



Residential Manual J Requirements

Required Documentation

Provide a minimum of 2 copies of the Manual J's, 2 copies of equipment performance data sheets, and 2 copies of duct distribution drawings.

Project information

- Property address
- Zone #: A unique designation of each separate HVAC system. A separate form is required for each zone.

Design Information

- Outdoor design temperatures: set at Winter 17° F, and Summer 95° F
- Indoor design temperature: set at Winter 70° F, and Summer 75° F
- Orientation (N, S, E, W): the direction in which the front door faces
- Manufacturer and model number of the specific equipment being proposed
- Calculations shall include all rooms within the building envelope for the specified zone
- Occupant load

Minimum Heating Equipment Data

- Efficiency
- Capacity: the total input and output capacity of furnace or boiler in BTU/H
- Actual air flow and air flow factor
- Actual fan CFM of the air handler shall be 0.5 external static pressure (ESP)
- If any ESP other than 0.5 is used submit documentation to justify the ESP selected.

Minimum Cooling Equipment Data

- Efficiency
- Sensible cooling, latent cooling, and total cooling in BTU/H
- Actual fan CFM of the air handler shall be 0.5 ESP
- If any ESP other than 0.5 is used submit documentation to justify the ESP selected.
- Load sensible heat ratio

HVAC Duct Distribution Drawings

- Equipment location
- Flue vent type and size, total length, and termination location for furnaces and boilers
- Combustion air size and location for furnaces and boilers
- Supply and return duct size and location
- Take-off piping size and location
- Outlet register, grill size and location
- Exhaust fan sizes and termination locations (bath, dryer, kitchen)
- Manufacturer's documentation for kitchen exhaust CFM
- Make-up air for kitchen exhaust over 400 CFM
- Outdoor intake air duct location and size connected to the whole-house ventilation system

Direct equipment replacement with no changes to existing trunk line or building envelope are exempt from manual J but may require a permit or drawings.



The City of Falls Church is committed to the letter and spirit of the Americans with Disabilities Act. This document will be made available in alternate format upon request. Call 703 248-5080 (TTY 711).