



RESIDENTIAL STATEMENT OF COMPLIANCE FOR EQUIPMENT AND APPLIANCE SIZING

City of Suffolk, Virginia

Department of Planning and Community Development

Division of Community Development

757-514-4150

Permit #: _____ Site Address: _____

_____ Phone #: _____

Contractor/Owner Name: _____

I hereby attest that the HVAC equipment and appliances for the above referenced Permit Number and Site Address have been properly sized in accordance with the following:

-*2018 Virginia Residential Code (VRC) section **R403.7**, Equipment and Appliance Sizing.

-*2018 Virginia Residential Code (VRC), section **M1401.3**, Equipment and Appliance Sizing.

-*2018 Virginia Residential Code (VRC), section **M1601.1**, Duct Design.

* For purposes of clarification: "other approved methods" as specified in the applicable code sections above, are designs sealed by a Registered Design Professional licensed by the State of Virginia with specialty in the area of HVAC design.

Installation of the specified design is subject to field inspection.

Attached is the Air Conditioning Contractors of America (ACCA) Residential Plans Examiner Review Form for HVAC System Design (Loads, Equipment, Ducts), all associated required attachments located at top right of form, as well as model number and equipment specifications for additional items such as dehumidifiers, air cleaners, humidifiers, and zoning systems.

Printed Name of Applicant: _____

** Signature of Applicant: _____ Date: _____

**** Mechanical Master Tradesman's signature is required.**



Residential Plans Examiner Review Form for HVAC System Design (Loads, Equipment, Ducts)



City Of Suffolk, VA

TEL worksheet with N4 group and fitting numbers or manufacturer listed EL for supply and return duct runs.

Contractor _____

Mechanical License # _____

Building Plan # _____

Address of new system installation _____

REQUIRED ATTACHMENTS¹

Manual J1 Form (and supporting worksheets):
or MJ1AE Form² (and supporting worksheets):
OEM performance data (heating, cooling, blower):

ATTACHED

Yes ☐ No ☐
Yes ☐ No ☐
Yes ☐ No ☐
☐ ☐
Yes ☐ No ☐

Manual D Friction Rate Worksheet with Duct TEL calcs: Yes ☐ No ☐

Duct system diagram with sizes (and zones if applicable): Yes ☐ No ☐

HVAC LOAD CALCULATION (VRC M1401.3)

Design Conditions

Winter Design Conditions

Outdoor temperature _____ °F

Indoor temperature _____ °F

Total heat loss _____ Btu

Summer Design Conditions

Outdoor temperature _____ °F

Indoor temperature _____ °F

Grains difference _____ Δ Gr @ _____ % Rh

Sensible heat gain _____ Btu

Latent heat gain _____ Btu

Total heat gain _____ Btu

Building Construction Information

Building

Orientation (Front door faces) _____

North, East, West, South, Northeast, Northwest, Southeast, Southwest

Number of bedrooms _____

Conditioned floor area _____ Sq Ft

Number of occupants _____

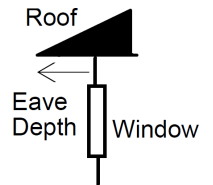
Windows

Eave overhang depth _____ Ft

Internal shade _____

Blinds, drapes, etc

Number of skylights _____



HVAC EQUIPMENT SELECTION (VRC M1401.3)

Heating Equipment Data

Equipment type _____

Furnace, Heat pump, Boiler, etc.

Model _____

Heating output capacity _____ Btu

Heat pumps - capacity at winter design outdoor conditions

Auxiliary heat output capacity _____ Btu

Cooling Equipment Data

Equipment type _____

Air Conditioner, Heat pump, etc

Model _____

Sensible cooling capacity _____ Btu

Latent cooling capacity _____ Btu

Total cooling capacity _____ Btu

Blower Data

Heating CFM _____ CFM

Cooling CFM _____ CFM

HVAC DUCT DISTRIBUTION SYSTEM DESIGN (VRC M1601.1)

Design airflow _____ CFM

External Static Pressure (ESP) _____ IWC

Component Pressure Losses (CPL) _____ IWC

Available Static Pressure (ASP) _____ IWC

Longest supply duct: _____ Ft

Longest return duct: _____ Ft

Total Effective Length (TEL) _____ Ft

Friction Rate: _____ IWC

Duct Materials Used (circle)

Trunk Duct: Duct board, Flex, Sheet metal,
Lined sheet metal, Other (specify)

Branch Duct: Duct board, Flex, Sheet metal,

Lined sheet metal, Other (specify)

$$ASP = ESP - CPL$$

$$\text{Friction Rate} = (ASP \times 100) \div TEL$$

I declare the load calculation, equipment selection, and duct system design were rigorously performed based on the building plan listed above, I understand the claims made on these forms will be subject to review and verification.

Contractor's Printed Name _____ Date _____

Contractor's Signature _____

Reserved for use by County, Town, Municipality, or Authority having jurisdiction.

¹ The AHJ shall have the discretion to accept Required Attachments printed from approved ACCA software vendors, see list on page 2 of instructions.

² If abridged version of Manual J is used for load calculation, then verify residence meets requirements, see Abridged Edition Checklist on page 13 of instructions.