

GENERAL SUMMARY

Prepared For:
Project ID:
Scope: HVAC
No. Of Floors: 1
Date:



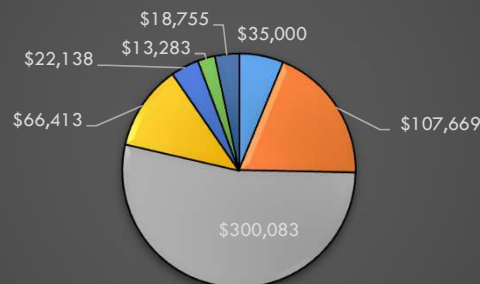
DIVISION NO.	DESCRIPTION	TOTAL DIV. COST
1000	General Requirments	\$ 35,000
23000	HVAC	\$ 407,752
TOTAL TRADE COST		\$ 442,752

OVERHEAD AND PROFIT	15%	\$ 66,413
INSURANCE	3%	\$ 13,283
CONTINGENCY	5%	\$ 22,138
TAX	6.25%	\$ 18,755
TOTAL TRADE COST		\$ 563,341

EXPENSE BREAKDOWN

SR#	DESCRIPTION	TOTAL DIV. COST
1	General Requirments	\$ 35,000
2	Labour Cost	\$ 107,669
3	Material Cost	\$ 300,083
4	Overhead and Profit	\$ 66,413
5	Contingency	\$ 22,138
6	Insurance	\$ 13,283
7	Tax	\$ 18,755

Expense Breakdown



■ General Requirments
 ■ Labour Cost
 ■ Material Cost
 ■ Overhead and Profit
 ■ Contingency
 ■ Insurance
 ■ Tax

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DETAILED BREAKDOWN OF ITEMS

Prepared For:
Project ID:
Scope: HVAC



Date:

SR #	Drawing #	Detail #	DESCRIPTION	UNIT	QUANT Y	WASTAG E	QUANTITY W/WASTAGE	UNIT MANHOURL	HOURLY WAGE	LABOR COST	MAT. COST	UNIT COST	SUB COST
GENERAL REQUIREMENTS													
1			Permits	LS	1	0%	1	0.00	0.00	\$ -	\$ -	\$ 1,000.00	\$ 1,000.00
2			Supervision and Coordination	LS	1	0%	1	0.00	0.00	\$ -	\$ -	\$ 30,000.00	\$ 30,000.00
3			Submittals and Shop drawings	LS	1	0%	1	0.00	0.00	\$ -	\$ -	\$ -	\$ -
4			Final Cleaning	LS	1	0%	1	0.00	0.00	\$ -	\$ -	\$ 1,000.00	\$ 1,000.00
5			Mobilization Costs	LS	1	0%	1	0.00	0.00	\$ -	\$ -	\$ 2,500.00	\$ 2,500.00
6			Temporary Control & Facilities	LS	1	0%	1	0.00	0.00	\$ -	\$ -	\$ 500.00	\$ 500.00
												SUBTOTAL	\$ 35,000
HVAC													
FLEXIBLE DUCT													
7			8" Dia Flexible Air Duct	LF	5	10%	5	0.035	\$ 65.00	\$ 2.28	\$ 4.52	\$ 6.80	\$ 35.73
8			6" Dia Flexible Air Duct	LF	37	10%	41	0.032	\$ 65.00	\$ 2.08	\$ 3.89	\$ 5.97	\$ 241.86
9			10" Dia Flexible Air Duct	LF	19	10%	21	0.040	\$ 65.00	\$ 2.60	\$ 5.02	\$ 7.62	\$ 162.61
10			12" Dia Flexible Air Duct	LF	24	10%	26	0.045	\$ 65.00	\$ 2.93	\$ 6.10	\$ 9.03	\$ 234.49
COMBUSTION AIR PIPE													
			Assumed Schedule 40 PVC Pipe										
11			4" Dia Combustion Air Pipe	LF	90	10%	99	0.070	\$ 65.00	\$ 4.55	\$ 8.95	\$ 13.50	\$ 1,335.91
			Assumed Schedule 40 PVC Pipe										
12			4" Dia Vent Pipe	LF	92	10%	101	0.070	\$ 65.00	\$ 4.55	\$ 8.95	\$ 13.50	\$ 1,366.20
REFRIGERANT PIPE													
			Assumed Type "ACR" Hard Drawn Copper Pipe W/ Wrought Copper Fittings										
13			3/8" Refrigerant Liquid Pipe	LF	443	10%	487	0.032	\$ 65.00	\$ 2.08	\$ 3.40	\$ 5.48	\$ 2,671.01
14			5/8" Refrigerant Suction Pipe	LF	443	10%	487	0.035	\$ 65.00	\$ 2.28	\$ 6.14	\$ 8.42	\$ 4,101.56
			Assumed 1/2" Thick, Fiberglass Pipe Insulation										
15			3/8" Refrigerant Liquid Pipe	LF	443	10%	487	0.025	\$ 65.00	\$ 1.63	\$ 2.35	\$ 3.98	\$ 1,937.45
16			5/8" Refrigerant Suction Pipe	LF	443	10%	487	0.028	\$ 65.00	\$ 1.82	\$ 2.65	\$ 4.47	\$ 2,178.72
REFRIGERANT PIPE FITTINGS:													
ELBOW:													
17			3/8" Refrigerant Liquid Pipe 90 Deg Elbow	EA	40	0%	40	0.185	\$ 65.00	\$ 12.03	\$ 2.32	\$ 14.35	\$ 573.80
18			5/8" Refrigerant Suction Pipe 90 Deg Elbow	EA	40	0%	40	0.210	\$ 65.00	\$ 13.65	\$ 4.72	\$ 18.37	\$ 734.80
CONDENSATE DRAIN PIPE													
			Assumed Type "M" Hard Drawn Copper Pipe W/ Wrought Copper Fittings										
19			3/4" Dia Condensate Drain Pipe (Size assumed)	LF	481	10%	529	0.035	\$ 65.00	\$ 2.28	\$ 4.20	\$ 6.48	\$ 3,428.27
			Assumed 1/2" Thick, Fiberglass Pipe Insulation										
20			3/4" Dia Condensate Drain Pipe (Size assumed)	LF	481	10%	529	0.029	\$ 65.00	\$ 1.89	\$ 2.85	\$ 4.74	\$ 2,507.01
CONDENSATE DRAIN FITTINGS:													
ELBOW:													
21			3/4" Dia Condensate Drain Pipe 90 Deg Elbow	EA	71	0%	71	0.181	\$ 65.00	\$ 11.77	\$ 3.63	\$ 15.40	\$ 1,093.05
AIR DEVICES													
22			E-1: Steel Louvered Exhaust Grille, 3/4" Blade Spacing 8"x8" Degree Deflection, Blade Parallel To Long Dimension, TITUS 350ZRL With OBD, 8"x8" Neck Size, 12"x12" Face Size, 150 CFM	EA	1	0%	1	0.450	\$ 65.00	\$ 29.25	\$ 145.00	\$ 174.25	\$ 174.25
23			E-1: Steel Louvered Exhaust Grille, 3/4" Blade Spacing 8"x8" Degree Deflection, Blade Parallel To Long Dimension, TITUS 350ZRL With OBD, 8"x8" Neck Size, 12"x12" Face Size, 50 CFM	EA	2	0%	2	0.450	\$ 65.00	\$ 29.25	\$ 126.20	\$ 155.45	\$ 310.90
24			E-1: Steel Louvered Exhaust Grille, 3/4" Blade Spacing 8"x8" Degree Deflection, Blade Parallel To Long Dimension, TITUS 350ZRL With OBD, 8"x8" Neck Size, 12"x12" Face Size, 75 CFM	EA	3	0%	3	0.450	\$ 65.00	\$ 29.25	\$ 126.20	\$ 155.45	\$ 466.35
25			E-2: 48" Flow bar Linear Slot Exhaust Diffuser, 2" Slot, 2 Slot, TITUS FL-20 With Continuous Slot Plenum, 12"x12" Neck Size, 275 CFM	EA	2	0%	2	0.410	\$ 65.00	\$ 26.65	\$ 132.52	\$ 159.17	\$ 318.34
26			E-2: 48" Flow bar Linear Slot Exhaust Diffuser, 2" Slot, 2 Slot, TITUS FL-20 With Continuous Slot Plenum, 8"x8" Neck Size, 150 CFM	EA	4	0%	4	0.485	\$ 65.00	\$ 31.53	\$ 152.00	\$ 183.53	\$ 734.10
27			E-3: 24" Flow bar Linear Slot Exhaust Diffuser, 2" Slot, 1 Slot, TITUS FL-20 With Continuous Slot Plenum, 24"x18" Neck Size, 1200 CFM	EA	1	0%	1	0.310	\$ 65.00	\$ 20.15	\$ 125.00	\$ 145.15	\$ 145.15
28			E-3: 24" Flow bar Linear Slot Exhaust Diffuser, 2" Slot, 1 Slot, TITUS FL-20 With Continuous Slot Plenum, 24"x18" Neck Size, 800 CFM	EA	1	0%	1	0.350	\$ 65.00	\$ 22.75	\$ 140.00	\$ 162.75	\$ 162.75
29			E-3: 24" Flow bar Linear Slot Exhaust Diffuser, 2" Slot, 1 Slot, TITUS FL-20 With Continuous Slot Plenum, 24"x18" Neck Size, 850 CFM	EA	2	0%	2	0.350	\$ 65.00	\$ 22.75	\$ 140.00	\$ 162.75	\$ 325.50
30			E-3: 24" Flow bar Linear Slot Exhaust Diffuser, 2" Slot, 1 Slot, TITUS FL-20 With Continuous Slot Plenum, 8"x8" Neck Size, 150 CFM	EA	3	0%	3	0.310	\$ 65.00	\$ 20.15	\$ 125.00	\$ 145.15	\$ 435.45
31			E-3: 24" Flow bar Linear Slot Exhaust Diffuser, 2" Slot, 1 Slot, TITUS FL-20 With Continuous Slot Plenum, 8"x8" Neck Size, 50 CFM	EA	8	0%	8	0.310	\$ 65.00	\$ 20.15	\$ 125.00	\$ 145.15	\$ 1,161.20
32			E-3: 24" Flow bar Linear Slot Exhaust Diffuser, 2" Slot, 1 Slot, TITUS FL-20 With Continuous Slot Plenum, 8"x8" Neck Size, 275 CFM	EA	13	0%	13	0.310	\$ 65.00	\$ 20.15	\$ 125.00	\$ 145.15	\$ 1,886.95
33			R-1: Eggcrate Return Grille, TITUS 50F, 10"x10" Neck Size, 24"x12" Face Size	EA	3	0%	3	0.250	\$ 65.00	\$ 16.25	\$ 42.20	\$ 58.45	\$ 175.35
34			R-1: Eggcrate Return Grille, TITUS 50F, 14"x12" Neck Size, 24"x12" Face Size	EA	1	0%	1	0.270	\$ 65.00	\$ 17.55	\$ 51.23	\$ 68.78	\$ 68.78
35			R-1: Eggcrate Return Grille, TITUS 50F, 14"x12" Neck Size, 24"x24" Face Size	EA	1	0%	1	0.270	\$ 65.00	\$ 17.55	\$ 51.23	\$ 68.78	\$ 68.78
36			R-1: Eggcrate Return Grille, TITUS 50F, 16"x14" Neck Size, 24"x12" Face Size	EA	1	0%	1	0.290	\$ 65.00	\$ 18.85	\$ 56.20	\$ 75.05	\$ 75.05
37			R-1: Eggcrate Return Grille, TITUS 50F, 16"x14" Neck Size, 24"x24" Face Size	EA	1	0%	1	0.290	\$ 65.00	\$ 18.85	\$ 56.20	\$ 75.05	\$ 75.05
38			R-1: Eggcrate Return Grille, TITUS 50F, 18"x14" Neck Size, 24"x24" Face Size	EA	4	0%	4	0.300	\$ 65.00	\$ 19.50	\$ 61.20	\$ 80.70	\$ 322.80
39			R-1: Eggcrate Return Grille, TITUS 50F, 20"x14" Neck Size, 24"x24" Face Size	EA	3	0%	3	0.320	\$ 65.00	\$ 20.80	\$ 66.00	\$ 86.80	\$ 260.40
40			R-1: Eggcrate Return Grille, TITUS 50F, 20"x16" Neck Size, 24"x24" Face Size	EA	1	0%	1	0.320	\$ 65.00	\$ 20.80	\$ 66.00	\$ 86.80	\$ 86.80
41			R-1: Eggcrate Return Grille, TITUS 50F, 24"x24" Face Size	EA	2	0%	2	0.340	\$ 65.00	\$ 22.10	\$ 71.00	\$ 93.10	\$ 186.20
42			R-1: Eggcrate Return Grille, TITUS 50F, 36"x16" Neck Size, 24"x24" Face Size	EA	2	0%	2	0.370	\$ 65.00	\$ 24.05	\$ 79.20	\$ 103.25	\$ 206.50
43			R-1: Eggcrate Return Grille, TITUS 50F, 46"x18" Neck Size, 24"x24" Face Size	EA	3	0%	3	0.390	\$ 65.00	\$ 25.35	\$ 82.32	\$ 107.67	\$ 323.01
44			R-1: Eggcrate Return Grille, TITUS 50F, 8"x6" Neck Size, 24"x12" Face Size	EA	2	0%	2	0.320	\$ 65.00	\$ 20.80	\$ 66.00	\$ 86.80	\$ 173.60

