

SWITCHGEAR REPLACEMENT

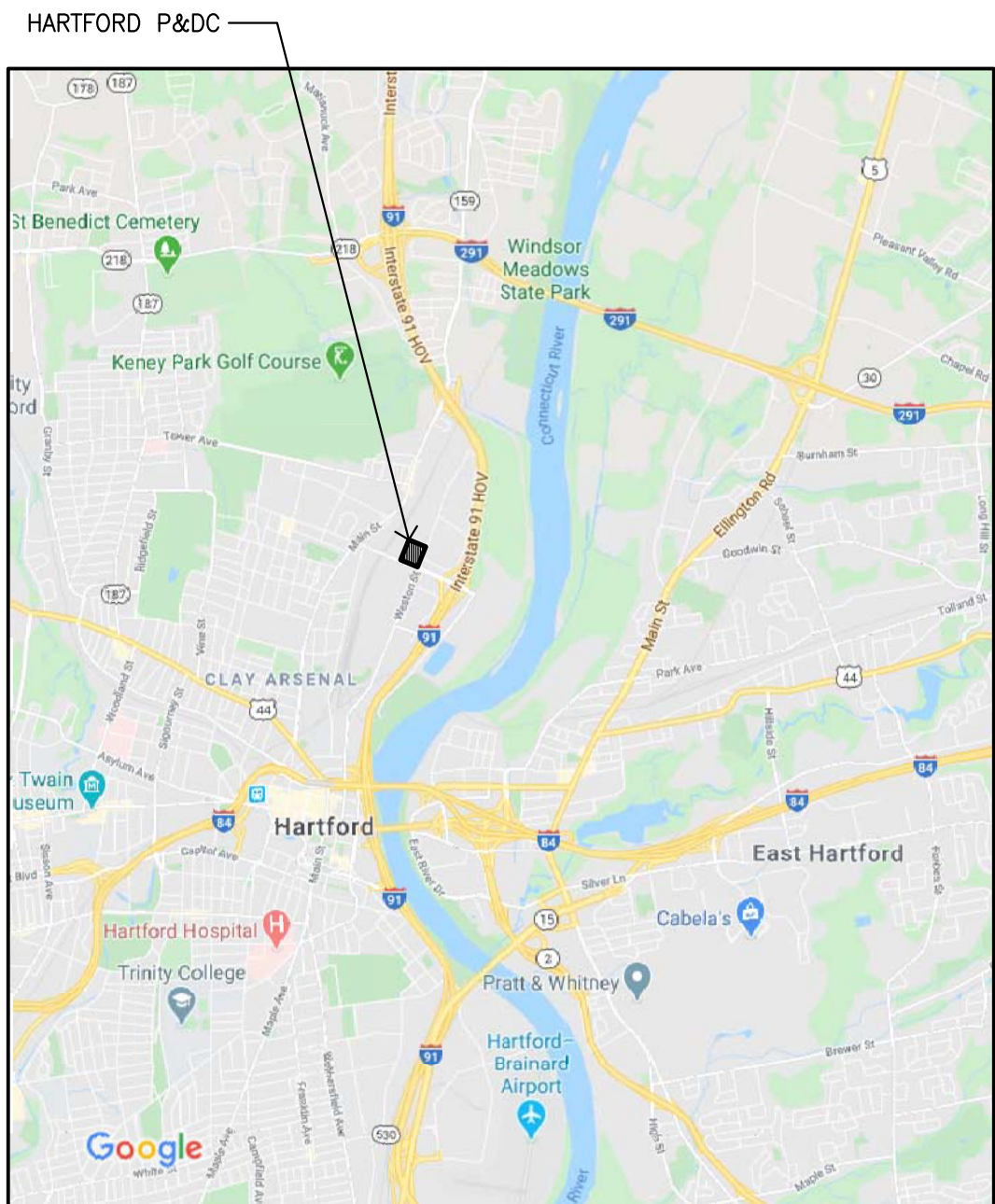
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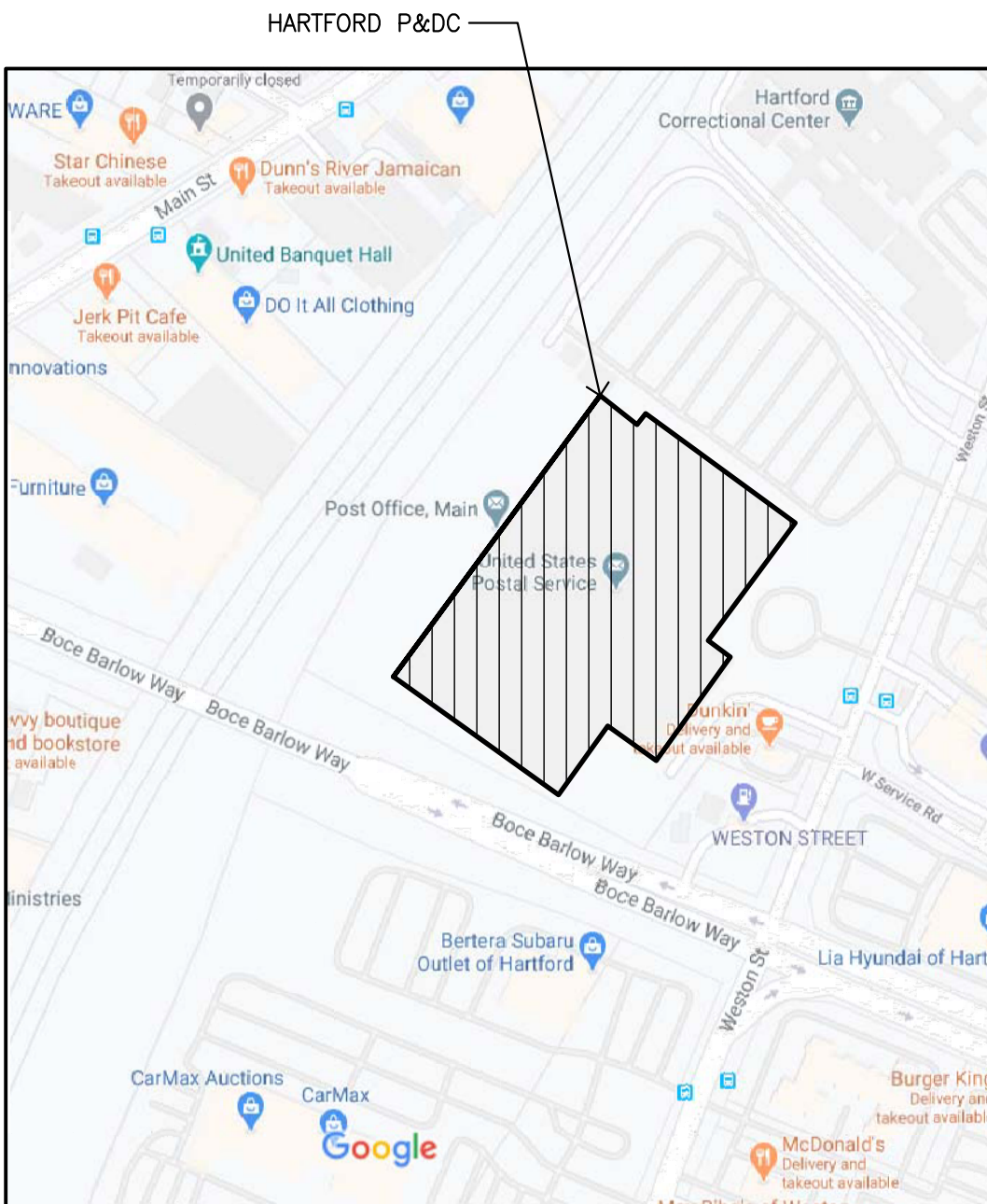
A/E FIRM

