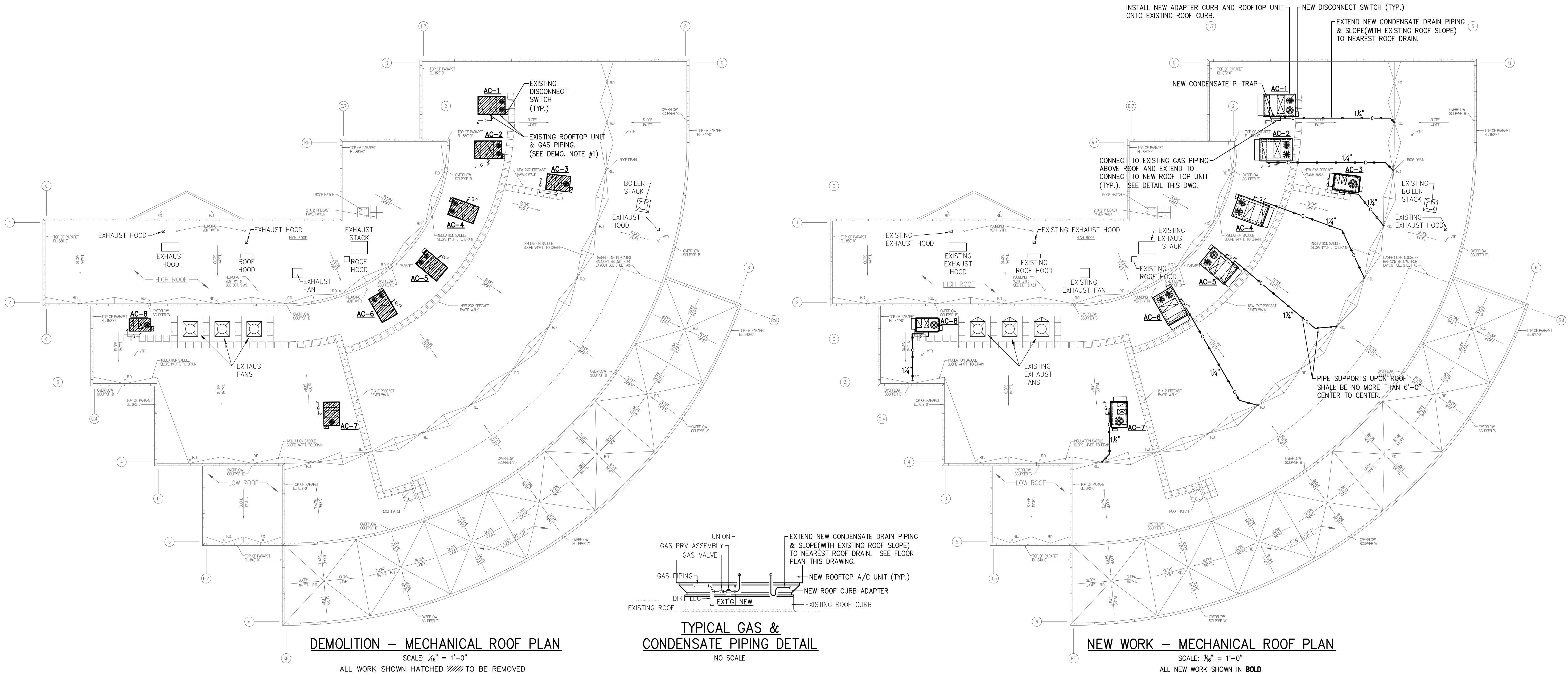


Spartanburg, South Carolina

[illegible]



DEMOLITION WORK NOTES:

1. REMOVE AND DISPOSE OF EXISTING ROOFTOP UNIT. DISCONNECT EXISTING GAS PIPING, CONDENSATE DRAIN/P-TRAP, & ELECTRICAL.

ROOF TOP A/C WITH NATURAL GAS HEAT SCHEDULE (EXISTING AND REPLACEMENT)

