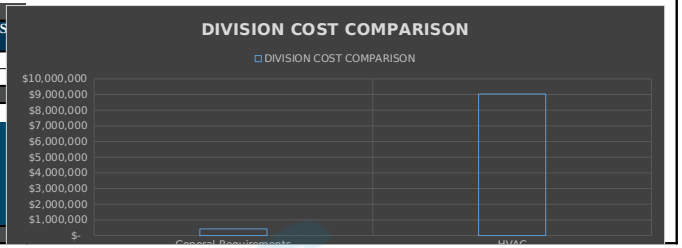
GENERAL SUMMARY

Prepared for: Naval Facilities Engineering Systems Command- MID Atlantic- NORKFOLK, VA
Project ID: 46301
Scope: HVAC
No. Of Floors: 2
Date: 6-Oct-26

USA ESTIMATORS
+1 (214) 556-2605

GSF		BASE BID	212,272	BID OPTION	21,902
DIVISION NO	DESCRIPTION	TOTAL DIV. COST	TOTAL DIV. COST (PER SF)	TOTAL DIV. COST	TOTAL DIV. COS (PER SF)
1000	General Requirements	$ 425,000	$ 2.00	$ 29,000	$
23000	HVAC	$ 9,033,662	$ 42.56	$ 269,738	$
TOTAL TRADE COST		$ 9,458,662	$ 45	$ 298,738	$
OVERHEAD	15%	$ 1,418,799	$ 7	$ 44,811	$
PROFIT	15%	$ 1,418,799	$ 7	$ 44,811	$
SUB-CONTRACTOR MARGIN	10%	$ 207,858	$ 4	$ 9,228	$
INSURANCE	3%	$ 283,760	$ 1	$ 8,962	$
CONTINGENCY	5%	$ 472,933	$ 2	$ 14,937	$
TAX	6%	$ 417,305	$ 3	$ 10,648	$
SUGGESTED BID		$ 13,678,117	$ 69	$ 432,134	$



USA ESTIMATORS

DETAILED BREAKDOWN OF ITEMS

Prepared for: Naval Facilities Engineering Systems Command- MID Atlantic- NORKFOLK, VA
Project ID: 46301
Scope: HVAC

USA ESTIMATORS
+1 (214) 556-2605

Date: 6-Oct-26

SR #	Drawing #	Detail #	DESCRIPTION	UNIT	QUANTITY	WASTAGE	QUANTITY W/ WASTAGE	UNIT MANHOUR	HOURLY WAGE	LABOR COST	MAT. COST	UNIT COST	SUB COST
			GENERAL REQUIREMENTS										
1			Permits	LS	1	0%	1	0.000	$ -	$ -	$ -	$ -	$ -
2			Supervision and Coordination	LS	1	0%	1	0.000	$ -	$ -	$ -	$ 205,000.00	$ 205,000.00
3			Submittals and Shop drawings	LS	1	0%	1	0.000	$ -	$ -	$ -	$ -	$ -
4			Final Cleaning	LS	1	0%	1	0.000	$ -	$ -	$ -	$ 12,500.00	$ 12,500.00
5			Mobilization Costs	LS	1	0%	1	0.000	$ -	$ -	$ -	$ 120,000.00	$ 120,000.00
6			Temporary Control & Facilities	LS	1	0%	1	0.000	$ -	$ -	$ -	$ 45,000.00	$ 45,000.00
7			Testing & Commissioning	LS	1	0%	1	0.000	$ -	$ -	$ -	$ 17,500.00	$ 17,500.00
8			Equipment Handling Cost	LS	1	0%	1	0.000	$ -	$ -	$ -	$ 25,000.00	$ 25,000
												SUBTOTAL	**$ 425,000**
			HVAC										
			BAY-1										
			HOT WATER SUPPLY PIPE										
			SCH 40 Carbon Steel Pipe W/ All ASTM Standards & Fittings										
9			1" Dia Hot Water Supply Pipe	LF	229	10%	252	0.113	$ 75.00	$ 8.49	$ 10.10	$ 18.59	$ 4,682.13
			1-1/2" Cellular Glass Insulation ASTM C552, Type-II Class 2										
10			1" Dia Hot Water Supply Pipe	LF	229	10%	252	0.06	$ 75.00	$ 4.13	$ 5.85	$ 9.98	$ 2,511.82
			ALLOWANCE										
11			Allowance for all Hot water Supply Piping Fittings, Supports & Hangers with all relevant accessories.	LS	1	0%	1	0.00	$ 75.00	$ 675.00	$ 825.00	$ 1,500.00	$ 1,500.00
			HOT WATER RETURN PIPE										
			SCH 40 Carbon Steel Pipe W/ All ASTM Standards & Fittings										
12			1" Dia Hot Water Return Pipe	LF	229	10%	252	0.113	$ 75.00	$ 8.49	$ 10.10	$ 18.59	$ 4,689.90
			1-1/2" Cellular Glass Insulation ASTM C552, Type-II Class 2										
13			1" Dia Hot Water Return Pipe	LF	229	10%	252	0.06	$ 75.00	$ 4.13	$ 5.85	$ 9.98	$ 2,515.99
			ALLOWANCE										
14			Allowance for all Hot Water Return Piping Fittings, Supports & Hangers with all relevant accessories.	LS	1	0%	1	0.00	$ 75.00	$ 675.00	$ 825.00	$ 1,500.00	$ 1,500.00
			CHILLED WATER SUPPLY PIPE										
			SCH 40 Carbon Steel Pipe W/ All ASTM Standards & Fittings										
15			1-1/4" Dia Chilled Water Supply Pipe	LF	229	10%	252	0.135	$ 75.00	$ 10.13	$ 13.25	$ 23.38	$ 5,894.33
			1-1/2" Cellular Glass Insulation ASTM C552, Type-II Class 2										
16			1-1/4" Dia Chilled Water Supply Pipe	LF	229	10%	252	0.07	$ 75.00	$ 4.88	$ 6.05	$ 10.93	$ 2,754.89
			ALLOWANCE										
17			Allowance for all Chilled Water Supply Piping Fittings, Supports & Hangers with all relevant accessories.	LS	1	0%	1	0.00	$ 75.00	$ 900.00	$ 1,100.00	$ 2,000.00	$ 2,000.00
			CHILLED WATER RETURN PIPE										
			SCH 40 Carbon Steel Pipe W/ All ASTM Standards & Fittings										
18			1-1/4" Dia Chilled Water Return Pipe	LF	229	10%	252	0.135	$ 75.00	$ 10.13	$ 13.25	$ 23.38	$ 5,896.13
			1-1/2" Cellular Glass Insulation ASTM C552, Type-II Class 2										
19			1-1/4" Dia Chilled Water Return Pipe	LF	229	10%	252	0.07	$ 75.00	$ 4.88	$ 6.05	$ 10.93	$ 2,755.73
			ALLOWANCE										
20			Allowance for all Chilled Water Return Piping Fittings, Supports & Hangers with all relevant accessories.	LS	1	0%	1	0.00	$ 75.00	$ 900.00	$ 1,100.00	$ 2,000.00	$ 2,000.00
			REFRIGERANT PIPE										
			Type 'L' Copper Pipe W/ All ASTM Standards & Fittings										
21			3/8" Dia Refrigerant Liquid Pipe	LF	87	10%	95	0.071	$ 75.00	$ 5.34	$ 2.97	$ 8.31	$ 791.24
22			5/8" Dia Refrigerant Suction Pipe	LF	83	10%	91	0.076	$ 75.00	$ 5.68	$ 4.99	$ 10.67	$ 975.11
			1" Thick Flexible Elastomeric Cellular, K- Value 0.235 Insulation										
23			3/8" Dia Refrigerant Liquid Pipe	LF	87	10%	95	0.02	$ 75.00	$ 1.13	$ 2.05	$ 3.18	$ 302.17
24			5/8" Dia Refrigerant Suction Pipe	LF	83	10%	91	0.04	$ 75.00	$ 2.63	$ 3.55	$ 6.18	$ 564.25
			ALLOWANCE										
25			Allowance for all Refrigerant Piping Fittings, Supports & Hangers with all relevant accessories.	LS	1	0%	1	0.00	$ 75.00	$ 270.00	$ 330.00	$ 600.00	$ 600.00
			CONDENSATE DRAIN PIPE										
			SCH 40 PVC Pipe W/ All ASTM Standards & Fittings										
26			3/4" Dia Condensate Drain Pipe	LF	81	10%	89	0.106	$ 75.00	$ 7.95	$ 1.34	$ 9.29	$ 825.52
			1" Thick Fiber Glass Insulation W/ All ASTM Standards & Fittings										
27			3/4" Dia Condensate Drain Pipe	LF	81	10%	89	0.04	$ 75.00	$ 2.63	$ 3.05	$ 5.68	$ 504.33
			ALLOWANCE										
28			Allowance for all Condensate Piping Fittings, Supports & Hangers with all relevant accessories.	LS	1	0%	1	0.00	$ 75.00	$ 135.00	$ 165.00	$ 300.00	$ 300.00
			AIR DEVICES										
29			DL-1: Drum Louver, 1275 CFM, 20"x16" Face Size, Aluminum	EA	8	0%	8	1.000	$ 75.00	$ 75.00	$ 773.20	$ 848.20	$ 6,785.60
30			DL-1: Drum Louver, 1300 CFM, 20"x16" Face Size, Aluminum	EA	16	0%	16	1.000	$ 75.00	$ 75.00	$ 773.20	$ 848.20	$ 13,571.20
31			EG-1: Exhaust Grille, 50 CFM, 8"x8" Neck Size.	EA	12	0%	12	0.330	$ 75.00	$ 24.75	$ 59.08	$ 83.83	$ 1,005.96
32			EG-1: Exhaust Grille, 75 CFM, 8"x8" Neck Size.	EA	6	0%	6	0.330	$ 75.00	$ 24.75	$ 59.08	$ 83.83	$ 502.98
33			SG-1: Supply Grille, 385 CFM, 10"x10" Neck Size.	EA	4	0%	4	0.450	$ 75.00	$ 33.75	$ 68.47	$ 102.22	$ 408.88
34			SG-1: Supply Grille, 415 CFM, 14"x14" Neck Size.	EA	2	0%	2	0.550	$ 75.00	$ 41.25	$ 85.12	$ 126.37	$ 252.74
			DUCTLESS SPLIT SYSTEM-INDOOR UNIT										
35			AC-H117-01,Indoor Unit, 385CFM, Wall Mounted	EA	1	0%	1	2.00	$ 75.00	$ 150.00	$ 550.00	$ 700.00	$ 700.00
36			AC-H117-02,Indoor Unit, 385CFM, Wall Mounted	EA	1	0%	1	2.00	$ 75.00	$ 150.00	$ 550.00	$ 700.00	$ 700.00
37			AC-H120-01,Indoor Unit, 385CFM, Wall Mounted	EA	1	0%	1	2.00	$ 75.00	$ 150.00	$ 550.00	$ 700.00	$ 700.00
38			AC-H120-02,Indoor Unit, 385CFM, Wall Mounted	EA	1	0%	1	2.00	$ 75.00	$ 150.00	$ 550.00	$ 700.00	$ 700.00
39			AC-H121-01,Indoor Unit, 385CFM, Wall Mounted	EA	1	0%	1	2.00	$ 75.00	$ 150.00	$ 550.00	$ 700.00	$ 700.00
40			AC-H121-02,Indoor Unit, 385CFM, Wall Mounted	EA	1	0%	1	2.00	$ 75.00	$ 150.00	$ 550.00	$ 700.00	$ 700.00
			DUCTLESS SPLIT SYSTEM-OUTDOOR UNIT										
41			HP-134-01, Heat Pump, 27 MOCP, 100LBS	EA	1	0%	1	6.25	$ 75.00	$ 468.75	$ 2,500.00	$ 2,968.75	$ 2,968.75
42			HP-134-02, Heat Pump, 27 MOCP, 100LBS	EA	1	0%	1	6.25	$ 75.00	$ 468.75	$ 2,500.00	$ 2,968.75	$ 2,968.75
43			HP-137-01, Heat Pump, 37 MOCP, 160LBS	EA	1	0%	1	8.25	$ 75.00	$ 618.75	$ 3,750.00	$ 4,368.75	$ 4,368.75
44			HP-137-02, Heat Pump, 37 MOCP, 160LBS	EA	1	0%	1	8.25	$ 75.00	$ 618.75	$ 3,750.00	$ 4,368.75	$ 4,368.75
45			HP-137-03, Heat Pump, 37 MOCP, 160LBS	EA	1	0%	1	8.25	$ 75.00	$ 618.75	$ 3,750.00	$ 4,368.75	$ 4,368.75
46			HP-137-04, Heat Pump, 37 MOCP, 160LBS	EA	1	0%	1	8.25	$ 75.00	$ 618.75	$ 3,750.00	$ 4,368.75	$ 4,368.75
47			HP-H117-01, Heat Pump, 27 MOCP, 100LBS	EA	1	0%	1	6.25	$ 75.00	$ 468.75	$ 2,500.00	$ 2,968.75	$ 2,968.75
48			HP-H117-02, Heat Pump, 27 MOCP, 100LBS	EA	1	0%	1	6.25	$ 75.00	$ 468.75	$ 2,500.00	$ 2,968.75	$ 2,968.75
49			HP-H120-01, Heat Pump, 27 MOCP, 100LBS	EA	1	0%	1	6.25	$ 75.00	$ 468.75	$ 2,500.00	$ 2,968.75	$ 2,968.75
50			HP-H120-02, Heat Pump, 27 MOCP, 100LBS	EA	1	0%	1	6.25	$ 75.00	$ 468.75	$ 2,500.00	$ 2,968.75	$ 2,968.75
51			HP-H121-01, Heat Pump, 27 MOCP, 100LBS	EA	1	0%	1	6.25	$ 75.00	$ 468.75	$ 2,500.00	$ 2,968.75	$ 2,968.75
52			HP-H121-02, Heat Pump, 27 MOCP, 100LBS	EA	1	0%	1	6.25	$ 75.00	$ 468.75	$ 2,500.00	$ 2,968.75	$ 2,968.75
			HIGH VOLUME LOW SPEED FAN										
53			HVLS-01: High Volume Low Speed Fan, CFM 110000, FPM 435, RPM 81, HP 0.75, 460 V, Phase 3, Weight 215 Lbs. 1: Manufacturer Provided Fused Disconnect Switch 2: Manufacturer Provided Steel Cable GUY Wire Kit	EA	1	0%	1	20.50	$ 75.00	$ 1,537.50	$ 13,547.25	$ 15,084.75	$ 15,084.75
54			HVLS-02: High Volume Low Speed Fan, CFM 110000, FPM 469, RPM 81, HP 0.75, 460 V, Phase 3, Weight 215 Lbs. 1: Manufacturer Provided Fused Disconnect Switch 2: Manufacturer Provided Steel Cable GUY Wire Kit	EA	1	0%	1	20.50	$ 75.00	$ 1,537.50	$ 13,547.25	$ 15,084.75	$ 15,084.75
55			HVLS-03: High Volume Low Speed Fan, CFM 110000, FPM 469, RPM 81, HP 0.75, 460 V, Phase 3, Weight 215 Lbs. 1: Manufacturer Provided Fused Disconnect Switch 2: Manufacturer Provided Steel Cable GUY Wire Kit	EA	1	0%	1	20.50	$ 75.00	$ 1,537.50	$ 13,547.25	$ 15,084.75	$ 15,084.75
56			HVLS-04: High Volume Low Speed Fan, CFM 110000, FPM 469, RPM 81, HP 0.75, 460 V, Phase 3, Weight 215 Lbs. 1: Manufacturer Provided Fused Disconnect Switch 2: Manufacturer Provided Steel Cable GUY Wire Kit	EA	1	0%	1	20.50	$ 75.00	$ 1,537.50	$ 13,547.25	$ 15,084.75	$ 15,084.75
57			HVLS-05: High Volume Low Speed Fan, CFM 110000, FPM 469, RPM 81, HP 0.75, 460 V, Phase 3, Weight 215 Lbs. 1: Manufacturer Provided Fused Disconnect Switch 2: Manufacturer Provided Steel Cable GUY Wire Kit	EA	1	0%	1	20.50	$ 75.00	$ 1,537.50	$ 13,547.25	$ 15,084.75	$ 15,084.75
58			HVLS-06: High Volume Low Speed Fan, CFM 110000, FPM 469, RPM 81, HP 0.75, 460 V, Phase 3, Weight 215 Lbs. 1: Manufacturer Provided Fused Disconnect Switch 2: Manufacturer Provided Steel Cable GUY Wire Kit	EA	1	0%	1	20.50	$ 75.00	$ 1,537.50	$ 13,547.25	$ 15,084.75	$ 15,084.75
			ELECTRIC UNIT HEATER										
59			UH-H111, Unit Heater, Wall, 175 CFM, 22LBS	EA	1	0%	1	1.53	$ 75.00	$ 114.75	$ 421.37	$ 536.12	$ 536.12
60			UH-H113, Unit Heater, Horizontal Fan Forced, 400 CFM, 25LBS	EA	1	0%	1	2.08	$ 75.00	$ 156.00	$ 551.42	$ 707.42	$ 707.42
61			UH-H118, Unit Heater, Wall, 175 CFM, 22LBS	EA	1	0%	1	1.53	$ 75.00	$ 114.75	$ 421.37	$ 536.12	$ 536.12
62			UH-H119, Unit Heater, Wall, 175 CFM, 22LBS	EA	1	0%	1	1.53	$ 75.00	$ 114.75	$ 421.37	$ 536.12	$ 536.12
63			UH-H122, Unit Heater, Wall, 175 CFM, 22LBS	EA	1	0%	1	1.53	$ 75.00	$ 114.75	$ 421.37	$ 536.12	$ 536.12
64			UH-H123, Unit Heater, Wall, 175 CFM, 22LBS	EA	1	0%	1	1.53	$ 75.00	$ 114.75	$ 421.37	$ 536.12	$ 536.12
			PRE-CONDITIONED AIR UNIT										
65			PCAU-01, Pre-Conditioned Air Unit, 1000 CFM, 40HP, 150 MOCP, 3530LB	EA	1	0%	1	212.57	$ 75.00	$ 15,942.75	$ 65,347.28	$ 81,290.03	$ 81,290.03
66			PCAU-02, Pre-Conditioned Air Unit, 1000 CFM, 40HP, 150 MOCP, 3530LB	EA	1	0%	1	212.57	$ 75.00	$ 15,942.75	$ 65,347.28	$ 81,290.03	$ 81,290.03
67			PCAU-03, Pre-Conditioned Air Unit, 1000 CFM, 40HP, 150 MOCP, 3530LB	EA	1	0%	1	212.57	$ 75.00	$ 15,942.75	$ 65,347.28	$ 81,290.03	$ 81,290.03
68			PCAU-04, Pre-Conditioned Air Unit, 1000 CFM, 40HP, 150 MOCP, 3530LB	EA	1	0%	1	212.57	$ 75.00	$ 15,942.75	$ 65,347.28	$ 81,290.03	$ 81,290.03
69			PCAU-05, Pre-Conditioned Air Unit, 1000 CFM, 40HP, 150 MOCP, 3530LB	EA	1	0%	1	212.57	$ 75.00	$ 15,942.75	$ 65,347.28	$ 81,290.03	$ 81,290.03
70			PCAU-06, Pre-Conditioned Air Unit, 1000 CFM, 40HP, 150 MOCP, 3530LB	EA	1	0%	1	212.57	$ 75.00	$ 15,942.75	$ 65,347.28	$ 81,290.03	$ 81,290.03
71			PCAU-07, Pre-Conditioned Air Unit, 1000 CFM, 40HP, 150 MOCP, 3530LB	EA	1	0%	1	212.57	$ 75.00	$ 15,942.75	$ 65,347.28	$ 81,290.03	$ 81,290.03
72			PCAU-08, Pre-Conditioned Air Unit, 1000 CFM, 40HP, 150 MOCP, 3530LB	EA	1	0%	1	212.57	$ 75.00	$ 15,942.75	$ 65,347.28	$ 81,290.03	$ 81,290.03
73			PCAU-09, Pre-Conditioned Air Unit, 1000 CFM, 40HP, 150 MOCP, 3530LB	EA	1	0%	1	212.57	$ 75.00	$ 15,942.75	$ 65,347.28	$ 81,290.03	$ 81,290.03

DETAILED BREAKDOWN OF ITEMS

Prepared for: Naval Facilities Engineering Systems Command- MID Atlantic- NORKFOLK, VA
Project ID: 46301
Scope: HVAC

