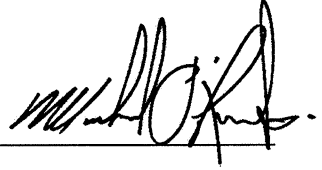


Schedule 1: Designer Information

Use one form for each individual who reviews and takes responsibility for design activities with respect to the project.

A. Project Information				
Building number, street name			Unit no.	Lot/con.
Municipality KLEINBURG	Postal code	Plan number/ other description		
B. Individual who reviews and takes responsibility for design activities				
Name MICHAEL O'ROURKE		Firm HVAC DESIGNS LTD.		
Street address 375 FINLEY AVE			Unit no. 202	Lot/con. N/A
Municipality AJAX	Postal code L1S 2E2	Province ONTARIO	E-mail info@hvacdesigns.ca	
Telephone number (905) 619-2300	Fax number (905) 619-2375	Cell number ()		
C. Design activities undertaken by individual identified in Section B. [Building Code Table 3.5.2.1 OF Division C]				
☐ House ☐ Small Buildings ☐ Large Buildings ☐ Complex Buildings ☒ HVAC – House ☐ Building Services ☐ Detection, Lighting and Power ☐ Fire Protection ☐ Building Structural ☐ Plumbing – House ☐ Plumbing – All Buildings ☐ On-site Sewage Systems				
Description of designer's work HEAT LOSS / GAIN CALCULATIONS DUCT SIZING RESIDENTIAL MECHANICAL VENTILATION DESIGN SUMMARY RESIDENTIAL SYSTEM DESIGN per CSA-F280-12		Model: 25-9 – OPT GROUND Project: HUNTINGTON & NASHVILLE		
D. Declaration of Designer				
I <u>MICHAEL O'ROURKE</u> declare that (choose one as appropriate): (print name) ☐ I review and take responsibility for the design work on behalf of a firm registered under subsection 3.2.4. of Division C, of the Building Code. I am qualified, and the firm is registered, in the appropriate classes/categories. Individual BCIN: _____ Firm BCIN: _____ ☒ I review and take responsibility for the design and am qualified in the appropriate category as an "other designer" under subsection 3.2.5. of Division C, of the Building Code. Individual BCIN: <u>19669</u> Basis for exemption from registration and qualification: <u>O.B.C SENTENCE 3.2.4.1 (4)</u> ☐ The design work is exempt from the registration and qualification requirements of the Building Code. Basis for exemption from registration and qualification: _____				
I certify that: 1. The information contained in this schedule is true to the best of my knowledge. 2. I have submitted this application with the knowledge and consent of the firm.				
<u>June 16, 2016</u> Date		 Signature of Designer		

NOTE:

- For the purposes of this form, "individual" means the "person" referred to in Clause 3.2.4.7(1) d) of Division C, Article 3.2.5.1. of Division C, and all other persons who are exempt from qualification under Subsections 3.2.4. and 3.2.5. of Division C.
- Schedule 1 is not required to be completed by a holder of a license, temporary license, or a certificate of authorization, issued by the Ontario Association of Architects. Schedule 1 is also not required to be completed by a holder of a license to practise, a limited license to practise, or a certificate of authorization, issued by the Association of Professional Engineers of Ontario.

SITE NAME: HUNTINGTON + NASHVILLE BUILDERS: GOLD PARK HOMES DATE: Jun-16 WINTER NATURAL AIR CHANGE RATE 0.322 HEAT LOSS AT °F: 76 CSA-F280-12
TYPE: 25-9 OPT GROUND LO# 68890 SUMMER NATURAL AIR CHANGE RATE 0.098 HEAT GAIN AT °F: 16 SB-12 PACKAGE J

