

DETAILED BREAKDOWN OF ITEMS

Project Name: Clemson Edisto Research Laboratory, 64 Research St Blackville, SC 29817
 Project ID: 1014-02
 Scope: HVAC



ACE SERVICES

Date: 14-May-25

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	\$ 95.00	\$ -	\$ -	\$ -	\$ -
2			Supervision and Coordination	LS	1	0%	1	0.000	\$ 95.00	\$ -	\$ -	\$ -	\$ -
3			Submittals and Shop drawings	LS	1	0%	1	0.000	\$ 95.00	\$ -	\$ -	\$ -	\$ -
4			Final Cleaning	LS	1	0%	1	35.000	\$ 95.00	\$ 3,325.00	\$ -	\$ 3,325.00	\$ 3,325
5			Mobilization Costs	LS	1	0%	1	110.000	\$ 95.00	\$ 10,450.00	\$ -	\$ 10,450.00	\$ 10,450
6			Temporary Control & Facilities	LS	1	0%	1	150.000	\$ 95.00	\$ 14,250.00	\$ -	\$ 14,250.00	\$ 14,250
7			Scaffolding	LS	1	0%	1	0.000	\$ 95.00	\$ -	\$ -	\$ -	\$ -
SUBTOTAL \$												28,025	
CONCRETE													
			PAD										
8	M0.01-M7.01	Plan Notes	9'-6" x 17'-6" Concrete Pad, H: 4"	CFT	2.1	10%	2	2.500	\$ 95.00	\$ 237.50	\$ 260.00	\$ 497.50	\$ 1,122
9			#4 Longitudinal Bars @ 12" O.C	LBS	111.055	10%	122	0.015	\$ 95.00	\$ 1.43	\$ 1.10	\$ 2.53	\$ 308
10			#4 Short Bars @ 12" O.C	LBS	111.055	10%	122	0.015	\$ 95.00	\$ 1.43	\$ 1.10	\$ 2.53	\$ 308
11			Control Joints - Note: Spacing Assumed.	LF	208.375	10%	229	0.042	\$ 95.00	\$ 3.99	\$ -	\$ 3.99	\$ 915
SUBTOTAL \$												2,654	
HVAC													
			AIR DEVICES										
			SUPPLY AIR DIFFUSER										
12			65 CFM, A1 Air Device - Duty: Supply - Type: A - Face/Module Size (IN): 24"x24" - Nominal Duct Size (IN): 6"Ã~ - Blow: 4-Way - Max Total Air PD (In H2O): 0.1 - Max Noise Criteria Value: 25 - Material: Steel\ CFM - Min: 0 - Max: 150 BASIS OF DESIGN: - Manufacturer: TITUS - Model: TDC	EA	1	0%	1	0.996	\$ 95.00	\$ 94.62	\$ 76.00	\$ 170.62	\$ 171

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13			100 CFM, A1 Air Device - Duty: Supply - Type: A - Face/Module Size (IN): 24"x24" - Nominal Duct Size (IN): 6"Ã~ - Blow: 4-Way - Max Total Air PD (In H2O): 0.1 - Max Noise Criteria Value: 25 - Material: Steel\ CFM - Min: 0 - Max: 150 BASIS OF DESIGN: - Manufacturer: TITUS - Model: TDC	EA	1	0%	1	0.996	\$ 95.00	\$ 94.62	\$ 76.00	\$ 170.62	\$ 171
14			100 CFM, A2 Air Device - Duty: Supply - Type: A - Face/Module Size (IN): 24"x24" - Nominal Duct Size (IN): 8"Ã~ - Blow: 4-Way - Max Total Air PD (In H2O): 0.1 - Max Noise Criteria Value: 25 - Material: Steel CFM - Min: 151 - Max: 275 BASIS OF DESIGN: - Manufacturer: TITUS - Model: TDC	EA	1	0%	1	0.996	\$ 95.00	\$ 94.62	\$ 76.00	\$ 170.62	\$ 171
15			105 CFM, A2 Air Device - Duty: Supply - Type: A - Face/Module Size (IN): 24"x24" - Nominal Duct Size (IN): 8"Ã~ - Blow: 4-Way - Max Total Air PD (In H2O): 0.1 - Max Noise Criteria Value: 25 - Material: Steel CFM - Min: 151 - Max: 275 BASIS OF DESIGN: - Manufacturer: TITUS - Model: TDC	EA	1	0%	1	0.996	\$ 95.00	\$ 94.62	\$ 76.00	\$ 170.62	\$ 171

