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Comfort Systems USA (Arkansas), Inc. P.O. Box 16620 Little Rock, AR 72231 Phone 501-834-3320 Fax 501-834-5416

Date: 4/14/2025 Return Request: 4/24/2025 Project: City Of Sherwood Public Works (Administration Building) Supplier: Harrison Energy Partners Manufacturer: Daikin Submittal: 23 74 13-01 Submittal Number: Packaged Outdoor Central Station AHUs Re-Submittal #1 Drawing # and Installation: Mechanical Drawings

ARCHITECT

Cromwell 1300 East 6th Street Little Rock, AR 72202 501-372-2900

GENERAL CONTRACTOR

Baldwin & Shell 1000 W. Capitol Ave. Little Rock, AR 72201 501-374-8677

Notes:

ENGINEER

Cromwell 1300 East 6th Street Little Rock, AR 72202 501-372-2900

MECHANICAL SUBCONTRACTOR

Comfort Systems USA (Arkansas), Inc. 9924 Landers Rd. N. Little Rock, AR 72117 501-834-3320

CSUSA PROJECT NO. 24-6084 sean@comfortar.com

> 9924 Landers Rd. No. Little Rock, AR 72117

Submittal



Prepared For: Cromwell Architects Engineers **Date:** 4/7/2025

Sold To: Comfort Systems USA Job Name: Sherwood Public Works

Harrison Energy Partners is pleased to provide the enclosed submittal for your review and approval.

Qty. Product Summary

2 Air Handling Units / Condensing Units (AHU/CU-1,2)

Josh Robinson, New Systems Sales	The attached information describes the equipment we
501-539-0633 • harrisonenergy.com	propose to furnish for this project and is submitted for
Harrison Energy Partners • Commercial HVAC Excellence	your approval.
1501 Westpark Dr., Ste. 9 • Little Rock, AR 72204	

Notes:

AHU-1 and 2 are currently selected as a stacked unit. When selecting a stacked AHU, the selection program will only allow one supply fan. Although we are using both air tunnels as separate AHUs, the selection program still sees this as a single unit. In this arrangement, we must select one of the fans as a return/exhaust. Both fans will operate as supply fans in the field.

Daikin Vision Air Handler (AHU-1,2)

- Stacked Configuration
- MERV 8 Filter Selection
- DX Cooling Coil Section R32 Refrigerant
- Supply Fan Section
- 2" Double Wall Foam Injected Panels
- External Junction Box Field Installed VFD to be Provided by Others
- 208v/60Hz/3Ph

Daikin Condensing Unit (CU-1,2)

- 7.5 Ton Nominal Capacity
- 208v/60Hz/3Ph
- Low Ambient Control
- Hail Protection
- Refrigerant Specialties

Job Information		Technical Data Sheet
Job Name	City of Sherwood Bldgs	
Date	December 12 2024	
Submitted By	BL	
Software Version	13.51	
Unit Tag	AHU-1,2	



Unit Overview

			Sup	ply			Return/Exhaust							
Model Number	Air	Static P	ressure	Exteri	External Dimensions			Static P	ressure	External Dimensions				
	Volume	olume External		Height	Width	Length	Volume	External	Total	Height	Width	Length		
	cfm	inWc	inWc	in	in	in	cfm	inWc	inWc	in	in	in		
CAH004GDGM	1780	1.30	2.22	34*	36*	78	1860	1.30	2.16	34*	36*	78		

*Not including base rails, coil connectors, drain connectors and control boxes.

Unit

Model Number:	CAH004GDGM									
Approval:	ETL Listed / ETL Listed to Canadian Safety Standards (ETL Label / ETLc Label)									
Outer Panel:	24 gauge G90 Galvanized Steel (unpainted)									
Liner:	24 gauge Galvanized Steel (unless noted per section)									
Insulation:	R-13 Injected Foam									
Unit Configuration:	Stacked with parallel air flows	Drive (Handling) Location:	Right							
Base:	None Wall Thickness: 2 in									
Altitude:	0 ft Parts Warranty: Standard One Year									

Panel Filter		Component: 1		Length: 12 in		Shipping Section: 1			
Туре	Effici	iency	Face Velocity	Face Area	Air Vo	olume	Filter Loading		
Pleated	ME	RV 8	371 ft/min	5.0 ft ²	1860) cfm	Side		
	Air Press	ure Drop		Number of Filters	Height	Width	Depth		
Clean Air	Mean Air	Dirty Air	User Spec						
0.15 :	0 59 :	1.00:0040	NI / A	1	24 in	20 in	2 in		
0.13 invvc	0.56 Inwc	1.00 mwc	N/A	1	24 in	12 in	2 in		
			Do	oor					
	Location		Wi	dth		Opening			
	Drive side		8	in		Outward			