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VICINITY MAP

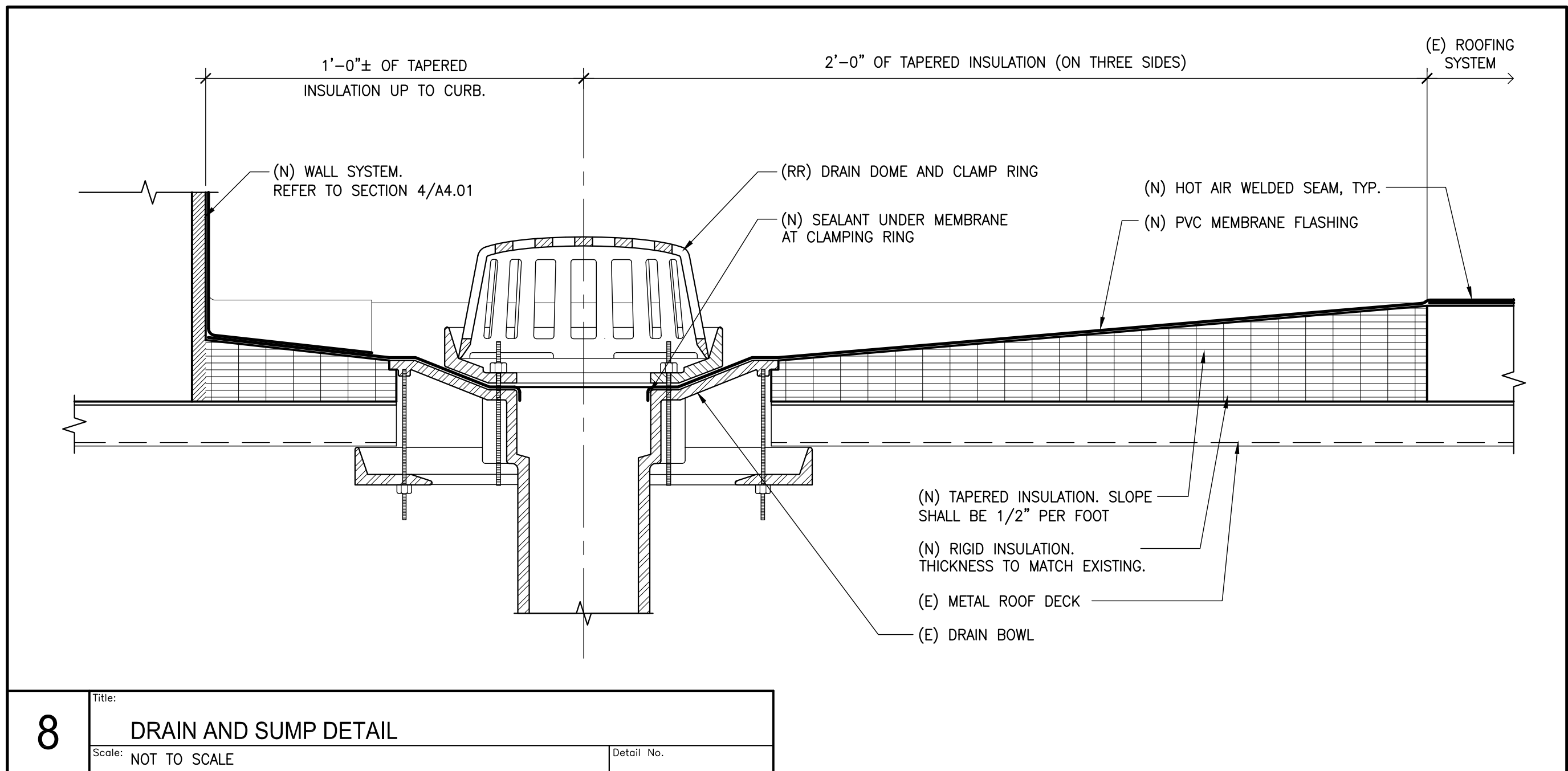
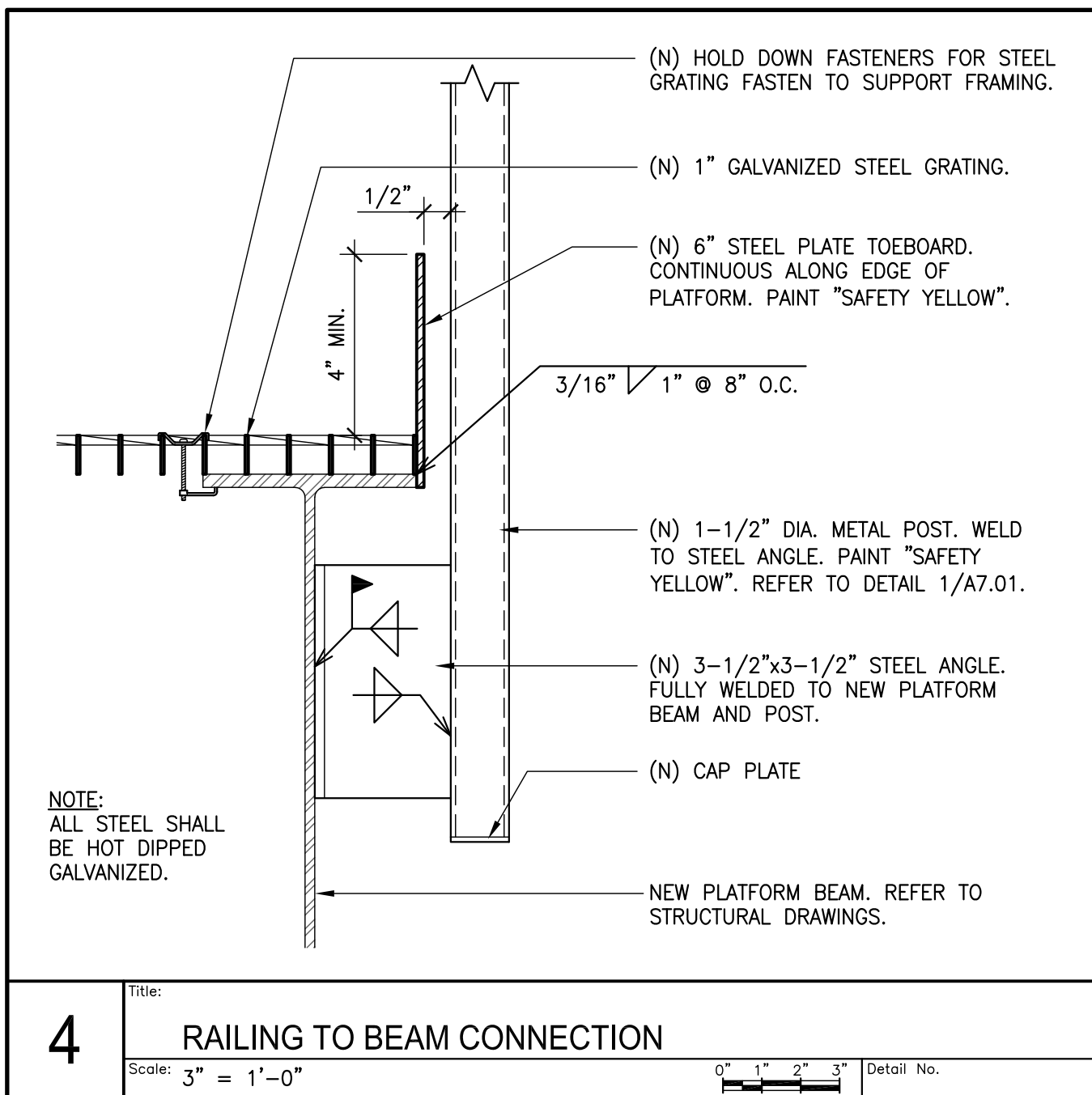
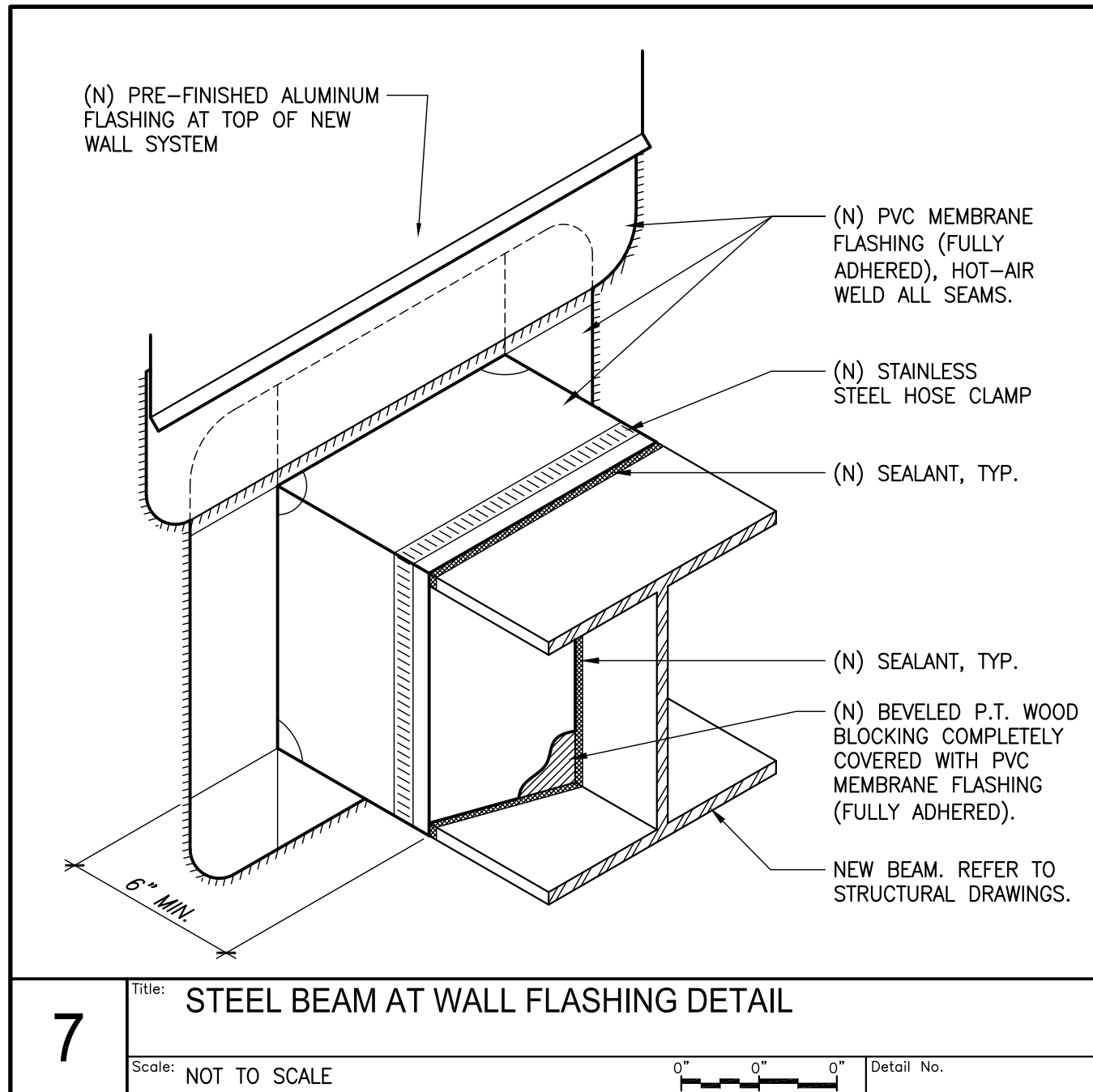
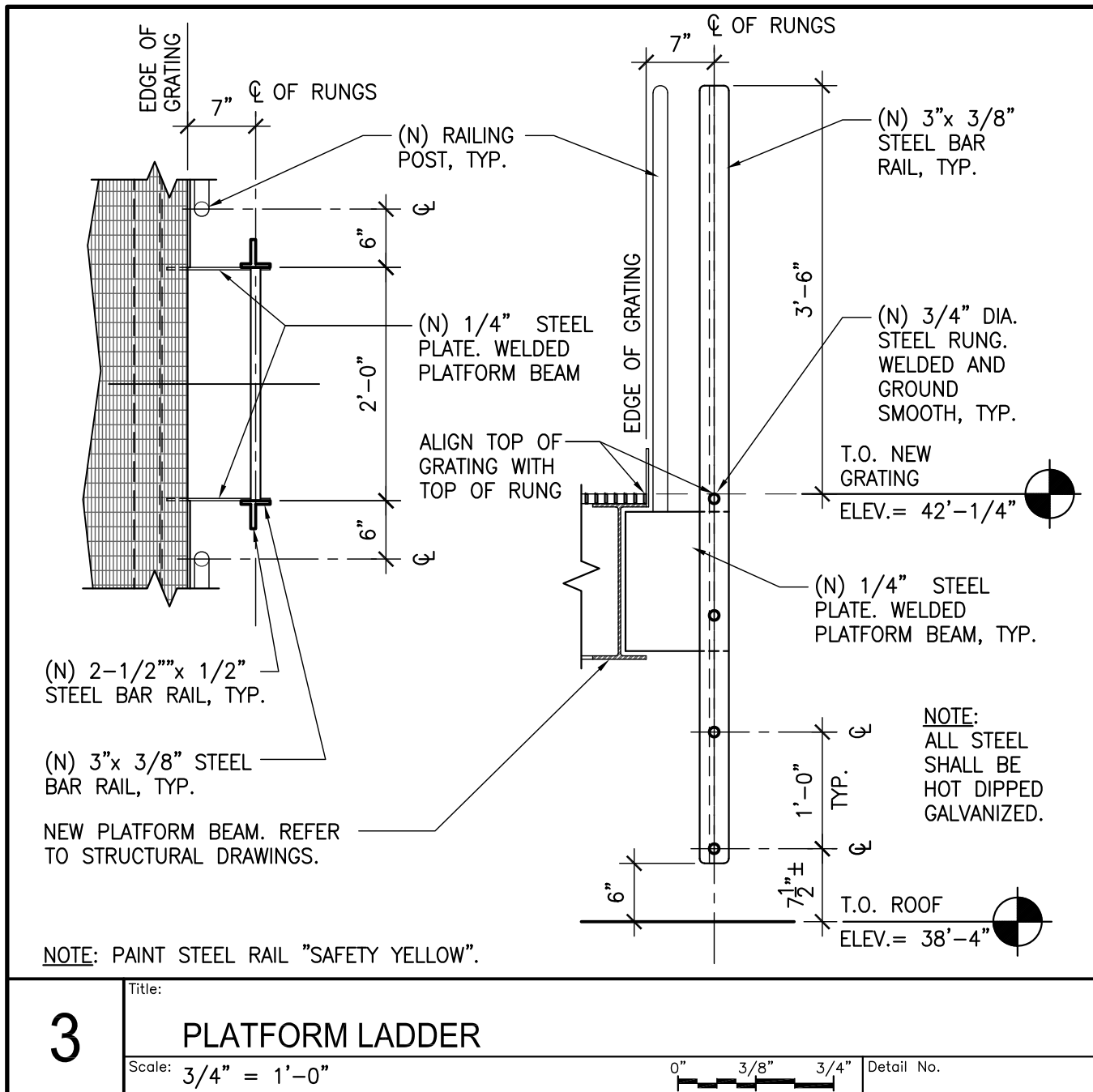