ROOM USE	EXP. WALL	CLG. HT.	FACTORS	MBR	ENS	KT/LV	LAUN	WIR	FOY	BATH	WOD	BAS
GRS.WALL AREA	33	10	330	198	86	108	12	18	34	10	25	136
GLAZING	0	0	0	0	0	0	0	0	0	0	0	0
NORTH	24.1	17.4	0	0	0	0	0	0	0	0	0	0
EAST	24.1	43.0	24	14	80	0	0	0	0	0	0	0
SOUTH	24.1	26.3	0	0	20	0	0	0	0	0	0	0
WEST	24.1	43.0	0	0	0	0	0	0	0	0	0	0
SKYLT.	37.5	103.1	0	0	0	0	0	0	0	0	0	0
DOORS	25.2	5.2	0	0	0	0	0	0	0	0	0	0
NET EXPOSED WALL	3.5	0.7	306	184	756	0	0	20	40	90	0	0
NET EXPOSED BSMT WALL ABOVE GR	6.3	1.3	0	0	0	0	0	0	0	0	0	0
EXPOSED CLG	1.5	0.8	252	112	0	0	0	0	0	0	0	0
NO ATTIC EXPOSED CLG	2.5	1.2	0	0	0	0	0	0	0	0	0	0
EXPOSED FLOOR	2.5	0.5	0	0	0	0	0	0	0	0	0	0
BASEMENT/CRAWL HEAT LOSS	0	0	0	0	0	0	0	0	0	0	0	0
SLAB ON GRADE HEAT LOSS	0	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL HT LOSS	2018			1143								
SUB TOTAL HT GAIN	0.20	0.29	1442	0.20	0.29	0.30	0.20	0.30	0.30	0.20	0.29	0.20
LEVEL FACTOR / MULTIPLIER	582			330			467	397	808	153	69	891
AIR CHANGE HEAT LOSS	148			0			0	177	0	0	0	0
AIR CHANGE HEAT GAIN	0			0			0	241	0	0	0	0
DUCT LOSS	0			0			0	240	0	0	0	0
DUCT GAIN	0			0			0	541	0	0	0	0
HEAT GAIN PEOPLE	240			0			1	240	0	0	0	0
HEAT GAIN APPLIANCES/LIGHTS	541			0			2086	541	0	0	0	0
TOTAL HT LOSS BTU/H	2600			1473			2086	1537	2978	754	1128	13325
TOTAL HT GAIN x 1.3 BTU/H	3395			1173			2052	939	973	1025	798	1088

ROOM USE	EXP. WALL	CLG. HT.	FACTORS	MBR	ENS	KT/LV	LAUN	WIR	FOY	BATH	WOD	BAS
GRS.WALL AREA	33	10	330	198	86	108	12	18	34	10	25	136
GLAZING	0	0	0	0	0	0	0	0	0	0	0	0
NORTH	24.1	17.4	0	0	0	0	0	0	0	0	0	0
EAST	24.1	43.0	24	14	80	0	0	0	0	0	0	0
SOUTH	24.1	26.3	0	0	20	0	0	0	0	0	0	0
WEST	24.1	43.0	0	0	0	0	0	0	0	0	0	0
SKYLT.	37.5	103.1	0	0	0	0	0	0	0	0	0	0
DOORS	25.2	5.2	0	0	0	0	0	0	0	0	0	0
NET EXPOSED WALL	3.5	0.7	306	184	756	0	0	20	40	90	0	0
NET EXPOSED BSMT WALL ABOVE GR	6.3	1.3	0	0	0	0	0	0	0	0	0	0
EXPOSED CLG	1.5	0.8	252	112	0	0	0	0	0	0	0	0
NO ATTIC EXPOSED CLG	2.5	1.2	0	0	0	0	0	0	0	0	0	0
EXPOSED FLOOR	2.5	0.5	0	0	0	0	0	0	0	0	0	0
BASEMENT/CRAWL HEAT LOSS	0	0	0	0	0	0	0	0	0	0	0	0
SLAB ON GRADE HEAT LOSS	0	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL HT LOSS	2018			1143								
SUB TOTAL HT GAIN	0.20	0.29	1442	0.20	0.29	0.30	0.20	0.30	0.30	0.20	0.29	0.20
LEVEL FACTOR / MULTIPLIER	582			330			467	397	808	153	69	891
AIR CHANGE HEAT LOSS	148			0			0	177	0	0	0	0
AIR CHANGE HEAT GAIN	0			0			0	241	0	0	0	0
DUCT LOSS	0			0			0	240	0	0	0	0
DUCT GAIN	0			0			0	541	0	0	0	0
HEAT GAIN PEOPLE	240			0			1	240	0	0	0	0
HEAT GAIN APPLIANCES/LIGHTS	541			0			2086	541	0	0	0	0
TOTAL HT LOSS BTU/H	2600			1473			2086	1537	2978	754	1128	13325
TOTAL HT GAIN x 1.3 BTU/H	3395			1173			2052	939	973	1025	798	1088

SITE NAME: HUNTINGTON + NASHVILLE
BUILDER: GOLD PARK HOMESOPT GROUND
TYPE: 25-9

DATE: Jun-16

GFA: 1759 LO# 68890

HEATING CFM 700 COOLING CFM 700
TOTAL HEAT LOSS 35,556 TOTAL HEAT GAIN 22,643
AIR FLOW RATE CFM 19.69 AIR FLOW RATE CFM 30.91furnace pressure 0.6
a/c coil pressure 0.05
available pressure 0.2
for s/a & r/a 0.35EL195UH045XE24B LENNOX
FAN SPEED 45
LOW 0
MEDIUM 0
HIGH 0
DESIGN CFM = 700
CFM @ 8" E.S.P.
AFUE = 95.0 %
INPUT (BTU/H) = 44,000
OUTPUT (BTU/H) = 42,000

RUN COUNT	4th	3rd	2nd	1st	Bas
S/A	0	0	6	5	3
R/A	0	0	3	2	1

All S/A diffusers 4"x10" unless noted otherwise on layout.