USA ESTIMATORS
+1 (214) 556-2605

Date: 6-Oct-26

SR #	Drawing #	Detail #	DESCRIPTION	UNIT	QUANTITY	WASTAGE	QUANTITY W/ WASTAGE	UNIT MANHOUR	HOURLY WAGE	LABOR COST	MAT. COST	UNIT COST	SUB COST
74			PCAU-10, Pre-Conditioned Air Unit, 1000 CFM, 40HP, 150 MOCP, 3530LB	EA	1	0%	1	212.57	$ 75.00	$ 15,942.75	$ 65,347.28	$ 81,290.03	$ 81,290.03
			LOUVERS										
75			LV-01: Intake Air Louver, CFM 4750, Size 78"x32"	EA	1	0%	1	6.55	$ 75.00	$ 491.25	$ 1,132.93	$ 1,624.18	$ 1,624.18
76			LV-03: Intake Air Louver, CFM 415, Size 40"x24"	EA	1	0%	1	2.73	$ 75.00	$ 204.48	$ 435.25	$ 639.74	$ 639.74
77			LV-04: Intake Air Louver, CFM 415, Size 40"x24"	EA	1	0%	1	2.73	$ 75.00	$ 204.48	$ 435.25	$ 639.74	$ 639.74
78			LV-05: Exhaust Air Louver, CFM 4750, Size 48"x32"	EA	1	0%	1	4.37	$ 75.00	$ 327.54	$ 697.19	$ 1,024.73	$ 1,024.73
79			LV-07: Exhaust Air Louver, CFM 150, Size 18"x12"	EA	1	0%	1	1.05	$ 75.00	$ 78.75	$ 157.50	$ 236.25	$ 236.25
80			LV-08: Exhaust Air Louver, CFM 150, Size 18"x12"	EA	1	0%	1	1.05	$ 75.00	$ 78.75	$ 157.50	$ 236.25	$ 236.25
			FAN										
81			BEF-01A, Battery Exhaust Fan, 800 CFM, 1894 RPM, 1/2HP	EA	1	0%	1	6.45	$ 75.00	$ 483.75	$ 2,081.75	$ 2,565.50	$ 2,565.50
82			BEF-01B, Battery Exhaust Fan, 800 CFM, 1894 RPM, 1/2HP	EA	1	0%	1	6.45	$ 75.00	$ 483.75	$ 2,081.75	$ 2,565.50	$ 2,565.50
83			EF-1, Exhaust Fan, 4750CFM, 1250 RPM, 2HP	EA	1	0%	1	9.05	$ 75.00	$ 678.75	$ 3,890.63	$ 4,569.38	$ 4,569.38
84			FCEF-01, Fuel Cell Exhaust Fan, 1500CFM, 1765 RPM, 1.5HP	EA	1	0%	1	7.75	$ 75.00	$ 581.25	$ 3,177.00	$ 3,758.25	$ 3,758.25
85			FCEF-02, Fuel Cell Exhaust Fan, 1500CFM, 1765 RPM, 1.5HP	EA	1	0%	1	7.75	$ 75.00	$ 581.25	$ 3,177.00	$ 3,758.25	$ 3,758.25
86			FCEF-03, Fuel Cell Exhaust Fan, 1500CFM, 1765 RPM, 1.5HP	EA	1	0%	1	7.75	$ 75.00	$ 581.25	$ 3,177.00	$ 3,758.25	$ 3,758.25
87			FCEF-04, Fuel Cell Exhaust Fan, 1500CFM, 1765 RPM, 1.5HP	EA	1	0%	1	7.75	$ 75.00	$ 581.25	$ 3,177.00	$ 3,758.25	$ 3,758.25
88			FCEF-05, Fuel Cell Exhaust Fan, 1500CFM, 1765 RPM, 1.5HP	EA	1	0%	1	7.75	$ 75.00	$ 581.25	$ 3,177.00	$ 3,758.25	$ 3,758.25
89			FCEF-06, Fuel Cell Exhaust Fan, 1500CFM, 1765 RPM, 1.5HP	EA	1	0%	1	7.75	$ 75.00	$ 581.25	$ 3,177.00	$ 3,758.25	$ 3,758.25
90			FCEF-07, Fuel Cell Exhaust Fan, 1500CFM, 1765 RPM, 1.5HP	EA	1	0%	1	7.75	$ 75.00	$ 581.25	$ 3,177.00	$ 3,758.25	$ 3,758.25
91			FCEF-08, Fuel Cell Exhaust Fan, 1500CFM, 1765 RPM, 1.5HP	EA	1	0%	1	7.75	$ 75.00	$ 581.25	$ 3,177.00	$ 3,758.25	$ 3,758.25
92			FCEF-09, Fuel Cell Exhaust Fan, 1500CFM, 1765 RPM, 1.5HP	EA	1	0%	1	7.75	$ 75.00	$ 581.25	$ 3,177.00	$ 3,758.25	$ 3,758.25
93			FCEF-10, Fuel Cell Exhaust Fan, 1500CFM, 1765 RPM, 1.5HP	EA	1	0%	1	7.75	$ 75.00	$ 581.25	$ 3,177.00	$ 3,758.25	$ 3,758.25
94			TEF-01, Toilet Exhaust Fan, 150 CFM, 1409 RPM, 1/4HP	EA	1	0%	1	2.55	$ 75.00	$ 191.25	$ 265.70	$ 456.95	$ 456.95
95			TEF-02, Toilet Exhaust Fan, 150 CFM, 1409 RPM, 1/4HP	EA	1	0%	1	2.55	$ 75.00	$ 191.25	$ 265.70	$ 456.95	$ 456.95
			DAMPERS										
96			8"x8" Manual Volume Damper	EA	18	0%	18	0.65	$ 75.00	$ 48.75	$ 95.25	$ 144.00	$ 2,592.00
97			10"x10" Manual Volume Damper	EA	4	0%	4	0.68	$ 75.00	$ 51.00	$ 102.50	$ 153.50	$ 614.00
98			14"x14"Manual Volume Damper	EA	2	0%	2	0.88	$ 75.00	$ 66.00	$ 132.50	$ 198.50	$ 397.00
			DUCT WEIGHT										
99			Galvanized Sheet Metal Duct	LB	19011	10%	20912	0.08	$ 75.00	$ 5.63	$ 3.55	$ 9.18	$ 191,868.52
			DUCT INSULATION										
100			2" Thick Flexible Elastomeric Closed Cell Insulation (ASTM C534 Grade I)	SF	9755	10%	10731	0.03	$ 75.00	$ 1.88	$ 3.25	$ 5.13	$ 54,993.81
			MISCELLANEOUS										
101			BCS: Building Control System Panel	EA	1	0%	1	8.25	$ 75.00	$ 618.75	$ 4,000.00	$ 4,618.75	$ 4,618.75
102			Pre Conditioned Air System Remote Operator	EA	1	0%	1	2.05	$ 75.00	$ 153.75	$ 400.00	$ 553.75	$ 553.75
103			T: Thermostat	EA	8	0%	8	0.55	$ 75.00	$ 41.25	$ 95.00	$ 136.25	$ 1,090.00
			ALLOWANCE										
104			Allowance for all Duct Fittings including Takeoff, Elbows, Transitions, Reducers with Hangers, Supports & All Relevant Accessories.	LS	1	0%	1	0.00	$ 75.00	$ 19,150.00	$ 28,725.00	$ 47,875.00	$ 47,875.00
			ALLOWANCE										
105			Allowance for Control Wiring with All Relevant Accessories.	LS	1	0%	1	0.00	$ 75.00	$ 4,200.00	$ 6,300.00	$ 10,500.00	$ 10,500.00
			SUPPORT										
			HOT WATER SUPPLY PIPE										
			SCH 40 Carbon Steel Pipe W/ All ASTM Standards & Fittings										
106			3/4" Dia Hot Water Supply Pipe	LF	332	10%	366	0.098	$ 75.00	$ 7.37	$ 7.40	$ 14.77	$ 5,398.42
107			1" Dia Hot Water Supply Pipe	LF	124	10%	137	0.113	$ 75.00	$ 8.49	$ 10.10	$ 18.59	$ 2,539.87
108			1-1/2" Dia Hot Water Supply Pipe	LF	42	10%	47	0.150	$ 75.00	$ 11.25	$ 15.70	$ 26.95	$ 1,253.98
109			2" Dia Hot Water Supply Pipe	LF	253	10%	279	0.188	$ 75.00	$ 14.06	$ 21.00	$ 35.06	$ 9,772.16
110			2-1/2" Dia Hot Water Supply Pipe	LF	230	10%	254	0.240	$ 75.00	$ 18.00	$ 35.00	$ 53.00	$ 13,435.82
111			3" Dia Hot Water Supply Pipe	LF	34	10%	38	0.279	$ 75.00	$ 20.93	$ 42.00	$ 62.93	$ 2,360.32
112			6" Dia Hot Water Supply Pipe	LF	177	10%	195	0.500	$ 75.00	$ 37.52	$ 97.50	$ 135.02	$ 26,304.49
113			8" Dia Hot Water Supply Pipe	LF	110	10%	121	0.621	$ 75.00	$ 46.58	$ 123.00	$ 169.58	$ 20,462.62
			1-1/2" Cellular Glass Insulation ASTM C552, Type-II Class 2										
114			3/4" Dia Hot Water Supply Pipe	LF	332	10%	366	0.04	$ 75.00	$ 3.09	$ 4.39	$ 7.48	$ 2,734.62
115			1" Dia Hot Water Supply Pipe	LF	124	10%	137	0.06	$ 75.00	$ 4.13	$ 5.85	$ 9.98	$ 1,362.57
116			1-1/2" Dia Hot Water Supply Pipe	LF	42	10%	47	0.08	$ 75.00	$ 6.19	$ 8.78	$ 14.96	$ 696.21
117			2" Dia Hot Water Supply Pipe	LF	253	10%	279	0.11	$ 75.00	$ 8.25	$ 11.70	$ 19.95	$ 5,560.20
118			2-1/2" Dia Hot Water Supply Pipe	LF	230	10%	254	0.14	$ 75.00	$ 10.31	$ 14.63	$ 24.94	$ 6,321.81
119			3" Dia Hot Water Supply Pipe	LF	34	10%	38	0.17	$ 75.00	$ 12.38	$ 17.55	$ 29.93	$ 1,122.49
120			6" Dia Hot Water Supply Pipe	LF	177	10%	195	0.33	$ 75.00	$ 24.75	$ 35.10	$ 59.85	$ 11,660.04
121			8" Dia Hot Water Supply Pipe	LF	110	10%	121	0.44	$ 75.00	$ 33.00	$ 46.80	$ 79.80	$ 9,629.47
			ALLOWANCE										
122			Allowance for all Hot Water Supply Piping Fittings, Supports & Hangers with all relevant accessories.	LS	1	0%	1	0.00	$ 75.00	$ 11,475.00	$ 14,025.00	$ 25,500.00	$ 25,500.00
			HOT WATER RETURN PIPE										
			SCH 40 Carbon Steel Pipe W/ All ASTM Standards & Fittings										
123			3/4" Dia Hot Water Return Pipe	LF	527	10%	580	0.098	$ 75.00	$ 7.37	$ 7.40	$ 14.77	$ 8,561.93
124			1" Dia Hot Water Return Pipe	LF	262	10%	288	0.113	$ 75.00	$ 8.49	$ 10.10	$ 18.59	$ 5,359.74
125			1-1/4" Dia Hot Water Return Pipe	LF	120	10%	132	0.135	$ 75.00	$ 10.13	$ 13.25	$ 23.38	$ 3,085.50
126			1-1/2" Dia Hot Water Return Pipe	LF	115	10%	127	0.150	$ 75.00	$ 11.25	$ 15.70	$ 26.95	$ 3,409.18
127			2" Dia Hot Water Return Pipe	LF	393	10%	433	0.188	$ 75.00	$ 14.06	$ 21.00	$ 35.06	$ 15,169.86
128			2-1/2" Dia Hot Water Return Pipe	LF	178	10%	196	0.240	$ 75.00	$ 18.00	$ 35.00	$ 53.00	$ 10,377.40
129			3" Dia Hot Water Return Pipe	LF	109	10%	120	0.279	$ 75.00	$ 20.93	$ 42.00	$ 62.93	$ 7,544.71
130			6" Dia Hot Water Return Pipe	LF	141	10%	155	0.500	$ 75.00	$ 37.52	$ 97.50	$ 135.02	$ 20,948.83
131			8" Dia Hot Water Return Pipe	LF	75	10%	83	0.621	$ 75.00	$ 46.58	$ 123.00	$ 169.58	$ 13,989.94
			1-1/2" Cellular Glass Insulation ASTM C552, Type-II Class 2										
132			3/4" Dia Hot Water Return Pipe	LF	527	10%	580	0.04	$ 75.00	$ 3.09	$ 4.39	$ 7.48	$ 4,337.13
133			1" Dia Hot Water Return Pipe	LF	262	10%	288	0.06	$ 75.00	$ 4.13	$ 5.85	$ 9.98	$ 2,875.34
134			1-1/4" Dia Hot Water Return Pipe	LF	120	10%	132	0.07	$ 75.00	$ 4.88	$ 6.55	$ 11.43	$ 1,508.10
135			1-1/2" Dia Hot Water Return Pipe	LF	115	10%	127	0.08	$ 75.00	$ 6.19	$ 8.78	$ 14.96	$ 1,892.76
136			2" Dia Hot Water Return Pipe	LF	393	10%	433	0.11	$ 75.00	$ 8.25	$ 11.70	$ 19.95	$ 8,631.41
137			2-1/2" Dia Hot Water Return Pipe	LF	178	10%	196	0.14	$ 75.00	$ 10.31	$ 14.63	$ 24.94	$ 4,882.76
138			3" Dia Hot Water Return Pipe	LF	109	10%	120	0.17	$ 75.00	$ 12.38	$ 17.55	$ 29.93	$ 3,588.01
139			6" Dia Hot Water Return Pipe	LF	141	10%	155	0.33	$ 75.00	$ 24.75	$ 35.10	$ 59.85	$ 9,286.03
140			8" Dia Hot Water Return Pipe	LF	75	10%	83	0.44	$ 75.00	$ 33.00	$ 46.80	$ 79.80	$ 6,583.50
			ALLOWANCE										
141			Allowance for all Hot Water Return Piping Fittings, Supports & Hangers with all relevant accessories.	LS	1	0%	1	0.00	$ 75.00	$ 12,150.00	$ 14,850.00	$ 27,000.00	$ 27,000.00
			CHILLED WATER SUPPLY PIPE										
			SCH 40 Carbon Steel Pipe W/ All ASTM Standards & Fittings										
142			3/4" Dia Chilled Water Supply Pipe	LF	262	10%	288	0.098	$ 75.00	$ 7.37	$ 7.40	$ 14.77	$ 4,253.27
143			1" Dia Chilled Water Supply Pipe	LF	192	10%	211	0.113	$ 75.00	$ 8.49	$ 10.10	$ 18.59	$ 3,922.30
144			1-1/4" Dia Chilled Water Supply Pipe	LF	102	10%	113	0.135	$ 75.00	$ 10.13	$ 13.25	$ 23.38	$ 2,629.87
145			1-1/2" Dia Chilled Water Supply Pipe	LF	280	10%	308	0.150	$ 75.00	$ 11.25	$ 15.70	$ 26.95	$ 8,303.56
146			2" Dia Chilled Water Supply Pipe	LF	182	10%	201	0.188	$ 75.00	$ 14.06	$ 21.00	$ 35.06	$ 7,036.48
147			2-1/2" Dia Chilled Water Supply Pipe	LF	185	10%	204	0.240	$ 75.00	$ 18.00	$ 35.00	$ 53.00	$ 10,796.58
148			3" Dia Chilled Water Supply Pipe	LF	110	10%	121	0.279	$ 75.00	$ 20.93	$ 42.00	$ 62.93	$ 7,613.93
149			4" Dia Chilled Water Supply Pipe	LF	190	10%	208	0.300	$ 75.00	$ 22.50	$ 65.50	$ 88.00	$ 18,344.57
150			6" Dia Chilled Water Supply Pipe	LF	279	10%	307	0.500	$ 75.00	$ 37.52	$ 97.50	$ 135.02	$ 41,495.18
151			8" Dia Chilled Water Supply Pipe	LF	100	10%	110	0.621	$ 75.00	$ 46.58	$ 123.00	$ 169.58	$ 18,653.25
			1-1/2" Cellular Glass Insulation ASTM C552, Type-II Class 2										
152			3/4" Dia Chilled Water Supply Pipe	LF	262	10%	288	0.04	$ 75.00	$ 3.09	$ 4.39	$ 7.48	$ 2,154.53
153			1" Dia Chilled Water Supply Pipe	LF	192	10%	211	0.06	$ 75.00	$ 4.13	$ 5.85	$ 9.98	$ 2,104.20
154			1-1/4" Dia Chilled Water Supply Pipe	LF	102	10%	113	0.07	$ 75.00	$ 4.88	$ 6.55	$ 11.43	$ 1,285.40
155			1-1/2" Dia Chilled Water Supply Pipe	LF	280	10%	308	0.08	$ 75.00	$ 6.19	$ 8.78	$ 14.96	$ 4,610.10
156			2" Dia Chilled Water Supply Pipe	LF	182	10%	201	0.11	$ 75.00	$ 8.25	$ 11.70	$ 19.95	$ 4,003.65
157			2-1/2" Dia Chilled Water Supply Pipe	LF	185	10%	204	0.14	$ 75.00	$ 10.31	$ 14.63	$ 24.94	$ 5,079.99
158			3" Dia Chilled Water Supply Pipe	LF	110	10%	121	0.17	$ 75.00	$ 12.38	$ 17.55	$ 29.93	$ 3,620.93
159			4" Dia Chilled Water Supply Pipe	LF	190	10%	208	0.22	$ 75.00	$ 16.50	$ 23.40	$ 39.90	$ 8,317.59
160			6" Dia Chilled Water Supply Pipe	LF	279	10%	307	0.33	$ 75.00	$ 24.75	$ 35.10	$ 59.85	$ 18,393.64
161			8" Dia Chilled Water Supply Pipe	LF	100	10%	110	0.44	$ 75.00	$ 33.00	$ 46.80	$ 79.80	$ 8,778.00
			ALLOWANCE										
162			Allowance for all Chilled Water Supply Piping Fittings, Supports & Hangers with all relevant accessories.	LS	1	0%	1	0.00	$ 75.00	$ 16,470.00	$ 20,130.00	$ 36,600.00	$ 36,600.00
			CHILLED WATER RETURN PIPE										
			SCH 40 Carbon Steel Pipe W/ All ASTM Standards & Fittings										
163			3/4" Dia Chilled Water Return Pipe	LF	150	10%	165	0.098	$ 75.00	$ 7.37	$ 7.40	$ 14.77	$ 2,436.84
164			1" Dia Chilled Water Return Pipe	LF	130	10%	143	0.113	$ 75.00	$ 8.49	$ 10.10	$ 18.59	$ 2,650.52
165			1-1/4" Dia Chilled Water Return Pipe	LF	57	10%	62	0.135	$ 75.00	$ 10.13	$ 13.25	$ 23.38	$ 1,458.67
166			2" Dia Chilled Water Return Pipe	LF	169	10%	186	0.188	$ 75.00	$ 14.06	$ 21.00	$ 35.06	$ 6,518.50
167			2-1/2" Dia Chilled Water Return Pipe	LF	176	10%	194	0.240	$ 75.00	$ 18.00	$ 35.00	$ 53.00	$ 10,269.55
168			3" Dia Chilled Water Return Pipe	LF	166	10%	182	0.279	$ 75.00	$ 20.93	$ 42.00	$ 62.93	$ 11,463.80
169			4" Dia Chilled Water Return Pipe	LF	111	10%	122	0.300	$ 75.00	$ 22.50	$ 65.50	$ 88.00	$ 10,716.73
170			6" Dia Chilled Water Return Pipe	LF	136	10%	149	0.500	$ 75.00	$ 37.52	$ 97.50	$ 135.02	$ 20,176.53
171			8" Dia Chilled Water Return Pipe	LF	100	10%	110	0.621	$ 75.00	$ 46.58	$ 123.00	$ 169.58	$ 18,653.25
			1-1/2" Cellular Glass Insulation ASTM C552, Type-II Class 2										
172			3/4" Dia Chilled Water Return Pipe	LF	150	10%	165	0.04	$ 75.00	$ 3.09	$ 4.39	$ 7.48	$ 1,234.41
173			1" Dia Chilled Water Return Pipe	LF	130	10%	143	0.06	$ 75.00	$ 4.13	$ 5.85	$ 9.98	$ 1,421.93
174			1-1/4" Dia Chilled Water Return Pipe	LF	57	10%	62	0.07	$ 75.00	$ 4.88	$ 6.55	$ 11.43	$ 712.95
175			2" Dia Chilled Water Return Pipe	LF	169	10%	186	0.11	$ 75.00	$ 8.25	$ 11.70	$ 19.95	$ 3,708.92
176			2-1/2" Dia Chilled Water Return Pipe	LF	176	10%	194	0.14	$ 75.00	$ 10.31	$ 14.63	$ 24.94	$ 4,832.01
177			3" Dia Chilled Water Return Pipe	LF	166	10%	182	0.17	$ 75.00	$ 12.38	$ 17.55	$ 29.93	$ 5,451.80
178			4" Dia Chilled Water Return Pipe	LF	111	10%	122	0.22	$ 75.00	$ 16.50	$ 23.40	$ 39.90	$ 4,859.06
179			6" Dia Chilled Water Return Pipe	LF	136	10%	149	0.33	$ 75.00	$ 24.75	$ 35.10	$ 59.85	$ 8,943.68
180			8" Dia Chilled Water Return Pipe	LF	100	10%	110	0.44	$ 75.00	$ 33.00	$ 46.80	$ 79.80	$ 8,778.00
			ALLOWANCE										
181			Allowance for all Chilled Water Return Piping Fittings, Supports & Hangers with all relevant accessories.	LS	1	0%	1	0.00	$ 75.00	$ 11,407.50	$ 13,942.50	$ 25,350.00	$ 25,350.00
			CHILLED BEAM WATER SUPPLY PIPE										
			SCH 40 Carbon Steel Pipe W/ All ASTM Standards & Fittings										
182			3/4" Dia Chilled Beam Water Supply Pipe	LF	451	10%	496	0.098	$ 75.00	$ 7.37	$ 7.40	$ 14.77	$ 7,324.99
183			1" Dia Chilled Beam Water Supply Pipe	LF	304	10%	335	0.113	$ 75.00	$ 8.49	$ 10.10	$ 18.59	$ 6,222.25
184			2" Dia Chilled Beam Water Supply Pipe	LF	271	10%	298	0.188	$ 75.00	$ 14.06	$ 21.00	$ 35.06	$ 10,434.78
185			2-1/2" Dia Chilled Beam Water Supply Pipe	LF	318	10%	349	0.240	$ 75.00	$ 18.00	$ 35.00	$ 53.00	$ 18,511.42
			1-1/2" Cellular Glass Insulation ASTM C552, Type-II Class 2										
186			3/4" Dia Chilled Beam Water Supply Pipe	LF	451	10%	496	0.04	$ 75.00	$ 3.09	$ 4.39	$ 7.48	$ 3,710.54

DETAILED BREAKDOWN OF ITEMS

Prepared for: Naval Facilities Engineering Systems Command- MID Atlantic- NORKFOLK, VA
Project ID: 46301
Scope: HVAC

