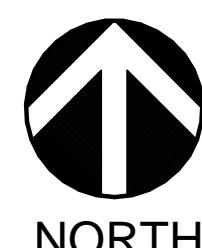


DEMOLITION ROOF PLAN - MECHANICAL

GRAPHIC SCALE: 3/16" = 1'-0"



NOTES INDICATED BY "○":

- ① REMOVE ENTIRE EXISTING ROOF FOR REPLACEMENT. EXISTING CURBS SERVING ROOF PENETRATIONS, ROOF MOUNTED FRAMES, CONDENSING UNITS, SKYLIGHTS, ETC. TO REMAIN.
- ② NOTE THAT THE SOUTH ROOF IS APPROXIMATELY 4" HIGHER THAN THE ROOF IMMEDIATELY NORTH.
- ③ CAREFULLY REMOVE EXISTING 110-TON AIR-COOLED PACKAGED CHILLERS (2) AND DELIVER TO OWNER AT A DESIGNATED LOCATION OF HIS CHOICE. REFER TO ELECTRICAL DRAWINGS FOR ELECTRICAL WORK. CHILLERS SHALL REMAIN IN PLACE UNTIL NEW CHILLERS ARE OPERATIONAL. SCHEDULE SHUTDOWN FOR CHANGE OVER.
- ④ EXISTING SUPPORT FRAME FOR CHILLERS TO REMAIN AND BE MODIFIED TO SUPPORT NEW DOAS UNIT(S).
- ⑤ REMOVE EXISTING 6" CHS/R AND SUPPORTS FROM ROOF.
- ⑥ REMOVE EXISTING CHILLED WATER PUMPS MOUNTED ON ROOF. REMOVE CONDUIT AND ELECTRICAL SERVICE TO PUMPS. REFER TO ELECTRICAL DRAWINGS.
- ⑦ REMOVE EXISTING NATURAL GAS GENERATOR SET FROM THE ROOF. EXISTING SUPPORT FRAME TO REMAIN.
- ⑧ REMOVE EXISTING 6" CHS/R PENETRATING ROOF.
- ⑨ REMOVE EXISTING SUPPLY FAN SERVING BUILDING. DUCT PENETRATION AND CURB TO REMAIN.
- ⑩ REMOVE EXISTING EXHAUST FAN SERVING BUILDING. DUCT PENETRATION AND CURB TO REMAIN.
- ⑪ REMOVE EXISTING GRAVITY INTAKE VENT SERVING BUILDING. DUCT PENETRATION AND CURB TO REMAIN.
- ⑫ EXISTING CONDENSING UNIT AND ASSOCIATED REFRIGERANT PIPING TO REMAIN AND BE PROTECTED DURING ROOF REPLACEMENT.
- ⑬ EXISTING EXHAUST FAN TO REMAIN. BALANCE FOR CFM SHOWN.
- ⑭ EXISTING 2", 2PSI GAS LINE TO REMAIN TO SERVE NEW DOAS UNITS.
- ⑮ EXISTING FRAME TO BE REMOVED UNDER ROOF REPLACEMENT SCOPE

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HVAC SYSTEM RENOVATION PHASE 2

PARIS, TEXAS 75460

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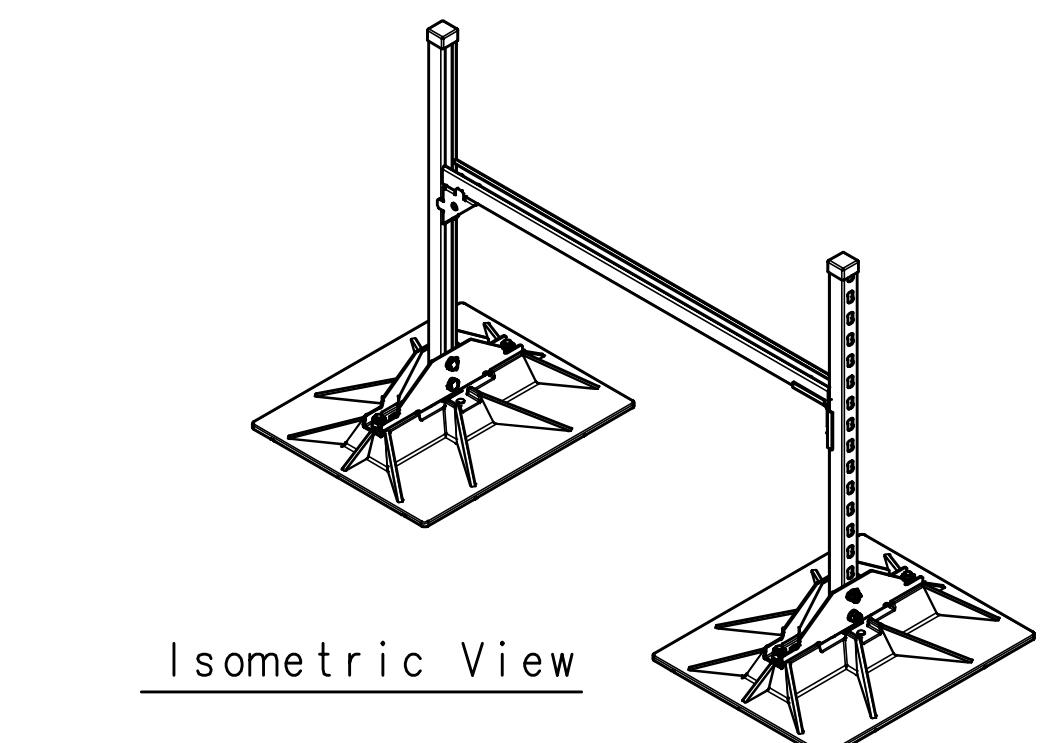
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DESIGN BY:

DRAWING NAME:
MECHANICAL
DEMOLITION
ROOF PLAN

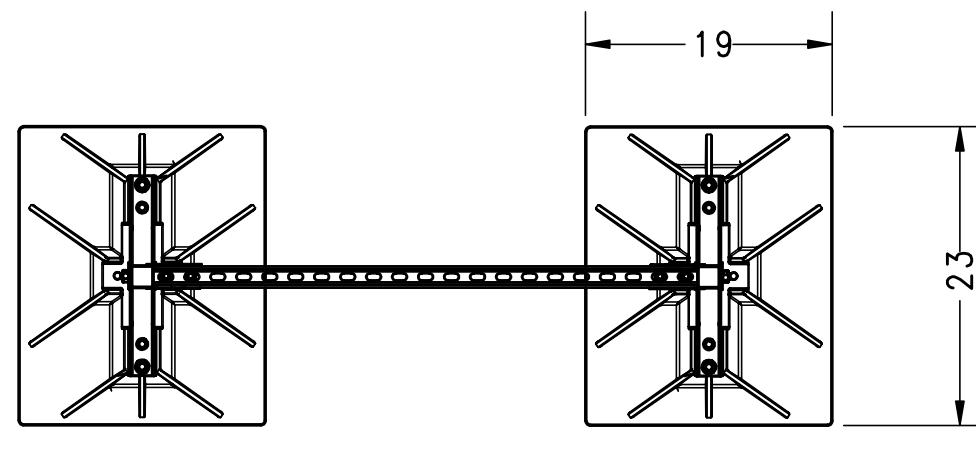
JOB: 21038C
DATE: 08/31/2022
SHEET NO.

M005

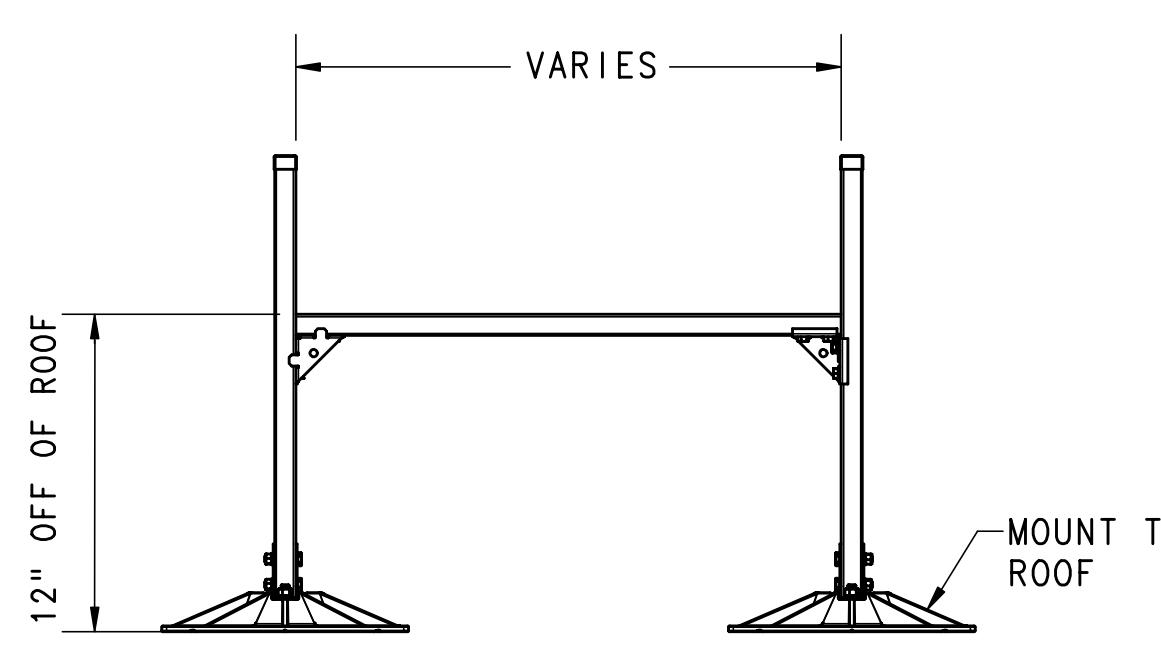
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CONSULTING ENGINEERS
2655 74th STREET LUBBOCK, TEXAS 79423
(806) 745-2333
F-204
61441
THE SEAL APPEARS ON THIS
DOCUMENT WAS AUTHORIZED
BY THE STATE OF TEXAS
LICENCE #61441 ON 08/31/2022



