

GENERAL SUMMARY

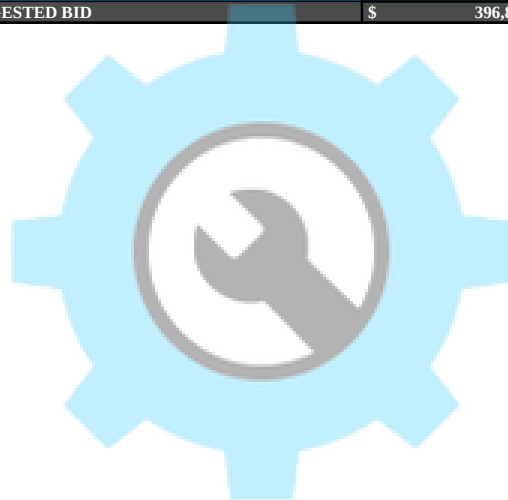
Prepared for: Construct Transient Unit Maintenance Shelter, Fort Carson, CO
Project ID: 5212026
Scope: HVAC
No. Of Floors: 1
Date: 28-Sep-26



BUILDING GSF		6,176		
DIVISION NO	DESCRIPTION	TOTAL DIV. COST	TOTAL DIV. COS (PER SF)	
1000	General Requirements	\$ 41,200	\$	
23000	HVAC	\$ 257,119	\$	
TOTAL TRADE COST		\$ 298,319	\$	
OVERHEAD AND PROFIT		20%	\$ 59,664	\$
INSURANCE		3%	\$ 8,950	\$
PERFORMANCE BOND		1.5%	\$ 4,475	\$
CONTINGENCY		5%	\$ 14,916	\$
TAX		5%	\$ 10,531	\$
SUGGESTED BID		\$ 396,855	\$	

DIVISION COST COMPARISON

□ DIVISION COST COMPARISON



MEP Estimation

DETAILED BREAKDOWN OF ITEMS													
Prepared for:		Construct Transient Unit Maintenance Shelter, Fort Carson, CO											
Project ID:		5212026											
Scope:		HVAC											
												Date: 28-Sep-26	
SR #	Drawing #	Detail #	DESCRIPTION	UNIT	QUANTITY	WASTAGE	QUANTITY W/ WASTAGE	UNIT MAN/ HOUR	HOURLY WAGE	LABOR COST	MAT. COST	UNIT COST	SUB COST
GENERAL REQUIREMENTS													
1			Permits	LS	1	0%	1	0.000	\$ -	\$ -	\$ -	\$ 3,000.00	\$ 3,000.00
2			Supervision and Coordination	LS	1	0%	1	0.000	\$ -	\$ -	\$ -	\$ 22,500.00	\$ 22,500.00
3			Submittals and Shop drawings	LS	1	0%	1	0.000	\$ -	\$ -	\$ -	\$ -	\$ -
4			Final Cleaning	LS	1	0%	1	0.000	\$ -	\$ -	\$ -	\$ 2,500.00	\$ 2,500.00
5			Mobilization Costs	LS	1	0%	1	0.000	\$ -	\$ -	\$ -	\$ 8,000.00	\$ 8,000.00
6			Temporary Control & Facilities	LS	1	0%	1	0.000	\$ -	\$ -	\$ -	\$ 3,000.00	\$ 3,000.00
7			Scaffolding	LS	1	0%	1	0.000	\$ -	\$ -	\$ -	\$ -	\$ -
8			Federal Compliance (Cert Payroll)	LS	1	0%	1	0.000	\$ -	\$ -	\$ -	\$ 2,200.00	\$ 2,200.00
												SUBTOTAL	\$ 41,200
HVAC													
CONDENSATE DRAIN PIPE													
Type "L" Copper Tubing With Fittings													
9			3/4" Dia Condensate Drain Pipe	LF	10	10%	11	0.08	\$ 74.00	\$ 5.92	\$ 5.50	\$ 11.42	\$ 125.62
Assumed 1/2" Thick Fiberglass Pipe Insulation													
10			3/4" Dia Condensate Drain Pipe	LF	10	10%	11	0.05	\$ 74.00	\$ 3.70	\$ 2.80	\$ 6.50	\$ 71.50
CONDENSATE DRAIN FITTINGS													
ELBOW													
11			3/4" Dia Condensate Drain Pipe 90 Deg Elbow	EA	2	0%	2	0.35	\$ 74.00	\$ 25.90	\$ 6.50	\$ 32.40	\$ 64.80
NATURAL GAS PIPE (BELOW GRADE)													
Assumed Polyethylene Pipe With Fittings													
12			3" Dia Natural Gas Pipe	LF	4	10%	4	0.12	\$ 74.00	\$ 8.88	\$ 7.50	\$ 16.38	\$ 72.07
NATURAL GAS PIPE FITTINGS													
ELBOW													
13			3" Dia Natural Gas Pipe 90 Deg Elbow	EA	1	0%	1	0.50	\$ 74.00	\$ 37.00	\$ 18.00	\$ 55.00	\$ 55.00
NATURAL GAS PIPE (ABOVE GRADE)													
Assumed Schedule 40 Black Steel Pipe With Fittings													