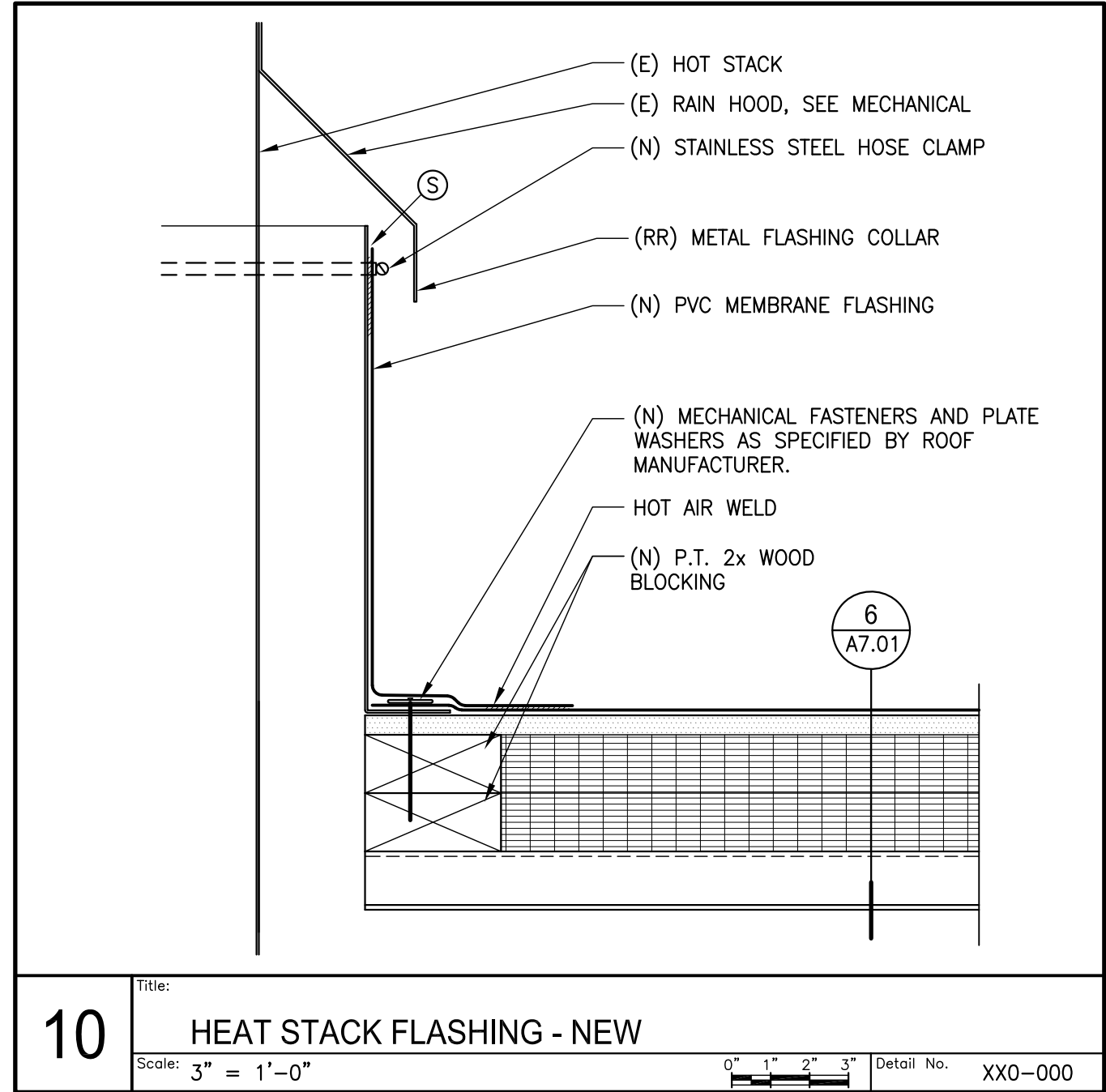
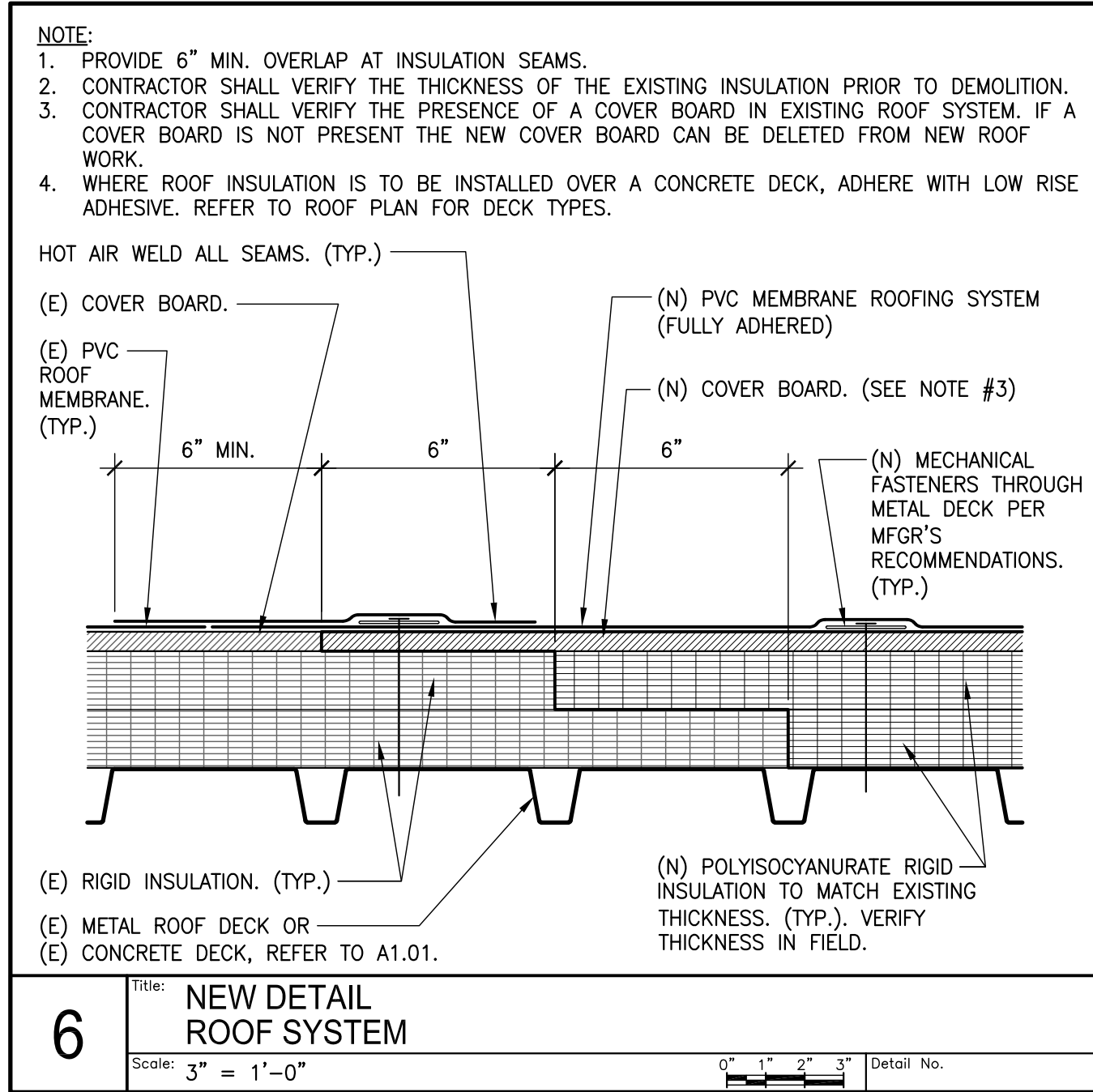
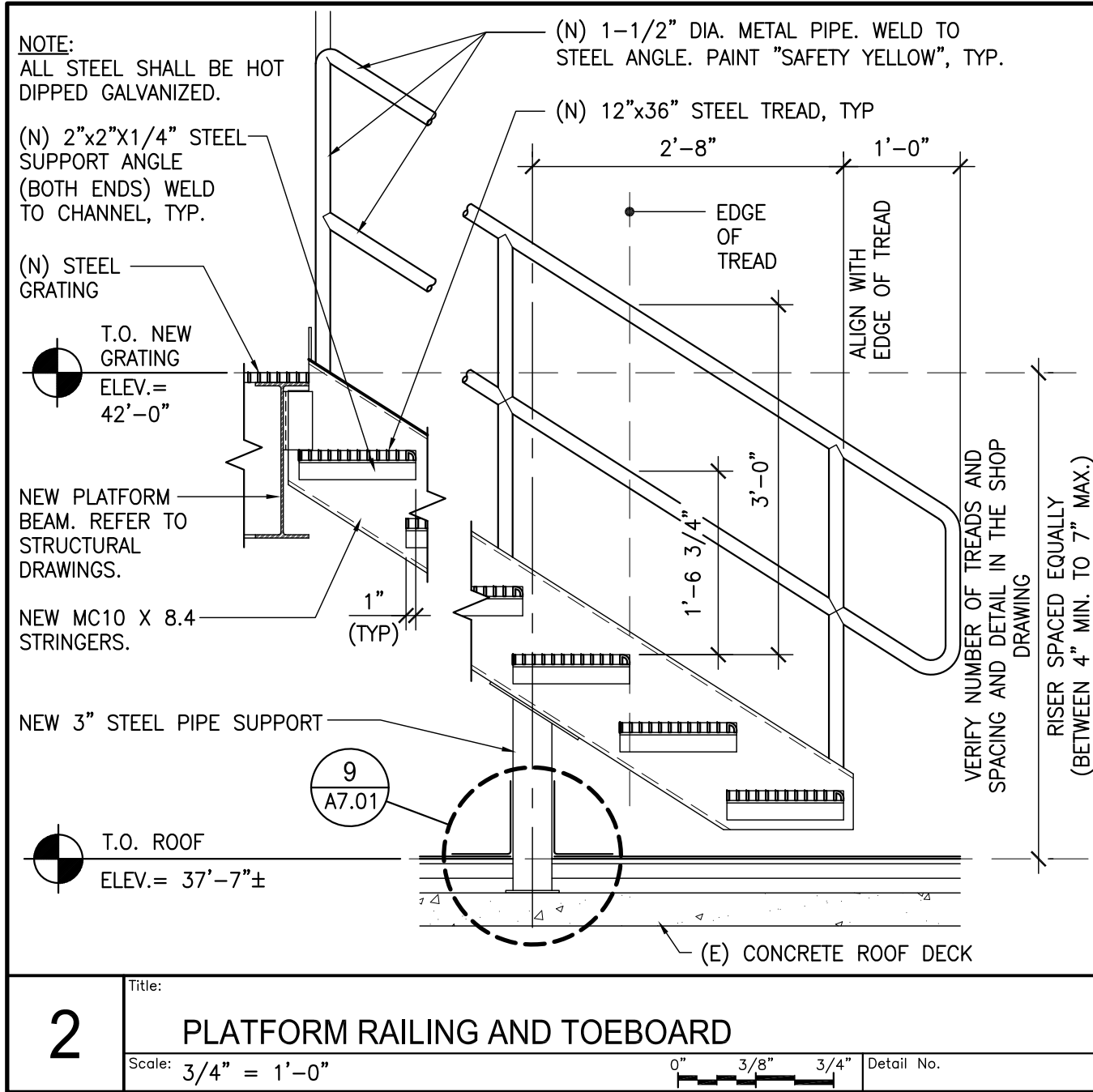
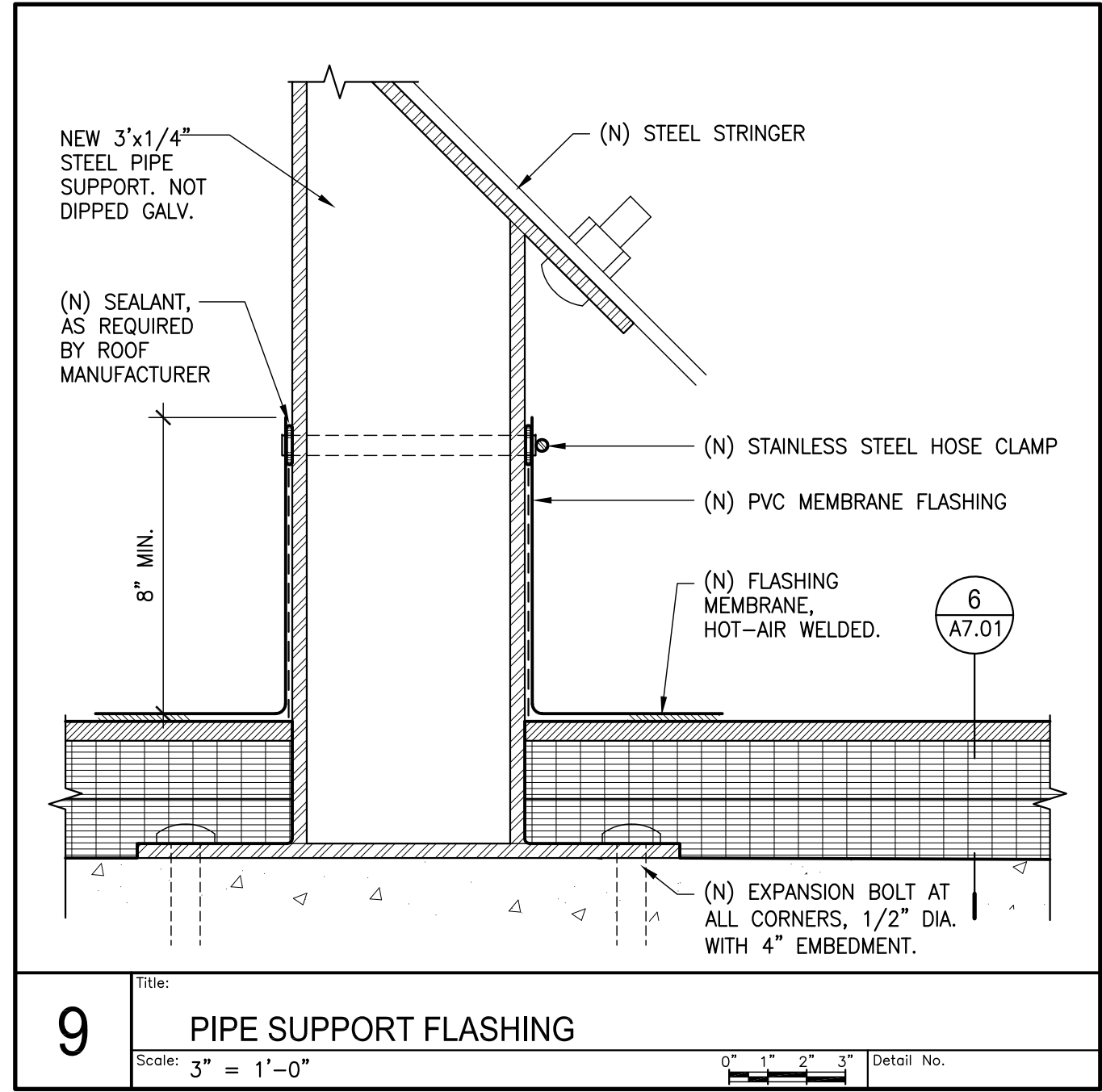
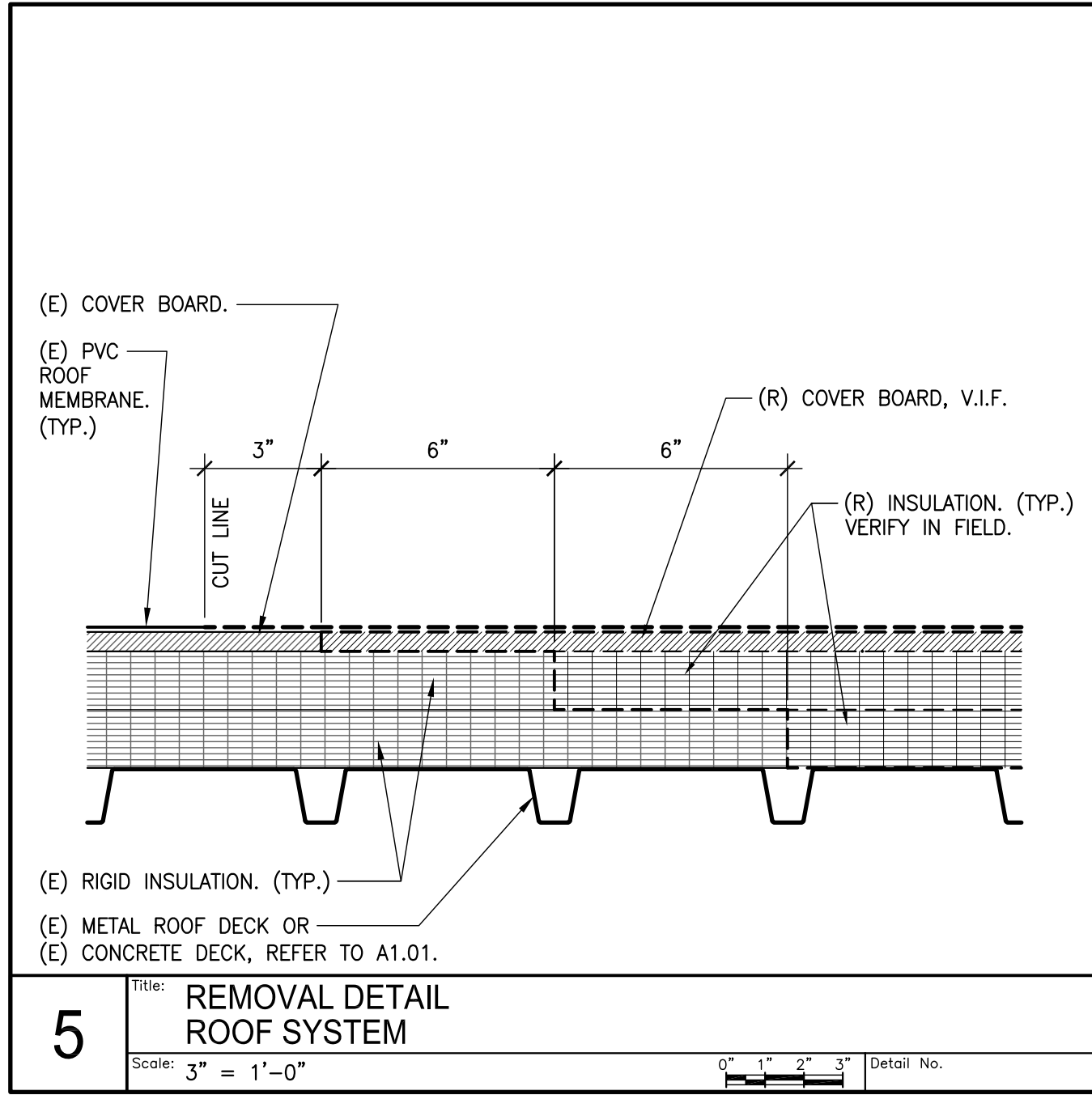
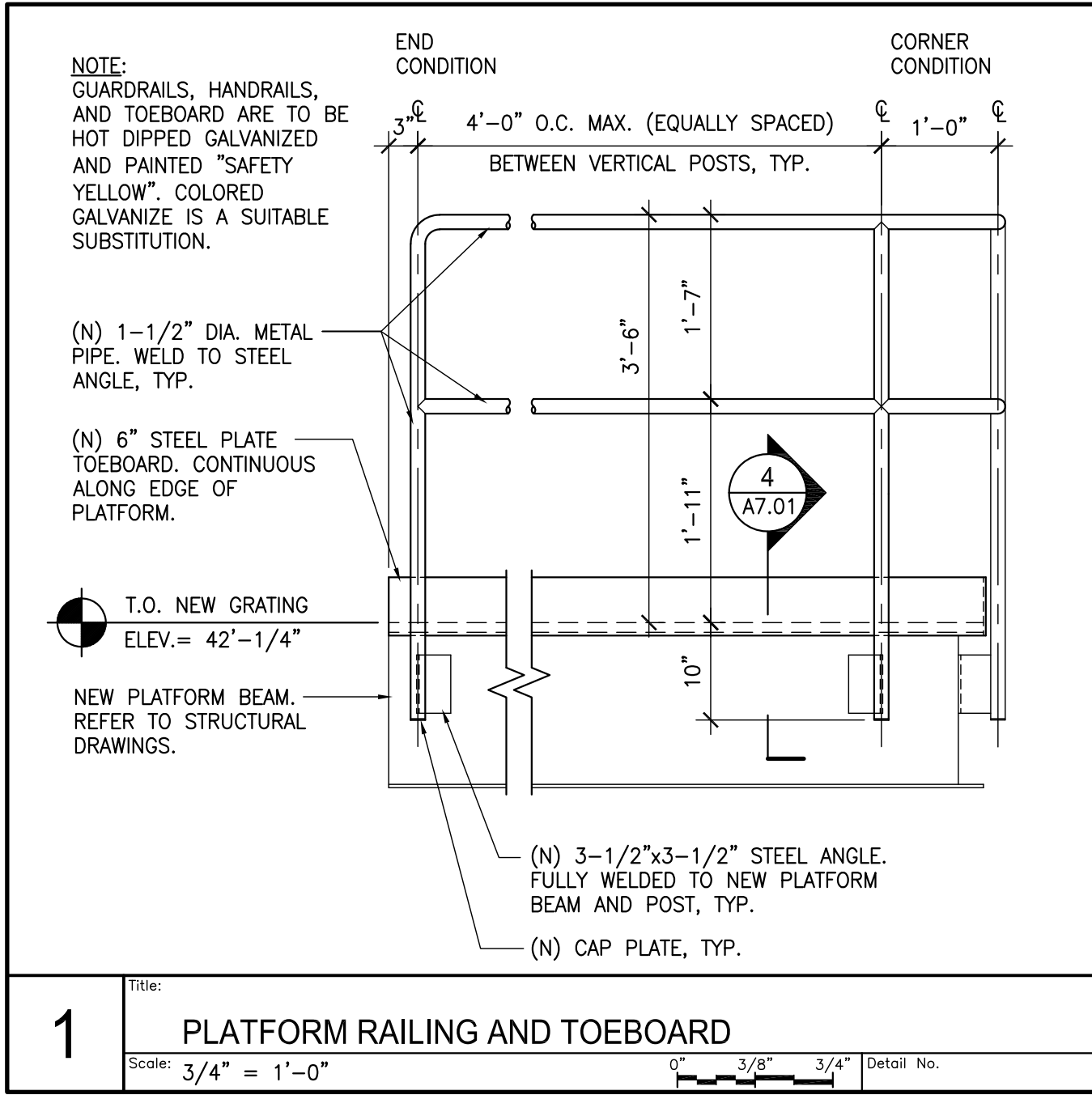