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16			120 CFM, A2 Air Device - Duty: Supply - Type: A - Face/Module Size (IN): 24"x24" - Nominal Duct Size (IN): 8"Ã~ - Blow: 4-Way - Max Total Air PD (In H2O): 0.1 - Max Noise Criteria Value: 25 - Material: Steel CFM - Min: 151 - Max: 275 BASIS OF DESIGN: - Manufacturer: TITUS - Model: TDC	EA	1	0%	1	0.996	\$ 95.00	\$ 94.62	\$ 76.00	\$ 170.62	\$ 171
17			130 CFM, A2 Air Device - Duty: Supply - Type: A - Face/Module Size (IN): 24"x24" - Nominal Duct Size (IN): 8"Ã~ - Blow: 4-Way - Max Total Air PD (In H2O): 0.1 - Max Noise Criteria Value: 25 - Material: Steel CFM - Min: 151 - Max: 275 BASIS OF DESIGN: - Manufacturer: TITUS - Model: TDC	EA	1	0%	1	0.996	\$ 95.00	\$ 94.62	\$ 76.00	\$ 170.62	\$ 171
18			165 CFM, A2 Air Device - Duty: Supply - Type: A - Face/Module Size (IN): 24"x24" - Nominal Duct Size (IN): 8"Ã~ - Blow: 4-Way - Max Total Air PD (In H2O): 0.1 - Max Noise Criteria Value: 25 - Material: Steel CFM - Min: 151 - Max: 275 BASIS OF DESIGN: - Manufacturer: TITUS - Model: TDC	EA	1	0%	1	0.996	\$ 95.00	\$ 94.62	\$ 76.00	\$ 170.62	\$ 171

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19			195 CFM, A2 Air Device - Duty: Supply - Type: A - Face/Module Size (IN): 24"x24" - Nominal Duct Size (IN): 8"Ã~ - Blow: 4-Way - Max Total Air PD (In H2O): 0.1 - Max Noise Criteria Value: 25 - Material: Steel CFM - Min: 151 - Max: 275 BASIS OF DESIGN: - Manufacturer: TITUS - Model: TDC	EA	1	0%	1	0.996	\$ 95.00	\$ 94.62	\$ 76.00	\$ 170.62	\$ 171
20			225 CFM, A2 Air Device - Duty: Supply - Type: A - Face/Module Size (IN): 24"x24" - Nominal Duct Size (IN): 8"Ã~ - Blow: 4-Way - Max Total Air PD (In H2O): 0.1 - Max Noise Criteria Value: 25 - Material: Steel CFM - Min: 151 - Max: 275 BASIS OF DESIGN: - Manufacturer: TITUS - Model: TDC	EA	1	0%	1	0.996	\$ 95.00	\$ 94.62	\$ 76.00	\$ 170.62	\$ 171
21			225 CFM, A2 Air Device - Duty: Supply - Type: A - Face/Module Size (IN): 24"x24" - Nominal Duct Size (IN): 8"Ã~ - Blow: 4-Way - Max Total Air PD (In H2O): 0.1 - Max Noise Criteria Value: 25 - Material: Steel CFM - Min: 151 - Max: 275 BASIS OF DESIGN: - Manufacturer: TITUS - Model: TDC	EA	2	0%	2	0.996	\$ 95.00	\$ 94.62	\$ 76.00	\$ 170.62	\$ 341

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22			100 CFM, A3 Air Device - Duty: Supply - Type: A - Face/Module Size (IN): 24"x24" - Nominal Duct Size (IN): 10"Ã~ - Blow: 4-Way - Max Total Air PD (In H2O): 0.1 - Max Noise Criteria Value: 25 - Material: Aluminum CFM - Min: 276 - Max: 275 BASIS OF DESIGN: - Manufacturer: TITUS - Model: TDCA-AA	EA	1	0%	1	0.996	\$ 95.00	\$ 94.62	\$ 76.00	\$ 170.62	\$ 171
23			240 CFM, A3 Air Device - Duty: Supply - Type: A - Face/Module Size (IN): 24"x24" - Nominal Duct Size (IN): 10"Ã~ - Blow: 4-Way - Max Total Air PD (In H2O): 0.1 - Max Noise Criteria Value: 25 - Material: Aluminum CFM - Min: 276 - Max: 275 BASIS OF DESIGN: - Manufacturer: TITUS - Model: TDCA-AA	EA	1	0%	1	0.996	\$ 95.00	\$ 94.62	\$ 76.00	\$ 170.62	\$ 171
24			280 CFM, A3 Air Device - Duty: Supply - Type: A - Face/Module Size (IN): 24"x24" - Nominal Duct Size (IN): 10"Ã~ - Blow: 4-Way - Max Total Air PD (In H2O): 0.1 - Max Noise Criteria Value: 25 - Material: Aluminum CFM - Min: 276 - Max: 275 BASIS OF DESIGN: - Manufacturer: TITUS - Model: TDCA-AA	EA	18	0%	18	0.996	\$ 95.00	\$ 94.62	\$ 76.00	\$ 170.62	\$ 3,071