14			1" Dia Natural Gas Pipe	LF	54	10%	59	0.12	\$ 74.00	\$ 8.88	\$ 8.50	\$ 17.38	\$ 1,030.84
15			1-1/4" Dia Natural Gas Pipe	LF	109	10%	120	0.14	\$ 74.00	\$ 10.36	\$ 10.50	\$ 20.86	\$ 2,495.38
16			2" Dia Natural Gas Pipe	LF	45	10%	49	0.18	\$ 74.00	\$ 13.32	\$ 14.50	\$ 27.82	\$ 1,363.01
17			2-1/2" Dia Natural Gas Pipe	LF	29	10%	32	0.22	\$ 74.00	\$ 16.28	\$ 18.50	\$ 34.78	\$ 1,123.25
18			3" Dia Natural Gas Pipe	LF	15	10%	16	0.27	\$ 74.00	\$ 19.98	\$ 23.00	\$ 42.98	\$ 706.81
NATURAL GAS PIPE FITTINGS													
ELBOW													
19			1-1/4" Dia Natural Gas Pipe 90 Deg Elbow	EA	2	0%	2	0.55	\$ 74.00	\$ 40.70	\$ 12.00	\$ 52.70	\$ 105.40
20			2" Dia Natural Gas Pipe 90 Deg Elbow	EA	2	0%	2	0.70	\$ 74.00	\$ 51.80	\$ 22.00	\$ 73.80	\$ 147.60
21			2-1/2" Dia Natural Gas Pipe 90 Deg Elbow	EA	5	0%	5	0.85	\$ 74.00	\$ 62.90	\$ 32.00	\$ 94.90	\$ 474.50
22			3" Dia Natural Gas Pipe 90 Deg Elbow	EA	1	0%	1	1.00	\$ 74.00	\$ 74.00	\$ 48.00	\$ 122.00	\$ 122.00
TEE													
23			1" Dia Natural Gas Pipe Tee	EA	2	0%	2	0.70	\$ 74.00	\$ 51.80	\$ 18.00	\$ 69.80	\$ 139.60
24			2" Dia Natural Gas Pipe Tee	EA	2	0%	2	0.95	\$ 74.00	\$ 70.30	\$ 28.00	\$ 98.30	\$ 196.60
25			1-1/4" / 1" Dia Natural Gas Pipe Tee	EA	4	0%	4	0.80	\$ 74.00	\$ 59.20	\$ 22.00	\$ 81.20	\$ 324.80
26			3" / 2" Dia Natural Gas Pipe Tee	EA	1	0%	1	1.10	\$ 74.00	\$ 81.40	\$ 55.00	\$ 136.40	\$ 136.40
27			3" / 2-1/2" Dia Natural Gas Pipe Tee	EA	1	0%	1	1.15	\$ 74.00	\$ 85.10	\$ 60.00	\$ 145.10	\$ 145.10
REDUCER													
28			1-1/4" / 1" Dia Natural Gas Pipe Reducer	EA	2	0%	2	0.50	\$ 74.00	\$ 37.00	\$ 14.00	\$ 51.00	\$ 102.00
29			2" / 1-1/4" Dia Natural Gas Pipe Reducer	EA	2	0%	2	0.60	\$ 74.00	\$ 44.40	\$ 18.00	\$ 62.40	\$ 124.80
30			3" / 2" Dia Natural Gas Pipe Reducer	EA	1	0%	1	0.85	\$ 74.00	\$ 62.90	\$ 36.00	\$ 98.90	\$ 98.90
AIR DEVICES													
31			HCD-1: High Capacity Drum Louver, PRICE HCD, 24" x10" Neck Size, 24" x10" Face Size, 1450 CFM, Frame: Duct Mounted, Material: Aluminum, Finish: Standard White. 1. Equivalent Substitution Acceptable Upon Owner Approval.	EA	8	0%	8	2.25	\$ 74.00	\$ 166.50	\$ 285.00	\$ 451.50	\$ 3,612.00
32			RECG-1: Round EGG Craft Grille, PRICE RECG, 16" Dia Neck Size, 16" Dia Face Size, Frame: Duct Mounting, Material: Aluminum, Finish: Standard White. 1. Equivalent Substitution Acceptable Upon Owner Approval.	EA	8	0%	8	2.25	\$ 74.00	\$ 166.50	\$ 165.00	\$ 331.50	\$ 2,652.00
INTAKE HOOD													
33			IH-1: Intake Hood, GREENHECK FGI-12x18, 12" x 18", 1400 CFM, 0.205 In. WG, Motorized Damper Notes: 1. Equivalent Substitution Permitted Upon Owner Approval	EA	1	0%	1	3.15	\$ 74.00	\$ 233.10	\$ 1,450.00	\$ 1,683.10	\$ 1,683.10