DETAILED BREAKDOWN OF ITEMS

Prepared For:
Project ID:
Scope: HVAC



Date:

SR #	Drawing #	Detail #	DESCRIPTION	UNIT	QUANTIT Y	WASTAG E	QUANTITY W/WASTAGE	UNIT MANHO UR	HOURLY WAGE	LABOR COST	MAT. COST	UNIT COST	SUB COST
45			R-2: Steel Louvered Return Air Grille, 1/2" Blade Spacing Parallel To Long Dimension With 35 Deg Fixed Deflection, TITUS 35SRL, 48"x30" Neck Size	EA	1	0%	1	0.450	\$ 65.00	\$ 29.25	\$ 185.20	\$ 214.45	\$ 214.45
46			R-2: Steel Louvered Return Air Grille, 1/2" Blade Spacing Parallel To Long Dimension With 35 Deg Fixed Deflection, TITUS 35SRL, 60"x16" Neck Size	EA	1	0%	1	0.510	\$ 65.00	\$ 33.15	\$ 210.32	\$ 243.47	\$ 243.47
47			R-3: 48" Flow bar Linear Slot Return Diffuser, 2" Slot, 2 Slot, TITUS FL-20 With Continuous Slot Plenum, 12"x10" Neck Size	EA	4	0%	4	0.410	\$ 65.00	\$ 26.65	\$ 132.25	\$ 158.90	\$ 635.60
48			S-1: Louvered Ceiling Diffuser, W/ Spin-In Volume Control, TITUS TMS, 10" Dia Neck Size, 24"x24" Face Size, 250 CFM	EA	1	0%	1	0.320	\$ 65.00	\$ 20.80	\$ 124.07	\$ 144.87	\$ 144.87
49			S-1: Louvered Ceiling Diffuser, W/ Spin-In Volume Control, TITUS TMS, 10" Dia Neck Size, 24"x24" Face Size, 300 CFM	EA	3	0%	3	0.320	\$ 65.00	\$ 20.80	\$ 124.07	\$ 144.87	\$ 434.61
50			S-1: Louvered Ceiling Diffuser, W/ Spin-In Volume Control, TITUS TMS, 12" Dia Neck Size, 24"x24" Face Size, 400 CFM	EA	1	0%	1	0.320	\$ 65.00	\$ 20.80	\$ 135.20	\$ 156.00	\$ 156.00
51			S-1: Louvered Ceiling Diffuser, W/ Spin-In Volume Control, TITUS TMS, 12" Dia Neck Size, 24"x24" Face Size, 500 CFM	EA	5	0%	5	0.320	\$ 65.00	\$ 20.80	\$ 135.20	\$ 156.00	\$ 780.00
52			S-1: Louvered Ceiling Diffuser, W/ Spin-In Volume Control, TITUS TMS, 6" Dia Neck Size, 12"x12" Face Size, 100 CFM	EA	3	0%	3	0.290	\$ 65.00	\$ 18.85	\$ 109.20	\$ 128.05	\$ 384.15
53			S-1: Louvered Ceiling Diffuser, W/ Spin-In Volume Control, TITUS TMS, 6" Dia Neck Size, 24"x24" Face Size, 100 CFM	EA	2	0%	2	0.320	\$ 65.00	\$ 20.80	\$ 112.00	\$ 132.80	\$ 265.60
54			S-1: Louvered Ceiling Diffuser, W/ Spin-In Volume Control, TITUS TMS, 6" Dia Neck Size, 24"x24" Face Size, 125 CFM	EA	2	0%	2	0.320	\$ 65.00	\$ 20.80	\$ 112.00	\$ 132.80	\$ 265.60
55			S-1: Louvered Ceiling Diffuser, W/ Spin-In Volume Control, TITUS TMS, 6" Dia Neck Size, 24"x24" Face Size, 50 CFM	EA	2	0%	2	0.320	\$ 65.00	\$ 20.80	\$ 112.00	\$ 132.80	\$ 265.60
56			S-1: Louvered Ceiling Diffuser, W/ Spin-In Volume Control, TITUS TMS, 6" Dia Neck Size, 24"x24" Face Size, 60 CFM	EA	1	0%	1	0.320	\$ 65.00	\$ 20.80	\$ 112.00	\$ 132.80	\$ 132.80
57			S-1: Louvered Ceiling Diffuser, W/ Spin-In Volume Control, TITUS TMS, 8" Dia Neck Size, 24"x24" Face Size, 200 CFM	EA	1	0%	1	0.385	\$ 65.00	\$ 25.03	\$ 129.00	\$ 154.03	\$ 154.03
58			S-2: 48" Flow bar Linear Slot Diffuser, 2" Slot, 2 Slot, With Pattern Controller, TITUS FL-20 With Continuous Slot Plenum, 10" Dia Neck Size, 250 CFM	EA	5	0%	5	0.420	\$ 65.00	\$ 27.30	\$ 142.00	\$ 169.30	\$ 846.50
59			S-2: 48" Flow bar Linear Slot Diffuser, 2" Slot, 2 Slot, With Pattern Controller, TITUS FL-20 With Continuous Slot Plenum, 10" Dia Neck Size, 300 CFM	EA	6	0%	6	0.420	\$ 65.00	\$ 27.30	\$ 142.00	\$ 169.30	\$ 1,015.80
60			S-2: 48" Flow bar Linear Slot Diffuser, 2" Slot, 2 Slot, With Pattern Controller, TITUS FL-20 With Continuous Slot Plenum, 12" Dia Neck Size, 300 CFM	EA	2	0%	2	0.440	\$ 65.00	\$ 28.60	\$ 153.20	\$ 181.80	\$ 363.60
61			S-2: 48" Flow bar Linear Slot Diffuser, 2" Slot, 2 Slot, With Pattern Controller, TITUS FL-20 With Continuous Slot Plenum, 12" Dia Neck Size, 325 CFM	EA	2	0%	2	0.440	\$ 65.00	\$ 28.60	\$ 153.20	\$ 181.80	\$ 363.60
62			S-2: 48" Flow bar Linear Slot Diffuser, 2" Slot, 2 Slot, With Pattern Controller, TITUS FL-20 With Continuous Slot Plenum, 12" Dia Neck Size, 400 CFM	EA	20	0%	20	0.440	\$ 65.00	\$ 28.60	\$ 153.20	\$ 181.80	\$ 3,636.00
63			S-2: 48" Flow bar Linear Slot Diffuser, 2" Slot, 2 Slot, With Pattern Controller, TITUS FL-20 With Continuous Slot Plenum, 12" Dia Neck Size, 440 CFM	EA	6	0%	6	0.440	\$ 65.00	\$ 28.60	\$ 153.20	\$ 181.80	\$ 1,090.80
64			S-2: 48" Flow bar Linear Slot Diffuser, 2" Slot, 2 Slot, With Pattern Controller, TITUS FL-20 With Continuous Slot Plenum, 12" Dia Neck Size, 455 CFM	EA	4	0%	4	0.440	\$ 65.00	\$ 28.60	\$ 153.20	\$ 181.80	\$ 727.20
65			S-2: 48" Flow bar Linear Slot Diffuser, 2" Slot, 2 Slot, With Pattern Controller, TITUS FL-20 With Continuous Slot Plenum, 12" Dia Neck Size, 460 CFM	EA	18	0%	18	0.440	\$ 65.00	\$ 28.60	\$ 153.20	\$ 181.80	\$ 3,272.40
66			S-2: 48" Flow bar Linear Slot Diffuser, 2" Slot, 2 Slot, With Pattern Controller, TITUS FL-20 With Continuous Slot Plenum, 12" Dia Neck Size, 500 CFM	EA	2	0%	2	0.440	\$ 65.00	\$ 28.60	\$ 153.20	\$ 181.80	\$ 363.60
67			S-2: 48" Flow bar Linear Slot Diffuser, 2" Slot, 2 Slot, With Pattern Controller, TITUS FL-20 With Continuous Slot Plenum, 12" Dia Neck Size, 550 CFM	EA	4	0%	4	0.440	\$ 65.00	\$ 28.60	\$ 153.20	\$ 181.80	\$ 727.20
68			S-2: 48" Flow bar Linear Slot Diffuser, 2" Slot, 2 Slot, With Pattern Controller, TITUS FL-20 With Continuous Slot Plenum, 6" Dia Neck Size, 100 CFM	EA	1	0%	1	0.320	\$ 65.00	\$ 20.80	\$ 112.02	\$ 132.82	\$ 132.82
69			S-2: 48" Flow bar Linear Slot Diffuser, 2" Slot, 2 Slot, With Pattern Controller, TITUS FL-20 With Continuous Slot Plenum, 8" Dia Neck Size, 150 CFM	EA	4	0%	4	0.350	\$ 65.00	\$ 22.75	\$ 128.50	\$ 151.25	\$ 605.00
70			S-2: 48" Flow bar Linear Slot Diffuser, 2" Slot, 2 Slot, With Pattern Controller, TITUS FL-20 With Continuous Slot Plenum, 8" Dia Neck Size, 200 CFM	EA	8	0%	8	0.350	\$ 65.00	\$ 22.75	\$ 128.50	\$ 151.25	\$ 1,210.00
71			S-2: 48" Flow bar Linear Slot Diffuser, 2" Slot, 2 Slot, With Pattern Controller, TITUS FL-20 With Continuous Slot Plenum, 8" Dia Neck Size, 240 CFM	EA	5	0%	5	0.350	\$ 65.00	\$ 22.75	\$ 128.50	\$ 151.25	\$ 756.25
72			S-3: 24" Flow bar Linear Slot Diffuser, 2" Slot, 1 Slot With Pattern Controller, TITUS FL-20 With Continuous Slot Plenum, 6" Dia Neck Size, 125 CFM	EA	1	0%	1	0.295	\$ 65.00	\$ 19.18	\$ 112.02	\$ 131.20	\$ 131.20
73			S-3: 24" Flow bar Linear Slot Diffuser, 2" Slot, 1 Slot With Pattern Controller, TITUS FL-20 With Continuous Slot Plenum, 8" Dia Neck Size, 175 CFM	EA	2	0%	2	0.295	\$ 65.00	\$ 19.18	\$ 128.50	\$ 147.68	\$ 295.35
ROOF TOP UNIT													
74			RTU-1: Rooftop Unit, CARRIER 48FCDM12, 10 TONS, 4000 CFM, 79.6 DB/65.2 WB, 115.77 MBH, 208V/60Hz/3Ph, 15.6 RLA (1), 15.6 RLA (2), 12.6 FLA (evap. fan), 1.5 FLA (cond. fan), 51 MCA/60 MOCP, 1200 LBS. 1. All units shall have barometric relief. 2. All units shall have insulated roof curbs that match roof slope. 3. All units shall be manufactured for single point electrical connection. 4. Provide hail guards excluding units with V bank coils. 5. Provide enthalpy-controlled economizers.	EA	1	0%	1	3.200	\$ 120.00	\$ 384.00	\$ 4,850.00	\$ 5,234.00	\$ 5,234.00
75			RTU-2: Rooftop Unit, CARRIER 48LCDA14, 12.5 TONS, 5000 CFM, 79.6 DB/65.2 WB, 136.47 MBH, 208V/60Hz/3Ph, 17.6 RLA (1), 23.2 RLA (2), 13.6 FLA (evap. fan), 1.3 FLA (cond. fan), 64.1 MCA/80 MOCP, 2500 LBS. 1. All units shall have barometric relief. 2. All units shall have insulated roof curbs that match roof slope. 3. All units shall be manufactured for single point electrical connection. 4. Provide hail guards excluding units with V bank coils. 5. Provide enthalpy-controlled economizers.	EA	1	0%	1	3.200	\$ 120.00	\$ 384.00	\$ 5,200.00	\$ 5,584.00	\$ 5,584.00
76			RTU-3: Rooftop Unit, CARRIER 48GCDM05, 4 TONS, 1600 CFM, 79.6 DB/65.2 WB, 44.93 MBH, 208V/60Hz/3Ph, 14 RLA, 7.1 FLA (evap. fan), 1.5 FLA (cond. fan), 27 MCA/30 MOCP, 800 LBS. 1. All units shall have barometric relief. 2. All units shall have insulated roof curbs that match roof slope. 3. All units shall be manufactured for single point electrical connection. 4. Provide hail guards excluding units with V bank coils. 5. Provide enthalpy-controlled economizers.	EA	1	0%	1	3.200	\$ 120.00	\$ 384.00	\$ 3,365.00	\$ 3,749.00	\$ 3,749.00