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25			310 CFM, A3 Air Device - Duty: Supply - Type: A - Face/Module Size (IN): 24"x24" - Nominal Duct Size (IN): 10"Ã~ - Blow: 4-Way - Max Total Air PD (In H2O): 0.1 - Max Noise Criteria Value: 25 - Material: Aluminum CFM - Min: 276 - Max: 275 BASIS OF DESIGN: - Manufacturer: TITUS - Model: TDCA-AA	EA	2	0%	2	0.996	\$ 95.00	\$ 94.62	\$ 76.00	\$ 170.62	\$ 341
26			330 CFM, A3 Air Device - Duty: Supply - Type: A - Face/Module Size (IN): 24"x24" - Nominal Duct Size (IN): 10"Ã~ - Blow: 4-Way - Max Total Air PD (In H2O): 0.1 - Max Noise Criteria Value: 25 - Material: Aluminum CFM - Min: 276 - Max: 275 BASIS OF DESIGN: - Manufacturer: TITUS - Model: TDCA-AA	EA	4	0%	4	0.996	\$ 95.00	\$ 94.62	\$ 76.00	\$ 170.62	\$ 682
27			360 CFM, A3 Air Device - Duty: Supply - Type: A - Face/Module Size (IN): 24"x24" - Nominal Duct Size (IN): 10"Ã~ - Blow: 4-Way - Max Total Air PD (In H2O): 0.1 - Max Noise Criteria Value: 25 - Material: Aluminum CFM - Min: 276 - Max: 275 BASIS OF DESIGN: - Manufacturer: TITUS - Model: TDCA-AA	EA	4	0%	4	0.996	\$ 95.00	\$ 94.62	\$ 76.00	\$ 170.62	\$ 682

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28			220 CFM, A5 Air Device - Duty: Supply - Type: B - Face/Module Size (IN): 100"x12" - Nominal Duct Size (IN): 10"Ã~ - Blow: 4-Way - Max Total Air PD (In H2O): 0.1 - Max Noise Criteria Value: 25 - Material: Steel CFM - Min: 215 - Max: 325 BASIS OF DESIGN: - Manufacturer: TITUS - Model: ML	EA	8	0%	8	1.120	\$ 95.00	\$ 106.40	\$ 138.86	\$ 245.26	\$ 1,962
			RETURN AIR DIFFUSER										
29			B1, Air Device - Duty: Return - Type: E - Face/Module Size (IN): 24"x24" - Nominal Duct Size (IN): 18"x18" - Blow: PERF - Max Total Air PD (In H2O): 0.1 - Max Noise Criteria Value: 20 - Material: Steel CFM - Min: 701 - Max: 1100 BASIS OF DESIGN: - Manufacturer: TITUS - Model: PAR	EA	6	0%	6	0.900	\$ 95.00	\$ 85.50	\$ 75.00	\$ 160.50	\$ 963
			EXHAUST REGISTER										
30			340 CFM, C1 Air Device - Duty: EXHAUST - Type: H - Face/Module Size (IN): 24"x24" - Nominal Duct Size (IN): 8"x8" - Blow: PERF - Max Total Air PD (In H2O): 0.1 - Max Noise Criteria Value: 20 - Material: Aluminum CFM - Min: 151 - Max: 250 BASIS OF DESIGN: - Manufacturer: TITUS - Model: TDCA-AA	EA	1	0%	1	1.153	\$ 95.00	\$ 109.54	\$ 131.00	\$ 240.54	\$ 241

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35			EF-1, Fan - Service: TLT 049 - 150 CFM - SP INCH H2O: 0.25 - 1000 Approx. RPM - Drive: Direct - Basis Of Design: GREENHECK/SP-A ELECTRICAL DATA - 115 V - 1 P - 60 Hertz	EA	1	0%	1	1.994	\$ 95.00	\$ 189.43	\$ 227.00	\$ 416.43	\$ 416
36			EF-2, Fan - Service: JANITOR 000 - 115 CFM - SP INCH H2O: 0.25 - 1000 Approx. RPM - Drive: Direct - Basis Of Design: GREENHECK/SP-A ELECTRICAL DATA - 115 V - 1 P - 60 Hertz	EA	1	0%	1	1.994	\$ 95.00	\$ 189.43	\$ 227.00	\$ 416.43	\$ 416
37			EF-3, Fan - Service: TLT 050 - 155 CFM - SP INCH H2O: 0.25 - 1000 Approx. RPM - Drive: Direct - Basis Of Design: GREENHECK/SP-A ELECTRICAL DATA - 115 V - 1 P - 60 Hertz	EA	1	0%	1	1.994	\$ 95.00	\$ 189.43	\$ 227.00	\$ 416.43	\$ 416
38			LEF-1, Fan - Service: LAB - 8500 CFM - SP INCH H2O: 6 - 2480 Approx. RPM - HP: 15 - Wheel Diameter: 20" - Drive: Belt - Basis Of Design: GREENHECK/VKTOR-CD ELECTRICAL DATA - 230 V - 3 P - 60 Hertz	EA	1	0%	1	15.000	\$ 95.00	\$ 1,425.00	\$ 7,591.00	\$ 9,016.00	\$ 9,016