34			IH-2: Intake Hood, GREENHECK FGI-12x18, 12" x 18", 1400 CFM, 0.205 In. WG, Motorized Damper Notes: 1. Equivalent Substitution Permitted Upon Owner Approval	EA	1	0%	1	3.15	\$ 74.00	\$ 233.10	\$ 1,450.00	\$ 1,683.10	\$ 1,683.10
MAKEUP AIR UNIT													
35			MAU-1: Makeup Air Unit, GREENHECK DGX-P225-H35-D1, Heating Type: DIRECT-FIRED, Total Volume: 11500 CFM, ESP: 0.5 IN. WG., Total SP: 1.262 IN. WG., RPM: 1037, Operating Power: 1.84 HP, Motor: 3 HP, Qty: 2, Fan Type: BACKWARD INCLINED, Drive Type: DIRECT, Speed Control: VFD, Fuel Type: NG, Performance: EAT 1.6°F / 1AT 75.5°F, Capacity: 800 MBH IN / 736 MBH OUT, Temperature Rise: 73.6°F MAX., Turn-Down Ratio: 30:1, Electrical Rating: 208/60/3, MCA: 27 A, MOP: 30 A, Unit Orientation: HORIZONTAL, Unit Config.: VARIABLE VOLUME 100% OA, Notes: 1,2,3,4. Note 1. Equivalent Substitution Permitted Upon Owner Approval. 2. Basis of Design: GREENHECK Model DGX-P225-H35-D1. 3. Provide and Install Manufacturer Recommended Controller on Unit. Interface and Interlock Unit to Exhaust System. 4. Provide Factory Installed Deluxe Programmable Thermostat.	EA	1	0%	1	64.00	\$ 74.00	\$ 4,736.00	\$ 64,500.00	\$ 69,236.00	\$ 69,236.00
GAS FIRED INFRARED HEATER													
36			IRH-1: Gas Fired Infrared Heater, BIG ASS FANS IRH-80, Infrared Bar Heater, Natural Gas, 80,000 BTUH, MIN WC: 4.6", MAX WC: 14", 120V/1PH, T-STAT Control. 1.) Equivalent substitution permitted upon owner approval. 2.) Provide one manufacturer's recommended thermostat for each infrared bar heater and tie each, single thermostat into a single infrared bar heater located in Rm. 101 - Tjms.	EA	1	0%	1	4.00	\$ 74.00	\$ 296.00	\$ 1,450.00	\$ 1,746.00	\$ 1,746.00
37			IRH-2: Gas Fired Infrared Heater, BIG ASS FANS IRH-80, Infrared Bar Heater, Natural Gas, 80,000 BTUH, MIN WC: 4.6", MAX WC: 14", 120V/1PH, T-STAT Control. 1.) Equivalent substitution permitted upon owner approval. 2.) Provide one manufacturer's recommended thermostat for each infrared bar heater and tie each, single thermostat into a single infrared bar heater located in Rm. 101 - Tjms.	EA	1	0%	1	4.00	\$ 74.00	\$ 296.00	\$ 1,450.00	\$ 1,746.00	\$ 1,746.00
38			IRH-3: Gas Fired Infrared Heater, BIG ASS FANS IRH-80, Infrared Bar Heater, Natural Gas, 80,000 BTUH, MIN WC: 4.6", MAX WC: 14", 120V/1PH, T-STAT Control. 1.) Equivalent substitution permitted upon owner approval. 2.) Provide one manufacturer's recommended thermostat for each infrared bar heater and tie each, single thermostat into a single infrared bar heater located in Rm. 101 - Tjms.	EA	1	0%	1	4.00	\$ 74.00	\$ 296.00	\$ 1,450.00	\$ 1,746.00	\$ 1,746.00
