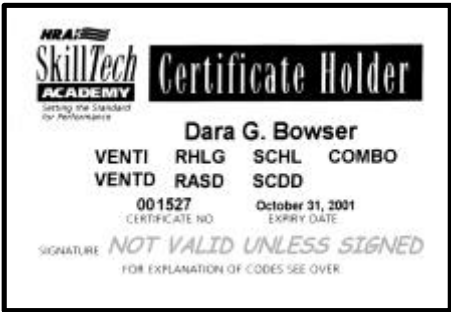


Job: SAMPLE HOUSE		Folio: 01XX	
For: CLIENT NAME AND TELEPHONE NUMBER GOES HERE			
EQUIPMENT SELECTION DATA			
Heat Loss=	65,083 btuh Design Heat Loss	Total S.p=	0.7 inches wg
Furnace	67,500 btuh heating output (see note)	Filter Loss=	0.1 inches wg
Design T.R.	60.0 Heating (deg F)	Coil Loss=	0.3 inches wg
Design CFM:	1042 Heating	Supply SP=	0.2 inches wg
		Return Sp=	0.1 inches wg
Heat Gain	16788 btuh Design Heat Gain		
A/C=	30000 btuh cooling A coil		
	28600 btuh outdoor unit		
Design CFM:	953 Cooling @ 400 Cfm/ton		
EQUIPMENT			
Furnace	Keeprite NTGM075EGA		
C Condenser	Keeprite ACS030A2C Condensing unit 2.5 ton		
A/C Coil	Keeprite EP*30(B15,F19)A		
HRV	vanEE 2000 DUO		
Filter	1" Fibreglass filter		
Water Heater	not selected		
GENERAL			
<p>1 Complete installation to conform with all local and provincial codes including but not limited to:</p> <ul style="list-style-type: none"> -Ontario Energy Act -Ontario Building Code -HRAI Ventilation Manual -SMACNA Ductwork standards 			
			

Job: SAMPLE HOUSE
For: CLIENT NAME AND TELEPHONE NUMBER GOES HERE

Folio: 01XX

SAMPLE HOUSE
CLIENT NAME AND TE

EQUIPMENT SELECTION DATA

Heat Loss	65,083	btuh Design Heat Loss (see note)	Total S.p=	0.70
Furnace	67,500	btuh heating output	Filter =	0.10
Design T.R.=	60	Heating (deg F)-SEE NOTE 1	Coil Loss=	0.30
Design CFM:=	1042	Heating	Supply SP=	0.18
			Return Sp=	0.12
Heat Gain=	32336	btuh Design Heat Gain		
A/C=	30,000	btuh cooling A coil		
	28,600	btuh outdoor unit	System =	1278 CFM
Design CFM=	953	Cooling @ 400 Cfm/ton	Heating Only	1042 CFM

NOTES

Furnace	Keeprite NTGM075EGA	Level 0	340
A/C Condenser	Keeprite ACS030A2C Condensing unit 2.5 ton	Level 1	712
A/C Coil	Keeprite EP*30(B15.F19)A	Level 2	0
HRV	vanEE 2000 DUO	Level 3	0
Filter	1" Fibreglass filter	Total	1052