Direct Expan	nsion Co	oil		Compo	onent: 2			Length: 38	in			Shipping Section: 1			
Coil Model	То	tal Cap	acity	Sensibl	le Capacity	Numb	er of Coils	Number o	f Rows	Fins p	per Inch	Tube D	iameter		Tube Spacing (Face x Row)
4EJ0706B00	64	Ю87 в	tu/hr	4668	36 Btu/hr		1	6			7	0.500 in		1.5	0 in x 1.299 in
Air Volume			1	Air Temp	perature			Coil Air		Finned	Fin	Finned F		Face Area Face	
		Ente	ering			Leaving				Height	Lei	Length		Velocity	
	Dry B	ulb	Wet	Bulb	Dry Bulb Wet Bulb		Drop								
1860 cfm	78.1	°F	65.	1°F	°F 55.0 °F 5			0.66 insV	/g	24 in	n 23 in			t ²	498 ft/min
Fluid Sul						Cooled R	efrigerant	Suctio	on Vapo	or	Design S	aturated		Fotal	Refrigerant
Suction Te	Suction Temp. Refrigerant					Liquid To	emp.	Sup Temp. at	erheat Coil Ou	utlet	Condens	ing Temp.		'	Veight
44.0°	F	R32 110.0 °F						8	110	10.0 °F			2.00 lb		
Connection [Data Per Coil]											N	rface	ace Min. Tube Wall		
Туре	Type Liquid [Qty - Size] Suc				Suction [Qty	- Size]	Loca	ation	tion Material			Temp.		Su	rface Temp.
OD Swea	t	2-0	0.88 in		2-0.875	-0.875 in Drive		e side	Cop	pper tub	e	32.0 °F	:		32.0 °F
					Material						Drai	n Pan		Di	ain Side
Fin			Tu	be		Header			Case						
Aluminum .	0075 in	(Copper	.020 in	ı	Сорр	er	Galv. steel Stainless steel						Dr	ive side
							Contro	l Panel							
		Loc	cation:	Remo	ote Mount	ed					Voltage:	120			
н	eight x W	idth x l	Depth:	24.00	in x 16.00) in x 8.C)0 in				MCA:	2A			
		Equip	oment:	EEV D	Driver, Lea	k Deteo	ction				MOP:	10A			
		Encl	losure:	NEMA	A 3					Wiring	g Harness:	40 ft			
Total Refrigera on system star	nt Weight t-up.	t is the	total for	all circui	ts of all coils	in this co	oil section ai	nd is estimate	ed. Refe	er to the A	HU and Coi	ndensing L	Init IOMs j	for re	commendations
Minimum allov	vable face	velocit	ty = 150 j	fpm											
							AHRI 410 C	ertification							
						Coil	is NOT ce	rtified by A	HRI						

	Door	
Location	Width	Opening
Drive side	12 in	Outward

Return/Exha	aust Fan		Component: 3 Length: 28 in Shipping Section: 1											
						Fan Perf	ormance							
Air Volume		Static P	ressure		Fan Inde	Energy ex(FEI)	Total I Pow	nput ver	Fan Sha Powei	ft		Sp	peed	Outlet Velocity
	External	То	tal	Cabinet						Operating		ating	Maximum	
1860 cfm	1.30 inWc	2.16	inWc 0	04 inWc 1.04		1.3	1.3 kW 1.36 BI		HP 3497 rpn		7 rpm	4000 rpm	0 ft/min	
						Fan	Data							
Fan Type	Blade Type , Class	/ Non	ninal Fan Size	Wheel [Diameter Material Type			Nun Bl	nber o lades	f	Discharge	Motor Location		
Centrifugal - Plenum	Airfoil / 2		DDPL11	1		12.3	38 in	Aluminum		9			Top, single opening	Behind Fan
Motor Data														
Power	Electrical Supply	Spe	eed E	Enclosure		Frame Size Sup		Supplie	r	Number of Poles		Lock Rotor Current	Full Load Current	
1.5 нр	200/60/3 V/Hz/Phase	3500) rpm P	remium	emium ODP			rame	Gener	ic	2	2	0.00 A	4.60 A
						Fan O	ptions							
	Shaft Groundi	ng Kit:	Provided						Is	solator Type: Rubber in shear				
					VFD/	Starter/D	isconnec	t Data						
	Selection	Type:	External	J-Box						Ver	ndor:	Fact	ory Standard	
	VFD P	ower:	1.5 нр							Volt	tage:	200	V	
Height x Width x Depth: 6.00 in X 6.0					.00 in					Moun	ting:	Doo	r Side	
	Encl	osure:	NEMA 1											
						Do	oor							
	Location					Wi	dth						Opening	
Drive side 12 in Outward														