LOCALITY MAP

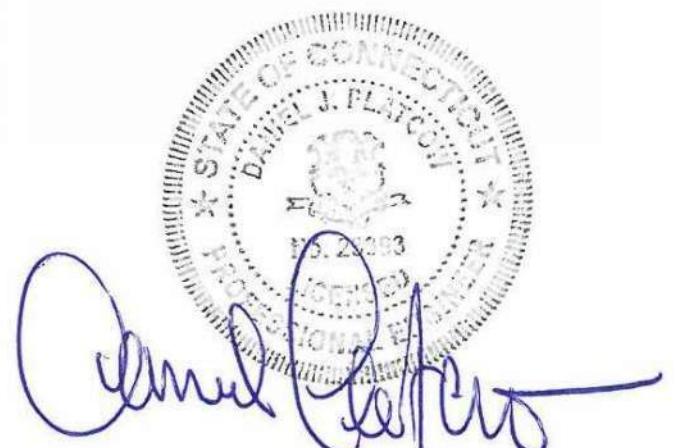
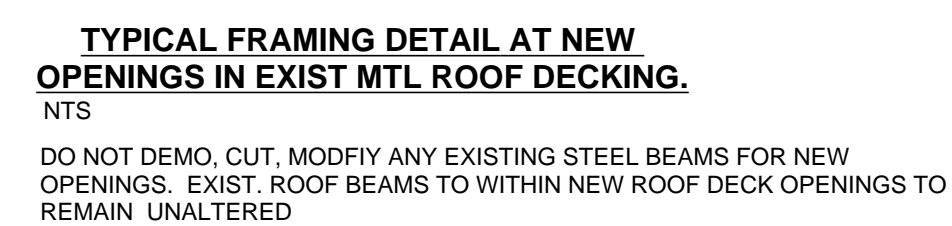
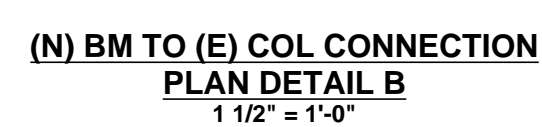
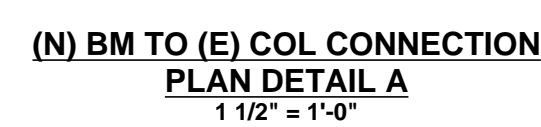
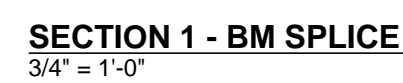


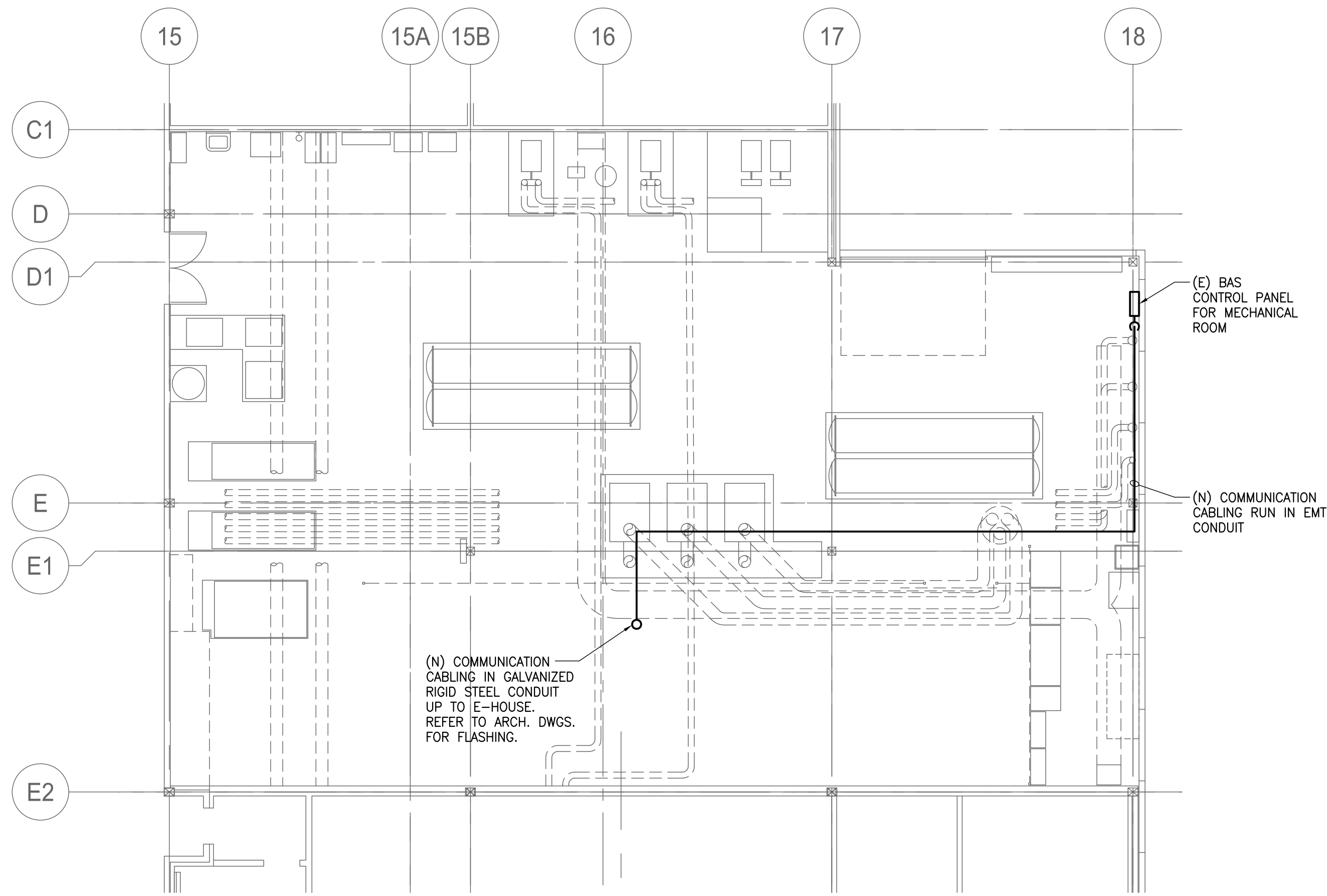
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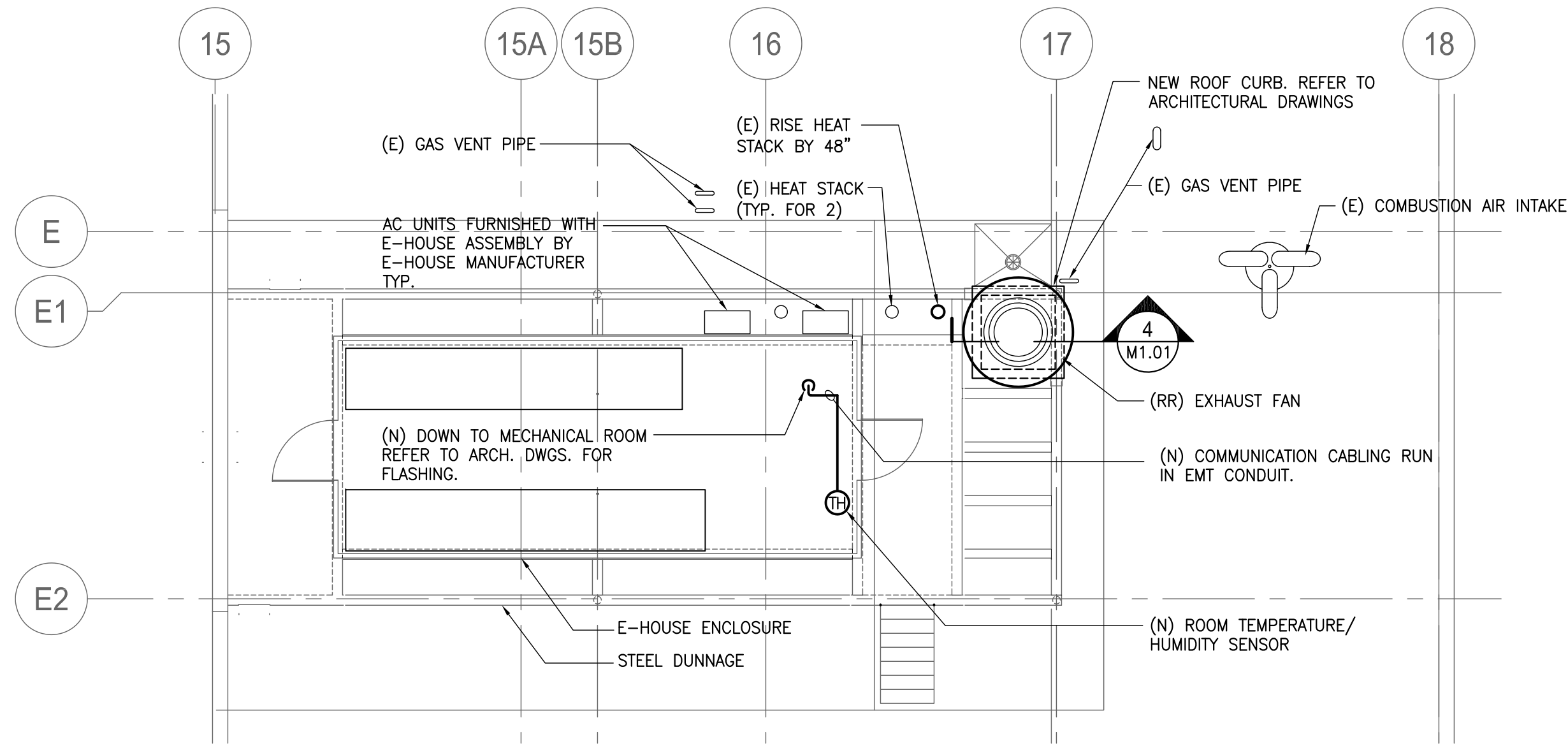