USA ESTIMATORS
+1 (214) 556-2605

Date: 6-Oct-26

SR #	Drawing #	Detail #	DESCRIPTION	UNIT	QUANTITY	WASTAGE	QUANTITY W/ WASTAGE	UNIT MANHOUR	HOURLY WAGE	LABOR COST	MAT. COST	UNIT COST	SUB COST
187			1" Dia Chilled Beam Water Supply Pipe	LF	304	10%	335	0.06	$ 75.00	$ 4.13	$ 5.85	$ 9.98	$ 3,338.05
188			2" Dia Chilled Beam Water Supply Pipe	LF	271	10%	298	0.11	$ 75.00	$ 8.25	$ 11.70	$ 19.95	$ 5,937.22
189			2-1/2" Dia Chilled Beam Water Supply Pipe	LF	318	10%	349	0.14	$ 75.00	$ 10.31	$ 14.63	$ 24.94	$ 8,709.97
			ALLOWANCE										
190			Allowance for all Chilled Beam Water Supply Piping Fittings, Supports & Hangers with all relevant accessories.	LS	1	0%	1	0.00	$ 75.00	$ 5,872.50	$ 7,177.50	$ 13,050.00	$ 13,050.00
			CHILLED BEAM WATER RETURN PIPE										
			SCH 40 Carbon Steel Pipe W/ All ASTM Standards & Fittings										
191			3/4" Dia Chilled Beam Water Return Pipe	LF	336	10%	369	0.098	$ 75.00	$ 7.37	$ 7.40	$ 14.77	$ 5,454.47
192			1" Dia Chilled Beam Water Return Pipe	LF	500	10%	550	0.113	$ 75.00	$ 8.49	$ 10.10	$ 18.59	$ 10,217.97
193			2" Dia Chilled Beam Water Return Pipe	LF	338	10%	371	0.188	$ 75.00	$ 14.06	$ 21.00	$ 35.06	$ 13,023.12
194			2-1/2" Dia Chilled Beam Water Return Pipe	LF	373	10%	410	0.240	$ 75.00	$ 18.00	$ 35.00	$ 53.00	$ 21,720.83
			1-1/2" Cellular Glass Insulation ASTM C552, Type-II Class 2										
195			3/4" Dia Chilled Beam Water Return Pipe	LF	336	10%	369	0.04	$ 75.00	$ 3.09	$ 4.39	$ 7.48	$ 2,763.01
196			1" Dia Chilled Beam Water Return Pipe	LF	500	10%	550	0.06	$ 75.00	$ 4.13	$ 5.85	$ 9.98	$ 5,481.64
197			2" Dia Chilled Beam Water Return Pipe	LF	338	10%	371	0.11	$ 75.00	$ 8.25	$ 11.70	$ 19.95	$ 7,409.95
198			2-1/2" Dia Chilled Beam Water Return Pipe	LF	373	10%	410	0.14	$ 75.00	$ 10.31	$ 14.63	$ 24.94	$ 10,220.06
			ALLOWANCE										
199			Allowance for all Chilled Beam Return Piping Fittings, Supports & Hangers with all relevant accessories.	LS	1	0%	1	0.00	$ 75.00	$ 6,750.00	$ 8,250.00	$ 15,000.00	$ 15,000.00
			REFRIGERANT PIPE										
			Type 'L' Copper Pipe W/ All ASTM Standards & Fittings										
200			5/8" Dia Refrigerant Suction Pipe	LF	534	10%	587	0.071	$ 75.00	$ 5.34	$ 2.97	$ 8.31	$ 4,881.58
201			3/8" Dia Refrigerant Liquid Pipe	LF	530	10%	583	0.076	$ 75.00	$ 5.68	$ 4.99	$ 10.67	$ 6,218.52
			1" Thick Flexible Elastomeric Cellular, K- Value 0.235 Insulation										
202			5/8" Dia Refrigerant Suction Pipe	LF	534	10%	587	0.02	$ 75.00	$ 1.13	$ 2.05	$ 3.18	$ 1,864.26
203			3/8" Dia Refrigerant Liquid Pipe	LF	530	10%	583	0.04	$ 75.00	$ 2.63	$ 3.55	$ 6.18	$ 3,598.39
			ALLOWANCE										
204			Allowance for all Refrigerant Piping Fittings, Supports & Hangers with all relevant accessories.	LS	1	0%	1	0.00	$ 75.00	$ 1,485.00	$ 1,815.00	$ 3,300.00	$ 3,300.00
			CONDENSATE DRAIN PIPE										
			SCH 40 PVC Pipe W/ All ASTM Standards & Fittings										
205			3/4" Dia Condensate Drain Pipe	LF	207	10%	228	0.106	$ 75.00	$ 7.95	$ 1.34	$ 9.29	$ 2,116.26
206			1" Dia Condeisate Drain Pipe	LF	146	10%	161	0.117	$ 75.00	$ 8.81	$ 1.79	$ 10.60	$ 1,702.19
207			1-1/4" Dia Condensate Drain Pipe	LF	321	10%	353	0.128	$ 75.00	$ 9.62	$ 2.24	$ 11.85	$ 4,189.99
			1" Thick Fiber Glass Insulation W/ All ASTM Standards & Fittings										
208			3/4" Dia Condensate Drain Pipe	LF	207	10%	228	0.04	$ 75.00	$ 2.63	$ 2.95	$ 5.58	$ 1,270.10
209			1" Dia Condensate Drain Pipe	LF	146	10%	161	0.05	$ 75.00	$ 3.38	$ 3.15	$ 6.53	$ 1,048.13
210			1-1/4" Dia Condensate Drain Pipe	LF	321	10%	353	0.06	$ 75.00	$ 4.13	$ 3.55	$ 7.68	$ 2,712.91
			ALLOWANCE										
211			Allowance for all Condensate Piping Fittings, Supports & Hangers with all relevant accessories.	LS	1	0%	1	0.00	$ 75.00	$ 1,080.00	$ 1,320.00	$ 2,400.00	$ 2,400.00
			AIR DEVICES										
212			SD-1, Supply Diffuser, Face Size: 24"x24", Neck Size: 6" Dia, CFM: 50	EA	4	0%	4	1.020	$ 75.00	$ 76.50	$ 120.47	$ 196.97	$ 787.89
213			SD-1, Supply Diffuser, Face Size: 24"x24", Neck Size: 6" Dia, CFM: 75	EA	1	0%	1	1.020	$ 75.00	$ 76.50	$ 122.10	$ 198.60	$ 198.60
214			SD-1, Supply Diffuser, Face Size: 24"x24", Neck Size: 6" Dia, CFM: 115	EA	1	0%	1	1.020	$ 75.00	$ 76.50	$ 124.14	$ 200.64	$ 200.64
215			SD-1, Supply Diffuser, Face Size: 24"x24", Neck Size: 6" Dia, CFM: 120	EA	3	0%	3	1.020	$ 75.00	$ 76.50	$ 126.26	$ 202.76	$ 608.29
216			SD-1, Supply Diffuser, Face Size: 24"x24", Neck Size: 6" Dia, CFM: 150	EA	3	0%	3	1.020	$ 75.00	$ 76.50	$ 132.18	$ 208.68	$ 626.05
217			SD-1, Supply Diffuser, Face Size: 24"x24", Neck Size: 8" Dia, CFM: 140	EA	2	0%	2	1.020	$ 75.00	$ 76.50	$ 133.42	$ 209.92	$ 419.84
218			SD-1, Supply Diffuser, Face Size: 24"x24", Neck Size: 8" Dia, CFM: 150	EA	6	0%	6	1.020	$ 75.00	$ 76.50	$ 137.12	$ 213.62	$ 1,281.73
219			SD-1, Supply Diffuser, Face Size: 24"x24", Neck Size: 8" Dia, CFM: 165	EA	5	0%	5	1.020	$ 75.00	$ 76.50	$ 138.75	$ 215.25	$ 1,076.25
220			SD-1, Supply Diffuser, Face Size: 24"x24", Neck Size: 8" Dia, CFM: 170	EA	2	0%	2	1.020	$ 75.00	$ 76.50	$ 138.97	$ 215.47	$ 430.94
221			SD-1, Supply Diffuser, Face Size: 24"x24", Neck Size: 8" Dia, CFM: 175	EA	6	0%	6	1.020	$ 75.00	$ 76.50	$ 139.68	$ 216.18	$ 1,297.05
222			SD-1, Supply Diffuser, Face Size: 24"x24", Neck Size: 8" Dia, CFM: 180	EA	9	0%	9	1.020	$ 75.00	$ 76.50	$ 140.79	$ 217.29	$ 1,955.57
223			SD-1, Supply Diffuser, Face Size: 24"x24", Neck Size: 10" Dia, CFM: 260	EA	4	0%	4	1.020	$ 75.00	$ 76.50	$ 144.30	$ 220.80	$ 883.20
224			SD-1, Supply Diffuser, Face Size: 18" Dia Round, Neck Size: 8" Dia, CFM: 175	EA	3	0%	3	0.650	$ 75.00	$ 48.75	$ 480.40	$ 529.15	$ 1,587.45
225			SD-1, Supply Diffuser, Face Size: 18" Dia Round, Neck Size: 6" Dia, CFM: 100	EA	1	0%	1	0.650	$ 75.00	$ 48.75	$ 490.85	$ 539.60	$ 539.60
226			SD-1, Supply Diffuser, Face Size: 18" Dia Round, Neck Size: 8" Dia, CFM: 185	EA	2	0%	2	0.650	$ 75.00	$ 48.75	$ 492.45	$ 541.20	$ 1,082.40
227			SD-1, Supply Diffuser, Face Size: 18" Dia Round, Neck Size: 8" Dia, CFM: 190	EA	2	0%	2	0.650	$ 75.00	$ 48.75	$ 495.12	$ 543.87	$ 1,087.74
228			SD-1, Supply Diffuser, Face Size: 24"x24", Neck Size: 8" Dia, CFM: 185	EA	2	0%	2	1.020	$ 75.00	$ 76.50	$ 140.79	$ 217.29	$ 434.57
229			SD-1, Supply Diffuser, Face Size: 24"x24", Neck Size: 8" Dia, CFM: 190	EA	2	0%	2	1.020	$ 75.00	$ 76.50	$ 141.06	$ 217.56	$ 435.13
230			SD-1, Supply Diffuser, Face Size: 24"x24", Neck Size: 8" Dia, CFM: 200	EA	3	0%	3	1.020	$ 75.00	$ 76.50	$ 141.62	$ 218.12	$ 654.35
231			SD-1, Supply Diffuser, Face Size: 18" Dia Round, Neck Size: 8" Dia, CFM: 200	EA	2	0%	2	0.650	$ 75.00	$ 48.75	$ 495.25	$ 544.00	$ 1,088.00
232			SD-1, Supply Diffuser, Face Size: 24"x24", Neck Size: 10" Dia, CFM: 250	EA	2	0%	2	1.020	$ 75.00	$ 76.50	$ 144.76	$ 221.26	$ 442.53
233			SD-1, Supply Diffuser, Face Size: 24"x24", Neck Size: 10" Dia, CFM: 310	EA	1	0%	1	1.020	$ 75.00	$ 76.50	$ 144.76	$ 221.26	$ 221.26
234			SD-2, Supply Diffuser, Face Size: 14" Dia Round, Neck Size: 6" Dia, CFM: 30	EA	1	0%	1	0.580	$ 75.00	$ 43.50	$ 450.18	$ 493.68	$ 493.68
235			SD-2, Supply Diffuser, Face Size: 14" Dia Round, Neck Size: 6" Dia, CFM: 50	EA	1	0%	1	0.580	$ 75.00	$ 43.50	$ 450.18	$ 493.68	$ 493.68
236			SD-2, Supply Diffuser, Face Size: 14" Dia Round, Neck Size: 6" Dia, CFM: 75	EA	1	0%	1	0.580	$ 75.00	$ 43.50	$ 455.25	$ 498.75	$ 498.75
237			SD-2, Supply Diffuser, Face Size: 14" Dia Round, Neck Size: 8" Dia, CFM: 140	EA	9	0%	9	0.580	$ 75.00	$ 43.50	$ 455.25	$ 498.75	$ 4,488.75
238			SD-2, Supply Diffuser, Face Size: 18" Dia Round, Neck Size: 8" Dia, CFM: 165	EA	5	0%	5	0.650	$ 75.00	$ 48.75	$ 495.25	$ 544.00	$ 2,720.00
239			SD-2, Supply Diffuser, Face Size: 18" Dia Round, Neck Size: 8" Dia, CFM: 175	EA	1	0%	1	0.650	$ 75.00	$ 48.75	$ 495.25	$ 544.00	$ 544.00
240			SD-2, Supply Diffuser, Face Size: 18" Dia Round, Neck Size: 8" Dia, CFM: 200	EA	2	0%	2	0.650	$ 75.00	$ 48.75	$ 495.25	$ 544.00	$ 1,088.00
241			SD-2, Supply Diffuser, Face Size: 18" Dia Round, Neck Size: 8" Dia, CFM: 235	EA	1	0%	1	0.650	$ 75.00	$ 48.75	$ 495.25	$ 544.00	$ 544.00
242			SD-2, Supply Diffuser, Face Size: 18" Dia Round, Neck Size: 8" Dia, CFM: 240	EA	2	0%	2	0.650	$ 75.00	$ 48.75	$ 495.25	$ 544.00	$ 1,088.00
243			SD-2, Supply Diffuser, Face Size: 22" Dia Round, Neck Size: 10" Dia, CFM: 260	EA	4	0%	4	0.750	$ 75.00	$ 56.25	$ 555.25	$ 611.50	$ 2,446.00
244			SD-2, Supply Diffuser, Face Size: 22" Dia Round, Neck Size: 10" Dia, CFM: 260	EA	2	0%	2	0.750	$ 75.00	$ 56.25	$ 555.25	$ 611.50	$ 1,223.00
245			SD-2, Supply Diffuser, Face Size: 22" Dia Round, Neck Size: 10" Dia, CFM: 310	EA	3	0%	3	0.750	$ 75.00	$ 56.25	$ 555.25	$ 611.50	$ 1,834.50
246			SD-2, Supply Diffuser, Face Size: 22" Dia Round, Neck Size: 10" Dia, CFM: 315	EA	2	0%	2	0.750	$ 75.00	$ 56.25	$ 555.25	$ 611.50	$ 1,223.00
247			SD-2, Supply Diffuser, Face Size: 26" Dia Round, Neck Size: 12" Dia, CFM: 430	EA	3	0%	3	0.780	$ 75.00	$ 58.50	$ 575.89	$ 634.39	$ 1,903.17
248			SG-1, Supply Grille, Face Size: 12"x8", Neck Size: 12" Dia, CFM: 100	EA	1	0%	1	0.750	$ 75.00	$ 56.25	$ 133.48	$ 189.73	$ 189.73
249			SG-1, Supply Grille, Face Size: 18"x12", Neck Size: 18: Dia, CFM: 250	EA	1	0%	1	0.975	$ 75.00	$ 73.13	$ 231.71	$ 304.84	$ 304.84
250			SG-1, Supply Grille, Face Size: 18"x12", Neck Size: 12"x8", CFM: 360	EA	3	0%	3	0.960	$ 75.00	$ 72.00	$ 194.25	$ 266.25	$ 798.75
251			SG-1, Supply Grille, Face Size: 18"x12", Neck Size: 10" Dia, CFM: 225	EA	1	0%	1	0.930	$ 75.00	$ 69.75	$ 186.04	$ 255.79	$ 255.79
252			SG-1, Supply Grille, Face Size: 18"x12", Neck Size: 10" Dia, CFM: 385	EA	1	0%	1	0.930	$ 75.00	$ 69.75	$ 186.04	$ 255.79	$ 255.79
253			SG-1, Supply Grille, Face Size: 18"x12", Neck Size: 10" Dia, CFM: 375	EA	1	0%	1	0.930	$ 75.00	$ 69.75	$ 186.04	$ 255.79	$ 255.79
254			SG-1, Supply Grille, Face Size: 18"x12", Neck Size: 10" Dia, CFM: 390	EA	1	0%	1	0.930	$ 75.00	$ 69.75	$ 186.04	$ 255.79	$ 255.79
255			SG-1, Supply Grille, Face Size: 18"x12", Neck Size: 10" Dia, CFM: 400	EA	3	0%	3	0.930	$ 75.00	$ 69.75	$ 186.04	$ 255.79	$ 767.36
256			SG-1, Supply Grille, Face Size: 18"x12", Neck Size: 12" Dia, CFM: 650	EA	2	0%	2	0.945	$ 75.00	$ 70.88	$ 189.16	$ 260.04	$ 520.08
257			SG-1, Supply Grille, Face Size: 18"x12", Neck Size: 18" Dia, CFM: 425	EA	3	0%	3	0.975	$ 75.00	$ 73.13	$ 231.71	$ 304.84	$ 914.51
258			SG-1, Supply Grille, Face Size: 24"x10", Neck Size: 14" Dia, CFM: 860	EA	3	0%	3	1.020	$ 75.00	$ 76.50	$ 250.21	$ 326.71	$ 980.14
259			CD-1, Ceiling Diffuser, Face Size: 24"x24", Neck Size: 10" Dia, CFM: 350	EA	1	0%	1	1.020	$ 75.00	$ 76.50	$ 191.38	$ 267.88	$ 267.88
260			CD-1, Ceiling Diffuser, Face Size: 24"x24", Neck Size: 10" Dia, CFM: 270	EA	1	0%	1	1.020	$ 75.00	$ 76.50	$ 189.07	$ 265.57	$ 265.57
261			CD-1, Ceiling Diffuser, Face Size: 24"x24", Neck Size: 10" Dia, CFM: 230	EA	9	0%	9	1.020	$ 75.00	$ 76.50	$ 188.68	$ 265.18	$ 2,386.63
262			RD-1, Return Diffuser, Face Size: 24"x24", Neck Size: 10" Dia, CFM: 300	EA	1	0%	1	1.020	$ 75.00	$ 76.50	$ 188.68	$ 265.18	$ 265.18
263			RD-1, Return Diffuser, Face Size: 24"x24", Neck Size: 10" Dia, CFM: 250	EA	2	0%	2	1.020	$ 75.00	$ 76.50	$ 186.85	$ 263.35	$ 526.70
264			RD-1, Return Diffuser, Face Size: 24"x24", Neck Size: 12" Dia, CFM: 400	EA	2	0%	2	1.020	$ 75.00	$ 76.50	$ 191.01	$ 267.51	$ 535.03
265			RD-1, Return Diffuser, Face Size: 24"x24", Neck Size: 12" Dia, CFM: 520	EA	1	0%	1	1.020	$ 75.00	$ 76.50	$ 194.51	$ 271.01	$ 271.01
266			RD-1, Return Diffuser, Face Size: 24"x24", Neck Size: 12" Dia, CFM: 540	EA	1	0%	1	1.020	$ 75.00	$ 76.50	$ 194.71	$ 271.21	$ 271.21
267			RD-1, Return Diffuser, Face Size: 24"x24", Neck Size: 12" Dia, CFM: 810	EA	1	0%	1	1.020	$ 75.00	$ 76.50	$ 194.71	$ 271.21	$ 271.21
268			RD-1, Return Diffuser, Face Size: 24"x24", Neck Size: 12" Dia, CFM: 700	EA	2	0%	2	1.020	$ 75.00	$ 76.50	$ 194.47	$ 270.97	$ 541.94
269			RD-1, Return Diffuser, Face Size: 24"x24", Neck Size: 14" Dia, CFM: 500	EA	1	0%	1	1.050	$ 75.00	$ 78.75	$ 200.32	$ 279.07	$ 279.07
270			RD-1, Return Diffuser, Face Size: 24"x24", Neck Size: 14" Dia, CFM: 625	EA	1	0%	1	1.050	$ 75.00	$ 78.75	$ 200.32	$ 279.07	$ 279.07
271			RD-1, Return Diffuser, Face Size: 24"x24", Neck Size: 14" Dia, CFM: 800	EA	1	0%	1	1.050	$ 75.00	$ 78.75	$ 200.32	$ 279.07	$ 279.07
272			RD-1, Return Diffuser, Face Size: 24"x24", Neck Size: 14" Dia, CFM: 830	EA	1	0%	1	1.050	$ 75.00	$ 78.75	$ 200.32	$ 279.07	$ 279.07
273			RD-1, Return Diffuser, Face Size: 24"x24", Neck Size: 16" Dia, CFM: 1375	EA	1	0%	1	1.080	$ 75.00	$ 81.00	$ 208.03	$ 289.03	$ 289.03
274			RD-1, Return Diffuser, Face Size: 24"x24", Neck Size: 16" Dia, CFM: 1860	EA	2	0%	2	1.080	$ 75.00	$ 81.00	$ 213.21	$ 294.21	$ 588.43
275			RD-1, Return Diffuser, Face Size: 24"x24", Neck Size: 12" Dia, CFM: 550	EA	1	0%	1	1.020	$ 75.00	$ 76.50	$ 194.23	$ 270.73	$ 270.73
276			RD-2, Return Diffuser, Face Size: 24"x24", Neck Size: 10" Dia, CFM: 320	EA	1	0%	1	0.975	$ 75.00	$ 73.13	$ 188.29	$ 261.42	$ 261.42
277			RD-2, Return Diffuser, Face Size: 12"x24", Neck Size: 6" Dia, CFM: 100	EA	7	0%	7	0.885	$ 75.00	$ 66.38	$ 120.71	$ 187.09	$ 1,309.61
278			RD-2, Return Diffuser, Face Size: 12"x24", Neck Size: 6" Dia, CFM: 75	EA	9	0%	9	0.960	$ 75.00	$ 72.00	$ 118.40	$ 190.40	$ 1,713.60
279			RD-2, Return Diffuser, Face Size: 12"x24", Neck Size: 6" Dia, CFM: 50	EA	1	0%	1	0.960	$ 75.00	$ 72.00	$ 116.55	$ 188.55	$ 188.55
280			RD-2, Return Diffuser, Face Size: 12"x24", Neck Size: 8" Dia, CFM: 120	EA	1	0%	1	0.960	$ 75.00	$ 72.00	$ 122.10	$ 194.10	$ 194.10
281			RD-2, Return Diffuser, Face Size: 12"x24", Neck Size: 8" Dia, CFM: 175	EA	1	0%	1	0.960	$ 75.00	$ 72.00	$ 124.41	$ 196.41	$ 196.41
282			RD-2, Return Diffuser, Face Size: 12"x24", Neck Size: 8" Dia, CFM: 200	EA	3	0%	3	0.960	$ 75.00	$ 72.00	$ 126.34	$ 198.34	$ 595.01
283			RD-2, Return Diffuser, Face Size: 12"x24", Neck Size: 10" Dia, CFM: 300	EA	2	0%	2	0.960	$ 75.00	$ 72.00	$ 128.48	$ 200.48	$ 400.97
284			RG-1, Return Grille, Face Size: 12"x12", Neck Size: 12" Dia, CFM: 80	EA	1	0%	1	0.750	$ 75.00	$ 56.25	$ 94.81	$ 151.06	$ 151.06
285			RG-1, Return Grille, Face Size: 12"x12", Neck Size: 12"x12", CFM: 475	EA	1	0%	1	0.750	$ 75.00	$ 56.25	$ 102.21	$ 158.46	$ 158.46
286			RG-1, Return Grille, Face Size: 24"x16", Neck Size: 14" Dia, CFM: 965	EA	2	0%	2	0.990	$ 75.00	$ 74.25	$ 151.63	$ 225.88	$ 451.75
287			RG-1, Return Grille, Face Size: 24"x16", Neck Size: 24" Dia, CFM: 1440	EA	2	0%	2	1.050	$ 75.00	$ 78.75	$ 157.71	$ 236.46	$ 472.93
288			RG-1, Return Grille, Face Size: 24"x16", Neck Size: 24" Dia, CFM: 1435	EA	1	0%	1	1.050	$ 75.00	$ 78.75	$ 157.71	$ 236.46	$ 236.46
289			RG-1, Return Grille, Face Size: 24"x16", Neck Size: 16"x16", CFM: 1280	EA	1	0%	1	0.990	$ 75.00	$ 74.25	$ 154.01	$ 228.26	$ 228.26
290			RG-1, Return Grille, Face Size: 24"x16", Neck Size: 16"x16", CFM: 1390	EA	1	0%	1	0.990	$ 75.00	$ 74.25	$ 155.40	$ 229.65	$ 229.65
291			RG-1, Return Grille, Face Size: 24"x18", Neck Size: 18"x18", CFM: 1150	EA	1	0%	1	1.020	$ 75.00	$ 76.50	$ 155.86	$ 232.36	$ 232.36
292			RG-1, Return Grille, Face Size: 36"x18", Neck Size: 18"x18", CFM: 2260	EA	1	0%	1	1.650	$ 75.00	$ 123.75	$ 417.18	$ 540.93	$ 540.93
293			RG-2, Return Grille, Face Size: 12"x12", Neck Size: 12" Dia, CFM: 150	EA	1	0%	1	0.750	$ 75.00	$ 56.25	$ 102.95	$ 159.20	$ 159.20
294			EG-1, Exhaust Grille, Face Size: 8"x8", Neck Size: 6" Dia, CFM: 100	EA	6	0%	6	0.495	$ 75.00	$ 37.13	$ 109.30	$ 146.42	$ 878.54
295			EG-1, Exhaust Grille, Face Size: 12"x12", Neck Size: 12" Dia, CFM: 425	EA	1	0%	1	0.840	$ 75.00	$ 63.00	$ 148.87	$ 211.87	$ 211.87
296			EG-1, Exhaust Grille, Face Size: 12"x12", Neck Size: 12" Dia, CFM: 450	EA	1	0%	1	0.840	$ 75.00	$ 63.00	$ 150.31	$ 213.31	$ 213.31
297			EG-1, Exhaust Grille, Face Size: 18"x18", Neck Size: 10" Dia, CFM: 500	EA	3	0%	3	0.900	$ 75.00	$ 67.50	$ 157.71	$ 225.21	$ 675.64
298			EG-1, Exhaust Grille, Face Size: 18"x18", Neck Size: 12" Dia, CFM: 375	EA	1	0%	1	0.900	$ 75.00	$ 67.50	$ 157.71	$ 225.21	$ 225.21
299			EG-1, Exhaust Grille, Face Size: 18"x18", Neck Size: 12" Dia, CFM: 450	EA	2	0%	2	0.900	$ 75.00	$ 67.50	$ 159.38	$ 226.88	$ 453.76
300			EG-1, Exhaust Grille, Face Size: 18"x18", Neck Size: 12" Dia, CFM: 500	EA	1	0%	1	0.900	$ 75.00	$ 67.50	$ 160.03	$ 227.53	$ 227.53
301			EG-1, Exhaust Grille, Face Size: 18"x18", Neck Size: 12" Dia, CFM: 800	EA	1	0%	1	0.900	$ 75.00	$ 67.50	$ 161.41	$ 228.91	$ 228.91
302			ED-1, Exhaust Diffuser, Face Size: 24"x24", Neck Size: 10" Dia, CFM: 300	EA	1	0%	1	1.020	$ 75.00	$ 76.50	$ 181.76	$ 258.26	$ 258.26

DETAILED BREAKDOWN OF ITEMS

Prepared for: Naval Facilities Engineering Systems Command- MID Atlantic- NORKFOLK, VA
Project ID: 46301
Scope: HVAC