UNIT No.	AREA SERVED	EXISTING UNIT DATA									NEW UNIT DATA														REMARKS
		EXISTING TRANE MODEL No. & SERIAL No.	NOMINAL TONNAGE	EER A.R.I.	NATURAL GAS HEAT		ELECTRICAL			NEW TRANE MODEL No.	TOTAL CFM	MAX. E.S.P. INCHES	FAN H.P.	COOLING DATA			NATURAL GAS HEAT		ELECTRICAL						
					INPUT M.B.H.	OUTPUT M.B.H.	VOLTAGE	MCA (AMPS)	MOP (AMPS)					TOTAL M.B.H.	SENS. M.B.H.	ENT. AIR DB°F	EER A.R.I.	INPUT M.B.H.	OUTPUT M.B.H.	VOLTAGE	MCA (AMPS)	MOP (AMPS)			
																							WB°F		
AC-1	RM. #318 & #319	YCD18084L K081004990	15	8.6	250	202.5	460/3/60	37	45	YCD181E4L	6000	1.0	3	190.2	145.1	80	67	12.0	250	203	460/3/60	36	45	SEE NOTES #1-#8	
AC-2	RM. #317 & RESTROOM	YCD18084L K081005000	15	8.6	250	202.5	460/3/60	37	45	YCD181E4L	6000	1.0	3	190.2	145.1	80	67	12.0	250	203	460/3/60	36	45	SEE NOTES #1-#8	
AC-3	BALLROOM	YCD12084L K101079B40	10	9.0	150	121.5	460/3/60	29	35	YHC120E4RL	4000	1.0	3.75	119.1	93.1	80	67	12.5	150	120	460/3/60	24.9	30	SEE NOTES #1-#8	
AC-4	BALLROOM	YCD15084H K111005110	12.5	8.5	250	202.5	460/3/60	32	40	YCD151E4H	5000	1.0	3	156.6	115.1	80	67	12.0	250	203	460/3/60	32	40	SEE NOTES #1-#8	
AC-5	BALLROOM	YCD15084H K111005130	12.5	8.5	250	202.5	460/3/60	32	40	YCD151E4H	5000	1.0	3	156.6	115.1	80	67	12.0	250	203	460/3/60	32	40	SEE NOTES #1-#8	
AC-6	BALLROOM	YCD15084H K101012030	12.5	8.5	250	202.5	460/3/60	32	40	YCD151E4H	5000	1.0	3	156.6	115.1	80	67	12.0	250	203	460/3/60	32	40	SEE NOTES #1-#8	
AC-7	BALLROOM & RM. #309	YCD12084L K101025B70	10	9.0	150	121.5	460/3/60	29	35	YHC120E4RL	4000	1.0	3.75	119.1	93.1	80	67	12.5	150	120	460/3/60	24.9	30	SEE NOTES #1-#8	
AC-8	3rd FLOOR EAST OFFICE	YCD090C4L K111018650	7.5	9.0	120	97.2	460/3/60	20.9	30	YHC092F4RL	3000	1.0		92.0	68.6	80	67	13.0	120	96	460/3/60	19.9	25	SEE NOTES #1-#8	

NOTES:

1. CONVENTIONAL THERMOSTAT INTERFACE FOR CONNECTION TO FIELD SUPPLIED "JCI" DDC CONTROLLERS & DISCHARGE SENSORS.
2. FACTORY INSTALLED THERMAL EXPANSION VALVE (TXV) REFRIGERANT METERING.
3. FACTORY CHARGE OF R-410a REFRIGERANT AND OIL.
4. FACTORY INSTALLED COMPRESSOR CRANKCASE HEATERS.
5. FACTORY INSTALLED ECONOMIZER WITH BAROMETRIC RELIEF, COMPARATIVE ENTHALPY CONTROLLED.
6. CUSTOM FABRICATED ADAPTER CURB, FULLY WELDED HEAVY GAUGE CONSTRUCTION WITH INTERNAL INSULATION IN SUPPLY AND RETURN DUCT AIRSTREAMS. ADAPTER CURB SHALL FIT ONTO EXISTING ROOF CURB.
7. FACTORY INSTALLED & FACTORY POWERED CONVENIENCE OUTLET.
8. HAIL GUARDS ON CONDENSER.

