



TOWNHOUSES

City of San Diego
Development Services Department

TECHNICAL BULLETIN RESD-3-3

January 2020

The purpose of this bulletin is to establish the procedures for permitting townhouses constructed in accordance with the provisions of the California Residential Code (CRC), Section R302.2. Specifically, the focus of this bulletin is to address the construction of the walls separating townhouses, utilities providing services to townhouses, floor area projections, and accessibility.

TOWNHOUSES are defined as a single-family dwelling unit constructed in a group of three or more attached units in which each unit is not more than three stories above grade plane in height, extends from foundation to roof, has a separate means of egress, and with a yard or public way on not less than two sides.

I. WALL CONSTRUCTION

The following describe requirements for construction of common walls (single-stud or double-stud) or individual separate walls separating townhouses:

A. COMMON WALL (SINGLE-STUD OR DOUBLE-STUD) (Figures 1 and 2)

1. The common walls separating townhouses shall be not less than a listed 1-hour fire-resistance-rated wall assembly as all new townhouses are equipped with a fire sprinkler system. This wall shall be rated for fire exposure from both sides and shall extend to and be tight against intersecting exterior walls and the under side of the roof sheathing.
2. The common walls shared by two townhouses shall be constructed without plumbing or mechanical equipment, ducts or vents in the cavity of the common wall.
3. Membrane penetrations of common walls for electrical outlet boxes shall be in accordance with CRC, Section R302.4. For fire-resistive walls, recessed fixtures shall be installed so that the required fire-resistance rating will not be reduced.
4. Through penetrations of common walls are prohibited.

B. INDIVIDUAL SEPARATE WALLS (Figure 3)

Townhouses separated by individual separate fire-resistance-rated wall assembly as described below are considered as separate dwelling units.

1. Each individual wall separating townhouses shall be not less than a listed 1-hour fire-resistance-rated wall assembly. The walls shall be rated for fire exposure from both sides and shall extend to and be tight against exterior walls and the underside of the roof sheathing.
2. Membrane penetrations of individual separate walls from inside the townhouse units For electrical outlet boxes shall be in accordance with CRC Section R302.4. For these fire-resistive walls, recessed fixtures shall be installed so that the required fire-resistance rating will not be reduced.

3. Through penetrations of fire-resistance-rated exterior walls are prohibited.
4. Each individual separate wall may be constructed with plumbing or mechanical equipment, ducts or vents in the cavity of the wall serving the dwelling.
5. Each individual separate wall shall be constructed with an exterior finish and weather-resistant exterior envelope as specified per CRC, Section R703.
6. Flashing and counter flashing may cross the wall at the adjoining dwelling units. At the juncture of the roof and vertical surfaces, flashing and counter flashing shall be provided per the roofing manufacturer's instructions and, when made of metal, shall not be less than 0.019-inch (no. 26 galvanized sheet gage) corrosion-resistant metal. (Figure 3.4).

C. STRUCTURAL INDEPENDENCE

1. Townhouses separated by a common wall and constructed per Section I.A of this bulletin and per CRC, Section R302.2.2, Item 1, are not required to be structurally independent. (CRC, Sec. R302.2.6, Exception 5). Structural roof and floor sheathing (structural diaphragm) from each townhouse unit is permitted to be continuous and cross the walls. Metal tension straps, drag struts, lateral load resisting elements such as shear walls, braced frames or moment frames or any other construction elements at any level providing lateral support are also permitted to cross the walls. (Figures 1 and 2).
2. Townhouses separated by individual separate walls and constructed per Section I.B of this bulletin, shall be structurally independent in resisting vertical loads and lateral (seismic and wind) loads as described below:
 - a. An individual separate wall of each individual townhouse unit shall rest upon an independent and separate foundation system [footing and stem wall]. Concrete for the footings for adjoining townhouses may be cast and monolithically poured together provided that footing of each townhouse unit is designed to provide support independently without relying on the footing of the adjoining townhouse unit for resistance of applicable structural loads. (Figure 3).
 - b. Structural roof and floor sheathing (structural diaphragm) from each unit is not permitted to be continuous and cross the individual separate walls. Structural diaphragm from each unit shall be fastened to its own wall. (Figure 3).
 - c. Adjoining townhouses shall be separated by a continuous and uninterrupted drift separation from each other to allow a building drift caused by the applicable lateral forces prescribed by the building code. Structural drift calculations shall be provided to justify drift separation. Drift separation dimension shall be clearly shown on architectural and structural plans, measured between the face of the finish of the exterior walls of townhouses.