DETAILED BREAKDOWN OF ITEMS

Prepared For:
Project ID:
Scope: HVAC



Date:

SR #	Drawing #	Detail #	DESCRIPTION	UNIT	QUANTIT Y	WASTAG E	QUANTITY W/WASTAGE	UNIT MANHOURL	HOURLY WAGE	LABOR COST	MAT. COST	UNIT COST	SUB COST
77			RTU-4: Rooftop Unit, CARRIER 48LCDA14, 12.5 TONS, 5000 CFM, 79.6 DB/65.2 WB, 136.47 MBH, 208V/60Hz/3Ph, 17.6 RLA (1), 23.2 RLA (2), 13.6 FLA (evap. fan), 1.3 FLA (cond. fan), 64.1 MCA/80 MOCP, 2500 LBS. 1. All units shall have barometric relief. 2. All units shall have insulated roof curbs that match roof slope. 3. All units shall be manufactured for single point electrical connection. 4. Provide hail guards excluding units with V bank coils. 5. Provide enthalpy-controlled economizers.	EA	1	0%	1	3.200	\$ 120.00	\$ 384.00	\$ 5,200.00	\$ 5,584.00	\$ 5,584.00
78	MEP1.00, MEP1.02, MEP1.03, MEP1.04, MEP1.05, MEP1.06		RTU-5: Rooftop Unit, CARRIER 48GCDM04, 3 TONS, 1200 CFM, 77.3 DB/64.1 WB, 30.55 MBH, 208V/60Hz/3Ph, 11.6 RLA, 5.1 FLA (evap. fan), 1.5 FLA (cond. fan), 22 MCA/30 MOCP, 750 LBS. 1. All units shall have barometric relief. 2. All units shall have insulated roof curbs that match roof slope. 3. All units shall be manufactured for single point electrical connection. 4. Provide hail guards excluding units with V bank coils. 5. Provide enthalpy-controlled economizers.	EA	1	0%	1	3.200	\$ 120.00	\$ 384.00	\$ 3,102.00	\$ 3,486.00	\$ 3,486.00
ROOF TOP UNIT DETAIL													
79	M2.02, M2.02, M2.03, M2.04, M2.05 & M2.06	M4.01	Duct Smoke Detector	EA	10	0%	10	0.650	\$ 65.00	\$ 42.25	\$ 125.99	\$ 168.24	\$ 1,682.40
80			3/4" Dia Water Tight Fitting	EA	10	0%	10	0.185	\$ 65.00	\$ 12.03	\$ 15.65	\$ 27.68	\$ 276.75
SPLIT SYSTEM													
81			AHU-1: Split System W/Gas Heat, CARRIER 59SC2D040, 0.5 E.S.P. (WG), 40 MBH, 115V/1Ph, 7.1 MCA/15 MOCP, 122 LBS, Cooling Coil: Cooling Coil CAPMP1917, 79.6 DB/65.2 WB, 18.0 MBH, 62LBS	EA	1	0%	1	3.800	\$ 120.00	\$ 456.00	\$ 1,462.00	\$ 1,918.00	\$ 1,918.00
82			AHU-2: Split System W/Gas Heat, CARRIER 59SC2D080, 0.5 E.S.P. (WG), 80 MBH, 115V/1Ph, 9.6 MCA/15 MOCP, 150 LBS, Cooling Coil: Cooling Coil CAPMP4821, 78.5 DB/64.7 WB, 48.0 MBH, 84LBS	EA	1	0%	1	3.800	\$ 120.00	\$ 456.00	\$ 1,682.00	\$ 2,138.00	\$ 2,138.00
83			AHU-3: Split System W/Gas Heat, CARRIER 59SC2D060, 0.5 E.S.P. (WG), 60 MBH, 115V/1Ph, 7.2 MCA/15 MOCP, 132 LBS, Cooling Coil: Cooling Coil CAPMP3617, 78.5 DB/64.7 WB, 36.0 MBH, 67LBS	EA	1	0%	1	3.800	\$ 120.00	\$ 456.00	\$ 1,596.00	\$ 2,052.00	\$ 2,052.00
84			AHU-4: Split System W/Gas Heat, CARRIER 59SC2D080, 0.5 E.S.P. (WG), 80 MBH, 115V/1Ph, 9.6 MCA/15 MOCP, 150 LBS, Cooling Coil: Cooling Coil CAPMP4821, 78.5 DB/64.7 WB, 48.0 MBH, 84LBS	EA	1	0%	1	3.800	\$ 120.00	\$ 456.00	\$ 1,682.00	\$ 2,138.00	\$ 2,138.00
85			AHU-5: Split System W/Gas Heat, CARRIER 59SC2D060, 0.5 E.S.P. (WG), 60 MBH, 115V/1Ph, 7.2 MCA/15 MOCP, 132 LBS, Cooling Coil: Cooling Coil CAPMP3617, 78.5 DB/64.7 WB, 36.0 MBH, 67LBS	EA	1	0%	1	3.800	\$ 120.00	\$ 456.00	\$ 1,596.00	\$ 2,052.00	\$ 2,052.00
86			AHU-6: Split System W/Gas Heat, CARRIER 59SC2D080, 0.5 E.S.P. (WG), 80 MBH, 115V/1Ph, 9.6 MCA/15 MOCP, 150 LBS, Cooling Coil: Cooling Coil CAPMP4821, 78.5 DB/64.7 WB, 48.0 MBH, 84LBS	EA	1	0%	1	3.800	\$ 120.00	\$ 456.00	\$ 1,682.00	\$ 2,138.00	\$ 2,138.00
87			AHU-7: Split System W/Gas Heat, CARRIER 59SC2D060, 0.5 E.S.P. (WG), 60 MBH, 115V/1Ph, 7.2 MCA/15 MOCP, 132 LBS, Cooling Coil: Cooling Coil CAPMP4221, 78.5 DB/64.7 WB, 42.0 MBH, 78LBS	EA	1	0%	1	3.800	\$ 120.00	\$ 456.00	\$ 1,596.00	\$ 2,052.00	\$ 2,052.00
88			AHU-8: Split System W/Gas Heat, CARRIER 59SC2D080, 0.5 E.S.P. (WG), 80 MBH, 115V/1Ph, 9.6 MCA/15 MOCP, 150 LBS, Cooling Coil: Cooling Coil CAPMP4821, 78.5 DB/64.7 WB, 48.0 MBH, 84LBS	EA	1	0%	1	3.800	\$ 120.00	\$ 456.00	\$ 1,682.00	\$ 2,138.00	\$ 2,138.00