DESIGN /
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4/16/12
JOB NO.
PERTUS #111211
SHEET
M-1
1 OF 1 SHEETS

CAMPUS LIFE CENTER
MECHANICAL SYSTEMS REPLACEMENT
SC STATE PROJECT #H34-9542-JM-B
SPARTANBURG, SOUTH CAROLINA

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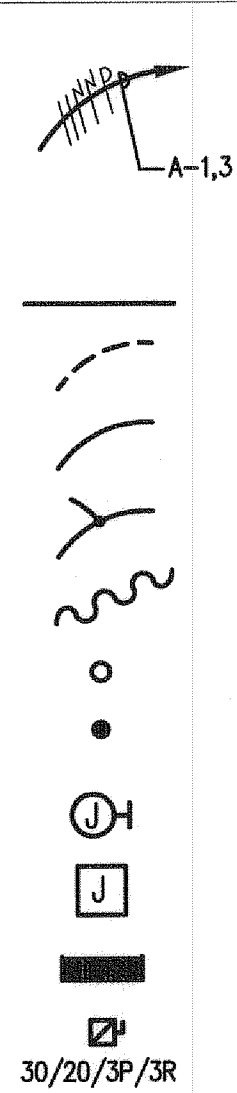
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ABBREVIATIONS:

BKR	BREAKER
CU	COPPER
CKT	CIRCUIT
DWG	DRAWING
EC	ELECTRICAL CONTRACTOR
FU	FUSE
GFI	GROUND FAULT INTERRUPTER DEVICE
LTC	LIGHTING (L)
NTS	NOT TO SCALE
PH	PHASE
PNL	PANEL
RECPT	RECEPTACLE (R.)
REQD	REQUIRED
UNO	UNLESS NOTED OTHERWISE
W/	WITH
WP	WEATHER PROOF

SYMBOL



DESCRIPTION

HOME RUN TO LIGHTING/SERVICE PANEL. HASH MARKS, WHEN SHOWN, INDICATE NUMBERS OF CONDUCTORS. "/> INDICATES HOT WIRE, "N" INDICATES NEUTRAL CONDUCTOR, "G" INDICATES GROUND CONDUCTOR. HOME RUN NOTE INDICATES PANEL NAME AND CIRCUIT NAME OR FEEDER TAG. CONDUCTORS SHALL BE #12 AWG IN 3/4" CONDUIT UNLESS NOTED OTHERWISE. ANY HOME RUN OR CONDUIT WITHOUT HASH MARKS IS TO CONTAIN 3 CONDUCTORS: 1 HOT, 1 NEUTRAL, AND 1 EQUIPMENT GROUND. EACH HOT CIRCUIT SHALL BE PAIRED WITH A SEPARATE NEUTRAL CONDUCTOR. SHARING OF NEUTRAL CONDUCTORS BETWEEN CIRCUITS IS NOT ALLOWED.

EXPOSED CONDUIT

CONDUIT RUN IN SLAB OR UNDERGROUND.

CONDUIT RUN CONCEALED ABOVE CEILING OR IN WALLS, UNLESS NOTED OTHERWISE.

CONDUIT JUNCTION IN CONDUIT OR JUNCTION BOX.

