

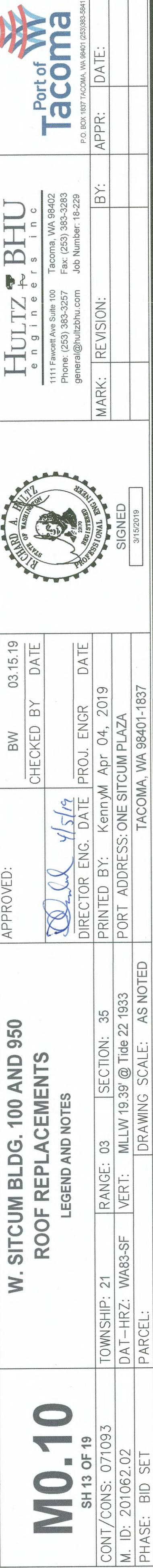
MECHANICAL GENERAL NOTES

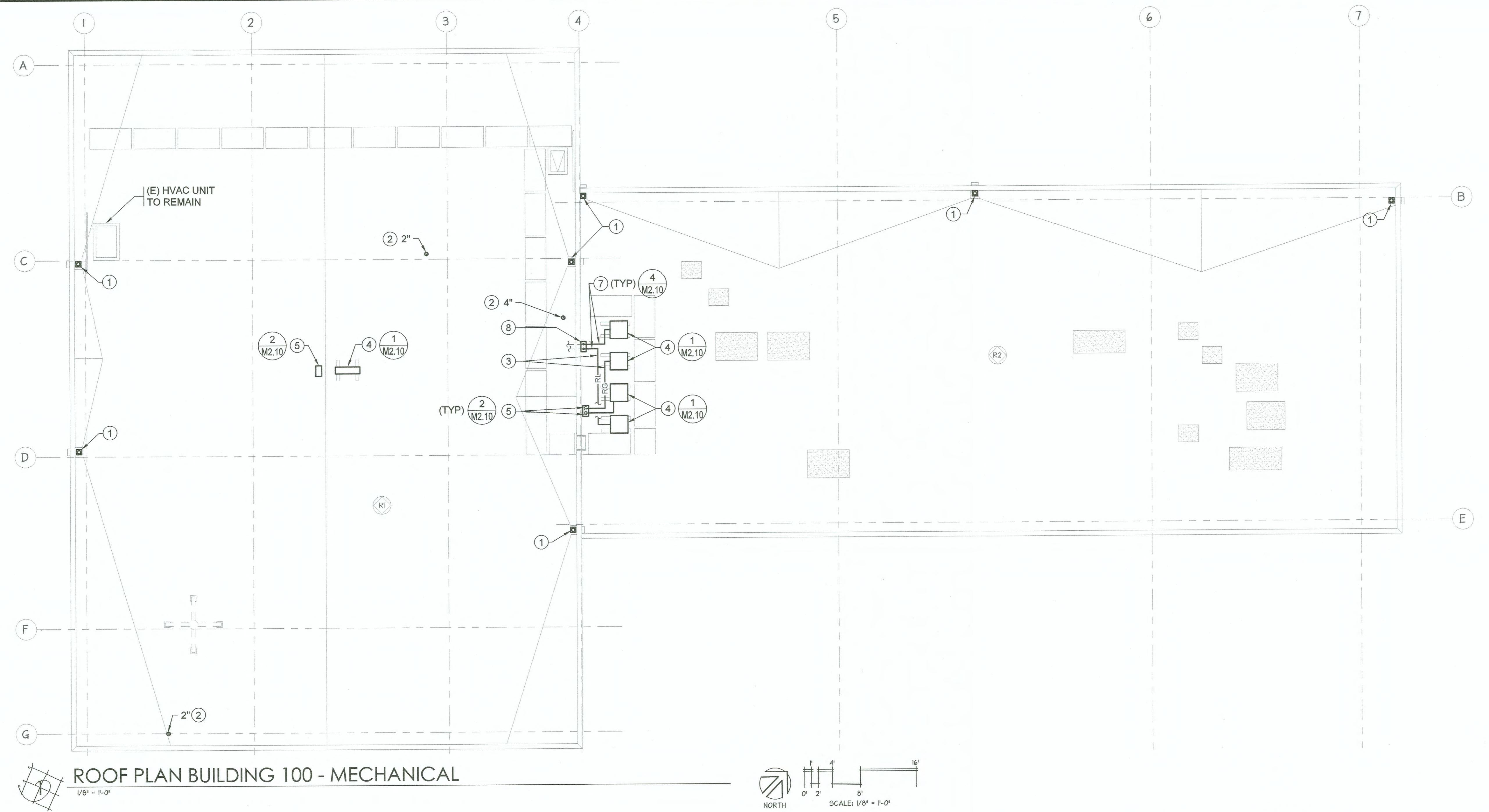
1. MECHANICAL WORK IS NOT LIMITED TO MECHANICAL DRAWINGS AND DIVISION 20, 22, AND 23 SPECIFICATIONS. THERE IS ADDITIONAL MECHANICAL WORK TO BE INCLUDED IN THE BID INDICATED ON OTHER DRAWINGS AND IN OTHER SPECIFICATION DIVISIONS. CONTRACTOR SHALL REVIEW ALL DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL MECHANICAL WORK.
 2. ALL ITEMS ARE NEW UNLESS SPECIFICALLY NOTED AS EXISTING.
 3. DRAWINGS SCALES APPLY TO FULL SIZE SHEET ONLY; FULL SIZE SHEETS ARE 22"x 34". USE CAUTION IN OBTAINING DIMENSIONS AND QUANTITIES FROM DRAWINGS THAT ARE NOT THIS FULL SIZE; USE DIMENSIONS CALCULATED FROM DIMENSIONS ON THE ARCHITECTURAL AND STRUCTURAL DRAWINGS OVER OTHER METHODS OF OBTAINING DIMENSIONS.
 4. SEISMICALLY ANCHOR ALL UNITS & EQUIPMENT TO BUILDING. (UNO). CONTRACTOR IS RESPONSIBLE TO SELECT AND PROVIDE ALL SEISMIC ANCHORING DEVICES FOR ALL MECHANICAL EQUIPMENT, ALL PIPING AND ALL DUCTWORK. CONTRACTOR SHALL SUBMIT DETAILS AND PLANS TO BUILDING INSPECTOR FOR REVIEW AND COMMENT PRIOR TO INSTALLATION.
 5. PIPE ROUTING: ALL PIPING SHOWN IS SCHEMATIC, CONTRACTOR SHALL PROVIDE ALL OFFSETS/ELBOWS AS REQ'D TO ALLOW ROUTING AROUND STRUCTURE, ELECTRICAL, & OTHER INTERFERENCES. ALL PIPING SHALL BE RUN CONCEALED, UNO.
 6. PROVIDE TRANSITIONS FROM EXISTING DUCT SIZES TO CONNECTION SIZES AT EQUIPMENT TO MATCH UNIT CONNECTIONS. WHERE THE CONNECTING DUCT IS LINED, THE TRANSITION SHALL BE LINED.
 7. FIELD VERIFY SIZE OF ALL EXISTING DUCTS SHOWN BEING CONNECTED TO PRIOR TO FABRICATION OF CONNECTING DUCTWORK. PROVIDE TRANSITIONS AS NECESSARY TO MAKE CONNECTIONS.
 8. BUILDING FEATURES AND PIPING AND DUCT LOCATIONS & SIZES SHOWN ON PLANS ARE APPROXIMATE & ARE BASED ON AS-BUILT DATA PROVIDED BY THE OWNER, A COMPLETE REVIEW IS REQUIRED TO BE MADE BY THE CONTRACTOR. VERIFY SIZES PRIOR TO BIDDING AND BEGINNING WORK.
 9. CONTRACTOR SHALL VERIFY LOCATIONS OF ALL EXISTING EQUIPMENT, PIPING, WALLS, SUPPORTS, DUCTWORK, ELECTRICAL AND RELATED BUILDING FEATURES AND RELOCATE/REVISE SUCH EXISTING ITEMS AS NECESSARY TO ALLOW FOR THE WORK INDICATED.
 10. CONTRACTOR SHALL FIELD VERIFY THE SIZES AND LOCATIONS OF ALL EXISTING ITEMS SHOWN BEING CONNECTED TO. VERIFICATION SHALL OCCUR PRIOR TO MATERIALS BEING ORDERED OR FABRICATED.
 11. CONTRACTOR MAY VISIT THE SITE DURING THE SCHEDULED PRE-BID WALK THROUGH TO REVIEW AND VERIFY EXISTING CONDITIONS AND CONSTRUCTION MATERIALS, INCLUDING, BUT NOT LIMITED TO, ALL WALLS, FLOORS, CEILINGS, AND OTHER AREAS THAT MAY BE DISTURBED DURING CONSTRUCTION IN ORDER TO ACCOMPLISH THE WORK IN THESE DOCUMENTS. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO BEGINNING ANY WORK.
 12. PROVIDE DUCT AND TRANSITIONS AS NECESSARY TO CONNECT TO EXISTING SYSTEMS. SUCH SYSTEMS SHALL BE FIELD REVIEWED FOR SIZE, DIRECTION OF FLOW, LOCATION AND TYPE PRIOR TO ORDERING/FABRICATING SUCH TRANSITIONS BECAUSE OWNER PROVIDED AS-BUILT DRAWINGS THAT SHOW SUCH INFORMATION ARE CONSIDERED APPROXIMATE. CONTRACTOR SHALL ASSUME IN HIS BID ONE TRANSITION FOR EACH CONNECTION TO EXISTING SYSTEMS. PIPING CONNECTIONS ON EXISTING ITEMS MAY BE ONE PIPE SIZE SMALLER OR LARGER THAN SHOWN.
 13. PROVIDE PIPING TRANSITIONS AS NECESSARY TO CONNECT TO EXISTING SYSTEMS. SUCH SYSTEMS SHALL BE FIELD REVIEWED FOR SIZE, DIRECTION OF FLOW, LOCATION AND TYPE PRIOR TO ORDERING/FABRICATING SUCH TRANSITIONS BECAUSE OWNER PROVIDED AS-BUILT DRAWINGS THAT SHOW SUCH INFORMATION ARE CONSIDERED APPROXIMATE. CONTRACTOR SHALL ASSUME IN HIS BID ONE TRANSITION FOR EACH CONNECTION TO EXISTING SYSTEMS. PIPING CONNECTIONS ON EXISTING ITEMS MAY BE ONE PIPE SIZE SMALLER OR LARGER THAN SHOWN.
 14. WHERE ITEMS ARE DISCONNECTED FROM EXISTING DUCTWORK, CAREFULLY COVER EXPOSED DUCTWORK OPENINGS UNTIL THE TIME FOR RE-INSTALLATION OF THOSE ITEMS.
 15. AS-BUILT DRAWINGS ARE AVAILABLE FOR REVIEW ONLINE THROUGH THE PORT OF TACOMA'S WEBSITE.
 16. REFERENCE ARCHITECTURAL DRAWINGS FOR WHERE ROOF AND OTHER GENERAL DEMOLITION WORK IS BEING DONE.

