

REQUIRED INSPECTIONS- (24 Hour Notice is required for all Inspections)

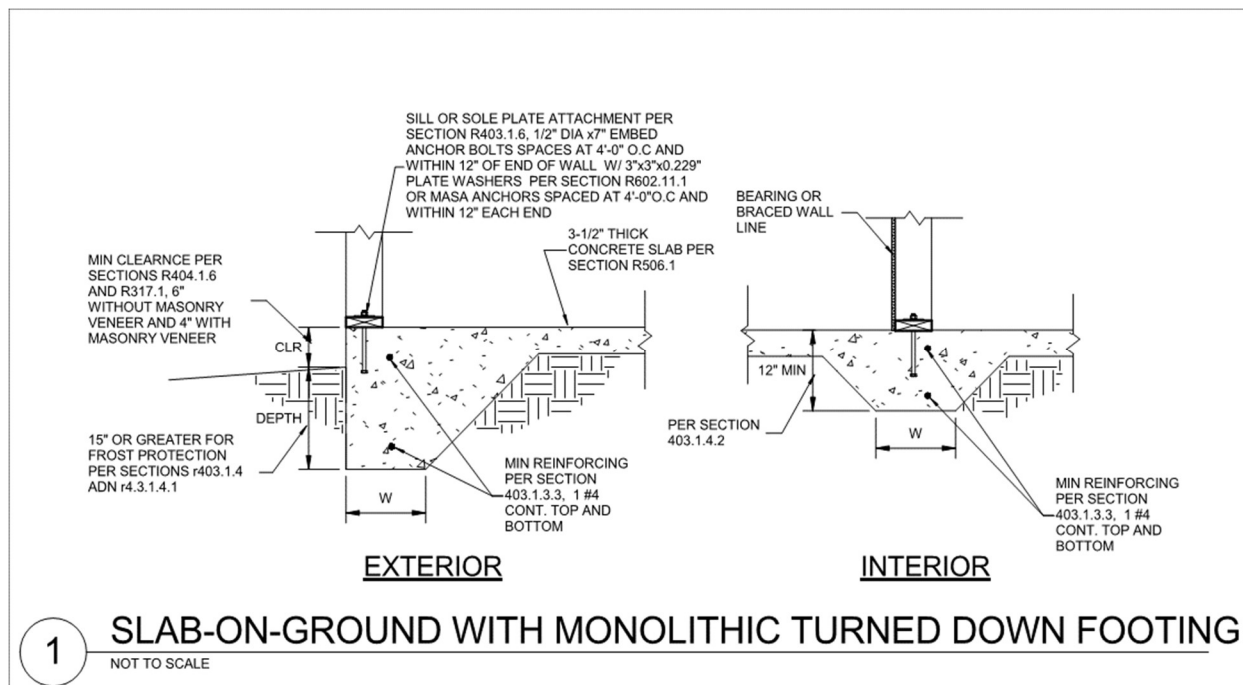
- FOOTING
- FLOORING/ SLAB PLUMBING
- FRAMING/ROUGH PLUMBING/GAS ROUGH IN
- FINAL