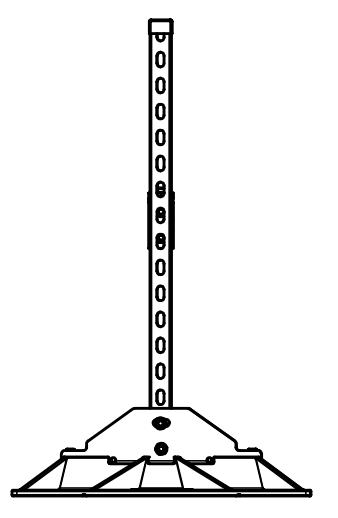
Isometric View



Top View



Front View



Side View

NOTE: PROVIDE 2-TIER SUPPORTS WHERE REQUIRED

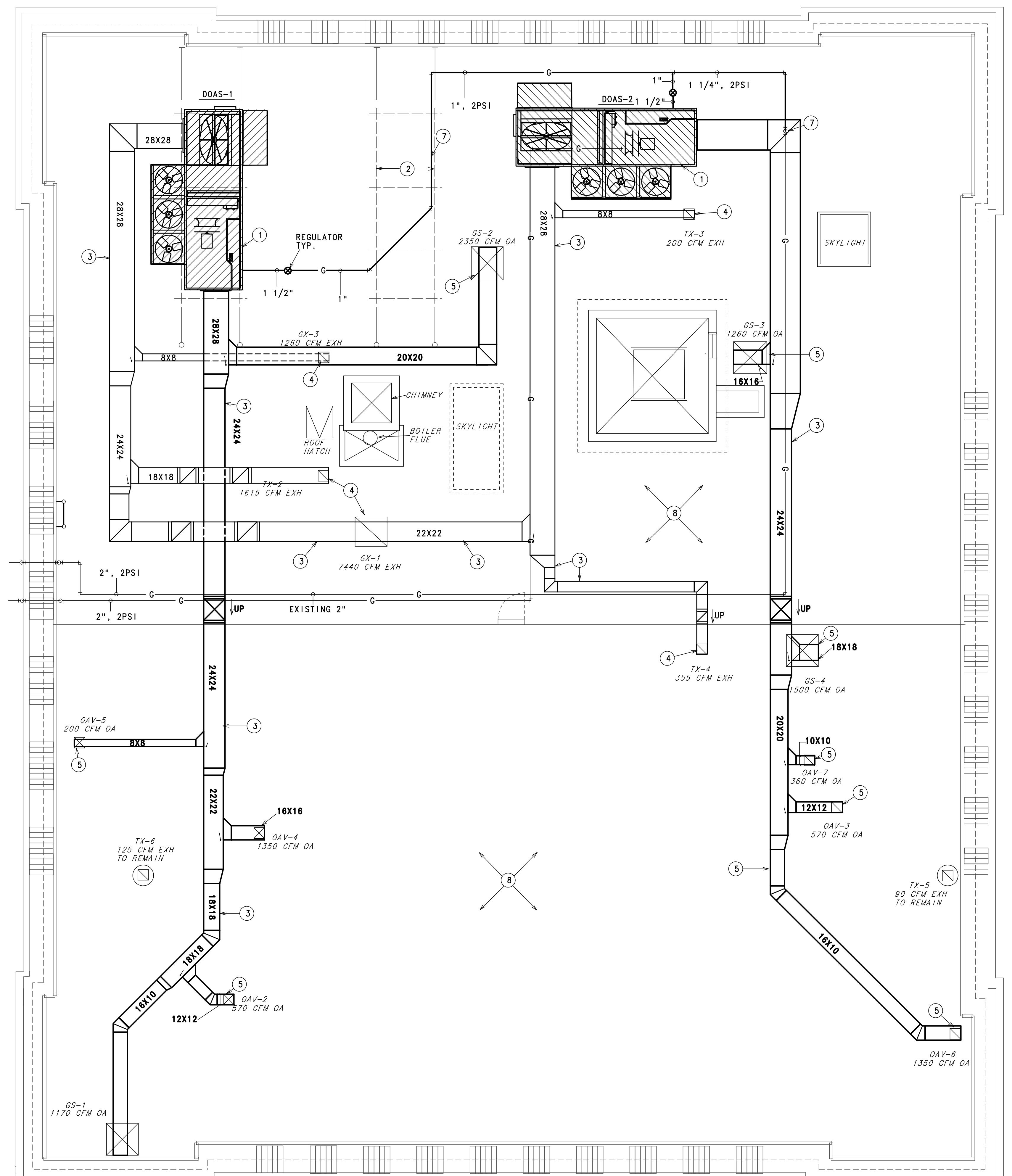
KEY INFORMATION

- The 10-DS series support is engineered to ensure member/component capacities and deflection criteria are not exceeded. Maximum loading from any MIRO base to the finished roof surface is not to exceed 2.0 psi unless specifically allowed otherwise in the project specifications. Deflection in the horizontal header bar is not to exceed the span length by 360 or 1/8.
- Recommended spacing is not to exceed 8 feet centers depending upon the load. Do not exceed load weight.
- Width and height are built job specific based on information provided to MIRO Ind. with a minimum height of 12".
- frame is made with 12 Gauge Channel; size is determined during design
- Base Material: Polycarbonate
- All metal parts are hot dip galvanized

ROOF DUCT SUPPORT DETAIL

NO SCALE

PIPE SUPPORT SIMILAR



NEW ROOF PLAN - MECHANICAL

GRAPHIC SCALE: 3/16" = 1'-0"



NOTES INDICATED BY "①"