USA ESTIMATORS
+1 (214) 556-2605

Date: 6-Oct-26

SR #	Drawing #	Detail #	DESCRIPTION	UNIT	QUANTITY	WASTAGE	QUANTITY W/ WASTAGE	UNIT MANHOUR	HOURLY WAGE	LABOR COST	MAT. COST	UNIT COST	SUB COST
303			TG-1, Transfer Grille, Face Size: 16"x16", CFM: 1200	EA	1	0%	1	0.975	$ 75.00	$ 73.13	$ 157.71	$ 230.84	$ 230.84
304			TG-1, Transfer Grille, Face Size: 18"x18", CFM: 400	EA	2	0%	2	0.975	$ 75.00	$ 73.13	$ 136.07	$ 209.19	$ 418.39
305			TG-1, Transfer Grille, Face Size: 18"x18", CFM: 500	EA	3	0%	3	0.975	$ 75.00	$ 73.13	$ 136.90	$ 210.03	$ 630.08
306			TG-1, Transfer Grille, Face Size: 18"x18", CFM: 800	EA	1	0%	1	0.975	$ 75.00	$ 73.13	$ 141.21	$ 214.34	$ 214.34
			COMPUTER ROOM AIR CONDITIONING										
307			CRAC-126-01, Computer Room Air Conditioning, 2800 CFM, 4.15HP, 18 KWH Cooling Coil, R-410A, MOCP 35, 1000 LBS	EA	1	0%	1	72.38	$ 75.00	$ 5,428.50	$ 28,473.56	$ 33,902.06	$ 33,902.06
308			CRAC-126-02, Computer Room Air Conditioning, 2800 CFM, 4.15HP, 18 KWH Cooling Coil, R-410A, MOCP 35, 1000 LBS	EA	1	0%	1	72.38	$ 75.00	$ 5,428.50	$ 28,473.56	$ 33,902.06	$ 33,902.06
309			CRAC-221-01, Computer Room Air Conditioning, 1800 CFM, 4.15HP, 11 KWH Cooling Coil, R-410A, MOCP 25, 600 LBS	EA	1	0%	1	54.26	$ 75.00	$ 4,069.50	$ 18,294.87	$ 22,364.37	$ 22,364.37
310			CRAC-221-02, Computer Room Air Conditioning, 1800 CFM, 4.15HP, 11 KWH Cooling Coil, R-410A, MOCP 25, 600 LBS	EA	1	0%	1	54.26	$ 75.00	$ 4,069.50	$ 18,294.87	$ 22,364.37	$ 22,364.37
			DUCTLESS SPLIT SYSTEM-INDOOR UNIT										
311			AC-105-01,Indoor Unit, 920CFM, Wall Mounted,	EA	1	0%	1	4.00	$ 75.00	$ 300.00	$ 1,250.00	$ 1,550.00	$ 1,550.00
312			AC-109-01,Indoor Unit, 385CFM, Wall Mounted,	EA	1	0%	1	2.00	$ 75.00	$ 150.00	$ 550.00	$ 700.00	$ 700.00
313			AC-127-01,Indoor Unit, 775CFM, Wall Mounted,	EA	1	0%	1	3.25	$ 75.00	$ 243.75	$ 950.00	$ 1,193.75	$ 1,193.75
314			AC-127-02,Indoor Unit, 775CFM, Wall Mounted,	EA	1	0%	1	3.25	$ 75.00	$ 243.75	$ 950.00	$ 1,193.75	$ 1,193.75
315			AC-134-01,Indoor Unit, 385CFM, Wall Mounted,	EA	1	0%	1	2.00	$ 75.00	$ 150.00	$ 550.00	$ 700.00	$ 700.00
316			AC-134-02,Indoor Unit, 385CFM, Wall Mounted,	EA	1	0%	1	2.00	$ 75.00	$ 150.00	$ 550.00	$ 700.00	$ 700.00
317			AC-137-01,Indoor Unit, 810CFM, Ceiling Cassette	EA	1	0%	1	3.50	$ 75.00	$ 262.50	$ 1,050.00	$ 1,312.50	$ 1,312.50
318			AC-137-02,Indoor Unit, 810CFM, Ceiling Cassette	EA	1	0%	1	3.50	$ 75.00	$ 262.50	$ 1,050.00	$ 1,312.50	$ 1,312.50
319			AC-137-03,Indoor Unit, 810CFM, Ceiling Cassette	EA	1	0%	1	3.50	$ 75.00	$ 262.50	$ 1,050.00	$ 1,312.50	$ 1,312.50
320			AC-137-04,Indoor Unit, 810CFM, Ceiling Cassette	EA	1	0%	1	3.50	$ 75.00	$ 262.50	$ 1,050.00	$ 1,312.50	$ 1,312.50
321			AC-208-01,Indoor Unit, 385CFM, Wall Mounted	EA	1	0%	1	2.00	$ 75.00	$ 150.00	$ 550.00	$ 700.00	$ 700.00
322			AC-208-02,Indoor Unit, 385CFM, Wall Mounted	EA	1	0%	1	2.00	$ 75.00	$ 150.00	$ 550.00	$ 700.00	$ 700.00
323			AC-213-01,Indoor Unit, 920CFM, Wall Mounted	EA	1	0%	1	4.00	$ 75.00	$ 300.00	$ 1,250.00	$ 1,550.00	$ 1,550.00
324			AC-213-02,Indoor Unit, 920CFM, Wall Mounted	EA	1	0%	1	4.00	$ 75.00	$ 300.00	$ 1,250.00	$ 1,550.00	$ 1,550.00
325			AC-213-03,Indoor Unit, 920CFM, Wall Mounted	EA	1	0%	1	4.00	$ 75.00	$ 300.00	$ 1,250.00	$ 1,550.00	$ 1,550.00
326			AC-213-04,Indoor Unit, 920CFM, Wall Mounted	EA	1	0%	1	4.00	$ 75.00	$ 300.00	$ 1,250.00	$ 1,550.00	$ 1,550.00
327			AC-218-01,Indoor Unit, 920CFM, Wall Mounted	EA	1	0%	1	4.00	$ 75.00	$ 300.00	$ 1,250.00	$ 1,550.00	$ 1,550.00
328			AC-236-01,Indoor Unit, 385CFM, Wall Mounted	EA	1	0%	1	2.00	$ 75.00	$ 150.00	$ 550.00	$ 700.00	$ 700.00
			DUCTLESS SPLIT SYSTEM-OUTDOOR UNIT										
329			HP-105-01, Heat Pump, 48 MOCP, 250LBS	EA	1	0%	1	8.25	$ 75.00	$ 618.75	$ 3,750.00	$ 4,368.75	$ 4,368.75
330			HP-109-01, Heat Pump, 27 MOCP, 100LBS	EA	1	0%	1	6.75	$ 75.00	$ 506.25	$ 2,850.00	$ 3,356.25	$ 3,356.25
331			HP-127-01, Heat Pump, 39 MOCP, 250LBS	EA	1	0%	1	8.25	$ 75.00	$ 618.75	$ 3,750.00	$ 4,368.75	$ 4,368.75
332			HP-127-02, Heat Pump, 39 MOCP, 250LBS	EA	1	0%	1	8.25	$ 75.00	$ 618.75	$ 3,750.00	$ 4,368.75	$ 4,368.75
333			HP-208-01, Heat Pump, 48 MOCP, 250LBS	EA	1	0%	1	8.75	$ 75.00	$ 656.25	$ 4,250.00	$ 4,906.25	$ 4,906.25
334			HP-208-02, Heat Pump, 48 MOCP, 250LBS	EA	1	0%	1	8.25	$ 75.00	$ 618.75	$ 3,750.00	$ 4,368.75	$ 4,368.75
335			HP-213-01, Heat Pump, 48 MOCP, 250LBS	EA	1	0%	1	8.25	$ 75.00	$ 618.75	$ 3,750.00	$ 4,368.75	$ 4,368.75
336			HP-213-02, Heat Pump, 48 MOCP, 250LBS	EA	1	0%	1	8.25	$ 75.00	$ 618.75	$ 3,750.00	$ 4,368.75	$ 4,368.75
337			HP-213-03, Heat Pump, 48 MOCP, 250LBS	EA	1	0%	1	8.75	$ 75.00	$ 656.25	$ 4,250.00	$ 4,906.25	$ 4,906.25
338			HP-213-04, Heat Pump, 48 MOCP, 250LBS	EA	1	0%	1	8.75	$ 75.00	$ 656.25	$ 4,250.00	$ 4,906.25	$ 4,906.25
339			HP-218-01, Heat Pump, 27 MOCP, 100LBS	EA	1	0%	1	6.75	$ 75.00	$ 506.25	$ 2,850.00	$ 3,356.25	$ 3,356.25
340			HP-236-01, Heat Pump, 27 MOCP, 100LBS	EA	1	0%	1	6.75	$ 75.00	$ 506.25	$ 2,850.00	$ 3,356.25	$ 3,356.25
			PUMP										
341			PCWP-01, Primary Service Chilled Water, Base-Mounted End Suction, 25HP, 1760 RPM, 916LB	EA	1	0%	1	48.57	$ 75.00	$ 3,642.75	$ 18,472.36	$ 22,115.11	$ 22,115.11
342			PCWP-02, Primary Service Chilled Water, Base-Mounted End Suction, 25HP, 1760 RPM, 916LB	EA	1	0%	1	48.57	$ 75.00	$ 3,642.75	$ 18,472.36	$ 22,115.11	$ 22,115.11
343			PCWP-03, Primary Service Chilled Water, Base-Mounted End Suction, 25HP, 1760 RPM, 916LB	EA	1	0%	1	48.57	$ 75.00	$ 3,642.75	$ 18,472.36	$ 22,115.11	$ 22,115.11
344			PHWP-01, Primary Heating Hot Water, Base-Mounted End Suction, 25HP, 1760 RPM, 329LB	EA	1	0%	1	36.41	$ 75.00	$ 2,730.75	$ 14,358.24	$ 17,088.99	$ 17,088.99
345			PHWP-02, Primary Heating Hot Water, Base-Mounted End Suction, 25HP, 1760 RPM, 329LB	EA	1	0%	1	36.41	$ 75.00	$ 2,730.75	$ 14,358.24	$ 17,088.99	$ 17,088.99
346			PHWP-03, Primary Heating Hot Water, Base-Mounted End Suction, 25HP, 1760 RPM, 329LB	EA	1	0%	1	36.41	$ 75.00	$ 2,730.75	$ 14,358.24	$ 17,088.99	$ 17,088.99
347			SCWP-01, Secondary Chilled Water, Base-Mounted End Suction, 40HP, 3500RPM, 684LB	EA	1	0%	1	56.34	$ 75.00	$ 4,225.50	$ 21,947.58	$ 26,173.08	$ 26,173.08
348			SCWP-02, Secondary Chilled Water, Base-Mounted End Suction, 40HP, 3500RPM, 684LB	EA	1	0%	1	56.34	$ 75.00	$ 4,225.50	$ 21,947.58	$ 26,173.08	$ 26,173.08
349			SCWP-03, Secondary Chilled Water, Base-Mounted End Suction, 40HP, 3500RPM, 684LB	EA	1	0%	1	56.34	$ 75.00	$ 4,225.50	$ 21,947.58	$ 26,173.08	$ 26,173.08
350			SHWP-01, Secondary Heating Hot Water, Base-Mounted End Suction, 15HP, 1760RPM, 675LB	EA	1	0%	1	32.17	$ 75.00	$ 2,412.75	$ 11,462.76	$ 13,875.51	$ 13,875.51
351			SHWP-02, Secondary Heating Hot Water, Base-Mounted End Suction, 15HP, 1760RPM, 675LB	EA	1	0%	1	32.17	$ 75.00	$ 2,412.75	$ 11,462.76	$ 13,875.51	$ 13,875.51
352			SHWP-03, Secondary Heating Hot Water, Base-Mounted End Suction, 15HP, 1760RPM, 675LB	EA	1	0%	1	32.17	$ 75.00	$ 2,412.75	$ 11,462.76	$ 13,875.51	$ 13,875.51
			ROOF TOP UNIT										
353			RTU-1: Roof Top Unit, CFM 1400, HP 1.7, Nominal Tons, 6, MBH 66.5, MCA 19.2, MOCP 25, 460 V, Phase 3, Weight 1189 Lbs.	EA	1	0%	1	54.28	$ 75.00	$ 4,071.00	$ 22,734.56	$ 26,805.56	$ 26,805.56
			LOUVER										
354			LV-09: Exhaust Air Louver, CFM 1200, Size 32"x24", W/ Motorized Damper	EA	1	0%	1	5.85	$ 75.00	$ 438.75	$ 1,227.14	$ 1,665.89	$ 1,665.89
			BOILER										
355			B-01: Boiler, MBH 2000, CFH 2000, GPM 190, FLA 16, 115 V, Phase 1, Weight 1840 LBS.	EA	1	0%	1	88.00	$ 75.00	$ 6,600.00	$ 42,738.52	$ 49,338.52	$ 49,338.52
356			B-02: Boiler, MBH 2000, CFH 2000, GPM 190, FLA 16, 115 V, Phase 1, Weight 1840 LBS.	EA	1	0%	1	88.00	$ 75.00	$ 6,600.00	$ 42,738.52	$ 49,338.52	$ 49,338.52
357			B-03: Boiler, MBH 2000, CFH 2000, GPM 190, FLA 16, 115 V, Phase 1, Weight 1840 LBS.	EA	1	0%	1	88.00	$ 75.00	$ 6,600.00	$ 42,738.52	$ 49,338.52	$ 49,338.52
			AIR HANDLING UNIT										
358			AHU-01: Air Handling Unit, Supply: CFM 12000, HP 10, Return: CFM 12000, HP 15, MCA 27.9, MOCP 40, Unit Weight 8784 Lbs., Curb Weight 1055 Lbs.	EA	1	0%	1	236.57	$ 75.00	$ 17,742.38	$ 82,207.83	$ 99,950.21	$ 99,950.21
359			AHU-02: Air Handling Unit, Supply: CFM 7600, HP 7.5, Return: CFM 7600, HP 7.5, MCA 20.2, MOCP 25, Unit Weight 7457 Lbs., Curb Weight 941 Lbs.	EA	1	0%	1	161.76	$ 75.00	$ 12,132.00	$ 52,970.04	$ 65,102.04	$ 65,102.04
			AHU DETAILS										
360			CC-AHU-01: Hydronic Coil, CFM 12000, FPM 471, MBH 486	EA	1	0%	1	26.57	$ 75.00	$ 1,992.68	$ 11,428.60	$ 13,421.28	$ 13,421.28
361			CC-AHU-02: Hydronic Coil, CFM 7600, FPM 445, MBH 250	EA	1	0%	1	17.79	$ 75.00	$ 1,334.44	$ 7,375.73	$ 8,710.17	$ 8,710.17
			BUFFER TANK										
362			BT-01: Buffer Tank, Volume: 2000 Gal, Weight 20330 Lbs.	EA	1	0%	1	135.60	$ 75.00	$ 10,170.00	$ 48,472.36	$ 58,642.36	$ 58,642.36
			AIR AND DIRT SEPARATOR										
363			ADS-01: Air And Dirt Separator, GPM 1302, Weight 960 Lbs.	EA	1	0%	1	36.42	$ 75.00	$ 2,731.50	$ 12,473.28	$ 15,204.78	$ 15,204.78
364			ADS-02: Air And Dirt Separator, GPM 378, Weight 440 Lbs.	EA	1	0%	1	18.37	$ 75.00	$ 1,377.75	$ 6,284.56	$ 7,662.31	$ 7,662.31
365			ADS-03: Air And Dirt Separator, GPM 51, Weight 90 Lbs.	EA	1	0%	1	6.25	$ 75.00	$ 468.75	$ 1,947.28	$ 2,416.03	$ 2,416.03
			UNIT HEATER										
366			UH-115, Unit Heater, Wall, 175 CFM, 22LBS	EA	1	0%	1	1.53	$ 75.00	$ 114.75	$ 421.37	$ 536.12	$ 536.12
367			UH-135, Unit Heater, Wall, 175 CFM, 22LBS	EA	1	0%	1	1.53	$ 75.00	$ 114.75	$ 421.37	$ 536.12	$ 536.12
368			UH-145, Unit Heater, Horizontal Fan Forced, 400 CFM, 25LBS	EA	1	0%	1	2.08	$ 75.00	$ 156.00	$ 551.42	$ 707.42	$ 707.42
369			UH-155, Unit Heater, Wall, 175 CFM, 22LBS	EA	1	0%	1	1.53	$ 75.00	$ 114.75	$ 421.37	$ 536.12	$ 536.12
370			UH-162, Unit Heater, Wall, 175 CFM, 22LBS	EA	1	0%	1	1.53	$ 75.00	$ 114.75	$ 421.37	$ 536.12	$ 536.12
			VAV, AIR TERMINAL UNIT										
371			VAVR-100-01: Air Terminal Unit, Inlet Size 14" Dia, Max Cooling CFM 1290, MBH 33.7, GPM 2.4, Weight 60 Lbs.	EA	1	0%	1	5.40	$ 75.00	$ 405.00	$ 1,350.00	$ 1,755.00	$ 1,755.00
372			VAVR-100-02: Air Terminal Unit, Inlet Size 14" Dia, Max Cooling CFM 1290, MBH 33.7, GPM 2.4, Weight 60 Lbs.	EA	1	0%	1	5.40	$ 75.00	$ 405.00	$ 1,350.00	$ 1,755.00	$ 1,755.00
373			VAVR-100-03: Air Terminal Unit, Inlet Size 14" Dia, Max Cooling CFM 1290, MBH 33.7, GPM 2.4, Weight 60 Lbs.	EA	1	0%	1	5.40	$ 75.00	$ 405.00	$ 1,350.00	$ 1,755.00	$ 1,755.00
374			VAVR-111-01: Air Terminal Unit, Inlet Size 14" Dia, Max Cooling CFM 1610, MBH 33.7, GPM 9.6, Weight 55 Lbs.	EA	1	0%	1	5.40	$ 75.00	$ 405.00	$ 1,350.00	$ 1,755.00	$ 1,755.00
375			VAVR-111-02: Air Terminal Unit, Inlet Size 16" Dia, Max Cooling CFM 2080, MBH 43.4, GPM 7.5, Weight 70 Lbs.	EA	1	0%	1	7.40	$ 75.00	$ 555.00	$ 1,850.00	$ 2,405.00	$ 2,405.00
376			VAVR-111-03: Air Terminal Unit, Inlet Size 12" Dia, Max Cooling CFM 1350, MBH 25.9, GPM 4.7, Weight 36 Lbs.	EA	1	0%	1	4.60	$ 75.00	$ 345.00	$ 1,150.00	$ 1,495.00	$ 1,495.00
377			VAVR-129: Air Terminal Unit, Inlet Size 10" Dia, Max Cooling CFM 1000, MBH 17.1, GPM 7.3, Weight 34 Lbs.	EA	1	0%	1	3.40	$ 75.00	$ 255.00	$ 850.00	$ 1,105.00	$ 1,105.00
378			VAVR-130: Air Terminal Unit, Inlet Size 8" Dia, Max Cooling CFM 430, MBH 7.7, GPM 4.3, Weight 22 Lbs.	EA	1	0%	1	2.60	$ 75.00	$ 195.00	$ 650.00	$ 845.00	$ 845.00
379			VAVR-131: Air Terminal Unit, Inlet Size 14" Dia, Max Cooling CFM 1560, MBH 27.1, GPM 6.3, Weight 55 Lbs.	EA	1	0%	1	5.40	$ 75.00	$ 405.00	$ 1,350.00	$ 1,755.00	$ 1,755.00
380			VAVR-132: Air Terminal Unit, Inlet Size 14" Dia, Max Cooling CFM 1560, MBH 27.1, GPM 6.3, Weight 55 Lbs.	EA	1	0%	1	5.40	$ 75.00	$ 405.00	$ 1,350.00	$ 1,755.00	$ 1,755.00
381			VAVR-136: Air Terminal Unit, Inlet Size 6" Dia, Max Cooling CFM 400, MBH 7.0, GPM 4.0, Weight 19 Lbs.	EA	1	0%	1	1.80	$ 75.00	$ 135.00	$ 450.00	$ 585.00	$ 585.00
382			VAVR-138: Air Terminal Unit, Inlet Size 6" Dia, Max Cooling CFM 270, MBH 5.0, GPM 1.2, Weight 21 Lbs.	EA	1	0%	1	1.80	$ 75.00	$ 135.00	$ 450.00	$ 585.00	$ 585.00
383			VAVR-139: Air Terminal Unit, Inlet Size 8" Dia, Max Cooling CFM 400, MBH 7.4, GPM 1.7, Weight 26 Lbs.	EA	1	0%	1	2.60	$ 75.00	$ 195.00	$ 650.00	$ 845.00	$ 845.00
384			VAVR-141: Air Terminal Unit, Inlet Size 14" Dia, Max Cooling CFM 1275, MBH 22.3, GPM 4.0, Weight 55 Lbs.	EA	1	0%	1	5.40	$ 75.00	$ 405.00	$ 1,350.00	$ 1,755.00	$ 1,755.00
385			VAVR-145: Air Terminal Unit, Inlet Size 14" Dia, Max Cooling CFM 1290, MBH 22.6, GPM 4.1, Weight 55 Lbs.	EA	1	0%	1	5.40	$ 75.00	$ 405.00	$ 1,350.00	$ 1,755.00	$ 1,755.00
386			VAVR-147: Air Terminal Unit, Inlet Size 10" Dia, Max Cooling CFM 875, MBH 15.3, GPM 5.7, Weight 34 Lbs.	EA	1	0%	1	3.40	$ 75.00	$ 255.00	$ 850.00	$ 1,105.00	$ 1,105.00
387			VAVR-148: Air Terminal Unit, Inlet Size 8" Dia, Max Cooling CFM 475, MBH 8.4, GPM 3.4, Weight 23 Lbs.	EA	1	0%	1	2.60	$ 75.00	$ 195.00	$ 650.00	$ 845.00	$ 845.00
388			VAVR-150: Air Terminal Unit, Inlet Size 6" Dia, Max Cooling CFM 340, MBH 6.0, GPM 1.8, Weight 21 Lbs.	EA	1	0%	1	1.80	$ 75.00	$ 135.00	$ 450.00	$ 585.00	$ 585.00
389			VAVR-151: Air Terminal Unit, Inlet Size 12" Dia, Max Cooling CFM 1260, MBH 21.9, GPM 7.1, Weight 47 Lbs.	EA	1	0%	1	4.60	$ 75.00	$ 345.00	$ 1,150.00	$ 1,495.00	$ 1,495.00
390			VAVR-152: Air Terminal Unit, Inlet Size 10" Dia, Max Cooling CFM 750, MBH 13.3, GPM 4.2, Weight 29 Lbs.	EA	1	0%	1	3.40	$ 75.00	$ 255.00	$ 850.00	$ 1,105.00	$ 1,105.00
391			VAVR-205: Air Terminal Unit, Inlet Size 6" Dia, Max Cooling CFM 400, Weight 12 Lbs.	EA	1	0%	1	1.80	$ 75.00	$ 135.00	$ 450.00	$ 585.00	$ 585.00
392			VAVR-207: Air Terminal Unit, Inlet Size 6" Dia, Max Cooling CFM 300, Weight 38 Lbs.	EA	1	0%	1	1.80	$ 75.00	$ 135.00	$ 450.00	$ 585.00	$ 585.00
393			VAVR-208: Air Terminal Unit, Inlet Size 6" Dia, Max Cooling CFM 250, Weight 38 Lbs.	EA	1	0%	1	1.60	$ 75.00	$ 120.00	$ 400.00	$ 520.00	$ 520.00
394			VAVR-210: Air Terminal Unit, Inlet Size 7" Dia, Max Cooling CFM 550, Weight 42 Lbs.	EA	1	0%	1	2.20	$ 75.00	$ 165.00	$ 550.00	$ 715.00	$ 715.00
395			VAVR-214: Air Terminal Unit, Inlet Size 6" Dia, Max Cooling CFM 200, Weight 38 Lbs.	EA	1	0%	1	1.80	$ 75.00	$ 135.00	$ 450.00	$ 585.00	$ 585.00
396			VAVR-219: Air Terminal Unit, Inlet Size 8" Dia, Max Cooling CFM 500, Weight 14 Lbs.	EA	1	0%	1	2.60	$ 75.00	$ 195.00	$ 650.00	$ 845.00	$ 845.00
397			VAVR-220: Air Terminal Unit, Inlet Size 10" Dia, Max Cooling CFM 1200, Weight 18 Lbs.	EA	1	0%	1	3.40	$ 75.00	$ 255.00	$ 850.00	$ 1,105.00	$ 1,105.00
			CAVR, AIR TERMINAL UNIT										

DETAILED BREAKDOWN OF ITEMS

Prepared for: Naval Facilities Engineering Systems Command- MID Atlantic- NORKFOLK, VA
Project ID: 46301
Scope: HVAC

USA ESTIMATORS
+1 (214) 556-2605

Date: 6-Oct-26

SR #	Drawing #	Detail #	DESCRIPTION	UNIT	QUANTITY	WASTAGE	QUANTITY W/ WASTAGE	UNIT MANHOUR	HOURLY WAGE	LABOR COST	MAT. COST	UNIT COST	SUB COST
398			CAVR-100: Air Terminal Unit, Max Cooling CFM 250, MBH 4.7, GPM 0.6, Inlet Size 6" Dia, Weight 19 Lbs.	EA	1	0%	1	1.80	$ 75.00	$ 135.00	$ 450.00	$ 585.00	$ 585.00
399			CAVR-106: Air Terminal Unit, Max Cooling CFM 775, MBH 27.8, GPM 6.0, Inlet Size 12" Dia, Weight 46 Lbs.	EA	1	0%	1	3.40	$ 75.00	$ 255.00	$ 850.00	$ 1,105.00	$ 1,105.00
400			CAVR-107: Air Terminal Unit, Max Cooling CFM 1575, MBH 55.5, GPM 14.1, Inlet Size 16" Dia, Weight 70 Lbs.	EA	1	0%	1	7.00	$ 75.00	$ 525.00	$ 1,750.00	$ 2,275.00	$ 2,275.00
401			CAVR-132: Air Terminal Unit, Max Cooling CFM 920, MBH 17.0, GPM 1.9, Inlet Size 10" Dia, Weight 29 Lbs.	EA	1	0%	1	3.80	$ 75.00	$ 285.00	$ 950.00	$ 1,235.00	$ 1,235.00
402			CAVR-141: Air Terminal Unit, Max Cooling CFM 350, MBH 6.6, GPM 0.6, Inlet Size 8" Dia, Weight 26 Lbs.	EA	1	0%	1	2.60	$ 75.00	$ 195.00	$ 650.00	$ 845.00	$ 845.00
403			CAVR-142: Air Terminal Unit, Max Cooling CFM 360, MBH 12.6, GPM 6.3, Inlet Size 8" Dia, Weight 23 Lbs.	EA	1	0%	1	2.60	$ 75.00	$ 195.00	$ 650.00	$ 845.00	$ 845.00
404			CAVR-143: Air Terminal Unit, Inlet Size 8" Dia, Max Cooling CFM 360, MBH 12.6, GPM 6.3, Weight 23 Lbs.	EA	1	0%	1	2.60	$ 75.00	$ 195.00	$ 650.00	$ 845.00	$ 845.00
405			CAVR-144: Air Terminal Unit, Inlet Size 8" Dia, Max Cooling CFM 360, MBH 12.6, GPM 6.3, Weight 23 Lbs.	EA	1	0%	1	2.60	$ 75.00	$ 195.00	$ 650.00	$ 845.00	$ 845.00
406			CAVR-147: Air Terminal Unit, Inlet Size 8" Dia, Max Cooling CFM 500 MBH 9.3, GPM 1.0, Weight 26 Lbs.	EA	1	0%	1	2.60	$ 75.00	$ 195.00	$ 650.00	$ 845.00	$ 845.00
407			CAVR-148: Air Terminal Unit, Inlet Size 8" Dia, Max Cooling CFM 350, MBH 6.6, GPM 0.6, Weight 26 Lbs.	EA	1	0%	1	2.60	$ 75.00	$ 195.00	$ 650.00	$ 845.00	$ 845.00
408			CAVR-151: Air Terminal Unit, Inlet Size 8" Dia, Max Cooling CFM 1000, MBH 18.5, GPM 2.0, Weight 23 Lbs.	EA	1	0%	1	3.40	$ 75.00	$ 255.00	$ 850.00	$ 1,105.00	$ 1,105.00
409			CAVR-153: Air Terminal Unit, Inlet Size 12" Dia, Max Cooling CFM 750, MBH 13.9, GPM 1.5, Weight 36 Lbs.	EA	1	0%	1	3.40	$ 75.00	$ 255.00	$ 850.00	$ 1,105.00	$ 1,105.00
410			CAVR-156: Air Terminal Unit, Inlet Size 10" Dia, Max Cooling CFM 550, MBH 10.2, GPM 1.2, Weight 34 Lbs.	EA	1	0%	1	3.40	$ 75.00	$ 255.00	$ 850.00	$ 1,105.00	$ 1,105.00
			VAV, AIR TERMINAL UNIT										
411			VAV-116-01: Air Terminal Unit, Inlet Size 8" Dia, Max Cooling CFM 625, Weight 14 Lbs.	EA	1	0%	1	2.60	$ 75.00	$ 195.00	$ 650.00	$ 845.00	$ 845.00
412			VAV-116-02: Air Terminal Unit, Inlet Size 8" Dia, Max Cooling CFM 600, Weight 14 Lbs.	EA	1	0%	1	2.60	$ 75.00	$ 195.00	$ 650.00	$ 845.00	$ 845.00
413	MH101 to MH101T	As Per Mechanical Plans	VAV-117: Air Terminal Unit, Inlet Size 8" Dia, Max Cooling CFM 475, Weight 12 Lbs.	EA	1	0%	1	2.60	$ 75.00	$ 195.00	$ 650.00	$ 845.00	$ 845.00
414			VAV-122: Air Terminal Unit, Inlet Size 8" Dia, Max Cooling CFM 600, Weight 14 Lbs.	EA	1	0%	1	2.60	$ 75.00	$ 195.00	$ 650.00	$ 845.00	$ 845.00
415			VAV-125: Air Terminal Unit, Inlet Size 4" Dia, Max Cooling CFM 120, Weight 13 Lbs.	EA	1	0%	1	1.60	$ 75.00	$ 120.00	$ 400.00	$ 520.00	$ 520.00
416			VAVR-153: Air Terminal Unit, Inlet Size 10" Dia, Max Cooling CFM 750, MBH 13.3, GPM 4.2, Weight 29 Lbs.	EA	1	0%	1	3.40	$ 75.00	$ 255.00	$ 850.00	$ 1,105.00	$ 1,105.00
417			VAV-154: Air Terminal Unit, Inlet Size 4" Dia, Max Cooling CFM 75, Weight 13 Lbs.	EA	1	0%	1	1.60	$ 75.00	$ 120.00	$ 400.00	$ 520.00	$ 520.00
418			VAV-156: Air Terminal Unit, Inlet Size 4" Dia, Max Cooling CFM 50, Weight 12 Lbs.	EA	1	0%	1	1.60	$ 75.00	$ 120.00	$ 400.00	$ 520.00	$ 520.00
419			VAV-157: Air Terminal Unit, Inlet Size 8" Dia, Max Cooling CFM 520, Weight 13 Lbs.	EA	1	0%	1	2.60	$ 75.00	$ 195.00	$ 650.00	$ 845.00	$ 845.00
420			VAV-201: Air Terminal Unit, Inlet Size 4" Dia, Max Cooling CFM 125, Weight 12 Lbs.	EA	1	0%	1	1.60	$ 75.00	$ 120.00	$ 400.00	$ 520.00	$ 520.00
421			VAV-203: Air Terminal Unit, Inlet Size 6" Dia, Max Cooling CFM 355, Weight 12 Lbs.	EA	1	0%	1	1.80	$ 75.00	$ 135.00	$ 450.00	$ 585.00	$ 585.00
422			VAV-204-01: Air Terminal Unit, Inlet Size 10" Dia, Max Cooling CFM 1170, Weight 18 Lbs.	EA	1	0%	1	3.40	$ 75.00	$ 255.00	$ 850.00	$ 1,105.00	$ 1,105.00
423			VAV-204-02: Air Terminal Unit, Inlet Size 10" Dia, Max Cooling CFM 1170, Weight 18 Lbs.	EA	1	0%	1	3.40	$ 75.00	$ 255.00	$ 850.00	$ 1,105.00	$ 1,105.00
424			VAV-204-03: Air Terminal Unit, Inlet Size 8" Dia, Max Cooling CFM 540, Weight 18 Lbs.	EA	1	0%	1	2.60	$ 75.00	$ 195.00	$ 650.00	$ 845.00	$ 845.00
425			VAV-217: Air Terminal Unit, Inlet Size 4" Dia, Max Cooling CFM 50, Weight 39 Lbs.	EA	1	0%	1	1.60	$ 75.00	$ 120.00	$ 400.00	$ 520.00	$ 520.00
426			VAV-222: Air Terminal Unit, Inlet Size 8" Dia, Max Cooling CFM 550, Weight 14 Lbs.	EA	1	0%	1	2.60	$ 75.00	$ 195.00	$ 650.00	$ 845.00	$ 845.00
427			VAV-228: Air Terminal Unit, Inlet Size 6" Dia, Max Cooling CFM 300, Weight 12 Lbs.	EA	1	0%	1	1.80	$ 75.00	$ 135.00	$ 450.00	$ 585.00	$ 585.00
428			VAV-229: Air Terminal Unit, Inlet Size 6" Dia, Max Cooling CFM 400, Weight 14 Lbs.	EA	1	0%	1	1.80	$ 75.00	$ 135.00	$ 450.00	$ 585.00	$ 585.00
429			VAV-233: Air Terminal Unit, Inlet Size 6" Dia, Max Cooling CFM 200, Weight 12 Lbs.	EA	1	0%	1	1.80	$ 75.00	$ 135.00	$ 450.00	$ 585.00	$ 585.00
430			VAV-239: Air Terminal Unit, Inlet Size 4" Dia, Max Cooling CFM 50, Weight 13 Lbs.	EA	1	0%	1	1.60	$ 75.00	$ 120.00	$ 400.00	$ 520.00	$ 520.00
			ACTIVE CHILLED BEAM										
431			ACB-116: Active Chilled Beam, Inlet Size 8" Dia, CFM 200, GPM 0.5, Size 96x24x10, Weight 109 Lbs.	EA	6	0%	6	7.25	$ 75.00	$ 543.75	$ 3,152.41	$ 3,696.16	$ 22,176.96
432			ACB-117: Active Chilled Beam, Inlet Size 6" Dia, CFM 100, GPM 0.5, Size 48x24x10, Weight 55 Lbs.	EA	1	0%	1	4.62	$ 75.00	$ 346.50	$ 1,784.56	$ 2,131.06	$ 2,131.06
433			ACB-118: Active Chilled Beam, Inlet Size 6" Dia, CFM 75, GPM 0.5, Size 48x24x10, Weight 55 Lbs.	EA	1	0%	1	4.62	$ 75.00	$ 346.50	$ 1,784.56	$ 2,131.06	$ 2,131.06
434			ACB-120: Active Chilled Beam, Inlet Size 6" Dia, CFM 75, GPM 0.5, Size 48x24x10, Weight 55 Lbs.	EA	1	0%	1	4.62	$ 75.00	$ 346.50	$ 1,784.56	$ 2,131.06	$ 2,131.06
435			ACB-121: Active Chilled Beam, Inlet Size 6" Dia, CFM 75, GPM 0.5, Size 48x24x10, Weight 55 Lbs.	EA	1	0%	1	4.62	$ 75.00	$ 346.50	$ 1,784.56	$ 2,131.06	$ 2,131.06
436			ACB-122: Active Chilled Beam, Inlet Size 8" Dia, CFM 150, GPM 0.5, Size 74x24x10, Weight 82 Lbs.	EA	4	0%	4	5.84	$ 75.00	$ 438.00	$ 2,347.28	$ 2,785.28	$ 11,141.12
437			ACB-123: Active Chilled Beam, Inlet Size 6" Dia, CFM 75, GPM 0.5, Size 48x24x10, Weight 55 Lbs.	EA	1	0%	1	4.62	$ 75.00	$ 346.50	$ 1,784.56	$ 2,131.06	$ 2,131.06
438			ACB-124: Active Chilled Beam, Inlet Size 6" Dia, CFM 75, GPM 0.5, Size 48x24x10, Weight 55 Lbs.	EA	1	0%	1	4.62	$ 75.00	$ 346.50	$ 1,784.56	$ 2,131.06	$ 2,131.06
439			ACB-125: Active Chilled Beam, Inlet Size 6" Dia, CFM 120, GPM 0.5, Size 48x24x10, Weight 55 Lbs.	EA	1	0%	1	4.62	$ 75.00	$ 346.50	$ 1,784.56	$ 2,131.06	$ 2,131.06
440			ACB-128: Active Chilled Beam, Inlet Size 5" Dia, CFM 25, GPM 0.5, Size 24x24x10, Weight 27 Lbs.	EA	1	0%	1	3.15	$ 75.00	$ 236.25	$ 1,237.42	$ 1,473.67	$ 1,473.67
441			ACB-154: Active Chilled Beam, Inlet Size 6" Dia, CFM 75, GPM 0.5, Size 48x24x10, Weight 55 Lbs.	EA	1	0%	1	4.62	$ 75.00	$ 346.50	$ 1,784.56	$ 2,131.06	$ 2,131.06
442			ACB-156: Active Chilled Beam, Inlet Size 5" Dia, CFM 50, GPM 0.5, Size 24x24x10, Weight 27 Lbs.	EA	1	0%	1	3.15	$ 75.00	$ 236.25	$ 1,237.42	$ 1,473.67	$ 1,473.67
443			ACB-157: Active Chilled Beam, Inlet Size 8" Dia, CFM 130, GPM 0.5, Size 48x24x10, Weight 55 Lbs.	EA	4	0%	4	5.84	$ 75.00	$ 438.00	$ 2,347.28	$ 2,785.28	$ 11,141.12
444			ACB-201: Active Chilled Beam, Inlet Size 6" Dia, CFM 100, GPM 0.5, Size 48x24x10, Weight 55 Lbs.	EA	1	0%	1	4.62	$ 75.00	$ 346.50	$ 1,784.56	$ 2,131.06	$ 2,131.06
445			ACB-202: Active Chilled Beam, Inlet Size 5" Dia, CFM 25, GPM 0.5, Size 24x24x10, Weight 27 Lbs.	EA	1	0%	1	3.15	$ 75.00	$ 236.25	$ 1,237.42	$ 1,473.67	$ 1,473.67
446			ACB-203: Active Chilled Beam, Inlet Size 6" Dia, CFM 115, GPM 0.5, Size 48x24x10, Weight 55 Lbs.	EA	2	0%	2	4.62	$ 75.00	$ 346.50	$ 1,784.56	$ 2,131.06	$ 4,262.12
447			ACB-204: Active Chilled Beam, Inlet Size 6" Dia, CFM 90, GPM 0.5, Size 74x24x10, Weight 82 Lbs.	EA	32	0%	32	5.84	$ 75.00	$ 438.00	$ 2,347.28	$ 2,785.28	$ 89,128.96
448			ACB-205: Active Chilled Beam, Inlet Size 6" Dia, CFM 100, GPM 0.5, Size 28x24x10, Weight 55 Lbs.	EA	4	0%	4	4.62	$ 75.00	$ 346.50	$ 1,784.56	$ 2,131.06	$ 8,524.24
449			ACB-217: Active Chilled Beam, Inlet Size 5" Dia, CFM 50, GPM 0.5, Size 24x24x10, Weight 27 Lbs.	EA	1	0%	1	3.15	$ 75.00	$ 236.25	$ 1,237.42	$ 1,473.67	$ 1,473.67
450			ACB-219: Active Chilled Beam, Inlet Size 8" Dia, CFM 125, GPM 0.5, Size 72x24x10, Weight 82 Lbs.	EA	4	0%	4	5.84	$ 75.00	$ 438.00	$ 2,347.28	$ 2,785.28	$ 11,141.12
451			ACB-220: Active Chilled Beam, Inlet Size 10" Dia, CFM 300, GPM 0.5, Size 96x24x10, Weight 109 Lbs.	EA	4	0%	4	7.25	$ 75.00	$ 543.75	$ 3,152.41	$ 3,696.16	$ 14,784.64
452			ACB-222: Active Chilled Beam, Inlet Size 6" Dia, CFM 75, GPM 0.5, Size 48x24x10, Weight 55 Lbs.	EA	1	0%	1	4.62	$ 75.00	$ 346.50	$ 1,784.56	$ 2,131.06	$ 2,131.06
453			ACB-223: Active Chilled Beam, Inlet Size 6" Dia, CFM 75, GPM 0.5, Size 48x24x10, Weight 55 Lbs.	EA	1	0%	1	4.62	$ 75.00	$ 346.50	$ 1,784.56	$ 2,131.06	$ 2,131.06
454			ACB-224: Active Chilled Beam, Inlet Size 5" Dia, CFM 25, GPM 0.5, Size 24x24x10, Weight 27 Lbs.	EA	1	0%	1	3.15	$ 75.00	$ 236.25	$ 1,237.42	$ 1,473.67	$ 1,473.67
455			ACB-225: Active Chilled Beam, Inlet Size 6" Dia, CFM 100, GPM 0.5, Size 48x24x10, Weight 55 Lbs.	EA	1	0%	1	4.62	$ 75.00	$ 346.50	$ 1,784.56	$ 2,131.06	$ 2,131.06
456			ACB-226: Active Chilled Beam, Inlet Size 6" Dia, CFM 100, GPM 0.5, Size 48x24x10, Weight 55 Lbs.	EA	1	0%	1	4.62	$ 75.00	$ 346.50	$ 1,784.56	$ 2,131.06	$ 2,131.06
457			ACB-228: Active Chilled Beam, Inlet Size 6" Dia, CFM 150, GPM 0.5, Size 96x24x10, Weight 109 Lbs.	EA	2	0%	2	5.84	$ 75.00	$ 438.00	$ 2,347.28	$ 2,785.28	$ 5,570.56
458			ACB-229: Active Chilled Beam, Inlet Size 6" Dia, CFM 100, GPM 0.5, Size 72x24x10, Weight 82 Lbs.	EA	4	0%	4	5.84	$ 75.00	$ 438.00	$ 2,347.28	$ 2,785.28	$ 11,141.12
459			ACB-233: Active Chilled Beam, Inlet Size 6" Dia, CFM 100, GPM 0.5, Size 48x24x10, Weight 55 Lbs.	EA	1	0%	1	4.62	$ 75.00	$ 346.50	$ 1,784.56	$ 2,131.06	$ 2,131.06
460			ACB-238: Active Chilled Beam, Inlet Size 6" Dia, CFM 100, GPM 0.5, Size 48x24x10, Weight 55 Lbs.	EA	1	0%	1	4.62	$ 75.00	$ 346.50	$ 1,784.56	$ 2,131.06	$ 2,131.06
461			ACB-239: Active Chilled Beam, Inlet Size 5" Dia, CFM 50, GPM 0.5, Size 24x24x10, Weight 27 Lbs.	EA	1	0%	1	3.15	$ 75.00	$ 236.25	$ 1,237.42	$ 1,473.67	$ 1,473.67
462			ACB-240: Active Chilled Beam, Inlet Size 6" Dia, CFM 100, GPM 0.5, Size 48x24x10, Weight 55 Lbs.	EA	1	0%	1	4.62	$ 75.00	$ 346.50	$ 1,784.56	$ 2,131.06	$ 2,131.06
463			ACB-244: Active Chilled Beam, Inlet Size 6" Dia, CFM 100, GPM 0.5, Size 48x24x10, Weight 55 Lbs.	EA	1	0%	1	4.62	$ 75.00	$ 346.50	$ 1,784.56	$ 2,131.06	$ 2,131.06
			CHILLED BEAMS										
464			CBWP-1, Chilled Beams, INLINE, 5HP, 1760RPM, 250LB	EA	1	0%	1	12.38	$ 75.00	$ 928.50	$ 6,284.57	$ 7,213.07	$ 7,213.07
465			CBWP-2, Chilled Beams, INLINE, 5HP, 1760RPM, 250LB	EA	1	0%	1	12.38	$ 75.00	$ 928.50	$ 6,284.57	$ 7,213.07	$ 7,213.07
			GLYCOL FEEDER										
466			GF-01: Glycol Feeder, GPM 1.5, HP 1/3, 115 V, Phase 60, Gal. 50 Notes: 1. Float Switch For Low Level Pump Shutoff With Indicator Light And Remote Alarm Dry Contact To BCS 2. Pump Suction Assembly With Isolation Valve And Strainer 3. Pump Discharge Assembly With Isolation Valve, Check Valve, Pressure Switch, Pressure Gauge, And Relief Valve. 4. Pipe Relief Valve To Feeder Tank 5. Power Disconnect (Integral Or Field Installed).	EA	1	0%	1	7.84	$ 75.00	$ 588.00	$ 4,372.28	$ 4,960.28	$ 4,960.28
467			GF-02: Glycol Feeder, GPM 1.5, HP 1/3, 115 V, Phase 60, Gal. 50 Notes: 1. Float Switch For Low Level Pump Shutoff With Indicator Light And Remote Alarm Dry Contact To BCS 2. Pump Suction Assembly With Isolation Valve And Strainer 3. Pump Discharge Assembly With Isolation Valve, Check Valve, Pressure Switch, Pressure Gauge, And Relief Valve. 4. Pipe Relief Valve To Feeder Tank 5. Power Disconnect (Integral Or Field Installed).	EA	1	0%	1	7.84	$ 75.00	$ 588.00	$ 4,372.28	$ 4,960.28	$ 4,960.28
			CHEMICAL FEEDER										
468			CF-01: Chemical Feeder, MAX PSI: 300, Gal. 5, Weight 37 Lbs.	EA	1	0%	1	2.58	$ 75.00	$ 193.50	$ 1,247.53	$ 1,441.03	$ 1,441.03
469			CF-02: Chemical Feeder, MAX PSI: 300, Gal. 5, Weight 37 Lbs.	EA	1	0%	1	2.58	$ 75.00	$ 193.50	$ 1,247.53	$ 1,441.03	$ 1,441.03
470			CF-03: Chemical Feeder, MAX PSI: 300, Gal. 5, Weight 37 Lbs.	EA	1	0%	1	2.58	$ 75.00	$ 193.50	$ 1,247.53	$ 1,441.03	$ 1,441.03
			OUTDOOR HEAT REJECTION SKID										
471			HRS-126-01, Outdoor Heat Rejection Skid, 28KW, R-410A, 15 MOCP, 500LBS	EA	1	0%	1	21.38	$ 75.00	$ 1,603.50	$ 15,742.56	$ 17,346.06	$ 17,346.06
472			HRS-126-02, Outdoor Heat Rejection Skid, 28KW, R-410A, 15 MOCP, 500LBS	EA	1	0%	1	21.38	$ 75.00	$ 1,603.50	$ 15,742.56	$ 17,346.06	$ 17,346.06

