



Community Development
Department

FURNACE AND A/C REPLACEMENT

Permit Procedure:

1. Submit a completed permit application (*IRC-105.1).
2. Submit a copy of the plat of survey showing the location of a/c unit.
3. Furnaces and a/c units must be installed by a contractor licensed with the Village of Streamwood. (*VC 9-1-2-1)

Locations:

Heat-producing appliances and comfort-cooling appliances shall not be located in a private garage unless precautions are taken to protect such equipment from impact by automobiles (*IRC-G2408.2).

Heat-producing appliances and comfort-cooling appliances which generate a glow, spark or flame capable of igniting flammable vapors and is located in a garage shall be installed with the burners, burner ignition devices or heating elements and switches at least eighteen inches (18") above the floor level (*IRC-G2408.2).

When such appliances installed within a garage are enclosed in a separate compartment having access only from outside of the garage, they may be installed at floor level, provided the required combustion air is taken from and the products of combustion are discharged to the exterior of the garage.

All new units shall be installed with a programmable setback thermostat (*IECC-403.1.1).

Air conditioning compressors may not be located in a required front, side or corner side yard. A compressor may project a maximum of four feet (4') into a required rear yard. A required side yard is eight feet (8') (*VC 11-4-3).

Installation:

Furnaces

1. Furnace performance must meet the efficiency requirements in the 2012 energy code (*IECC). Gas lines must be piped solid with gas shutoff located in an accessible area. Unions must be outside of furnace and a drip leg installed. Flexible connectors may be used on high efficiency furnaces, if required by the manufacturer's installation instructions (*IRC-M1401.1 and M1411).

2. Saddle valves are prohibited for humidifiers (*ILP-890.1130(E)(5)). Existing saddle valves shall be removed. Plastic water lines are not allowed.
3. Any soldering will be done with a solder that contains no lead. (*ILP-890.320(D)).
4. All flue pipes must be free of deterioration and screwed together with three (3) sheet metal screws at each joint (*IRC-M1601.3.1).
5. All electric is to be done in accordance with the electric code (*NEC). A disconnect on the unit is required (*NEC-440.11).
6. Substantial means for primary air for combustion must be provided (*IRC-M1701.1).
7. Ducts, air handlers and filter boxes shall be sealed (*IECC-R403.2.2).
8. Up-flow furnaces located on the second floor of a building shall have a metal drain pan installed underneath the unit. The pan shall discharge to an approved drain.

Air Conditioners

1. All wiring is to be done according to the electrical code, including but not limited to:
 - a) A disconnect adjacent to the compressor located a minimum of eighteen inches (18") above grade (*VC-9-2-1 ; *NEC-440.14).
 - b) Equipment grounding conductor required (*NEC-250.110).
 - c) A permanent electric outlet shall be provided within twenty-five feet (25') of the condensing unit (*NEC-210.63).
 - d) Thermostat wiring is not permitted to be in same raceway as power conductors (*NEC-725.136).
 - e) Branch-circuit, short-circuit and ground fault protection. Follow manufacturer's installation specifications (*NEC-440.21, 110.3(B)).
2. Condensate lines should not be connected directly to any plumbing system (225 ILCS* 320).
3. Any system charging shall conform to Federal and EPA laws concerning CFC contamination of the air.
4. All system discharge shall be performed by licensed and certified HVAC contractor.

References (revised 06/2015):

*ILPC = Illinois Plumbing Code (2004)

*NEC = National Electrical Code (2011)

*VC = Village Code

*IFGC = International Fuel Gas Code (2012)

*ILCS = Illinois Compiled Statutes

*IRC = International Residential Code (2012)

*IECC = Energy Conservation Code (2012)