II. ACCESSIBILITY

- A.** For the purpose of application of accessibility standards, townhouses within a single structure or individual townhouses separated from each other by a common wall (Figures 1 and 2) constructed per Section I.A of this bulletin do not constitute separate buildings, and are considered Covered Multifamily Dwellings. As such, they shall comply with the accessibility standards of CBC, Chapter 11A. (CRC, Section R320).
- B.** Townhouses separated from each other by individual separate walls (Figure 3) constructed per Section I.B of this bulletin, are not considered Covered Multifamily Dwellings. As such, they are exempt from complying with the accessibility standards of CBC, Chapter 11A.

III. MECHANICAL, PLUMBING, ELECTRICAL AND SPRINKLER SYSTEM REQUIREMENTS

Mechanical, plumbing and electrical schematic plans shall be submitted as part of the construction document drawings for conceptual review showing how supply for utilities (water, sewer, gas, electricity, and fire sprinkler) are routed to each individual townhouse. Specific design will not be reviewed.

- A.** Mechanical and plumbing work such as equipment, ducts, water and sewer piping, fire sprinkler, irrigation lines, drainage, or gas piping, associated with an individual townhouse, whether below ground or within the envelope of the building, shall not cross over the common, double, or individual separate walls between adjoining townhouses. Through penetration of the common, double, or individual separate walls between adjoining townhouses for any mechanical or plumbing work is not permitted.
- B.** Electrical conduits and wiring work such as for electrical distribution system, cable, satellite, telephone, data, or similar lines, associated with an individual townhouse, whether below ground or within the envelope of the building, shall not cross over the common, double, or individual walls between adjoining townhouses.
- C.** A single service point for gas and electric services, with meters grouped at one location, is acceptable for multiple townhouses located on one parcel of property. However, each individual townhouse unit bounded by real property lines shall be provided with individual gas and electric service meters.
- D.** Each townhouse unit designed and constructed per CRC and the requirements specified in this bulletin shall, at minimum, be equipped with NFPA 13D fire sprinkler system.

IV. PROJECTIONS

Area of projections (balconies, decks, eave overhangs, or other elements) shall be subject to the limitations of CRC, Table R302.1(2) for fire-separation distance. Balconies and decks shall not be closer than 2 feet to the property line.

V. SPECIAL CONDITIONS, (Figures 4 and 5)

The following scenarios represent special conditions and how specific code requirements are applied to each scenario:

- A.** Where a single row of townhouses are accessed by a shared common driveway located in front of and adjacent to the townhouses, the following shall apply:
- 1.** Where any enclosed portion of a townhouse extends more than 5 feet over the shared common driveway, the common, double, or individual separate walls between the townhouses shall extend to the outer edge of the projected enclosed space.
 - 2.** The underside of the enclosed projected portion shall be constructed with one-hour fire-resistive construction.
 - 3.** All structural elements such as walls, columns, beams, and girders providing vertical structural support for the projected enclosed space above shall be constructed with one-hour fire-resistive construction.
- B.** Where double row of townhouses are accessed by a shared common driveway located in front of and adjacent to the townhouses (Figure-4), the following shall apply:
- 1.** Any enclosed portion of townhouses shall not project more than 5 feet over the common shared driveway.
 - 2.** The underside of the enclosed projected portion shall be constructed with one-hour fire-resistive construction.
 - 3.** All structural elements such as walls, columns, beams, and girders providing vertical structural support for the projected enclosed portion of townhouses above grade shall be constructed with one-hour fire-resistive construction.
 - 4.** The exterior wall of townhouses at second level and above over the common shared driveway shall be separated from the assumed property line or legal property line by a minimum fire separation distance (FSD) of 5 feet.
 - 5.** Projections less than 2 feet from the lot line, assumed property line, or legal property line shall not be permitted.