All S/A runs 5'Ø unless noted otherwise on layout.

RUN #	1	2	4	5	7
ROOM NAME	MBR	ENS	BED-2	BED-3	BATH
RM LOSS MBH	2.60	1.47	2.09	1.95	0.75
CFM PER RUN HEAT	51	29	41	38	15
RM GAIN MBH	3.39	1.17	2.05	3.45	1.03
CFM PER RUN COOLING	105	36	63	107	32
ADJUSTED PRESSURE	0.16	0.17	0.17	0.15	0.17
ACTUAL DUCT LGH	50	28	57	72	38
EQUIVALENT LENGTH	130	150	170	160	150
TOTAL EFFECTIVE LENGTH	180	178	227	232	188
ADJUSTED PRESSURE	0.09	0.1	0.08	0.07	0.09
ROUND DUCT SIZE	6	4	5	6	4
HEATING VELOCITY (ft/min)	260	333	301	194	172
COOLING VELOCITY (ft/min)	535	413	463	546	367
OUTLET GRILL SIZE	4X10	3X10	3X10	4X10	3X10
TRUNK	A	A	B	B	B

ROOM NAME	TRUNK	A	A	B	B	B
RM LOSS MBH						
CFM PER RUN HEAT						
RM GAIN MBH						
CFM PER RUN COOLING						
ADJUSTED PRESSURE						
ACTUAL DUCT LGH						
EQUIVALENT LENGTH						
TOTAL EFFECTIVE LENGTH						
ADJUSTED PRESSURE						
ROUND DUCT SIZE						
HEATING VELOCITY (ft/min)						
COOLING VELOCITY (ft/min)						
OUTLET GRILL SIZE						
TRUNK						

SUPPLY AIR TRUNK SIZE	TRUNK	CFM	STATIC PRESS.	ROUND DUCT	RECT DUCT	VELOCITY (ft/min)	TRUNK	CFM	STATIC PRESS.	ROUND DUCT	RECT DUCT	VELOCITY (ft/min)
TRUNK A	362	0.09	9.3	10	10	8	TRUNK G	0	0.00	0	0	0
TRUNK B	338	0.07	9.7	12	0	8	TRUNK H	0	0.00	0	0	0
TRUNK C	0	0.00	0	0	0	8	TRUNK I	0	0.00	0	0	0
TRUNK D	0	0.00	0	0	0	8	TRUNK J	0	0.00	0	0	0
TRUNK E	0	0.00	0	0	0	8	TRUNK K	0	0.00	0	0	0
TRUNK F	0	0.00	0	0	0	8	TRUNK L	0	0.00	0	0	0

RETURN AIR #	TRUNK	CFM	STATIC PRESS.	ROUND DUCT	RECT DUCT	VELOCITY (ft/min)	TRUNK	CFM	STATIC PRESS.	ROUND DUCT	RECT DUCT	VELOCITY (ft/min)
AIR VOLUME	1	0	2	3	4	0	TRUNK W	0	0.05	0	0	0
PLENUM PRESSURE	75	85	0.15	0.15	0.15	0	TRUNK X	700	0.05	13.8	22	573
ACTUAL DUCT LGH	60	77	72	17	135	0.15	TRUNK Y	0	0.05	0	0	0
EQUIVALENT LENGTH	220	175	145	217	152	1	TRUNK Z	0	0.05	0	0	0
TOTAL EFFECTIVE LH	280	252	217	152	1	1	DROP	700	0.05	13.8	24	420
ADJUSTED PRESSURE	0.05	0.06	0.07	0.10	0.10	14.80						
ROUND DUCT SIZE	6	6	6	8.9	8	0						
INLET GRILL SIZE	8	8	8	8	8	0						
INLET GRILL SIZE	14	14	14	14	30	0						

TYPE: 25-9
SITE NAME: HUNTINGTON + NASHVILLE

LO # 68890
OPT GROUND

RESIDENTIAL MECHANICAL VENTILATION DESIGN SUMMARY

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 gas fireplace	
d) ☐	Solid Fuel (including fireplaces)	
e) ☐	No Combustion Appliances	