FLEXIBLE CONDUIT

CONDUIT TURNING UP

CONDUIT TURNING DOWN

JUNCTION BOX STEM INDICATES WALL MOUNTED

JUNCTION BOX FLOOR MOUNTED

LIGHTING OR SERVICE PANEL, SURFACE MOUNTED, (208V)

SAFETY DISCONNECT SWITCH. "30" INDICATES AMP RATING, "20" INDICATES FUSE SIZES, "3P" INDICATES NUMBER OF POLES, ENCLOSURE TO BE NEMA 1 UNLESS NOTED OTHERWISE (3R, 4X, ETC.) SQUARE D H300 SERIES HEAVY DUTY SAFETY SWITCH

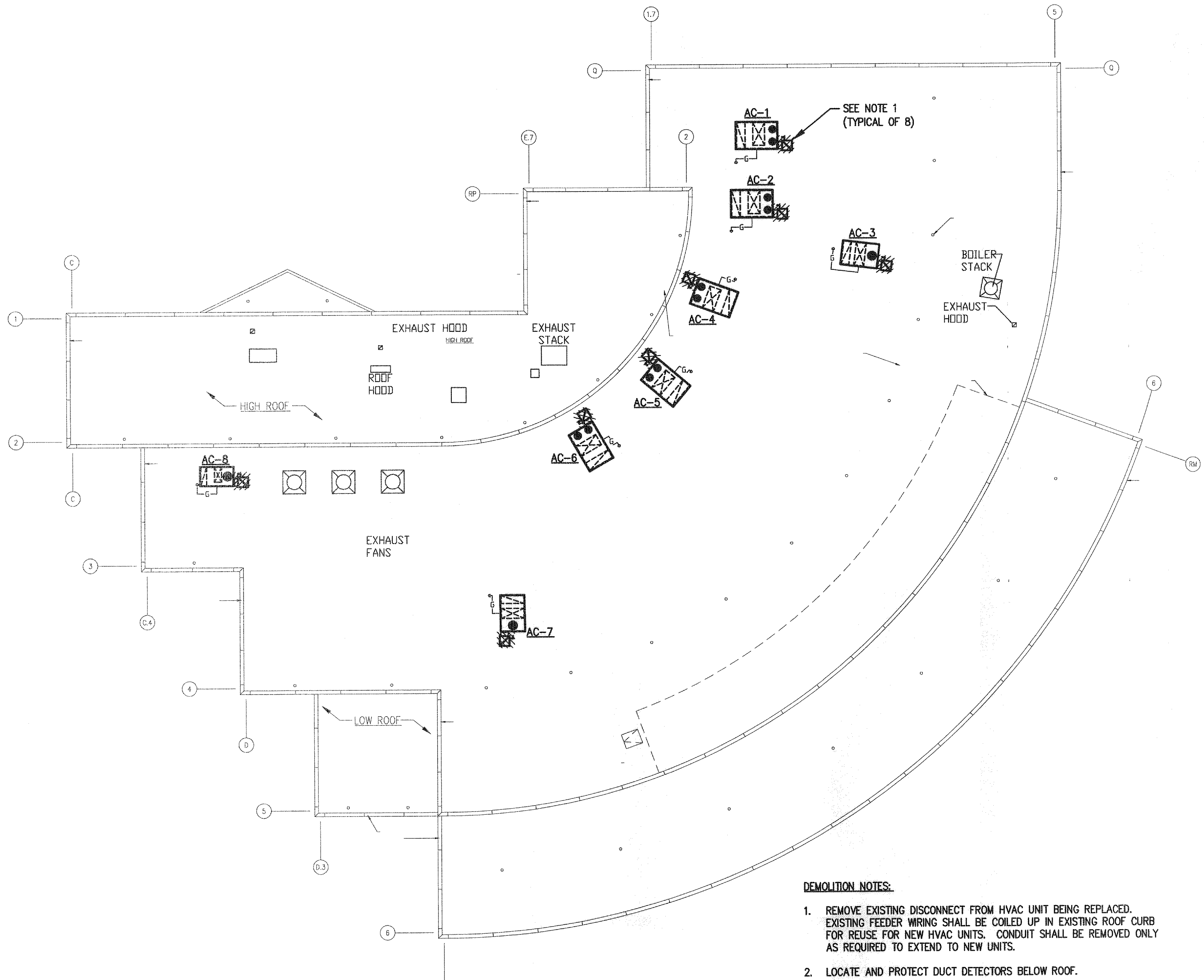
ELECTRICAL GENERAL NOTES:

- INSPECT SITE PRIOR TO SUBMITTING BID. DRAWINGS ARE INTENDED TO COVER THE REQUIRED ELECTRICAL SYSTEMS. DRAWINGS MAY NOT SHOW COMPLETE OR ACCURATE DETAILS OF THE BUILDING OR SYSTEM IN EVERY RESPECT. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN ANY ADDITIONAL INFORMATION AS REQUIRED.
- CONFORM TO THE NATIONAL ELECTRICAL CODE (2008), IBC (2009), APPLICABLE NEMA, ANSI AND IEEE PUBLICATIONS, U.L. AND ADA STANDARDS AND OSHA REQUIREMENTS. COMPLY WITH LOCAL, COUNTY, STATE AND NATIONAL CODES HAVING JURISDICTION.
- FURNISH AND INSTALL ALL MATERIALS IN A NEAT AND WORKMANLIKE FASHION. ALL MATERIALS SHALL BE NEW, WITH FIRST QUALITY AND UL LABEL.
- VERIFY ALL DIMENSIONS AND CLEARANCES PRIOR TO INSTALLATION OF EQUIPMENT AND RACEWAYS. CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF WORK WITH THAT OF ALL OTHER TRADES AS REQUIRED.
- CONDUIT SHALL BE EMT FOR BRANCH CIRCUIT WIRING AS ALLOWED BY NEC, EXCEPT THAT SET SCREW OR CRIMP FITTINGS ARE NOT ALLOWED. WHERE EXPOSED TO PHYSICAL DAMAGE CONDUITS SHALL BE RIGID GALVANIZED STEEL. MINIMUM CONDUIT SIZE SHALL BE 3/4". ALL CONDUCTORS SHALL BE TYPE THHN/THWN, STRANDED 600V COPPER BUILDING WIRE. MINIMUM SIZE SHALL BE #12 AWG COPPER UNLESS NOTED.
- PROVIDE GROUNDING FOR ALL EQUIPMENT IN ACCORDANCE WITH ARTICLE 250 OF THE NATIONAL ELECTRICAL CODE.
- ALL ENCLOSURES SHALL BE OF THE NEMA TYPE WHICH IS SUITABLE FOR THE APPLICATION.
- SEAL ALL CONDUIT PENETRATIONS TO MATCH RATING OF WALL BEING PENETRATED.
- ALL WORK SHALL HAVE PROPER LABELING AND NAMEPLATES. ALL CIRCUITS SHALL BE LABELED AT PANELS AND BOXES AS INDICATED. ALL PANELS AND DISCONNECTS ARE TO BE PERMANENTLY MARKED WITH NAME OR EQUIPMENT SERVED. ALL PANELS ARE TO BE PROVIDED WITH TYPEWRITTEN PANEL SCHEDULES.
- THOROUGHLY CLEAN ALL EQUIPMENT AND SYSTEMS BEFORE PLACING IN OPERATION. RESTORE FINISHED SURFACES IF DAMAGED AND DELIVER THE ENTIRE INSTALLATION IN AN APPROVED CONDITION. INSTRUCT THE OWNERS' PERSONNEL IN THE PROPER OPERATION AND MAINTENANCE OF THE SYSTEMS.
- GUARANTEE THE WORK INSTALLED FOR A PERIOD OF ONE YEAR AFTER DATE OF FINAL ACCEPTANCE. DEFECTS WHICH APPEAR AS A RESULT OF NORMAL USAGE SHALL BE REMEDIED BY THE CONTRACTOR TO THE COMPLETE SATISFACTION OF THE OWNER WITHOUT COST TO THE OWNER.
- CONTRACTOR SHALL KEEP CURRENT A SET OF PLANS FOR THE DURATION OF CONSTRUCTION WITH ALL CHANGES TO WORK NEATLY AND ACCURATELY MARKED IN RED AND SHALL TURN OVER TO OWNER AT COMPLETION OF PROJECT.
- ALL ELECTRICAL EQUIPMENT SHALL BE INSTALLED TO MEET SEISMIC REQUIREMENTS OF 2009 IBC.