BRANCH SIZING

Outlet No:	S1A	S1	S2	S3	S4	S5	S6	S7		S8	S9B	S10	S9A	S11	S12
Location:	BathRoom	Master Bedroom	Bedroom	Basement	Basement	Ensuite	Bedroom	Closet		Laundry	Kitchen	Dining	Kitchen	Basement	Basement
Heat Loss	2054	4635	3873	3540	3540	2593	3439	500		4183	1965	2051	1965	3540	3540
Heat Gain	859	1784	2441	367	367	722	1679	150		3114	2190	1532	2190	367	367
Level	1	1	1	0	0	1	1	1		1	1	1	1	0	0
Need for Cooling?	YES	yes	yes	yes	yes	yes	yes	yes		no	YES	yes	YES	yes	yes
Cooling Cfm	25	53	72	11	11	21	50	4		92	65	45	65	11	11
Heating CFM	33	74	62	57	57	42	55	8		67	31	33	31	57	57
Reg. Width	4	4	4	4	4	4	4	4		4	4	4	4	4	4
Reg. Length	10	10	10	10	10	10	10	10		10	10	10	10	10	10
Grille DP	0.000	0.017	0.017	0.008	0.008	0.000	####	0.000		0.012	0.012	0.000	0.012	0.008	0.008
Special Loss															
Design Pressure	0.18	0.16	0.16	0.17	0.17	0.18	0.17	0.18		0.168	0.17	0.18	0.17	0.17	0.17
Actual Pressure	0.132	0.173	0.168	0.114	0.111	0.133	####	0.006		0.152	0.133	0.079	0.151	0.121	0.128
Measured Length	O.K.	O.K.	O.K.	O.K.	O.K.	O.K.	O.K.	O.K.		O.K.	O.K.	O.K.	O.K.	O.K.	O.K.
Measured Length	30	55	40	50	35	30	20	15		60	55	55	55	50	50
Bonnet	10	10	10	10	10	10	10	10		10	10	10	10	10	10
Take-off	40	40	40	40	40	40	40	40		40	40	40	40	40	40
Boot	50	30	30	30	30	30	30	30		5	30	30	30	30	30
Elbows	40	0	0	0	0	0	0	0		40	0	5	0	0	0
Other	0	0	10	0	0	0	0	0		0	0	10	0	0	0
No d/s Branch	0	1	2	3	4	0	1	2		0	1	2	3	4	5
Effective Length	170	145	150	160	155	110	110	115		155	145	170	165	170	180
Branch Dia	4	5	5	5	5	4	5	4		5	5	5	5	5	5
Branch CFM	33	74	72	57	57	42	55	8		67	65	45	65	57	57
Branch No.	S1A	S1	S2	S3	S4	S5	S6	S7		S8	S9B	S10	S9A	S11	S12
Location	BathRoom	Master Bedroom	Bedroom	Basement	Basement	Ensuite	Bedroom	Closet		Laundry	Kitchen	Dining	Kitchen	Basement	Basement

-----UPSTREA-----UPSTREAM-----TRUNK-----SECTIONS-----

TRUNK NAME	A	A	A	A	A	A	A	A		B	B	B	B	B	B
Trunk Flow	33	107	169	226	282	324	379	387		67	98	131	163	219	276
Design Loss/100'	0.106	0.106	0.106	0.106	0.106	0.106	####	0.106		0.108	0.108	0.106	0.102	0.101	0.095
Actual Loss/100'	0.002	0.014	0.034	0.060	0.091	0.044	####	0.061		0.006	0.012	0.021	0.032	0.056	0.087
Qual Equiv. Dia.	8.7	8.7	8.7	8.7	8.7	10.7	10.7	10.7		8.7	8.7	8.7	8.7	8.7	8.7
Height	8	8	8	8	8	8	8	8		8	8	8	8	8	8
Width	8	8	8	8	8	12	12	12		8	8	8	8	8	8
Velocity	74	241	380	508	635	486	568	580		151	221	295	366	493	621
Status	O.K.	O.K.	O.K.	O.K.	O.K.	O.K.	O.K.	O.K.		O.K.	O.K.	O.K.	O.K.	O.K.	O.K.