- ① NEW DOAS UNIT. MOUNT ON EXISTING FRAME.
- ② EXISTING FRAME TO BE REMOVED UNDER ROOF REPLACEMENT PROJECT.
- ③ TYPICAL SUPPLY AND EXHAUST DUCT - REFER TO SPECIFICATIONS FOR OUTDOOR DUCTWORK OPTIONS. HERMADUC, RIGID INSULATION WITH THERMADUCT, OR DOUBLE WALL DUCT. MOUNT DUCT A MINIMUM OF 18" ABOVE ROOF. REFER TO ROOF SUPPORT DETAIL. INSTALL DUCT SUPPORTS AT INTERVALS RECOMMENDED BY MANUFACTURER.
- ④ CONNECT TO EXISTING EXHAUST CONNECTION. REUSE EXISTING CURB. INSULATE DUCT AT CONNECTION AND FLASH WATER-TIGHT.
- ⑤ CONNECT TO EXISTING OUTSIDE AIR CONNECTION, OA VENTILATOR OR OA SUPPLY FAN LOCATION. REUSE EXISTING CURB. INSULATE DUCT AT CONNECTION AND FLASH WATER-TIGHT.
- ⑥ INCORPORATE CONTROL OF NEW DOAS EQUIPMENT INTO JOHNSON CONTROLS METASYS SYSTEM. BALANCE ALL OUTSIDE AIR AND EXHAUST SYSTEMS TO AIR QUANTITIES SHOWN. REFER TO SPECIFICATIONS.
- ⑦ CONNECT TO EXISTING NATURAL GAS LINE AND EXTEND TO NEW DOAS UNITS. INSTALL GAS REGULATORS AT EACH DOAS UNIT.
- ⑧ ROOF TO BE REPLACED OUTSIDE THE SCOPE OF THE PHASE 2 PROJECT. REFER TO ROOF REPLACEMENT PROJECT AND COORDINATE WORK WITH ROOFING CONTRACTOR.