DETAILED BREAKDOWN OF ITEMS

Prepared for: Naval Facilities Engineering Systems Command- MID Atlantic- NORKFOLK, VA
Project ID: 46301
Scope: HVAC

USA ESTIMATORS
+1 (214) 556-2605

Date: 6-Oct-26

SR #	Drawing #	Detail #	DESCRIPTION	UNIT	QUANTITY	WASTAGE	QUANTITY W/ WASTAGE	UNIT MANHOUR	HOURLY WAGE	LABOR COST	MAT. COST	UNIT COST	SUB COST
473			HRS-221-01, Outdoor Heat Rejection Skid, 28KW, R-410A, 15 MOCP, 500LBS	EA	1	0%	1	21.38	$ 75.00	$ 1,603.50	$ 15,742.56	$ 17,346.06	$ 17,346.06
474			HRS-221-02, Outdoor Heat Rejection Skid, 28KW, R-410A, 15 MOCP, 500LBS	EA	1	0%	1	21.38	$ 75.00	$ 1,603.50	$ 15,742.56	$ 17,346.06	$ 17,346.06
			EXPANSION TANK										
475			ET-01: Expansion Tank, Minimum Tank Volume: 12.3 Gal., Nominal Tank Volume 23, Tank Size: 20x30, Weight 320	EA	1	0%	1	4.25	$ 75.00	$ 318.75	$ 2,472.38	$ 2,791.13	$ 2,791.13
476			ET-02: Expansion Tank, Minimum Tank Volume: 34.0 Gal., Nominal Tank Volume 57, Tank Size: 20x57, Weight 770	EA	1	0%	1	6.42	$ 75.00	$ 481.50	$ 3,874.56	$ 4,356.06	$ 4,356.06
477			ET-03: Expansion Tank, Minimum Tank Volume: 1.9 Gal., Nominal Tank Volume 23, Tank Size: 20x30, Weight 320	EA	1	0%	1	4.25	$ 75.00	$ 318.75	$ 2,472.38	$ 2,791.13	$ 2,791.13
			HEAT EXCHANGER										
478			HX-01: Heat Exchanger, GPM 103, Weight 2351 Lbs.	EA	1	0%	1	18.73	$ 75.00	$ 1,404.75	$ 12,584.37	$ 13,989.12	$ 13,989.12
			SOUND ATTENTUATOR										
479			SA-01, 7600 CFM, Forward Direction, 0.15 PD, High TL Casing.	EA	1	0%	1	9.42	$ 75.00	$ 706.50	$ 5,842.37	$ 6,548.87	$ 6,548.87
480			SA-02, 3800 CFM, Reverse Direction, 0.15 PD, High TL Casing.	EA	1	0%	1	7.53	$ 75.00	$ 564.75	$ 4,372.28	$ 4,937.03	$ 4,937.03
481			SA-03, 3800 CFM, Reverse Direction, 0.15 PD, High TL Casing.	EA	2	0%	2	7.53	$ 75.00	$ 564.75	$ 4,372.28	$ 4,937.03	$ 9,874.06
482			SA-15, 855 CFM, Forward Direction, 0.10 PD	EA	1	0%	1	4.25	$ 75.00	$ 318.75	$ 2,184.56	$ 2,503.31	$ 2,503.31
483			SA-23, 440 CFM, Forward Direction, 0.10 PD	EA	4	0%	4	3.84	$ 75.00	$ 288.00	$ 1,784.56	$ 2,072.56	$ 8,290.24
484			SA-32, 170 CFM, Forward Direction, 0.10 PD	EA	1	0%	1	3.12	$ 75.00	$ 234.00	$ 1,247.53	$ 1,481.53	$ 1,481.53
			EXHAUST FAN										
485			EF-2, Exhaust Fan, 1200CFM, 1306 RPM, 1HP	EA	1	0%	1	6.45	$ 75.00	$ 483.75	$ 1,296.00	$ 1,779.75	$ 1,779.75
486			EF-3, Exhaust Fan, 460CFM, 1615 RPM, 1/6HP	EA	1	0%	1	3.55	$ 75.00	$ 266.25	$ 399.75	$ 666.00	$ 666.00
487			EF-4, Exhaust Fan, 460CFM, 1615 RPM, 1/6HP	EA	1	0%	1	3.55	$ 75.00	$ 266.25	$ 399.75	$ 666.00	$ 666.00
488			EF-5, Exhaust Fan, 460CFM, 1615 RPM, 1/6HP	EA	1	0%	1	3.55	$ 75.00	$ 266.25	$ 399.75	$ 666.00	$ 666.00
489			VEF-01, Vehicle Exhaust Fan, 600 CFM, 2455 RPM, 1/2HP	EA	1	0%	1	5.45	$ 75.00	$ 408.75	$ 1,011.46	$ 1,420.21	$ 1,420.21
490			TEF-04, Toilet Exhaust Fan, 200 CFM, 1518 RPM, 1/10HP	EA	1	0%	1	3.20	$ 75.00	$ 240.00	$ 340.85	$ 580.85	$ 580.85
			FAN										
491			HVLS-13: High Volume Low Speed Fan, CFM 5172,RPM 177, HP 15.1 W, 460 V, Phase 3, Weight 20 Lbs.	EA	1	0%	1	10.50	$ 75.00	$ 787.50	$ 5,375.00	$ 6,162.50	$ 6,162.50
492			HVLS-14: High Volume Low Speed Fan, CFM 5172,RPM 177, HP 15.1 W, 460 V, Phase 3, Weight 20 Lbs.	EA	1	0%	1	10.50	$ 75.00	$ 787.50	$ 5,375.00	$ 6,162.50	$ 6,162.50
493			HVLS-15: High Volume Low Speed Fan, CFM 5172,RPM 177, HP 15.1 W, 460 V, Phase 3, Weight 20 Lbs.	EA	1	0%	1	10.50	$ 75.00	$ 787.50	$ 5,375.00	$ 6,162.50	$ 6,162.50
494			HVLS-16: High Volume Low Speed Fan, CFM 5172,RPM 177, HP 15.1 W, 460 V, Phase 3, Weight 20 Lbs.	EA	1	0%	1	10.50	$ 75.00	$ 787.50	$ 5,375.00	$ 6,162.50	$ 6,162.50
495			HVLS-17: High Volume Low Speed Fan, CFM 5172,RPM 177, HP 15.1 W, 460 V, Phase 3, Weight 20 Lbs.	EA	1	0%	1	10.50	$ 75.00	$ 787.50	$ 5,375.00	$ 6,162.50	$ 6,162.50
496			HVLS-18: High Volume Low Speed Fan, CFM 5172,RPM 177, HP 15.1 W, 460 V, Phase 3, Weight 20 Lbs.	EA	1	0%	1	10.50	$ 75.00	$ 787.50	$ 5,375.00	$ 6,162.50	$ 6,162.50
497			HVLS-19: High Volume Low Speed Fan, CFM 5172,RPM 177, HP 15.1 W, 460 V, Phase 3, Weight 20 Lbs.	EA	1	0%	1	10.50	$ 75.00	$ 787.50	$ 5,375.00	$ 6,162.50	$ 6,162.50
498			HVLS-20: High Volume Low Speed Fan, CFM 5172,RPM 177, HP 15.1 W, 460 V, Phase 3, Weight 20 Lbs.	EA	1	0%	1	10.50	$ 75.00	$ 787.50	$ 5,375.00	$ 6,162.50	$ 6,162.50
			GWH										
499			GWH-01, Details Not Given	EA	1	0%	1	35.00	$ 75.00	$ 2,625.00	$ 15,000.00	$ 17,625.00	$ 17,625.00
500			GWH-02, Details Not Given	EA	1	0%	1	35.00	$ 75.00	$ 2,625.00	$ 15,000.00	$ 17,625.00	$ 17,625.00
			DOAS										
501			DOAS-1: Dedicated Outside Air System, HP 15, CFM 16500, MCA 40.0, MOCP 50, 460 V, Phase 3, Unit Weight 18985, Curb Lbs. 2010	EA	1	0%	1	142.75	$ 75.00	$ 10,706.25	$ 64,330.95	$ 75,037.20	$ 75,037.20
502			DOAS-2: Dedicated Outside Air System, HP 15, CFM 16500, MCA 40.0, MOCP 50, 460 V, Phase 3, Unit Weight 18985, Curb Lbs. 2011	EA	1	0%	1	142.75	$ 75.00	$ 10,706.25	$ 64,330.95	$ 75,037.20	$ 75,037.20
503			DOAS-3: Dedicated Outside Air System, HP 15, CFM 16500, MCA 40.0, MOCP 50, 460 V, Phase 3, Unit Weight 18985, Curb Lbs. 2012	EA	1	0%	1	142.75	$ 75.00	$ 10,706.25	$ 64,330.95	$ 75,037.20	$ 75,037.20
504			DOAS-4: Dedicated Outside Air System, HP 15, CFM 16500, MCA 40.0, MOCP 50, 460 V, Phase 3, Unit Weight 18985, Curb Lbs. 2013	EA	1	0%	1	142.75	$ 75.00	$ 10,706.25	$ 64,330.95	$ 75,037.20	$ 75,037.20
505			DOAS-5: Dedicated Outside Air System, HP 15, CFM 14000, MCA 40.0, MOCP 50, 460 V, Phase 3, Unit Weight 21109, Curb Lbs. 2251	EA	1	0%	1	131.42	$ 75.00	$ 9,856.50	$ 59,355.35	$ 69,211.85	$ 69,211.85
506			DOAS-6: Dedicated Outside Air System, HP 5, CFM 5500, MCA 14.2, MOCP 20, 460 V, Phase 3, Unit Weight 13757, Curb Lbs. 985	EA	1	0%	1	78.53	$ 75.00	$ 5,889.75	$ 28,574.77	$ 34,464.52	$ 34,464.52
			DOAS DETAILS										
507			PH-DOAS-01: Hydronic Coil, CFM 15500, FPM 492, MBH 528	EA	1	0%	1	24.62	$ 75.00	$ 1,846.50	$ 12,384.56	$ 14,231.06	$ 14,231.06
508			PH-DOAS-02: Hydronic Coil, CFM 15500, FPM 492, MBH 528	EA	1	0%	1	24.62	$ 75.00	$ 1,846.50	$ 12,384.56	$ 14,231.06	$ 14,231.06
509			PH-DOAS-03: Hydronic Coil, CFM 15500, FPM 492, MBH 528	EA	1	0%	1	24.62	$ 75.00	$ 1,846.50	$ 12,384.56	$ 14,231.06	$ 14,231.06
510			PH-DOAS-04: Hydronic Coil, CFM 15500, FPM 492, MBH 528	EA	1	0%	1	24.62	$ 75.00	$ 1,846.50	$ 12,384.56	$ 14,231.06	$ 14,231.06
511			PH-DOAS-05: Hydronic Coil, CFM 14000, FPM 500, MBH 496	EA	1	0%	1	22.38	$ 75.00	$ 1,678.50	$ 11,847.28	$ 13,525.78	$ 13,525.78
512			PH-DOAS-06: Hydronic Coil, CFM 5500, FPM 330, MBH 191	EA	1	0%	1	12.84	$ 75.00	$ 963.00	$ 6,847.53	$ 7,810.53	$ 7,810.53
513			CC-DOAS-01: Hydronic Coil, CFM 15500, FPM 466, MBH 852	EA	1	0%	1	29.53	$ 75.00	$ 2,214.75	$ 15,472.38	$ 17,687.13	$ 17,687.13
514			CC-DOAS-02: Hydronic Coil, CFM 15500, FPM 466, MBH 852	EA	1	0%	1	29.53	$ 75.00	$ 2,214.75	$ 15,472.38	$ 17,687.13	$ 17,687.13
515			CC-DOAS-03: Hydronic Coil, CFM 15500, FPM 466, MBH 852	EA	1	0%	1	29.53	$ 75.00	$ 2,214.75	$ 15,472.38	$ 17,687.13	$ 17,687.13
516			CC-DOAS-04: Hydronic Coil, CFM 15500, FPM 466, MBH 852	EA	1	0%	1	29.53	$ 75.00	$ 2,214.75	$ 15,472.38	$ 17,687.13	$ 17,687.13
517			CC-DOAS-05: Hydronic Coil, CFM 14000, FPM 471, MBH 1518	EA	1	0%	1	42.75	$ 75.00	$ 3,206.25	$ 21,384.57	$ 24,590.82	$ 24,590.82
518			CC-DOAS-06: Hydronic Coil, CFM 5500, FPM 305, MBH 523	EA	1	0%	1	12.84	$ 75.00	$ 963.00	$ 6,847.53	$ 7,810.53	$ 7,810.53
519			RH-DOAS-01: Hydronic Coil, CFM 15500, FPM 466, MBH 545	EA	1	0%	1	25.42	$ 75.00	$ 1,906.50	$ 13,284.56	$ 15,191.06	$ 15,191.06
520			RH-DOAS-02: Hydronic Coil, CFM 15500, FPM 466, MBH 545	EA	1	0%	1	25.42	$ 75.00	$ 1,906.50	$ 13,284.56	$ 15,191.06	$ 15,191.06
521			RH-DOAS-03: Hydronic Coil, CFM 15500, FPM 466, MBH 545	EA	1	0%	1	25.42	$ 75.00	$ 1,906.50	$ 13,284.56	$ 15,191.06	$ 15,191.06
522			RH-DOAS-04: Hydronic Coil, CFM 15500, FPM 466, MBH 545	EA	1	0%	1	25.42	$ 75.00	$ 1,906.50	$ 13,284.56	$ 15,191.06	$ 15,191.06
			DEHUMIDIFIER										
523			DEH-01: Dehumidifier, CAPACITY: 116, MCA 6.4, MOCP 15.0, 115 V, Phase 1	EA	1	0%	1	11.42	$ 75.00	$ 856.50	$ 7,284.57	$ 8,141.07	$ 8,141.07
			DAMPERS										
524			6" Dia Manual Volume Damper	EA	32	0%	32	0.32	$ 75.00	$ 23.77	$ 48.50	$ 72.27	$ 2,312.48
525			8" Dia Manual Volume Damper	EA	72	0%	72	0.42	$ 75.00	$ 31.69	$ 64.67	$ 96.35	$ 6,937.44
526			10" Dia Manual Volume Damper	EA	44	0%	44	0.53	$ 75.00	$ 39.61	$ 80.83	$ 120.44	$ 5,299.43
527			12" Dia Manual Volume Damper	EA	23	0%	23	0.63	$ 75.00	$ 47.53	$ 97.00	$ 144.53	$ 3,324.19
528			14" Dia Manual Volume Damper	EA	9	0%	9	0.74	$ 75.00	$ 55.45	$ 113.17	$ 168.62	$ 1,517.57
529			16" Dia Manual Volume Damper	EA	3	0%	3	0.84	$ 75.00	$ 63.37	$ 129.33	$ 192.71	$ 578.12
530			18" Dia Manual Volume Damper	EA	4	0%	4	0.95	$ 75.00	$ 71.30	$ 145.50	$ 216.80	$ 867.18
531			12"x8" Manual Volume Damper	EA	3	0%	3	0.72	$ 75.00	$ 54.15	$ 110.52	$ 164.67	$ 494.02
532			12"x12" Manual Volume Damper	EA	1	0%	1	0.84	$ 75.00	$ 62.97	$ 128.50	$ 191.47	$ 191.47
533			16"x16"Manual Volume Damper	EA	2	0%	2	1.06	$ 75.00	$ 79.63	$ 162.50	$ 242.13	$ 484.25
534			18"x18"Manual Volume Damper	EA	2	0%	2	1.28	$ 75.00	$ 95.65	$ 195.20	$ 290.85	$ 581.70
535			6" Dia Smoke Damper	EA	3	0%	3	0.93	$ 75.00	$ 69.74	$ 142.33	$ 212.07	$ 636.21
536			8" Dia Smoke Damper	EA	3	0%	3	1.01	$ 75.00	$ 76.08	$ 155.27	$ 231.35	$ 694.05
537			10" Dia Smoke Damper	EA	3	0%	3	1.10	$ 75.00	$ 82.42	$ 168.21	$ 250.63	$ 751.89
538			12" Dia Smoke Damper	EA	3	0%	3	1.18	$ 75.00	$ 88.76	$ 181.15	$ 269.91	$ 809.72
539			14" Dia Smoke Damper	EA	3	0%	3	1.35	$ 75.00	$ 101.44	$ 207.02	$ 308.47	$ 925.40
540			16" Dia Smoke Damper	EA	1	0%	1	1.52	$ 75.00	$ 114.12	$ 232.90	$ 347.02	$ 347.02
541			18" Dia Smoke Damper	EA	1	0%	1	1.69	$ 75.00	$ 126.80	$ 258.78	$ 385.58	$ 385.58
542			24" Dia Smoke Damper	EA	1	0%	1	2.20	$ 75.00	$ 164.84	$ 336.41	$ 501.26	$ 501.26
543			32" Dia Smoke Damper	EA	2	0%	2	3.38	$ 75.00	$ 253.60	$ 517.56	$ 771.16	$ 1,542.33
544			12"x10" Smoke Damper	EA	1	0%	1	1.18	$ 75.00	$ 88.76	$ 181.15	$ 269.91	$ 269.91
545			8"x8" Smoke Damper	EA	1	0%	1	1.01	$ 75.00	$ 76.08	$ 155.27	$ 231.35	$ 231.35
546			10"x10" Smoke Damper	EA	1	0%	1	1.10	$ 75.00	$ 82.42	$ 168.21	$ 250.63	$ 250.63
547			12"x12" Smoke Damper	EA	1	0%	1	1.18	$ 75.00	$ 88.76	$ 181.15	$ 269.91	$ 269.91
548			14"x14" Smoke Damper	EA	3	0%	3	1.35	$ 75.00	$ 101.44	$ 207.02	$ 308.47	$ 925.40
549			14"x20" Smoke Damper	EA	1	0%	1	1.28	$ 75.00	$ 96.37	$ 196.67	$ 293.04	$ 293.04
550			16"x16" Smoke Damper	EA	2	0%	2	1.52	$ 75.00	$ 114.12	$ 232.90	$ 347.02	$ 694.05
551			18"x12" Smoke Damper	EA	1	0%	1	1.56	$ 75.00	$ 116.66	$ 238.08	$ 354.74	$ 354.74
552			20"x16" Smoke Damper	EA	1	0%	1	1.69	$ 75.00	$ 126.80	$ 258.78	$ 385.58	$ 385.58
553			24"x16" Smoke Damper	EA	2	0%	2	2.03	$ 75.00	$ 152.16	$ 310.54	$ 462.70	$ 925.40
554			24"x24" Smoke Damper	EA	1	0%	1	2.54	$ 75.00	$ 190.20	$ 388.17	$ 578.37	$ 578.37
555			26"x26" Smoke Damper	EA	1	0%	1	3.04	$ 75.00	$ 228.24	$ 465.80	$ 694.05	$ 694.05
556			28"x28" Smoke Damper	EA	2	0%	2	3.55	$ 75.00	$ 266.28	$ 543.44	$ 809.72	$ 1,619.45
557			30"x30" Smoke Damper	EA	1	0%	1	3.89	$ 75.00	$ 291.65	$ 595.19	$ 886.84	$ 886.84
558			32"x24" Smoke Damper	EA	3	0%	3	4.06	$ 75.00	$ 304.33	$ 621.07	$ 925.40	$ 2,776.19
559			34"x34" Smoke Damper	EA	1	0%	1	4.40	$ 75.00	$ 329.69	$ 672.83	$ 1,002.51	$ 1,002.51
560			14" Dia Fire Damper	EA	2	0%	2	1.35	$ 75.00	$ 101.44	$ 207.02	$ 308.47	$ 616.93
561			10" Dia Fire Damper	EA	1	0%	1	1.18	$ 75.00	$ 88.76	$ 181.15	$ 269.91	$ 269.91
562			16"x16" Fire Damper	EA	1	0%	1	1.69	$ 75.00	$ 126.80	$ 258.78	$ 385.58	$ 385.58
563			24"x16" Fire Damper	EA	2	0%	2	2.20	$ 75.00	$ 164.84	$ 336.41	$ 501.26	$ 1,002.51
564			12"x8" Volume Damper	EA	2	0%	2	0.72	$ 75.00	$ 54.15	$ 110.52	$ 164.67	$ 329.35
565			12"x12" Volume Damper	EA	1	0%	1	0.84	$ 75.00	$ 62.97	$ 128.50	$ 191.47	$ 191.47
566			14"x14" Volume Damper	EA	1	0%	1	1.00	$ 75.00	$ 74.73	$ 152.50	$ 227.23	$ 227.23
567			24"x16" Volume Damper	EA	3	0%	3	1.30	$ 75.00	$ 97.47	$ 198.92	$ 296.39	$ 889.17
568			26"x26" Motorized Damper	EA	1	0%	1	2.42	$ 75.00	$ 181.18	$ 369.75	$ 550.93	$ 550.93
569			24"x24" Motorized Damper	EA	1	0%	1	2.31	$ 75.00	$ 173.43	$ 353.94	$ 527.37	$ 527.37
570			34"x34" Motorized Damper	EA	1	0%	1	3.28	$ 75.00	$ 245.69	$ 501.42	$ 747.11	$ 747.11
571			32"x32" Motorized Damper	EA	1	0%	1	3.08	$ 75.00	$ 231.24	$ 471.92	$ 703.16	$ 703.16
572			42"x36" Motorized Damper	EA	4	0%	4	6.07	$ 75.00	$ 455.26	$ 929.09	$ 1,384.35	$ 5,537.39
			DUCT WEIGHT										
573			Galvanized Sheet Metal Duct	LB	38021	10%	41823	0.08	$ 75.00	$ 5.63	$ 3.55	$ 9.18	$ 383,726.94
574			Galvanized Sheet Metal Duct (For Oval Ducts)	LB	3385	10%	3724	0.08	$ 75.00	$ 5.63	$ 3.55	$ 9.18	$ 34,163.11
			DUCT INSULATION										
575			2" Thick Flexible Elastomeric Closed Cell Insulation (ASTM C534 Grade I)	SF	30335	10%	33369	0.03	$ 75.00	$ 1.88	$ 3.25	$ 5.13	$ 171,013.56
576			2" Thick Flexible Elastomeric Closed Cell Insulation (ASTM C534 Grade I) (For Oval Ducts)	SF	2601	10%	2861	0.03	$ 75.00	$ 1.88	$ 3.25	$ 5.13	$ 14,663.14
			MISCELLANEOUS										
577			Thermostat	EA	77	0%	77	0.55	$ 75.00	$ 41.25	$ 95.00	$ 136.25	$ 10,491.25
578			HVAC Emergency Shutdown Switch	EA	12	0%	12	1.05	$ 75.00	$ 78.75	$ 100.00	$ 178.75	$ 2,145.00
579			Boiler Emergency Shutdown Switch	EA	4	0%	4	1.05	$ 75.00	$ 78.75	$ 100.00	$ 178.75	$ 715.00
580			IPA, Isopropyl Alcohol Sensor	EA	3	0%	3	1.55	$ 75.00	$ 116.25	$ 275.00	$ 391.25	$ 1,173.75
581			BCP, Building Control Panel	EA	24	0%	24	8.25	$ 75.00	$ 618.75	$ 4,000.00	$ 4,618.75	$ 110,850.00
582			Elevator Sump Pump Control Panel	EA	1	0%	1	4.15	$ 75.00	$ 311.25	$ 1,250.00	$ 1,561.25	$ 1,561.25
583			Vehicle Exhaust Duct Reel	EA	1	0%	1	2.05	$ 75.00	$ 153.75	$ 650.00	$ 803.75	$ 803.75
584			6" Hight Concrete Pad	SF	532	0%	532	0.07	$ 75.00	$ 5.35	$ 7.13	$ 12.48	$ 6,643.05
585			Space Temperature Sensor	EA	40	0%	40	0.50	$ 75.00	$ 37.50	$ 55.00	$ 92.50	$ 3,700.00
586			Space Carbon Dioxide Sensor	EA	2	0%	2	0.55	$ 75.00	$ 41.25	$ 115.00	$ 156.25	$ 312.50
587			Air Flow Measuring Sensor	EA	4	0%	4	0.65	$ 75.00	$ 48.75	$ 250.00	$ 298.75	$ 1,195.00
588			Static Pressure Sensor	EA	5	0%	5	0.58	$ 75.00	$ 43.50	$ 175.00	$ 218.50	$ 1,092.50
589			Pre Conditioned Air System Remote Operator By Manufacturer (Install Only)	EA	2	0%	2	0.80	$ 75.00	$ 60.00	$ -	$ 60.00	$ 120.00
590			24"x20" Wire Mesh Screen	EA	1	0%	1	0.35	$ 75.00	$ 26.25	$ 55.00	$ 81.25	$ 81.25
591			12" Dia Wire Mesh Screen	EA	3	0%	3	0.20	$ 75.00	$ 15.00	$ 28.00	$ 43.00	$ 129.00