HEATING SYSTEM	
☒	Forced Air
☐	Non Forced Air
☐	Electric Space Heat

HOUSE TYPE		9.32.1(2)
☒	I Type a) or b) appliance only, no solid fuel	
☐	II Type I except with solid fuel (including fireplaces)	
☐	III Any Type c) appliance	
☐	IV Type I, or II with electric space heat	
☐	Other: Type I, II or IV no forced air	

SYSTEM DESIGN OPTIONS		O.N.H.W.P.
☐	1 Exhaust only/Forced Air System	
☐	2 HRV with Ducting/Forced Air System	
☒	3 HRV Simplified/connected to forced air system	
☐	4 HRV with Ducting/non forced air system	
☐	Part 6 Design	

TOTAL VENTILATION CAPACITY		9.32.3.3(1)
Basement + Master Bedroom	2 @ 21.2 cfm	42.4 cfm
Other Bedrooms	2 @ 10.6 cfm	21.2 cfm
Kitchen & Bathrooms	4 @ 10.6 cfm	42.4 cfm
Other Rooms	3 @ 10.6 cfm	31.8 cfm
Table 9.32.3.A.	TOTAL	137.8 cfm

PRINCIPAL VENTILATION CAPACITY REQUIRED		9.32.3.4.(1)
1 Bedroom	31.8 cfm	
2 Bedroom	47.7 cfm	
3 Bedroom	63.6 cfm	
4 Bedroom	79.5 cfm	
5 Bedroom	95.4 cfm	
More than 5 - Part 6	TOTAL	63.6 cfm

SUPPLEMENTAL VENTILATION CAPACITY		9.32.3.5.
Total Ventilation Capacity	137.8	cfm
Less Principal Ventil. Capacity	86	cfm
Required Supplemental Capacity	51.8	cfm

PRINCIPAL EXHAUST FAN CAPACITY			
Model: VANEE 40H+	Location: BSMT		
86.0 cfm	3.0 sones ☒ HVI Approved		
PRINCIPAL EXHAUST HEAT LOSS CALCULATION			
CFM	ΔT °F	FACTOR	% LOSS
86.0 CFM	76 F	1.08	0.37

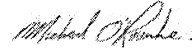
SUPPLEMENTAL FANS		NUTONE	
Location	Model	cfm	HVI
ENS	QTXEN050C	50	☒
BATH	QTXEN050C	50	☒
W/R	QTXEN050C	50	☒

HEAT RECOVERY VENTILATOR		9.32.3.11.
Model: VANEE 40H+		
86 cfm high	37 cfm low	
63 % Sensible Efficiency	☒ HVI Approved	
@ 32 deg F (0 deg C)		

LOCATION OF INSTALLATION	
Lot:	Concession
Township	Plan:
Address	
Roll #	Building Permit #

BUILDER: GOLD PARK HOMES	
Name:	
Address:	
City:	
Telephone #:	Fax #:

INSTALLING CONTRACTOR	
Name:	
Address:	
City:	
Telephone #:	Fax #:

DESIGNER CERTIFICATION	
I hereby certify that this ventilation system has been designed in accordance with the Ontario Building Code.	
Name:	HVAC Designs Ltd.
Signature:	
HRAI #	001820
Date:	June-16

HEAT LOSS AND GAIN SUMMARY SHEET

MODEL: 25-9	OPT GROUND	BUILDER: GOLD PARK HOMES
SFQT: 1759	LO# 68890	SITE: HUNTINGTON + NASHVILLE

DESIGN ASSUMPTIONS

HEATING	°F	COOLING	°F
OUTDOOR DESIGN TEMP.	-4	OUTDOOR DESIGN TEMP.	88
INDOOR DESIGN TEMP.	72	INDOOR DESIGN TEMP. (MAX 75°F)	72

BUILDING DATA

ATTACHMENT:	DETACHED	# OF STORIES (+BASEMENT):	3
FRONT FACES:	EAST	ASSUMED (Y/N):	Y
AIR CHANGES PER HOUR:	3.57	ASSUMED (Y/N):	Y
AIR TIGHTNESS CATEGORY:	AVERAGE	ASSUMED (Y/N):	Y
WIND EXPOSURE:	SHELTERED	ASSUMED (Y/N):	Y
HOUSE VOLUME (ft ³):	23820.0	ASSUMED (Y/N):	Y
INTERNAL SHADING:	BLINDS/CURTAINS	ASSUMED OCCUPANTS:	4
INTERIOR LIGHTING LOAD (Btu/h/ft ²):	1.27	DC BRUSHLESS MOTOR (Y/N):	Y
FOUNDATION CONFIGURATION	BCIN_1	DEPTH BELOW GRADE:	6.0 ft
LENGTH: 49.0 ft	WIDTH: 19.0 ft	EXPOSED PERIMETER:	136.0 ft

