Reference: 2015 International Residential Code (IRC) R302.1

Scope:

This policy applies to IRC one- and two-family dwellings, IRC townhouses, and IRC accessory buildings, and establishes application of exterior wall requirements under IRC R302.1. See policy number IRC R302.2 for additional townhouse requirements.

Definition:

**IMAGINARY LINE.** A line extending from an end of the common wall separating townhouses to a lot line, that is used for the determination of fire separation distance.

Policy:

1. For exterior wall requirements under IRC Section R302.1, each individual townhouse is a building with one dwelling unit, and the requirements for dwellings apply. For determination of fire separation distance, *imaginary lines* shall be established between each individual townhouse that extend from each end of townhouse common walls to the lot line. See Figures 1 and 2.

2. Where fire separation distance is greater than or equal to 3 feet and less than 5 feet, IRC Table R302.1(1) limits openings to “25% maximum of wall area”. The wall area used for this limitation is based on the entire area of a wall, rather than the wall area of each story. See Figure 3.

3. Areas of a building not provided with surrounding walls, and with a clear height equal to or greater than 6’-8” within the area, are considered part of the dwelling structure if such areas are under a roof, floor, deck or balcony. Exterior wall requirements under IRC Section R302.1 apply at the edges of these areas. Uncovered decks or balconies with a clear height below of less than 6’-8” are considered projections from the exterior wall and are subject to the projection requirements under IRC Section R302.1. See Figures 4 and 5.

   **Exception:** Roof overhangs, balconies or decks that extend no more than 3 feet from the exterior wall, measured on a horizontal line from the face of exterior wall to the outermost point of the fascia, balcony or deck, are considered projections from the exterior wall and are subject to the projection requirements under IRC Section R302.1. See Figure 4.

4. IRC Table R302.1(1) footnote “b” indicates the roof eave fire-resistance rating shall be permitted to be reduced to 0 hours on the underside of the eave provided that “gable vent openings” are not installed. For this provision, “gable vent openings” includes all eave soffit vent openings.

5. An attached or detached open trellis or pergola structure, with 50% minimum open area at the top, is not subject to the exterior wall requirements under IRC R302.1. Fabrics or other coverings on the top are not considered open area.
Figures:

Figures 1 through 5 provide a visual guide to the language described in the Policy section above.

**STREET SIDE LOT LINE**

EXTENDING STORY ABOVE, TYPICAL

IMAGINARY LINE FOR DETERMINATION OF FIRE SEPARATION DISTANCE, TYPICAL

**FIGURE 2**

**FIGURE 1 - IMAGINARY LINES BETWEEN TOWNHOUSES**
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FSD = FIRE SEPARATION DISTANCE

A = FSD FOR WALL G1
B = FSD FOR WALL G2
C = FSD = 0 FOR WALL H1
D = FSD FOR WALL H2
E = FSD FOR EXTENDING STORY WALL G3
F = FSD FOR EXTENDING STORY WALL G4
G = FSD FOR EXTENDING STORY WALL H3
H = FSD = 0 FOR WALL G5

FIGURE 2 - EXAMPLE FIRE SEPARATION DISTANCES
WALL AREA FOR OPENING LIMITATIONS = AREA 1 + AREA 2 + AREA 3

FIGURE 3 - WALL AREA
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FIRE SEPARATION DISTANCE (FSD)

ROOF EAVE ABOVE

DECK ABOVE

INTERIOR LOT LINE

CANOPY ABOVE

1-HR FIRE RESISTANCE RATED WALLS AND COLUMN FOR FSD < 5'-0" (OR FSD < 3'-0" IF SPRINKLERED)

FOR 3'-0" ≤ FSD < 5'-0", AREA OF ALL OPENINGS LIMITED TO 25% MAXIMUM OF WALL AREA (OR UNLIMITED IF SPRINKLERED)

FIGURE 4 - OPENINGS AT EXTERIOR AREAS
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FIGURE 5 - OPENINGS AT EXTERIOR AREAS