MECHANICAL LEGEND

MECHANICAL LEGEND

SYMBOL	DESCRIPTION	ABBREV.	DESCRIPTION
	DUCT SECTION (SUPPLY)	AHJ	AUTHORITY HAVING JURISDICTION
	DUCT SECTION (EXHAUST OR RETURN)	ALUM	ALUMINUM
20/12	DUCT (FIRST FIGURE, SIDE SHOWN)	APPROX	APPROXIMATELY
20/12L	LINED DUCT (DIM. FOR NET FREE AREA) 2" LINING (UNO)	ARCH	ARCHITECTURAL
	RISE (R) OR DROP (D) ARROW IN DIRECTION OF FLOW	AUTO	AUTOMATIC
	DUCT SECTION (SUPPLY)	BLDG	BUILDING
	DUCT SECTION (EXHAUST OR RETURN)	CAP	CAPACITY
	ROUND DUCT	CONN	CONNECTION
	ELBOW WITH TURNING VANES	CONT	CONTINUE, CONTINUATION
	DUCT UP (RECTANGULAR)	CFM	CUBIC FEET PER MINUTE
	DUCT UP (RECTANGULAR)	DEF, F	DEGREE FAHRENHEIT
	DUCT DOWN (RECTANGULAR)	DIA Ø	DIAMETER
	DUCT DOWN (RECTANGULAR)	DN	DOWN
	DUCT UP (ROUND)	DWG	DRAWING
	DUCT DOWN (ROUND)	EA	EACH
	PIPE UP	EFF	EFFICIENCY
	PIPE DOWN	ELEC	ELECTRICAL, ELECTRIC
	ISOLATION VALVE	EOL	END OF LINING
	UNION	EXH	EXHAUST
	REFRIGERANT PIPING	EXIST, (E)	EXISTING
		ESP	EXTERNAL STATIC PRESSURE
		FPM	FEET PER MINUTE
		FPS	FEET PER SECOND
		FLEX	FLEXIBLE
		FL	FLOOR
		FLA	FULL LOAD AMPS
		GALV.	GALVANIZED
		HP	HORSE POWER
		INTEGR.	INTEGRAL
		IN	INCH
		KW	KILOWATT
		MAX	MAXIMUM
		MFR	MANUFACTURER
		MCA	MINIMUM CIRCUIT AMPS
		MECH	MECHANICAL
		MIN	MINIMUM
		NO.	NUMBER
		NTS	NOT TO SCALE
		OBD	OPPOSED BLADE DAMPER
		OA	OUTSIDE AIR
		ORL	OVERFLOW RAIN LEADER
		PH	PHASE
		PD	PRESSURE DROP
		RG	REFRIGERANT GAS
		RL	RAIN LEADER
		RLA	RATED LOAD AMPS
		REF	REFERENCE
		REQ'D	REQUIRED
		RA	RETURN AIR
		RG	REFRIGERANT GAS
		RL	REFRIGERANT LIQUID
		RPM	REVOLUTIONS PER MINUTE
		RM	ROOM
		RVI	ROOF VENT INTAKE
		RVR	ROOF VENT RELIEF
		SA	SUPPLY AIR
		S.O.	SCREENED OPENING
		TEMP	TEMPERATURE
		TYP	TYPICAL
		UNO	UNLESS NOTED OTHERWISE
		VFD	VARIABLE FREQUENCY DRIVE
		VTR	VENT THROUGH ROOF
		VERT	VERTICAL
		V	VOLTS, VOLTAGE
		WA	WATT
		W/	WITH
	DETAIL IDENTIFICATION NUMBER SHEET ON WHICH DETAIL IS SHOWN		





KEYED NOTES:

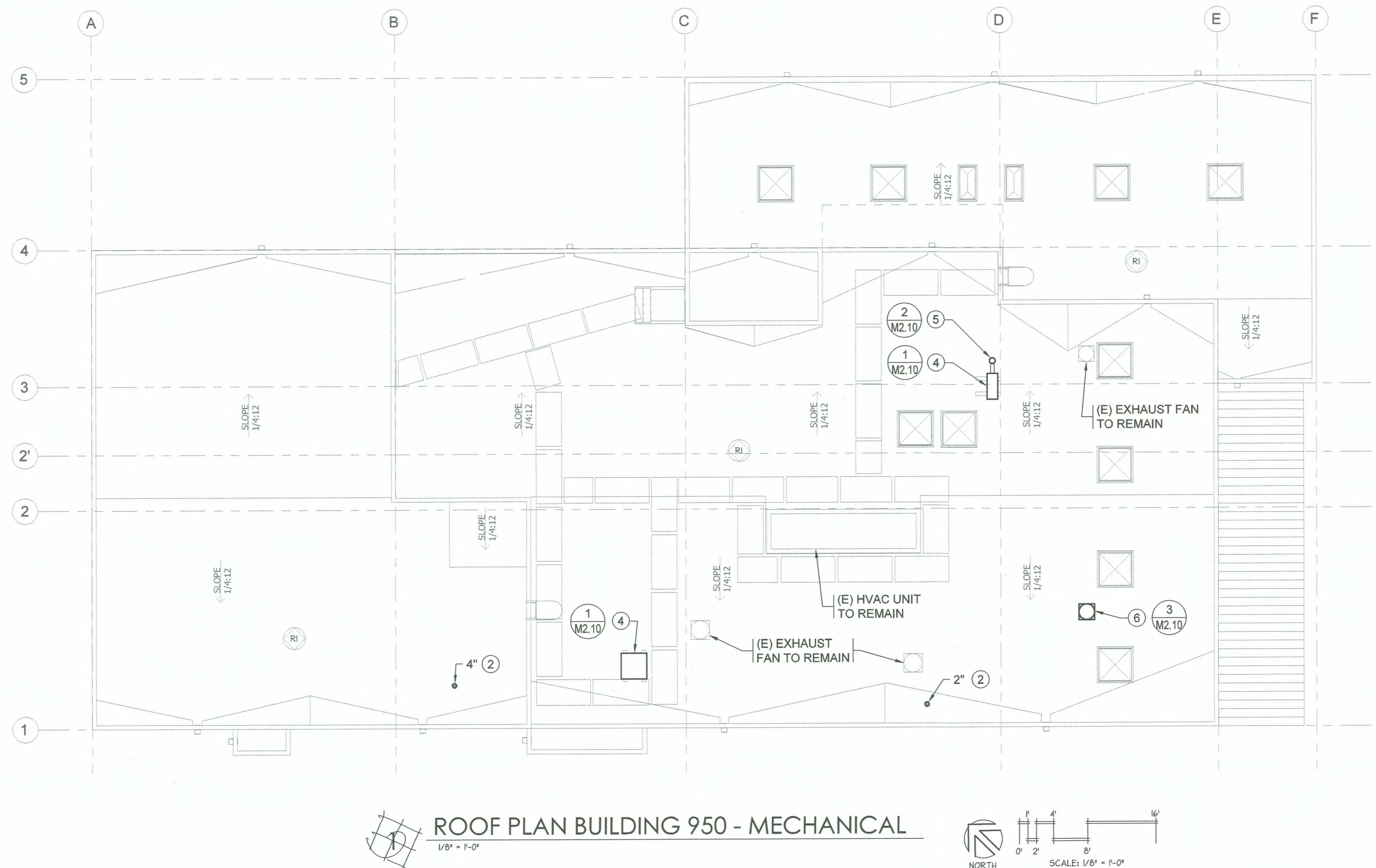
- ① REMOVE EXISTING ROOF DRAIN COMPLETELY INCLUDING DOME AND DRAIN BODY. PROVIDE NEW ROOF DRAIN RD-1. EXTEND EXISTING PIPING AS NECESSARY TO ACCOMMODATE INCREASED ROOF INSULATION THICKNESS AND CONNECT TO RD-1.
 - ② EXTEND EXISTING VENT THRU ROOF PIPING AS NECESSARY TO ACCOMMODATE NEW ROOFING AND TO MAINTAIN VENT TERMINATION MINIMUM 12" ABOVE ROOF DECK. VERIFY PIPING SIZE PRIOR TO ORDERING MATERIALS. FOR BIDDING PURPOSES, ASSUME PIPING IS 4".
 - ③ REMOVE ABANDONED REFRIGERANT PIPING BACK TO WALL PENETRATION. CAP PIPING AS IT ENTERS BUILDING.
 - ④ SALVAGE AND REINSTALL EXISTING AIR CONDITIONING (AC) UNIT. DISCONNECT FROM EXISTING SUPPORTS, POWER, CONTROLS, AND REFRIGERANT PIPING TO ALLOW FOR NEW ROOFING WORK. REMOVE EXISTING ROOFTOP SUPPORTS AND PROVIDE NEW. REINSTALL AC UNIT AFTER ROOFING WORK IS COMPLETE. INSTALL ON NEW SUPPORTS AND RECONNECT TO EXISTING POWER, CONTROLS AND REFRIGERANT PIPING. EXTEND POWER AND CONTROL WIRING AND REFRIGERANT PIPING AS NECESSARY TO ACCOMMODATE INCREASED ROOF INSULATION THICKNESS.
 - ⑤ REMOVE EXISTING REFRIGERANT PIPING PENETRATION COVER TO ALLOW FOR ROOFING WORK. PROVIDE NEW COVER. CUT EXISTING REFRIGERANT PIPING AND EXTEND AS NECESSARY TO ALLOW FOR INCREASED ROOFING INSULATION DEPTH. PUMP DOWN EXISTING REFRIGERANT PRIOR TO CUTTING PIPE. RE-CHARGE REFRIGERANT LINES WHEN COMPLETE. RE-INSULATE REFRIGERANT PIPING AND PROVIDE WITH METAL JACKET.
 - ⑥ SALVAGE AND REINSTALL EXISTING EXHAUST FAN. DISCONNECT FAN FROM CURB, POWER, CONTROLS, AND DUCTWORK TO ALLOW FOR NEW ROOFING WORK. REMOVE EXISTING CURB AND PROVIDE TALLER CURB TO ACCOMMODATE INCREASED ROOF INSULATION THICKNESS. REINSTALL EXISTING EXHAUST FAN AFTER ROOFING WORK IS COMPLETE. EXTEND EXISTING DUCTWORK, POWER WIRING AND CONTROLS AS NECESSARY TO ACCOMMODATE RAISED UNIT AND MAKE CONNECTIONS.
 - ⑦ REMOVE EXISTING INSULATION FROM REFRIGERANT PIPING. PROVIDE NEW INSULATION ON PIPING. PROVIDE SHEETMETAL COVER OVER PIPING TO MINIMIZE FUTURE WEATHER DAMAGE TO INSULATION.
 - ⑧ CUT EXISTING REFRIGERANT PIPING AS NECESSARY TO ALLOW NEW WALL SLEEVE TO BE INSTALLED. PUMP DOWN EXISTING REFRIGERANT PRIOR TO CUTTING PIPE. RE-CHARGE REFRIGERANT LINE WHEN COMPLETE. RE-CONNECT EXISTING PIPING AND RESTORE TO PRE-CONSTRUCTION CONDITIONS. PROVIDE ADDITIONAL PIPING AND FITTINGS AS NECESSARY TO MAKE CONNECTION. PIPING SHALL EXTEND THROUGH NEW PIPE SLEEVE IN WALL. SEE ARCHITECTURAL PLANS FOR SLEEVE DETAIL. PIPING SHALL BE INSULATED THROUGH SLEEVE.

GENERAL NOTES:

1. SEE GENERAL NOTES, SHEET M0.10 FOR ADDITIONAL REQUIREMENTS.
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 3. ALL EXPOSED METAL COMPONENTS SHALL BE PAINTED 1 COAT RUST INHIBITING PAINT AND 2 COATS FINISH COLOR-WHITE.
 4. NOT ALL KEYED NOTES MY BE USED ON ALL SHEETS.

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DRAFTING SCALE: AS NOTED
DATE: 1/20/2014
DRAWING NUMBER: 14-1831
ACCOMA, WA 98401-1831

M1.10		W. SITCUM BLDG. 100 AND 930 ROOF REPLACEMENTS		S14.0F19	
CONT/CONS: 071093 M. ID: 20016202 PHASE: ID 5E T		TOWNSHIP: 21 DAT-HRZ: WWA83-SF PARCEL:		RANGE: 03 VERT: MLLW 19.39' @ Tide 22 1933 DRAWING SCALE: AS NOTED	
35		SECTION: 35		PRINTED BY: KennyM Apr 04, 2019 PORT ADDRESS: ONE SITCUM PLAZA TACOMA, WA 98401-1837	
4/5/19		DIRECTOR ENG. DATE		PROJ. ENGR DATE	
Hultz Engineers inc		CHECKED BY		BY:	
1111 Fawcett Ave Suite 100 Phone: (253) 383-3257 general@hultzbhu.com		APPR:		DATE:	
Tacoma, WA 98402 Fax: (253) 383-3283 Job Number: 18-229		P.O. BOX 1837 TACOMA, WA 98401 (253)383-5841			
 PROFESSIONAL ENGINEER		MARK: REVISION:			
SIGNED					
3/15/2019					



KEYED NOTES:

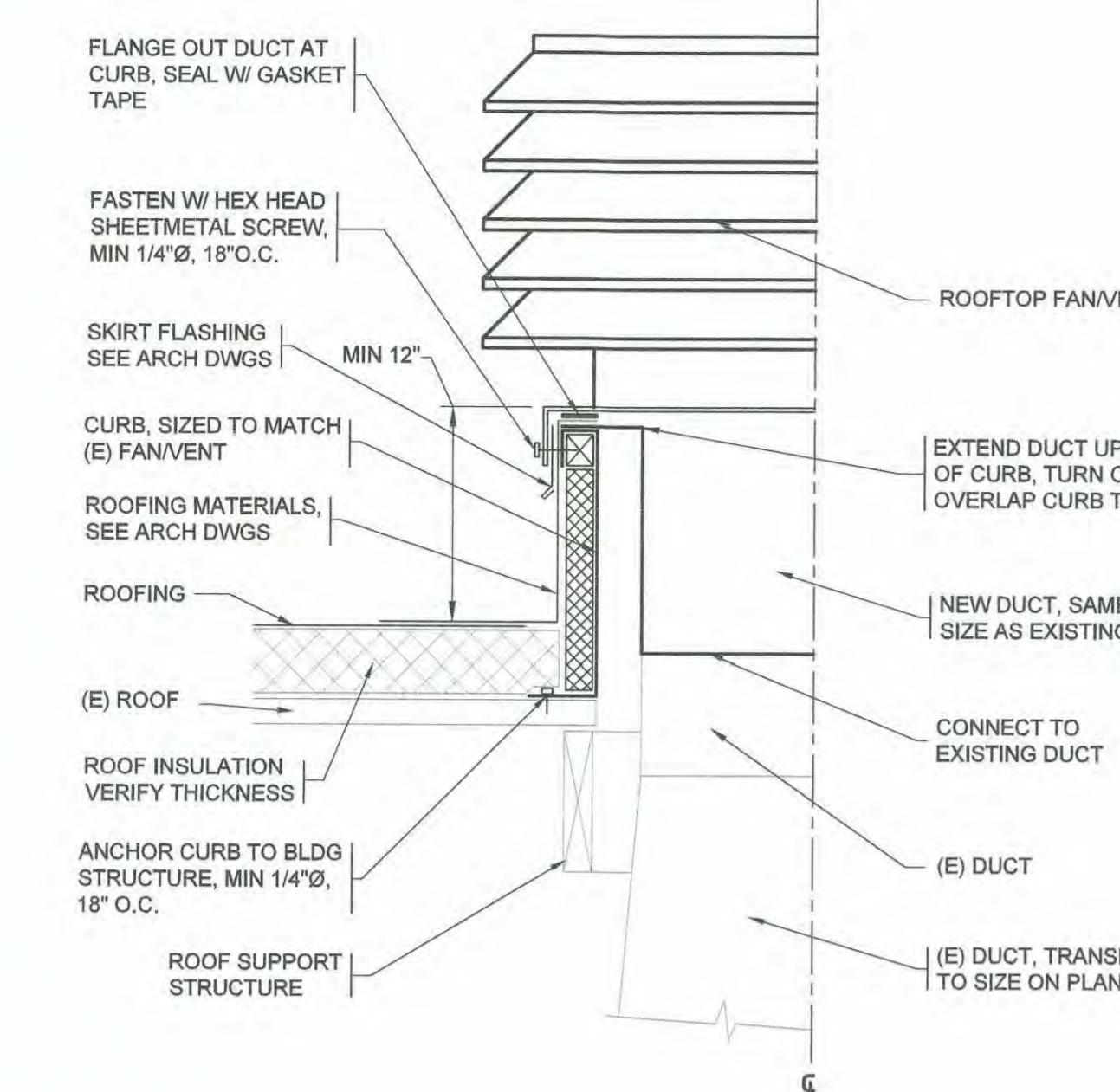
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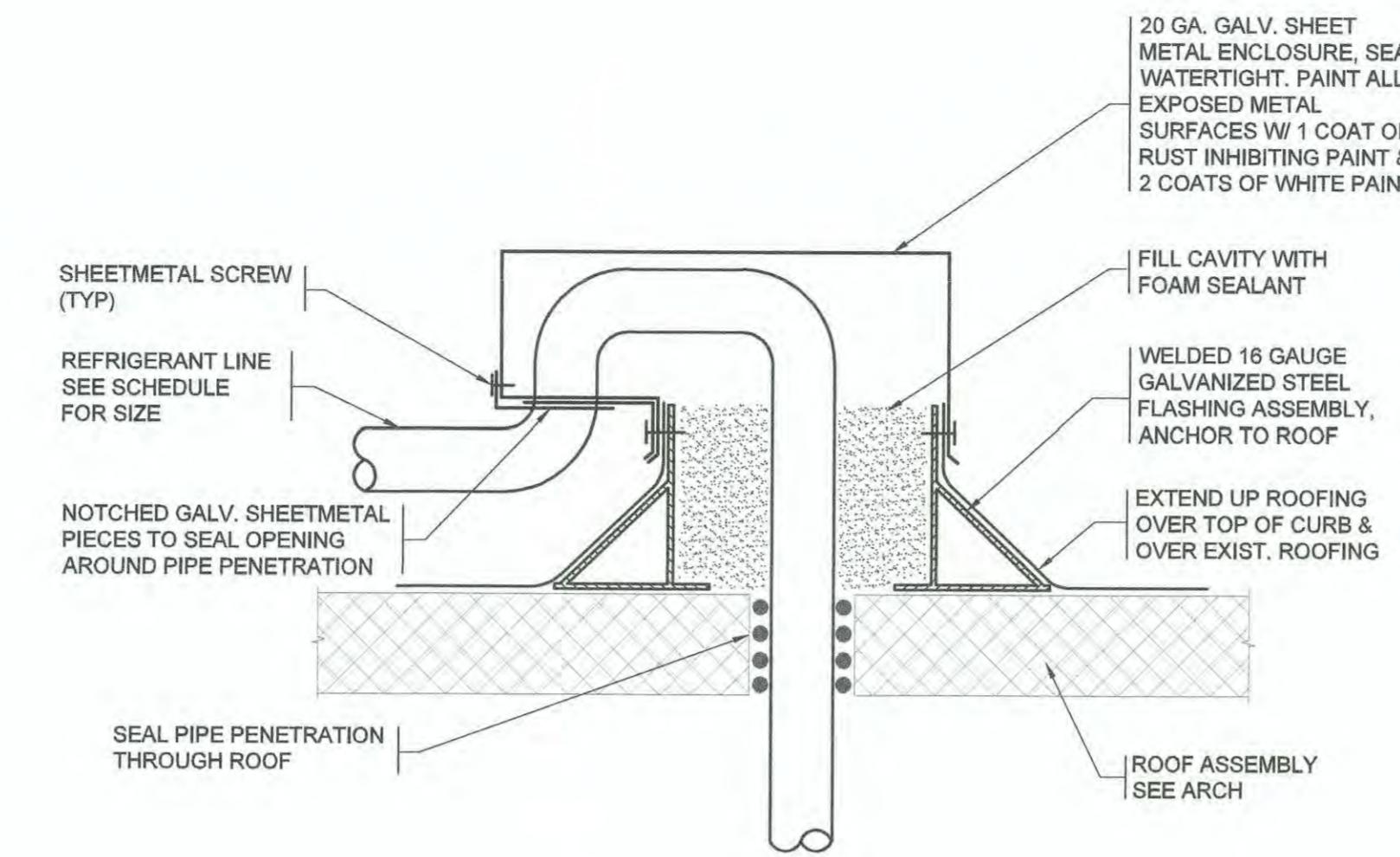
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-CEL:		DRAWING SCALE:	AS NOTED	TACOMA, WA 98401-1837	3/15/2019