39			IRH-4: Gas Fired Infrared Heater, BIG ASS FANS IRH-80, Infrared Bar Heater, Natural Gas, 80,000 BTUH, MIN WC: 4.6", MAX WC: 14", 120V/1PH, T-STAT Control. 1.) Equivalent substitution permitted upon owner approval. 2.) Provide one manufacturer's recommended thermostat for each infrared bar heater and tie each, single thermostat into a single infrared bar heater located in Rm. 101 - Tjms.	EA	1	0%	1	4.00	\$ 74.00	\$ 296.00	\$ 1,450.00	\$ 1,746.00	\$ 1,746.00
40			IRH-5: Gas Fired Infrared Heater, BIG ASS FANS IRH-80, Infrared Bar Heater, Natural Gas, 80,000 BTUH, MIN WC: 4.6", MAX WC: 14", 120V/1PH, T-STAT Control. 1.) Equivalent substitution permitted upon owner approval. 2.) Provide one manufacturer's recommended thermostat for each infrared bar heater and tie each, single thermostat into a single infrared bar heater located in Rm. 101 - Tjms.	EA	1	0%	1	4.00	\$ 74.00	\$ 296.00	\$ 1,450.00	\$ 1,746.00	\$ 1,746.00
41			IRH-6: Gas Fired Infrared Heater, BIG ASS FANS IRH-80, Infrared Bar Heater, Natural Gas, 80,000 BTUH, MIN WC: 4.6", MAX WC: 14", 120V/1PH, T-STAT Control. 1.) Equivalent substitution permitted upon owner approval. 2.) Provide one manufacturer's recommended thermostat for each infrared bar heater and tie each, single thermostat into a single infrared bar heater located in Rm. 101 - Tjms.	EA	1	0%	1	4.00	\$ 74.00	\$ 296.00	\$ 1,450.00	\$ 1,746.00	\$ 1,746.00
ELECTRIC UNIT HEATER													

DETAILED BREAKDOWN OF ITEMS														
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Project ID: 5212026														
Scope: HVAC														
											Date: 28-Sep-26			
SR #	Drawing #	Detail #	DESCRIPTION	UNIT	QUANTITY	WASTAGE	QUANTITY W/ WASTAGE	UNIT MAN/HR	HOURLY WAGE	LABOR COST	MAT. COST	UNIT COST	SUB COST	
42	MH101, MP101 & MS01		EUH-1: Electrical Unit Heater, REZNOR EHA-TSL-1, CFM: 160, Capacity: 1,500 W / 5,125 BTUH / 1.0 KW, Unit Size: 120 VOLT / 1 PHASE, Fan Power: 0.5 HP, Fan Motor: 120 VOLT / 1 PHASE, Control: T-STAT, Sound Level: 1 dBA, Note 1: Equivalent Substitution Permitted Upon Owner Approval.	EA	1	0%	1	3.50	\$ 74.00	\$ 259.00	\$ 285.00	\$ 544.00	\$ 544.00	
43			EUH-2: Electrical Unit Heater, REZNOR EHA-TSL-1, CFM: 160, Capacity: 1,500 W / 5,125 BTUH / 1.0 KW, Unit Size: 120 VOLT / 1 PHASE, Fan Power: 0.5 HP, Fan Motor: 120 VOLT / 1 PHASE, Control: T-STAT, Sound Level: 1 dBA, Note 1: Equivalent Substitution Permitted Upon Owner Approval.	EA	1	0%	1	3.50	\$ 74.00	\$ 259.00	\$ 320.00	\$ 579.00	\$ 579.00	
			FANS											
44			EF-1: Exhaust Fan, BROAN L100, Air Flow: 125 CFM, 0.1 IN TSP, Type: Ceiling Mounted, Galvanized Steel, Drive: Direct, 87 W, 120 V, 1 PH, 640 RPM, Speed Control: Constant, Occupancy Sensor. 1. Equivalent Substitution Acceptable Upon Owner Approval. 2. Provide Gravity Backdraft Damper At Exhaust Fan Outlet.	EA	1	0%	1	6.00	\$ 74.00	\$ 444.00	\$ 2,200.00	\$ 2,644.00	\$ 2,644.00	