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39			LEF-2, Fan - Service: LAB - 8500 CFM - SP INCH H2O: 6 - 2480 Approx. RPM - HP: 15 - Wheel Diameter: 20" - Drive: Belt - Basis Of Design: GREENHECK/VKTOR-CD ELECTRICAL DATA - 230 V - 3 P - 60 Hertz	EA	1	0%	1	15.000	\$ 95.00	\$ 1,425.00	\$ 7,591.00	\$ 9,016.00	\$ 9,016
			SUPPLY VAV UNIT										
40			VAV-1, Supply vav Unit - Inlet Size: 16"Ã~ - Outlet Size: 24"x18" - Min Inlet SP (In H2O): 0.50 - Max NC: 30 - Maximum Air Pressure Drop (In H2O): 0.30 - Basis Of Design: TITUS DESV AIR FLOW (CFM) - Cooling Max: 2000 - Cooling Min: 1000 - Heating: 1000 - Unoccupied Minimum: 667 REHEAT COIL - EAT(Ã°F): 55 - LAT(Ã°F): 85 - Capacity (BTU/HR): 32443 - Heating KW: 18.2 ELECTRICAL DATA - 208 V - 3 P - 60 Hertz	EA	1	0%	1	4.485	\$ 95.00	\$ 426.08	\$ 590.00	\$ 1,016.08	\$ 1,016

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41			VAV-2, Supply Vav Unit - Inlet Size: 10"Ã"~ - Outlet Size: 14"x12" - Min Inlet SP (In H2O): 0.50 - Max NC: 30 - Maximum Air Pressure Drop (In H2O): 0.30 - Basis Of Design: TITUS DESV AIR FLOW (CFM) - Cooling Max: 450 - Cooling Min: 400 - Heating: 400 - Unoccupied Minimum: 267 REHEAT COIL - EAT(Ã°F): 55 - LAT(Ã°F): 85 - Capacity (BTU/HR): 12977 - Heating KW: 6.1 ELECTRICAL DATA - 208 V - 3 P - 60 Hertz	EA	1	0%	1	4.125	\$ 95.00	\$ 391.88	\$ 510.00	\$ 901.88	\$ 902
42			VAV-3, Supply Vav Unit - Inlet Size: 8"Ã"~ - Outlet Size: 12"x10" - Min Inlet SP (In H2O): 0.50 - Max NC: 30 - Maximum Air Pressure Drop (In H2O): 0.30 - Basis Of Design: TITUS DESV AIR FLOW (CFM) - Cooling Max: 500 - Cooling Min: 250 - Heating: 250 - Unoccupied Minimum: 167 REHEAT COIL - EAT(Ã°F): 55 - LAT(Ã°F): 85 - Capacity (BTU/HR): 8111 - Heating KW: 5.7 ELECTRICAL DATA - 208 V - 3 P - 60 Hertz	EA	1	0%	1	4.000	\$ 95.00	\$ 380.00	\$ 490.00	\$ 870.00	\$ 870

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43			VAV-4, Supply vav Unit - Inlet Size: 6"Ã~ - Outlet Size: 12"x8" - Min Inlet SP (In H2O): 0.50 - Max NC: 30 - Maximum Air Pressure Drop (In H2O): 0.30 - Basis Of Design: TITUS DESV AIR FLOW (CFM) - Cooling Max: 300 - Cooling Min: 150 - Heating: 150 - Unoccupied Minimum: 100 REHEAT COIL - EAT(Ã°F): 55 - LAT(Ã°F): 85 - Capacity (BTU/HR): 4866 - Heating KW: 2.5 ELECTRICAL DATA - 208 V - 3 P - 60 Hertz	EA	1	0%	1	3.876	\$ 95.00	\$ 368.22	\$ 461.00	\$ 829.22	\$ 829
			EXHAUST AIR VALVE UNIT										
44			EAV-1, Exhaust Air Valve Unit - Inlet Size: 10"Ã~ - Outlet Size: 10"Ã~ - Maximum Inlet SP INCH WG: 0.5 - Maximum NC Valve @ 1.0 INCH WG Inlet SP: 30 - Basis Of Design: PHOENIX - Remarks: Fume Hood Valve AIR FLOW (CFM) - Max: 1000 - Min: 50	EA	1	0%	1	1.386	\$ 95.00	\$ 131.67	\$ 178.93	\$ 310.60	\$ 311
45			EAV-2, Exhaust Air Valve Unit - Inlet Size: 8"Ã~ - Outlet Size: 8"Ã~ - Maximum Inlet SP INCH WG: 0.5 - Maximum NC Valve @ 1.0 INCH WG Inlet SP: 30 - Basis Of Design: PHOENIX AIR FLOW (CFM) - Max: 700 - Min: 35	EA	1	0%	1	1.386	\$ 95.00	\$ 131.67	\$ 178.93	\$ 310.60	\$ 311
46			EAV-3, Exhaust Air Valve Unit - Inlet Size: 10"Ã~ - Outlet Size: 10"Ã~ - Maximum Inlet SP INCH WG: 0.5 - Maximum NC Valve @ 1.0 INCH WG Inlet SP: 30 - Basis Of Design: PHOENIX - Remarks: Fume Hood Valve AIR FLOW (CFM) - Max: 1000 - Min: 50	EA	1	0%	1	1.386	\$ 95.00	\$ 131.67	\$ 178.93	\$ 310.60	\$ 311

