Part 16
Sign Construction

16.1 General Construction

All signs must:

(a) be designed and constructed to resist wind, seismic, and dead loads;
(b) have bracing systems designed and constructed to transfer lateral forces to the foundations;
(c) be constructed so that loads of signs on buildings are transmitted through the structural frame of the building to the ground without overstressing the elements of the structural frame; and
(d) comply with all applicable provisions of this by-law and the Building By-law.

16.2 Drawings and Specifications

In addition to the requirements in section 3.3 of this by-law, the City Building Inspector or the Director of Planning may require further technical information related to a sign permit application, to the satisfaction of the City Building Inspector, including but not limited to:

(a) complete drawings and specifications related to construction of the sign;
(b) documentation confirming that the building on which the sign is to be erected is capable of supporting the additional structural loads and stresses imposed by the erection of the sign;
(c) reports, opinions, designs, sealed drawings and letters of assurance related to the proposed sign and prepared by a Registered Professional Engineer or another registered professional;
(d) technical data from the manufacturer of a combustible plastic material or from an acceptable testing agency; and
(e) results of fire tests of combustible plastic material from an approved testing agency.

16.3 Combustible Plastic Materials

Rigid or pliable combustible plastic components of a sign must:

(a) be approved combustible plastic or other material acceptable to the City Building Inspector;
(b) be of sufficient strength and durability to withstand design loads prescribed in the Building By-law; and
(c) allow for expansion and contraction of plastic material and any other material with which it is employed.

16.4 Approved Pliable Combustible Plastic Materials

Approved pliable combustible plastic material on the face of a sign must:

(a) comply with the provisions of section 16.3 of this by-law; and

(b) if back lit, have:
  (i) waterproof seams and joints,
  (ii) tension-adjusting sign-face connections,
  (iii) tear-resisting reinforcement with a tensile strength of 22.5 kg per 25 mm of width capable of withstanding puncture from the impact of a 0.45 kg 25 mm steel ball, dropped from a height of 3.0 m or equivalent,
  (iv) proof of conformance with ULC-S109-2003, "Standard for Flame Test of Flame-Resistant Fabrics and Films",
  (v) a minimum clearance of 3.0 m from a building with combustible framing or cladding, and
  (vi) a minimum clearance of 3.0 m horizontally or 10 m below any unprotected opening in an exterior wall of a building.

16.5 Other Combustible Materials

Wood, leather and similar combustible materials, other than plastics, may be used in a sign, that:

(a) is a projecting sign;
(b) has a sign area no greater than 0.75 m^2; and
(c) has a metal frame to which the combustible material is attached.

16.6 Supports and Anchorage

Sign supports and anchorage must comply with the following requirements:

(a) signs must be attached to masonry, concrete or steel by means of metal anchors, bolts, or approved expansion screws of sufficient size and anchorage to support the loads applied;
(b) signs must not be fastened by nails, staples or screws to wooden blocks, plugs or nailing strips built into masonry or concrete;
(c) bolts or lag screws must not be fastened to window frames or sills;
(d) lag bolts in solid woodworks must be no less than 12.7 mm in diameter and must penetrate the woodwork a minimum of 76 mm;
(e) cables 12.7 mm in diameter or larger must be provided with suitable sleeves, and two cable clips must be clamped to the sleeves for each cable;
(f) turnbuckles must:
  (i) be provided for all supporting cables, and
  (ii) have a breaking strength equivalent to that of the cable to which they are attached;
(g) side-guys may have a turnbuckle for one side of any sign;
(h) a sign support or anchor must not be connected to or supported by an unbraced parapet wall, unless a registered professional structural engineer has confirmed that the parapet wall is capable of supporting the sign, to the satisfaction of the City Building Inspector; and
(i) power actuated fasteners and drop-in anchors must not be used for tension loads.

16.7 Corrosion Protection

Cables, turnbuckles, links, bolts and screws, and all other devices which are part of or used to support or anchor a sign must be corrosion resistant, galvanized or otherwise protected from corrosion, to the satisfaction of the City Building Inspector.

16.8 Awning Sign Construction

An awning sign must be:

(a) constructed of canvas, fabric or textile materials that are acceptable to the City Building Inspector and comply with CAN/ULC-S109;
(b) directly affixed to the awning surface; and
(c) securely fastened to the awning surface by adhesives, rivets, stitching or other means that, in the opinion of the City Building Inspector, are acceptable to resist applied wind, seismic, uplift and dead loads.

16.9 Canopy Sign Construction

A canopy sign must be constructed of non-combustible material or approved combustible material, to the satisfaction of the City Building Inspector.

16.10 Under-Awning and Under-Canopy Sign Construction

An under-awning or under-canopy sign must be:

(a) constructed of non-combustible material or approved combustible material, to the satisfaction of the City Building Inspector; and
(b) securely fastened to the awning or canopy structure by metal anchors, bolts or approved expansion screws of sufficient strength and anchorage to support the loads applied.

16.11 Fascia Sign Construction

A fascia sign:

(a) must be constructed of non-combustible material or approved combustible plastic; and
(b) may be constructed of wood if:
    (i) the sign area is no greater than 9.29 m^2, and
    (ii) those portions of the sign constructed of plywood are no less than 19 mm thick, and
    (iii) those portions of the sign constructed of wood have a nominal thickness no less than 30 mm.

16.12 Free-Standing Sign Construction

A free-standing sign must:

(a) be constructed of a non-combustible material, except that the face of the sign, including the backing, may be constructed of approved combustible plastic, if:
    (i) the sign is no more than 4.9 m in height, and
    (ii) does not encroach over a street;
(b) have a foundation constructed of concrete, except that:
    (i) the foundation may be constructed using material other than concrete if designed by a Registered Professional Engineer,
    (ii) if the sign is more than 7.5 m in height, the foundation must be designed by a Registered Professional Engineer, regardless of the material used, and
    (iii) the design of the foundation must be to the satisfaction of the City Building Inspector.

16.13 Projecting Sign Construction

A projecting sign must be constructed of non-combustible material, approved combustible plastic or other combustible materials in accordance with section 16.5 of this by-law.

16.14 Signs with Electrical Components

A sign that requires an electrical connection or is powered by a renewable energy source must:

(a) be approved, constructed and installed in accordance with the Electrical By-law;
(b) be labelled with:
    (i) the name of the manufacturer,
    (ii) the date of manufacture,
    (iii) a certification mark or a special inspection label of a certification agency accredited by the Standards Council of Canada or an approved label issued by the BC Safety Authority,
    (iv) the gross weight of the sign, other than a free-standing sign, and
    (v) the rated operating amperage and voltage;
(c) have a label in accordance with section (b), that:
    (i) has letters not less than 10 mm high,
    (ii) is attached to the exterior of the sign, and
    (iii) is readable from ground level, or accessible without the use of a ladder or other device; and
(d) have weatherproof light fixtures, switches and wiring, unless enclosed in a permanent rigid sealed structure which ensures the electrical installation remains dry.