SEALED DUCTS and TXVs (or Alternative Measures)
A signed CF-4R Form must be provided to the building department for each home for which the following are required.

- ☑ Sealed Ducts (all climate zones) (Installer testing and certification and HERS rater field verification required.)
- ☑ TXVs, readily accessible (climate zones 2 and 8-15 only) (Installer testing and certification and HERS Rater field verification required.)
- ☑ Refrigerant Charge (climate zones 2 and 8-15 only) (Installer testing and certification and HERS Rater field verification required.)

**OR**

- ☑ Alternative to Sealed Ducts and Refrigerant Charge /TXVs (See Package D Alternative Package Features for Project Climate Zone in the RM Appendix B Table 151-C, Footnotes 7-14.

**OR**

- ☑ No ducts installed.
- ☑ New ducts from existing space conditioning equipment, not exceeding 40 ft. in length.
- ☑ For additions and alterations, duct systems that are not documented to have been previously sealed as confirmed through field verification and diagnostic testing in accordance with procedures in the Residential ACM Manual. Duct systems with more than 40 linear feet in unconditioned spaces shall meet the requirements of Section 150(m) and duct insulation requirements of Package D.

**WATER HEATING SYSTEMS**

- ☑ Check box if system meets criteria of a “Standard” system. Standard system is one gas-fired water heater per dwelling unit. If the water heater is a storage type, 50 gallons is the maximum capacity and recirculation system is not allowed.
- ☑ Check box when using Preapproved Alternative Water Heating table, Table 5-4 in Chapter 5 in the Residential Manual. No water heating calculations are required, and the system complies automatically.
- ☑ Check box if system does not meet criteria of “Standard” system, and does not comply with the Preapproved Alternative Water Heating table. In this case, the Performance Method must be used and must be included in the submittal.
- ☑ Check box to verify that a time control is required for a recirculating system pump for a system serving multiple units.

**Systems serving single dwelling units** (See RM Table 5-4, Alternative Water Heating Systems for recirculation requirements)

<table>
<thead>
<tr>
<th>Water Heater Type/Fuel Type</th>
<th>Distribution Type</th>
<th>Number in System</th>
<th>Rated Input1 (kW or Btu/hr)</th>
<th>Tank Capacity (gallons)</th>
<th>Energy Factor or Thermal Efficiency</th>
<th>Standby1 Loss (%)</th>
<th>Tank External Insulation R-Value</th>
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**System serving multiple dwelling units** (See Residential Manual Section 5.3.3)

<table>
<thead>
<tr>
<th>Water Heater Type</th>
<th>Distribution Type</th>
<th>Number in System</th>
<th>Rated Input1 (kW or Btu/hr)</th>
<th>Tank Capacity (gallons)</th>
<th>Energy Factor or Thermal Efficiency</th>
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</table>

1) For small gas storage water heaters (rated inputs of less than or equal to 75,000 Btu/hr), electric resistance, and heat pump water heaters, list Energy Factor. For large gas storage water heaters (rated input of greater than 75,000 Btu/hr), list Rated Input, Recovery Efficiency, Thermal Efficiency and Standby Loss. For instantaneous gas water heaters, list Rated Input and Thermal Efficiencies.

**Pipe Insulation** (kitchen lines ≥ 3/4 inches) All hot water pipes from the heating source to the kitchen fixtures that are ¾ inches or greater in diameter shall be thermally insulated as specified by Section 150 (j) 2 A or 150 (j) 2 B.