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47	M0.01-M7.01	Plan Notes	EAV-4, Exhaust Air Valve Unit - Inlet Size: 10"Ã~ - Outlet Size: 10"Ã~ - Maximum Inlet SP INCH WG: 0.5 - Maximum NC Valve @ 1.0 INCH WG Inlet SP: 30 - Basis Of Design: PHOENIX - Remarks: Fume Hood Valve AIR FLOW (CFM) - Max: 1000 - Min: 50	EA	1	0%	1	1.386	\$ 95.00	\$ 131.67	\$ 178.93	\$ 310.60	\$ 311
48			EAV-5, Exhaust Air Valve Unit - Inlet Size: 10"Ã~ - Outlet Size: 10"Ã~ - Maximum Inlet SP INCH WG: 0.5 - Maximum NC Valve @ 1.0 INCH WG Inlet SP: 30 - Basis Of Design: PHOENIX - Remarks: Fume Hood Valve AIR FLOW (CFM) - Max: 1000 - Min: 50	EA	1	0%	1	1.386	\$ 95.00	\$ 131.67	\$ 178.93	\$ 310.60	\$ 311
49			EAV-6, Exhaust Air Valve Unit - Inlet Size: 10"Ã~ - Outlet Size: 10"Ã~ - Maximum Inlet SP INCH WG: 0.5 - Maximum NC Valve @ 1.0 INCH WG Inlet SP: 30 - Basis Of Design: PHOENIX - Remarks: Fume Hood Valve AIR FLOW (CFM) - Max: 1000 - Min: 50	EA	1	0%	1	1.386	\$ 95.00	\$ 131.67	\$ 178.93	\$ 310.60	\$ 311
50			EAV-7, Exhaust Air Valve Unit - Inlet Size: 8"Ã~ - Outlet Size: 8"Ã~ - Maximum Inlet SP INCH WG: 0.5 - Maximum NC Valve @ 1.0 INCH WG Inlet SP: 30 - Basis Of Design: PHOENIX - Remarks: Snorkel Valve AIR FLOW (CFM) - Max: 700 - Min: 35	EA	1	0%	1	1.258	\$ 95.00	\$ 119.51	\$ 143.14	\$ 262.65	\$ 263
51			EAV-8, Exhaust Air Valve Unit - Inlet Size: 10"Ã~ - Outlet Size: 10"Ã~ - Maximum Inlet SP INCH WG: 0.5 - Maximum NC Valve @ 1.0 INCH WG Inlet SP: 30 - Basis Of Design: PHOENIX - Remarks: Fume Hood Valve AIR FLOW (CFM) - Max: 1000 - Min: 50	EA	1	0%	1	1.386	\$ 95.00	\$ 131.67	\$ 178.93	\$ 310.60	\$ 311

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57			SAV-1, Supply Air Valve Unit - Inlet Size: 10"Âˆ - Outlet Size: 10"Âˆ - Min SP: 0.5 - Max NC: 30 - Basis Of Design: PHOENIX AIR FLOW (CFM) - Max: 1000 - Min: 50 BALANCED AIRFLOW - Occupied(CFM): 620 - Unoccupied(CFM): 475 REHEAT COIL - EAT(Â°F): 55 - LAT(Â°F): 85 - Capacity (BTU/HR): 20088 - Heating KW: 6.3 ELECTRICAL - 208 V - 3 P - 60 Hertz	EA	1	0%	1	2.487	\$ 95.00	\$ 236.27	\$ 287.00	\$ 523.27	\$ 523
58			SAV-2, Supply Air Valve Unit - Inlet Size: 8"Âˆ - Outlet Size: 8"Âˆ - Min SP: 0.5 - Max NC: 30 - Basis Of Design: PHOENIX AIR FLOW (CFM) - Max: 700 - Min: 35 BALANCED AIRFLOW - Occupied(CFM): 240 - Unoccupied(CFM): 135 REHEAT COIL - EAT(Â°F): 55 - LAT(Â°F): 85 - Capacity (BTU/HR): 7776 - Heating KW: 4.4 ELECTRICAL - 208 V - 3 P - 60 Hertz	EA	1	0%	1	2.400	\$ 95.00	\$ 228.00	\$ 279.90	\$ 507.90	\$ 508

