



# 2021 Residential Code / HVAC System & WHV Checklist

Crook County Community Development  
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Contact Name: \_\_\_\_\_ Contact Phone: \_\_\_\_\_

Site Address: \_\_\_\_\_ EMAIL: \_\_\_\_\_

*The following items are **REQUIRED**. A basic drawing in plan view of HVAC system/WHV & energy compliance path is required in addition to the checklist. The Checklist **MUST** be completed before your application will be accepted.*

*Check the boxes of the items you are submitting with this application.*

## INSTALLATION OF DUCTS

**Section N1105.3** All new duct systems and air handling equipment and appliances shall be located fully within the building thermal envelope.

Exceptions:

1. Ventilation intake ductwork and exhaust ductwork.
2. Up to 5 percent of the length of an HVAC system ductwork shall be permitted to be located outside of the thermal envelope.
3. Ducts deeply buried in insulation in accordance with all the following:
  - 3.1 Insulation shall be installed to fill gaps and voids between the duct and the ceiling, and a minimum of R-19 insulation shall be installed above the duct between the duct and unconditioned attic.
  - 3.2 Insulation depth marker flags shall be installed on the ducts every 10 feet (3048 mm) or as approved by the building official.

**To comply with this requirement** (Please select all applicable boxes):

- Ducts will be installed in the conditioned space
- No heating or cooling ducts are being installed
- Ducts in unconditioned attic will have R-19 above and comply with requirements for deeply buried ducts
- Under-floor space will be conditioned and meet the requirements of R408.3 by using:
  - 2.1 Continuously Operated Mechanical Exhaust (Required C.F.M. \_\_\_\_\_)
  - 2.2 Conditioned Air Supply (Required C.F.M. \_\_\_\_\_)
- Under-floor space will not be conditioned and ducts will have R-19 insulation installed below duct. (see Oregon Building Codes Division technical bulletin for accepted methods)
- Other method will be used for heating and cooling ducts not in conditioned space.

Please specify:

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# MECHANICAL WHOLE-HOUSE VENTILATION SYSTEM (WHV)

**Section R303.4** Each dwelling unit shall be provided with whole-house mechanical ventilation.

To comply with this requirement; please select all applicable boxes for the system you are utilizing

  
  


HRV System

ERV System

Other Method

Please specify: \_\_\_\_\_

**OPTION 1**

**TABLE M1505.4.3(1)**

## CONTINUOUS WHOLE-HOUSE MECHANICAL VENTILATION SYSTEM AIRFLOW RATE REQUIREMENTS

DWELLING UNIT FLOOR AREA (sq ft)	NUMBER OF BEDROOMS				
	0 - 1	2 - 3	4 - 5	6 - 7	> 7
	Airflow in CFM				
< 1,500	30	45	60	75	90
1,501 - 3,000	45	60	75	90	105
3,001 - 4,500	60	75	90	105	120
4,501 - 6,000	75	90	105	120	135
6,001 - 7,500	90	105	120	135	150
> 7,500	105	120	135	150	165

For SI: square foot = 0.0929m<sup>2</sup>, 1 cubic foot per minute = 0.0004719 m<sup>3</sup>/s.

**Section 1505.4** Balanced\* WHV is provided with a minimum C.F.M. rate of \_\_\_\_\_

\*Balanced system shall have supply and exhaust rates within a 10% margin

**OPTION 2**

**TABLE M1505.4.3(2)**

## INTERMITTENT WHOLE-HOUSE MECHANICAL VENTILATION RATE FACTORS <sup>a, b</sup>

RUN-TIME PERCENTAGE IN EACH 4-HOUR SEGMENT	25%	33%	50%	66%	75%	100%
Factor <sup>a</sup>	4	3	2	1.5	1.3	1

a. For ventilation system run time values between those given, the factors are permitted to be determined by interpolation

b. Extrapolation beyond the table is prohibited

**Section 1505.4** Balanced\* WHV is provided with a minimum C.F.M. rate of \_\_\_\_\_ and using a 4-hour factor of \_\_\_\_\_ based on Tables M1505.4.3(1) and (2)

\*Balanced system shall have supply and exhaust rates within a 10% margin