Job:
For: LEPHONE NUMBER GOES HERE

Heat Loss
Furnace
Design T.R
Design CFM

Heat Gain
A/C

Design CFM

Furnace
A/C Condenser
A/C Coil
HRV
Filter

Outlet No:	S13	S14B	S15	S14A	S16	S16A	S17	S18	S20B	S19	S20A				
Location:	Dining	Kitchen	Foyer	Kitchen	Living	Powder	Basement	Basement	Family	Living	Family				
Heat Loss	2051	1965	1798	1965	1788	850	3540	3540	2193	1788	2193				
Heat Gain	1532	2190	795	2190	924	186	367	367	2367	924	2367				
Level	1	1	1	1	1	1	0	0	1	1	1				
Need for Cooling?	yes	YES	yes	YES	yes	yes	yes	yes	YES	yes	YES				
Cooling Cfm	45	65	23	65	27	5	11	11	70	27	70				
Heating CFM	33	31	29	31	29	14	57	57	35	29	35				
Reg. Width	4	4	4	4	4	4	4	4	4	4	4				
Reg. Length	10	10	10	10	10	10	10	10	10	10	10				
Grille DP	0.000	0.012	0.000	0.012	0.000	0.000	0.008	0.008	0.012	0.000	0.012				
Special Loss															
Design Pressure	0.18	0.17	0.18	0.17	0.18	0.18	0.17	0.17	0.17	0.18	0.17				
Actual Pressure	0.060	0.119	0.081	0.137	0.096	0.025	0.121	0.078	0.122	0.078	0.143				
	O.K.	O.K.	O.K.	O.K.	O.K.	O.K.	O.K.	O.K.	O.K.	O.K.	O.K.				
Measured Length	45	40	35	40	40	40	30	30	25	30	25				
Bonnet	10	10	10	10	10	10	10	10	10	10	10				
Take-off	40	40	40	40	40	40	40	40	40	40	40				
Boot	30	30	30	30	30	30	30	30	30	30	30				
Elbows	5	0	0	0	0	0	0	0	0	0	0				
Other	0	0	0	0	0	0	0	0	0	0	0				
No d/s Branch	0	1	2	3	4	5	6	0	1	2	3				
Effective Length	130	130	135	150	160	170	170	110	115	130	135				
Branch Dia	5	5	4	5	4	4	5	5	5	4	5				
Branch rect. Eq.															
Branch CFM	45	65	29	65	29	14	57	57	70	29	70				
Branch No.	S13	S14B	S15	S14A	S16	S16A	S17	S18	S20B	S19	S20A				
Location	Dining	Kitchen	Foyer	Kitchen	Living	Powder	Basement	Basement	Family	Living	Family				
TRUNK NAME	B	B	B	B	B	B	B	B	B	B	B				
Trunk Flow	309	340	369	400	429	443	486	542	577	606	641				
Design Loss/100'	0.095	0.095	0.095	0.095	0.095	0.095	0.095	0.095	0.095	0.095	0.095				
Actual Loss/100'	0.040	0.048	0.056	0.066	0.075	0.079	0.095	0.060	0.067	0.074	0.082				
Actual Equiv. Dia.	10.7	10.7	10.7	10.7	10.7	10.7	10.7	12.2	12.2	12.2	12.2				
Height	8	8	8	8	8	8	8	8	8	8	8				
Width	12	12	12	12	12	12	12	16	16	16	16				
Velocity	463	510	553	601	644	664	729	610	650	682	721				
Status	O.K.	O.K.	O.K.	O.K.	O.K.	O.K.	O.K.	O.K.	O.K.	O.K.	O.K.				

Job: SAMPLE HOUSE
For: CLIENT NAME AND TELEPHONE NUMBER GOES HERE

SAMPLE HOUSE
CLIENT NAME AND TELEPHO!

Heat Loss=	65,083 btuh Design Heat Loss	Total S.p=	0.7 inches wg
Furnace=	67,500 btuh heating output (see note)	Filter Loss=	0.1
Design T.R.	60.0 Heating (deg F)	Coil Loss=	0.3
Design CFM:	1042 Heating	Supply SP=	0.18
		Return Sp=	0.12
Heat Gain=	32336 btuh Design Heat Gain	Over	14 CFM
A/C=	30000 btuh cooling A coil	Total	1056 CFM
	28600 btuh oputdoor unit	Return	Supply
Design CFM:	953.333 Cooling @ 400 Cfm/ton		

NOTES

1) Keeprite NTGM075EGA	Level 0	171	340 cfm
2) Keeprite ACS030A2C Condensing unit 2.5 ton	Level 1	885	712 cfm
3) 1" Fibreglass filter	Level 2	0	0 cfm
4)	Level 3	0	0 cfm
5)	Total	1056	1051.6

BRANCH SIZING BRANCH SIZING BRANCH SIZING

Inlet No.	R1	R2	R3A	R3	R4B	R4B	R5	R6A	R6B
Location	Master	Bedroom	Basement	Bedroom	Hall	Hall	Basement	Hall	Hall
Level	1	1	0	1	1	1	0	1	1
cfm	80	75	85.5	60	115	115	85.5	215	225
Grille DP	0.005	0.004	0.005	0.003	0.010	0.010	0.005	0.012	0.013
Grille Height	6	6	6	6	6	6	6	10	10
Installed Grille Width	16	16	16	16	16	16	16	16	16
Grille Location	Lo Wall	Lo Wall	Lo Wall	Hi/Lo Wall	Lo Wall	Lo Wall	Lo Wall	Hi Wall	Hi Wall
Measured Length	30	20	25	20	45	45	45	30	30
Drop	120	120	120	120	120	120	120	120	120
Joist to main	25	60	60	60	25	60	60	60	60
Entry	25	25	25	25	25	25	25	25	25
Other	0	0	0	0	0	0	0	0	0
Total Length	240	225	270	225	255	250	250	275	235
Special-1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Special-2									
Design Pressure	0.115	0.116	0.115	0.117	0.110	0.110	0.115	0.108	0.107
Actual Pressure	0.107	0.112	0.092	0.096	0.101	0.099	0.085	0.099	0.092
	O.K.	O.K.	O.K.	O.K.	O.K.	O.K.	O.K.	O.K.	O.K.
No u.s. branch	1	0	1	0	1	0	0	1	0
Br. Rect Ht.	3.5	3.5	3.5	3.5	3.5	3.5	3.5	5.5	5.5
Br. Rect Width	10	9	12	8	14.5	14.5	12	14.5	14.5
Actual Circular Equiv.	6.3	6.0	6.8	5.7	7.3	7.3	6.8	9.5	9.5 Drop