DETAILED BREAKDOWN OF ITEMS

Prepared for: Naval Facilities Engineering Systems Command- MID Atlantic- NORKFOLK, VA
Project ID: 46301
Scope: HVAC

USA ESTIMATORS
+1 (214) 556-2605

Date: 6-Oct-26

SR #	Drawing #	Detail #	DESCRIPTION	UNIT	QUANTITY	WASTAGE	QUANTITY W/ WASTAGE	UNIT MANHOUR	HOURLY WAGE	LABOR COST	MAT. COST	UNIT COST	SUB COST
592			42"x36" Wire Mesh Screen W/ 45 Deg Turn Weather hood	EA	4	0%	4	0.48	$ 75.00	$ 36.00	$ 140.00	$ 176.00	$ 704.00
			ALLOWANCE										
593			Allowance for all Duct Fittings including Takeoff, Elbows, Transitions, Reducers with Hangers, Supports & All Relevant Accessories.	LS	1	0%	1	0.00	$ 75.00	$ 41,850.00	$ 62,775.00	$ 104,625.00	$ 104,625.00
			ALLOWANCE										
594			Allowance for Control Wiring with All Relevant Accessories.	LS	1	0%	1	0.00	$ 75.00	$ 8,200.00	$ 12,300.00	$ 20,500.00	$ 20,500.00
			BAY-2										
			HOT WATER SUPPLY PIPE										
			SCH 40 Carbon Steel Pipe W/ All ASTM Standards & Fittings										
595			1-1/2" Dia Hot Water Supply Pipe	LF	52	10%	57	0.150	$ 75.00	$ 11.25	$ 15.70	$ 26.95	$ 1,539.17
596			2" Dia Hot Water Supply Pipe	LF	274	10%	301	0.188	$ 75.00	$ 14.06	$ 21.00	$ 35.06	$ 10,563.21
			1-1/2" Cellular Glass Insulation ASTM C552, Type-II Class 2										
597			1-1/2" Dia Hot Water Supply Pipe	LF	52	10%	57	0.08	$ 75.00	$ 6.19	$ 8.78	$ 14.96	$ 854.54
598			2" Dia Hot Water Supply Pipe	LF	274	10%	301	0.11	$ 75.00	$ 8.25	$ 11.70	$ 19.95	$ 6,010.30
			ALLOWANCE										
599			Allowance for all Hot water Supply Piping Fittings, Supports & Hangers with all relevant accessories.	LS	1	0%	1	0.00	$ 75.00	$ 1,620.00	$ 1,980.00	$ 3,600.00	$ 3,600.00
			HOT WATER RETURN PIPE										
			SCH 40 Carbon Steel Pipe W/ All ASTM Standards & Fittings										
600			1-1/2" Dia Hot Water Return Pipe	LF	49	10%	54	0.150	$ 75.00	$ 11.25	$ 15.70	$ 26.95	$ 1,455.87
601			2" Dia Hot Water Return Pipe	LF	239	10%	263	0.188	$ 75.00	$ 14.06	$ 21.00	$ 35.06	$ 9,227.57
			1-1/2" Cellular Glass Insulation ASTM C552, Type-II Class 2										
602			1-1/2" Dia Hot Water Return Pipe	LF	49	10%	54	0.08	$ 75.00	$ 6.19	$ 8.78	$ 14.96	$ 808.29
603			2" Dia Hot Water Return Pipe	LF	239	10%	263	0.11	$ 75.00	$ 8.25	$ 11.70	$ 19.95	$ 5,250.34
			ALLOWANCE										
604			Allowance for all Hot Water Return Piping Fittings, Supports & Hangers with all relevant accessories.	LS	1	0%	1	0.00	$ 75.00	$ 1,485.00	$ 1,815.00	$ 3,300.00	$ 3,300.00
			CHILLED WATER SUPPLY PIPE										
			SCH 40 Carbon Steel Pipe W/ All ASTM Standards & Fittings										
605			2-1/2" Dia hilled Water Supply Pipe	LF	319	10%	351	0.240	$ 75.00	$ 18.00	$ 35.00	$ 53.00	$ 18,623.35
			1-1/2" Cellular Glass Insulation ASTM C552, Type-II Class 2										
606			2-1/2" Dia hilled Water Supply Pipe	LF	319	10%	351	0.14	$ 75.00	$ 10.31	$ 14.63	$ 24.94	$ 8,762.64
			ALLOWANCE										
607			Allowance for all Chilled Water Supply Piping Fittings, Supports & Hangers with all relevant accessories.	LS	1	0%	1	0.00	$ 75.00	$ 2,430.00	$ 2,970.00	$ 5,400.00	$ 5,400.00
			CHILLED WATER RETURN PIPE										
			SCH 40 Carbon Steel Pipe W/ All ASTM Standards & Fittings										
608			2-1/2" Dia Chilled Water Return Pipe	LF	286	10%	315	0.240	$ 75.00	$ 18.00	$ 35.00	$ 53.00	$ 16,669.72
			1-1/2" Cellular Glass Insulation ASTM C552, Type-II Class 2										
609			2-1/2" Dia Chilled Water Return Pipe	LF	286	10%	315	0.14	$ 75.00	$ 10.31	$ 14.63	$ 24.94	$ 7,843.42
			ALLOWANCE										
610			Allowance for all Chilled Water Return Piping Fittings, Supports & Hangers with all relevant accessories.	LS	1	0%	1	0.00	$ 75.00	$ 2,295.00	$ 2,805.00	$ 5,100.00	$ 5,100.00
			REFRIGERANT PIPE										
			Type 'L' Copper Pipe W/ All ASTM Standards & Fittings										
611			3/8" Dia Refrigerant Liquid Pipe	LF	73	10%	80	0.071	$ 75.00	$ 5.34	$ 2.97	$ 8.31	$ 668.05
612			5/8" Dia Refrigerant Suction Pipe	LF	75	10%	82	0.076	$ 75.00	$ 5.68	$ 4.99	$ 10.67	$ 874.63
			1" Thick Flexible Elastomeric Cellular, K- Value 0.235 Insulation										
613			3/8" Dia Refrigerant Liquid Pipe	LF	73	10%	80	0.02	$ 75.00	$ 1.13	$ 2.05	$ 3.18	$ 255.13
614			5/8" Dia Refrigerant Suction Pipe	LF	75	10%	82	0.04	$ 75.00	$ 2.63	$ 3.55	$ 6.18	$ 506.11
			ALLOWANCE										
615			Allowance for all Refrigerant Piping Fittings, Supports & Hangers with all relevant accessories.	LS	1	0%	1	0.00	$ 75.00	$ 202.50	247.50	$ 450.00	$ 450.00
			CONDENSATE DRAIN PIPE										
			SCH 40 PVC Pipe W/ All ASTM Standards & Fittings										
616			3/4" Dia Condensate Drain Pipe	LF	49	10%	54	0.106	$ 75.00	$ 7.95	$ 1.34	$ 9.29	$ 504.26
			1" Thick Fiber Glass Insulation W/ All ASTM Standards & Fittings										
617			3/4" Dia Condensate Drain Pipe	LF	49	10%	54	0.04	$ 75.00	$ 2.63	$ 2.95	$ 5.58	$ 302.64
			ALLOWANCE										
618			Allowance for all Condensate Piping Fittings, Supports & Hangers with all relevant accessories.	LS	1	0%	1	0.00	$ 75.00	$ 112.50	$ 137.50	$ 250.00	$ 250.00
			AIR DEVICES										
619			DB-1: Drop Box, 7800 CFM, 28"x28" Face Size.	EA	1	0%	1	8.500	$ 75.00	$ 637.50	$ 2,710.40	$ 3,347.90	$ 3,347.90
620			DL-1: Drum Louver, 1275 CFM, 20"x16" Face Size.	EA	8	0%	8	1.000	$ 75.00	$ 75.00	$ 773.20	$ 848.20	$ 6,785.60
621			DL-1: Drum Louver, 1300 CFM, 20"x16" Face Size.	EA	16	0%	16	1.000	$ 75.00	$ 75.00	$ 773.20	$ 848.20	$ 13,571.20
622			EG-1: Exhaust Grille, 75 CFM, 8"x8" Neck Size.	EA	5	0%	5	0.330	$ 75.00	$ 24.75	$ 59.08	$ 83.83	$ 419.15
623			RD-2: Return Diffuser, 75 CFM, 6" Dia Face Size.	EA	2	0%	2	0.300	$ 75.00	$ 22.50	$ 24.59	$ 47.09	$ 94.18
624			SD-1: Supply Diffuser, 100 CFM, 6" Dia Face Size.	EA	2	0%	2	0.330	$ 75.00	$ 24.75	$ 36.56	$ 61.31	$ 122.62
625			TG-1: Transfer Grille, 1770 CFM, 36"x36" Face Size.	EA	2	0%	2	1.250	$ 75.00	$ 93.75	$ 261.38	$ 355.13	$ 710.26
			AIR COOLED CHILLER										
626			ACC-01: Air Cooled Chiller, Capacity: 409.5 Ton, GPM 651, MCA 869, MOCP 1200, 460 V, Phase 3, Weight 27000 LBS.	EA	1	0%	1	450.00	$ 75.00	$ 33,750.00	$ 490,800.00	$ 524,550.00	$ 524,550.00
627			ACC-02: Air Cooled Chiller, Capacity: 409.5 Ton, GPM 651, MCA 869, MOCP 1200, 460 V, Phase 3, Weight 27000 LBS.	EA	1	0%	1	450.00	$ 75.00	$ 33,750.00	$ 490,800.00	$ 524,550.00	$ 524,550.00
628			ACC-03: Air Cooled Chiller, Capacity: 409.5 Ton, GPM 651, MCA 869, MOCP 1200, 460 V, Phase 3, Weight 27000 LBS.	EA	1	0%	1	450.00	$ 75.00	$ 33,750.00	$ 490,800.00	$ 524,550.00	$ 524,550.00
			DUCTLESS SPLIT SYSTEM-INDOOR UNIT										
629			AC-H213-01,Indoor Unit, 385CFM, Wall Mounted	EA	1	0%	1	2.00	$ 75.00	$ 150.00	$ 550.00	$ 700.00	$ 700.00
630			AC-H213-02,Indoor Unit, 385CFM, Wall Mounted	EA	1	0%	1	2.00	$ 75.00	$ 150.00	$ 550.00	$ 700.00	$ 700.00
631			AC-H214-01,Indoor Unit, 385CFM, Wall Mounted	EA	1	0%	1	2.00	$ 75.00	$ 150.00	$ 550.00	$ 700.00	$ 700.00
632			AC-H214-02,Indoor Unit, 385CFM, Wall Mounted	EA	1	0%	1	2.00	$ 75.00	$ 150.00	$ 550.00	$ 700.00	$ 700.00
633			AC-H216-01,Indoor Unit, 920CFM, Wall Mounted	EA	1	0%	1	2.00	$ 75.00	$ 150.00	$ 550.00	$ 700.00	$ 700.00
			DUCTLESS SPLIT SYSTEM-OUTDOOR UNIT										
634			HP-H213-01, Heat Pump, 27 MOCP, 100LBS	EA	1	0%	1	6.25	$ 75.00	$ 468.75	$ 2,500.00	$ 2,968.75	$ 2,968.75
635			HP-H213-02, Heat Pump, 27 MOCP, 100LBS	EA	1	0%	1	6.25	$ 75.00	$ 468.75	$ 2,500.00	$ 2,968.75	$ 2,968.75
636			HP-H214-01, Heat Pump, 27 MOCP, 100LBS	EA	1	0%	1	6.25	$ 75.00	$ 468.75	$ 2,500.00	$ 2,968.75	$ 2,968.75
637			HP-H214-02, Heat Pump, 27 MOCP, 100LBS	EA	1	0%	1	6.25	$ 75.00	$ 468.75	$ 2,500.00	$ 2,968.75	$ 2,968.75
638			HP-H216-01, Heat Pump, 48 MOCP, 250LBS	EA	1	0%	1	8.75	$ 75.00	$ 656.25	$ 4,250.00	$ 4,906.25	$ 4,906.25
			ELECTRIC UNIT HEATER										
639			UH-H211, Unit Heater, Wall, 175 CFM, 22LBS	EA	1	0%	1	1.53	$ 75.00	$ 114.75	$ 421.37	$ 536.12	$ 536.12
640			UH-H212, Unit Heater, Wall, 175 CFM, 22LBS	EA	1	0%	1	1.53	$ 75.00	$ 114.75	$ 421.37	$ 536.12	$ 536.12
641			UH-H216, Unit Heater, Horizontal Fan Forced, 400 CFM, 25LBS	EA	1	0%	1	2.08	$ 75.00	$ 156.00	$ 551.42	$ 707.42	$ 707.42
642			UH-H219, Unit Heater, Wall, 175 CFM, 22LBS	EA	1	0%	1	1.53	$ 75.00	$ 114.75	$ 421.37	$ 536.12	$ 536.12
643			UH-H221, Unit Heater, Wall, 175 CFM, 22LBS	EA	1	0%	1	1.53	$ 75.00	$ 114.75	$ 421.37	$ 536.12	$ 536.12
			PRE-CONDITIONED AIR UNIT										
644			PCAU-11, Pre-Conditioned Air Unit, 1000 CFM, 40HP, 150 MOCP, 3530LB	EA	1	0%	1	212.57	$ 75.00	$ 15,942.75	$ 65,347.28	$ 81,290.03	$ 81,290.03
645			PCAU-12, Pre-Conditioned Air Unit, 1000 CFM, 40HP, 150 MOCP, 3530LB	EA	1	0%	1	212.57	$ 75.00	$ 15,942.75	$ 65,347.28	$ 81,290.03	$ 81,290.03
646			PCAU-13, Pre-Conditioned Air Unit, 1000 CFM, 40HP, 150 MOCP, 3530LB	EA	1	0%	1	212.57	$ 75.00	$ 15,942.75	$ 65,347.28	$ 81,290.03	$ 81,290.03
647			PCAU-14, Pre-Conditioned Air Unit, 1000 CFM, 40HP, 150 MOCP, 3530LB	EA	1	0%	1	212.57	$ 75.00	$ 15,942.75	$ 65,347.28	$ 81,290.03	$ 81,290.03
648			PCAU-15, Pre-Conditioned Air Unit, 1000 CFM, 40HP, 150 MOCP, 3530LB	EA	1	0%	1	212.57	$ 75.00	$ 15,942.75	$ 65,347.28	$ 81,290.03	$ 81,290.03
649			PCAU-16, Pre-Conditioned Air Unit, 1000 CFM, 40HP, 150 MOCP, 3530LB	EA	1	0%	1	212.57	$ 75.00	$ 15,942.75	$ 65,347.28	$ 81,290.03	$ 81,290.03
650			PCAU-17, Pre-Conditioned Air Unit, 1000 CFM, 40HP, 150 MOCP, 3530LB	EA	1	0%	1	212.57	$ 75.00	$ 15,942.75	$ 65,347.28	$ 81,290.03	$ 81,290.03
651			PCAU-18, Pre-Conditioned Air Unit, 1000 CFM, 40HP, 150 MOCP, 3530LB	EA	1	0%	1	212.57	$ 75.00	$ 15,942.75	$ 65,347.28	$ 81,290.03	$ 81,290.03
652			PCAU-19, Pre-Conditioned Air Unit, 1000 CFM, 40HP, 150 MOCP, 3530LB	EA	1	0%	1	212.57	$ 75.00	$ 15,942.75	$ 65,347.28	$ 81,290.03	$ 81,290.03
653			PCAU-20, Pre-Conditioned Air Unit, 1000 CFM, 40HP, 150 MOCP, 3530LB	EA	1	0%	1	212.57	$ 75.00	$ 15,942.75	$ 65,347.28	$ 81,290.03	$ 81,290.03
			LOUVERS										
654			LV-11: Relief Air Louver, CFM 7800, Size 78"x32"	EA	1	0%	1	6.55	$ 75.00	$ 491.25	$ 1,858.86	$ 2,350.11	$ 2,350.11
			DEDICATED OUTDOOR AIR SYSTEM										
655			DOAS-7: Dedicated Outside Air System, HP 1.5, CFM 770, 460 V, Phase 3, Unit Weight 1745, Curb Lbs. 383	EA	1	0%	1	28.64	$ 75.00	$ 2,148.00	$ 10,534.79	$ 12,682.79	$ 12,682.79
			DEDICATED OUTDOOR AIR SYSTEM DETAILS										
656			PH-DOAS-07: Hydronic Coil, CFM 770, FPM 280, MBH 27	EA	1	0%	1	5.42	$ 75.00	$ 406.50	$ 2,184.56	$ 2,591.06	$ 2,591.06
657			CC-DOAS-07: Hydronic Coil, CFM 770, FPM 246, MBH 77	EA	1	0%	1	6.38	$ 75.00	$ 478.50	$ 2,847.28	$ 3,325.78	$ 3,325.78
658			RH-DOAS-07: Hydronic Coil, CFM 770, FPM 280, MBH 16	EA	1	0%	1	5.18	$ 75.00	$ 388.50	$ 2,047.53	$ 2,436.03	$ 2,436.03
			AIR HANDLING UNIT										
659			AHU-05: Air Handling Unit, Supply: CFM 7800, HP 6.6, MCA 15.8, MOCP 20, Unit Weight 4266 Lbs., Curb Weight 800 Lbs.	EA	1	0%	1	106.79	$ 75.00	$ 8,009.44	$ 34,279.97	$ 42,289.40	$ 42,289.40
			AHU DETAILS										
660			CC-AHU-05: Hydronic Coil, CFM 7800, FPM 516, MBH 170	EA	1	0%	1	13.80	$ 75.00	$ 1,034.66	$ 5,500.55	$ 6,535.21	$ 6,535.21
661			PH-AHU-05: Hydronic Coil, CFM 7800, FPM 388, MBH 255	EA	1	0%	1	14.80	$ 75.00	$ 1,109.68	$ 6,229.78	$ 7,339.46	$ 7,339.46
			FAN										
662			FCEF-11, Fuel Cell Exhaust Fan, 1500CFM, 1765 RPM, 1.5HP	EA	1	0%	1	7.75	$ 75.00	$ 581.25	$ 3,177.00	$ 3,758.25	$ 3,758.25
663			FCEF-12, Fuel Cell Exhaust Fan, 1500CFM, 1765 RPM, 1.5HP	EA	1	0%	1	7.75	$ 75.00	$ 581.25	$ 3,177.00	$ 3,758.25	$ 3,758.25
664			FCEF-13, Fuel Cell Exhaust Fan, 1500CFM, 1765 RPM, 1.5HP	EA	1	0%	1	7.75	$ 75.00	$ 581.25	$ 3,177.00	$ 3,758.25	$ 3,758.25
665			FCEF-14, Fuel Cell Exhaust Fan, 1500CFM, 1765 RPM, 1.5HP	EA	1	0%	1	7.75	$ 75.00	$ 581.25	$ 3,177.00	$ 3,758.25	$ 3,758.25
666			FCEF-15, Fuel Cell Exhaust Fan, 1500CFM, 1765 RPM, 1.5HP	EA	1	0%	1	7.75	$ 75.00	$ 581.25	$ 3,177.00	$ 3,758.25	$ 3,758.25
667			FCEF-16, Fuel Cell Exhaust Fan, 1500CFM, 1765 RPM, 1.5HP	EA	1	0%	1	7.75	$ 75.00	$ 581.25	$ 3,177.00	$ 3,758.25	$ 3,758.25
668			FCEF-17, Fuel Cell Exhaust Fan, 1500CFM, 1765 RPM, 1.5HP	EA	1	0%	1	7.75	$ 75.00	$ 581.25	$ 3,177.00	$ 3,758.25	$ 3,758.25
669			FCEF-18, Fuel Cell Exhaust Fan, 1500CFM, 1765 RPM, 1.5HP	EA	1	0%	1	7.75	$ 75.00	$ 581.25	$ 3,177.00	$ 3,758.25	$ 3,758.25
670			FCEF-19, Fuel Cell Exhaust Fan, 1500CFM, 1765 RPM, 1.5HP	EA	1	0%	1	7.75	$ 75.00	$ 581.25	$ 3,177.00	$ 3,758.25	$ 3,758.25
671			FCEF-20, Fuel Cell Exhaust Fan, 1500CFM, 1765 RPM, 1.5HP	EA	1	0%	1	7.75	$ 75.00	$ 581.25	$ 3,177.00	$ 3,758.25	$ 3,758.25
672			TEF-03, Toilet Exhaust Fan, 150 CFM, 1409 RPM, 1/4HP	EA	1	0%	1	2.55	$ 75.00	$ 191.25	$ 265.70	$ 456.95	$ 456.95
			HIGH VOLUME LOW SPEED FAN										
673			HVLS-07: High Volume Low Speed Fan, CFM 110000, FPM 469, RPM 81, HP 0.75, 460 V, Phase 3, Weight 215 Lbs. 1: Manufacturer Provided Fused Disconnect Switch 2: Manufacturer Provided Steel Cable GUY Wire Kit	EA	1	0%	1	20.50	$ 75.00	$ 1,537.50	$ 13,547.25	$ 15,084.75	$ 15,084.75
674			HVLS-08: High Volume Low Speed Fan, CFM 110000, FPM 469, RPM 81, HP 0.75, 460 V, Phase 3, Weight 215 Lbs. 1: Manufacturer Provided Fused Disconnect Switch 2: Manufacturer Provided Steel Cable GUY Wire Kit	EA	1	0%	1	20.50	$ 75.00	$ 1,537.50	$ 13,547.25	$ 15,084.75	$ 15,084.75
675			HVLS-09: High Volume Low Speed Fan, CFM 110000, FPM 469, RPM 81, HP 0.75, 460 V, Phase 3, Weight 215 Lbs. 1: Manufacturer Provided Fused Disconnect Switch 2: Manufacturer Provided Steel Cable GUY Wire Kit	EA	1	0%	1	20.50	$ 75.00	$ 1,537.50	$ 13,547.25	$ 15,084.75	$ 15,084.75

DETAILED BREAKDOWN OF ITEMS

Prepared for: Naval Facilities Engineering Systems Command- MID Atlantic- NORKFOLK, VA
Project ID: 46301
Scope: HVAC