HVAC SCHEDULE

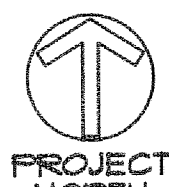
TAG	ELECTRICAL CHAR.			PANEL/CKTS.	WIRE/COND.
	MCA	MOCP	V/P		
AC-1	36	45	480/3	EXISTING	3 #8, 1 #10G, 1"C
AC-2	36	45	480/3	EXISTING	3 #8, 1 #10G, 1"C
AC-3	24.9	35	480/3	EXISTING	3 #10, 1 #10G, 1"C
AC-4	32	40	480/3	EXISTING	3 #8, 1 #10G, 1"C
AC-5	32	40	480/3	EXISTING	3 #8, 1 #10G, 1"C
AC-6	32	40	480/3	EXISTING	3 #8, 1 #10G, 1"C
AC-7	24.9	30	480/3	EXISTING	3 #10, 1 #10G, 1"C
AC-8	19.9	25	480/3	EXISTING	3 #12, 1 #12G, 1"C

NOTES:
1. PROVIDE NEMA 3R DISCONNECTS SIZED AS SHOWN ON PLANS, SIZE FUSES PER NAMEPLATE.



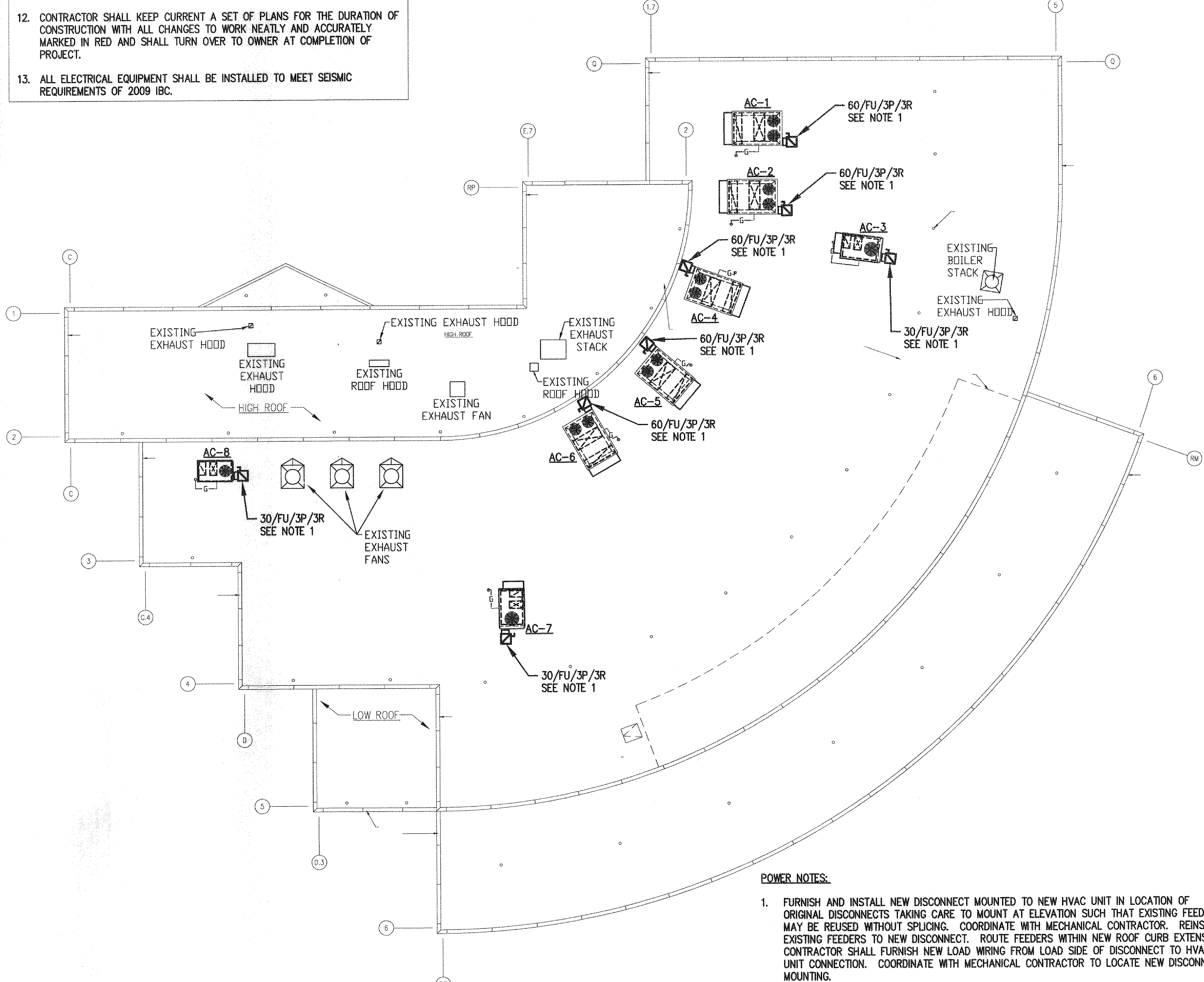
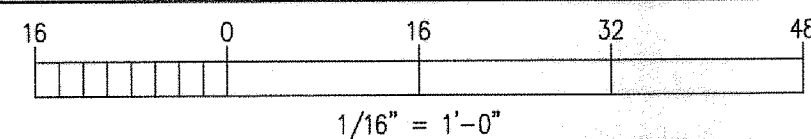
DEMOLITION NOTES:

- REMOVE EXISTING DISCONNECT FROM HVAC UNIT BEING REPLACED. EXISTING FEEDER WIRING SHALL BE COILED UP IN EXISTING ROOF CURB FOR REUSE FOR NEW HVAC UNITS. CONDUIT SHALL BE REMOVED ONLY AS REQUIRED TO EXTEND TO NEW UNITS.
- LOCATE AND PROTECT DUCT DETECTORS BELOW ROOF.



ELECTRICAL DEMOLITION PLAN - ROOF

E-1 SCALE: 1/16" = 1'-0"



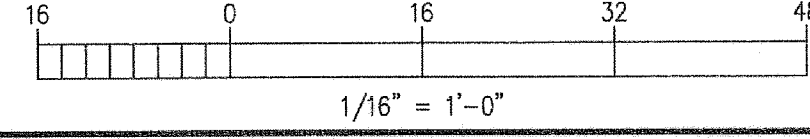
POWER NOTES:

- FURNISH AND INSTALL NEW DISCONNECT MOUNTED TO NEW HVAC UNIT IN LOCATION OF ORIGINAL DISCONNECTS TAKING CARE TO MOUNT AT ELEVATION SUCH THAT EXISTING FEEDERS MAY BE REUSED WITHOUT SPLICING. COORDINATE WITH MECHANICAL CONTRACTOR. REINSTALL EXISTING FEEDERS TO NEW DISCONNECT. ROUTE FEEDERS WITHIN NEW ROOF CURB EXTENSION. CONTRACTOR SHALL FURNISH NEW LOAD WIRING FROM LOAD SIDE OF DISCONNECT TO HVAC UNIT CONNECTION. COORDINATE WITH MECHANICAL CONTRACTOR TO LOCATE NEW DISCONNECT MOUNTING.



ELECTRICAL POWER PLAN - ROOF

E-1 SCALE: 1/16" = 1'-0"



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