

# RESIDENTIAL MECHANICAL VENTILATION DESIGN SUMMARY

for design and performance of residential ventilation systems to OBC 2024 - 9.32

**1. Location** Municipality: \_\_\_\_\_  
Civic Address: \_\_\_\_\_

**2. Builder** Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
City: \_\_\_\_\_ Postal Code: \_\_\_\_\_  
Ph: \_\_\_\_\_ Fax: \_\_\_\_\_

**3. Designer** Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
City: \_\_\_\_\_ Postal Code: \_\_\_\_\_  
Ph: \_\_\_\_\_ Fax: \_\_\_\_\_  
HRAI #: \_\_\_\_\_  
E-mail: \_\_\_\_\_

**4. Combustion Appliances**

a) Direct Vent                      b) Induced Draft  
c) Natural Draft                    d) Solid Fuel Appliances  
e) No Combustion Appliances      CO Alarm Required

**5. Heating System**

Forced Air                      Non-Forced Air

Gas                      Propane                      Other  
Oil                      Electricity

**6. Distribution System**

Furnace                      Inline fan                      HRV/ERV

**7. Principal Ventilation System Design Option**

Exhaust only forced air distribution system  
(Circ. fan at least 5 times the capacity of the principal exhaust)

Balanced no heat recovery

HRV/ERV with extended exhaust

HRV/ERV with simplified exhaust

HRV/ERV with full ducting/not coupled to forced air

HRV/ERV with no supplemental fans  
(High speed must be at least 2.5 times the principal exhaust)

Supplemental fans

**8. Principal Ventilation Capacity (PVC)**

# of Bedrooms: \_\_\_\_\_ Required Exh Airflow: \_\_\_\_\_ CFM

Supply Air Required:      Yes      No

Mixed Air Temperature Calculation Required:  
Yes      No

For a System coupled with a Forced Air Furnace:

Furnace Blower Rate: \_\_\_\_\_ CFM

Max Allowable Outdoor Airflow as per NBC 9.32.3.4.(2):  
\_\_\_\_\_ CFM

**9. Principal Ventilation Fan**

HRV/ERV                      Central Inline Fan                      Bathroom Fan

Location: \_\_\_\_\_  
Manufacturer: \_\_\_\_\_  
Model: \_\_\_\_\_ HVI Rated

Design Airflow: Low: \_\_\_\_\_ CFM      High: \_\_\_\_\_ CFM  
Sones: \_\_\_\_\_      ESP: \_\_\_\_\_ "w.c.

\_\_\_\_\_ % Sensible Efficiency @ 0 °C @ \_\_\_\_\_ CFM  
\_\_\_\_\_ % Sensible Efficiency @ -25 °C @ \_\_\_\_\_ CFM

(If HRV/ERV is used, the system must also comply with SB-12)

**10. Other Ventilation Fans**

Location: \_\_\_\_\_ Sones: \_\_\_\_\_  
Manufacturer: \_\_\_\_\_  
Model: \_\_\_\_\_ HVI Rated

Design Airflow: \_\_\_\_\_ CFM      ESP: \_\_\_\_\_ "w.c.

Supplemental Fan      Supply Fan for Principal Exhaust  
Circulation Fan      Make-up Air Fan for \_\_\_\_\_

Location: \_\_\_\_\_ Sones: \_\_\_\_\_  
Manufacturer: \_\_\_\_\_  
Model: \_\_\_\_\_ HVI Rated

Design Airflow: \_\_\_\_\_ CFM      ESP: \_\_\_\_\_ "w.c.

Supplemental Fan      Supply Fan for Principal Exhaust  
Circulation Fan      Make-up Air Fan for \_\_\_\_\_

Location: \_\_\_\_\_ Sones: \_\_\_\_\_  
Manufacturer: \_\_\_\_\_  
Model: \_\_\_\_\_ HVI Rated

Design Airflow: \_\_\_\_\_ CFM      ESP: \_\_\_\_\_ "w.c.

Supplemental Fan      Supply Fan for Principal Exhaust  
Circulation Fan      Make-up Air Fan for \_\_\_\_\_

Location: \_\_\_\_\_ Sones: \_\_\_\_\_  
Manufacturer: \_\_\_\_\_  
Model: \_\_\_\_\_ HVI Rated

Design Airflow: \_\_\_\_\_ CFM      ESP: \_\_\_\_\_ "w.c.

Supplemental Fan      Supply Fan for Principal Exhaust  
Circulation Fan      Make-up Air Fan for \_\_\_\_\_

**11. Designer Consent**

I \_\_\_\_\_ certify this ventilation system is designed to be in accordance with OBC-2024 9.32

Date: \_\_\_\_\_ Signature: \_\_\_\_\_

Conversion note: 1 L/s = 2 CFM (For hard conversion, use 1 L/s = 2.118 CFM)  
Note: Secondary suite ventilation system requires a separate design

