

WAC 51-11C-407052 Table C407.5.1(2)/(3)—HVAC systems map.

Table C407.5.1(2)

HVAC Systems Map for Buildings Governed by Section C403.6^d

Condenser Cooling Source ^a	Heating System Classification ^b	Standard Reference Design HVAC System Type
Water/ground	Electric resistance	System 5
	Heat pump	System 6
	Fossil fuel	System 7
Air/none	Electric resistance	System 9
	Heat pump	System 9
	Fossil fuel	System 11

- a Select "water/ground" if the proposed design system condenser is water or evaporatively cooled; select "air/none" if the condenser is air cooled. Closed-circuit dry coolers shall be considered air cooled. Systems utilizing district cooling shall be treated as if the condenser water type were "water." If no mechanical cooling is specified or the mechanical cooling system in the proposed design does not require heat rejection, the system shall be treated as if the condenser water type were "Air." For proposed designs with ground-source or groundwater-source heat pumps, the standard reference design HVAC system shall be water-source heat pump (System 6).
- b Systems utilizing district heating (steam or hot water) or district cooling and systems with no heating capability shall be treated as if the heating system type were "fossil fuel" for the purpose of Standard Reference Design HVAC system selection. Otherwise, select the path that corresponds to the proposed design heat source: Electric resistance, heat pump (including air source and water source), or fuel fired. For systems with mixed fuel heating sources, the system or systems that use the secondary heating source type (the one with the smallest total installed output capacity for the spaces served by the system) shall be modeled identically in the standard reference design and the primary heating source type shall be used to determine *standard reference design* HVAC system type.
- c Reserved.
- d This table covers those building types required by Section C403.6 to install Dedicated Outdoor Air Systems: Office, retail, education, libraries and fire stations.

Table C407.5.1(3)

HVAC Systems Map for All Other Buildings

Condenser Cooling Source ^a	Heating System Classification ^b	Standard Reference Design HVAC System Type ^c		
		Single-Zone Residential System	Single-Zone Nonresidential System	All Other
Water/ground	Electric resistance	System 5	System 5	System 1
	Heat pump	System 6	System 6	System 6
	Fossil fuel	System 7	System 7	System 2
Air/none	Electric resistance	System 8	System 9	System 3
	Heat pump	System 8	System 9	System 3
	Fossil fuel	System 10	System 11	System 4

- a Select "water/ground" if the proposed design system condenser is water or evaporatively cooled; select "air/none" if the condenser is air cooled. Closed-circuit dry coolers shall be considered air cooled. Systems utilizing district cooling shall be treated as if the condenser water type were "water." If no mechanical cooling is specified or the mechanical cooling system in the proposed design does not require heat rejection, the system shall be treated as if the condenser water type were "Air." For proposed designs with ground-source or groundwater-source heat pumps, the standard reference design HVAC system shall be water-source heat pump (System 6).
- b Systems utilizing district heating (steam or hot water) or district cooling and systems with no heating capability shall be treated as if the heating system type were "fossil fuel" for the purpose of Standard Reference Design HVAC system selection. Otherwise, select the path that corresponds to the proposed design heat source: Electric resistance, heat pump (including air source and water source), or fuel fired. For systems with mixed fuel heating sources, the system or systems that use the secondary heating source type (the one with the smallest total installed output capacity for the spaces served by the system) shall be modeled identically in the standard reference design and the primary heating source type shall be used to determine *standard reference design* HVAC system type.
- c Select the *standard reference design* HVAC system category: The system under "single-zone Group R system" shall be selected if the HVAC system in the proposed design is a single-zone system and serves a residential space. The system under "single-zone other than Group R system" shall be selected if the HVAC system in the proposed design is a single-zone system and serves other than Group R spaces. The system under "all other" shall be selected for all other cases.

[Statutory Authority: RCW 19.27A.025, 19.27A.045, 19.27A.160, and 19.27.074. WSR 16-24-070, § 51-11C-407052, filed 12/6/16, effective 5/1/17. Statutory Authority: RCW 19.27A.025, 19.27A.160, and 19.27.074. WSR 16-03-072, § 51-11C-407052, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27A.025, 19.27A.045, 19.27.020, and 19.27.074. WSR 14-24-122, § 51-11C-407052, filed 12/3/14, effective 1/3/15. Statutory Authority: RCW 19.27A.020, 19.27A.025 and chap-

ters 19.27 and 34.05 RCW. WSR 13-04-056, § 51-11C-407052, filed 2/1/13, effective 7/1/13.]