LAMAR COUNTY COURTHOUSE
HVAC SYSTEM RENOVATION PHASE 2

PARIS, TEXAS 75460

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NEW
ROOF PLAN

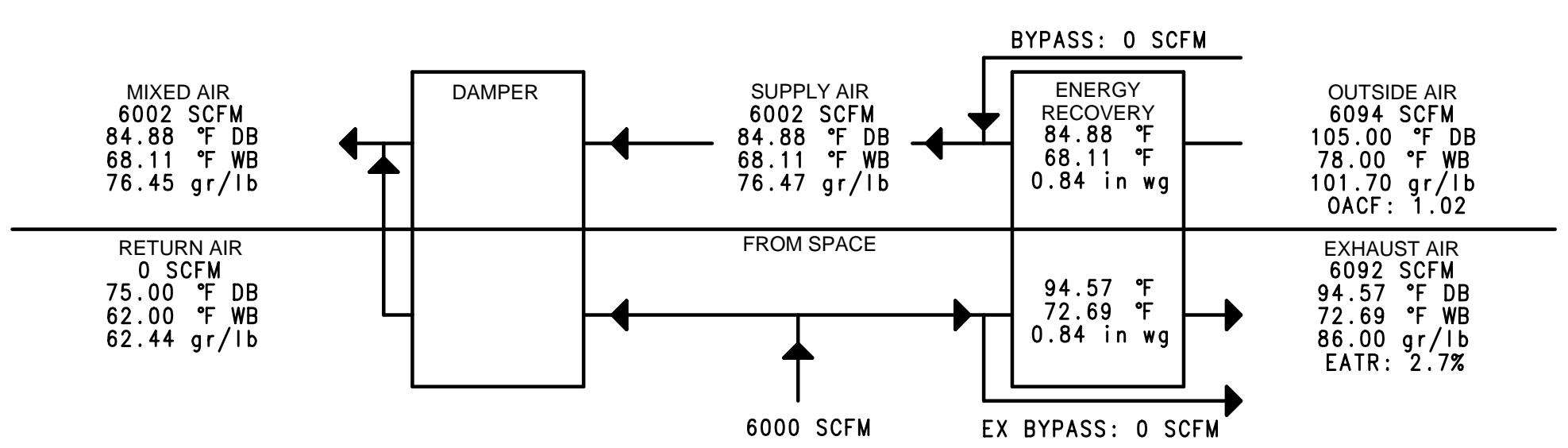
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M105

DEDICATED OUTSIDE AIR SYSTEM (DOAS) SYSTEM UNIT SCHEDULE

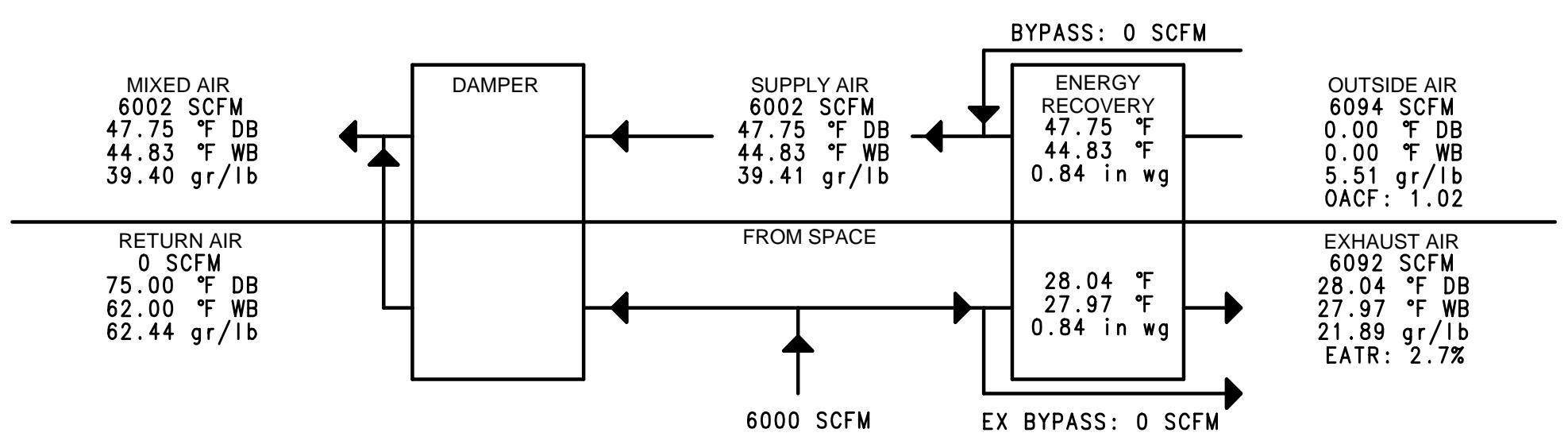
MARK	CFM	SUPPLY FAN				COOLING				HEATING				ELECTRICAL				WEIGHT			
		ESP "WC	RPM	HP	DRIVE	NET COOLING SENS MBH	NET COOLING TOTAL MBH	SUMMER EAT DB/WB	SUMMER LAT DB/WB	SUMMER REHEAT LAT, DB/WB	SUMMER UNIT CAPACITY MBH	EAT/LAT DB F	UNIT VOLTAGE	UNIT FLA	UNIT MCA	FUSE SIZE	EER				
DOAS-1	6000	2.0	1527	7.5	BELT	YES	198.8	288.8	87.9/68.11	50.4/50.1	75/60	75/60	NAT GAS	154.3	48/81	460V/3PH/60HZ	83	88	110	11	4302
DOAS-2	6000	2.0	1527	7.5	BELT	YES	198.8	288.8	87.9/68.11	50.4/50.1	75/60	75/60	NAT GAS	154.3	48/81	460V/3PH/60HZ	83	88	110	11	4302