ALL RESIDENTIAL DWELLINGS 5,000 SQ. FT. OR MORE WILL REQUIRE DESIGNED DRAWINGS

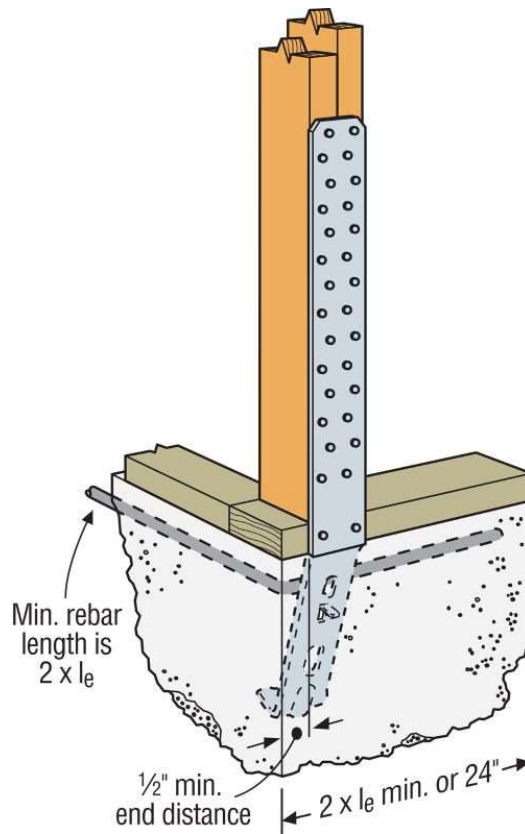
THIS IS A LISTING OF MINIMUM STANDARDS- 2021 IRC

THIS LIST IS NOT ALL INCLUSIVE. IT IS THE OWNERS/CONTRACTORS RESPONSIBILITY TO MEET THE MINIMUM STANDARDS OF THE 2021 IRC WITH STATE OF TN 2015 SEISMIC MODIFICATIONS AND THE 2018 MODEL ENERGY CODE WITH STATE OF TN MODIFICATIONS.

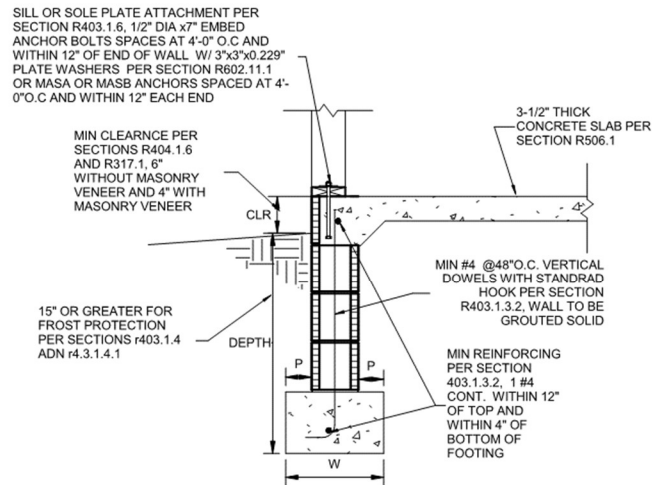
Footings



**SIMPSON/ MI TEK CAST IN PLACE
HOLD DOWN**



SIMPSON- STD14 or MI TEK- STAD14

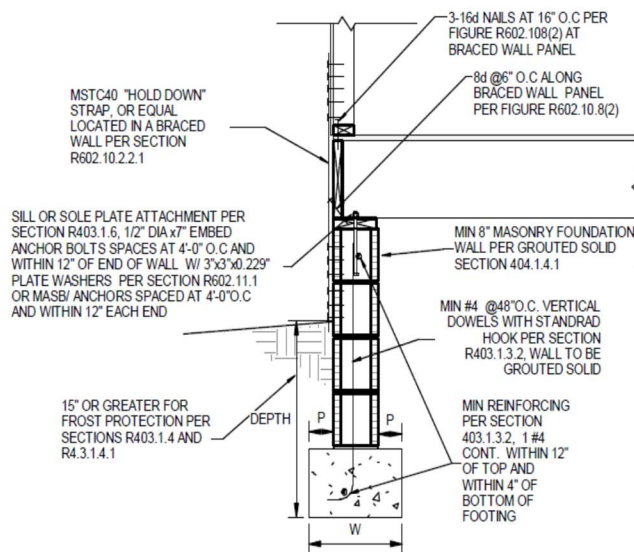


3

SLAB ON GROUND WITH MASONRY STEM WALL AND CONT. FOOTING

NOT TO SCALE

Slab on Grade Foundation Cells with reinforcement must be filled with concrete and anchors installed. Maximum of 4 feet in height.