Panel Filter		Component: 4		Length: 12 in		Shipping Section:	2		
Туре	Effici	iency	Face Velocity	Face Area	Air Vo	olume	Filter Loading		
Pleated	ME	RV 8	355 ft/min	5.0 ft ²	1780) cfm	Side		
	Air Press	ure Drop		Number of Filters	Height	Width	Depth		
Clean Air	Mean Air	Dirty Air	User Spec						
0.15 ::::\//a		1.00 :=\\/a	NI/A	1	24 in	20 in	2 in		
0.15 111000	0.57 mwc	1.00 mwc	N/A	1	24 in	12 in	2 in		
			Do	oor					
	Location		Wi	dth		Opening			
	Drive side		8	in		Outward			

Direct Expa	nsion C	oil		Compo	nent: 5			Length: 38	Length: 38 in Shipping Section: 2							
Coil Model	Тс	otal Cap	pacity	Sensible	e Capacity	Numbe	er of Coils	Number o	Rows	Fins	per Inch	Tube	Diameter		Tube Spacing (Face x Row)	
4EJ0706B00	03 60	0950 e	8tu/hr	4466	9 Btu/hr		1	6			7	0.500 in		1.5	50 in x 1.299 in	
Air Volume			1	Air Temp	erature			Coil Air		Finned	Fi	Finned F		Face Area Face		
		Ente	ering			Leaving		Pressure		Height	L	Length		Velocity		
	Dry B	ulb	Wet	Bulb	Dry Bulb V		Vet Bulb	Drop								
1780 cfm	77.6	5°F	64.	7 °F	°F 54.5 °F 53			0.61 insV	/g	24 in	2	23 in 3			476 ft/min	
	F	luid			Sub-0	Cooled R	efrigerant	Suctio	on Vapo	or	Design	Saturated		Total	Refrigerant	
Suction Te	Suction Temp. Refrigerant					Liquid Te	emp.	Sup Temp. at	erheat Coil Ou	utlet	Conder	sing Temp	•		Neight	
44.0 °	F		R32 110.0 °F						8.0 °F 110						2.00 lb	
Connection [Data Per Coil]							il]				1	Min. Fin Surface			ce Min. Tube Wall	
Туре	Type Liquid [Qty - Size] Suc				uction [Qty	- Size]	Loca	ation	I	Material		Temp		Su	rface Temp.	
OD Swea	ıt	2-	0.88 in		2-0.875	2-0.875 in Drive		e side	Сор	pper tuk	e	32.0°	F		32.0 °F	
					Material						Dra	in Pan		D	rain Side	
Fin			Tu	be		Header			Case							
Aluminum .	0075 in		Copper	.020 in		Сорр	er	Galv. steel Stainless steel Dri						ive side		
							Contro	ol Panel								
		Lo	cation:	Remo	te Mount	ed					Voltage	120				
н	leight x W	/idth x	Depth:	24.00	in x 16.00	in x 8.0	10 in				MCA	2A				
		Equi	oment:	EEV D	river, Lea	k Deteo	tion				MOP	10A				
		Enc	losure:	NEMA	3					Wirin	g Harness	26 ft				
Total Refrigera on system star	nt Weigh t-up.	t is the	total for	all circuit	s of all coils	in this co	oil section ar	nd is estimate	ed. Refe	er to the A	HU and Co	ondensing	Unit IOMs	for re	commendations	
Minimum allov	vable face	e veloci	ty = 150 j	fpm												
							AHRI 410 C	Certification								
						Coil	is NOT ce	rtified by A	HRI							

	-	
	Door	
Location	Width	Opening
Drive side	12 in	Outward

Supply Fan	Component: 6						Length: 28 in					Shipping Section: 2		
						Fan Perf	ormance							
Air Volume		Static P	ressure		Fan Inde	Energy ex(FEI)	Total I Pow	nput ver	Fan Sha Power	ift r			eed	Outlet Velocity
	External	То	tal	Cabinet							Operating		Maximum	
1780 cfm	1.30 inWc	2.22	inWc C	16 inWc 1.20		1.1 kW 1		1.15 внр 283		2833	2833 rpm 4000 rpm		0 ft/min	
						Fan	Data							
Fan Type	Blade Type , Class	/ Non	inal Fan Size Quantity of Fa			ans Wheel Diameter Mate		rial Type	Num Bla	ber o des	f	Discharge	Motor Location	
Centrifugal - Plenum	Airfoil / 2		DDPL12	1	12.38 in Aluminum			minum	12		E	End, single opening	Behind Fan	
	Motor Data													
Power	Electrical Supply	Spe	ed I	Enclosure		Frame Size Su		Supplie	er l	Number of Poles		Lock Rotor Current	Full Load Current	
1.5 нр	200/60/3 V/Hz/Phase	3500) rpm P	remium	C	DDP	143 T f	rame	Gener	ic	2		0.00 A	4.60 A
						Fan O	ptions							
	Shaft Groundi	ng Kit:	Provideo				Isola			olator Type: Rubber in shear				
					VFD/	Starter/D	isconnec	t Data						
	Selection	Type:	External	J-Box						Vend	lor:	Facto	ory Standard	
	VFD P	ower:	1.5 нр							Volta	ge:	200 \	V	
Height x Width x Depth: 6.00 in x 6.00 in x 4.										Mounti	ing:	Door	r Side	
Enclosure: NEMA 1														
						Do	oor							
	Location					Wi	Width Opening							
Drive side					12 in					Outward				