NOTES:
1. SEE ENERGY RECOVERY WHEEL SPECIFICATION AT RIGHT FOR WHEEL PERFORMANCE REQUIRED.
2. PROVIDE WITH BACnet (ms/tp), MODBUS, N2 NETWORK CARD. INTEGRATE WITH JCI METASYS SYSTEM

ENERGY RECOVERY WHEEL
SUMMER CONDITIONS


COOLING / DEHUMIDIFICATION HEATING / DEHUMIDIFICATION EFFECTIVENESS

TOTAL CAPACITY: 220.24 MBH 0.00 MBH 64.4%
SENSIBLE CAPACITY: 180.71 MBH 0.00 MBH 66.2%
LATENT CAPACITY: 99.53 MBH 0.00 MBH 62.1%

WINTER CONDITIONS


COOLING / DEHUMIDIFICATION HEATING / DEHUMIDIFICATION EFFECTIVENESS

TOTAL CAPACITY: 0.00 MBH 449.47 MBH 62.6%
SENSIBLE CAPACITY: 0.00 MBH 308.34 MBH 62.7%
LATENT CAPACITY: 0.00 MBH 141.14 MBH 58.8%

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PARIS, TEXAS 75460

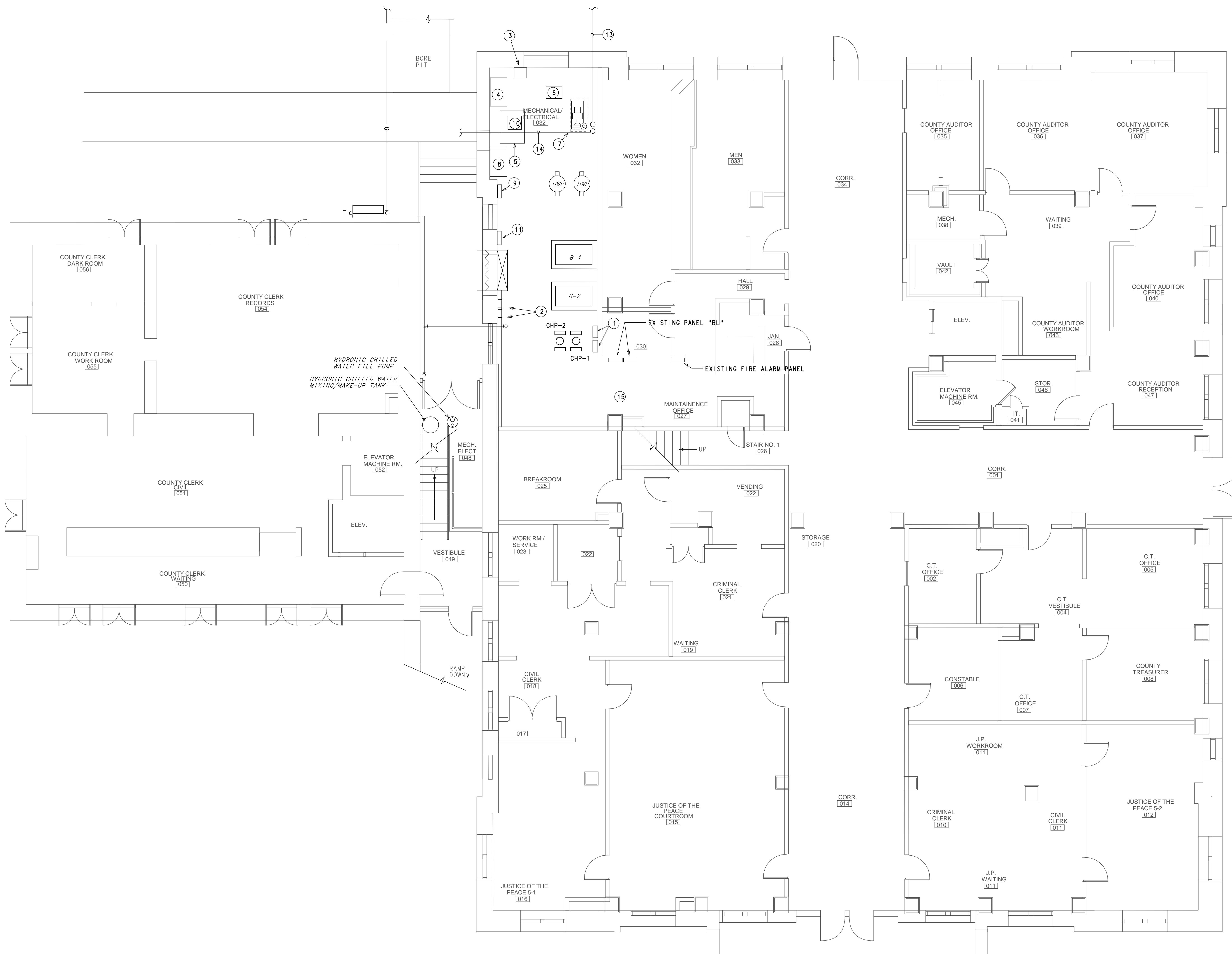
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DRAWING NAME:
MECHANICAL
SCHEDULES