45			VEF-1: Vehicle Fume Exhaust Fan, GREENHECK FJ-22-86, Air Flow: 125 CFM, 1.5 IN TSP, Type: Centrifugal Blower Mounted, ODP, Weather hood With Bird Screen: YES, Drive: Direct, 1.89 BHP, 230 V, 3 PH, 1170 RPM, Speed Control: Variable, Status Switch. 1. Equivalent Substitution Acceptable Upon Owner Approval. 2. Provide Gravity Backdraft Damper At Exhaust Fan Outlet.	EA	1	0%	1	6.00	\$ 74.00	\$ 444.00	\$ 1,850.00	\$ 2,294.00	\$ 2,294.00	
46			GEF-1: General Exhaust Fan, GREENHECK CUE-240HP-B, Air Flow: 4280 CFM, 1.62 IN TSP, Type: Roof Upblast Mounted, ODP, Weather hood With Bird Screen: YES, Drive: Direct, 1.88 BHP, 3 HP, 208 V, 3 PH, 1140 RPM, 10.6 FLA, Speed Control: Variable, Occupancy Sensor. 1. Equivalent Substitution Acceptable Upon Owner Approval. 2. Provide Gravity Backdraft Damper At Exhaust Fan Outlet.	EA	1	0%	1	5.00	\$ 74.00	\$ 370.00	\$ 1,450.00	\$ 1,820.00	\$ 1,820.00	
47			GEF-2: General Exhaust Fan, GREENHECK CUE-240HP-B, Air Flow: 4280 CFM, 1.62 IN TSP, Type: Roof Upblast Mounted, ODP, Weather hood With Bird Screen: YES, Drive: Direct, 1.88 BHP, 3 HP, 208 V, 3 PH, 1140 RPM, 10.6 FLA, Speed Control: Variable, Gas Sensor. 1. Equivalent Substitution Acceptable Upon Owner Approval. 2. Provide Gravity Backdraft Damper At Exhaust Fan Outlet.	EA	1	0%	1	4.00	\$ 74.00	\$ 296.00	\$ 950.00	\$ 1,246.00	\$ 1,246.00	
48			BAF-1: Fan, BIG ASS FANS POWERFOIL X4 (14'-0" Diameter, PPA-4-14 PLUS), Type: Overhead Mounted, Drive: Direct, 1.3 HP, 208 V, 3 PH, Speed Control: Variable, Speed Controller. 1. Equivalent Substitution Acceptable Upon Owner Approval. 2. Provide Multi-Speed Controller To Control Fan Speed.	EA	1	0%	1	3.00	\$ 74.00	\$ 222.00	\$ 380.00	\$ 602.00	\$ 602.00	
			VEHICLE EXHAUST SOURCE CAPTURE SYSTEM											
49			MDHR-1: Vehicle Exhaust Source Capture System, MONOXIVENT MODEL 9000-W-TMTR, Hose Dia: 8 IN., Max Hose Capacity on Drum: 24 FT, Drum Dia: 18 IN., Drum Width: 32 IN., Flow: 1400 CFM, SP: 6 IN. WG., Fan RPM: 2657, Oper. Power: 2.62 HP, FEG: 63, FEL: 1.12, Motor Size: 3 HP, Motor RPM: 1725, Enclosure: ODP, Electrical: 208/60/3, FLA: 4.8 A, Notes: 1.) Equivalent Substitution Permitted Upon Owner Approval. 2.) Basis Of Design: MONOXIVENT MODEL 9000-W-TMTR With Internal Fan Model Mha-90. 3.) Provide And Install Manufacturers Recommended Hand Damper On Each Exhaust Hose Inlet.	EA	1	0%	1	14.00	\$ 74.00	\$ 1,036.00	\$ 18,500.00	\$ 19,536.00	\$ 19,536.00	