4

CRAWL SPACE WITH MASONRY STEM WALL AND CONT. FOOTING

NOT TO SCALE

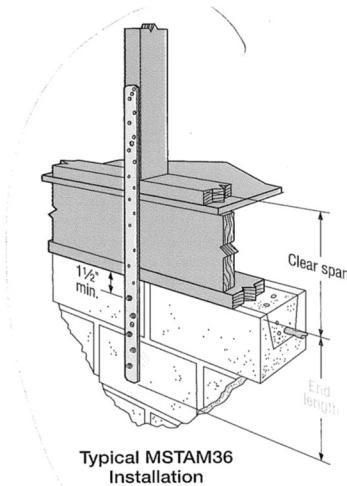
Conventional Foundations Cells with reinforcement must be filled with concrete and anchors installed. Maximum of 4 feet in height.

SIMPSON / MITEK STRAP TIES

Crawlspace & Slab on
Grade Masonry Install

ANCHOR BOLTS/ 3 INCH PLATE WASHER

SIMPSON MASA ANCHORS MITEK (USP) FA4



SIMPSON MSTAM36 MITEK(USP) MSTAM36

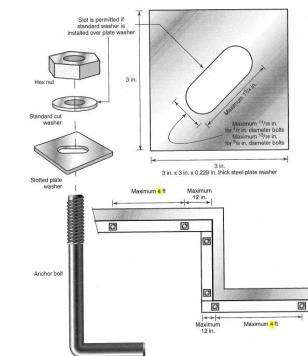
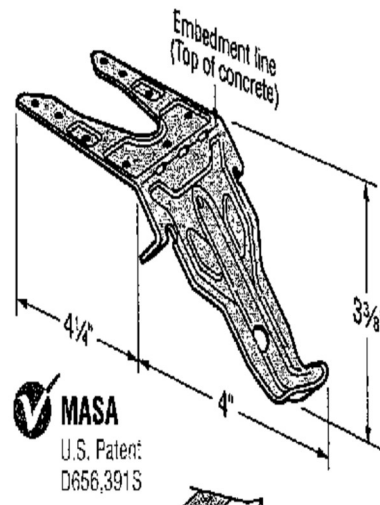


FIGURE 5-14 Wood sill plate anchorage to foundation for all buildings in SDG C, D₀, D₁, and D₂ and townhouses in SDG C

TABLE 5-3 Foundation anchor bolts (minimum 1/2-inch diameter and 7-inch embedment)

Seismic Design Category	One- and two-family dwellings		Washer	Seismic Design Category	Townhouses	
	Stories	Maximum spacing			Stories	Maximum spacing
A and B	1, 2, or 3	6 ft	Standard cut	A and B	1, 2, or 3	6 ft
C	1 or 2	8 ft	Standard cut	C	1 or 2	8 ft
D ₀ , D ₁ , and D ₂	1 or 2	8 ft	Standard cut	D ₀ , D ₁ , and D ₂	1 or 2	8 ft

Note: Standard cut washers are permitted in walls without bonded wall panels.