Documents referenced in this Technical Bulletin

- 2019 California Residential Code (CRC)
- 2019 California Building Code (CBC)

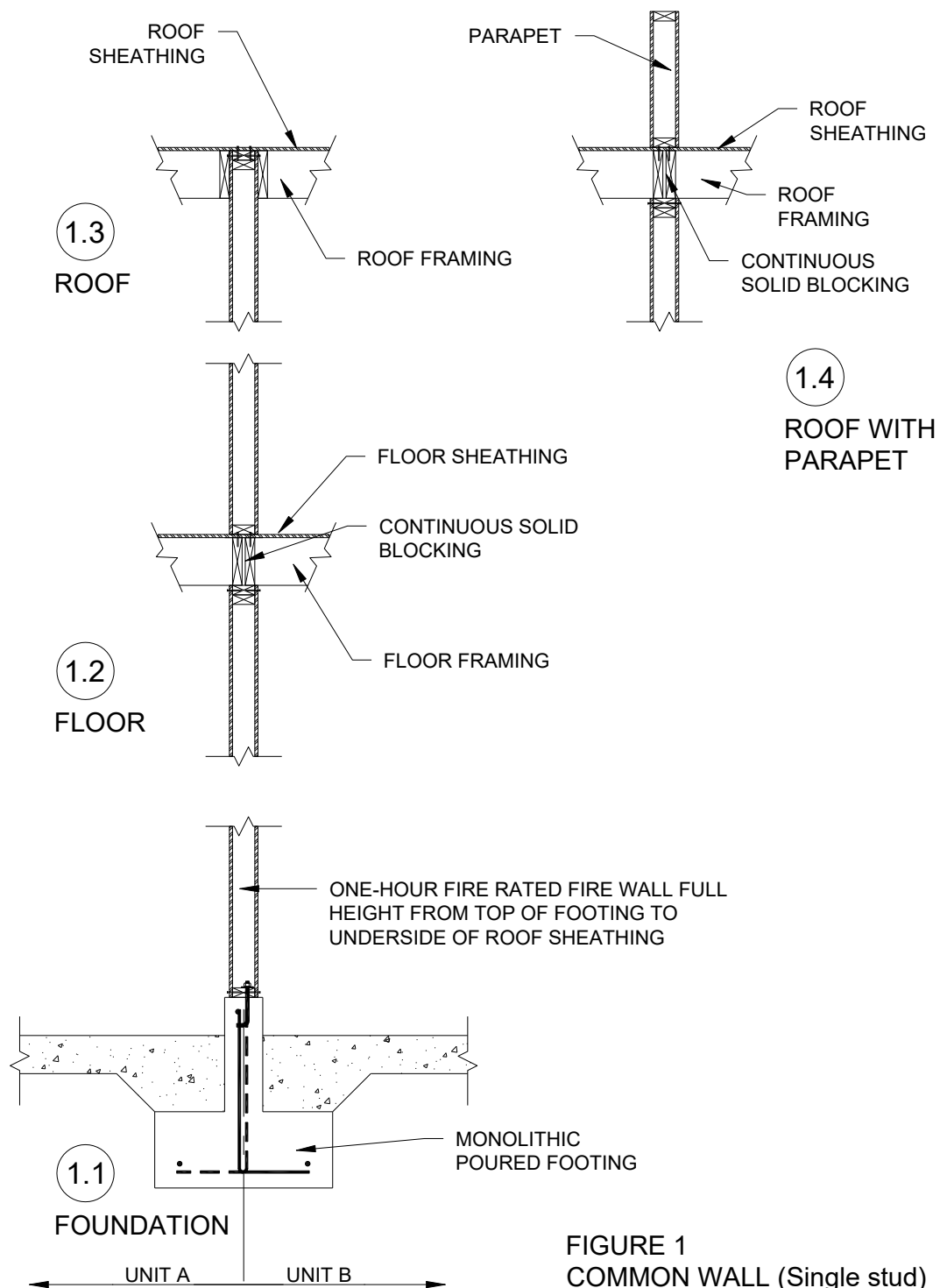


FIGURE 1
COMMON WALL (Single stud)