50		MDHR-2: Vehicle Exhaust Source Capture System, MONOXIVENT MODEL 9000-W-TMTR, Hose Dia: 8 IN., Max Hose Capacity on Drum: 24 FT, Drum Dia: 18 IN., Drum Width: 32 IN., Flow: 1400 CFM, SP: 6 IN. WG., Fan RPM: 2657, Oper. Power: 2.62 HP, FEG: 63, FEL: 1.12, Motor Size: 3 HP, Motor RPM: 1725, Enclosure: ODP, Electrical: 208/60/3, FLA: 4.8 A, Notes: 1.) Equivalent Substitution Permitted Upon Owner Approval. 2.) Basis Of Design: MONOXIVENT MODEL 9000-W-TMTR With Internal Fan Model Mha-90. 3.) Provide And Install Manufacturers Recommended Hand Damper On Each Exhaust Hose Inlet.	EA	1	0%	1	16.00	\$ 74.00	\$ 1,184.00	\$ 21,500.00	\$ 22,684.00	\$ 22,684.00		
51		MDHR-3: Vehicle Exhaust Source Capture System, MONOXIVENT MODEL 9000-W-TMTR, Hose Dia: 8 IN., Max Hose Capacity on Drum: 24 FT, Drum Dia: 18 IN., Drum Width: 32 IN., Flow: 1400 CFM, SP: 6 IN. WG., Fan RPM: 2657, Oper. Power: 2.62 HP, FEG: 63, FEL: 1.12, Motor Size: 3 HP, Motor RPM: 1725, Enclosure: ODP, Electrical: 208/60/3, FLA: 4.8 A, Notes: 1.) Equivalent Substitution Permitted Upon Owner Approval. 2.) Basis Of Design: MONOXIVENT MODEL 9000-W-TMTR With Internal Fan Model Mha-90. 3.) Provide And Install Manufacturers Recommended Hand Damper On Each Exhaust Hose Inlet.	EA	1	0%	1	18.00	\$ 74.00	\$ 1,332.00	\$ 24,500.00	\$ 25,832.00	\$ 25,832.00		
52		MDHR-4: Vehicle Exhaust Source Capture System, MONOXIVENT MODEL 9000-W-TMTR, Hose Dia: 8 IN., Max Hose Capacity on Drum: 24 FT, Drum Dia: 18 IN., Drum Width: 32 IN., Flow: 1400 CFM, SP: 6 IN. WG., Fan RPM: 2657, Oper. Power: 2.62 HP, FEG: 63, FEL: 1.12, Motor Size: 3 HP, Motor RPM: 1725, Enclosure: ODP, Electrical: 208/60/3, FLA: 4.8 A, Notes: 1.) Equivalent Substitution Permitted Upon Owner Approval. 2.) Basis Of Design: MONOXIVENT MODEL 9000-W-TMTR With Internal Fan Model Mha-90. 3.) Provide And Install Manufacturers Recommended Hand Damper On Each Exhaust Hose Inlet.	EA	1	0%	1	20.00	\$ 74.00	\$ 1,480.00	\$ 28,500.00	\$ 29,980.00	\$ 29,980.00		
		PACKAGED THROUGH-WALL HEAT PUMP AIR CONDITIONER												
53		PTAC-1: Packaged Through-Wall Heat Pump Air Conditioner (PTAC), G.E. ZONELINE AZV515DMWXAA, Nominal Airflow: 525 CFM (HIGH) / 250 CFM (LOW), Outside Airflow: 50 CFM, Efficiency: 10.7 EER, Cooling Capacity: 15,000 BTUH, Heat Pump Capacity: 14,000 BTUH, Heat Pump Efficiency: 3.4 COP, Electric Heat Capacity: 8,100 BTUH, Total Watts: 2,410, Heater Watts: 2,400, Total Amps: 10.5, MCA: 15, Electrical: 208 VOLT / 1 PHASE, Speed Control: HIGH-SPEED / LOW-SPEED, Notes: 1,2,3,4. Note: 1: Equivalent Substitution Permitted Upon Owner Approval. 2: Basis of Design: G.E. ZONELINE AZV515DMWXAA, Direct Powered. 3: Provide Manufacturer's Recommended Thermostat to Control Unit, Install 4'-0" AFF on Wall in RM. 103 - OFFICE. 4: PTAC Must Maintain 72°F - 80°F, 24 Hours Per Day, 365 Days a Year. Ensure PTAC Performance Meets UFC 3-580.1 Sections 2-3.1.3.3 and 2-3.1.3.4.	EA	1	0%	1	5.00	\$ 74.00	\$ 370.00	\$ 1,850.00	\$ 2,220.00	\$ 2,220.00		