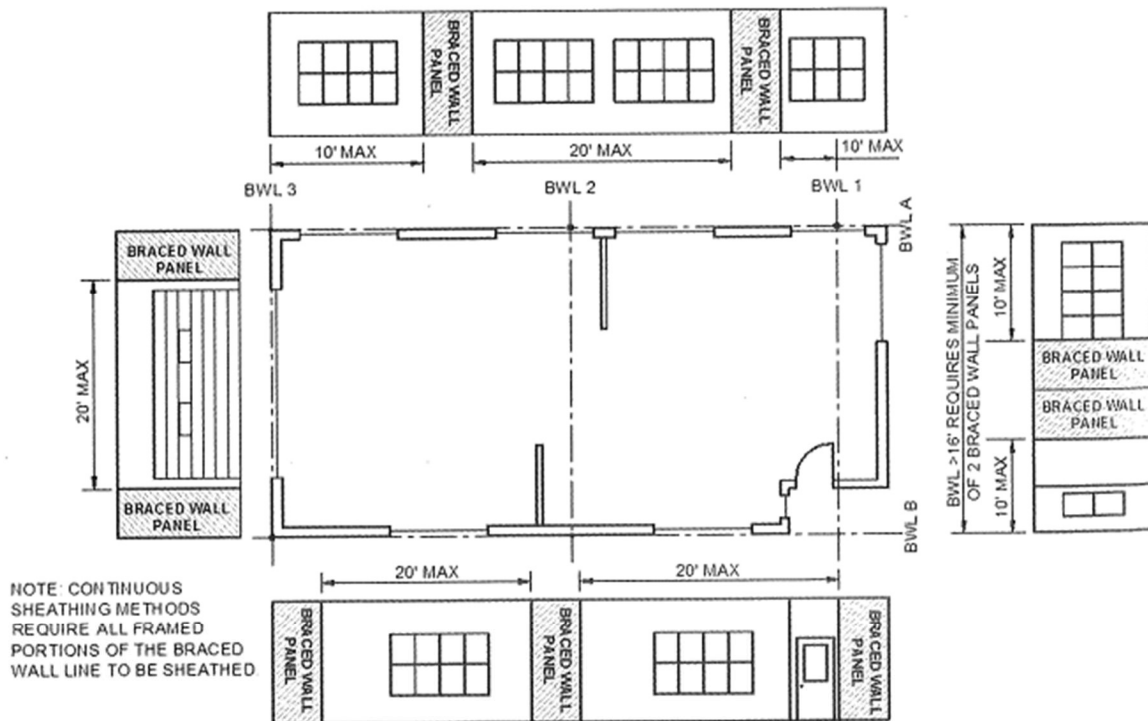


Section 403.1.6.1 Foundation Anchorage in Seismic Design Category C, D₀, D₁, D₂. Modify this section to read as follows:

Exterior Walls (use either of these methods)

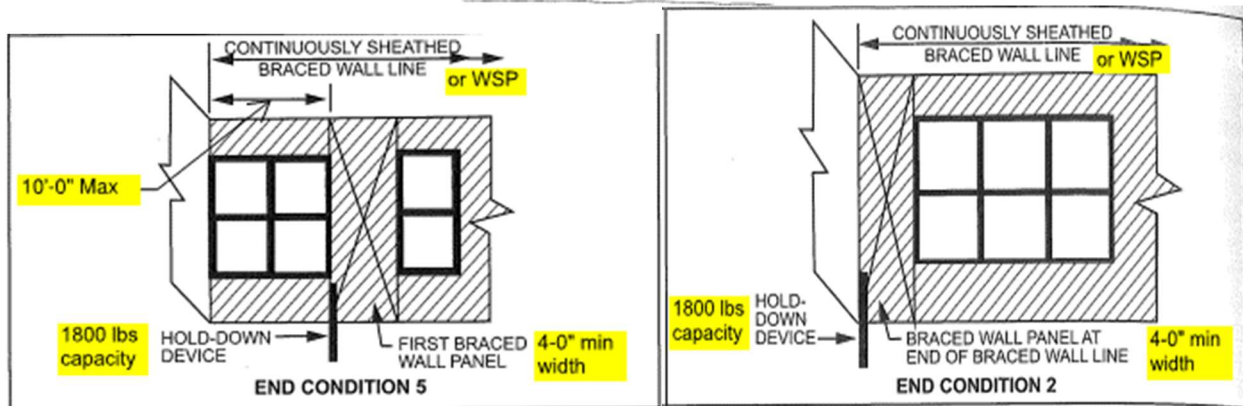
- 1) Wood sole plates at all exterior walls shall be anchored to the foundation with 1/2" diameter anchor bolts spaced at 4'-0" o.c and within 12" of the end of the plate. A minimum of 2 anchors per sole plate is required. Anchor bolts shall embed a minimum of 7" into the concrete foundation or grouted masonry cells. Anchor bolts must be located in the middle 1/3 of the sole plate. Plate washers, not less than 3"x3"x0.29" shall be installed at each anchor bolt in accordance with section R602.11.1 or
- 2) Wood sole plates at all exterior walls shall be anchored to the foundation with MASA/MASB/LMAZ anchors or equivalent embedded anchors spaced at 4'-0" o.c and within 12" of the end of each plate.