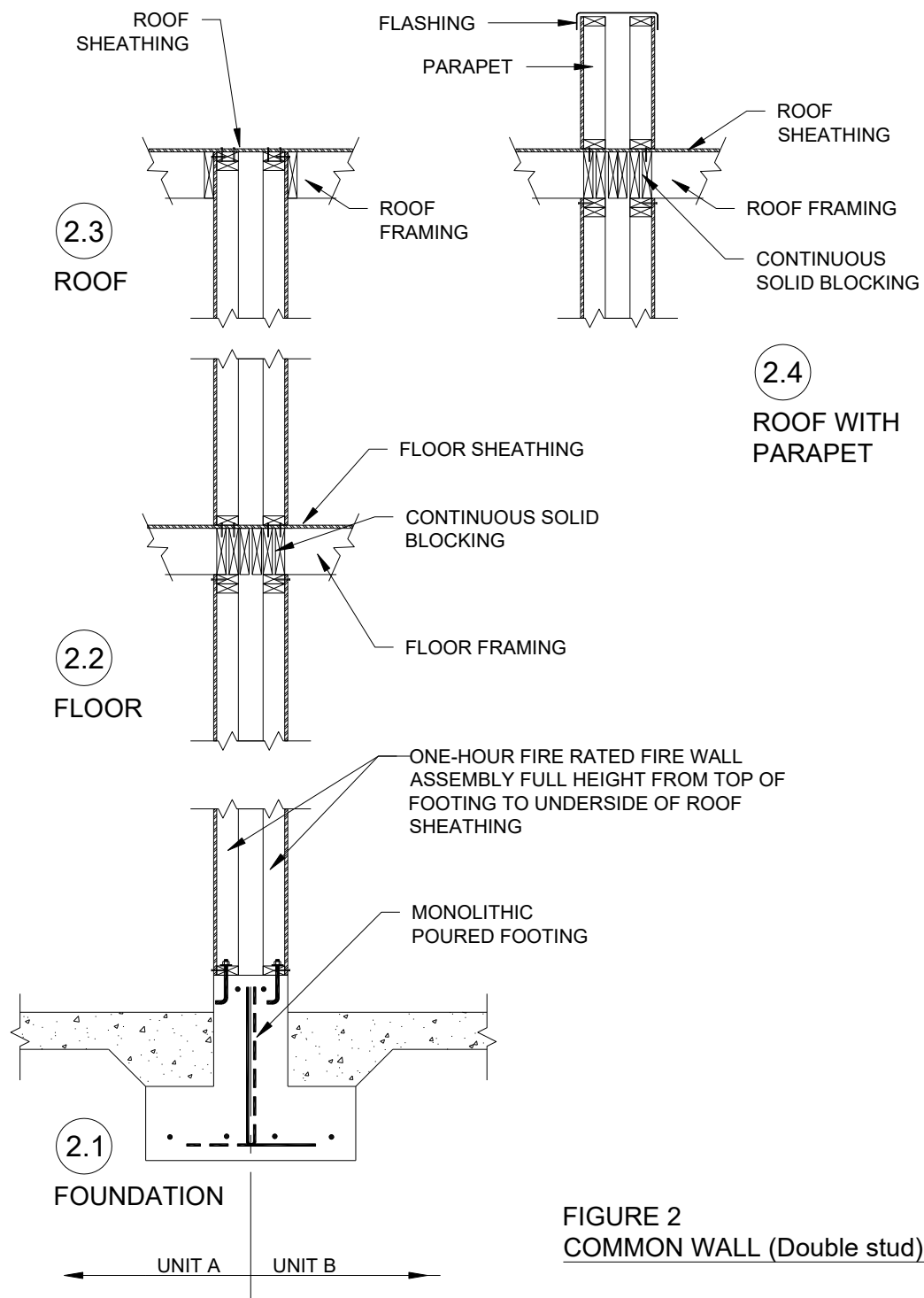