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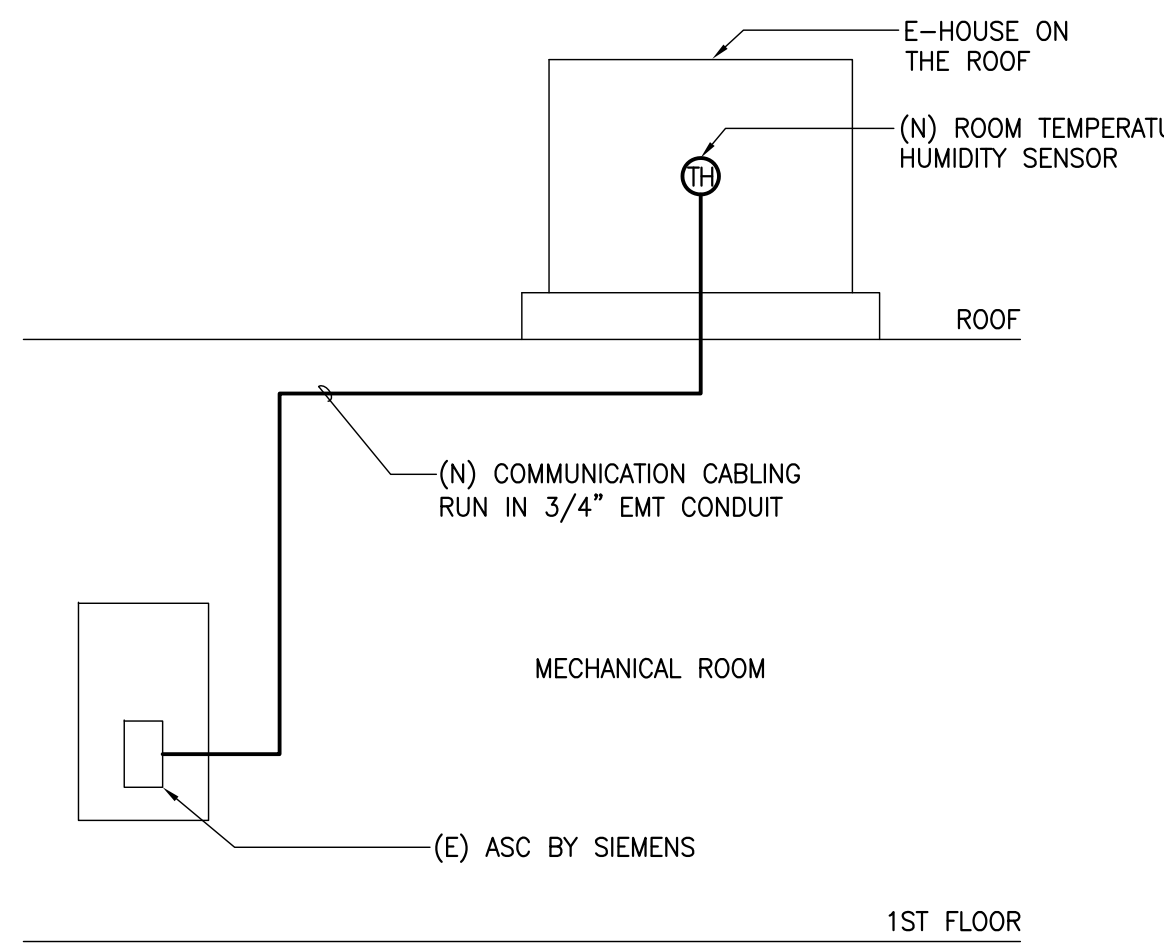




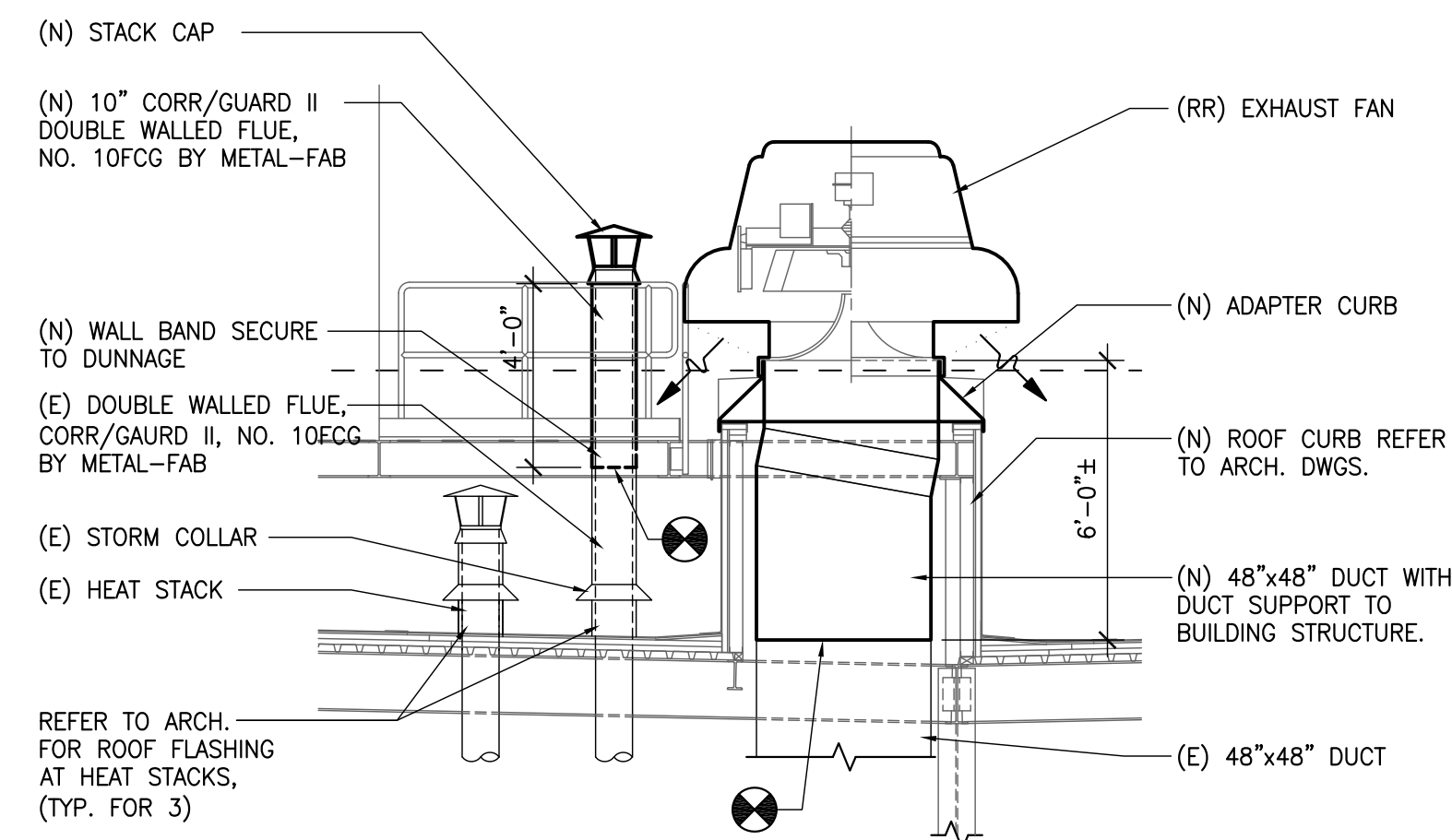
1 MECHANICAL ROOM PLAN
SCALE: 1/8" = 1'-0"



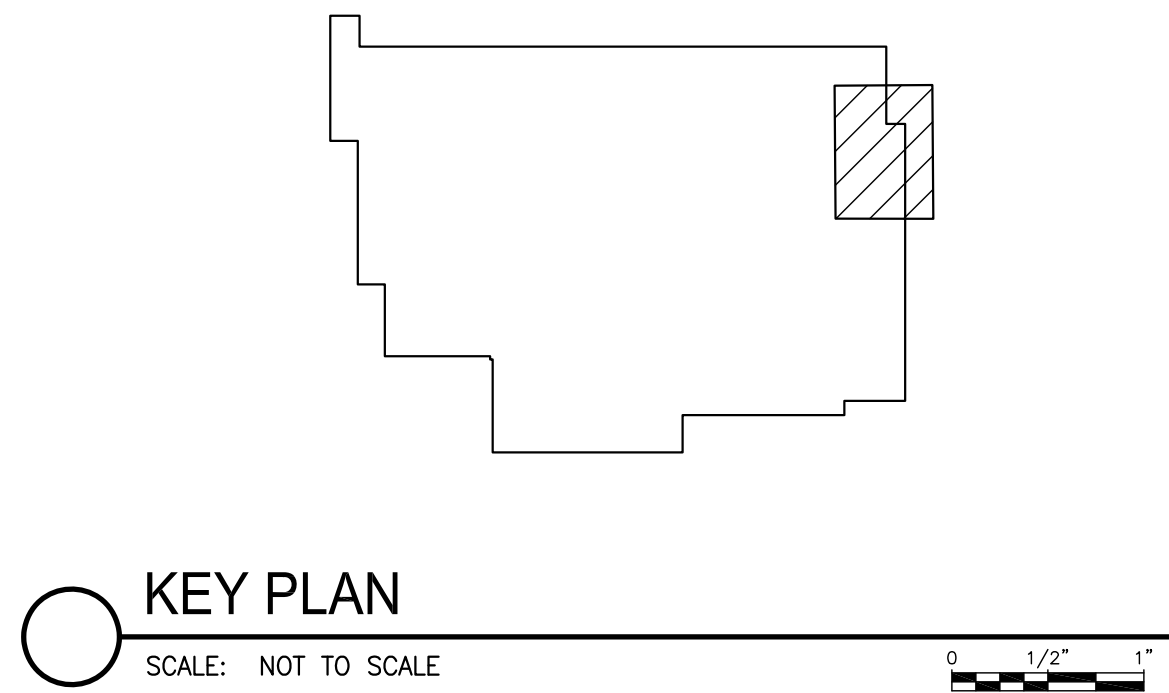
2 PART ROOF PLAN AND E-HOUSE MECHANICAL PLAN
SCALE: 1/8" = 1'-0"



3 TEMPERATURE MONITORING WIRING DIAGRAM
SCALE: N.T.S.



4 EXHAUST FAN SECTION
SCALE: 1/8" = 1'-0"



BUILDING AUTOMATION SYSTEM (BAS) NOTES:

- THE FACILITY HAS AN EXISTING SIEMENS BAS SYSTEM WITH BACNET IP PROTOCOL.
- THE NEW ROOM TEMPERATURE SENSOR SHALL BE CONNECTED TO THE EXISTING I/O MODULE OF THE CONTROLLER OF BAS CONTROL PANEL LOCATED IN MECHANICAL ROOM.
- CONTRACTOR SHALL PROVIDE ALL PROGRAMMING TO EXISTING BAS FOR NEW TEMPERATURE/HUMIDITY SENSOR INCLUDING GRAPHIC MAPPING FOR THE FOLLOWING POINTS:
A. E-HOUSE TEMPERATURE
B. E-HOUSE HUMIDITY
- CONTRACTOR SHALL PROVIDE ALARM ON THE BAS PROGRAMMING FOR E-HOUSE BASED ON THE BELOW CONDITIONS:
A. TEMPERATURE ABOVE 85°F
B. HUMIDITY ABOVE 60%

MECHANICAL ABBREVIATIONS

AD	ACCESS DOOR
AHU	AIR HANDLING UNIT
AF	ABOVE FINISHED FLOOR
AP	ACCESS PANEL
AS	AIR SEPARATOR
ATC	AUTOMATIC TEMPERATURE CONTROL
B	BOILER
BOD	BOTTOM OF DUCT
BTUH	BRITISH THERMAL UNIT PER HOUR
CD	CONDENSATE DRAIN
CFM	CUBIC FEET PER MINUTE
CO2	CARBON DIOXIDE SENSOR
CP	CONDENSATE PUMP
CW	COLD WATER
CWR	CHILLED WATER RETURN
CWS	CHILLED WATER SUPPLY
DBF	DRY BULB TEMPERATURE
DN	DOWN
DPTF	DEW POINT TEMPERATURE
DX	DIRECT EXPANSION COIL
EAT	ENTERING AIR TEMPERATURE
EC	ELECTRICAL SUBCONTRACTOR
EDB	ENTERING AIR TEMPERATURE, DRY BULB
EER	ENERGY EFFICIENCY RATIO
EF	EXHAUST FAN
EMS	ENERGY MANAGEMENT SYSTEM
ENT	ENTERING
EP	ELECTRICAL PNEUMATIC SWITCH
ESP	EXTERNAL STATIC PRESSURE
ET	EXPANSION TANK
EWB	ENTERING AIR TEMPERATURE, WET BULB
EWI	ENTERING WATER TEMPERATURE
FLA	FULL LOAD AMPS
FD	FIRE DAMPER
FCM	FEET PER MINUTE
GC	GENERAL CONTRACTOR
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
HP	HORSE POWER
HPCR	HIGH PRESSURE CONDENSATE RETURN
HPS	HIGH PRESSURE STEAM
HV	HEATING AND VENTILATING UNIT
HWR	HOT WATER RETURN
HWS	HOT WATER SUPPLY
LBS/HR	POUNDS PER HOUR
LDB	LEAVING AIR TEMPERATURE, DRY BULB
LPCR	LOW PRESSURE CONDENSATE RETURN
LPS	LOW PRESSURE STEAM
LRA	LOCKED ROTOR AMP
LVG	LEAVING
LWB	LEAVING AIR TEMPERATURE, WET BULB
MAU	MAKE-UP AIR UNIT
MAX	MAXIMUM
MBH	THOUSAND BTUH
MIN	MINIMUM
MOD	MOTOR OPERATED DAMPER
MPCR	MEDIUM PRESSURE CONDENSATE RETURN
MPS	MEDIUM PRESSURE STEAM
NC	NORMALLY CLOSED
NC	NOT IN CONTRACT
NO	NORMALLY OPEN
OA	OUTSIDE AIR
OBD	OPPOSED BLADE DAMPER
PC	PLUMBING CONTRACTOR
PD	PRESSURE DROP
PE	PNEUMATIC ELECTRIC SWITCH
PRV	PRESSURE REDUCING VALVE
PSIG	POUNDS PER SQUARE INCH GAUGE
RA	RETURN AIR
RG	RETURN GRILLE
RH	RELATIVE HUMIDITY
RPM	REVOLUTIONS PER MINUTE
RTU	ROOF TOP UNIT
SA	SUPPLY AIR
SD	SMOKE DAMPER
SG	SUPPLY GRILLE
SP	STATIC PRESSURE
SR	SUPPLY REGISTER / DIFFUSER
SST	SATURATED SUCTION TEMPERATURE
TA	TOTAL AIR
TCP	TEMPERATURE CONTROL PANEL
TG	TRANSFER GRILLE
T-STAT	THERMOSTAT
UN	UNIT HEATER
UON	UNLESS OTHERWISE NOTED
VAV	VARIABLE AIR VOLUME
VD	VOLUME DAMPER
VFD	VARIABLE FREQUENCY DRIVE
WBF	WET BULB TEMPERATURE
WP	WEATHERPROOF
(A)	ABANDON ITEM IN PLACE
(E)	EXISTING ITEM TO REMAIN
(R)	EXISTING ITEM TO BE REMOVED AND DISPOSED OF
(N)	PROVIDE NEW ITEM
(RR)	EXISTING ITEM TO BE REMOVED AND REINSTALLED

MECHANICAL GENERAL NOTES

- THE CONTRACTOR SHALL COORDINATE ALL WORK WITH THE U.S.P.S. TO MAINTAIN CUSTOMER ACCESS AT ALL TIMES.
- ALL WORK BEING PERFORMED SHALL NOT IN ANY WAY INTERFERE WITH THE REGULAR OPERATION OF THE U.S.P.S. FACILITY. SECURITY SHALL BE MAINTAINED AT ALL TIMES.
- THE CONTRACTOR SHALL COORDINATE ALL WORK WITH THE FACILITY FOR ACCESS TO AND FROM THE FACILITY.
- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN THE FIELD BEFORE BEGINNING ANY WORK OR PURCHASING ANY MATERIAL OR EQUIPMENT.
- THE CONTRACTOR SHALL VISIT THE SITE TO VERIFY EXISTING CONDITIONS BEFORE SUBMITTING THEIR OFFER. NO EXTRA WILL BE ALLOWED FOR FAILURE TO COMPLY WITH THE ABOVE.
- THE CONTRACTOR SHALL NOTIFY THE ARCHITECT / ENGINEER OF ANY EXISTING CONDITION DISCOVERED DURING DEMOLITION THAT WILL INTERFERE WITH THE NEW WORK.

MECHANICAL LEGENDS

	PIPE TEE DOWN
	PIPE TEE UP
	PIPE RISE
	PIPE DROP
	PIPE END CAP
	PIPE BREAK
	AIR FLOW
	TEMPERATURE AND HUMIDITY SENSOR / HUMIDISTAT
	CONNECT NEW TO EXISTING
	SECTION DESIGNATION
	DRAWING NO. WHERE SECTION IS SHOWN

ELECTRICAL ABBREVIATIONS

#P	NUMBER OF POLES	KVA	KILOVOLT-AMPERE
#P#W	NUMBER OF POLES, NUMBER OF WIRES	KVAR	KILOVOLT-AMPERE REACTIVE
		KW	KILOWATTS
+#	NUMERAL INDICATES MOUNTING HEIGHT TO CENTERLINE ABOVE FINISHED FLOOR OR GRADE, IN INCHES.	LTG	LIGHTING
		LFMC	LIQUIDTIGHT FLEXIBLE METAL CONDUIT
		LSIG	LONG TIME, SHORT TIME, INSTANTANEOUS, GROUND FAULT
		LV	LOW VOLTAGE
A	AMPERES	MAX	MAXIMUM
AC	ALTERNATING CURRENT	MC	METAL CLAD CABLE
A/E	ARCHITECT/ENGINEER	MCB	MAIN CIRCUIT BREAKER
AF	AMP FRAME / AMP FUSE	MCC	MOTOR CONTROL CENTER
AFOI	ARC-FAULT CIRCUIT INTERRUPTER	MCP	MOTOR CIRCUIT PROTECTOR
AFF	ABOVE FINISHED FLOOR	MFR	MANUFACTURER
AFG	ABOVE FINISHED GRADE	MIN	MINIMUM
AHJ	AUTHORITY HAVING JURISDICTION	MLD	MAIN LUG ONLY
AIC	AMPERE INTERRUPTING CAPACITY	MTD	MOUNTED
AL	ALUMINUM	MTG	MOUNTING
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE	MTS	MANUAL TRANSFER SWITCH
AS	AMP SWITCH	MV	MEDIUM VOLTAGE
AT	AMP TRIP		
ATS	AUTOMATIC TRANSFER SWITCH	NAC	NOTIFICATION APPLIANCE CIRCUIT
AUX	AUXILIARY	NC	NORMALLY CLOSED
A/V	AUDIO / VISUAL	NEC	NATIONAL ELECTRIC CODE
AWG	AMERICAN WIRE GAGE	NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOC.
		NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
BIL	BASIC IMPULSE LEVEL	NIC	NOT IN CONTRACT
BLDG	BUILDING	NM	NON-METALLIC SHEATHED CABLE
BPS	BOLTED PRESSURE SWITCH	NMC	NON-METALLIC CONDUIT
		NO	NORMALLY OPEN
C	CONDUIT	NTS	NOT TO SCALE
CAT	CATALOG	#	NUMBER
CATV	CABLE TELEVISION	O.C.	ON CENTER
CCTV	CLOSED CIRCUIT TELEVISION	O/H	OVERHEAD
CKT	CIRCUIT		
CB/CKT BKR	CIRCUIT BREAKER	PC	PLUMBING CONTRACTOR/ PERSONAL COMPUTER
C	CENTERLINE	PH / Ø	PHASE
CO	CARBON MONOXIDE	PIR	PASSIVE INFRARED
CP	CONTROL PANEL	PV	POST INDICATING VALVE
CT	CURRENT TRANSFORMER	PNL/PNLBD	PANEL/PANELBOARD
CU	COPPER	POS	POINT OF SALE
		PRI	PRIMARY
Δ	DELTA	PT	POTENTIAL TRANSFORMER
DC	DIRECT CURRENT	PV	PHOTOVOLTAIC
DISC	DISCONNECT	PVC	POLYVINYL CHLORIDE CONDUIT
DN	DOWN	PWR	POWER
DWG	DRAWING(S)		
		RCP	REFLECTED CEILING PLAN
E	WIRED ON EMERGENCY CIRCUIT	RMC	RIGID METAL CONDUIT
EC	ELECTRICAL CONTRACTOR	RSC	RIGID STEEL CONDUIT
ELEC	ELECTRIC(AL)		
EM/EMER	EMERGENCY	SEC	SECONDARY
EMT	ELECTRICAL METAL TUBING	SN	SOLID NEUTRAL
ENT	ELECTRICAL NON-METALLIC TUBING	SS	STAINLESS STEEL
EOL	END OF LINE	ST	SHUNT TRIP
EPO	EMERGENCY POWER OFF	STP	SHIELDED TWISTED PAIR
		STL	STEEL
F	FUSE	SW	SWITCH
FDR	FEEDER(S)	SWBD	SWITCHBOARD
FLA	FULL LOAD AMPERES	SWGR	SWITCHGEAR
FLR	FLOOR		
FMC	FLEXIBLE METAL CONDUIT	TC	TEMPERATURE CONTROL CENTER
		T/D	TELEPHONE/DATA
G/OND	GROUND	TEL	TELEPHONE
GC	GENERAL CONTRACTOR	TMCB	THERMAL MAGNETIC CIRCUIT BREAKER
GEN	GENERATOR	TO	TELECOMMUNICATION OUTLET
GFCI	GROUND-FAULT CIRCUIT INTERRUPTER	TYP	TYPICAL
GPPE	GROUND-FAULT PROTECTION FOR EQUIPMENT	UC	UNDER-COUNTER OR UNDER-CABINET
GRSC	GALVANIZED RIGID STEEL CONDUIT	UG	UNDERGROUND
		UL	UNDERWRITERS LABORATORIES
HP	HORSEPOWER	UPS	UNINTERRUPTIBLE POWER SOURCE
HV	HIGH VOLTAGE	UTP	UNSHIELDED TWISTED PAIR
HZ	HERTZ		
IDC	INITIATING DEVICE CIRCUIT	V	VOLT/VOLTAGE
IDS	INTRUSION DETECTION SYSTEM	VT	VOLTAGE TRANSFORMER
IG	ISOLATED GROUND		
IMC	INTERMEDIATE METAL CONDUIT	W	WATT
IR	INFRARED	WH	WEATHER-PROOF
		WP	WEATHER-PROOF
JB	JUNCTION BOX	XFMR	TRANSFORMER
		XP	EXPLOSION PROOF
kcml	THOUSAND CIRCULAR MILS	Y	WYE
K/O	KNOCK-OUT		
KV	KILOVOLTS		

