Mechanical Design Report
Low rise residential

Location of Installation	**Address**	**House Builder**
	Application Number	**House Model (if applicable)**
Installing Contractor	**Name**	
	Address	
	City	**Postal Code**
	Telephone Number	**Fax Number**

SYSTEM DESIGN PARAMETERS

Combustion Appliances 9.32.3.1.(1)

a) ☐ Direct vent (sealed combustion) only
b) ☐ Positive venting induced draft (except fireplaces)
c) ☐ Natural draft, B-vent or induced draft fireplace
d) ☐ Solid Fuel (including fireplaces)
e) ☐ No Combustion Appliances

Heating System

☐ Forced Air
☐ Non Forced Air
☐ Electric Space Heat
☐ Radiant Floor Heat (attach pipe details)
☐ Geothermal (attach loop, pipe & well details)
☐ High Velocity Residential (attach duct details)
☐ Other:

House Type 9.32.3.1.(2)

☐ I Type a) or b) appliances only, no solid fuel
☐ II Type I except with solid fuel (including fireplace)
☐ III Any Type c) appliance = Part 6 Design
☐ IV Electric space heat
☐ Other: No forced air = Option 4

System Design Option

☐ Exhaust Only/Forced Air System
☐ HRV with Exhaust Ducts/Forced Air System
☐ HRV Simplified Connection to Forced Air System
☐ HRV – Full Ducting/Not Coupled to Forced Air System
☐ Part 6 Design
☐ Other:

EQUIPMENT DESIGN REQUIREMENTS

Total Ventilation Capacity 9.32.3.3.(1) **TOTAL**

Master Bedroom	1	x	10 L/s	=	10 L/s	
Unfinished Basement		x	10 L/s	=		
Other Habitable Rooms		x	5 L/s	=		**T.V.C.**

Principal Ventilation Capacity 9.32.3.4.(1)

Master Bedroom	1	x	15 L/s	=	15 L/s	
Other Bedrooms		x	7.5 L/s	=		- **P.V.C.**

Required Supplemental Ventilation Capacity (T.V.C. less P.V.C.) = _____

Furnace size: _____KJ or _____BTU

Air conditioner size: _____KJ or _____BTU or _____Tonnes (If provided / applicable)

Heating / Cooling Equipment sized according to heat loss/gain calculations of CAN/CSA F280-12: ◯ Yes ◯ No

Geothermal Equipment designed according to CAN/CSA-C448.2: ◯ Yes ◯ No

Hydronic Equipment designed according to CAN/CSA-B214: ◯ Yes ◯ No

Duct (and pipe) schematic attached including sizes, runs and material used: ◯ Yes ◯ No

VENTILATION EQUIPMENT

Heat Recovery Ventilator

Model: _____

_____ L/s High _____ L/s Low _____ % Sensible Efficiency @ -25°C

Proposed Exhaust Fans

	Location	Model	L/s	Sones	Principal or Supplemental
1					
2					
3					
4					

EQUIPMENT EFFICIENCIES (Please also refer to Energy Efficiency Design Summary)

Heating system:

Cooling system (if applicable):

Water heater:

HRV: % sensible efficiency at 0 degrees:

% sensible efficiency at -25 degrees:

DESIGNER CERTIFICATION

I hereby certify that this ventilation system has been designed in accordance with the 2012 Ontario Building Code.

Name: _____ Company Name: _____

Signature: _____ Date: _____ BCIN _____ HRAI # _____