



A PROUD & PROGRESSIVE
VILLAGE FOR ALL PEOPLE

HVAC & WATER HEATER PERMIT ADDENDUM

1. All construction work involving replacement of water heaters, heating and/or cooling equipment shall comply with all applicable codes as adopted and amended by the Village of Glendale Heights.
 - 2006 International Residential Code
 - 2014 Illinois Plumbing Code
 - 2008 National Electric Code
 - 2012 International Energy Conservation Code
 - 2006 International Property Maintenance Code
2. Any water heater installation/replacement must be performed by a licensed plumber, or by the owner/occupant. Landlords may not perform any plumbing work.
3. Any increase in the size of the equipment (BTU input, CFM output, electric draw, etc.) must be clearly specified in the work scope prior to issuance of the permit.
4. Alteration of any of the existing materials and equipment identified below (beyond transition material) must be clearly specified in the work scope prior to issuance of the permit.
 - a) Rigid or flexible ductwork, flue venting, combustion air venting, gas piping, refrigerant piping, water piping, drain, waste and/or vent piping, insulation, and/or electrical work.
 - b) Accessory equipment such as expansion tanks, humidifiers, electronic air filters, etc.
5. The following restrictions apply to water heater and/or furnace location:
 - a) No fuel burning equipment (furnace, water heater, etc.) shall open directly to any bedroom, bathroom, or toilet room.
 - b) Any fuel burning equipment (furnace, water heater, etc.) that is located in a garage shall be protected by the following methods:
 - i. The equipment shall be enclosed by walls that run from floor to ceiling.
 - ii. The doors to the room shall be gasketed on all sides, including the threshold or sweep.
 - iii. The combustion chamber shall be elevated to 18" above the floor.
 - iv. Combustion air shall be provided directly from outdoors.
 - v. No duct openings shall be allowed into the garage area.
 - c) Utility room or closet – Minimum working area shall be 30" wide by full height of equipment, with minimum 24" passage providing access.

- d) Unconditioned space (attic, crawl space, etc.) – Minimum working area shall be 30" wide x 30" deep by full height of equipment on side where access is required, with minimum 24" wide by maximum 20' long solid floor passageway providing access.
 - e) Working clearances shall be provided and maintained as required by code and the manufacturers specifications.
6. Dielectric unions are required on the cold (inlet) and hot (outlet) water connections to the heater.
 7. Vent connectors shall be installed with a slope of not less than ¼" rise per foot run, and be of galvanized steel, single wall, 19 gauge, with a minimum of three sheet metal screws per joint. Direct venting of high efficiency equipment shall be PVC material and comply with manufacturer's instructions.
 8. A readily accessible, full-open valve shall be installed in the cold-water supply pipe to each water heater. Cold water supply should be on the right hand side of the water heater. NO flexible water or gas piping is allowed as part of the connections.
 9. A combination temperature/pressure relief valve (labeled by an approved agency) is required, and have a temperature setting of not more than 210 F (99C) and a pressure setting not to exceed the tank's rated working pressure or 150 psi, whichever is less. Water temperature shall be set to a maximum of 120° F.
 10. The relief valve must be connected to a ¾" discharge pipe. The pipe shall be of a metallic material, be installed so as to drain by gravity flow and shall terminate not more than 6 inches above the floor. A floor drain is required to receive the discharge of water if the relief valve should open. The end of the discharge pipe shall not be threaded.
 11. When a water heater is installed on any floor higher than the basement; a safety pan is required to be installed underneath the water heater unit. The pan shall be not less than 1.5 inches deep and shall be of sufficient size and shape to receive all dripping or condensation from the tank or heater. The pan shall be drained by an indirect waste pipe having a minimum diameter of ¾ inches.
 12. Water heaters with bottom inlets, water heaters installed on a shelf or in an elevated manner, and commercial water heaters are required to be supplied with a Vacuum Relief Valve.
 13. When a backflow preventer is installed on the water main, an expansion tank is required to be installed on the cold water supply with no shut-off valve between the heater and the expansion tank.
 14. Existing HVAC systems that are replaced (in whole or in part) or otherwise modified in any way **shall be equipped with a programmable thermostat.** (IECC R403.1.1)

15. Supply ducts in attics shall be insulated to a minimum of R-8. All other ducts shall be insulated to a minimum of R-6. (IECC R403.2.1)
16. Joints and seams of ducts, air handlers, and filter boxes shall be sealed. (IECC R403.2.2)
17. For new/replacement installations (where the ducts extend outside of the thermal envelope), duct tightness shall be verified by either of the following:
 - a. Postconstruction test: Total leakage shall be less than or equal to 4 cfm per 100 square feet of conditioned floor area when tested at a pressure differential of 0.1 inches w.g. (25 Pa) across the entire system, including the manufacturer's air handler enclosure. All register boots shall be taped or otherwise sealed during the test.
 - b. Rough-in test: Total leakage shall be less than or equal to 4 cfm per 100 square feet of conditioned floor area when tested at a pressure differential of 0.1 inches w.g. (25 Pa) across the system, including the manufacturer's air handler enclosure. All registers shall be taped or otherwise sealed during the test. If the air handler is not installed at the time of the test, total leakage shall be less than or equal to 3 cfm per 100 square feet of conditioned floor area.
18. Installation of appliances shall conform to the conditions of their listing and label and the manufacturer's installation instructions. The manufacturer's operating and installation instructions shall remain attached to the appliance. (IMC M1307.1)

Please note the following additional requirements:

- All contractors must have a current Village of Glendale Heights registration on file. Please visit the Community Development Department at Village Hall to complete the registration process.
- If any changes occur during construction that deviate from the Village approved drawings, the changes must be submitted immediately in writing to the Village of Glendale Heights for review and approval.
- A final inspection is required for all water heater, furnace and/or A/C installations. All inspections involve equipment inside the residence. Someone over the age of 18 must be present.

I hereby certify that I have read and understand all of the above regulations, and I agree to comply with all of the regulations contained herein.

Signature

Date