2012 OBC - COMPLIANCE PACKAGE

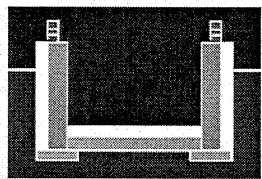
Component	Compliance Package
	J
Ceiling with Attic Space Minimum RSI (R)-Value	50
Ceiling Without Attic Space Minimum RSI (R)-Value	31
Exposed Floor Minimum RSI (R)-Value	31
Walls Above Grade Minimum RSI (R)-Value	22
Basement Walls Minimum RSI (R)-Value	12
Below Grade Slab Entire surface > 600 mm below grade Minimum RSI (R)-Value	-
Edge of Below Grade Slab ≤ 600 mm Below Grade Minimum RSI (R)-Value	10
Heated Slab or Slab ≤ 600 mm below grade Minimum RSI (R)-Value	10
Windows and Sliding Glass Doors Maximum U-Value	1.8
Skylights Maximum U-Value	2.8
Space Heating Equipment Minimum AFUE	0.94
HRV Minimum Efficiency	60%
Domestic Hot Water Heater Minimum EF	0.67

INDIVIDUAL BCIN: 19669
MICHAEL O'ROURKE



Residential Foundation Thermal Load Calculator

Supplemental tool for CAN/CSA-F280

Weather Station Description		
Province:	Ontario	▼
Region:	Vaughan (Woodbridge)	▼
Site Description		
Soil Conductivity:	Normal conductivity: dry sand, loam, clay	▼
Water Table:	Normal (7-10 m, 23-33 Ft)	▼
Foundation Dimensions		
Floor Length (m):	14.9	 Insulation Configuration
Floor Width (m):	5.8	
Exposed Perimeter (m):	0	
Wall Height (m):	2.7	
Depth Below Grade (m):	1.8	
Window Area (m ²):	1.5	
Door Area (m ²):	1.9	
Radiant Slab		
Heated Fraction of the Slab:	0	
Fluid Temperature (°C):	33	
Design Months		
Heating Month	1	
Foundation Loads		
Heating Load (Watts):	1568	