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Date: 14-May-25

SR #	Drawing #	Detail #	DESCRIPTION	UNIT	QUANTITY	WASTAGE	QUANTITY W/ WASTAGE	UNIT MANHOUR	HOURLY WAGE	LABOR COST	MAT. COST	UNIT COST	SUB COST
59			SAV-3, Supply Air Valve Unit - Inlet Size: 12" Å" - Outlet Size: 12" Å" - Min SP: 0.5 - Max NC: 30 - Basis Of Design: PHOENIX - Remarks: Dual AIR FLOW (CFM) - Max: 3000 - Min: 180 BALANCED AIRFLOW - Occupied(CFM): 2525 - Unoccupied(CFM): 1010 REHEAT COIL - EAT(Å°F): 55 - LAT(Å°F): 85 - Capacity (BTU/HR): 81810 - Heating KW: 18.9 ELECTRICAL - 208 V - 3 P - 60 Hertz	EA	1	0%	1	2.765	\$ 95.00	\$ 262.68	\$ 302.40	\$ 565.08	\$ 565
60			SAV-4, Supply Air Valve Unit - Inlet Size: 12" Å" - Outlet Size: 12" Å" - Min SP: 0.5 - Max NC: 30 - Basis Of Design: PHOENIX AIR FLOW (CFM) - Max: 1500 - Min: 90 BALANCED AIRFLOW - Occupied(CFM): 1415 - Unoccupied(CFM): 1101 REHEAT COIL - EAT(Å°F): 55 - LAT(Å°F): 85 - Capacity (BTU/HR): 45846 - Heating KW: 9.5 ELECTRICAL - 208 V - 3 P - 60 Hertz	EA	1	0%	1	2.765	\$ 95.00	\$ 262.68	\$ 302.40	\$ 565.08	\$ 565

DETAILED BREAKDOWN OF ITEMS

Project Name: Clemson Edisto Research Laboratory, 64 Research St Blackville, SC 29817
 Project ID: 1014-02
 Scope: HVAC



ACE SERVICES

Date: 14-May-25

SR #	Drawing #	Detail #	DESCRIPTION	UNIT	QUANTITY	WASTAGE	QUANTITY W/ WASTAGE	UNIT MANHOUR	HOURLY WAGE	LABOR COST	MAT. COST	UNIT COST	SUB COST
61			SAV-5, Supply Air Valve Unit - Inlet Size: 12" Å" - Outlet Size: 12" Å" - Min SP: 0.5 - Max NC: 30 - Basis Of Design: PHOENIX - Remarks: Dual AIR FLOW (CFM) - Max: 3000 - Min: 180 BALANCED AIRFLOW - Occupied(CFM): 2525 - Unoccupied(CFM): 1010 REHEAT COIL - EAT(Å°F): 55 - LAT(Å°F): 85 - Capacity (BTU/HR): 81810 - Heating KW: 18.9 ELECTRICAL - 208 V - 3 P - 60 Hertz	EA	1	0%	1	2.765	\$ 95.00	\$ 262.68	\$ 302.40	\$ 565.08	\$ 565
62			SAV-6, Supply Air Valve Unit - Inlet Size: 10" Å" - Outlet Size: 10" Å" - Min SP: 0.5 - Max NC: 30 - Basis Of Design: PHOENIX AIR FLOW (CFM) - Max: 1000 - Min: 50 BALANCED AIRFLOW - Occupied(CFM): 720 - Unoccupied(CFM): 475 REHEAT COIL - EAT(Å°F): 55 - LAT(Å°F): 85 - Capacity (BTU/HR): 23328 - Heating KW: 6.3 ELECTRICAL - 208 V - 3 P - 60 Hertz	EA	1	0%	1	2.487	\$ 95.00	\$ 236.27	\$ 287.00	\$ 523.27	\$ 523

DETAILED BREAKDOWN OF ITEMS

Project Name: Clemson Edisto Research Laboratory, 64 Research St Blackville, SC 29817
 Project ID: 1014-02
 Scope: HVAC



Date: 14-May-25

[illegible]

DETAILED BREAKDOWN OF ITEMS

Project Name: Clemson Edisto Research Laboratory, 64 Research St Blackville, SC 29817
 Project ID: 1014-02
 Scope: HVAC