FRAMING



For SI: 1 foot = 304.8 mm.

FIGURE R602.10.2.2
LOCATION OF BRACED WALL PANELS



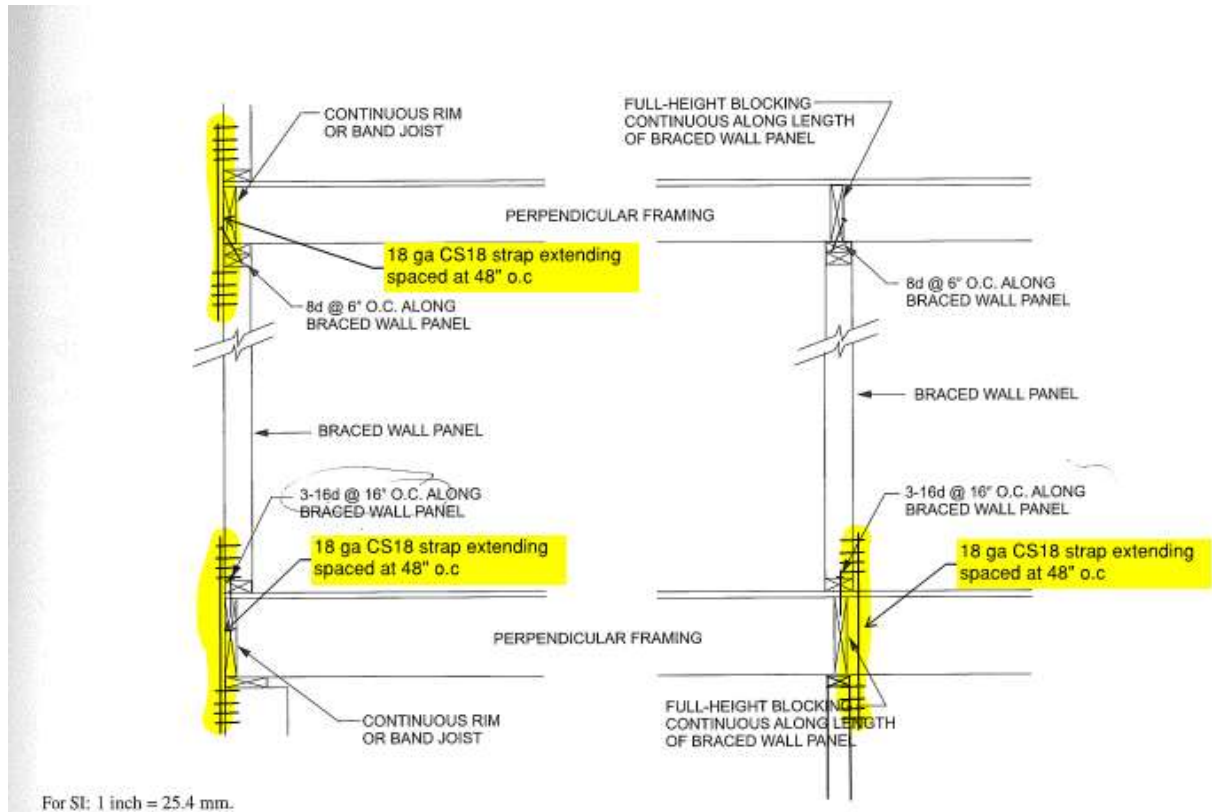
Section R602.10.2.2 Locations of Braced Wall Panels. A braced wall panel shall begin within 10 feet from each end of a braced wall line as determined in Section [R602.10.1.1](#). The distance between adjacent edges of braced wall panels along a braced wall line shall be no greater than 20 feet (6096 mm) as shown in Figure R602.10.2.2.