ROOF FAN/VENT MOUNTING DETAIL

3

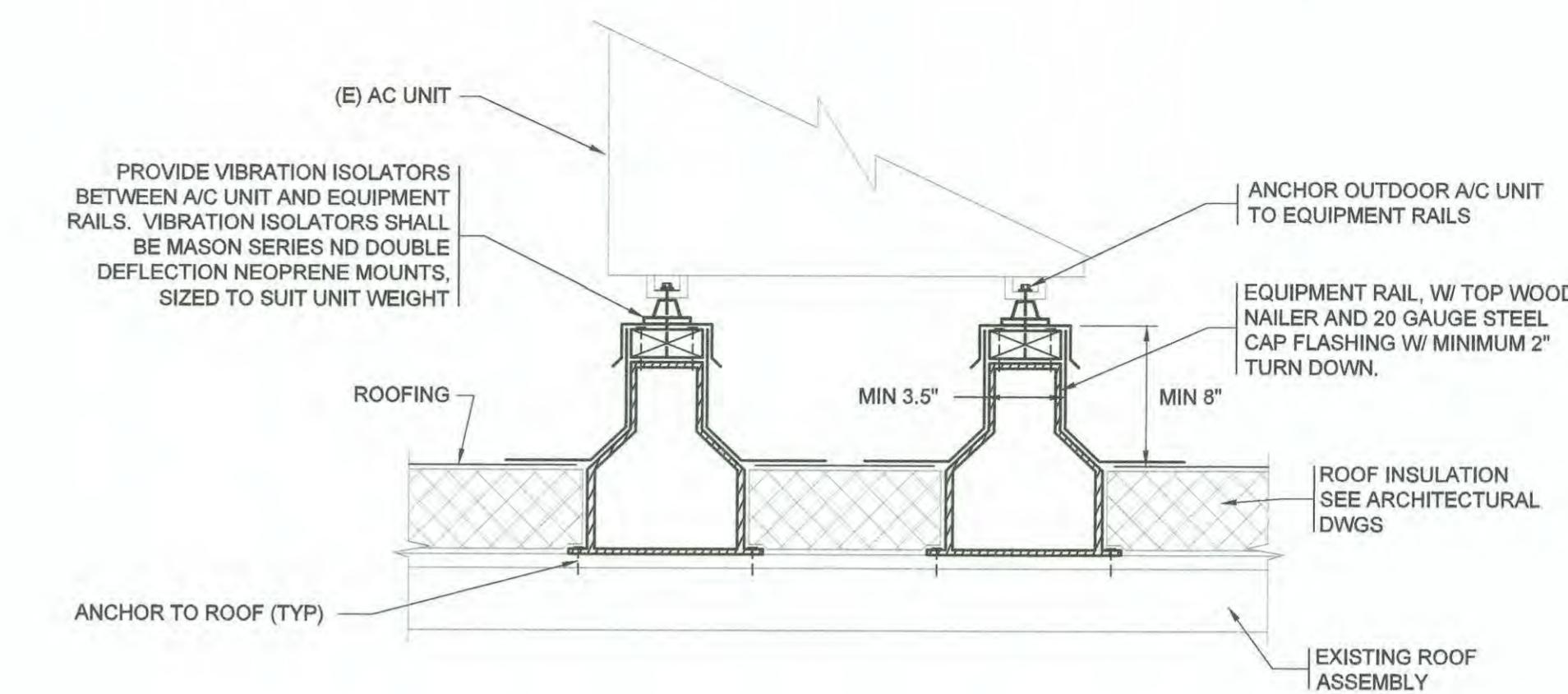
M2.10



REFRIGERANT PIPING

2

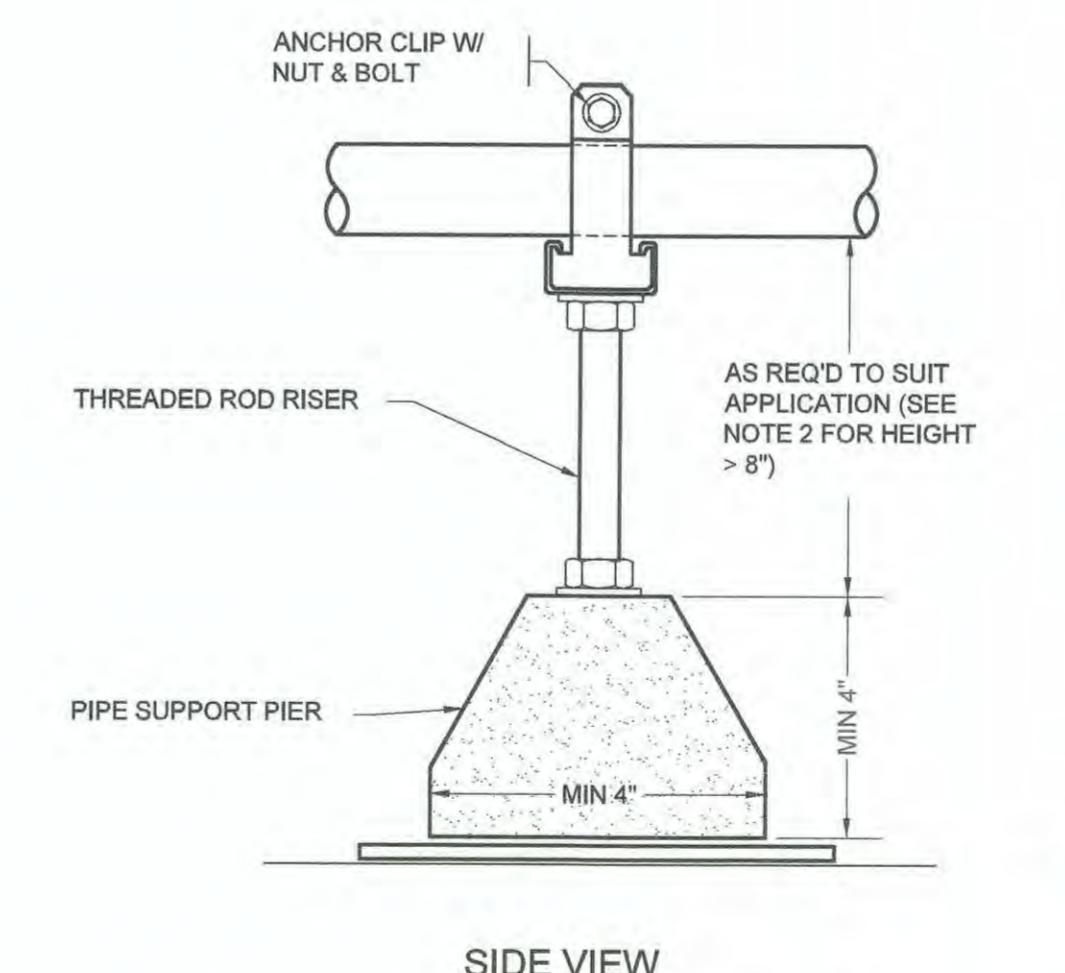
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EQUIPMENT SUPPORT DETAIL

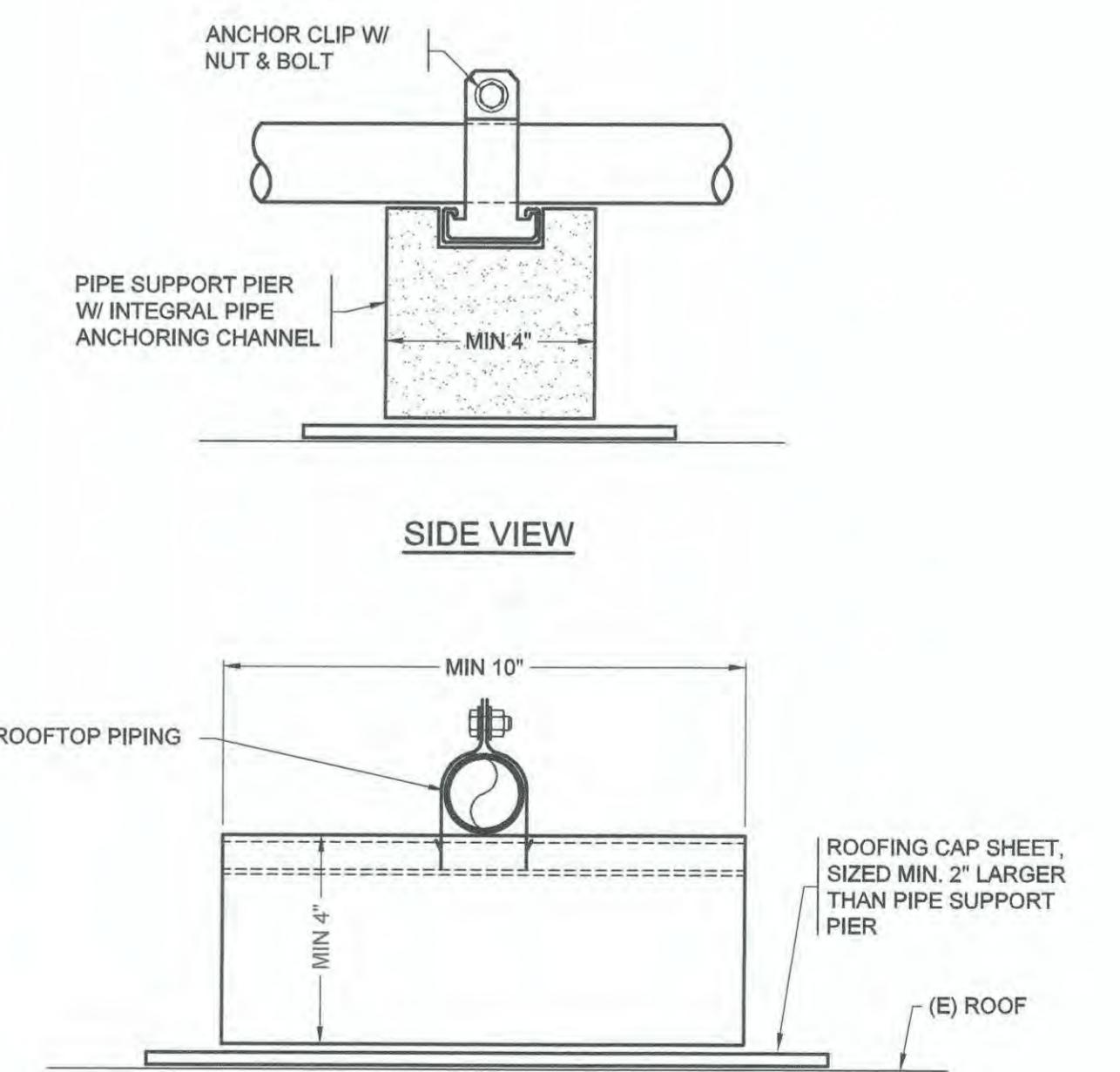
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M2.10



ADJUSTABLE HEIGHT SUPPORT

NOTES: 1. ROUTE PIPING AS LOW AS POSSIBLE ACROSS ROOF; BUT NOT LESS THAN 4".
2. WHERE PIPE HEIGHT ABOVE ROOF EXCEEDS 12", PROVIDE MULTIPLE PIER SUPPORTS W/ "H" FRAME CHANNEL SUPPORT BETWEEN.
3. PROVIDE PIPING WITH METAL JACKET.



FIXED HEIGHT SUPPORT

ROOFTOP PIPE SUPPORT

4

M2.10

M2.10

W. SITCUM BLDG. 100 AND 950 ROOF REPLACEMENTS MECHANICAL DETAILS

SECTION: 35

VER: 1

DRAWING SCALE: AS NOTED

PARCEL: TACOMA, WA 98401-1837

Port of Tacoma	
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APPR:	APPR:
DATE:	DATE:

SIGNED
3/15/2018

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ABBREVIATIONS (SOME ABBREVIATIONS MAY NOT BE USED ON DRAWINGS)			
ABBREVIATION	DESCRIPTION	ABBREVIATION	DESCRIPTION
A or AMP	AMPERES	MH	MANHOLE
AC	ALTERNATING CURRENT	MIN	MINIMUM
A/C	AIR CONDITIONING	MLO	MAIN LUGS ONLY
AIC	AMPERE INTERRUPTING CAPACITY	MOP, MOPC	MAXIMUM OVERCURRENT PROTECTION
AL	ALUMINUM	MTD	MOUNTED
ARCH	ARCHITECTURAL	MTG	MOUNTING
ATC	AUTOMATIC TEMPERATURE CONTROL	NC	NORMALLY CLOSED
ATS	AUTOMATIC TRANSFER SWITCH	N, NEUT	NEUTRAL
AWG	AMERICAN WIRE GAUGE	NIC	NOT IN CONTRACT
BIL	BASIC IMPULSE LEVEL	NO	NORMALLY OPEN
BKR	BREAKER	NTS	NOT TO SCALE
BLDG	BUILDING	OC	ON CENTER
C	CONDUIT	OD	OUTSIDE DIAMETER
C.O.	CONDUIT ONLY	OH	OVERHEAD
°C	DEGREES CELSIUS	PA	PUBLIC ADDRESS
CB	CIRCUIT BREAKER	PB	PULLBOX
CCTV	CLOSED CIRCUIT TELEVISION	PF	POWER FACTOR
CFM	CUBIC FEET PER MINUTE	Ø or PH	PHASE
CKT	CIRCUIT	PNL	PANEL
CL	CENTER LINE	PR	PAIR
CLG	CEILING	PRI	PRIMARY
CONC	CONCRETE	PT	POTENTIAL TRANSFORMER
CT	CURRENT TRANSFORMER	PVC	POLYVINYL CHLORIDE
CU	COPPER	RECEPT	RECEPTACLE
CW	COLD WATER	REQ	REQUIRED
BD	DECIBELS	RF	RADIO FREQUENCY
DC	DIRECT CURRENT	RMS	ROOT MEAN SQUARE
DIA	DIAMETER	SEC	SECONDARY
DIV	DIVISION	SHT	SHEET
DPDT	DOUBLE POLE, DOUBLE THROW	SMR	SURFACE METAL RACEWAY
DPST	DOUBLE POLE, SINGLE THROW	SN	SOLID NEUTRAL
DWG	DRAWING	SP	SINGLE POLE
EGC	EQUIPMENT GROUND CONDUCTOR	SPD	SURGE PROTECTIVE DEVICE
ELEC	ELECTRIC	SPDT	SINGLE POLE, DOUBLE THROW
EMT	ELECTRICAL METALLIC TUBING	SPST	SINGLE POLE, SINGLE THROW
EXST, (E)	EXISTING	SS	STAINLESS STEEL
°F	DEGREES FAHRENHEIT	STD	STANDARD
FA	FIRE ALARM	SW	SWITCH
FC	FOOTCANDLE	SWBD	SWITCHBOARD
FLA	FULL LOAD AMPS	TEL	TELEPHONE
FLEX	FLEXIBLE CONDUIT	TV	TELEVISION
GALV	GALVANIZED	TTB	TELECOMMUNICATIONS TERMINAL BOARD
GFCI	GROUND FAULT CIRCUIT INTERRUPTER	TYP	TYPICAL
GND	GROUND	UL	UNDERWRITERS LABORATORY
H-O-A	HAND - OFF - AUTO	UF	UNDERFLOOR
HP	HORSEPOWER	UG	UNDERGROUND
HPF	HIGH POWER FACTOR	V	VOLTS
H & V	HEATING AND VENTILATION	VA	VOLT AMPERES
HVAC	HEATING, VENTILATION & AIR CONDITIONING	VAC	VOLTS ALTERNATING CURRENT
Hz	HERTZ	VAR	REACTIVE VOLT AMPERES
IDF	INTERMEDIATE DISTRIBUTION FRAME	VAV	VARIABLE AIR VOLUME
J-BOX	JUNCTION BOX	VD	VOLTAGE DROP
KV	KILOVOLTS	VDC	VOLTS DIRECT CURRENT
KVA	KILOVOLT AMPERES	VFD	VARIABLE FREQUENCY DRIVE
KVAR	REACTIVE KILOVOLT AMPERES	VT	VAPORTIGHT
KW	KILOWATTS	W	WATTS
KWH	KILOWATT HOURS	WP	WEATHERPROOF
LT	LIGHT	/W	WITH
LTG	LIGHTING	W/O	WITHOUT
MAX	MAXIMUM	XFER	TRANSFER
MCA	MINIMUM CIRCUIT AMPS	XFMR	TRANSFORMER
MCB	MAIN CIRCUIT BREAKER	XLP	CROSS-LINKED POLYETHYLENE
MCC	MOTOR CONTROL CENTER	XP	EXPLOSION PROOF
MCM, KCM	THOUSAND CIRCULAR MILS	Z	IMPEDANCE
MDF	MAIN DISTRIBUTION FRAME		
MECH	MECHANICAL		

ELECTRICAL LEGEND (SOME SYMBOLS MAY NOT BE USED ON DRAWINGS)	
SYMBOL	DESCRIPTION
<input type="checkbox"/>	DISCONNECT SWITCH
<input checked="" type="checkbox"/>	FUSED DISCONNECT SWITCH
	DUPLEX RECEPTACLE (NEMA 5-20R)
	GFCI DUPLEX RECEPTACLE (NEMA 5-20R)
	SUBSCRIPT: WP WEATHERPROOF
	JUNCTION BOX
	MOTOR CONNECTION
	EQUIPMENT CONNECTION

NOTE:
STANDARD LINE WEIGHT INDICATES EXISTING CONDITIONS.
BROKEN LINE INDICATES DEMO WORK.
HEAVY LINE WEIGHT INDICATES NEW WORK.

GENERAL ELECTRICAL NOTES

- VERIFY WIRE COUNT BEFORE PULLING CONDUCTORS. PROVIDE REQUIRED CONDUCTORS TO EACH OUTLET AND/OR DEVICE FOR PHASE, NEUTRAL, AND EQUIPMENT GROUND BASED ON CIRCUIT DESIGNATIONS SHOWN AND AS OTHERWISE INDICATED OR SCHEDULED.
- PROVIDE SEPARATE NEUTRAL CONDUCTOR FOR ALL 120 VOLT BRANCH CIRCUITS.
- MINIMUM CONDUIT SIZE SHALL $\frac{1}{2}$ INCH DIAMETER.
- CONTRACTOR MAY ADJUST ROUTING OF EXPOSED CONDUITS ON ROOF FOR ECONOMY AND TO COORDINATE WITH GAS PIPING. ALL CONDUITS SHALL BE RUN PARALLEL AND PERPENDICULAR TO BUILDING LINES UNLESS OTHERWISE SPECIFICALLY APPROVED FOR SHORT RUNS.
- AT ROOF TOP HVAC EQUIPMENT, DISCONNECT MEANS AND/OR CONVENIENCE OUTLETS MAY BE INSTALLED ON MECHANICAL EQUIPMENT WHERE APPROVE BY PRODUCT MANUFACTURER OR SHALL BE INSTALLED ON GALVANIZED STEEL CHANNEL STRUT AND MOLDED PYRAMID ROOF BLOCK(S) ANCHORED TO THE EQUIPMENT CURB.
- CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE WITH OWNER AND PROVIDE FIELD INVESTIGATION TO OBTAIN ADEQUATE INFORMATION ABOUT EXISTING BUILDING ELECTRICAL SYSTEMS, INCLUDING ROOF TOP POWER, COMMUNICATION, AND LOW VOLTAGE (LESS THAN 50 VOLTS) SYSTEMS, AS REQUIRED TO PERFORM THE WORK. SEE DIVISION 1 SPECIFICATIONS FOR ADDITIONAL INFORMATION REGARDING FIELD INVESTIGATION PHASE REQUIREMENTS OF THE PROJECT.
- CONTRACTOR SHALL DISCONNECT POWERED ROOF TOP HVAC EQUIPMENT AND REMOVE ASSOCIATED ELECTRICAL DISTRIBUTION AND WIRING AS NECESSARY TO INSTALL NEW ROOF. CONTRACTOR SHALL REPLACE ALL REMOVED DISTRIBUTION AND WIRING, AND RECONNECT FOR OPERATION. CONDUIT, BOXES, SUPPORTS, FITTINGS, HARDWARE, AND EQUIPMENT CONNECTION WHIPS SHALL BE NEW. CONDUCTORS, DEVICES, PANELS, AND DISCONNECT MEANS IN GOOD CONDITION MAY BE REUSED UNLESS OTHERWISE NOTED ON THE PLANS.
- CONTRACTOR SHALL REMOVE AND REINSTALL ROOF TOP COMMUNICATION AND LOW VOLTAGE SYSTEMS EQUIPMENT, PANELS, DEVICES, AND ASSOCIATED WIRING NECESSARY TO INSTALL NEW ROOF. CONDUIT AND ASSOCIATED BOXES, SUPPORTS, FITTINGS, AND HARDWARE SHALL BE NEW. CONDUCTORS AND CABLE SHALL BE REUSED. ANY SYSTEMS NOT OPERATIONAL, AND ANY DAMAGED EQUIPMENT, PANELS, DEVICES, CABLE, OR CONDUCTORS, SHALL BE DOCUMENTED AND REPORTED TO OWNER PRIOR TO REMOVAL.
- CONTRACTOR SHALL ALLOW FOR PHASED CONSTRUCTION AND SHALL SCHEDULE WORK TO MINIMIZE OUTAGES OF BUILDING POWER, COMMUNICATION, AND LOW VOLTAGE SYSTEMS.
- SEE ARCHITECTURAL PLAN SHEETS FOR DETAILS OF PIPE PENETRATIONS THROUGH ROOF DECK AND WALLS.