ACE SERVICES

Date: 14-May-25

SR #	Drawing #	Detail #	DESCRIPTION	UNIT	QUANTITY	WASTAGE	QUANTITY W/ WASTAGE	UNIT MANHOUR	HOURLY WAGE	LABOR COST	MAT. COST	UNIT COST	SUB COST
64			SS-1, Indoor Unit Split System Air Conditioning Unit - Mounting: Wall - Basis Of Design: TRANE FAN - Nom Airflow: 425 - FLA: 0.65 COOLING - EAT(°F) WB: 90 - EAT(°F) DB: 73 - LAT(°F) WB: 67 - LAT(°F) DB: 57 - BTU/HR Sensible: 1375 - BTU/HR Total: 1661 ELECTRICAL DATA - 208 V - 1 P - 60 Hertz	EA	1	0%	1	6.481	\$ 95.00	\$ 615.72	\$ 1,620.31	\$ 2,236.03	\$ 2,236
65			SS-2, Indoor Unit Split System Air Conditioning Unit - Mounting: Wall - Basis Of Design: TRANE FAN - Nom Airflow: 425 - FLA: 0.65 COOLING - EAT(°F) WB: 90 - EAT(°F) DB: 73 - LAT(°F) WB: 67 - LAT(°F) DB: 57 - BTU/HR Sensible: 748 - BTU/HR Total: 963 ELECTRICAL DATA - 280 V - 1 P - 60 Hertz	EA	1	0%	1	6.481	\$ 95.00	\$ 615.72	\$ 1,620.31	\$ 2,236.03	\$ 2,236
66			HP-1, Outdoor Unit Split System Air Conditioning Unit - Mounting: Wall - Basis Of Design: TRANE FAN - Nom Airflow: 425 - FLA: 0.65 COOLING - EAT(°F) WB: 90 - EAT(°F) DB: 73 - LAT(°F) WB: 67 - LAT(°F) DB: 57 - BTU/HR Sensible: 1375 - BTU/HR Total: 1661 ELECTRICAL DATA - 208 V - 1 P - 60 Hertz	EA	1	0%	1	6.481	\$ 95.00	\$ 615.72	\$ 1,620.31	\$ 2,236.03	\$ 2,236

DETAILED BREAKDOWN OF ITEMS

Project Name: Clemson Edisto Research Laboratory, 64 Research St Blackville, SC 29817
 Project ID: 1014-02
 Scope: HVAC



ACE SERVICES

Date: 14-May-25

SR #	Drawing #	Detail #	DESCRIPTION	UNIT	QUANTITY	WASTAGE	QUANTITY W/ WASTAGE	UNIT MANHOUR	HOURLY WAGE	LABOR COST	MAT. COST	UNIT COST	SUB COST
67			HP-2, Outdoor Unit Split System Air Conditioning Unit - Mounting: Wall - Basis Of Design: TRANE FAN - Nom Airflow: 425 - FLA: 0.65 COOLING - EAT(°F) WB: 90 - EAT(°F) DB: 73 - LAT(°F) WB: 67 - LAT(°F) DB: 57 - BTU/HR Sensible: 748 - BTU/HR Total: 963 ELECTRICAL DATA - 280 V - 1 P - 60 Hertz	EA	1	0%	1	6.481	\$ 95.00	\$ 615.72	\$ 1,620.31	\$ 2,236.03	\$ 2,236

DETAILED BREAKDOWN OF ITEMS

Project Name: Clemson Edisto Research Laboratory, 64 Research St Blackville, SC 29817
Project ID: 1014-02
Scope: HVAC



Date: 14-May-25

[illegible]

DETAILED BREAKDOWN OF ITEMS

Project Name: Clemson Edisto Research Laboratory, 64 Research St Blackville, SC 29817
 Project ID: 1014-02
 Scope: HVAC



Date: 14-May-25

[illegible]

DETAILED BREAKDOWN OF ITEMS

Project Name: Clemson Edisto Research Laboratory, 64 Research St Blackville, SC 29817
Project ID: 1014-02
Scope: HVAC



Date: 14-May-25

[illegible]

DETAILED BREAKDOWN OF ITEMS

Project Name: Clemson Edisto Research Laboratory, 64 Research St Blackville, SC 29817
 Project ID: 1014-02
 Scope: HVAC