ELECTRICAL GENERAL NOTES

- THE DRAWINGS ARE DIAGRAMMATIC IN NATURE AND ARE INTENDED AS THE BASIS OF DESIGN FOR PREPARATION OF DETAILED SHOP DRAWINGS. THE DRAWINGS ARE NOT INTENDED TO SHOW EXACT LOCATIONS, BUT TO DEMONSTRATE THE CONFIGURATION OF MAJOR SYSTEM COMPONENTS AND APPROXIMATE APPLIANCE AND DEVICE LOCATIONS. FIELD VERIFY LOCATIONS OF ALL DEVICES, APPLIANCES, AND SYSTEM COMPONENTS.
- ALL COMPONENTS SHOWN SHALL BE NEW UNLESS SPECIFICALLY NOTED AS EXISTING.
- ALL CONDUIT, WIRING, AND EQUIPMENT SHALL BE INSTALLED AND GROUNDED IN ACCORDANCE WITH THE LATEST STANDARDS OF THE NATIONAL AND STATE ELECTRICAL CODES AND ANY APPLICABLE LOCAL REGULATIONS.
- THE CONTRACTOR SHALL PROVIDE ALL EQUIPMENT (INCLUDING ALL BATTERY OPERATED LIFTS, LADDERS, TOOLS, ETC.) REQUIRED TO COMPLETE THE WORK INDICATED ON THE PLANS.
- THE CONTRACTOR SHALL ADHERE TO ALL OSHA AND USPS SAFETY REQUIREMENTS WHILE WORKING IN THE POSTAL FACILITY. FOLLOW SPECIFIC USPS SAFETY REQUIREMENTS FOR WORK ASSOCIATED WITH LADDERS AND BATTERY-OPERATED LIFTS. WORK AREAS SHALL BE ISOLATED FROM USPS PERSONNEL WITH SAFETY CONES AND YELLOW CAUTION TAPE.
- ALL WORK SHALL BE PERFORMED DURING NORMAL FACILITY OPERATION. THE CONTRACTOR SHALL USE CAUTION AND MINIMIZE INTERRUPTIONS TO USPS OPERATIONS. ANY DISRUPTIONS TO NORMAL USPS WORK PROCEDURES SHALL BE SCHEDULED AND COORDINATED WITH THE FACILITY.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OF ALL SYSTEMS OR BUILDING COMPONENTS DAMAGED DURING THE EXECUTION OF THIS WORK. ANY AREAS DAMAGED BY THE CONTRACTOR'S WORK SHALL BE REPAIRED TO MATCH ORIGINAL CONDITIONS. THIS WORK SHALL INCLUDE ALL WALLS, CEILINGS, FLOORS, MASONRY, BRICKWORK, ETC. DAMAGE SHALL INCLUDE, BUT NOT BE LIMITED TO, DESTRUCTION OR DISPOSAL OF ITEMS INTENDED TO REMAIN OR BE SALVAGED.
- THE CONTRACTOR SHALL NOTE THAT THE BUILDING IS BEING USED BY USPS EMPLOYEES AND CUSTOMERS. ALL WORK SHALL BE PERFORMED IN AS SAFE A MANNER AS POSSIBLE. ALL WORK AREAS SHALL BE MADE SAFE AT THE END OF EACH DAY AND AREAS UNDER CONSTRUCTION SHALL BE THOROUGHLY CLEANED ON A DAILY BASIS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR TEMPORARILY RELOCATING ALL FURNITURE, SORTING STATIONS, STORAGE CABINETS, RACKS, ETC., AS REQUIRED TO COMPLETE THE WORK INDICATED. COORDINATE ANY RELOCATION WITH THE USPS.
- ALL WORK SHALL BE COORDINATED WITH THE USPS PRIOR TO ROUGHING.
- THE CONTRACTOR SHALL COORDINATE ALL WORK WITH THE U.S.P.S TO MAINTAIN CUSTOMER ACCESS AT ALL TIMES.
- ALL WORK BEING PERFORMED SHALL NOT IN ANY WAY INTERFERE WITH THE REGULAR OPERATION OF THE U.S.P.S FACILITY. SECURITY SHALL BE MAINTAINED AT ALL TIMES.
- THE CONTRACTOR SHALL COORDINATE ALL WORK WITH THE FACILITY FOR ACCESS TO AND FROM THE FACILITY.
- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN THE FIELD BEFORE BEGINNING ANY WORK OR PURCHASING ANY MATERIAL OR EQUIPMENT.
- THE CONTRACTOR SHALL VISIT THE SITE TO VERIFY EXISTING CONDITIONS BEFORE SUBMITTING THEIR OFFER. NO EXTRA WILL BE ALLOWED FOR FAILURE TO COMPLY WITH THE ABOVE.
- THE CONTRACTOR SHALL NOTIFY THE ARCHITECT / ENGINEER OF ANY EXISTING CONDITION DISCOVERED DURING DEMOLITION THAT WILL INTERFERE WITH THE NEW WORK.
- SEE ELECTRICAL SPECIFICATIONS.
- FIRE ALARM SYSTEM WIRING METHODS:
A. WORKROOM- RIGID STEEL CONDUIT OR IMC UP TO 10'-0" AFF, MC CABLE ABOVE 10'-0"
B. ABOVE ACT CEILING- PLENUM RATED CABLE.
C. EXPOSED ON WALLS IN FINISHED AREAS (RETAIL, PUBLIC AREAS, OFFICE SUITES, AND CORRIDORS, CONFERENCE AND TRAINING ROOMS, etc.) - TWO PIECE SURFACE METAL RACEWAY.
D. E-HOUSE - EMT
E. OTHER AREAS NOT LISTED ABOVE - MC CABLE
- FIRE ALARM MC CABLE SHALL HAVE A RED IDENTIFIER RUN FOR ENTIRE LENGTH. JUNCTION BOX COVERS AND CONDUIT COUPLINGS FOR ALL FIRE ALARM RACEWAYS SHALL BE PAINTED RED PRIOR TO INSTALLATION.
- ALL FIRE ALARM CABLE SHALL BE INDEPENDENTLY SUPPORTED WITH NEW HANGERS IN ALL ACCESSIBLE LOCATIONS. FIRE ALARM CABLE SHALL NOT BE RUN IN CONTACT WITH ACT T-BARS OR ATTACHED TO CEILING SUPPORT WIRES.
- THE EXISTING FIRE ALARM SERVICE COMPANY OF RECORD FOR THE FACILITY IS SIMPLEX-GRINNELL. THE CONTRACTOR SHALL COORDINATE DIRECTLY WITH SIMPLEX-GRINNELL AND PAY ALL CHARGES ASSOCIATED WITH DISCONNECTING, REMOVING, AND TEMPORARY CONNECTIONS TO THE EXISTING FIRE ALARM SYSTEM, INCLUDING, BUT NOT LIMITED TO, TEMPORARY CONNECTIONS, TEMPORARY MONITORING, AND RE-PROGRAMMING.
- EXISTING BUILDING FIRE PROTECTION SPRINKLER SYSTEM SHALL NOT BE SHUT DOWN OR AFFECTED BY THIS WORK.

CONSTRUCTION PHASING NOTES

- COORDINATE ALL POWER SHUTDOWNS WITH MAINTENANCE TWO WEEKS IN ADVANCE. OBTAIN WRITTEN APPROVAL 48 HOURS PRIOR TO PERFORMING SHUTDOWNS.
- DEVELOP A DETAILED CONSTRUCTION PHASING PLAN. MEET WITH A/E, MAINTENANCE AND OTHER FACILITY PERSONNEL AND STAKEHOLDERS TO DISCUSS PHASING OF CONSTRUCTION. THE OVERALL GOALS OF THE PLAN ARE TO LIMIT POWER SHUTDOWNS IN QUANTITY AND DURATION, AS WELL AS ESTABLISH A CLEAR OUTLINE OF WHICH AREAS OF THE PLANT WILL BE SHUT DOWN & FOR HOW LONG. SUBMIT DRAFT CONSTRUCTION PHASING PLAN TO THE A/E AND MAINTENANCE FOR REVIEW EARLY ON IN THE PROJECT.
- DEVELOP A POWER SYSTEM CUTOVER PLAN THAT INCLUDES AT A MINIMUM THE DAYS/TIMES EACH ELECTRIC SERVICE AND SWITCHBOARD LOAD WILL BE CUTOVER TO THE NEW SWITCHBOARDS AT THE E-HOUSE.
- CONSIDER PREMIUM TIME FOR SHUTDOWNS INCLUDING WORK TO BE PERFORMED DURING OFF-HOURS AND HOLIDAYS.
- OVERALL PROPOSED PHASING PLAN:
-COMPLETE INSTALLATION OF ROOF-MOUNTED ELECTRICAL HOUSE, SWITCHBOARDS, RACEWAY SYSTEMS, AND CONDUCTORS.
-UTILIZE EXISTING MAIN-TIE-MAIN SWITCHBOARD CONFIGURATIONS TO MAINTAIN POWER TO THE FACILITY WHILE EXISTING SERVICE LATERALS ARE MODIFIED.
-CUT OVER DOWNSTREAM LOADS TO THE NEW SWITCHBOARDS IN A MANNER SUITABLE TO THE FACILITY'S OPERATING NEEDS.

ELECTRICAL REMOVAL NOTES

- PROVIDE COVERS FOR UNUSED OPENINGS IN MODIFIED ENCLOSURES AND WIREWAYS.
- ASSOCIATED WIRING, SUPPORTS, AUXILIARY DEVICES, ETC. ASSOCIATED WITH ITEMS OR EQUIPMENT BEING REMOVED SHALL ALSO BE REMOVED, UNLESS THEY ARE ALSO ASSOCIATED WITH ITEMS/EQUIPMENT REMAINING. IN WHICH CASE THEY SHALL BE MODIFIED AS NECESSARY TO MAINTAIN FUNCTIONALITY WITH THE REMAINING EQUIPMENT. EXISTING CONDUIT CAN BE ABANDONED UNLESS OTHERWISE NOTED.
- THE ELECTRICAL REMOVAL WORK SHALL BE PERFORMED IN COOPERATION WITH THE OTHER TRADES AND AS SCHEDULED BY THE CONTRACTOR. THE REMOVAL WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE OVERALL PROJECT PHASING.

ELECTRICAL LEGEND

ONE-LINE DIAGRAM SYMBOLS

	CIRCUIT BREAKER "xxAF" DENOTES FRAME SIZE, "yyAT" DENOTES TRIP SETTING
	LOW VOLTAGE DRAWOUT CIRCUIT BREAKER "xxAF" DENOTES FRAME SIZE, "yyAT" DENOTES TRIP SETTING
	DRAWOUT SWITCH, FUSED "xxAS" DENOTES SWITCH SIZE, "yyAF" DENOTES FUSE RATING
	BUS DUCT
	CAPACITOR
	CONTACT - NORMALLY OPEN (NO)
	CONTACT - NORMALLY CLOSED (NC)
	CURRENT TRANSFORMER CABINET
	ADVANCED METERING. SEE SPECIFICATIONS.
	GROUND FAULT PROTECTION
	FUSED CUTOUT - "zza" DENOTES FUSE RATING
	DISCONNECT SWITCH, UNFUSED
	DISCONNECT SWITCH AIR BREAK WITH FUSE "zza" DENOTES FUSE RATING
	FUSE - "zza" DENOTES FUSE RATING
	GROUNDING CONNECTION - SYSTEM OR EQUIPMENT
	KIRK KEY INTERLOCK SYSTEM "K" INDICATES RELATED KIRK KEYS
	LIGHTNING ARRESTER AND GROUNDING TO PROTECT ALL PHASES
	NETWORK PROTECTOR
	SHUNT TRIP
	GENERATOR
	TRANSFER SWITCH "ATS" DENOTES AUTOMATIC TRANSFER SWITCH "MTS" DENOTES MANUAL TRANSFER SWITCH
	PANELBOARD
	TRANSFORMER
	HATCH LINES DENOTE REMOVAL

POWER DISTRIBUTION

	PANELBOARD - 480Y/277V. SURFACE MOUNTED
	PANELBOARD - 480Y/277V. FLUSH MOUNTED
	PANELBOARD - 208Y/120V. SURFACE MOUNTED
	PANELBOARD - 208Y/120V. FLUSH MOUNTED
	SURGE PROTECTIVE DEVICE
	MOTOR CONTROL CENTER
	DRY TYPE TRANSFORMER
	CURRENT TRANSFORMER CABINET
	METER SOCKET
	GROUND BUS, LENGTH AS INDICATED
	BUILDING SERVICE GROUND BUSBAR
	BUS DUCT, PLUG IN OR FEEDER TYPE, 480Y/277V
	BUS DUCT, PLUG IN OR FEEDER TYPE, 208Y/120V
	BUS DUCT, PLUG IN DISCONNECT

EXISTING EQUIPMENT NOTATION LEGEND

NOTE: NOTATIONS BELOW MAY BE APPLIED TO ANY SYMBOL

XM	EXISTING EQUIPMENT TO REMAIN.
XR	EXISTING EQUIPMENT TO BE REMOVED.
XR/L	EXISTING EQUIPMENT TO BE RELOCATED.
XRN	NEW LOCATION OF RELOCATED EXISTING EQUIPMENT.
XRR	EXISTING EQUIPMENT TO BE REMOVED AND REPLACED WITH NEW DEVICE. EXISTING BACKBOX AND ASSOCIATED WIRING TO BE REUSED.
XB	EXISTING EQUIPMENT AND ASSOCIATED WIRING TO BE REMOVED. PROVIDE NEW BLANK PLATE ON EXISTING BOX.
XS	EXISTING EQUIPMENT TO BE REMOVED, STORED, CLEANED, AND REINSTALLED IN EXISTING LOCATION.