-----DOWNSTREAM-----TRUNK-----SECTIONS-----

Trunk Flow	80	155	240.5	300.5	115	230	315.5	530.5	755.5	1056
Design Loss/100'	0.048	0.048	0.042	0.042	0.043	0.043	0.043	0.039	0.039	0.039
Act Loss/100 Trunk	0.005	0.017	0.017	0.026	0.010	0.036	0.013	0.019	0.036	0.028
Actual Circ. Equiv.	9.8	9.8	11.5	11.5	9.8	9.8	13.5	15.2	15.2	18.3
Rect. Inst. Height	8	8	8	8	8	8	8	10	10	12
Rect. Inst. Width	10	10	14	14	10	10	20	20	20	24
Velocity	144	279	309	386	207	414	284	382	544	528
	O.K.	O.K.	O.K.	O.K.	O.K.	O.K.	O.K.	O.K.	O.K.	O.K.

HRV DUCT SIZING

Job: SAMPLE HOUSE
For: CLIENT NAME AND TELEPHONE NUMBER GOES HERE

Equipment	Design Condition
Model: vanEE 2000 DUO System: Exhaust	Design Airflow 140 cfm Equipment ESP 0.75 in. w.g.

Outside Run Duct Sizing

Airflow cfm	140	Dia:	6	Pressure Loss, Outside Duct, in w.g.	0.19
Effective Length			120	AVAILABLE STATIC PRESSURE	0.56

Branch Duct Sizing

Run ID	E1	E2	E3	E4			
Location	Bathroom	Ensuite	Powder	Kitchen			
Airflow cfm	30	30	20	60			
Length	20	40	70	80			
Elbows	30	30	30	40			
Grills	15	15	15	15			
Stackhead	30	30	30	30			
Boot	0	0	0	0			
T	50	100	150	150			
other							
Eff. Length	145	245	315	375	0	0	0
Diameter	4	4	4	5			
Side 1							
Side 2							
O.K.	O.K.	O.K.	O.K.	O.K.	#DIV/0!	#DIV/0!	#DIV/0!
Loss/100	0.065	0.065	0.030	0.080	#DIV/0!	#DIV/0!	#DIV/0!
Actual Los	0.095	0.160	0.095	0.298	#DIV/0!	#DIV/0!	#DIV/0!

Trunk Duct Design

Run ID	Airflow	Eff. Length	Diameter	Side 1	Side 2	Check
et1	80	325	6			O.K.
et2	110	325	6			O.K.
et3	140	325	6			O.K.

HRV DUCT SIZING

Job: SAMPLE HOUSE
For: CLIENT NAME AND TELEPHONE NUMBER GOES HERE

Equipment	Design Condition
120 vanEE 2000 DUO System: Supply	Design Airflow 140 cfm Equipment ESP 0.69 in. w.g.

Outside Run Duct Sizing			
Airflow cfm	140	Dia:	6
Effective Length	120	Pressure Loss, Outside Duct, in w.g.	0.19
			AVAILABLE STATIC PRESSURE
			0.50

Branch Duct Sizing							
Run ID	SI						
Location	Main						
Airflow cfm	150						
Length	20						
Elbows	20						
Grills	0						
Stackhead	0						
Boot	40						
T	0						
other							
Eff. Length	80	0	0	0	0	0	0
Diameter	6	4	4	4			
Side 1							
Side 2							
O.K.	O.K.	O.K.	O.K.	O.K.	#DIV/0!	#DIV/0!	#DIV/0!
Loss/100	0.182	0.000	0.000	0.000	#DIV/0!	#DIV/0!	#DIV/0!
Actual Loss	0.145	0.000	0.000	0.000	#DIV/0!	#DIV/0!	#DIV/0!

Trunk Duct Design						
Run ID	Airflow	Eff. Length	Diameter	Side 1	Side 2	Check
st1	140	80	6			O.K. #DIV/0! #DIV/0!