ACE SERVICES

Date: 14-May-25

SR #	Drawing #	Detail #	DESCRIPTION	UNIT	QUANTITY	WASTAGE	QUANTITY W/ WASTAGE	UNIT MANHOUR	HOURLY WAGE	LABOR COST	MAT. COST	UNIT COST	SUB COST
77			FF-1, Filter - Service: AHU-1 - Approximate Bank Dimensions In (WxHxD): 80"x96" - Number of Cartridges: 4 - Cartridge Size In (WxHxD): 20"x24"x2" - 3750CFM - Max Face Velocity (FPM): 500 - Media Area Per Cartridge (SQ FT): MERV 13 - Maximum Initial PD @ 500 FPM (In H2O): 0.5 - MERV Rating: 13	EA	1	0%	1	1.330	\$ 95.00	\$ 126.35	\$ 118.90	\$ 245.25	\$ 245
78			FF-2, Filter - Service: DOAU-1 - Approximate Bank Dimensions In (WxHxD): 160"x200" - Number of Cartridges: 8 - Cartridge Size In (WxHxD): 20"x25"x2" - 8665 CFM - Max Face Velocity (FPM): 500 - Media Area Per Cartridge (SQ FT): MERV 13 - Maximum Initial PD @ 500 FPM (In H2O): 0.5 - MERV Rating: 13	EA	1	0%	1	1.330	\$ 95.00	\$ 126.35	\$ 118.90	\$ 245.25	\$ 245
79			PF-1, Filter - Service: AHU-1 - Approximate Bank Dimensions In (WxHxD): 80"x96" - Number of Cartridges: 4 - Cartridge Size In (WxHxD): 20"x24"x2" - 3750CFM - Max Face Velocity (FPM): 500 - Media Area Per Cartridge (SQ FT): MERV 8 - Maximum Initial PD @ 500 FPM (In H2O): 0.5 - MERV Rating: 8	EA	1	0%	1	1.330	\$ 95.00	\$ 126.35	\$ 118.90	\$ 245.25	\$ 245
80			PF-2, Filter - Service: DOAU-1 - Approximate Bank Dimensions In (WxHxD): 160"x200" - Number of Cartridges: 8 - Cartridge Size In (WxHxD): 20"x25"x2" - 8665 CFM - Max Face Velocity (FPM): 500 - Media Area Per Cartridge (SQ FT): MERV 8 - Maximum Initial PD @ 500 FPM (In H2O): 0.5 - MERV Rating: 8	EA	1	0%	1	1.330	\$ 95.00	\$ 126.35	\$ 118.90	\$ 245.25	\$ 245
			DAMPER										
81			Air Damper	EA	4	0%	4	0.900	\$ 95.00	\$ 85.50	\$ 59.99	\$ 145.49	\$ 582
82			Outdoor Air Damper	EA	1	0%	1	1.050	\$ 95.00	\$ 99.75	\$ 75.99	\$ 175.74	\$ 176
83			Isolation Damper	EA	2	0%	2	1.050	\$ 95.00	\$ 99.75	\$ 86.50	\$ 186.25	\$ 373
84			Volume Damper	EA	52	0%	52	1.100	\$ 95.00	\$ 104.50	\$ 90.00	\$ 194.50	\$ 10,114
85			Mixed Air Damper	EA	1	0%	1	1.180	\$ 95.00	\$ 112.10	\$ 79.09	\$ 191.19	\$ 191
			VALVE										
86			Fume Hood Valve	EA	7	0%	7	1.198	\$ 95.00	\$ 113.81	\$ 142.45	\$ 256.26	\$ 1,794
87			Snorkel Valve	EA	2	0%	2	0.661	\$ 95.00	\$ 62.80	\$ 52.27	\$ 115.07	\$ 230
			MISC.										
88			Thermostat - Wall Mounted	EA	11	0%	11	1.450	\$ 95.00	\$ 137.75	\$ 164.92	\$ 302.67	\$ 3,329
89			VFD, Variable Frequency Drive	EA	3	0%	3	1.850	\$ 95.00	\$ 175.75	\$ 331.42	\$ 507.17	\$ 1,522
90			DPT	EA	4	0%	4	1.050	\$ 95.00	\$ 99.75	\$ 110.19	\$ 209.94	\$ 840

DETAILED BREAKDOWN OF ITEMS

Project Name: Clemson Edisto Research Laboratory, 64 Research St Blackville, SC 29817
 Project ID: 1014-02
 Scope: HVAC



ACE SERVICES

Date: 14-May-25

SR #	Drawing #	Detail #	DESCRIPTION	UNIT	QUANTITY	WASTAGE	QUANTITY W/ WASTAGE	UNIT MANHOURL	HOURLY WAGE	LABOR COST	MAT. COST	UNIT COST	SUB COST
91			AMD, Airflow Monitoring Device	EA	2	0%	2	2.350	\$ 95.00	\$ 223.25	\$ 555.00	\$ 778.25	\$ 1,557
92			Elastomeric Pad	EA	1	0%	1	0.990	\$ 95.00	\$ 94.05	\$ 81.50	\$ 175.55	\$ 176

SUBTOTAL \$ 169,547

ELECTRONIC SAFETY AND SECURITY MANUFACTURERS

93	M0.01-M7.01	Plan Notes	TS, Temperature Sensor	EA	9	0%	9	0.650	\$ 95.00	\$ 61.75	\$ 21.25	\$ 83.00	\$ 747
94			HS, Heat Sensor	EA	2	0%	2	0.894	\$ 95.00	\$ 84.93	\$ 72.95	\$ 157.88	\$ 316
95			SD-1, Smoke Detector	EA	1	0%	1	1.280	\$ 95.00	\$ 121.60	\$ 61.00	\$ 182.60	\$ 183
96			SPT-1, Static Pressure Sensor/Transmitter	EA	2	0%	2	1.300	\$ 95.00	\$ 123.50	\$ 126.31	\$ 249.81	\$ 500
97			Fume Hood Occupancy Sensor	EA	6	0%	6	1.210	\$ 95.00	\$ 114.95	\$ 52.20	\$ 167.15	\$ 1,003
98			Return Air Canopy - Factory Fabricated - w/ Integral Supports	EA	5	0%	5	1.980	\$ 95.00	\$ 188.10	\$ 349.00	\$ 537.10	\$ 2,686

SUBTOTAL \$ 5,433

PROJECTED COST		\$205,659
OVERHEAD AND PROFIT	35%	\$71,980
INSURANCE	2%	\$3,085
CONTINGENCY	0%	\$0
TAX	8.5%	\$17,481
SUGGESTED BID		\$298,205