89			AHU-9: Split System W/Gas Heat, CARRIER 59SC2D080, 0.5 E.S.P. (WG), 80 MBH, 115V/1Ph, 9.6 MCA/15 MOCP, 150 LBS, Cooling Coil: Cooling Coil CAPMP4821, 78.5 DB/64.7 WB, 48.0 MBH, 84LBS	EA	1	0%	1	3.800	\$ 120.00	\$ 456.00	\$ 1,682.00	\$ 2,138.00	\$ 2,138.00
90			AHU-10: Split System W/Gas Heat, CARRIER 59SC2D080, 0.5 E.S.P. (WG), 80 MBH, 115V/1Ph, 9.6 MCA/15 MOCP, 150 LBS, Cooling Coil: Cooling Coil CAPMP4821, 78.5 DB/64.7 WB, 48.0 MBH, 84LBS	EA	1	0%	1	3.800	\$ 120.00	\$ 456.00	\$ 1,682.00	\$ 2,138.00	\$ 2,138.00
91			AHU-11: Split System W/Gas Heat, CARRIER 59SC2D080, 0.5 E.S.P. (WG), 80 MBH, 115V/1Ph, 9.6 MCA/15 MOCP, 150 LBS, Cooling Coil: Cooling Coil CAPMP4821, 78.5 DB/64.7 WB, 48.0 MBH, 84LBS	EA	1	0%	1	3.800	\$ 120.00	\$ 456.00	\$ 1,682.00	\$ 2,138.00	\$ 2,138.00
92			CU-1: Condensing Unit, CARRIER 24SCA518, 1.5 TONS, 208V/1Ph, 8.8 RLA, 11.4 MCA/20 MOCP, 113 LBS	EA	1	0%	1	3.800	\$ 120.00	\$ 456.00	\$ 3,125.00	\$ 3,581.00	\$ 3,581.00
93			CU-2: Condensing Unit, CARRIER 24SCA548, 4.0 TONS, 208V/1Ph, 25 RLA, 32.8 MCA/50 MOCP, 199 LBS	EA	1	0%	1	3.800	\$ 120.00	\$ 456.00	\$ 3,419.00	\$ 3,875.00	\$ 3,875.00
94			CU-3: Condensing Unit, CARRIER 24SCA536, 3.0 TONS, 208V/1Ph, 12.2 RLA, 16.7 MCA/25 MOCP, 169 LBS	EA	1	0%	1	3.800	\$ 120.00	\$ 456.00	\$ 3,382.00	\$ 3,838.00	\$ 3,838.00
95			CU-4: Condensing Unit, CARRIER 24SCA548, 4.0 TONS, 208V/1Ph, 25 RLA, 32.8 MCA/50 MOCP, 199 LBS	EA	1	0%	1	3.800	\$ 120.00	\$ 456.00	\$ 3,419.00	\$ 3,875.00	\$ 3,875.00
96			CU-5: Condensing Unit, CARRIER 24SCA536, 3.0 TONS, 208V/1Ph, 12.2 RLA, 16.7 MCA/25 MOCP, 169 LBS	EA	1	0%	1	3.800	\$ 120.00	\$ 456.00	\$ 3,385.00	\$ 3,841.00	\$ 3,841.00
97			CU-6: Condensing Unit, CARRIER 24SCA548, 4.0 TONS, 208V/1Ph, 25 RLA, 32.8 MCA/50 MOCP, 199 LBS	EA	1	0%	1	3.800	\$ 120.00	\$ 456.00	\$ 3,419.00	\$ 3,875.00	\$ 3,875.00
98			CU-7: Condensing Unit, CARRIER 24SCA542, 3.5 TONS, 208V/1Ph, 25 RLA, 32.8 MCA/50 MOCP, 199 LBS	EA	1	0%	1	3.800	\$ 120.00	\$ 456.00	\$ 3,419.00	\$ 3,875.00	\$ 3,875.00
99			CU-8: Condensing Unit, CARRIER 24SCA548, 4.0 TONS, 208V/1Ph, 25 RLA, 32.8 MCA/50 MOCP, 199 LBS	EA	1	0%	1	3.800	\$ 120.00	\$ 456.00	\$ 3,419.00	\$ 3,875.00	\$ 3,875.00
100			CU-9: Condensing Unit, CARRIER 24SCA548, 4.0 TONS, 208V/1Ph, 25 RLA, 32.8 MCA/50 MOCP, 199 LBS	EA	1	0%	1	3.800	\$ 120.00	\$ 456.00	\$ 3,419.00	\$ 3,875.00	\$ 3,875.00
101			CU-10: Condensing Unit, CARRIER 24SCA548, 4.0 TONS, 208V/1Ph, 25 RLA, 32.8 MCA/50 MOCP, 199 LBS	EA	1	0%	1	3.800	\$ 120.00	\$ 456.00	\$ 3,419.00	\$ 3,875.00	\$ 3,875.00
102			CU-11: Condensing Unit, CARRIER 24SCA548, 4.0 TONS, 208V/1Ph, 25 RLA, 32.8 MCA/50 MOCP, 199 LBS	EA	1	0%	1	3.800	\$ 120.00	\$ 456.00	\$ 3,419.00	\$ 3,875.00	\$ 3,875.00
DEDICATED OUTDOOR AIR SYSTEM													
103			DOAS-1: Outside Air Unit, CARRIER 62XM125BKF-AHJFK8R, 12 TONS, Dehumidification: 4500 CFM, 148.60 MBH, Heating: 4500 CFM, 100 MBH, Energy Conservation: 4500 CFM (outside air), 6100 CFM (exhaust air), 134.84 MBH, Supply Fan: 4500 CFM, 7.5 HP, Exhaust Fan: 6100 CFM, 7.5 HP, Electrical: 208V/60Hz/3Ph, 20.4 RLA, 20.5 FLA (supply fan), 20.5 FLA (power exhaust), 3 FLA (cond. fan), 95.3 MCA/110 MOCP. 1. Supply ANS exhaust fan motor with VFD. 2. Provide Hail Guards.	EA	1	0%	1	3.400	\$ 120.00	\$ 408.00	\$ 3,455.00	\$ 3,863.00	\$ 3,863.00
DAMPERS													
104			4" Dia Motorized Damper	EA	1	0%	1	0.385	\$ 65.00	\$ 25.03	\$ 173.12	\$ 198.15	\$ 198.15
105			8" Dia Motorized Damper	EA	2	0%	2	0.520	\$ 65.00	\$ 33.80	\$ 218.00	\$ 251.80	\$ 503.60
106			9" Dia Motorized Damper	EA	6	0%	6	0.560	\$ 65.00	\$ 36.40	\$ 225.32	\$ 261.72	\$ 1,570.32
107			16"x10" Motorized Damper	EA	1	0%	1	0.510	\$ 65.00	\$ 33.15	\$ 201.25	\$ 234.40	\$ 234.40
108			6" Dia Volume Damper	EA	11	0%	11	0.230	\$ 65.00	\$ 14.95	\$ 62.30	\$ 77.25	\$ 849.75
109			8" Dia Volume Damper	EA	19	0%	19	0.250	\$ 65.00	\$ 16.25	\$ 75.00	\$ 91.25	\$ 1,733.75

DETAILED BREAKDOWN OF ITEMS

Prepared For:
Project ID:
Scope: HVAC



Date:

SR #	Drawing #	Detail #	DESCRIPTION	UNIT	QUANT Y	WASTAG E	QUANTITY W/WASTAGE	UNIT MANHOURL	HOURLY WAGE	LABOR COST	MAT. COST	UNIT COST	SUB COST
110			8"x6" Volume Damper	EA	2	0%	2	0.310	\$ 65.00	\$ 20.15	\$ 56.32	\$ 76.47	\$ 152.94
111			8"x8" Volume Damper	EA	33	0%	33	0.340	\$ 65.00	\$ 22.10	\$ 63.20	\$ 85.30	\$ 2,814.90
112			10" Dia Volume Damper	EA	15	0%	15	0.410	\$ 65.00	\$ 26.65	\$ 78.00	\$ 104.65	\$ 1,569.75
113			10"x10" Volume Damper	EA	4	0%	4	0.420	\$ 65.00	\$ 27.30	\$ 81.00	\$ 108.30	\$ 433.20
114			12" Dia Volume Damper	EA	62	0%	62	0.450	\$ 65.00	\$ 29.25	\$ 89.23	\$ 118.48	\$ 7,345.76
115			12"x10" Volume Damper	EA	4	0%	4	0.470	\$ 65.00	\$ 30.55	\$ 95.00	\$ 125.55	\$ 502.20
116			12"x12" Volume Damper	EA	2	0%	2	0.490	\$ 65.00	\$ 31.85	\$ 98.00	\$ 129.85	\$ 259.70
117			14"x12" Volume Damper	EA	4	0%	4	0.510	\$ 65.00	\$ 33.15	\$ 105.00	\$ 138.15	\$ 552.60
118			16"x14" Volume Damper	EA	3	0%	3	0.530	\$ 65.00	\$ 34.45	\$ 112.00	\$ 146.45	\$ 439.35
119			18"x14" Volume Damper	EA	4	0%	4	0.550	\$ 65.00	\$ 35.75	\$ 125.00	\$ 160.75	\$ 643.00
120			20"x14" Volume Damper	EA	3	0%	3	0.590	\$ 65.00	\$ 38.35	\$ 136.20	\$ 174.55	\$ 523.65
121			24"x18" Volume Damper	EA	1	0%	1	0.620	\$ 65.00	\$ 40.30	\$ 148.32	\$ 188.62	\$ 188.62
122			48"x30" Volume Damper	EA	1	0%	1	0.850	\$ 65.00	\$ 55.25	\$ 210.30	\$ 265.55	\$ 265.55
EXHAUST FAN													
123			EF-1: Exhaust Fan, GREENHECK G8-081, 525 CFM, 1/6 HP, 115V/1Ph, 55 LBS. 1. Backdraft Damper. 2. Bird screen/Wire Guard. 3. Provide Insulated Roof Curbs. Sloped Roofs shall have Sloped Roof Curbs.	EA	1	0%	1	1.800	\$ 65.00	\$ 117.00	\$ 2,181.00	\$ 2,298.00	\$ 2,298.00
124			EF-2: Exhaust Fan, GREENHECK G8-081, 525 CFM, 1/6 HP, 115V/1Ph, 55 LBS. 1. Backdraft Damper. 2. Bird screen/Wire Guard. 3. Provide Insulated Roof Curbs. Sloped Roofs shall have Sloped Roof Curbs.	EA	1	0%	1	1.800	\$ 65.00	\$ 117.00	\$ 2,181.00	\$ 2,298.00	\$ 2,298.00
125			KEF-1: Exhaust Fan, 1500 CFM, 3/4 HP, 115V/1Ph. 1. Backdraft Damper. 2. Bird screen/Wire Guard. 3. Provide Insulated Roof Curbs. Sloped Roofs shall have Sloped Roof Curbs.	EA	1	0%	1	1.800	\$ 65.00	\$ 117.00	\$ 1,850.00	\$ 1,967.00	\$ 1,967.00
126			KEF-2: Exhaust Fan, 1500 CFM, 3/4 HP, 115V/1Ph. 1. Backdraft Damper. 2. Bird screen/Wire Guard. 3. Provide Insulated Roof Curbs. Sloped Roofs shall have Sloped Roof Curbs.	EA	1	0%	1	1.800	\$ 65.00	\$ 117.00	\$ 1,850.00	\$ 1,967.00	\$ 1,967.00
127			KEF-4: Exhaust Fan, 2875 CFM, 2 HP, 208V/3Ph. 1. Backdraft Damper. 2. Bird screen/Wire Guard. 3. Provide Insulated Roof Curbs. Sloped Roofs shall have Sloped Roof Curbs.	EA	1	0%	1	1.800	\$ 65.00	\$ 117.00	\$ 2,340.00	\$ 2,457.00	\$ 2,457.00
128			KEF-5: Exhaust Fan, 2367 CFM, 1.5 HP, 208V/3Ph. 1. Backdraft Damper. 2. Bird screen/Wire Guard. 3. Provide Insulated Roof Curbs. Sloped Roofs shall have Sloped Roof Curbs.	EA	1	0%	1	1.800	\$ 65.00	\$ 117.00	\$ 2,340.00	\$ 2,457.00	\$ 2,457.00
129			KEF-7: Exhaust Fan, 350 CFM, 1/4 HP, 115V/1Ph. 1. Backdraft Damper. 2. Bird screen/Wire Guard. 3. Provide Insulated Roof Curbs. Sloped Roofs shall have Sloped Roof Curbs.	EA	1	0%	1	1.800	\$ 65.00	\$ 117.00	\$ 850.00	\$ 967.00	\$ 967.00
EXHAUST FAN DETAIL													
130			Span Aluminum Housing W/ Removable Dome	EA	7	0%	7	0.350	\$ 65.00	\$ 22.75	\$ 104.30	\$ 127.05	\$ 889.35
131			V-Belt Drive	EA	7	0%	7	0.230	\$ 65.00	\$ 14.95	\$ 49.59	\$ 64.54	\$ 451.78
132			Motor out of Air Stream	EA	7	0%	7	0.650	\$ 65.00	\$ 42.25	\$ 350.00	\$ 392.25	\$ 2,745.75
133			Vibration Isolator	EA	7	0%	7	0.230	\$ 65.00	\$ 14.95	\$ 11.35	\$ 26.30	\$ 184.10
134			Centrifugal Fan Wheel	EA	7	0%	7	0.350	\$ 65.00	\$ 22.75	\$ 191.00	\$ 213.75	\$ 1,496.25
135			Aluminum Bird Screen All Around	EA	7	0%	7	0.450	\$ 65.00	\$ 29.25	\$ 123.00	\$ 152.25	\$ 1,065.75
136			Hinge (For Access To Ductwork)	EA	7	0%	7	0.120	\$ 65.00	\$ 7.80	\$ 19.02	\$ 26.82	\$ 187.74
137			Secure Fan To Roof Curb W/*8 Sht. Metal Screws W/Zinc Chromate Finish. Locate Screws 8" O.C. & Seal W/Clear Silicon Rubber Caulking	EA	14	0%	14	1.250	\$ 65.00	\$ 81.25	\$ 312.23	\$ 393.48	\$ 5,508.72
138			Gravity Shutter	EA	49	0%	49	0.340	\$ 65.00	\$ 22.10	\$ 127.90	\$ 150.00	\$ 7,350.00
HOOD													
139			Kitchen Exhaust Hood, 12" Neck Size, 1500 CFM	EA	2	0%	2	2.100	\$ 120.00	\$ 252.00	\$ 1,220.00	\$ 1,472.00	\$ 2,944.00
140			Kitchen Exhaust Hood, 16" Neck Size, 2367 CFM	EA	1	0%	1	2.100	\$ 120.00	\$ 252.00	\$ 1,652.00	\$ 1,904.00	\$ 1,904.00
141			Kitchen Exhaust Hood, 16" Neck Size, 2875 CFM	EA	1	0%	1	2.100	\$ 120.00	\$ 252.00	\$ 1,652.00	\$ 1,904.00	\$ 1,904.00
MAKEUP AIR UNIT													
142			MUA-3: Make-Up Air Unit, CAPTIVEAIRE, 2400 CFM, 1372 LBS, Motor Information: 1.5 HP, 208V/60C/3P, 1147 RPM, 9.5 MCA/15 MOP, Heating: Natural Gas, 142 MBH, Cooling: 51.3 MBH, Condenser: 208V/60C/3P, 21.4 MCA/30 MOCF (Condenser 1)	EA	1	0%	1	3.200	\$ 120.00	\$ 384.00	\$ 7,355.00	\$ 7,739.00	\$ 7,739.00
143			MUA-6: Make-Up Air Unit, CAPTIVEAIRE, 4239 CFM, 1570 LBS, Motor Information: 5 HP, 208V/60C/3P, 1748 RPM, 20 MCA/30 MOP, Heating: Natural Gas, 251 MBH, Cooling: 86.9 MBH, Condenser: 208V/60C/3P, 14.5 MCA/20 MOCF (Condenser 1), 21.4 MCA/30 MOCF (Condenser 2)	EA	1	0%	1	3.200	\$ 120.00	\$ 384.00	\$ 9,803.00	\$ 10,187.00	\$ 10,187.00
HEATER													
144			WEH-1: Electric Heater, MARLEY WH3150FC, 1.5 KW, 120V/1Ph, 12.5 AMP. 1. Provide integral thermostat.	EA	1	0%	1	2.890	\$ 120.00	\$ 346.80	\$ 1,052.00	\$ 1,398.80	\$ 1,398.80
DUCT WEIGHT													
145			Galvanized Sheet Metal Duct Weight	LB	12400	10%	13640	0.041	\$ 65.00	\$ 2.67	\$ 4.86	\$ 7.53	\$ 102,641.00
DUCT LINER													
146		Thickness Assumed	1-1/2" Thick, Duct Liner Insulation	SF	2597	10%	2857	0.028	\$ 65.00	\$ 1.82	\$ 1.80	\$ 3.62	\$ 10,341.25
DUCT INSULATION													
147		Assumed	1-1/2" Thick, Fiberglass Duct Insulation	SF	7846	10%	8631	0.032	\$ 65.00	\$ 2.08	\$ 2.56	\$ 4.64	\$ 40,045.98
MISCELLANEOUS													
148			CO2 Sensor	EA	2	0%	2	0.450	\$ 65.00	\$ 29.25	\$ 210.00	\$ 239.25	\$ 478.50
149			Humidistat	EA	2	0%	2	0.560	\$ 65.00	\$ 36.40	\$ 280.00	\$ 316.40	\$ 632.80
150			Thermostat	EA	13	0%	13	0.530	\$ 65.00	\$ 34.45	\$ 277.00	\$ 311.45	\$ 4,048.85
151			Cooling System (For Wine Cellar Cabinet)	EA	1	0%	1	0.890	\$ 65.00	\$ 57.85	\$ 1,560.00	\$ 1,617.85	\$ 1,617.85
152			28"x12" Makeup Air Duct Connection, 694 CFM	EA	3	0%	3	0.760	\$ 65.00	\$ 49.40	\$ 215.00	\$ 264.40	\$ 793.20
153			28"x12" Makeup Air Duct Connection, 718 CFM	EA	3	0%	3	0.760	\$ 65.00	\$ 49.40	\$ 215.00	\$ 264.40	\$ 793.20
154			28"x12" Makeup Air Duct Connection, 800 CFM	EA	3	0%	3	0.760	\$ 65.00	\$ 49.40	\$ 215.00	\$ 264.40	\$ 793.20
155			132"x4" Return Air Opening (On The Cove)	EA	1	0%	1	0.720	\$ 65.00	\$ 46.80	\$ 312.00	\$ 358.80	\$ 358.80
156			3" Dia VTR, Vent Through Roof	EA	1	0%	1	0.450	\$ 65.00	\$ 29.25	\$ 75.00	\$ 104.25	\$ 104.25
157			4" Dia VTR, Vent Through Roof	EA	7	0%	7	0.450	\$ 65.00	\$ 29.25	\$ 84.00	\$ 113.25	\$ 792.75
158			8" Dia Flexible Connection	EA	1	0%	1	0.550	\$ 65.00	\$ 35.75	\$ 104.00	\$ 139.75	\$ 139.75
159			10"x10" Flexible Connection	EA	1	0%	1	0.320	\$ 65.00	\$ 20.80	\$ 25.00	\$ 45.80	\$ 45.80
160			12"x10" Flexible Connection	EA	2	0%	2	0.320	\$ 65.00	\$ 20.80	\$ 28.60	\$ 49.40	\$ 98.80
161			12"x12" Flexible Connection	EA	3	0%	3	0.320	\$ 65.00	\$ 20.80	\$ 32.45	\$ 53.25	\$ 159.75
162			14"x12" Flexible Connection	EA	1	0%	1	0.320	\$ 65.00	\$ 20.80	\$ 38.90	\$ 59.70	\$ 59.70
163			16"x14" Flexible Connection	EA	2	0%	2	0.390	\$ 65.00	\$ 25.35	\$ 42.34	\$ 67.69	\$ 135.38