41.4

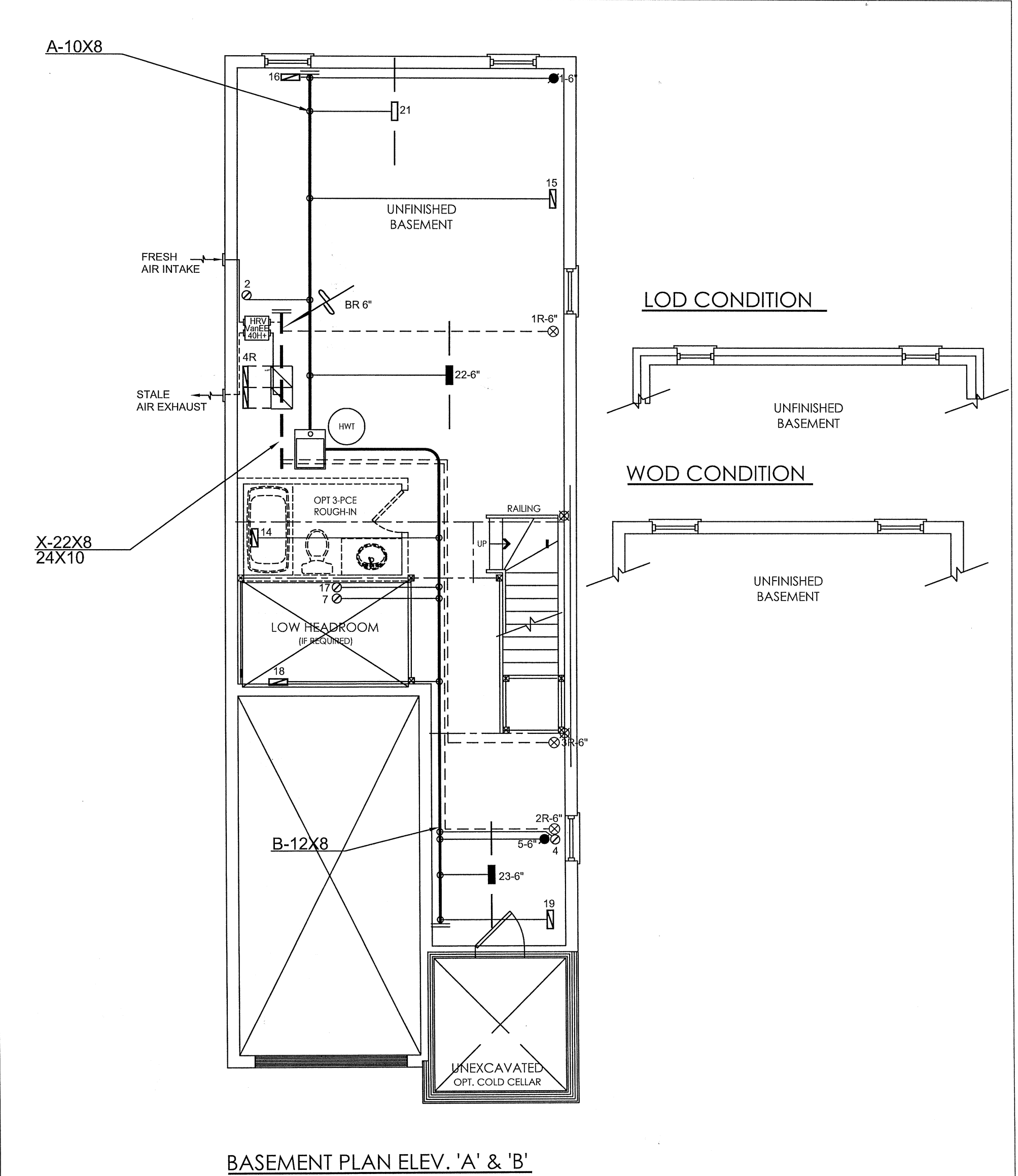
2.6 110.28

109.88

Air Infiltration Residential Load Calculator

Supplemental tool for CAN/CSA-F280

Weather Station Description				
Province:	Ontario			
Region:	Vaughan (Woodbridge)			
Weather Station Location:	Open flat terrain, grass			
Anemometer height (m):	10			
Local Shielding				
Building Site:	Suburban, forest			
Walls:	Heavy			
Flue:	Heavy			
Highest Ceiling Height (m):	6.71			
Building Configuration				
Type:	Detached			
Number of Stories:	Two			
Foundation:	Full			
House Volume (m ³):	674.5			
Air Leakage/Ventilation				
Air Tightness Type:	Present (1961-) (ACH=3.57)			
Custom BDT Data:	ELA @ 10 Pa. 716.42 cm ² 3.57 ACH @ 50 Pa			
Mechanical Ventilation (L/s):	Total Supply:		Total Exhaust:	
	0		0	
Flue Size				
Flue #:	#1	#2	#3	#4
Diameter (mm):	0	0	0	0
Natural Infiltration Rates				
Heating Air Change Rate (ACH/H):			0.322	
Cooling Air Change Rate (ACH/H):			0.098	



I MICHAEL O'ROURKE HAVE REVIEW AND TAKE RESPONSIBILITY FOR THE DESIGN WORK AND AM QUALIFIED UNDER DIVISION C, 3.2.5 OF THE BUILDING CODE.

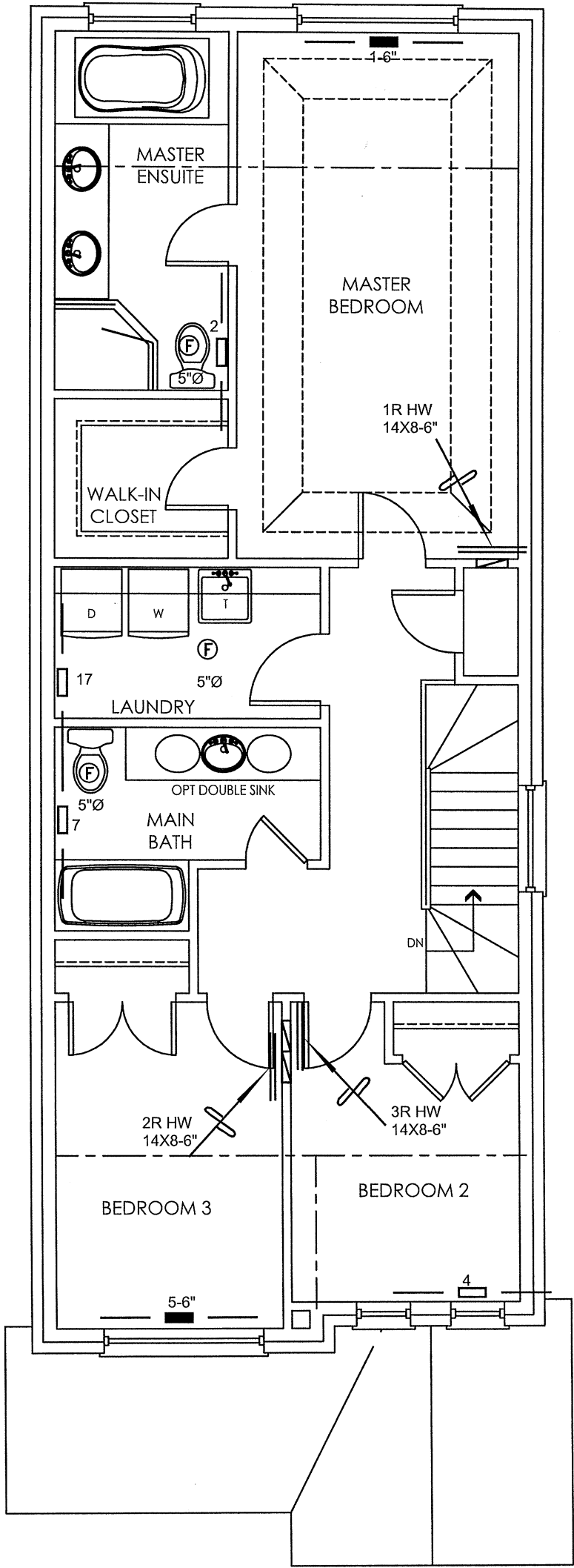
Michael O'Rourke
Michael O'Rourke, BCIN# 19669
HVAC DESIGNS LTD.