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03-15-2019	

**W. SITCUM BLDG. 100 AND 950
ROOF REPLACEMENTS**
LEGEND, NOTES & ABBREVIATIONS

E0.1

SH # 17 OF 19

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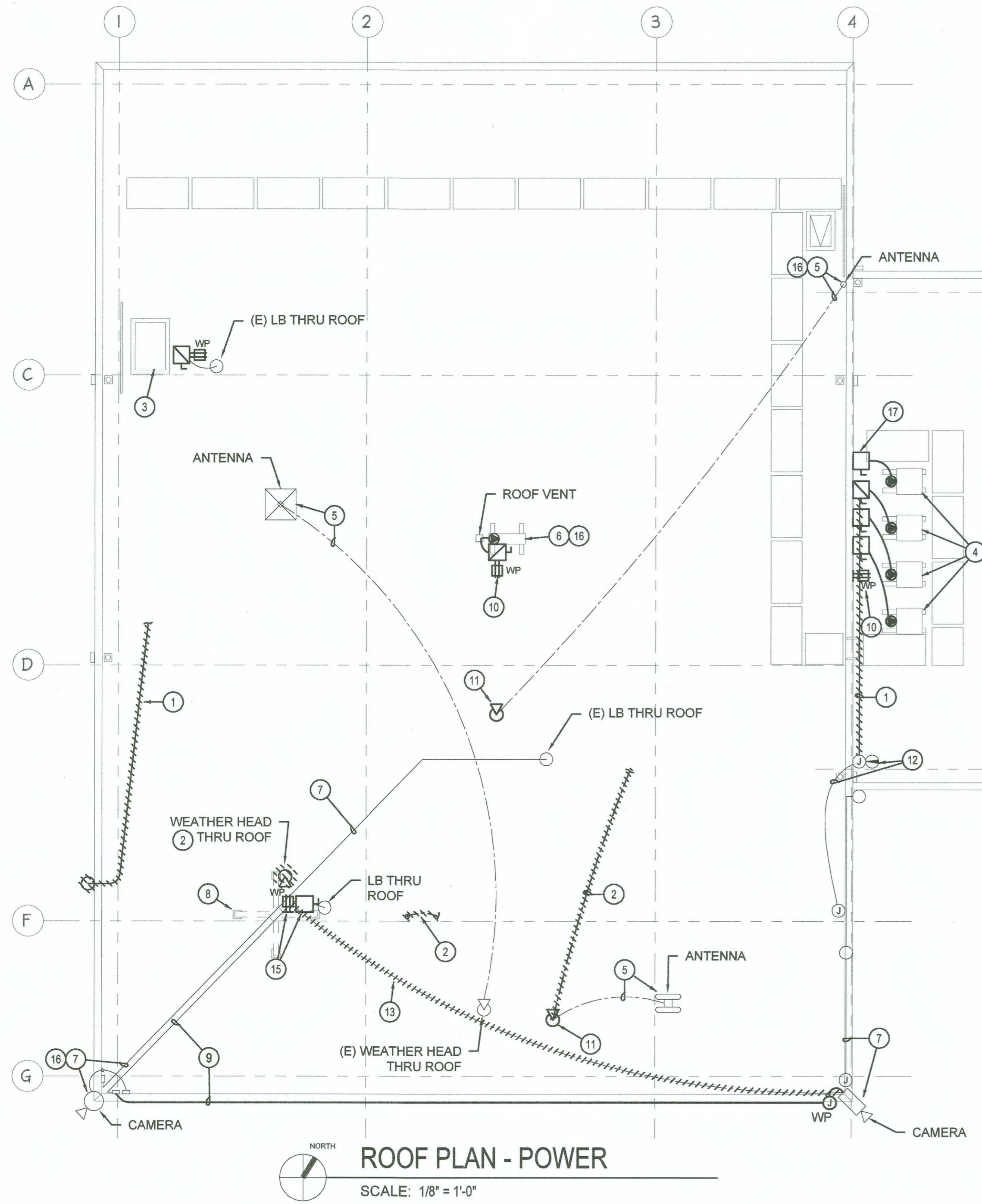
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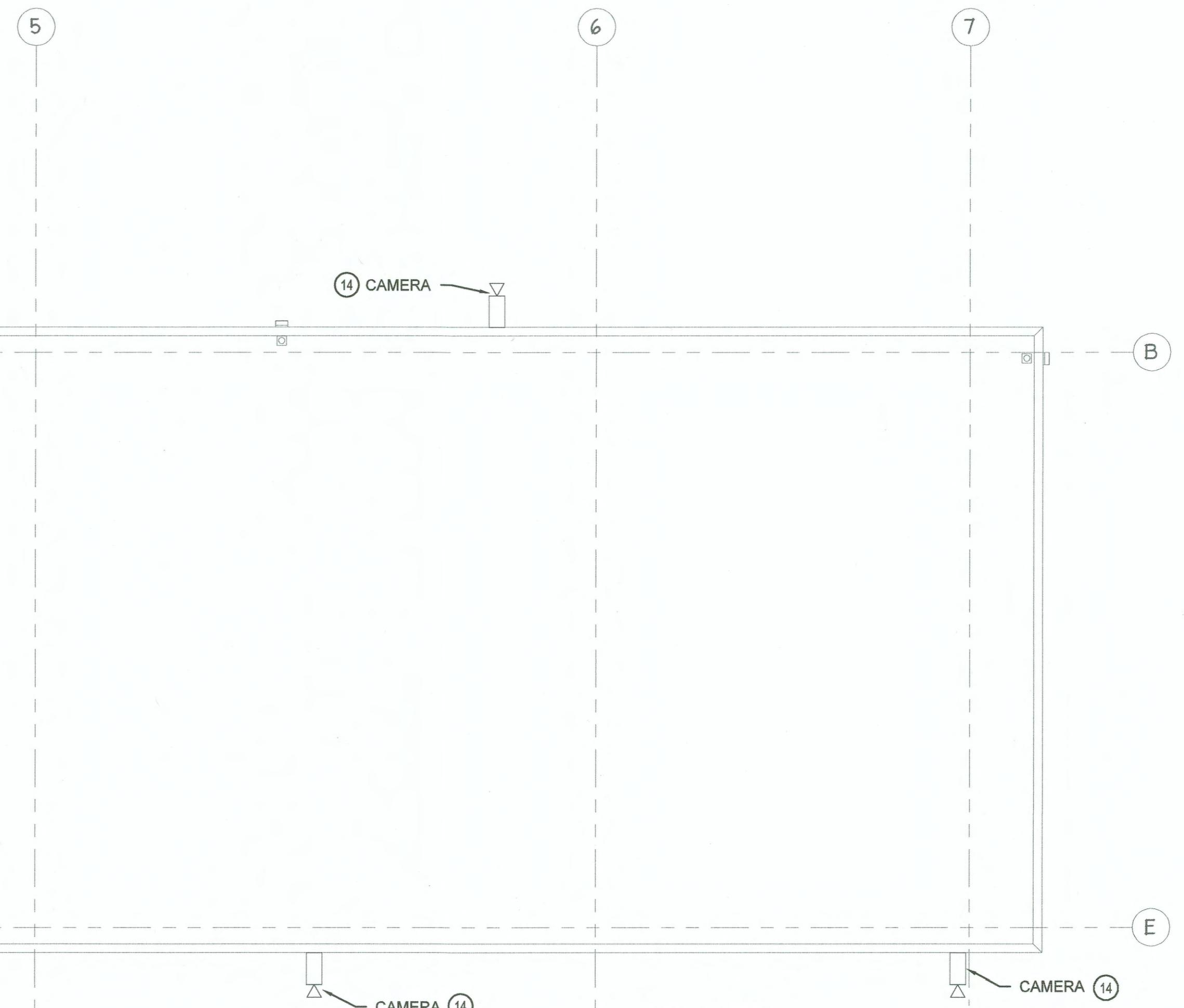
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ROOF PLAN - POWER

SCALE: 1/8" = 1'-0"