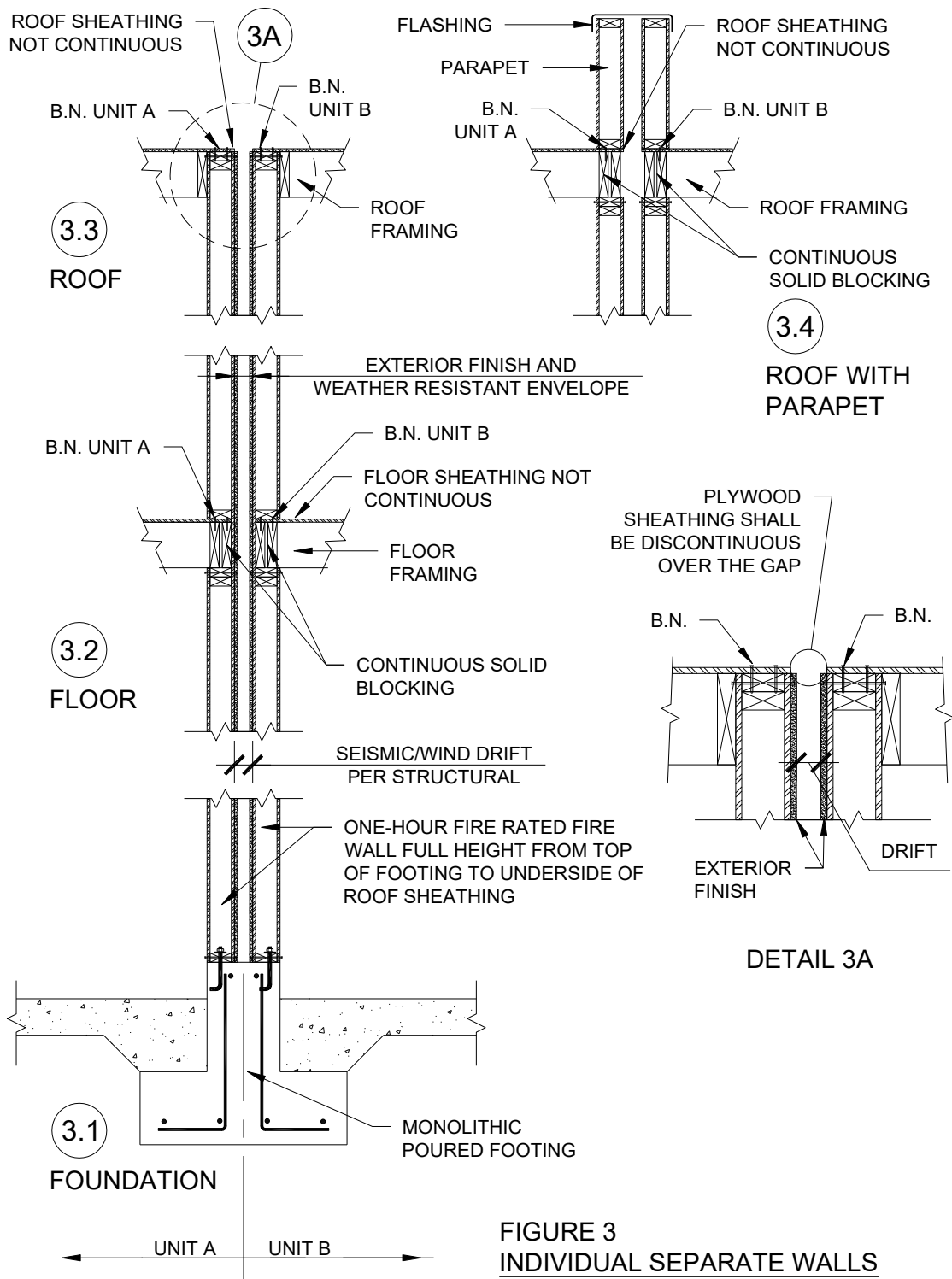