USA ESTIMATORS
+1 (214) 556-2605

Date: 6-Oct-26

SR #	Drawing #	Detail #	DESCRIPTION	UNIT	QUANTITY	WASTAGE	QUANTITY W/ WASTAGE	UNIT MANHOUR	HOURLY WAGE	LABOR COST	MAT. COST	UNIT COST	SUB COST
676			HVLS-10: High Volume Low Speed Fan, CFM 110000, FPM 469, RPM 81, HP 0.75, 460 V, Phase 3, Weight 215 Lbs. 1: Manufacturer Provided Fused Disconnect Switch 2: Manufacturer Provided Steel Cable GUY Wire Kit	EA	1	0%	1	20.50	$ 75.00	$ 1,537.50	$ 13,547.25	$ 15,084.75	$ 15,084.75
677			HVLS-11: High Volume Low Speed Fan, CFM 110000, FPM 469, RPM 81, HP 0.75, 460 V, Phase 3, Weight 215 Lbs. 1: Manufacturer Provided Fused Disconnect Switch 2: Manufacturer Provided Steel Cable GUY Wire Kit	EA	1	0%	1	20.50	$ 75.00	$ 1,537.50	$ 13,547.25	$ 15,084.75	$ 15,084.75
678			HVLS-12: High Volume Low Speed Fan, CFM 110000, FPM 469, RPM 81, HP 0.75, 460 V, Phase 3, Weight 215 Lbs. 1: Manufacturer Provided Fused Disconnect Switch 2: Manufacturer Provided Steel Cable GUY Wire Kit	EA	1	0%	1	20.50	$ 75.00	$ 1,537.50	$ 13,547.25	$ 15,084.75	$ 15,084.75
			DAMPERS										
679			8"x8" Manual Volume Damper	EA	5	0%	5	0.65	$ 75.00	$ 48.75	$ 95.25	$ 144.00	$ 720.00
680			36"x36" Backdraft Damper	EA	2	0%	2	4.05	$ 75.00	$ 303.75	$ 485.50	$ 789.25	$ 1,578.50
681			36"x36" Smoke Damper	EA	2	0%	2	4.15	$ 75.00	$ 311.25	$ 598.50	$ 909.75	$ 1,819.50
682			Smoke Damper	EA	1	0%	1	2.03	$ 75.00	$ 152.16	$ 310.54	$ 462.70	$ 462.70
			DUCT WEIGHT										
683			Galvanized Sheet Metal Duct	LB	11713	10%	12884	0.08	$ 75.00	$ 5.63	$ 3.55	$ 9.18	$ 118,213.45
			DUCT INSULATION										
684			2" Thick Flexible Elastomeric Closed Cell Insulation (ASTM C534 Grade I)	SF	8710	10%	9581	0.03	$ 75.00	$ 1.88	$ 3.25	$ 5.13	$ 49,102.63
			MISCELLANEOUS										
685			36"x36" Wire Mesh Screen	EA	2	0%	2	0.42	$ 75.00	$ 31.50	$ 105.00	$ 136.50	$ 273.00
686			BCS: Building Control System Panel	EA	1	0%	1	8.25	$ 75.00	$ 618.75	$ 4,000.00	$ 4,618.75	$ 4,618.75
687			Pre Conditioned Air System Remote Operator	EA	1	0%	1	2.05	$ 75.00	$ 153.75	$ 400.00	$ 553.75	$ 553.75
688			Smoke Detector	EA	1	0%	1	1.05	$ 75.00	$ 78.75	$ 100.00	$ 178.75	$ 178.75
689			Space Temperature Sensor	EA	2	0%	2	0.50	$ 75.00	$ 37.50	$ 55.00	$ 92.50	$ 185.00
690			T: Thermostat	EA	8	0%	8	0.55	$ 75.00	$ 41.25	$ 95.00	$ 136.25	$ 1,090.00
			ALLOWANCE										
691			Allowance for all Duct Fittings including Takeoff, Elbows, Transitions, Reducers with Hangers, Supports & All Relevant Accessories.	LS	1	0%	1	0.00	$ 75.00	$ 11,850.00	$ 17,775.00	$ 29,625.00	$ 29,625.00
			PAINT BOOTHS										
			HOT WATER SUPPLY PIPE										
			SCH 40 Carbon Steel Pipe W/ All ASTM Standards & Fittings										
692			3/4" Dia Hot Water Supply Pipe	LF	108	10%	118	0.098	$ 75.00	$ 7.37	$ 7.40	$ 14.77	$ 1,746.89
693			1" Dia Hot Water Supply Pipe	LF	25	10%	28	0.113	$ 75.00	$ 8.49	$ 10.10	$ 18.59	$ 511.33
694			1-1/2" Dia Hot Water Supply Pipe	LF	174	10%	191	0.188	$ 75.00	$ 14.06	$ 21.00	$ 35.06	$ 6,704.02
695			2" Dia Hot Water Supply Pipe	LF	115	10%	127	0.240	$ 75.00	$ 18.00	$ 35.00	$ 53.00	$ 6,704.50
			1-1/2" Cellular Glass Insulation ASTM C552, Type-II Class 2										
696			3/4" Dia Hot Water Supply Pipe	LF	108	10%	118	0.04	$ 75.00	$ 3.09	$ 4.39	$ 7.48	$ 884.90
697			1" Dia Hot Water Supply Pipe	LF	25	10%	28	0.06	$ 75.00	$ 4.13	$ 5.85	$ 9.98	$ 274.31
698			1-1/2" Dia Hot Water Supply Pipe	LF	174	10%	191	0.11	$ 75.00	$ 8.25	$ 11.70	$ 19.95	$ 3,814.48
699			2" Dia Hot Water Supply Pipe	LF	115	10%	127	0.14	$ 75.00	$ 10.31	$ 14.63	$ 24.94	$ 3,154.59
			ALLOWANCE										
700			Allowance for all Hot water Supply Piping Fittings, Supports & Hangers with all relevant accessories.	LS	1	0%	1	0.00	$ 75.00	$ 2,227.50	$ 2,722.50	$ 4,950.00	$ 4,950.00
			HOT WATER RETURN PIPE										
			SCH 40 Carbon Steel Pipe W/ All ASTM Standards & Fittings										
701			3/4" Dia Hot Water Return Pipe	LF	103	10%	114	0.098	$ 75.00	$ 7.37	$ 7.40	$ 14.77	$ 1,680.61
702			1" Dia Hot Water Return Pipe	LF	6	10%	7	0.113	$ 75.00	$ 8.49	$ 10.10	$ 18.59	$ 121.90
703			1-1/2" Dia Hot Water Return Pipe	LF	217	10%	239	0.188	$ 75.00	$ 14.06	$ 21.00	$ 35.06	$ 8,364.79
704			2" Dia Hot Water Return Pipe	LF	117	10%	129	0.240	$ 75.00	$ 18.00	$ 35.00	$ 53.00	$ 6,822.85
			1-1/2" Cellular Glass Insulation ASTM C552, Type-II Class 2										
705			3/4" Dia Hot Water Return Pipe	LF	103	10%	114	0.04	$ 75.00	$ 3.09	$ 4.39	$ 7.48	$ 851.33
706			1" Dia Hot Water Return Pipe	LF	6	10%	7	0.06	$ 75.00	$ 4.13	$ 5.85	$ 9.98	$ 65.40
707			1-1/2" Dia Hot Water Return Pipe	LF	217	10%	239	0.11	$ 75.00	$ 8.25	$ 11.70	$ 19.95	$ 4,759.43
708			2" Dia Hot Water Return Pipe	LF	117	10%	129	0.14	$ 75.00	$ 10.31	$ 14.63	$ 24.94	$ 3,210.28
			ALLOWANCE										
709			Allowance for all Hot Water Return Piping Fittings, Supports & Hangers with all relevant accessories.	LS	1	0%	1	0.00	$ 75.00	$ 2,295.00	$ 2,805.00	$ 5,100.00	$ 5,100.00
			CHILLED WATER SUPPLY PIPE										
			SCH 40 Carbon Steel Pipe W/ All ASTM Standards & Fittings										
710			2" Dia Chilled Water Supply Pipe	LF	259	10%	285	0.240	$ 75.00	$ 18.00	$ 35.00	$ 53.00	$ 15,090.96
			1-1/2" Cellular Glass Insulation ASTM C552, Type-II Class 2										
711			2" Dia Chilled Water Supply Pipe	LF	259	10%	285	0.14	$ 75.00	$ 10.31	$ 14.63	$ 24.94	$ 7,100.58
			ALLOWANCE										
712			Allowance for all Chilled Water Supply Piping Fittings, Supports & Hangers with all relevant accessories.	LS	1	0%	1	0.00	$ 75.00	$ 2,025.00	$ 2,475.00	$ 4,500.00	$ 4,500.00
			CHILLED WATER RETURN PIPE										
			SCH 40 Carbon Steel Pipe W/ All ASTM Standards & Fittings										
713			2" Dia Chilled Water Return Pipe	LF	194	10%	214	0.240	$ 75.00	$ 18.00	$ 35.00	$ 53.00	$ 11,335.27
			1-1/2" Cellular Glass Insulation ASTM C552, Type-II Class 2										
714			2" Dia Chilled Water Return Pipe	LF	194	10%	214	0.14	$ 75.00	$ 10.31	$ 14.63	$ 24.94	$ 5,333.46
			ALLOWANCE										
715			Allowance for all Chilled Water Return Piping Fittings, Supports & Hangers with all relevant accessories.	LS	1	0%	1	0.00	$ 75.00	$ 1,552.50	$ 1,897.50	$ 3,450.00	$ 3,450.00
			CONDENSATE DRAIN PIPE										
			SCH 40 PVC Pipe W/ All ASTM Standards & Fittings										
716			1-1/4" Dia Condensate Drain Pipe	LF	79	10%	87	0.135	$ 75.00	$ 10.13	$ 13.25	$ 23.38	$ 2,035.40
			1" Thick Fiber Glass Insulation W/ All ASTM Standards & Fittings										
717			1-1/4" Dia Condensate Drain Pipe	LF	79	10%	87	0.07	$ 75.00	$ 4.88	$ 6.55	$ 11.43	$ 994.84
			ALLOWANCE										
718			Allowance for all Condensate Piping Fittings, Supports & Hangers with all relevant accessories.	LS	1	0%	1	0.00	$ 75.00	$ 283.50	$ 346.50	$ 630.00	$ 630.00
			AIR DEVICES										
719			SG-1, Supply Grille, Face Size: 18"x12", Neck Size: 8" Dia, CFM: 405	EA	2	0%	2	0.850	$ 75.00	$ 63.75	$ 175.50	$ 239.25	$ 478.50
720			SG-1, Supply Grille, Face Size: 18"x12", Neck Size: 18" Dia, CFM: 310	EA	2	0%	2	0.975	$ 75.00	$ 73.13	$ 231.71	$ 304.84	$ 609.68
721			SG-1, Supply Grille, Face Size: 18"x12", Neck Size: 18" Dia, CFM: 620	EA	1	0%	1	0.975	$ 75.00	$ 73.13	$ 231.71	$ 304.84	$ 304.84
722			SG-1, Supply Grille, Face Size: 18"x12", Neck Size: 18" Dia, CFM: 810	EA	1	0%	1	0.975	$ 75.00	$ 73.13	$ 231.71	$ 304.84	$ 304.84
723			SG-1, Supply Grille, Face Size: 14"x14", Neck Size: 14" Dia, CFM: 750	EA	2	0%	2	0.850	$ 75.00	$ 63.75	$ 104.42	$ 168.17	$ 336.33
724			SG-1, Supply Grille, Face Size: 12"x12", Neck Size: 10" Dia, CFM: 500	EA	2	0%	2	0.700	$ 75.00	$ 52.50	$ 89.50	$ 142.00	$ 284.00
725			RG-1, Return Grille, Face Size: 24"x36", CFM: 7500	EA	1	0%	1	1.250	$ 75.00	$ 93.75	$ 485.50	$ 579.25	$ 579.25
726			EG-1, Exhaust Grille, Face Size: 12"x12", Neck Size: 8" Dia, CFM: 100	EA	6	0%	6	0.750	$ 75.00	$ 56.25	$ 100.21	$ 156.46	$ 938.74
727			EG-1, Exhaust Grille, Face Size: 12"x12", Neck Size: 8" Dia, CFM: 150	EA	3	0%	3	0.750	$ 75.00	$ 56.25	$ 100.21	$ 156.46	$ 469.37
728			EG-1, Exhaust Grille, Face Size: 12"x12", Neck Size: 10" Dia, CFM: 250	EA	2	0%	2	0.80	$ 75.00	$ 60.00	$ 125.26	$ 185.26	$ 370.52
729			EG-1, Exhaust Grille, Face Size: 12"x12", Neck Size: 12" Dia, CFM: 425	EA	2	0%	2	0.840	$ 75.00	$ 63.00	$ 148.87	$ 211.87	$ 423.74
730			TG-1, Transfer Grille, Face Size: 12"x12"	EA	3	0%	3	0.80	$ 75.00	$ 60.00	$ 125.26	$ 185.26	$ 555.78
731			TG-1, Transfer Grille, Face Size: 20"x20", CFM: 1240	EA	2	0%	2	1.200	$ 75.00	$ 90.00	$ 288.50	$ 378.50	$ 757.00
			AIR TERMINAL UNIT										
732			CAVR-P014: Air Terminal Unit, Inlet Size 24"X16", Max Cooling CFM 2730, MBH 50.3, GPM 4.2, Weight 93 Lbs.	EA	1	0%	1	9.00	$ 75.00	$ 675.00	$ 2,250.00	$ 2,925.00	$ 2,925.00
733			VAVR-H222: Air Terminal Unit, Inlet Size 6" Dia, Max Cooling CFM 200, MBH 5.3, GPM 1.4, Weight 21 Lbs.	EA	1	0%	1	1.80	$ 75.00	$ 135.00	$ 450.00	$ 585.00	$ 585.00
734			VAVR-P001: Air Terminal Unit, Inlet Size 10" Dia, Max Cooling CFM 750, MBH 26.1, GPM 5.4, Weight 34 Lbs.	EA	1	0%	1	3.40	$ 75.00	$ 255.00	$ 850.00	$ 1,105.00	$ 1,105.00
735			VAVR-P002: Air Terminal Unit, Inlet Size 10" Dia, Max Cooling CFM 750, MBH 26.1, GPM 5.4, Weight 34 Lbs.	EA	1	0%	1	3.40	$ 75.00	$ 255.00	$ 850.00	$ 1,105.00	$ 1,105.00
736			VAVR-P014: Air Terminal Unit, Inlet Size 12" Dia, Max Cooling CFM 1000, MBH 34.7, GPM 6.3, Weight 42 Lbs.	EA	1	0%	1	4.60	$ 75.00	$ 345.00	$ 1,150.00	$ 1,495.00	$ 1,495.00
737			VAVP017: Air Terminal Unit, Inlet Size 12" Dia, Max Cooling CFM 1240, MBH 21.6, GPM 6.6, Weight 42 Lbs.	EA	1	0%	1	4.60	$ 75.00	$ 345.00	$ 1,150.00	$ 1,495.00	$ 1,495.00
			AIR HANDLING UNIT										
738			AHU-03: Air Handling Unit, Supply: CFM 7500, HP 7.5, Return: CFM 4000, HP 3, MCA 20.2, MOCP 25, Unit Weight 7003 Lbs., Curb Weight 947 Lbs.	EA	1	0%	1	148.93	$ 75.00	$ 11,169.56	$ 51,066.26	$ 62,235.82	$ 62,235.82
			AHU DETAILS										
739			CC-AHU-03: Hydronic Coil, CFM 7500, FPM 462, MBH 304	EA	1	0%	1	17.30	$ 75.00	$ 1,297.57	$ 7,622.13	$ 8,919.70	$ 8,919.70
740			PH-AHU-03: Hydronic Coil, CFM 7500, FPM 500, MBH 125	EA	1	0%	1	14.36	$ 75.00	$ 1,076.66	$ 6,157.07	$ 7,233.73	$ 7,233.73
			EXHAUST FAN										
741			EF-6, Exhaust Fan, 1000CFM, 1497 RPM, 1/2HP	EA	1	0%	1	5.85	$ 75.00	$ 438.75	$ 1,683.00	$ 2,121.75	$ 2,121.75
742			EF-7, Exhaust Fan, 1500CFM, 1402 RPM, 3/4HP	EA	1	0%	1	6.25	$ 75.00	$ 468.75	$ 1,864.00	$ 2,332.75	$ 2,332.75
			DAMPERS										
743			8" Dia Manual Volume Damper	EA	11	0%	11	0.42	$ 75.00	$ 31.69	$ 64.67	$ 96.35	$ 1,059.89
744			10" Dia Manual Volume Damper	EA	4	0%	4	0.53	$ 75.00	$ 39.61	$ 80.83	$ 120.44	$ 481.77
745			12" Dia Manual Volume Damper	EA	2	0%	2	0.63	$ 75.00	$ 47.53	$ 97.00	$ 144.53	$ 289.06
746			14" Dia Manual Volume Damper	EA	2	0%	2	0.74	$ 75.00	$ 55.45	$ 113.17	$ 168.62	$ 337.24
747			18" Dia Manual Volume Damper	EA	4	0%	4	0.95	$ 75.00	$ 71.30	$ 145.50	$ 216.80	$ 867.18
748			6" Dia Fire Damper	EA	1	0%	1	0.93	$ 75.00	$ 69.74	$ 142.33	$ 212.07	$ 212.07
749			8" Dia Fire Damper	EA	1	0%	1	1.01	$ 75.00	$ 76.08	$ 155.27	$ 231.35	$ 231.35
750			8"x8" Fire Damper	EA	2	0%	2	1.01	$ 75.00	$ 76.08	$ 155.27	$ 231.35	$ 462.70
751			14"x14" Fire Damper	EA	1	0%	1	1.35	$ 75.00	$ 101.44	$ 207.02	$ 308.47	$ 308.47
752			16"x14" Fire Damper	EA	1	0%	1	1.55	$ 75.00	$ 116.25	$ 234.50	$ 350.75	$ 350.75
753			16"x16" Fire Damper	EA	1	0%	1	1.69	$ 75.00	$ 126.80	$ 258.78	$ 385.58	$ 385.58
754			20"x20" Fire Damper	EA	1	0%	1	1.85	$ 75.00	$ 138.75	$ 242.49	$ 381.24	$ 381.24
755			24"x16" Fire Damper	EA	1	0%	1	2.03	$ 75.00	$ 152.16	$ 310.54	$ 462.70	$ 462.70
756			32"x24" Fire Damper	EA	1	0%	1	4.06	$ 75.00	$ 304.33	$ 621.07	$ 925.40	$ 925.40
			DUCT WEIGHT										
757			Galvanized Sheet Metal Duct	LB	4783	10%	5261	0.08	$ 75.00	$ 5.63	$ 3.55	$ 9.18	$ 48,272.43
			DUCT INSULATION										
758			2" Thick Flexible Elastomeric Closed Cell Insulation (ASTM C534 Grade I)	SF	3087	10%	3396	0.03	$ 75.00	$ 1.88	$ 3.25	$ 5.13	$ 17,402.96
			MISCELLANEOUS										
759			32" x 24" Wire Mesh Screen	EA	2	0%	2	0.60	$ 75.00	$ 45.00	$ 70.00	$ 115.00	$ 230.00
760			8"x8" Wire Mesh	EA	1	0%	1	0.25	$ 75.00	$ 18.75	$ 14.00	$ 32.75	$ 32.75
761			BCP, Building Control Panel	EA	4	0%	4	8.25	$ 75.00	$ 618.75	$ 4,000.00	$ 4,618.75	$ 18,475.00
762			HVAC Emergency Shutoff Switch	EA	4	0%	4	1.05	$ 75.00	$ 78.75	$ 100.00	$ 178.75	$ 715.00
763			Static Pressure Sensor	EA	1	0%	1	0.58	$ 75.00	$ 43.50	$ 175.00	$ 218.50	$ 218.50
			ALLOWANCE										
764			Allowance for all Duct Fittings including Takeoff, Elbows, Transitions, Reducers with Hangers, Supports & All Relevant Accessories.	LS	1	0%	1	0.00	$ 75.00	$ 5,000.00	$ 7,500.00	$ 12,500.00	$ 12,500.00

DETAILED BREAKDOWN OF ITEMS

Prepared for: Naval Facilities Engineering Systems Command- MID Atlantic- NORKFOLK, VA
Project ID: 46301
Scope: HVAC

USA ESTIMATORS
+1 (214) 556-2605

Date: 6-Oct-26

SR #	Drawing #	Detail #	DESCRIPTION	UNIT	QUANTITY	WASTAGE	QUANTITY W/ WASTAGE	UNIT MANHOUR	HOURLY WAGE	LABOR COST	MAT. COST	UNIT COST	SUB COST
			ALLOWANCE										
765			Allowance for Control Wiring with All Relevant Accessories.	LS	1	0%	1	0.00	$ 75.00	$ 1,400.00	$ 2,100.00	$ 3,500.00	$ 3,500.00
			TELECOM NODE										
			AIR DEVICES										
766			24"x24" Supply Floor Grilles	EA	20	0%	20	1.020	$ 75.00	$ 76.50	$ 120.47	$ 196.97	$ 3,939.44
767			24"x24" Ceiling Return Grilles	EA	20	0%	20	1.020	$ 75.00	$ 76.50	$ 122.10	$ 198.60	$ 3,972.00
			COMPUTER ROOM AIR CONDITIONER										
768			CRAC-T101-01, Computer Room Air Conditioning, 18000 CFM, 3.75HP, 125 KWH Cooling Coil, R-410A, MOCP 200, 4100 LBS	EA	1	0%	1	312.41	$ 75.00	$ 23,430.75	$ 122,736.49	$ 146,167.24	$ 146,167.24
769			CRAC-T101-02, Computer Room Air Conditioning, 18000 CFM, 3.75HP, 125 KWH Cooling Coil, R-410A, MOCP 200, 4100 LBS	EA	1	0%	1	312.41	$ 75.00	$ 23,430.75	$ 122,736.49	$ 146,167.24	$ 146,167.24
			OUTDOOR HEAT REH+JECTION SKID										
770			HRS-T101-01, Outdoor Heat Rejection Skid, 220KW, R-410A, 35 MOCP, 4000LBS	EA	1	0%	1	72.84	$ 75.00	$ 5,463.00	$ 54,372.58	$ 59,835.58	$ 59,835.58
771			HRS-T101-02, Outdoor Heat Rejection Skid, 220KW, R-410A, 35 MOCP, 4000LBS	EA	1	0%	1	72.84	$ 75.00	$ 5,463.00	$ 54,372.58	$ 59,835.58	$ 59,835.58
			LOUVER										
772			LV-02: Intake Air Louver, CFM 400, Size 16"x16"	EA	1	0%	1	1.20	$ 75.00	$ 90.00	$ 225.50	$ 315.50	$ 315.50
773			LV-10: Exhaust Air Louver, CFM 400, Size 16"x16"	EA	1	0%	1	1.20	$ 75.00	$ 90.00	$ 225.50	$ 315.50	$ 315.50
			EXHAUST FAN										
774			EF-10, Exhaust Fan, 400CFM, 1556 RPM, 1/6HP	EA	1	0%	1	3.25	$ 75.00	$ 243.75	$ 345.20	$ 588.95	$ 588.95
			DUCT WEIGHT										
775			Galvanized Sheet Metal Duct	LB	538	10%	592	0.08	$ 75.00	$ 5.63	$ 3.55	$ 9.18	$ 5,429.77
			DUCT INSULATION										
776			2" Thick Flexible Elastomeric Closed Cell Insulation (ASTM C534 Grade I)	SF	354	10%	389	0.03	$ 75.00	$ 1.88	$ 3.25	$ 5.13	$ 1,995.68
			MISCELLANEOUS										
777			BCP, Building Control Panel	EA	1	0%	1	8.25	$ 75.00	$ 618.75	$ 4,000.00	$ 4,618.75	$ 4,618.75
778			6" High Concrete Pad	SF	338	0%	338	0.07	$ 75.00	$ 5.35	$ 7.13	$ 12.48	$ 4,214.93
			ALLOWANCE										
779			Allowance for all Duct Fittings including Takeoff, Elbows, Transitions, Reducers with Hangers, Supports & All Relevant Accessories.	LS	1	0%	1	0.00	$ 75.00	$ 560.00	$ 840.00	$ 1,400.00	$ 1,400.00
			ALLOWANCE										
780			Allowance for Control Wiring with All Relevant Accessories.	LS	1	0%	1	0.00	$ 75.00	$ 400.00	$ 600.00	$ 1,000.00	$ 1,000.00
												SUBTOTAL	**$ 9,033,662**

PROJECTED COST		**$9,458,662**
OVERHEAD	**15%**	**$1,418,799**
PROFIT	**15%**	**$1,418,799**
SUB-CONTRACTOR MARGIN	**10%**	**$207,858**
INSURANCE	**3%**	**$283,760**
CONTINGENCY	**5%**	**$472,933**
TAX	**6%**	**$417,305**
SUGGESTED BID		**$13,678,117**

DETAILED BREAKDOWN OF ITEMS

Prepared for: Naval Facilities Engineering Systems Command- MID Atlantic- NORKFOLK, VA
Project ID: 46301
Scope: HVAC