DETAILED BREAKDOWN OF ITEMS

Prepared For:
Project ID:
Scope: HVAC



Date:

SR #	Drawing #	Detail #	DESCRIPTION	UNIT	QUANTIT Y	WASTAG E	QUANTITY W/ WASTAGE	UNIT MANHOURL	HOURLY WAGE	LABOR COST	MAT. COST	UNIT COST	SUB COST
164			16"x16" Flexible Connection	EA	4	0%	4	0.390	\$ 65.00	\$ 25.35	\$ 45.67	\$ 71.02	\$ 284.08
165			18"x12" Flexible Connection	EA	1	0%	1	0.390	\$ 65.00	\$ 25.35	\$ 57.80	\$ 83.15	\$ 83.15
166			18"x14" Flexible Connection	EA	2	0%	2	0.390	\$ 65.00	\$ 25.35	\$ 60.60	\$ 85.95	\$ 171.90
167			20"x14" Flexible Connection	EA	1	0%	1	0.430	\$ 65.00	\$ 27.95	\$ 64.50	\$ 92.45	\$ 92.45
168			20"x16" Flexible Connection	EA	1	0%	1	0.430	\$ 65.00	\$ 27.95	\$ 65.80	\$ 93.75	\$ 93.75
169			22"x16" Flexible Connection	EA	1	0%	1	0.430	\$ 65.00	\$ 27.95	\$ 70.50	\$ 98.45	\$ 98.45
170			26"x14" Flexible Connection	EA	1	0%	1	0.480	\$ 65.00	\$ 31.20	\$ 75.60	\$ 106.80	\$ 106.80
171			32"x16" Flexible Connection	EA	1	0%	1	0.520	\$ 65.00	\$ 33.80	\$ 84.60	\$ 118.40	\$ 118.40
172			34"x16" Flexible Connection	EA	1	0%	1	0.520	\$ 65.00	\$ 33.80	\$ 86.50	\$ 120.30	\$ 120.30
173			34"x18" Flexible Connection	EA	1	0%	1	0.520	\$ 65.00	\$ 33.80	\$ 88.90	\$ 122.70	\$ 122.70
174			36"x16" Flexible Connection	EA	1	0%	1	0.520	\$ 65.00	\$ 33.80	\$ 92.30	\$ 126.10	\$ 126.10
175			46"x18" Flexible Connection	EA	2	0%	2	0.580	\$ 65.00	\$ 37.70	\$ 104.00	\$ 141.70	\$ 283.40
			PVC COUPLING:										
176			4" Dia	EA	18	0%	18	0.180	\$ 65.00	\$ 11.70	\$ 20.67	\$ 32.37	\$ 582.66
			PIPE SUPPORTS:										
177			3/8" Dia Adjustable Clevis Hanger	EA	73	0%	73	0.056	\$ 65.00	\$ 3.64	\$ 2.65	\$ 6.29	\$ 459.17
178			5/8" Dia Adjustable Clevis Hanger	EA	73	0%	73	0.058	\$ 65.00	\$ 3.77	\$ 3.20	\$ 6.97	\$ 508.81
179			3/4" Dia Adjustable Clevis Hanger	EA	80	0%	80	0.060	\$ 65.00	\$ 3.90	\$ 3.86	\$ 7.76	\$ 620.80
180			4" Dia Adjustable Clevis Hanger	EA	18	0%	18	0.100	\$ 65.00	\$ 6.50	\$ 7.65	\$ 14.15	\$ 254.70
181			3/8" Dia Threaded Rod (1 Ea. = 1 FT)	EA	226	0%	226	0.120	\$ 65.00	\$ 7.80	\$ 5.90	\$ 13.70	\$ 3,096.20
182			1/2" Dia Threaded Rod (1 Ea. = 1 FT)	EA	18	0%	18	0.100	\$ 65.00	\$ 6.50	\$ 6.25	\$ 12.75	\$ 229.50
			DUCT SUPPORTS:										
183			3/8" Threaded Rod	EA	518	0%	518	0.120	\$ 65.00	\$ 7.80	\$ 5.90	\$ 13.70	\$ 7,096.60
184			1" x 22 Ga. Strap	EA	259	0%	259	0.100	\$ 65.00	\$ 6.50	\$ 4.52	\$ 11.02	\$ 2,854.18
SUBTOTAL													\$ 407,752.30
PROJECTED COST												\$442,752	
OVERHEAD AND PROFIT													\$66,413
INSURANCE													\$13,283
CONTINGENCY													\$22,138
TAX													\$18,755
SUGGESTED BID													\$563,341

Note:

1. Please verify the equipment's and their prices with owner.
2. For tree plantation average prices are use. Please verify according to tree type.
3. Online sources are used for pricing.
4. Prices can vary depending upon field conditions.

DUCT BREAKDOWN OF ITEMS

Prepared for:
 Project ID:
 Scope: **HVAC**



Date:

SR #	DESCRIPTION	UNIT	QUANTITY	WASTAGE	QUANTITY W/ WASTAGE
HVAC					
GALVANIZED SHEET METAL DUCT					
1	6" Dia Supply Air Duct	LF	110	10%	121
2	8" Dia Supply Air Duct	LF	152	10%	167
3	8"x12" Supply Air Duct	LF	10	10%	10
4	10" Dia Supply Air Duct	LF	73	10%	80
5	10"x10" Supply Air Duct	LF	96	10%	105
6	10"x14" Supply Air Duct	LF	7	10%	8
7	12" Dia Supply Air Duct	LF	139	10%	153
8	12"x12" Supply Air Duct	LF	82	10%	91
9	12"x12" Supply Air Duct (Lined)	LF	4	10%	4
10	12"x14" Supply Air Duct	LF	8	10%	9
11	14"x12" Supply Air Duct	LF	57	10%	63
12	14"x12" Supply Air Duct (Lined)	LF	27	10%	29
13	14"x14" Supply Air Duct	LF	32	10%	35
14	14"x14" Supply Air Duct (Lined)	LF	4	10%	4
15	16"x14" Supply Air Duct	LF	82	10%	90
16	16"x14" Supply Air Duct (Lined)	LF	45	10%	50
17	16"x16" Supply Air Duct (Lined)	LF	14	10%	15
18	18"x12" Supply Air Duct (Lined)	LF	8	10%	9
19	18"x14" Supply Air Duct	LF	20	10%	22
20	18"x14" Supply Air Duct (Lined)	LF	45	10%	49
21	18"x16" Supply Air Duct	LF	14	10%	15
22	20"x16" Supply Air Duct	LF	8	10%	9
23	20"x16" Supply Air Duct (Lined)	LF	6	10%	7
24	24"x14" Supply Air Duct	LF	13	10%	14
25	24"x16" Supply Air Duct	LF	14	10%	15
26	24"x16" Supply Air Duct (Lined)	LF	2	10%	2
27	24"x18" Supply Air Duct	LF	11	10%	13
28	26"x14" Supply Air Duct (Lined)	LF	9	10%	10
29	26"x16" Supply Air Duct (Lined)	LF	6	10%	6
30	34"x16" Supply Air Duct (Lined)	LF	11	10%	12
31	34"x18" Supply Air Duct	LF	10	10%	11
32	34"x18" Supply Air Duct (Lined)	LF	15	10%	17
33	10"x10" Return Air Duct (Lined)	LF	25	10%	27
34	12"x10" Return Air Duct	LF	43	10%	47
35	14"x12" Return Air Duct	LF	34	10%	37
36	14"x12" Return Air Duct (Lined)	LF	4	10%	5
37	16"x14" Return Air Duct	LF	16	10%	18
38	16"x16" Return Air Duct	LF	4	10%	4
39	16"x16" Return Air Duct (Lined)	LF	5	10%	6
40	18"x14" Return Air Duct	LF	23	10%	25

