the surfaces, the plaque shall be physically held in place by clamping or other means to apply even pressure until the adhesive has cured and a satisfactory bond has been achieved and proven by application of reasonable hand applied tensile or prying force (e.g., 0.1 kN or 20 lb force) using an implement such as a hammer claw or flat screwdriver blade.