JOB: 21038C
DATE: 08/31/2022
SHEET NO. 1

M106



NEW BASEMENT FLOOR PLAN - ELECTRICAL

A scale bar with markings at 0, 5, 10, and 15. Below the scale, the text "GRABILLO SCALE 3/16 IN 11.0 IN" is printed.

A black circular icon with a white arrow pointing upwards, indicating the direction of North.

NOTES INDICATED BY "○":

ELECTRICAL LEGEND

SYMBOL	DESIGNATION
	GROUND FAULT INTERRUPTER RECEPTACLE
	JUNCTION BOX
	LIGHTING AND APPLIANCE PANEL
	DISTRIBUTION PANEL
	CIRCUIT INDICATION (NO. OF WIRES: GROUND/HOT/NEUTRAL SHOWN)
	SWITCH LEG INDICATION
	CIRCUIT RUN TO PANEL (NO. OF WIRES SHOWN)
	MOTOR
	MOTOR CONTROLLER
	DISCONNECT SWITCH
	THERMOSTAT
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
UG	UNDERGROUND

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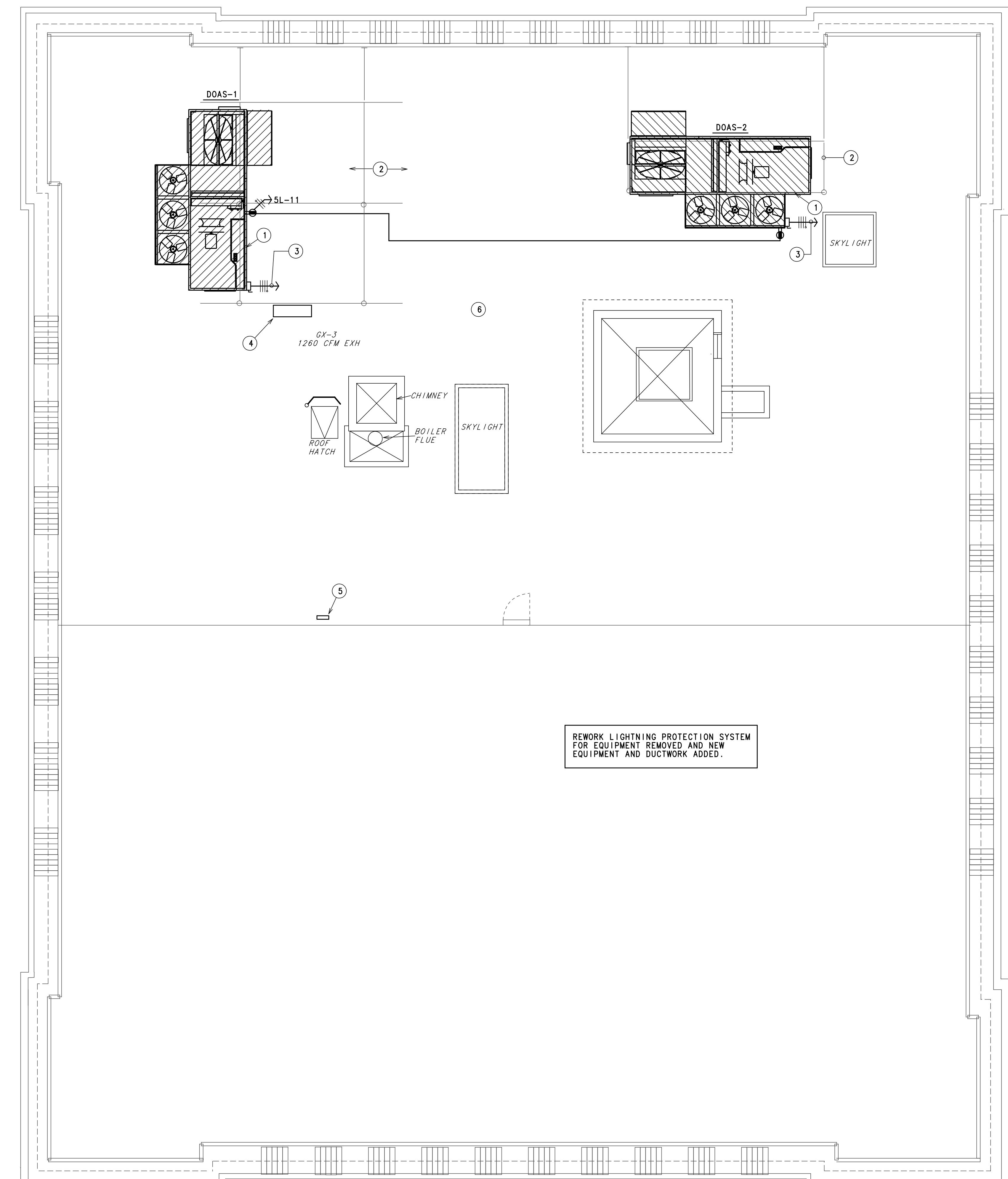
FANNING & ASSOCIATES
LUBBOCK, TEXAS
JOHN A. FANNING
34307
REGISTERED
PROFESSIONAL ENGINEER