- The end of each braced wall panel closest to the end of the braced wall line shall have an 1,800 lb (8 kN) hold-down device fastened to the stud at the edge of the braced wall panel closest to the corner and to the foundation or framing below.

BRACED WALL PANNELLS MUST HAVE DOUBLE STUDS AT EACH END AND NAILED 6 INCHES ON THE EDGES AND 12 INCHES IN THE MIDDLE SECTION OF SHEATHING.

Section R602.10.8 Braced Wall Panel Connections. Braced wall panels shall be connected to floor framing or foundations as follows:

1. Where joists are perpendicular to a braced wall panel above or below, a rim joist, band joist or blocking shall be provided along the entire length of the braced wall panel in accordance with Figure [R602.10.8\(1\)](#). Fastening of top and bottom wall plates to framing, rim joist, band joist and/or blocking shall be in accordance with Table [R602.3\(1\)](#). Additionally where braced wall panels stack on top of each other, provide a 18 ga coil strap (CS18) spaced @48" o.c installed vertically across the floor space and extended a minimum 12" above the floor and 12" below the wall top plate. Install into wall studs with 18 10d nails, ½ top and bottom.



Roof Framing Connections. Roof framing shall be fastened to wall top plate with **18 gauge** galvanized steel clips (Hurricane Clips), not to exceed **48" on center**.

Wall Sheathing. Wall sheathing shall be 7/16 OSB or equivalent. Sheathing installed horizontally must have the joints blocked.

Headers and Beams. All headers and beams over 6 feet installed in load bearing partitions shall be strapped at each end with 18ga coil strapping.



Garage Door Openings. Garage Door openings must meet Section 602.10.6 of the 2015 IRC. (Exception- An engineered pre-manufactured wall panel is allowed to be used at garage door openings.)



GENERAL REQUIREMENTS

CARBON MONOXIDE DETECTORS REQUIRED- COMBO DETECTORS ARE PERMITTED

R315.2.1 New construction. For new construction, carbon monoxide alarms shall be provided in dwelling unit where either or both of the following conditions exist.

1. The *dwelling unit* contains a fuel-fired *appliance*.
2. The *dwelling unit* has an attached garage with an opening that communicates with the dwelling unit.

CLOTHES DRYER EXHAUST VENTS- METAL DUCT MATERIAL REQUIRED

M1502.4.1 Material and size. Exhaust ducts shall have a smooth interior finish and be constructed of metal having a minimum thickness of 0.0157 inches (0.3950 mm) (No. 28 gage). The duct shall be 4 inches (102 mm) nominal in

diameter.

BATHROOM EXHAUST VENTS TO BE TERMINATED TO THE EXTERIOR

M1501.1 Outdoor discharge. The air removed by every mechanical exhaust system shall be discharged to the outdoors in accordance with Section M1506.2. Air shall not be exhausted into an attic, soffit, ridge vent or crawl space.

EMERGENCY ESCAPE AND RESCUE OPENINGS (Bedroom Windows)

R310.2.1 Minimum opening area. Emergency and escape rescue openings shall have a net clear opening of not less than 5.7 square feet (0.530 m²). The net clear opening dimensions required by this section shall be obtained by the normal operation of the emergency escape and rescue opening from the inside. The net clear height opening shall be not less than 24 inches (610 mm) and the net clear width shall be not less than 20 inches (508 mm). **Exception:** Grade floor or below grade openings shall have a net clear opening of not less than 5 square feet

STAIRS

R311.7.8 Handrails. Handrails shall be provided on not less than one side of each continuous run of treads or flight with four or more risers.

R311.7.8.1 Height. Handrail height, measured vertically from the sloped plane adjoining the tread nosing, or finish surface of ramp slope, shall be not less than 34 inches (864 mm) and not more than 38 inches (965 mm).

R311.7.8.2 Continuity. Handrails for stairways shall be continuous for the full length of the flight, from a point directly above the top riser of the flight to a point directly above the lowest riser of the flight.

R311.7.5.1 Risers. The riser height shall be not more than 7³/₄ inches.

