4 Ventilation Checklist 4 — Exhaust Fan & Passive Inlets

Use this checklist for small (≤ 1800 sqft), single level, non-forced air heated dwellings located in coastal climate areas where winter design temperature is warmer than -13°F.

Civic Address __________________________ Permit No. __________

Climate Zone: _____ Number of Bedrooms (A) A bedroom is a room with an openable window (minimum dimensions apply), a closet and a closing interior door.

Total Floor area of conditioned space (B) ______ ft²

Total Interior Volume of Dwelling (C) ______ ft³

.5 ACH (air changes/hr) = Volume x 0.5 ÷ 60 = ______ cfm

Exhaust appliances exceeding .5 ACH may require make-up air.

1. Principal Ventilation System Exhaust Fan Minimum Air-flow Rate

Use the bedroom count from Box (A) and Total square footage from Box (B) above and Table 9.32.3.5, to determine

Minimum Required Principal Exhaust System Capacity ______ cfm (D)

2. Principal System Fan Choice

a) Exhaust Fan continuous running Make ______ Model ______ Sone Rating ______

Location: __________________________

Capacity at 0.2 ESP ______ cfm (E) Must be ≥ than Box (D)

If CFV, capacity @0.4ESP

3. Fan Duct Size and Equivalent Length

Use actual fan cfm in Box (E) above and Table 9.32.3.8 (3) [See note at bottom of page for larger fan duct sizing].

a) Length of duct ______ ft + Exterior hood 30ft + number of 90° elbows ______ X 10 ft = ______ Equivalent Length

Maximum Equivalent Length allowed in Table 9.32.3.8(3) = ______

b) Fan Duct size: ______ inches Ø Duct type: ______ Smooth ______ Flex

4. Required Kitchen and Bathroom Exhaust Fans: Re-list below if Principal Exhaust Fan meets all or part of Kitchen/Bathroom spot Exhaust requirements.

<table>
<thead>
<tr>
<th>ROOM</th>
<th>REQUIRED EXHAUST RATE Table 9.32.3.6</th>
<th>EXHAUST EQUIPMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fan Make &amp; Model CFM @ 0.2 ESP Rated</td>
<td>Spot Exhaust Kitchen &amp; Bath WALL/CEILING FANS</td>
</tr>
<tr>
<td></td>
<td>Duct Dia (in/ Ø) rigid/ flex</td>
<td>CFM *Duct Sizing per Table 9.32.3.8(3) Max. Equiv. Length per table Installed Equiv. Length</td>
</tr>
<tr>
<td></td>
<td>Principal System CFM</td>
<td></td>
</tr>
</tbody>
</table>

* For fan capacities exceeding 175cfm in Table 9.32.3.8(3), follow manufacturer’s installation instructions or use good engineering practice to size duct.

See Ventilation Guidelines Appendix page 16-A Checklist 4, pg 1 of 2
5. **Required Inlets for passive Ventilation Air Supply**
   a) Location: High wall (minimum 6 ft above floor)
   List all rooms with inlets: Required in each bedroom, and at least one common area

b) Inlet Size: Free Area must be greater than or equal to 4 Sq In

6. **If Heated Crawlspace present, state method of ventilating**

**MAKE-UP AIR Requirements**

1. **NAFFVA (Naturally Aspirated Fuel Fired Vented Appliance) or radon present in dwelling unit?** Sentence 9.32.4.1
   - Yes, Proceed to Step 2
   - No, Omit Steps 2 & 3

2. **Exhaust Appliance present which exceeds Box C 0.5 ACH:**
   - Yes, Proceed to Step 3
   - Yes, Commit to
   - No such appliance. Omit Step 3

   **Depressurization Test** (See CAUTION, TECA Vent Manual pg 24)

3. **Use Active Make-up Air for Exhaust Appliance.**

   **Make-up Air Fan required:**
   - Fan Make
   - Model
   - Exhaust Appliance Actual Installed Cfm
   - Make-up Air Fan Cfm
   - Duct diameter ______ inches
   - Fan Location
   - Fan ducted to

   a) **Active Make-up Air delivered to an Unoccupied Area first** (not directly to room containing the appliance).
   i) **Tempering Required per 9.32.4.1.4(a):**
   Show calculation & describe how make-up air will be tempered to at least 34°F (1°C) before entering unoccupied area.

   ii) **Transfer Grill Required:** Size 1 sq in of gross area per 2 cfm:
   - Transfer grill size ______ sq. in.
   - Location

   iii) **Additional Tempering Required per 9.32.4.1.4(b) before transfer to occupied area:** Show calculation and describe how make-up air will be further tempered to at least 54°F (12°C).

   **OR b)** **Active Make-up Air delivered to an Occupied Area:** **Tempering Required.** Show calculation and describe how make-up air will be tempered to at least 54°F (12°C).

**Installer Certification:**

I hereby certify that the design and installation of the ventilation system complies with the 2012 B.C. Building Code, 2014 Section 9.32 Amendment.

Print Name

Signature

Company

Phone

List

Date

2014 TECA Ventilation Certification Stamp

Checklist 4, pg2 of 2

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BETA Version
teca Ventilation Guidelines 33
Table 9.32.3.5.
Principal Ventilation System Exhaust Fan Minimum Air-flow Rate
Forming part of Sentence 9.32.3.5.(1)

<table>
<thead>
<tr>
<th>Floor Area, m²</th>
<th>Minimum Air-flow Rate, L/s</th>
<th>Number of Bedrooms</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0–1</td>
<td>2–3</td>
</tr>
<tr>
<td>&lt; 140</td>
<td>14</td>
<td>21</td>
</tr>
<tr>
<td>140–280</td>
<td>21</td>
<td>28</td>
</tr>
<tr>
<td>281–420</td>
<td>28</td>
<td>35</td>
</tr>
<tr>
<td>421–560</td>
<td>35</td>
<td>42</td>
</tr>
<tr>
<td>561–700</td>
<td>42</td>
<td>49</td>
</tr>
<tr>
<td>&gt; 700</td>
<td>49</td>
<td>56</td>
</tr>
</tbody>
</table>

Table 9.32.3.6.
Kitchen/Bathroom Exhaust Fan Minimum Air-flow Rate
Forming part of Sentence 9.32.3.6.(1)

<table>
<thead>
<tr>
<th>Room</th>
<th>Minimum Exhaust Fan Air-flow Rate, L/s</th>
<th>Intermittent</th>
<th>Continuous</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kitchen</td>
<td></td>
<td>47</td>
<td>N/A</td>
</tr>
<tr>
<td>Bathroom</td>
<td></td>
<td>23</td>
<td>9</td>
</tr>
</tbody>
</table>