54		26" Dia Class I Motorized Damper	EA	1	0%		1	0.75	\$ 74.00	\$ 55.50	\$ 95.00	\$ 150.50	\$ 150.50	
55		3" Dia Gas Shutoff Valve	EA	3	0%		3	1.20	\$ 74.00	\$ 88.80	\$ 285.00	\$ 373.80	\$ 1,121.40	
56		3" Dia Gas Union	EA	2	0%		2	0.50	\$ 74.00	\$ 37.00	\$ 65.00	\$ 102.00	\$ 204.00	
57		3" Dia Emergency Pipe Caped	EA	1	0%		1	0.50	\$ 74.00	\$ 37.00	\$ 45.00	\$ 82.00	\$ 82.00	
58		3" Dia Pipe Flange	EA	4	0%		4	0.75	\$ 74.00	\$ 55.50	\$ 85.00	\$ 140.50	\$ 562.00	
59		3" Dia Gas Seismic Shutoff Valve	EA	1	0%		1	1.50	\$ 74.00	\$ 111.00	\$ 425.00	\$ 536.00	\$ 536.00	
60		3" Dia Long Gas Dirt Leg, 6" Long With Cap	EA	1	0%		1	1.00	\$ 74.00	\$ 74.00	\$ 115.00	\$ 189.00	\$ 189.00	
61		6" Thick Concrete Pad With Base Mounted	EA	1	0%		1	4.00	\$ 74.00	\$ 296.00	\$ 425.00	\$ 721.00	\$ 721.00	
62		1" Dia Pipe End Cap	EA	2	0%		2	0.30	\$ 74.00	\$ 22.20	\$ 12.00	\$ 34.20	\$ 68.40	
63		1" Dia Gas Shutoff Valve	EA	6	0%		6	0.50	\$ 74.00	\$ 37.00	\$ 65.00	\$ 102.00	\$ 612.00	
64		1-1/4" Dia Gas Shutoff Valve	EA	2	0%		2	0.60	\$ 74.00	\$ 44.40	\$ 85.00	\$ 129.40	\$ 258.80	
65		2" Dia Drip Leg	EA	2	0%		2	0.75	\$ 74.00	\$ 55.50	\$ 55.00	\$ 110.50	\$ 221.00	
66		2" Dia Gas Shutoff Valve	EA	2	0%		2	0.85	\$ 74.00	\$ 62.90	\$ 145.00	\$ 207.90	\$ 415.80	
67		Galvanized Sheet Metal Duct (All Ductwork)	LB	2870	10%		3158	0.05	\$ 74.00	\$ 3.70	\$ 3.15	\$ 6.85	\$ 21,629.14	
68	Assumed	1-1/2" Thick Fiberglass Duct Insulation (All Supply & Outside Air Duct)	SF	1088	10%		1197	0.04	\$ 74.00	\$ 2.96	\$ 2.65	\$ 5.61	\$ 6,717.07	
69	Assumed	4" Dia Wire Mesh Screen, 1/2" Thick	EA	1	0%		1	0.30	\$ 74.00	\$ 22.20	\$ 22.00	\$ 44.20	\$ 44.20	
70	Assumed	6" Dia Wire Mesh Screen, 1/2" Thick	EA	2	0%		2	0.35	\$ 74.00	\$ 25.90	\$ 32.00	\$ 57.90	\$ 115.80	
71		T2: Thermostat	EA	9	0%		9	0.95	\$ 74.00	\$ 70.45	\$ 110.20	\$ 180.65	\$ 1,625.83	
72		AT NOX: Nitrogen Oxide Sensor And Transmitter	EA	2	0%		2	1.50	\$ 74.00	\$ 111.00	\$ 925.00	\$ 1,036.00	\$ 2,072.00	
73		AT CO: Carbon Monoxide Sensor And Transmitter	EA	2	0%		2	1.50	\$ 74.00	\$ 111.00	\$ 825.00	\$ 936.00	\$ 1,872.00	
74		BAS Control Station	EA	1	0%		1	8.00	\$ 74.00	\$ 592.00	\$ 4,250.00	\$ 4,842.00	\$ 4,842.00	
75		3" Dia Gas Meter	EA	1	0%		1	2.00	\$ 74.00	\$ 148.00	\$ 1,450.00	\$ 1,598.00	\$ 1,598.00	
76		3" Dia Gas Regulator	EA	1	0%		1	2.00	\$ 74.00	\$ 148.00	\$ 1,250.00	\$ 1,398.00	\$ 1,398.00	
77		3/4" Dia P-Trap	EA	1	0%		1	0.40	\$ 74.00	\$ 29.60	\$ 22.00	\$ 51.60	\$ 51.60	
78		3/4" Dia Cleanout	EA	1	0%		1	0.30	\$ 74.00	\$ 22.20	\$ 18.00	\$ 40.20	\$ 40.20	
79		3/4" Dia Dielectric Union Fitting	EA	1	0%		1	0.40	\$ 74.00	\$ 29.60	\$ 24.00	\$ 53.60	\$ 53.60	
80		Splash Block	EA	1	0%		1	0.50	\$ 74.00	\$ 37.00	\$ 28.00	\$ 65.00	\$ 65.00	