LAMAR COUNTY COURTHOUSE
HVAC SYSTEM RENOVATION PHASE 2

DRAWING NAME:
**ELECTRICAL
NEW
BASEMENT
FLOOR PLAN**

JOB:	21038C
DATE:	08/31/2022
SHEET No.	

E100



NEW ROOF PLAN - ELECTRICAL

A horizontal graphic scale with numerical markings at 0, 5, 10, and 15. The scale is marked with a dashed line and a solid line. Below the scale, the text "GRAPHIC SCALE: 3/16" = 1'-0" is printed.



NOTES INDICATED BY "○"

- 1 NEW DOAS UNIT. MOUNT ON EXISTING FRAME.
- 2 MECHANICAL CONTRACTORS TO MODIFY EXISTING FRAME AS REQUIRED.
- 3 CONNECT NEW DOAS TO EXISTING PANEL "CH". PROVIDE NEW CONDUIT, CONDUCTORS, AND BREAKERS. PROVIDE CONDUIT FOR CONTROLS AS REQUIRED.
- 4 EXISTING PANEL "CH" TO REMAIN. INSTALL NEW BREAKERS FOR DOAS-1 AND DOAS-2
- 5 EXISTING PANEL "5L" TO REMAIN. CONNECT NEW ROOF RECEPTACLES TO EXISTING ROOF RECEPTACLE CIRCUIT 5L-11. PROVIDE AND INSTALL NEW INTERIOR SHIELD.
- 6 PROVIDE NEW 20A/1P BREAKERS IN PANEL "2L" FOR NEW CONTROLS. COORDINATE AND PROVIDE 120 VOLT CIRCUITS AS REQUIRED FOR TEMPERATURE CONTROLS AT ALL LOCATIONS IN BUILDING. FIELD VERIFY WORK REQUIRED.

CKT	SERVES	Ckt Brkr		CONDUCTORS / CONDUIT	Continuous VA		Non-continuous VA			Total VA
		Trip	Poles		Lights	Load2	Recept	Load4	Motors	
1	Spare	300	3							
2	New DOAS-1	110*	3	3 # 2, # 6G in 1.25" C.				73,128		73,128
3	Spare	300	3							
4	New DOAS-2	110*	3	3 # 2, # 6G in 1.25" C.				73,128		73,128
5	Main 600A MCB	600		See Riser Diagram						
6	Space									
7	XXX									
8	Spare	70	3							
9	XXX									
10	Spare	70	3							
11	XXX									
12	XXX									
	XXX									
	XXX									
SERVICE: 480 volt, 3 phase, 3 wire + G								146,256		146,256
MAINS: 600A MCB								146,256		146,256
MOUNTING: Surface NEMA 3R										
SCCR (RMS Sym) = 30K										
Notes:										
(1) Existing Copper Bussing										
(2) Existing Hinged Door										
(3) New Custom Laminated Plastic Nameplate										
(4) New Typed Circuit Directory										
(5) New Arc-Flash Warning Label (NEC 110.16)										
(6) * Provide New Breaker. Coordinate Size With Equipment Installed.										
Nameplate Info Below (White Letters on Black)										
Existing Panel "CH" 277/480 Volt Fed From Panel "DHP"										

LAMAR COUNTY COURTHOUSE HVAC SYSTEM RENOVATION PHASE 2

PLANNING & ASSOCIATES
NG ENGINEERS
TREET LUBBOCK, TEXAS 79423
33

NO.	DAT	
1	08/3	

AW BY:

WING NAME:
**ELECTRICAL
VIEW
DOF PLAN**

3: 21038
TE: 08/31/
EET No.