Unit Sound Power (dB)									
Туре	63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	
Radiated:	68	63	55	64	59	53	46	51	
Unit Discharge:	74	69	69	78	77	77	76	68	
Unit Return:	68	63	65	77	68	65	63	56	

Shipping Section Details									
Section	Length	Weight	Corner Weights (lb) Center of Gravity (in)					(in)	
	in	lb	P1	P2	P3	P4	XX	YY	ZZ
1	78	847	230	213	194	210	37	17	15
2	78	848	229	213	195	212	37	17	15
Entire Unit	78 Lower level only	1695	n/a	n/a	n/a	n/a	n/a	n/a	n/a





2.16 insWg

Elevation View

NOTE: Special components aren't included in the corner weights and center of gravity data.

Shipping Protection	None			
Supply Static Pressure Drop				
Component	Option	Static Pressure Drop		
Panel Filter	Panel Filter	0.15 insWg		
DX Coil	DX Coil	0.61 insWg		
Supply Fan	Cabinet	0.16 insWg		
External Static	External Static	1.30 insWg		
Total Suppl	y Fan Static	2.22 insWg		
Exhaust Static Pressure Drop				
Component	Option	Static Pressure Drop		
Panel Filter	Panel Filter	0.15 insWg		
DX Coil	DX Coil	0.66 insWg		
Return Fan	Cabinet	0.04 insWg		
External Static	External Static	1.30 insWg		

Total Return/Exhaust Fan Static

Minimum Recommended Drain Pan Trap Dimensions							
Shipping Section	Component	Н					
1	DX Coil	4.22					
2	DX Coil	1.52					



Dimensions provided as a courtesy and are recommended minimums only. Daikin is not responsible for supplying or designing drain pan traps and is not responsible for any damage caused by incorrect trap heights. The dimensions listed above should be reviewed and approved by a licensed plumbing professional.

AHRI Certification



Certified by the AHRI Central Station Air-Handling Unit (AHU) Certification Program, which is based on AHRI Standard 430/431. AHRI certified units are subject to rigorous and continuous testing, have performance ratings independently measured and are third-party verified. Certified units may be found in the AHRI Directory at www.ahridirectory.org.

Notes

Standard

1. As a standalone component, unit meets or exceeds requirements of ASHRAE 90.1 - 2007. The approving authority is responsible for compliance of multi - component building systems.

















All opening dimensions have a 1" mounting flange along the inner edge. The actual airflow area of the opening is 2" smaller in each dimension.



CFM (IN 1,000's)

AF 11 DD PLENUM 9BL (100% Width) 1x1 Ret/Exh Fan at Standard Conditions								
Air volume	1860	cfm	Fan speed		3497	rpm		
Total static	2.16	insWg	Max speed		4000	rpm		
Fan Shaft Power	1.4	bhp	Efficiency		46.5	%		
Approx VFD Setting	59.9	Hz	Motor Speed		3500	rpm		
Fan Energy Index(FEI)	1.04							
Unit tagging	AHU-1,2			Date	Decemb	er-12-2024		
Job name	City of Sher	wood Bldgs		Time	15:18			



CFM (IN 1,000's)

AF 12 DD PLENUM 12BL (100% Width) 1x1 Supply Fan at Standard Conditions								
Air volume	1780	cfm	Fan speed	2833	rpm			
Total static	2.22	insWg	Max speed	4000	rpm			
Fan Shaft Power	1.2	bhp	Efficiency	53.9	%			
Minimum CFM	653	cfm	Minimum Fan Speed	1439	rpm			
Approx VFD Setting	48.6	Hz	Motor Speed	3500	rpm			
Fan Energy Index(FEI) 1.20								
Unit tagging	AHU-1,2		Date	Decembe	er-12-2024			
AND CERTIFIED THE	City of Sher	wood Bldgs	Time	9 15:18				
Cumply for performance is contified in accordance with the Control Station								

Air-Handling Unit Certification Program, which is based on AHRI Standard 430.