R311.7.5.2 Treads. The tread depth shall be not less than 10 inches (254 mm).

GUARD RAILS

R312.1.2 Height. Required guards at open-sided walking surfaces, including stairs, porches, balconies or landings, shall be not less than 36 inches (914 mm) in height as measured vertically above the adjacent walking surface or the line connecting the leading edges of the treads.

Exceptions:

1. Guards on the open sides of stairs shall have a height not less than 34 inches (864 mm) measured vertically from a line connecting the leading edges of the treads.
2. Where the top of the guard serves as a handrail on the open sides of stairs, the top of the guard shall be not less than 34 inches (864 mm) and not more than 38 inches (965 mm) as measured vertically from a line connecting the leading edges of the treads.

R312.1.1 Where required. Guards shall be located along open-sided walking surfaces, including stairs, ramps and landings, that are located more than 30 inches (762 mm) measured vertically to the floor or grade below at any point within 36 inches (914 mm) horizontally to the edge of the open side. Insect screening shall not be considered as a guard.

**TABLE R302.6
DWELLING-GARAGE SEPARATION**

From the residence and attics	Not less than 1/2-inch gypsum board or equivalent applied to the garage side
From habitable rooms above the garage	Not less than 5/8-inch Type X gypsum board or equivalent Structure(s) supporting floor/ceiling assemblies used for separation
Structure(s) supporting floor/ceiling assemblies used for separation	Not less than 1/2-inch gypsum board or equivalent

NATURAL GAS INSTALLATIONS

All Natural Gas Installations must be performed by a Contractor that is registered by the City of Dyersburg.

REQUIRED PRESSURE TEST

A 40 PSI PRESSURE TEST IS REQUIRED ON ALL NEW GAS INSTALLATIONS. (WITH A GAUGE).

GAS LOGS

GAS LOGS CAN ONLY BE INSTALLED IN APPROVED FACTORY BUILT BOXES OR APPROVED SOLID FUEL BURNING FIREPLACES.

G2432.1 (602.1) General. Decorative *appliances* for installation in *approved* solid fuel-burning *fireplaces* shall be tested in accordance with ANSI Z21.60 and shall be installed in accordance with the manufacturer's instructions.

GAS APPLIANCES

G2406.2 (303.3) Prohibited locations. *Appliances* shall not be located in sleeping rooms, bathrooms, toilet rooms, storage closets or surgical rooms, or in a space that opens only into such rooms or spaces, except where the installation complies with one of the following:

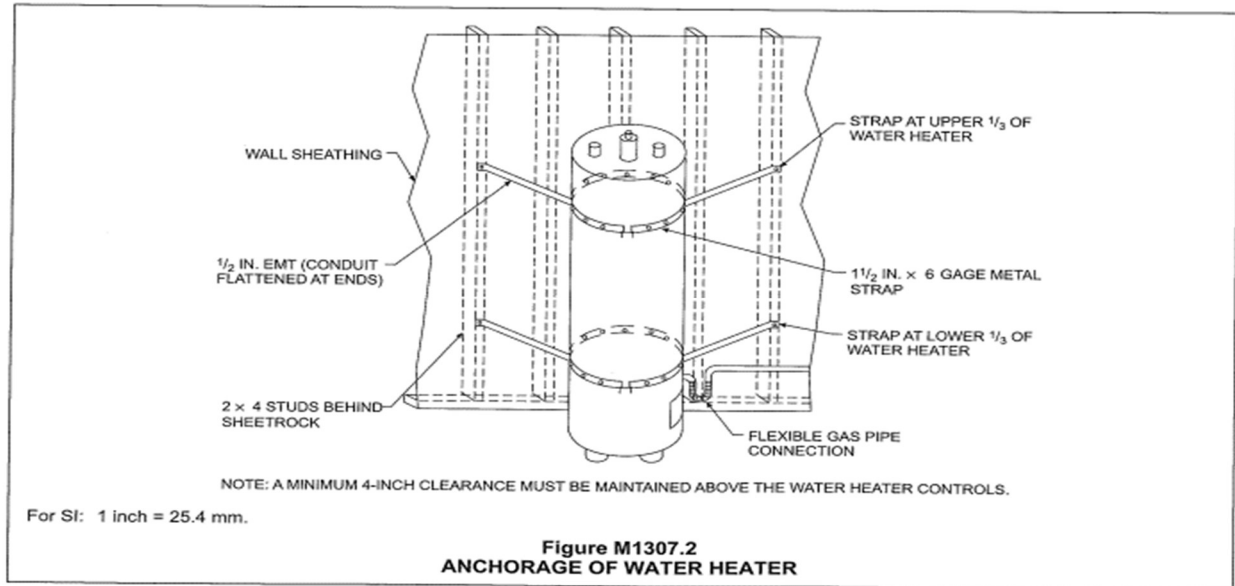
- 1.** The *appliance* is a direct-vent *appliance* installed in accordance with the conditions of the listing and the manufacturer's instructions.
- 2.** *Vented room heaters*, wall *furnaces*, vented decorative *appliances*, vented gas *fireplaces*, vented gas *fireplace* heaters and decorative *appliances* for installation in vented solid fuel-burning *fireplaces* are installed in rooms that meet the required volume criteria of Section G2407.5.
- 3.** A single wall-mounted *unvented room heater* is installed in a bathroom and such *unvented room heater* is equipped as specified in Section G2445.6 and has an input rating not greater than 6,000 *Btu/h* (1.76 kW).
- 4.** A single wall-mounted *unvented room heater* is installed in a bedroom and such *unvented room heater* is equipped as specified in Section G2445.6 and has an input rating not greater than 10,000 *Btu/h* (2.93 kW). The bedroom shall meet the required volume criteria of Section G2407.5.
- 5.** The *appliance* is installed in a room or space that opens only into a bedroom or bathroom, and such room or space is used for no other purpose and is provided with a solid weather-stripped door equipped with an *approved* self-closing device. All *combustion air* shall be taken directly from the outdoors in accordance with Section G2407.6.

PLUMBING

All Plumbers must be licensed by the State of Tennessee.

REQUIRED PRESSURE TEST

ALL DOMESTIC WATER PIPING SHALL BE TESTED PER 2021 IRC CODE.
ALL DWV PIPING SHALL TESTED PER 2021 IRC CODE.



WATER HEATERS TO BE STRAPPED SEISMICALLY

P2801.8 Water heater seismic bracing. In Seismic Design Categories D₀, D₁ and D₂ and townhouses in Seismic Design Category C, water heaters shall be anchored or strapped in the upper one-third and in the lower one-third of the appliance to resist a horizontal force equal to one-third of the operating weight of the water heater, acting in any horizontal direction, or in accordance with the appliance manufacturer's recommendations.

P2801.6 Required pan. Where a storage tank-type water heater or a hot water storage tank is installed in a location where water leakage from the tank will cause damage, the tank shall be installed in a pan constructed of one of the following: **A plastic pan shall not be installed beneath a gas-fired water heater.**

DWV PIPING

TABLE P3005.1
FITTINGS FOR CHANGE IN DIRECTION

TYPE OF FITTING PATTERN	CHANGE IN DIRECTION		
	Horizontal to vertical ^f	Vertical to horizontal	Horizontal to horizontal
Sixteenth bend	X	X	X
Eighth bend	X	X	X
Sixth bend	X	X	X
Quarter bend	X	X ^a	X ^a
Short sweep	X	X ^{a,b}	X ^a
Long sweep	X	X	X
Sanitary tee	X ^c	—	—
Wye	X	X	X
Combination wye and eighth bend	X	X	X

For SI: 1 inch = 25.4 mm.

a. The fittings shall only be permitted for a 2-inch or smaller fixture drain.

b. Three inches and larger.

c. For a limitation on multiple connection fittings, see Section P3005.1.1.