



# Southwest Washington Chapter of ICC

This construction detail is illustrative of the minimum standard of construction based upon the 2021 UPC/WSEC/ WAC 51-56

## MECHANICAL REQUIREMENTS:

Hot and cold water pipe insulation required per WSEC Sections 503.11 & Table 5-12  
6" clearance required for gas water heaters from draft hood & 6" to single wall pipe to combustibles. IFGC 503.12.7

For new installations:  
Temperature and pressure relief valve-drain to outside or other approved location-check with jurisdiction. See UPC/WAC Sections 504.6 & 608.5 (See exceptions for existing installations.)

## HARDWARE REQUIREMENTS:

Per manufacturer drill pilot hole on centerline of stud, use 1/4"x4" lag w/ washer. See note #3 below.

Install 2x blocking if tank does not have stud behind in as required- See Plan View below

2x framing

## NOTE:

- Per the WSEC, R-10 rigid insulation pad required at all electric water heater in unheated spaces or on concrete floor where a stand is not required. [R403.5.6 WSEC-R].
- Install water heater tight to wall or 2x4 bracing. See above.
- UPC/WAC 507.2. Water heaters shall be anchored or strapped to resist horizontal displacement due to earthquake motion. Strappings shall be at points within the lower  $\frac{1}{3}$  and upper  $\frac{1}{3}$  of the water heaters vertical dimensions. At the lower point, a distance of not less than 4" shall be maintained from controls to the strapping. Stand to be screwed or strapped to wall or floor or provide engineering calculations per IBC 16???. No stand required where listed as vapor ignition resistant.

## MECHANICAL REQUIREMENTS:

Exhaust to outside- B Vent clearance to combustibles per manufacturer's Listing & 6" for single wall pipe. IFGC Table 503.10.5. Where vent passes through insulated assemblies an insulation shield is required. Min. 26 gauge sheet to provide required clearance all around. Min. 2" above insulation and secured to prevent displacement per IFGC Section 502.4

Expansion tank required w/ closed plumbing system per UPC Section 608.3 pressurized to house water pressure.

Cold water supply line w/ shut off

Ignition source

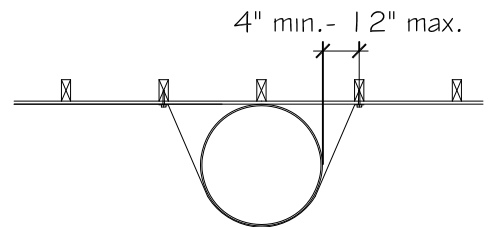
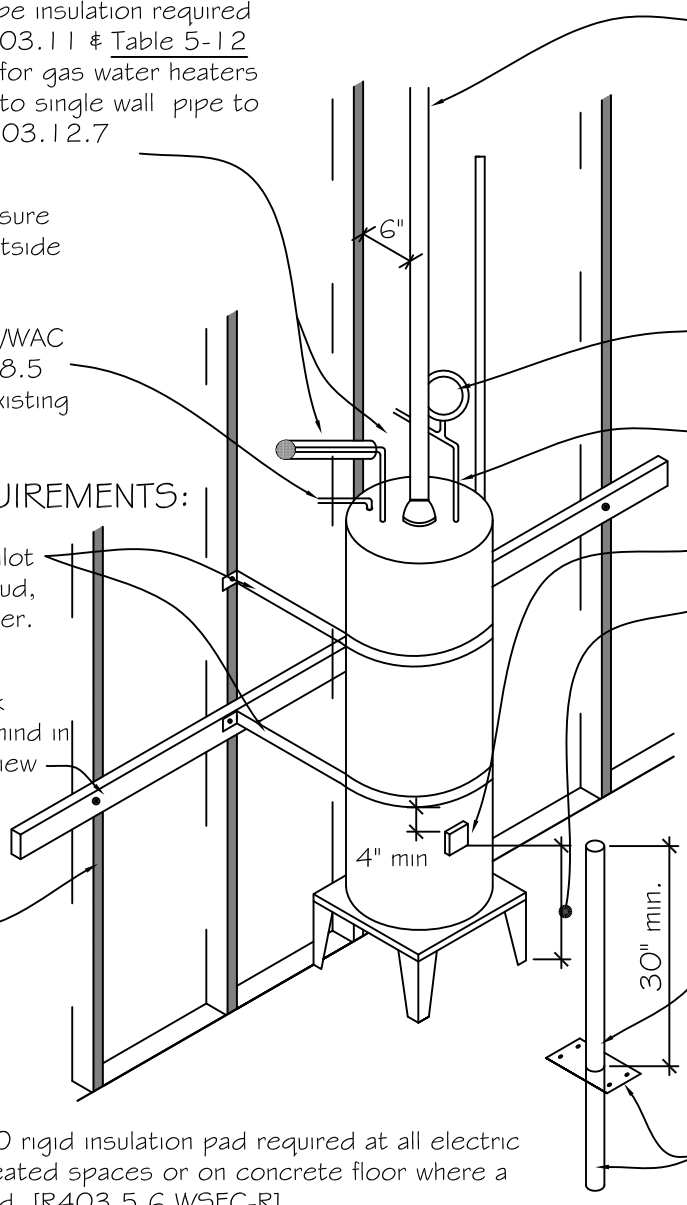
IRC M1307.3 and UPC/WAC 507.13 Elevation of ignition source.

18" minimum required between bottom edge of source of ignition and finish floor level unless listed as flammable vapor ignition resistant

## HARDWARE REQUIREMENTS:

Provide protective 3" Diam. steel bollard or equal so that water heater is not subject to physical damage by vehicle. Provide adequate anchorage to floor or embedment.

Plate anchor with  $\frac{1}{2}$ " x  $2\frac{3}{4}$ " anchor or embedment anchorage to floor.



PLAN VIEW