81		3/4" Dia Adjustable Clevis Hanger	EA	2	0%		2							
82		1" Dia Adjustable Clevis Hanger	EA	9	0%		9							
83		1-1/4" Dia Adjustable Clevis Hanger	EA	18	0%		18							
84		2" Dia Adjustable Clevis Hanger	EA	4	0%		4							
85		2-1/2" Dia Adjustable Clevis Hanger	EA	3	0%		3							
86		3" Dia Adjustable Clevis Hanger	EA	1	0%		1							
87		3/8" Dia Threaded Rod (1 Ea. = 1 FT)	EA	29	0%		29	0.05	\$ 74.00	\$ 3.70	\$ 2.50	\$ 6.20	\$ 178.43	
88		5/8" Dia Threaded Rod (1 Ea. = 1 FT)	EA	9	0%		9	0.07	\$ 74.00	\$ 4.81	\$ 4.25	\$ 9.06	\$ 80.50	
		DUCT SUPPORTS												

DETAILED BREAKDOWN OF ITEMS													
Prepared for:		Construct Transient Unit Maintenance Shelter, Fort Carson, CO											
Project ID:		5212026											
Scope:		HVAC											
												Date: 28-Sep-26	
SR #	Drawing #	Detail #	DESCRIPTION	UNIT	QUANTITY	WASTAGE	QUANTITY W/ WASTAGE	UNIT MAN/ HOUR	HOURLY WAGE	LABOR COST	MAT. COST	UNIT COST	SUB COST
89			3/8" Threaded Rod	EA	110	0%	110	0.05	\$ 74.00	\$ 3.70	\$ 2.50	\$ 6.20	\$ 682.00
90			1" x 22 Ga. Strap	EA	55	0%	55	0.05	\$ 74.00	\$ 3.70	\$ 1.85	\$ 5.55	\$ 305.25
			TRENCHING & BACKFILLING										
91			Excavation & Backfilling (3' Deep x 1' Wide Trench) Including All Labor and Material/Equipment	CFT	12	0%	12	0.04	\$ 74.00	\$ 2.96	\$ 1.85	\$ 4.81	\$ 57.72
SUBTOTAL													\$ 257,119
OVERHEAD AND PROFIT													PROJECTED COST
INSURANCE													20.0%
PERFORMANCE BOND													3.0%
CONTINGENCY													1.5%
TAX													5.0%
SUGGESTED BID													4.9%
													\$396,855
Notes:													
1. Online sources are used for pricing.													
2. Prices can vary depending upon field conditions.													



MEP
Estimation

BREAKDOWN OF DUCT ITEMS					
Prepared for: Construct Transient Unit Maintenance Shelter, Fort Carson, CO					
Project ID: 5212026					
Scope: HVAC					
				Date:	28-Sep-26
SR #	DESCRIPTION	UNIT	QUANTITY	WASTAGE	QUANTITY W/ WASTAGE
HVAC					
	GALVANIZED SHEET METAL DUCT				
1	22" Dia Supply Air Duct	LF	11	10%	12
2	34" Dia Supply Air Duct	LF	50	10%	54
3	30"x38" Supply Air Duct	LF	20	10%	22
4	30"x45" Supply Air Duct	LF	2	10%	3
5	38"x30" Supply Air Duct	LF	9	10%	10
6	3" Dia Exhaust Air Duct (CE)	LF	28	10%	31
7	4" Dia Exhaust Air Duct (CE)	LF	122	10%	134
8	6" Dia Exhaust Air Duct (CE)	LF	8	10%	9
9	16" Dia Exhaust Air Duct	LF	138	10%	152
10	20" Dia Exhaust Air Duct	LF	35	10%	38
11	26" Dia Exhaust Air Duct	LF	31	10%	35
12	4" Dia Toilet Exhaust Air Duct	LF	5	10%	5
13	8" Dia Vehicle Exhaust Air Duct	LF	16	10%	17
14	12" Dia Vehicle Exhaust Air Duct	LF	26	10%	29
15	16" Dia Vehicle Exhaust Air Duct	LF	30	10%	32
16	30"x38" Outside Air Duct	LF	20	10%	22
	TOTAL				



MEP
Estimation