CSA-F280-12
PACKAGE J

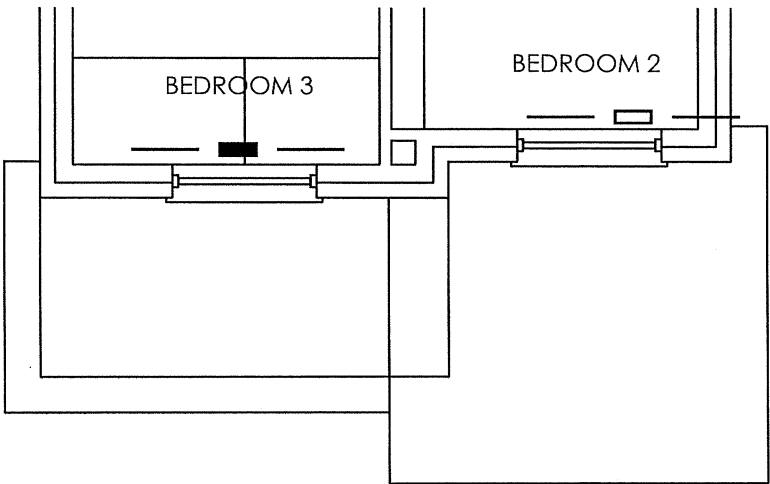
HVAC LEGEND							3.		
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	2.	
	FLOOR SUPPLY AIR GRILLE		6" SUPPLY AIR BOOT ABOVE		14"x8" RETURN AIR GRILLE		RETURN AIR STACK ABOVE	1.	
	FLOOR SUPPLY AIR GRILLE 6" BOOT		SUPPLY AIR STACK FROM 2nd FLOOR		30"x8" RETURN AIR GRILLE		RETURN AIR STACK 2nd FLOOR	No.	Description Date
	SUPPLY AIR BOOT ABOVE		6" SUPPLY AIR STACK 2nd FLOOR		FRA- FLOOR RETURN AIR GRILLE		REDUCER	REVISIONS	

ALL DRAWINGS, CALCULATIONS AND SPECIFICATIONS ARE THE PROPERTY OF HVAC DESIGNS LTD.© AND MAY NOT BE REPRODUCED, MODIFIED OR ALTERED WITHOUT EXPRESSED WRITTEN CONSENT. THE DRAWINGS ARE DATED AND USE OF THESE DRAWINGS AFTER ONE YEAR FROM THE DATED NOTED IS NOT AUTHORIZED. CONTRACTOR SHALL CHECK ALL CONDITIONS BEFORE PROCEEDING WITH WORK. LATEST MUNICIPAL APPROVED DRAWINGS ONLY TO BE USED DURING INSTALLATION OF HEATING SYSTEM. HVAC DESIGNS LTD. IS NOT LIABLE FOR ANY CLAIMS ARISING FROM UNAUTHORIZED USE OF THE DRAWINGS OR FROM ANY CHANGES TO ACCEPTED STANDARDS AND/OR THE ONTARIO BUILDING CODE.