**E1.10**
W. SITCUM BLDG. 100 AND 950
ROOF REPLACEMENTS
ROOF PLAN BLDG 100 - ELECTRICAL

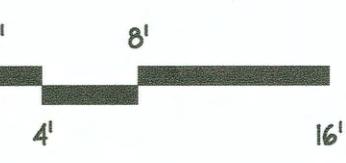
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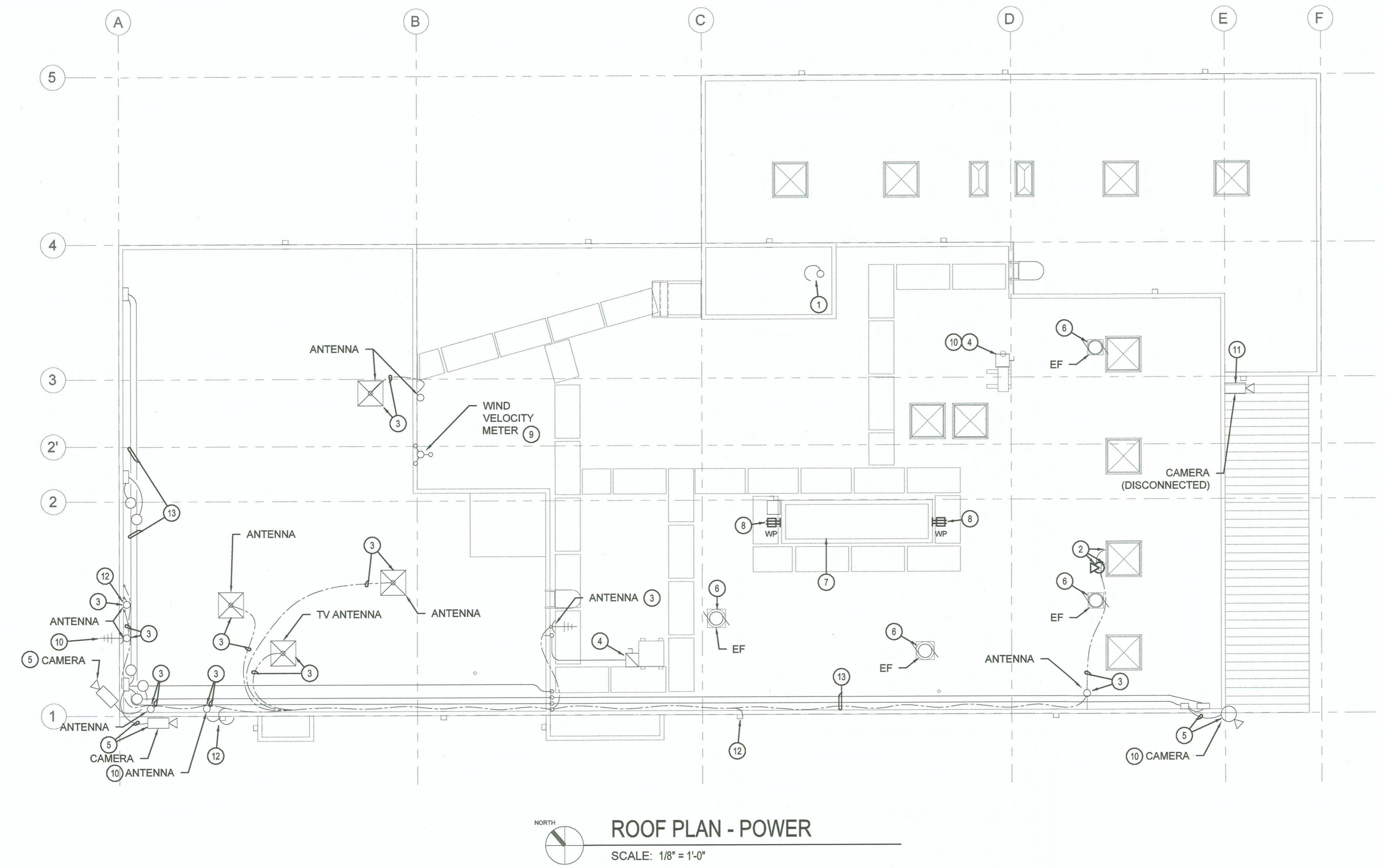
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- PLAN KEY NOTES:**
- ① DEMO ABANDONED CONDUIT AND CABLE.
 - ② DEMO ABANDONED LOW VOLTAGE CONDUIT, WIRE, AND OPEN CABLEING.
 - ③ DISCONNECT AND RECONNECT EXISTING HVAC UNIT AND CONVENIENCE OUTLET FOR NEW ROOF INSTALLATION. EXTEND WIRING AS REQUIRED. REPLACE FUSED DISCONNECTING MEANS, GFCI RECEPTACLE DEVICE, AND WP DEVICE COVER WITH NEW.
 - ④ DISCONNECT AND RECONNECT EXISTING HVAC UNITS FOR NEW ROOF INSTALLATION. REPLACE FUSED AND NONFUSED DISCONNECTS WITH NEW. REPLACED WIRING FROM DISCONNECTS TO HVAC UNITS AND UNIT EQUIPMENT CONNECTIONS WITH NEW.
 - ⑤ REMOVAL AND REINSTALL OF ANTEENAS. REINSTALL CABLE AS REQUIRED TO MAINTAIN SERVICE.
 - ⑥ DISCONNECT AND RECONNECT EXISTING HVAC UNIT FOR NEW ROOF INSTALLATION. EXTEND WIRING AS REQUIRED. PROVIDE NEW FUSED DISCONNECTING MEANS.
 - ⑦ REMOVE AND REINSTALL CAMERAS, BOXES. PROVIDE NEW CONDUIT AND REINSTALL CABLE AND CONDUCTORS AS REQUIRED TO MAINTAIN SERVICE.
 - ⑧ EXISTING EQUIPMENT BASE TO BE REMOVED.
 - ⑨ REPLACE 120 VAC CONDUIT AND CONDUCTORS WITH NEW AS REQUIRED TO MAINTAIN CAMERA POWER.
 - ⑩ PROVIDE NEW GFCI WP CONVENIENCE OUTLET. EXTEND POWER FROM NEAREST 120VAC SOURCE.
 - ⑪ PROVIDE NEW CONDUIT SLEEVE & WEATHER HEAD FOR ANTEENNA CABLING.
 - ⑫ REMOVE AND REPLACE EXISTING PHOTOCELL AND ASSOCIATED WIRING.
 - ⑬ DEMO 120VAC CAMERA POWER CABLE.
 - ⑭ REMOVE AND REINSTALL CAMERA. MAINTAIN CABLE CONNECTION.
 - ⑮ REMOVE AND REPLACE 2-CIRCUIT LOAD CENTER AND CONVENIENCE OUTLET WITH NEW AND MAINTAIN 120 VAC. PROVIDE NEW ROOF MOUNTED STRUT SUPPORT FOR DEVICES.
 - ⑯ MISSION CRITICAL EQUIPMENT REQUIRING MINIMUM DOWN TIME. SEE SPECIFICATIONS FOR OUTAGE REQUIREMENTS.
 - ⑰ PULL BACK CONDUCTORS AND REPLACE HVAC FEEDER CONDUITS THROUGH WALL. TYPICAL FOR (4) HVAC UNITS. SEE ARCHITECTURAL DETAILS FOR PIPE SLEEVING THROUGH WALL. SEAL SLEEVES WEATHERTIGHT.



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PLAN KEY NOTES:

- ① DEMO ABANDONED WIRING.
- ② PROVIDE NEW CONDUIT SLEEVE & WEATHER HEAD FOR ANTENNA CABLING THROUGH ROOF.
- ③ COORDINATE WITH OWNER FOR REMOVAL AND REINSTALL OF ANTENNAS. DISCONNECT, MOVE, AND RECONNECT EXISTING CABLE AS REQUIRED TO PERFORM ROOF WORK.
- ④ DISCONNECT AND RECONNECT EXISTING HVAC UNIT FOR NEW ROOF INSTALLATION. EXTEND WIRING AS REQUIRED. REPLACE FUSED DISCONNECTING MEANS WITH NEW.
- ⑤ COORDINATE WITH OWNER FOR REMOVAL AND REINSTALL OF CAMERAS. PROVIDE NEW CONDUIT PATHWAY AS REQUIRED TO MAINTAIN SERVICE.
- ⑥ DISCONNECT AND RECONNECT EXISTING EXHAUST FAN MOTOR FOR NEW ROOF INSTALLATION. EXTEND WIRING AS REQUIRED AND PROVIDE NEW EQUIPMENT CONNECTION.
- ⑦ DISCONNECT AND RECONNECT EXISTING HVAC UNIT FOR NEW ROOF INSTALLATION. EXTEND WIRING AS REQUIRED.
- ⑧ PROVIDE NEW GFCI WP CONVENIENCE OUTLET. EXTEND POWER FROM NEAREST 120VAC SOURCE.
- ⑨ COORDINATE WITH OWNER FOR REMOVAL AND REINSTALL OF WIND VELOCITY METER.
- ⑩ MISSION CRITICAL EQUIPMENT REQUIRING MINIMUM DOWN TIME. SEE SPECIFICATIONS FOR OUTAGE REQUIREMENTS.
- ⑪ REMOVE AND REINSTALL AS REQUIRED TO PERFORM ROOF WORK.
- ⑫ PROVIDE CONDUIT SLEEVE THROUGH PARAPET WALL FOR REINSTALLATION OF LOW VOLTAGE CABLES.
- ⑬ REMOVE AND REINSTALL EXISTING WIRING ALONG PARAPET WALL AS REQUIRED TO PERFORM ROOF WORK. REPLACE EXISTING CONDUIT WITH NEW.

E1.11

W. SITCUM BLDG. 100 AND 950
ROOF REPLACEMENTS
ROOF PLAN BLDG 950 - ELECTRICAL

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