

# PENETRATIONS – CODE OVERVIEW

## Charging statement

### 3.1.8 Fire Separations and Closures

- 1) Any wall, partition or floor assembly required to be a fire separation shall
  - a) except as permitted by Sentence (2), be constructed as a continuous element, and
  - b) as required in this Part, have a fire-resistance rating as specified.
- 2) Openings in a fire separation shall be protected with closures, shafts or other means

## General requirements

### 3.1.9.1 Penetrations, 3.1.9.4 Membrane penetrations

- 3.1.9.1.(1) Penetration firestop F rating  $\geq$  fire protection rating tested to CAN/ULC-S115
- 3.1.9.1.(2) FT rating  $\geq$  FRR for penetrations of firewall, or horiz fire sepn above a bsmt garage (2 hr)
- 3.1.9.1.(3) FT rating  $\geq$  FRR for penetration of horizontal service space
- 3.1.9.1.(4) Memb pen by sprinkler pipe: No FS needed
- 3.1.9.1.(5) Duct with fire damper: No FS needed if installed to NFPA 80
- 3.1.9.4 Membrane penetrations by outlet boxes
  - (1) FT rating  $\geq$  FRR
  - (2) Free pass for NC boxes  $\leq$  25 sq in and aggregate  $\leq$  100 sq in per 100 sq ft
  - (3) Boxes on opposite sides of wall must be sept'd by 24 in. or by fire blocking

## Modifications/exemptions

### Various combustible pipes

- 3.1.9.5.(4) Comb DWV pipes F  $\geq$  FRR and 50 Pa, and not in vert service space
- 3.1.9.5.(2) Comb water distr piping F  $\geq$  FRR and 50 Pa, and not in vert service space
- 3.1.9.5.(6) Comb cent vacuum pipes F  $\geq$  FRR and 50 Pa, and not in vert service space
- 3.1.5.19 Polypropylene pipes: FT  $\geq$  FRR at 50 Pa
- 3.1.9.3 Misc cable exemptions (caution: these may compromise building fire safety)