Client		HVACDESIGNS LTD. 375 Finley Ave. Suite 202 - Ajax, Ontario L1S 2E2 Tel. 905.619.2300 - 905.420.5300 Fax 905.619.2375 Email: info@hvacdesigns.ca Web: www.hvacdesigns.ca Specializing in Residential Mechanical Design Services Installation to comply with the latest Ontario Building Code. All supply branch outlets shall be equipped with a manual balancing damper. Ductwork which passes through the garage or unheated spaces shall be adequately insulated and be gas-proofed.	HEAT LOSS 38168 BTU/H UNIT DATA		# OF RUNS			S/A	R/A	FANS	Sheet Title BASEMENT HEATING LAYOUT
GOLD PARK HOMES			MAKE LENNOX	3RD FLOOR							
Project Name HUNTINGTON & NASHVILLE KLEINBURG, ONTARIO			MODEL EL195UH045XE24B-45	2ND FLOOR		6	3	3			
			INPUT 44 MBTU/H	1ST FLOOR		5	2	2			
OPT GROUND 25-9			1759 sqft	OUTPUT 42 MBTU/H	BASEMENT		3	1	0	Date JUNE/2016	
			COOLING 2.0 TONS	ALL S/A DIFFUSERS 4 "x10" UNLESS NOTED OTHERWISE ON LAYOUT. ALL S/A RUNS 5"Ø UNLESS NOTED OTHERWISE ON LAYOUT. UNDERCUT DOORS 1" min. FOR R/A		Scale 3/16" = 1'-0"			BCIN# 19669		
			FAN SPEED 700 cfm @ 0.6" w.c.			LO#			68890		



SECOND FLOOR PLAN ELEV. 'A'



PART. SECOND FLOOR PLAN ELEV. 'B'

I MICHAEL O'ROURKE HAVE REVIEWED AND TAKE RESPONSIBILITY FOR THE DESIGN WORK AND AM QUALIFIED UNDER DIVISION C, 3.2.5 OF THE BUILDING CODE.

Michael O'Rourke
Michael O'Rourke, BCIN# 19669
HVAC DESIGNS LTD.

CSA-F280-12
PACKAGE J

HVAC LEGEND								3.		
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	2.		
	FLOOR SUPPLY AIR GRILLE		6" SUPPLY AIR BOOT ABOVE		14"x8" RETURN AIR GRILLE		RETURN AIR STACK ABOVE	1.		
	FLOOR SUPPLY AIR GRILLE 6" BOOT		SUPPLY AIR STACK FROM 2nd FLOOR		30"x8" RETURN AIR GRILLE		RETURN AIR STACK 2nd FLOOR	No.	Description	Date
	SUPPLY AIR BOOT ABOVE		6" SUPPLY AIR STACK 2nd FLOOR		FRA- FLOOR RETURN AIR GRILLE		REDUCER	REVISIONS		

ALL DRAWINGS, CALCULATIONS AND SPECIFICATIONS ARE THE PROPERTY OF HVAC DESIGNS LTD.© AND MAY NOT BE REPRODUCED, MODIFIED OR ALTERED WITHOUT EXPRESSED WRITTEN CONSENT. THE DRAWINGS ARE DATED AND USE OF THESE DRAWINGS AFTER ONE YEAR FROM THE DATED NOTED IS NOT AUTHORIZED. CONTRACTOR SHALL CHECK ALL CONDITIONS BEFORE PROCEEDING WITH WORK. LATEST MUNICIPAL APPROVED DRAWINGS ONLY TO BE USED DURING INSTALLATION OF HEATING SYSTEM. HVAC DESIGNS LTD. IS NOT LIABLE FOR ANY CLAIMS ARISING FROM UNAUTHORIZED USE OF THE DRAWINGS OR FROM ANY CHANGES TO ACCEPTED STANDARDS AND/OR THE ONTARIO BUILDING CODE.

Client		 375 Finley Ave. Suite 202 - Ajax, Ontario L1S 2E2 Tel. 905.619.2300 - 905.420.5300 Fax 905.619.2375 Email: info@hvacdesigns.ca Web: www.hvacdesigns.ca Specializing in Residential Mechanical Design Services Installation to comply with the latest Ontario Building Code. All supply branch outlets shall be equipped with a manual balancing damper. Ductwork which passes through the garage or unheated spaces shall be adequately insulated and be gas-proofed.	Sheet Title	
GOLD PARK HOMES			SECOND FLOOR HEATING LAYOUT	
Project Name			Date	JUNE/2016
HUNTINGTON & NASHVILLE KLEINBURG, ONTARIO			Scale	3/16" = 1'-0"
OPT GROUND 25-9			BCIN# 19669	
1759 sqft			LO#	68890