DUCT BREAKDOWN OF ITEMS

Prepared for:
Project ID:
Scope: **HVAC**



Date:

SR #	DESCRIPTION	UNIT	QUANTITY	WASTAGE	QUANTITY W/ WASTAGE
41	18"x14" Return Air Duct (Lined)	LF	31	10%	35
42	20"x10" Return Air Duct (Lined)	LF	2	10%	2
43	20"x14" Return Air Duct	LF	26	10%	29
44	20"x14" Return Air Duct (Lined)	LF	39	10%	43
45	20"x16" Return Air Duct (Lined)	LF	10	10%	11
46	20"x20" Return Air Duct (Lined)	LF	2	10%	2
47	36"x16" Return Air Duct (Lined)	LF	12	10%	13
48	46"x18" Return Air Duct (Lined)	LF	32	10%	36
49	8" Dia Makeup Air Supply Duct	LF	6	10%	7
50	10" Dia Makeup Air Supply Duct	LF	29	10%	32
51	12" Dia Makeup Air Supply Duct	LF	175	10%	192
52	14"x14" Makeup Air Supply Duct	LF	33	10%	36
53	16"x12" Makeup Air Supply Duct	LF	15	10%	16
54	18"x14" Makeup Air Supply Duct	LF	78	10%	85
55	18"x14" Makeup Air Supply Duct (Lined)	LF	2	10%	3
56	22"x16" Makeup Air Supply Duct	LF	6	10%	7
57	22"x16" Makeup Air Supply Duct (Lined)	LF	15	10%	17
58	26"x16" Makeup Air Supply Duct	LF	48	10%	53
59	26"x16" Makeup Air Supply Duct (Lined)	LF	2	10%	2
60	28"x12" Makeup Air Supply Duct	LF	27	10%	30
61	28"x14" Makeup Air Supply Duct	LF	8	10%	9
62	32"x16" Makeup Air Supply Duct (Lined)	LF	16	10%	17
63	36"x16" Makeup Air Supply Duct (Lined)	LF	10	10%	10
64	8"x8" Makeup Air Return Duct	LF	126	10%	138
65	10"x10" Makeup Air Return Duct	LF	14	10%	15
66	12"x12" Makeup Air Return Duct	LF	3	10%	4
67	14"x12" Makeup Air Return Duct	LF	47	10%	52
68	16"x14" Makeup Air Return Duct	LF	44	10%	48
69	18"x14" Makeup Air Return Duct	LF	73	10%	80
70	24"x14" Makeup Air Return Duct	LF	51	10%	56
71	24"x14" Makeup Air Return Duct (Lined)	LF	3	10%	4
72	26"x14" Makeup Air Return Duct	LF	28	10%	31
73	36"x14" Makeup Air Return Duct	LF	24	10%	27
74	36"x14" Makeup Air Return Duct (Lined)	LF	3	10%	4
75	40"x14" Makeup Air Return Duct (Lined)	LF	8	10%	9
76	4" Dia Outside Air Duct	LF	8	10%	9
77	8" Dia Outside Air Duct	LF	12	10%	13
78	9" Dia Outside Air Duct	LF	36	10%	40
79	16"x10" Outside Air Duct	LF	1	10%	1
80	10"x10" Kitchen Exhaust Air Duct	LF	10	10%	11
81	16"x4" Kitchen Exhaust Air Duct	LF	8	10%	8
82	16"x16" Grease Exhaust Air Duct	LF	12	10%	13

DUCT BREAKDOWN OF ITEMS

Prepared for:
Project ID:
Scope: HVAC



Date:

SR #	DESCRIPTION	UNIT	QUANTITY	WASTAGE	QUANTITY W/ WASTAGE
83	12"x12" Grease Exhaust Air Duct	LF	23	10%	26
84	8"x8" Exhaust Air Duct	LF	58	10%	64
85	8"x10" Exhaust Air Duct	LF	49	10%	54
86	12"x10" Exhaust Air Duct	LF	36	10%	39
87	8"x6" Transfer Air Duct	LF	2	10%	2

DUCT BREAKDOWN OF ITEMS

Prepared for:
 Project ID:
 Scope: **HVAC**



Date:

SR #	DESCRIPTION	UNIT	QUANTITY	WASTAGE	QUANTITY W/ WASTAGE
	DUCT FITTINGS:				
	ELBOW:				
88	6" Dia Supply Air Duct 45 Deg Elbow	EA	2	0%	2
89	6" Dia Supply Air Duct 90 Deg Elbow	EA	8	0%	8
90	8" Dia Supply Air Duct 45 Deg Elbow	EA	6	0%	6
91	8" Dia Supply Air Duct 90 Deg Elbow	EA	12	0%	12
92	10" Dia Supply Air Duct 90 Deg Elbow	EA	4	0%	4
93	10"x10" Supply Air Duct 45 Deg Elbow	EA	2	0%	2
94	10"x10" Supply Air Duct 90 Deg Elbow W/ Turning Va	EA	1	0%	1
95	12" Dia Supply Air Duct 45 Deg Elbow	EA	8	0%	8
96	12" Dia Supply Air Duct 90 Deg Elbow	EA	1	0%	1
97	12"x12" Supply Air Duct 45 Deg Elbow	EA	2	0%	2
98	12"x12" Supply Air Duct 90 Deg Elbow W/ Turning Va	EA	1	0%	1
99	14"x12" Supply Air Duct 90 Deg Elbow W/ Turning Va	EA	2	0%	2
100	16"x14" Supply Air Duct 45 Deg Elbow	EA	2	0%	2
101	16"x14" Supply Air Duct 90 Deg Elbow W/ Turning Va	EA	6	0%	6
102	16"x16" Supply Air Duct 90 Deg Elbow	EA	1	0%	1
103	18"x14" Supply Air Duct 90 Deg Elbow W/ Turning Va	EA	3	0%	3
104	24"x16" Supply Air Duct 90 Deg Elbow W/ Turning Va	EA	1	0%	1
105	26"x16" Supply Air Duct 90 Deg Elbow W/ Turning Va	EA	1	0%	1
106	34"x16" / 42"x30" Supply Air Duct 90 Deg Elbow Red	EA	1	0%	1
107	34"x16" Supply Air Duct 90 Deg Elbow W/ Turning Va	EA	1	0%	1
108	34"x18" Supply Air Duct 90 Deg Elbow W/ Turning Va	EA	2	0%	2
109	10"x10" Return Air Duct 90 Deg Elbow W/ Turning Va	EA	2	0%	2
110	12"x10" Return Air Duct 45 Deg Elbow	EA	2	0%	2
111	12"x10" Return Air Duct 90 Deg Elbow	EA	2	0%	2
112	14"x12" Return Air Duct 90 Deg Elbow W/ Turning Va	EA	4	0%	4
113	16"x14" Return Air Duct 45 Deg Elbow	EA	2	0%	2
114	18"x14" Return Air Duct 90 Deg Elbow W/ Turning Va	EA	4	0%	4
115	20"x14" Return Air Duct 90 Deg Elbow W/ Turning Va	EA	5	0%	5
116	20"x16" Return Air Duct 90 Deg Elbow W/ Turning Va	EA	1	0%	1
117	36"x16" Return Air Duct 90 Deg Elbow W/ Turning Va	EA	1	0%	1
118	46"x18" Return Air Duct 90 Deg Elbow W/ Turning Va	EA	3	0%	3
119	8" Dia Makeup Air Supply Duct 45 Deg Elbow	EA	2	0%	2
120	8" Dia Makeup Air Supply Duct 90 Deg Elbow	EA	1	0%	1
121	10" Dia Makeup Air Supply Duct 45 Deg Elbow	EA	2	0%	2
122	12" Dia Makeup Air Supply Duct 45 Deg Elbow	EA	6	0%	6
123	12" Dia Makeup Air Supply Duct 90 Deg Elbow	EA	2	0%	2
124	18"x14" Makeup Air Supply Duct 90 Deg Elbow W/ T	EA	1	0%	1
125	22"x16" Makeup Air Supply Duct 90 Deg Elbow W/ T	EA	2	0%	2
126	26"x16" Makeup Air Supply Duct 90 Deg Elbow W/ T	EA	1	0%	1
127	32"x16" Makeup Air Supply Duct 90 Deg Elbow W/ T	EA	1	0%	1
128	36"x16" Makeup Air Supply Duct 90 Deg Elbow W/ T	EA	1	0%	1
129	8"x8" Makeup Air Return Duct 45 Deg Elbow	EA	2	0%	2

DUCT BREAKDOWN OF ITEMS

Prepared for:
Project ID:
Scope: HVAC



Date:

SR #	DESCRIPTION	UNIT	QUANTITY	WASTAGE	QUANTITY W/ WASTAGE
130	8"x8" Makeup Air Return Duct 90 Deg Elbow	EA	10	0%	10
131	10"x10" Makeup Air Return Duct 90 Deg Elbow W/ Tu	EA	1	0%	1
132	14"x12" Makeup Air Return Duct 90 Deg Elbow	EA	1	0%	1
133	14"x12" Makeup Air Return Duct 90 Deg Elbow W/ Tu	EA	1	0%	1
134	16"x14" Makeup Air Return Duct 45 Deg Elbow	EA	2	0%	2
135	16"x14" Makeup Air Return Duct 90 Deg Elbow W/ Tu	EA	3	0%	3

DUCT BREAKDOWN OF ITEMS

Prepared for:
 Project ID:
 Scope: **HVAC**



Date:

SR #	DESCRIPTION	UNIT	QUANTITY	WASTAGE	QUANTITY W/ WASTAGE
136	18"x14" Makeup Air Return Duct 90 Deg Elbow W/ Tu	EA	2	0%	2
137	24"x14" Makeup Air Return Duct 45 Deg Elbow	EA	2	0%	2
138	26"x14" Makeup Air Return Duct 45 Deg Elbow	EA	2	0%	2
139	4" Dia Outside Air Duct 90 Deg Elbow	EA	1	0%	1
140	10"x10" Kitchen Exhaust Air Duct 90 Deg Elbow	EA	1	0%	1
141	16"x4" Kitchen Exhaust Air Duct 90 Deg Elbow	EA	2	0%	2
142	12"x12" Grease Exhaust Air Duct 90 Deg Elbow	EA	4	0%	4
143	8"x8" Exhaust Air Duct 90 Deg Elbow	EA	3	0%	3
144	12"x10" Exhaust Air Duct 90 Deg Elbow	EA	2	0%	2
TAKE-OFF:					
145	8"x8" / 6" Dia Supply Air Duct Takeoff	EA	4	0%	4
146	8"x12" / 12" Dia Supply Air Duct Takeoff	EA	4	0%	4
147	10"x10" / 8" Dia Supply Air Duct Takeoff	EA	4	0%	4
148	10"x14" / 12" Dia Supply Air Duct Takeoff	EA	2	0%	2
149	12"x12" / 6" Dia Supply Air Duct Takeoff	EA	4	0%	4
150	12"x12" / 8" Dia Supply Air Duct Takeoff	EA	6	0%	6
151	12"x12" / 10" Dia Supply Air Duct Takeoff	EA	3	0%	3
152	12"x12" / 12" Dia Supply Air Duct Takeoff	EA	1	0%	1
153	12"x14" / 6" Dia Supply Air Duct Takeoff	EA	1	0%	1
154	12"x14" / 12" Dia Supply Air Duct Takeoff	EA	2	0%	2
155	14"x12" / 8" Dia Supply Air Duct Takeoff	EA	1	0%	1
156	14"x12" / 10" Dia Supply Air Duct Takeoff	EA	1	0%	1
157	14"x12" / 12" Dia Supply Air Duct Takeoff	EA	10	0%	10
158	14"x14" / 10" Dia Supply Air Duct Takeoff	EA	2	0%	2
159	14"x14" / 12" Dia Supply Air Duct Takeoff	EA	3	0%	3
160	16"x14" / 6" Dia Supply Air Duct Takeoff	EA	1	0%	1
161	16"x14" / 8" Dia Supply Air Duct Takeoff	EA	2	0%	2
162	16"x14" / 10" Dia Supply Air Duct Takeoff	EA	7	0%	7
163	16"x16" / 12" Dia Supply Air Duct Takeoff	EA	4	0%	4
164	16"x16" / 14"x12" Supply Air Duct Takeoff	EA	2	0%	2
165	18"x12" / 18"x12" Supply Air Duct Takeoff	EA	1	0%	1
166	18"x14" / 6" Dia Supply Air Duct Takeoff	EA	2	0%	2
167	18"x14" / 8" Dia Supply Air Duct Takeoff	EA	2	0%	2
168	18"x14" / 10" Dia Supply Air Duct Takeoff	EA	2	0%	2
169	18"x14" / 12" Dia Supply Air Duct Takeoff	EA	4	0%	4
170	18"x16" / 8" Dia Supply Air Duct Takeoff	EA	2	0%	2
171	18"x16" / 12" Dia Supply Air Duct Takeoff	EA	2	0%	2
172	20"x16" / 12" Dia Supply Air Duct Takeoff	EA	4	0%	4
173	24"x14" / 12" Dia Supply Air Duct Takeoff	EA	3	0%	3
174	24"x16" / 12" Dia Supply Air Duct Takeoff	EA	4	0%	4
175	24"x18" / 12" Dia Supply Air Duct Takeoff	EA	3	0%	3
176	26"x14" / 26"x14" Supply Air Duct Takeoff	EA	1	0%	1

DUCT BREAKDOWN OF ITEMS

Prepared for:
Project ID:
Scope: **HVAC**



Date:

SR #	DESCRIPTION	UNIT	QUANTITY	WASTAGE	QUANTITY W/ WASTAGE
177	26"x16" / 12" Dia Supply Air Duct Takeoff	EA	2	0%	2
178	34"x18" / 12" Dia Supply Air Duct Takeoff	EA	4	0%	4
179	16"x16" / 12"x10" Return Air Duct Takeoff	EA	1	0%	1
180	18"x14" / 16"x14" Return Air Duct Takeoff	EA	1	0%	1
181	20"x16" / 14"x12" Return Air Duct Takeoff	EA	1	0%	1
182	20"x16" / 16"x16" Return Air Duct Takeoff	EA	1	0%	1
183	8"x14" / 10" Dia Makeup Air Supply Duct Takeoff	EA	2	0%	2
184	8"x14" / 12" Dia Makeup Air Supply Duct Takeoff	EA	2	0%	2
185	14"x14" / 12" Dia Makeup Air Supply Duct Takeoff	EA	2	0%	2
186	18"x14" / 28"x12" Makeup Air Supply Duct Takeoff	EA	4	0%	4
187	22"x16" / 28"x12" Makeup Air Supply Duct Takeoff	EA	1	0%	1
188	26"x16" / 8" Dia Makeup Air Supply Duct Takeoff	EA	1	0%	1
189	26"x16" / 12" Dia Makeup Air Supply Duct Takeoff	EA	4	0%	4
190	28"x14" / 28"x12" Makeup Air Supply Duct Takeoff	EA	2	0%	2
191	32"x16" / 28"x12" Makeup Air Supply Duct Takeoff	EA	2	0%	2
192	8"x8" / 8"x8" Makeup Air Return Duct Takeoff	EA	6	0%	6
193	10"x10" / 8"x8" Makeup Air Return Duct Takeoff	EA	4	0%	4
194	14"x12" / 8"x8" Makeup Air Return Duct Takeoff	EA	1	0%	1
195	16"x14" / 8"x8" Makeup Air Return Duct Takeoff	EA	3	0%	3
196	18"x14" / 8"x8" Makeup Air Return Duct Takeoff	EA	5	0%	5
197	18"x14" / 12"x12" Makeup Air Return Duct Takeoff	EA	1	0%	1
198	18"x14" / 14"x12" Makeup Air Return Duct Takeoff	EA	1	0%	1
199	24"x14" / 8"x8" Makeup Air Return Duct Takeoff	EA	3	0%	3
200	24"x14" / 12"x12" Makeup Air Return Duct Takeoff	EA	1	0%	1
201	26"x14" / 8"x8" Makeup Air Return Duct Takeoff	EA	2	0%	2
202	40"x14" / 40"x14" Makeup Air Return Duct Takeoff	EA	1	0%	1
203	10"x10" / 16"x4" Kitchen Exhaust Air Duct Takeoff	EA	2	0%	2
204	8"x10" / 8"x8" Exhaust Air Duct Takeoff	EA	6	0%	6
205	12"x10" / 8"x8" Exhaust Air Duct Takeoff	EA	5	0%	5

DUCT BREAKDOWN OF ITEMS

Prepared for:
 Project ID:
 Scope: **HVAC**



Date:

SR #	DESCRIPTION	UNIT	QUANTITY	WASTAGE	QUANTITY W/ WASTAGE
	REDUCER:				
206	12"x12" / 10"x10" Supply Air Duct Reducer	EA	1	0%	1
207	14"x12" / 10"x10" Supply Air Duct Reducer	EA	1	0%	1
208	14"x14" / 10"x10" Supply Air Duct Reducer	EA	1	0%	1
209	16"x14" / 12"x12" Supply Air Duct Reducer	EA	2	0%	2
210	16"x14" / 14"x12" Supply Air Duct Reducer	EA	1	0%	1
211	18"x12" / 12"x12" Supply Air Duct Reducer	EA	1	0%	1
212	18"x12" / 14"x14" Supply Air Duct Reducer	EA	1	0%	1
213	18"x14" / 10"x14" Supply Air Duct Reducer	EA	1	0%	1
214	18"x14" / 14"x12" Supply Air Duct Reducer	EA	1	0%	1
215	18"x14" / 28"x24" Supply Air Duct Reducer	EA	1	0%	1
216	18"x14" / 8"x12" Supply Air Duct Reducer	EA	1	0%	1
217	20"x16" / 28"x26" Supply Air Duct Reducer	EA	1	0%	1
218	24"x14" / 12"x14" Supply Air Duct Reducer	EA	1	0%	1
219	24"x16" / 14"x14" Supply Air Duct Reducer	EA	1	0%	1
220	24"x18" / 18"x16" Supply Air Duct Reducer	EA	1	0%	1
221	26"x14" / 20"x16" Supply Air Duct Reducer	EA	2	0%	2
222	26"x16" / 24"x14" Supply Air Duct Reducer	EA	1	0%	1
223	34"x18" / 24"x18" Supply Air Duct Reducer	EA	1	0%	1
224	16"x16" / 12"x10" Return Air Duct Reducer	EA	1	0%	1
225	16"x12" / 8"x14" Makeup Air Supply Duct Reducer	EA	1	0%	1
226	18"x14" / 16"x12" Makeup Air Supply Duct Reducer	EA	1	0%	1
227	26"x16" / 14"x14" Makeup Air Supply Duct Reducer	EA	1	0%	1
228	26"x16" / 22"x16" Makeup Air Supply Duct Reducer	EA	1	0%	1
229	28"x14" / 18"x14" Makeup Air Supply Duct Reducer	EA	1	0%	1
230	32"x16" / 28"x14" Makeup Air Supply Duct Reducer	EA	1	0%	1
231	36"x16" / 44"x30" Makeup Air Supply Duct Reducer	EA	1	0%	1
232	18"x14" / 26"x24" Makeup Air Return Duct Reducer	EA	1	0%	1
233	24"x14" / 26"x22" Makeup Air Return Duct Reducer	EA	1	0%	1
234	26"x14" / 32"x26" Makeup Air Return Duct Reducer	EA	1	0%	1
235	36"x14" / 42"x30" Makeup Air Return Duct Reducer	EA	1	0%	1
236	40"x14" / 24"x14" Makeup Air Return Duct Reducer	EA	1	0%	1
237	40"x14" / 36"x14" Makeup Air Return Duct Reducer	EA	1	0%	1
238	12"x10" / 8"x10" Exhaust Air Duct Reducer	EA	2	0%	2
	DUCT COUPLER:				
239	6" Dia Duct Coupler	EA	4	0%	4
240	8" Dia Duct Coupler	EA	2	0%	2
241	10" Dia Duct Coupler	EA	2	0%	2
242	12" Dia Duct Coupler	EA	10	0%	10