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INTERPRETATION

Zero Lot Line Townhouse

effective July 1, 2004

Question: What differences are there between a townhouse designed as a multifamily condominium and townhouses constructed on separate legal lots with zero side yards? Both meet the 2003 International Residential Code (IRC) definition of townhouse and are open on at least two sides. Typical roofs may share the same plane or modulate at varying elevations. Both would appear identical, except for a property line (P.L.) between each townhouse. *Note: While a condominium is under separate ownership, a legal property line does not exist between the condominium units.*

Discussion: IRC R202 defines *Townhouse* as *"a single-family dwelling unit constructed in a group of three or more attached units in which each unit extends from foundation to roof and with open space on at least two sides."* Each townhouse (IRC R317.2) is considered a separate building and is required to be separated by fire-resistive-rated wall assemblies meeting the requirement of IRC R302 for exterior walls. This requires two separate 1-hour walls. An exception under IRC R317.2 allows for a common 2-hour wall between the units, with no plumbing, mechanical equipment, ducts, or vents in the wall. The common wall is required to be continuous from the foundation to the underside of the roof sheathing and continuous the full length of the unit. Refer to Construction Tip Sheet #013, *Zero Lot Line Framing*, found at www.mybuildingpermit.com; select Public Information/Construction Tip Sheets.

In the graphic illustration above, the property lines between the dwelling units create single-family lots with zero setbacks. If the property lines were not present, such as in a condominium or rental unit, the occupancy designation would be R-2 Townhouse under the International Building Code (IBC).

An important consideration for single-family ownership is the control of the structure for such things as utilities. The 2003 *Uniform Plumbing Code* (UPC), section 312.0 as an example, requires that each separate building be served by independent drainage systems.

Interpretation: All of the following apply to a townhouse classified as a one- or two-family dwelling unit per the IRC:

- Each building is on a separate legal lot; the owner of each building also owns the supporting ground and front/rear yards.
- Restriction of openings (exterior walls) per IRC R302.2 is complied with.
- Exterior wall protection per IRC R302 is complied with, or a common 2-hour fire-resistive wall is permitted between townhouses if the common walls do not contain plumbing or mechanical ducts or vents in the cavity of the wall. Penetration of electrical outlet boxes to be per IRC R317.3.
- The common wall is to be continuous from the foundation to the underside of the roof sheathing. See IRC R317.2.1.
- Structural support for each building, including lateral design elements, is independent. See IRC R317.2.4.
- Parapets are required between units. See IRC R317.2.2 for parapet requirements and exceptions.
- Utilities—including water, sewer, electrical, gas, and phone/communication service and lines—independently serve each separate dwelling unit.

- Separate downspouts and underground roof drains, if required, independently serve each separate dwelling unit.
- Separate fire suppression systems, if required, independently serve each separate dwelling unit.

Fire Suppression Systems
This interpretation does not supercede fire department requirements for fire suppression systems, regardless of the building department's interpretation of "separate building." In some jurisdictions the fire department's interpretation may conclude that when multiple townhouses (on separate legal lots) are adjoined such that the combined floor area(s) exceeds 5,000 square feet, a fire suppression system is required for all adjoining buildings. This interpretation by some fire departments is based on the actual size of the structure and the potential fire load created by the combined structures or buildings. Consult with your local building and fire departments.

Alternate materials, design, and methods of construction and equipment
An alternative material, design, or method of construction must be approved where the building official finds that the proposed design is satisfactory and complies with the intent of the provisions of this code—and that the material, method, or work offered is, for the purpose intended, at least the equivalent in suitability, strength, effectiveness, fire resistance, durability, safety, and sanitation. Written justification and approved testing of alternate materials/methods are required for evaluation.