USA ESTIMATORS
+1 (214) 556-2605

Date: 6-Oct-26

SR #	Drawing #	Detail #	DESCRIPTION	UNIT	QUANTITY	WASTAGE	QUANTITY W/ WASTAGE	UNIT MANHOUR	HOURLY WAGE	LABOR COST	MAT. COST	UNIT COST	SUB COST
			GENERAL REQUIREMENTS										
1			Permits	LS	1	0%	1	0.000	$ -	$ -	$ -	$ -	$ -
2			Supervision and Coordination	LS	1	0%	1	0.000	$ -	$ -	$ -	$ 10,000.00	$ 10,000.00
3			Submittals and Shop drawings	LS	1	0%	1	0.000	$ -	$ -	$ -	$ -	$ -
4			Final Cleaning	LS	1	0%	1	0.000	$ -	$ -	$ -	$ 1,500.00	$ 1,500.00
5			Mobilization Costs	LS	1	0%	1	0.000	$ -	$ -	$ -	$ 7,500.00	$ 7,500.00
6			Temporary Control & Facilities	LS	1	0%	1	0.000	$ -	$ -	$ -	$ 4,500.00	$ 4,500.00
7			Testing & Commissioning	LS	1	0%	1	0.000	$ -	$ -	$ -	$ 2,500.00	$ 2,500.00
8			Equipment Handling Cost	LS	1	0%	1	0.000	$ -	$ -	$ -	$ 3,000.00	$ 3,000
												SUBTOTAL	**$ 29,000**
			HVAC										
			HOT WATER SUPPLY PIPE										
			SCH 40 Carbon Steel Pipe W/ All ASTM Standards & Fittings										
9			3/4" Dia Hot Water Supply Pipe	LF	30	10%	33	0.098	$ 75.00	$ 7.37	$ 7.40	$ 14.77	$ 487.37
10			1" Dia Hot Water Supply Pipe	LF	85	10%	94	0.113	$ 75.00	$ 8.49	$ 10.10	$ 18.59	$ 1,738.52
11			1-1/2" Dia Hot Water Supply Pipe	LF	237	10%	261	0.150	$ 75.00	$ 11.25	$ 15.70	$ 26.95	$ 7,025.87
			1-1/2" Cellular Glass Insulation ASTM C552, Type-II Class 2										
12			3/4" Dia Hot Water Supply Pipe	LF	30	10%	33	0.04	$ 75.00	$ 3.09	$ 4.39	$ 7.48	$ 246.88
13			1" Dia Hot Water Supply Pipe	LF	85	10%	94	0.06	$ 75.00	$ 4.13	$ 5.85	$ 9.98	$ 932.66
14			1-1/2" Dia Hot Water Supply Pipe	LF	237	10%	261	0.08	$ 75.00	$ 6.19	$ 8.78	$ 14.96	$ 3,900.72
			ALLOWANCE										
15			Allowance for all Hot water Supply Piping Fittings, Supports & Hangers with all relevant accessories.	LS	1	0%	1	0.00	$ 75.00	$ 1,282.50	$ 1,567.50	$ 2,850.00	$ 2,850.00
			HOT WATER RETURN PIPE										
			SCH 40 Carbon Steel Pipe W/ All ASTM Standards & Fittings										
16			3/4" Dia Hot Water Return Pipe	LF	30	10%	33	0.098	$ 75.00	$ 7.37	$ 7.40	$ 14.77	$ 487.37
17			1" Dia Hot Water Return Pipe	LF	85	10%	94	0.113	$ 75.00	$ 8.49	$ 10.10	$ 18.59	$ 1,738.52
18			1-1/2" Dia Hot Water Return Pipe	LF	234	10%	257	0.150	$ 75.00	$ 11.25	$ 15.70	$ 26.95	$ 6,936.93
			1-1/2" Cellular Glass Insulation ASTM C552, Type-II Class 2										
19			3/4" Dia Hot Water Return Pipe	LF	30	10%	33	0.04	$ 75.00	$ 3.09	$ 4.39	$ 7.48	$ 246.88
20			1" Dia Hot Water Return Pipe	LF	85	10%	94	0.06	$ 75.00	$ 4.13	$ 5.85	$ 9.98	$ 932.66
21			1-1/2" Dia Hot Water Return Pipe	LF	234	10%	257	0.08	$ 75.00	$ 6.19	$ 8.78	$ 14.96	$ 3,851.35
			ALLOWANCE										
22			Allowance for all Hot Water Return Piping Fittings, Supports & Hangers with all relevant accessories.	LS	1	0%	1	0.00	$ 75.00	$ 1,215.00	$ 1,485.00	$ 2,700.00	$ 2,700.00
			CHILLED WATER SUPPLY PIPE										
			SCH 40 Carbon Steel Pipe W/ All ASTM Standards & Fittings										
23			2" Dia Chilled Water Supply Pipe	LF	197	10%	217	0.188	$ 75.00	$ 14.06	$ 21.00	$ 35.06	$ 7,598.04
			1-1/2" Cellular Glass Insulation ASTM C552, Type-II Class 2										
24			2" Dia Chilled Water Supply Pipe	LF	197	10%	217	0.11	$ 75.00	$ 8.25	$ 11.70	$ 19.95	$ 4,323.17
			ALLOWANCE										
25			Allowance for all Chilled Water Supply Piping Fittings, Supports & Hangers with all relevant accessories.	LS	1	0%	1	0.00	$ 75.00	$ 1,012.50	$ 1,237.50	$ 2,250.00	$ 2,250.00
			CHILLED WATER RETURN PIPE										
			SCH 40 Carbon Steel Pipe W/ All ASTM Standards & Fittings										
26			2" Dia Chilled Water Return Pipe	LF	199	10%	219	0.188	$ 75.00	$ 14.06	$ 21.00	$ 35.06	$ 7,675.18
			1-1/2" Cellular Glass Insulation ASTM C552, Type-II Class 2										
27			2" Dia Chilled Water Return Pipe	LF	199	10%	219	0.11	$ 75.00	$ 8.25	$ 11.70	$ 19.95	$ 4,367.06
			ALLOWANCE										
28			Allowance for all Chilled Water Return Piping Fittings, Supports & Hangers with all relevant accessories.	LS	1	0%	1	0.00	$ 75.00	$ 1,039.50	$ 1,270.50	$ 2,310.00	$ 2,310.00
			AIR DEVICES										
29			SG-1, Supply Grille, Face Size: 18"x12", Neck Size: 18" Dia, CFM: 210	EA	2	0%	2	0.975	$ 75.00	$ 73.13	$ 231.71	$ 304.84	$ 609.68
30			SG-1, Supply Grille, Face Size: 18"x12", Neck Size: 18" Dia, CFM: 500	EA	1	0%	1	0.975	$ 75.00	$ 73.13	$ 231.71	$ 304.84	$ 304.84
31			SG-1, Supply Grille, Face Size: 18"x12", Neck Size: 18" Dia, CFM: 630	EA	1	0%	1	0.975	$ 75.00	$ 73.13	$ 231.71	$ 304.84	$ 304.84
32			SG-1, Supply Grille, Face Size: 18"x12", Neck Size: 18" Dia, CFM: 710	EA	1	0%	1	0.975	$ 75.00	$ 73.13	$ 231.71	$ 304.84	$ 304.84
33			SG-1, Supply Grille, Face Size: 18"x12", Neck Size: 18" Dia, CFM: 550	EA	1	0%	1	0.975	$ 75.00	$ 73.13	$ 231.71	$ 304.84	$ 304.84
34			SG-1, Supply Grille, Face Size: 14"x14", Neck Size: 14" Dia, CFM: 750	EA	2	0%	2	0.850	$ 75.00	$ 63.75	$ 104.42	$ 168.17	$ 336.33
35	MH122 & MH123	As Per Mechanical Plans	SG-1, Supply Grille, Face Size: 12"x12", Neck Size: 10" Dia, CFM: 500	EA	2	0%	2	0.700	$ 75.00	$ 52.50	$ 89.50	$ 142.00	$ 284.00
36			RG-1, Return Grille, Face Size: 24"x36", CFM: 7500	EA	1	0%	1	1.250	$ 75.00	$ 93.75	$ 485.50	$ 579.25	$ 579.25
37			EG-1, Exhaust Grille, Face Size: 12"x12", Neck Size: 8" Dia, CFM: 100	EA	6	0%	6	0.750	$ 75.00	$ 56.25	$ 100.21	$ 156.46	$ 938.74
38			EG-1, Exhaust Grille, Face Size: 12"x12", Neck Size: 10" Dia, CFM: 150	EA	3	0%	3	0.80	$ 75.00	$ 60.00	$ 125.26	$ 185.26	$ 555.78
39			EG-1, Exhaust Grille, Face Size: 12"x12", Neck Size: 10" Dia, CFM: 250	EA	2	0%	2	0.80	$ 75.00	$ 60.00	$ 125.26	$ 185.26	$ 370.52
40			EG-1, Exhaust Grille, Face Size: 12"x12", Neck Size: 12" Dia, CFM: 425	EA	2	0%	2	0.840	$ 75.00	$ 63.00	$ 148.87	$ 211.87	$ 423.74
41			TG-1, Transfer Grille, Face Size: 12"x12"	EA	3	0%	3	0.80	$ 75.00	$ 60.00	$ 125.26	$ 185.26	$ 555.78
42			TG-1, Transfer Grille, Face Size: 20"x20", CFM: 1050	EA	2	0%	2	1.200	$ 75.00	$ 90.00	$ 288.50	$ 378.50	$ 757.00
			AIR TERMINAL UNIT										
43			CAVR-P033: Air Terminal Unit, Inlet Size 24"X16", Max Cooling CFM 2730, MBH 50.3, GPM 4.2, Weight 93 Lbs.	EA	1	0%	1	9.00	$ 75.00	$ 675.00	$ 2,250.00	$ 2,925.00	$ 2,925.00
44			VAVR-P020: Air Terminal Unit, Inlet Size 10" Dia, Max Cooling CFM 750, MBH 26.1, GPM 5.4, Weight 34 Lbs.	EA	1	0%	1	3.40	$ 75.00	$ 255.00	$ 850.00	$ 1,105.00	$ 1,105.00
45			VAVR-P021: Air Terminal Unit, Inlet Size 10" Dia, Max Cooling CFM 750, MBH 26.1, GPM 5.4, Weight 34 Lbs.	EA	1	0%	1	3.40	$ 75.00	$ 255.00	$ 850.00	$ 1,105.00	$ 1,105.00
46			VAVR-P033: Air Terminal Unit, Inlet Size 12" Dia, Max Cooling CFM 1000, MBH 34.7, GPM 6.3, Weight 42 Lbs.	EA	1	0%	1	4.60	$ 75.00	$ 345.00	$ 1,150.00	$ 1,495.00	$ 1,495.00
47			VAVR-P036: Air Terminal Unit, Inlet Size 10" Dia, Max Cooling CFM 1050, MBH 18.5, GPM 8.8, Weight 34 Lbs.	EA	1	0%	1	3.82	$ 75.00	$ 286.50	$ 955.00	$ 1,241.50	$ 1,241.50
48			VAVR-P037: Air Terminal Unit, Inlet Size 14" Dia, Max Cooling CFM 1810, MBH 31.6, GPM 8.5, Weight 55 Lbs.	EA	1	0%	1	5.82	$ 75.00	$ 436.50	$ 1,455.00	$ 1,891.50	$ 1,891.50
			AIR HANDLING UNIT										
49			AHU-04: Air Handling Unit, Supply: CFM 7500, HP 7.5, Return: CFM 4000, HP 3, MCA 20.2, MOCP 25, Unit Weight 7003 Lbs., Curb Weight 947 Lbs.	EA	1	0%	1	148.93	$ 75.00	$ 11,169.56	$ 51,066.26	$ 62,235.82	$ 62,235.82
			AHU DETAILS										
50			CC-AHU-04: Hydronic Coil, CFM 7500, FPM 462, MBH 304	EA	1	0%	1	17.30	$ 75.00	$ 1,297.57	$ 7,622.13	$ 8,919.70	$ 8,919.70
51			PH-AHU-04: Hydronic Coil, CFM 7500, FPM 500, MBH 125	EA	1	0%	1	14.36	$ 75.00	$ 1,076.66	$ 6,157.07	$ 7,233.73	$ 7,233.73
			EXHAUST FAN										
52			EF-8, Exhaust Fan, 1000CFM, 1497 RPM, 1/2HP	EA	1	0%	1	5.85	$ 75.00	$ 438.75	$ 1,683.00	$ 2,121.75	$ 2,121.75
53			EF-9, Exhaust Fan, 1500CFM, 1402 RPM, 3/4HP	EA	1	0%	1	6.25	$ 75.00	$ 468.75	$ 1,864.00	$ 2,332.75	$ 2,332.75
			DAMPERS										
54			8" Dia Manual Volume Damper	EA	6	0%	6	0.42	$ 75.00	$ 31.69	$ 64.67	$ 96.35	$ 578.12
55			10" Dia Manual Volume Damper	EA	7	0%	7	0.53	$ 75.00	$ 39.61	$ 80.83	$ 120.44	$ 843.09
56			12" Dia Manual Volume Damper	EA	2	0%	2	0.63	$ 75.00	$ 47.53	$ 97.00	$ 144.53	$ 289.06
57			14" Dia Manual Volume Damper	EA	2	0%	2	0.74	$ 75.00	$ 55.45	$ 113.17	$ 168.62	$ 337.24
58			18" Dia Manual Volume Damper	EA	6	0%	6	0.95	$ 75.00	$ 71.30	$ 145.50	$ 216.80	$ 1,300.77
59			8" Dia Fire Damper	EA	1	0%	1	0.93	$ 75.00	$ 69.74	$ 142.33	$ 212.07	$ 212.07
60			14"x14" Fire Damper	EA	2	0%	2	1.35	$ 75.00	$ 101.44	$ 207.02	$ 308.47	$ 616.93
61			20"x20" Fire Damper	EA	1	0%	1	1.85	$ 75.00	$ 138.75	$ 295.15	$ 433.90	$ 433.90
62			24"x16" Fire Damper	EA	1	0%	1	2.03	$ 75.00	$ 152.16	$ 310.54	$ 462.70	$ 462.70
63			32"x24" Fire Damper	EA	1	0%	1	4.06	$ 75.00	$ 304.33	$ 621.07	$ 925.40	$ 925.40
			DUCT WEIGHT										
64			Galvanized Sheet Metal Duct	LB	4722	10%	5194	0.08	$ 75.00	$ 5.63	$ 3.55	$ 9.18	$ 47,656.79
			DUCT INSULATION										
65			2" Thick Flexible Elastomeric Closed Cell Insulation (ASTM C534 Grade I)	SF	3269	10%	3596	0.03	$ 75.00	$ 1.88	$ 3.25	$ 5.13	$ 18,428.99
			MISCELLANEOUS										
66			Static Pressure Sensor	EA	1	0%	1	0.58	$ 75.00	$ 43.50	$ 175.00	$ 218.50	$ 218.50
67			BCP, Building Control Panel	EA	4	0%	4	8.25	$ 75.00	$ 618.75	$ 4,000.00	$ 4,618.75	$ 18,475.00
68			HVAC Emergency Shutoff Switch	EA	5	0%	5	1.05	$ 75.00	$ 78.75	$ 100.00	$ 178.75	$ 893.75
69			32" x 24" Wire Mesh Screen	EA	2	0%	2	0.60	$ 75.00	$ 45.00	$ 70.00	$ 115.00	$ 230.00
			ALLOWANCE										
70			Allowance for all Duct Fittings including Takeoff, Elbows, Transitions, Reducers with Hangers, Supports & All Relevant Accessories.	LS	1	0%	1	0.00	$ 75.00	$ 5,000.00	$ 7,500.00	$ 12,500.00	$ 12,500.00
			ALLOWANCE										
71			Allowance for Control Wiring with All Relevant Accessories.	LS	1	0%	1	0.00	$ 75.00	$ 1,400.00	$ 2,100.00	$ 3,500.00	$ 3,500.00
												SUBTOTAL	**$ 269,738**

PROJECTED COST		**$298,738**
OVERHEAD	**15%**	**$44,811**
PROFIT	**15%**	**$44,811**
SUB-CONTRACTOR MARGIN	**10%**	**$9,228**
INSURANCE	**3%**	**$8,962**
CONTINGENCY	**5%**	**$14,937**
TAX	**6%**	**$10,648**
SUGGESTED BID		**$432,134**

Notes:

1. Online sources are used for pricing.
2. Prices can vary depending upon field conditions.

BREAKDOWN OF DUCT ITEMS

Prepared for: Naval Facilities Engineering Systems Command- MID Atlantic- NORKFOLK, VA
Project ID: 46301
Scope: HVAC

USA ESTIMATORS
+1 (214) 556-2605

Date: 6-Oct-26

SR #	DESCRIPTION	UNIT	QUANTITY	WASTAGE	QUANTITY W/ WASTAGE
	HVAC				
	GALVANIZED SHEET METAL DUCT				
	BAY-1				
1	6" Dia Pre-Conditioned Air Duct	LF	986	10%	1084
2	12"x10" Supply Air Duct	LF	25	10%	27
3	12"x12" Supply Air Duct	LF	138	10%	151
4	14"x14" Supply Air Duct	LF	6	10%	7
5	22" Dia Outside Air - Tampered Duct	LF	250	10%	275
6	32" Dia Outside Air-Tampered Duct	LF	551	10%	607
7	42" Dia Outside Air-Tampered Duct	LF	44	10%	48
8	76"x32" Outside Air Duct	LF	7	10%	8
9	8"x8" Return Air Duct	LF	90	10%	99
10	38"x38" Return Air Duct	LF	50	10%	55
11	6" Dia Exhaust Air Duct	LF	62	10%	68
12	8" Dia Exhaust Air Duct	LF	53	10%	58
13	12" Dia Exhaust Air Duct	LF	5	10%	6
14	24" Dia Exhaust Air Duct	LF	13	10%	14
15	10" Dia Battery Exhaust Duct	LF	18	10%	20
16	18" Dia Battery Exhaust Duct	LF	13	10%	15
17	12" Dia Fuel Cell Exhaust Duct	LF	1487	10%	1636
18	14" Dia Fuel Cell Exhaust Duct	LF	534	10%	588
19	18"x12" Exhaust Air Duct	LF	11	10%	12
20	16"x16" Battery Exhaust Duct	LF	100	10%	110
	SUPPORT				
21	6" Dia Supply Air Duct	LF	221	10%	243
22	8" Dia Supply Air Duct	LF	652	10%	717
23	10" Dia Supply Air Duct	LF	182	10%	201
24	12" Dia Supply Air Duct	LF	327	10%	359
25	14" Dia Supply Air Duct	LF	31	10%	34
26	16" Dia Supply Air Duct	LF	87	10%	96
27	18" Dia Supply Air Duct	LF	64	10%	70
28	20" Dia Supply Air Duct	LF	59	10%	64
29	10"x10" Supply Air Duct	LF	31	10%	35
30	12"x8" Supply Air Duct	LF	17	10%	19
31	8"x8" Supply Air Duct	LF	7	10%	8
32	10"x28" Supply Air Duct	LF	13	10%	14
33	12"x10" Supply Air Duct	LF	76	10%	83
34	12"x12" Supply Air Duct	LF	112	10%	123
35	14"x12" Supply Air Duct	LF	107	10%	117
36	14"x14" Supply Air Duct	LF	105	10%	116
37	16"x16" Supply Air Duct	LF	32	10%	35
38	18"x12" Supply Air Duct	LF	30	10%	33

BREAKDOWN OF DUCT ITEMS

Prepared for: Naval Facilities Engineering Systems Command- MID Atlantic- NORKFOLK, VA
Project ID: 46301
Scope: HVAC

USA ESTIMATORS
+1 (214) 556-2605

Date: 6-Oct-26

SR #	DESCRIPTION	UNIT	QUANTITY	WASTAGE	QUANTITY W/ WASTAGE
39	20"x18" Supply Air Duct	LF	67	10%	74
40	24"x10" Supply Air Duct	LF	29	10%	32
41	24"x24" Supply Air Duct	LF	31	10%	34
42	20"x18" Supply Air Duct (Oval)	LF	80	10%	88
43	30"x24" Supply Air Duct (Oval)	LF	50	10%	55
44	30"x20" Supply Air Duct (Oval)	LF	14	10%	15
45	40"x24" Supply Air Duct (Oval)	LF	16	10%	18
46	4" Dia Outside Air Duct	LF	50	10%	55
47	6" Dia Outside Air Duct	LF	677	10%	745
48	8" Dia Outside Air Duct	LF	387	10%	426
49	10" Dia Outside Air Duct	LF	542	10%	596
50	12" Dia Outside Air Duct	LF	351	10%	387
51	14" Dia Outside Air Duct	LF	122	10%	135
52	16" Dia Outside Air Duct	LF	97	10%	106
53	20" Dia Outside Air Duct	LF	38	10%	42
54	24" Dia Outside Air Duct	LF	24	10%	26
55	32" Dia Outside Air Duct	LF	121	10%	134
56	8"x8" Outside Air Duct	LF	7	10%	8
57	10"x10" Outside Air Duct	LF	98	10%	108
58	12"x10" Outside Air Duct	LF	17	10%	19
59	12"x12" Outside Air Duct	LF	104	10%	114
60	14"x10" Outside Air Duct	LF	66	10%	73
61	14"x14" Outside Air Duct	LF	72	10%	79
62	16"x14" Outside Air Duct	LF	56	10%	62
63	16"x12" Outside Air Duct	LF	61	10%	67
64	16"x16" Outside Air Duct	LF	73	10%	80
65	20"x16" Outside Air Duct	LF	43	10%	47
66	24"x24" Outside Air Duct	LF	8	10%	9
67	24"x20" Outside Air Duct	LF	14	10%	16
68	24"x14" Outside Air Duct (Oval)	LF	26	10%	29
69	28"x18" Outside Air Duct (Oval)	LF	25	10%	28
70	34"x18" Outside Air Duct (Oval)	LF	42	10%	46
71	34"x20" Outside Air Duct (Oval)	LF	27	10%	30
72	34"x24" Outside Air Duct (Oval)	LF	83	10%	92
73	42"x42" Outside Air Duct	LF	202	10%	222
74	6" Dia Return Air Duct	LF	91	10%	100
75	8" Dia Return Air Duct	LF	92	10%	101
76	10" Dia Return Air Duct	LF	178	10%	196
77	12" Dia Return Air Duct	LF	281	10%	309
78	14" Dia Return Air Duct	LF	70	10%	77
79	16" Dia Return Air Duct	LF	81	10%	89
80	6" Dia Return Air Duct Double Wall Insulated Perforated Linear Duct	LF	6	10%	7
81	10" Dia Return Air Duct Double Wall Insulated Perforated Linear Duct	LF	14	10%	15
82	16" Dia Return Air Duct Double Wall Insulated Perforated Linear Duct	LF	7	10%	8
83	12"x12" Return Air Duct	LF	23	10%	25
84	14"x14" Return Air Duct	LF	85	10%	93
85	18"x18" Return Air Duct	LF	235	10%	259
86	24"x24" Return Air Duct	LF	26	10%	28
87	24"x16" Return Air Duct	LF	6	10%	7
88	24"x18" Return Air Duct	LF	2	10%	2
88	24"x20" Return Air Duct (Oval)	LF	67	10%	74

BREAKDOWN OF DUCT ITEMS

Prepared for: Naval Facilities Engineering Systems Command- MID Atlantic- NORKFOLK, VA
Project ID: 46301
Scope: HVAC

USA ESTIMATORS
+1 (214) 556-2605

Date: 6-Oct-26

SR #	DESCRIPTION	UNIT	QUANTITY	WASTAGE	QUANTITY W/ WASTAGE
89	24"x20" Return Air Duct	LF	21	10%	23
90	28"x28" Return Air Duct	LF	112	10%	123
91	28"x10" Return Air Duct	LF	13	10%	14
92	30"x30" Return Air Duct	LF	46	10%	51
93	32"x32" Return Air Duct	LF	83	10%	91
94	34"x34" Return Air Duct	LF	35	10%	39
95	36"x18" Return Air Duct	LF	2	10%	3
96	38"x38" Return Air Duct	LF	160	10%	175
97	40"x36" Return Air Duct	LF	13	10%	14
98	6" Dia Exhaust Air Duct	LF	172	10%	189
99	8" Dia Exhaust Air Duct	LF	216	10%	238
100	10" Dia Exhaust Air Duct	LF	90	10%	99
101	12" Dia Exhaust Air Duct	LF	99	10%	109
102	14" Dia Exhaust Air Duct	LF	59	10%	64
103	16" Dia Exhaust Air Duct	LF	24	10%	26
104	14" Dia Transfer Air Duct	LF	20	10%	22
105	8"x8" Exhaust Air Duct	LF	37	10%	40
106	16"x16" Exhaust Air Duct	LF	40	10%	44
107	18"x10" Exhaust Air Duct	LF	41	10%	45
108	18"x18" Exhaust Air Duct	LF	45	10%	49
109	36"x16" Exhaust Air Duct	LF	11	10%	12
110	24"x24" Exhaust Air Duct	LF	64	10%	70
111	24"x20" Exhaust Air Duct	LF	88	10%	96
112	26"x26" Exhaust Air Duct	LF	46	10%	51
	BAY-2				
113	6" Dia Pre-Conditioned Air Duct	LF	466	10%	512
114	6" Dia Supply Air Duct	LF	7	10%	8
115	8"x8" Supply Air Duct	LF	26	10%	28
116	28"x28" Supply Air Duct	LF	29	10%	32
117	6" Dia Return Air Duct	LF	5	10%	6
118	28"x28" Return Air Duct	LF	32	10%	35
119	38"x38" Return Air Duct	LF	57	10%	63
120	8"x8" Transfer Air Duct	LF	34	10%	37
121	36"x36" Transfer Air Duct	LF	8	10%	9
122	22" Dia Outside Air - Tampered Duct	LF	308	10%	339
123	32" Dia Outside Air-Tampered Duct	LF	506	10%	557
124	42" Dia Outside Air-Tampered Duct	LF	37	10%	40
125	6" Dia Exhaust Air Duct	LF	7	10%	7
126	8" Dia Exhaust Air Duct	LF	20	10%	22
127	12" Dia Fuel Cell Exhaust Duct	LF	329	10%	362
128	18"x12" Exhaust Air Duct	LF	4	10%	4
129	78"x32" Exhaust Air Duct	LF	3	10%	4
	PAINT BOOTHS				
130	6" Dia Supply Air Duct	LF	7	10%	8
131	10" Dia Supply Air Duct	LF	52	10%	58
132	14" Dia Supply Air Duct	LF	37	10%	40
133	18" Dia Supply Air Duct	LF	9	10%	10
134	20" Dia Supply Air Duct	LF	135	10%	149
135	14"x14" Supply Air Duct	LF	36	10%	40
136	16"x16" Supply Air Duct	LF	102	10%	113
137	16"x14" Supply Air Duct	LF	143	10%	157
138	18"x12" Supply Air Duct	LF	10	10%	11

BREAKDOWN OF DUCT ITEMS

Prepared for: Naval Facilities Engineering Systems Command- MID Atlantic- NORKFOLK, VA
Project ID: 46301
Scope: HVAC

USA ESTIMATORS
+1 (214) 556-2605

Date: 6-Oct-26

SR #	DESCRIPTION	UNIT	QUANTITY	WASTAGE	QUANTITY W/ WASTAGE
139	12"x4" Supply Air Duct	LF	5	10%	5
140	24"x16" Supply Air Duct	LF	19	10%	21
141	20"x22" Supply Air Duct	LF	36	10%	40
142	20"x20" Transfer Air Duct	LF	8	10%	9
143	36"x24" Return Air Duct	LF	12	10%	14
144	6" Dia Exhaust Air Duct	LF	13	10%	14
145	12" Dia Exhaust Air Duct	LF	14	10%	15
146	12"x12" Exhaust Air Duct	LF	162	10%	179
147	14"x12" Exhaust Air Duct	LF	66	10%	73
148	14"x14" Exhaust Air Duct	LF	23	10%	26
149	16"x16" Exhaust Air Duct	LF	36	10%	40
	TELECOM NODE				
150	10"x10" Outside Air Duct	LF	14	10%	16
151	16"x16" Outside Air Duct	LF	5	10%	5
152	10"x10" Exhaust Air Duct	LF	13	10%	15
153	16"x16" Exhaust Air Duct	LF	5	10%	6
154	42"x118" Return Air Duct	LF	10	10%	11

BREAKDOWN OF DUCT ITEMS

Prepared for: Naval Facilities Engineering Systems Command- MID Atlantic- NORKFOLK, VA
Project ID: 46301
Scope: HVAC

USA ESTIMATORS
+1 (214) 556-2605

Date: 6-Oct-26

SR #	DESCRIPTION	UNIT	QUANTITY	WASTAGE	QUANTITY W/ WASTAGE
	HVAC				
	GALVANIZED SHEET METAL DUCT				
	BID OPTION				
1	10" Dia Supply Air Duct	LF	86	10%	94
2	14" Dia Supply Air Duct	LF	55	10%	61
3	18" Dia Supply Air Duct	LF	8	10%	9
4	12"x14" Supply Air Duct	LF	6	10%	6
5	14"x12" Supply Air Duct	LF	10	10%	11
6	14"x14" Supply Air Duct	LF	188	10%	206
7	16"x14" Supply Air Duct	LF	75	10%	83
8	18"x16" Supply Air Duct	LF	10	10%	11
9	24"x16" Supply Air Duct	LF	18	10%	19
10	24"x18" Supply Air Duct	LF	132	10%	146
11	24"x20" Supply Air Duct	LF	25	10%	28
12	36"x24" Return Air Duct	LF	10	10%	11
13	20"x20" Transfer Air Duct	LF	10	10%	11
14	32"x24" Transfer Air Duct	LF	2	10%	2
15	8" Dia Exhaust Air Duct	LF	76	10%	84
16	10" Dia Exhaust Air Duct	LF	52	10%	58
17	12" Dia Exhaust Air Duct	LF	45	10%	50
18	14"x12" Exhaust Air Duct	LF	51	10%	56
19	14"x14" Exhaust Air Duct	LF	34	10%	37
20	16"x16" Exhaust Air Duct	LF	41	10%	46