Mechanical Design Report
Low rise residential

Location of Installation	**Address**	**House Builder** PHOENIX
	Application Number	**House Model (if applicable)** ANNAPOLIS
Installing Contractor	**Name** **HARDING MECHANCIAL**	
	Address **2210 CAVANMORE RD**	
	City **OTTAWA**	**Postal Code** **KOA 1LO**
	Telephone Number **613-831-2257**	**Fax Number** **613-831-9011**

City of Ottawa
Building Services Branch
REVIEWED
By rossgr1 at 12:37 pm, Sep 02, 2021
Building Code Reviewed
Signature

Commented [LM1]:

SYSTEM DESIGN PARAMETERS

Combustion Appliances 9.32.3.1.(1)

a) [X] 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

[X] Forced Air
[ ] Non-Forced Air (Other - _____)
[ ] Electric Space Heat
[ ] Radiant Floor Heat (attach pipe details)
[ ] Geothermal (attach loop, pipe & well details)
[ ] High Velocity Residential (attach duct details)

House Type 9.32.3.1.(2)

[X] 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

Ventilation System

[ ] CAN/CSA-F326
[ ] HRV - Exhaust Ducts / Forced Air System
[X] 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	1	x	10 L/s	=	10		
Other Habitable Rooms	15	x	5 L/s	=	**75**	**95**	**T.V.C.**

Principal Ventilation Capacity 9.32.3.4.(1)

Master Bedroom	1	x	15 L/s	=	15		
Other Bedrooms	3	x	7.5 L/s	=	22.5	- 37.5	**P.V.C.**

Required Supplemental Ventilation Capacity (T.V.C. less P.V.C.) = 57.5

Furnace size: _____ GMEC961004CN 1000,000 BTU'S_____ KJ

Air conditioner size: _____GSX16048 4.0 TON_____ KJ (If provided / applicable)

Heating / Cooling Equipment sized according to heat loss/gain calculations of CAN/CSA F280: Yes

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

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

Duct (and pipe) schematic attached including sizes, runs and material used: Yes

VENTILATION EQUIPMENT

Heat Recovery Ventilator

Model: CLEAN COMFORT VH70200ESNC HRV

95 L/s High 47.5 L/s Low

Exhaust Fans

	Location	Model	L/s	Sones	Principal or Supplemental
1	PDRM	DX90	45	2.5	PRINCIPAL
2	ENSUITE	EC50	25/25	3.	SUPPLEMENTAL
3	BATH1	EC50	25	3.	SUPPLEMENTAL
4	BATH 2	EC50	25	3.	SUPPLEMENTAL

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

Heating system:

Cooling system (if applicable):

Water heater:

HRV: 75 % sensible efficiency at 0 degrees:

60 % 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: LINDA MCPARLAN Company Name: HARDING MECHANICAL

Signature: Linda McParlan Date: JULY 20/21 BCIN 24379 HRAI # 6080