FIGURE 2
COMMON WALL (Double stud)



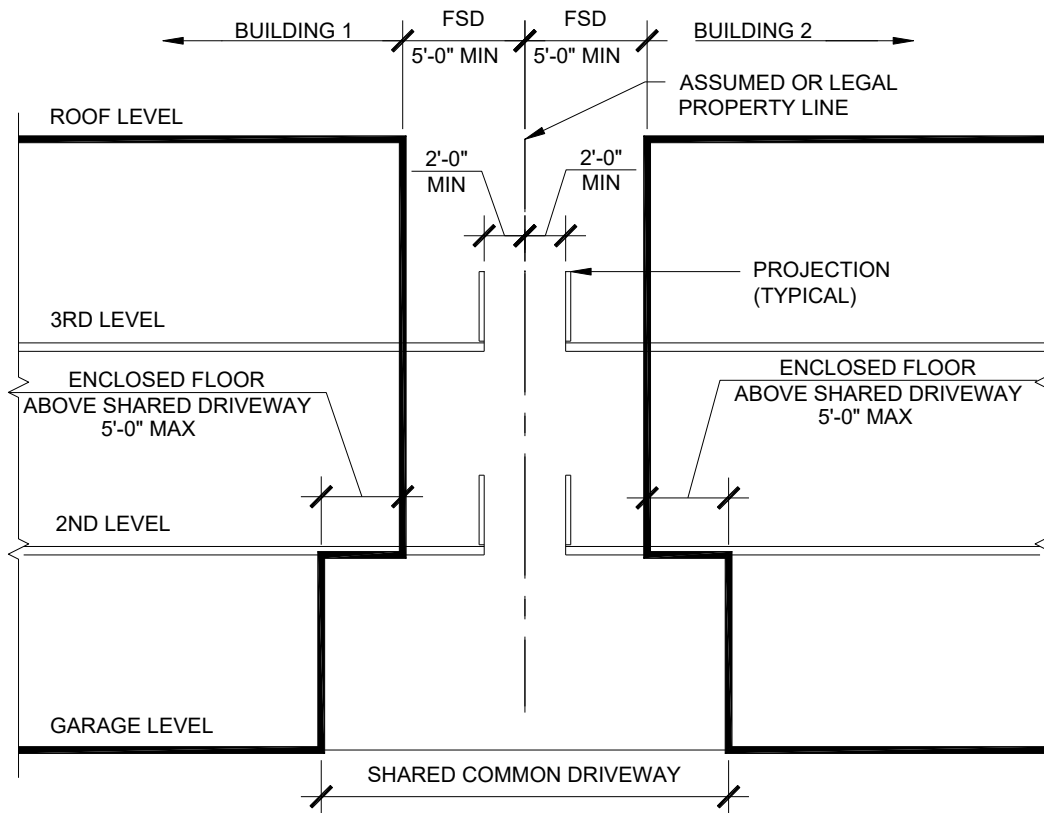


FIGURE 4
SECTION OF TOWNHOUSES WITH SHARED DRIVEWAY

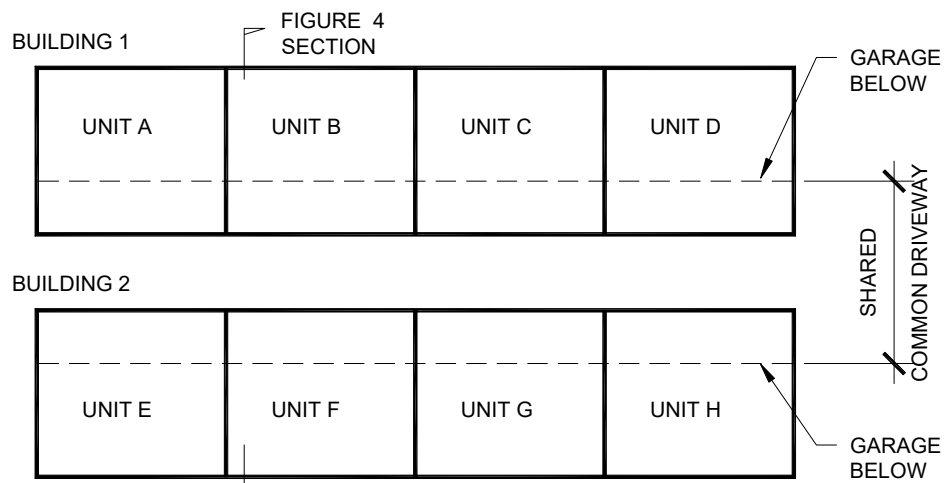


FIGURE 5
PLAN VIEW OF TOWNHOUSES WITH SHARED DRIVEWAY