MISCELLANEOUS

	SECTION IDENTIFIER, INDICATING SECTION 3 ON DRAWING E1.01
	ELEVATION IDENTIFIER, INDICATING ELEVATION 3 ON DRAWING E1.01
	DETAIL IDENTIFIER, INDICATING DETAIL 3 ON DRAWING E1.01
	KEY NOTE TAG
	MECHANICAL EQUIPMENT TAG: "XXX" DENOTES EQUIPMENT TYPE "K" DENOTES EQUIPMENT NUMBER REFER TO MECHANICAL EQUIPMENT CONNECTION SCHEDULE
	FEEDER TAG - REFER TO FEEDER SCHEDULE

RACEWAYS

	HOMERUN - DESTINATION & CIRCUIT INDICATED
	CONDUIT CONCEALED IN FINISHED AREAS, EXPOSED IN UNFINISHED AREAS
	CONDUIT CONCEALED UNDER FLOOR SLAB
	CONDUIT, UP
	CONDUIT, DOWN
	CONDUIT STUB, TERMINATE WITH BUSHING OR CAP IF UNDERGROUND
	FLEXIBLE CONNECTION TO EQUIPMENT
	JUNCTION BOX
	PULL BOX
	CABLE TRAY, SIZE AS INDICATED

SWITCHING AND LIGHTING CONTROLS

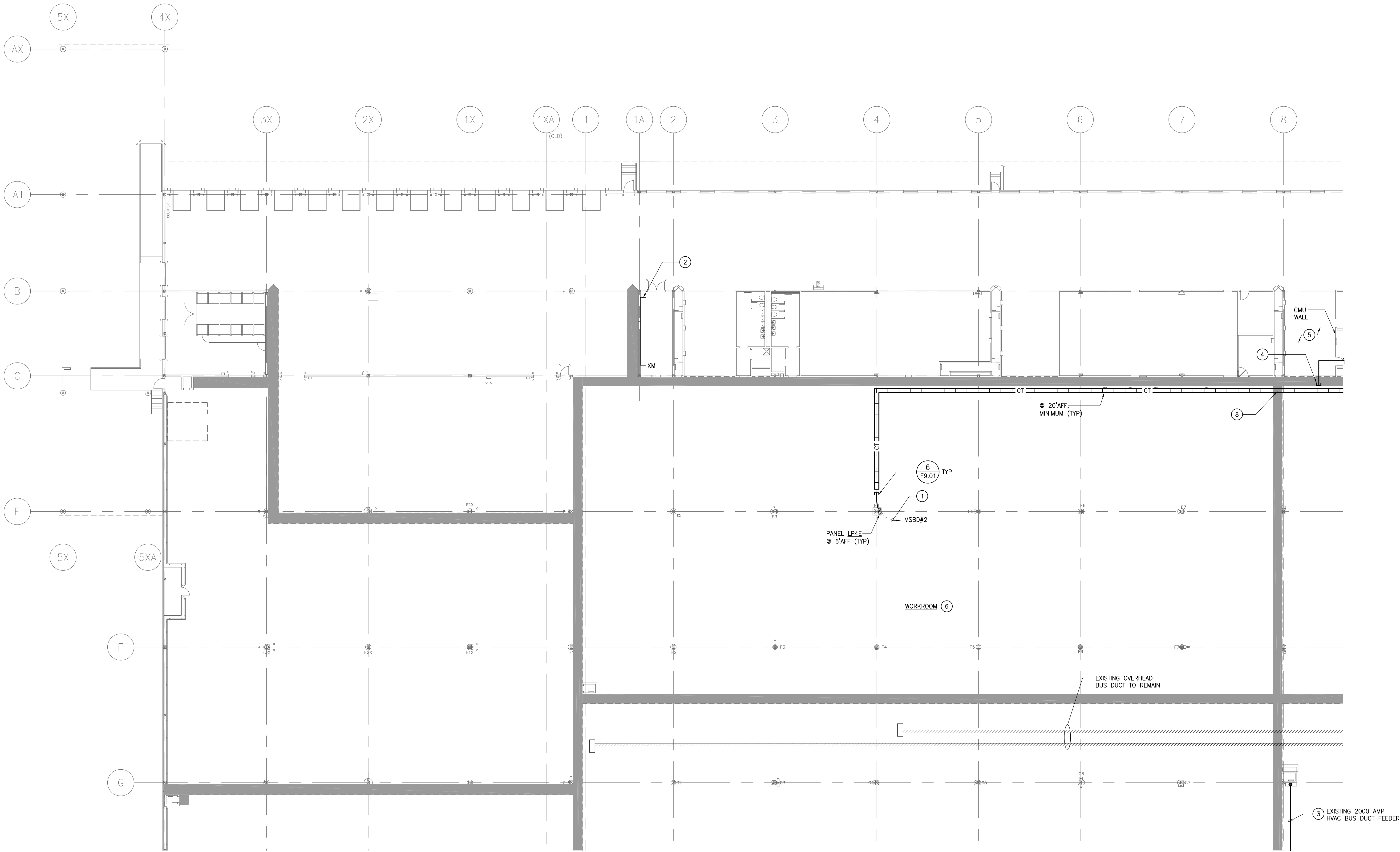
S	SINGLE POLE SWITCH
Sp	SWITCH WITH PILOT LIGHT
St	TIMER SWITCH

INTERIOR LIGHTING

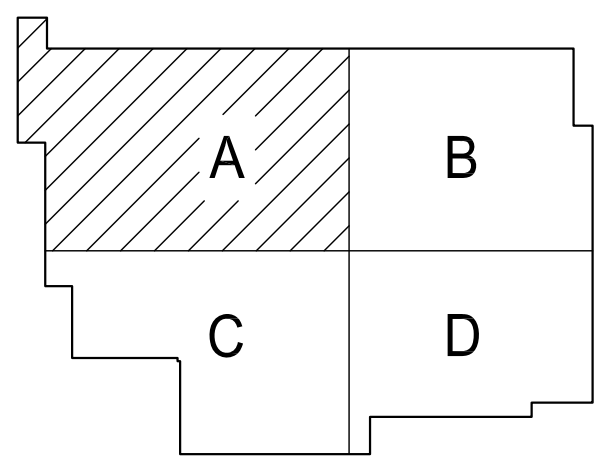
	LUMINAIRE: DRAWN TO APPROXIMATE SHAPE AND TO SCALE OR LARGE ENOUGH FOR CLARITY
	STANDARD DESIGNATIONS FOR ALL LUMINAIRES "A" = LUMINAIRE TYPE, REFER TO SPECIFICATION OR SCHEDULE "NL" = UNSWITCHED NIGHT LIGHT "Z" = CIRCUIT NUMBER "G" = SWITCH CONTROL
	WALL MOUNTED LUMINAIRE, BRACKET OR SCOFF
	STRIP LUMINAIRE
	SHADING DENOTES LUMINAIRE PROVIDING EMERGENCY ILLUMINATION
	ILLUMINATED EXIT SIGN, SHADING DENOTES NUMBER AND ORIENTATION OF FACES. ARROWS DENOTE DIRECTIONAL CHEVRONS
	EMERGENCY BATTERY UNIT WITH LUMINAIRE HEADS
	REMOTE EMERGENCY LUMINAIRE HEADS
	PHOTOCCELL

FIRE ALARM LEGEND

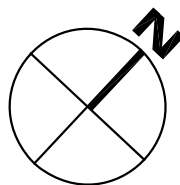
	AUDIBLE/VISUAL NOTIFICATION APPLIANCE, WALL MOUNTED "NUMERAL" INDICATES CANDELA RATING
	MANUAL PULL STATION
	SMOKE DETECTOR
	AUDIBLE/VISUAL NOTIFICATION APPLIANCE, CEILING MOUNTED



1 FIRST FLOOR PART PLAN - AREA A
SCALE: 1/16"=1'-0"

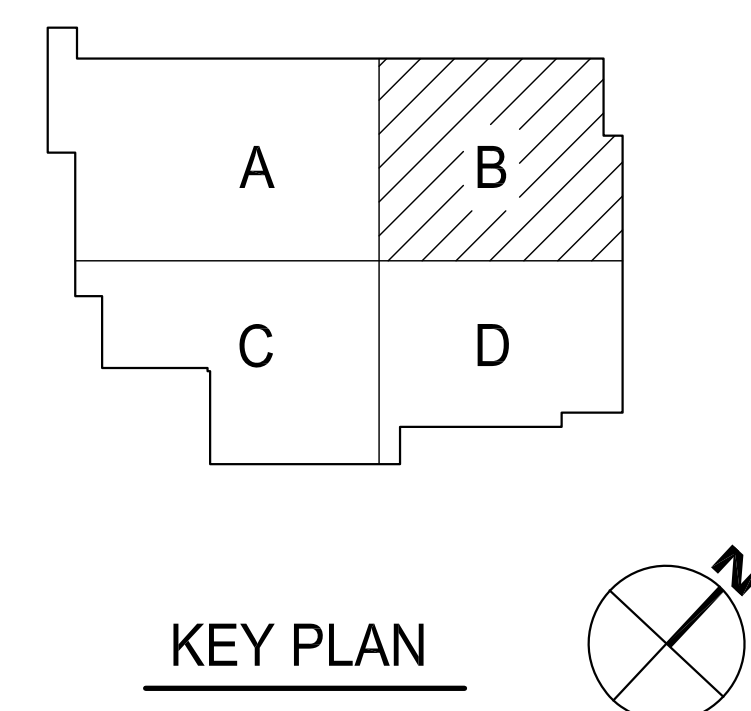
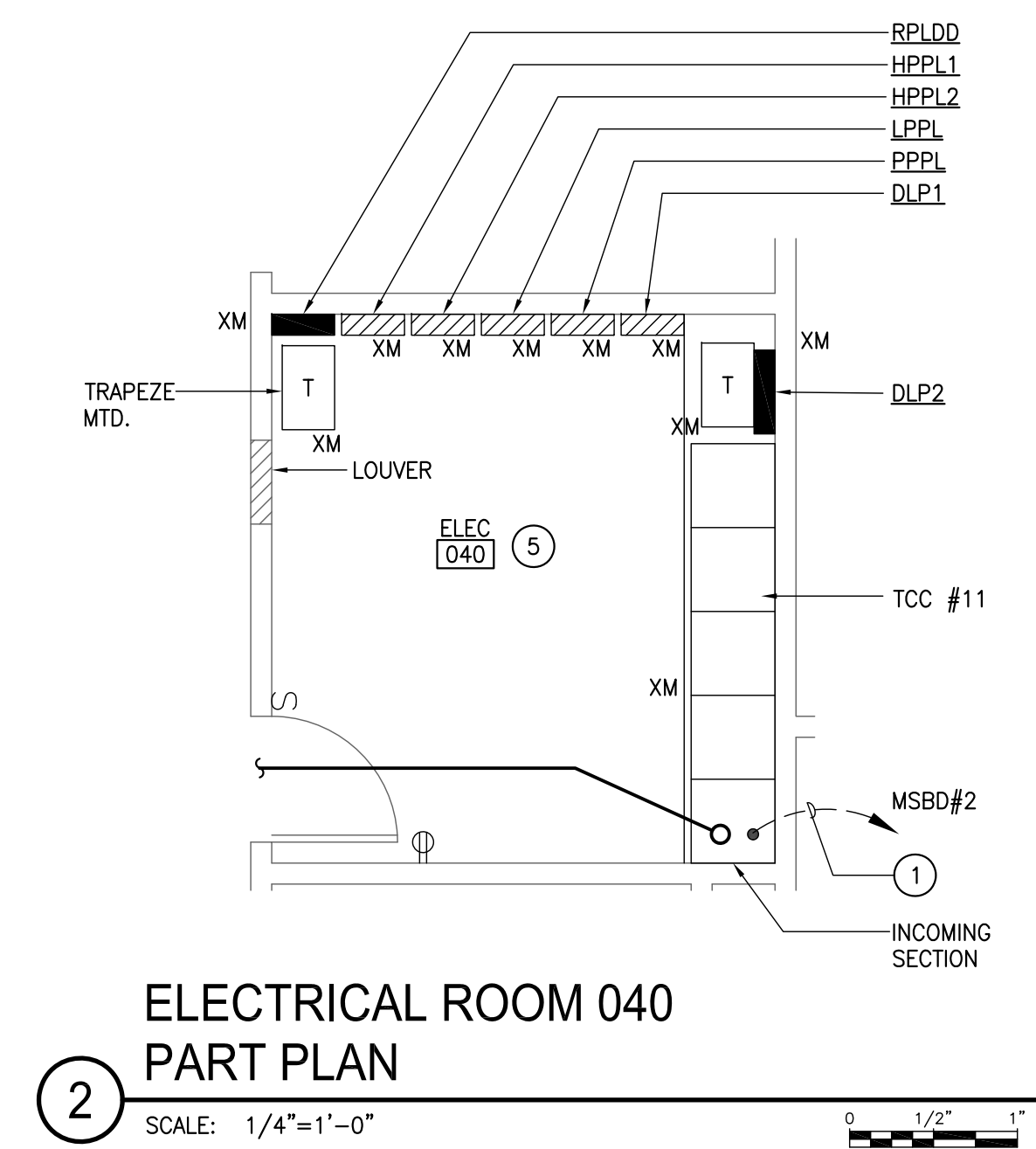
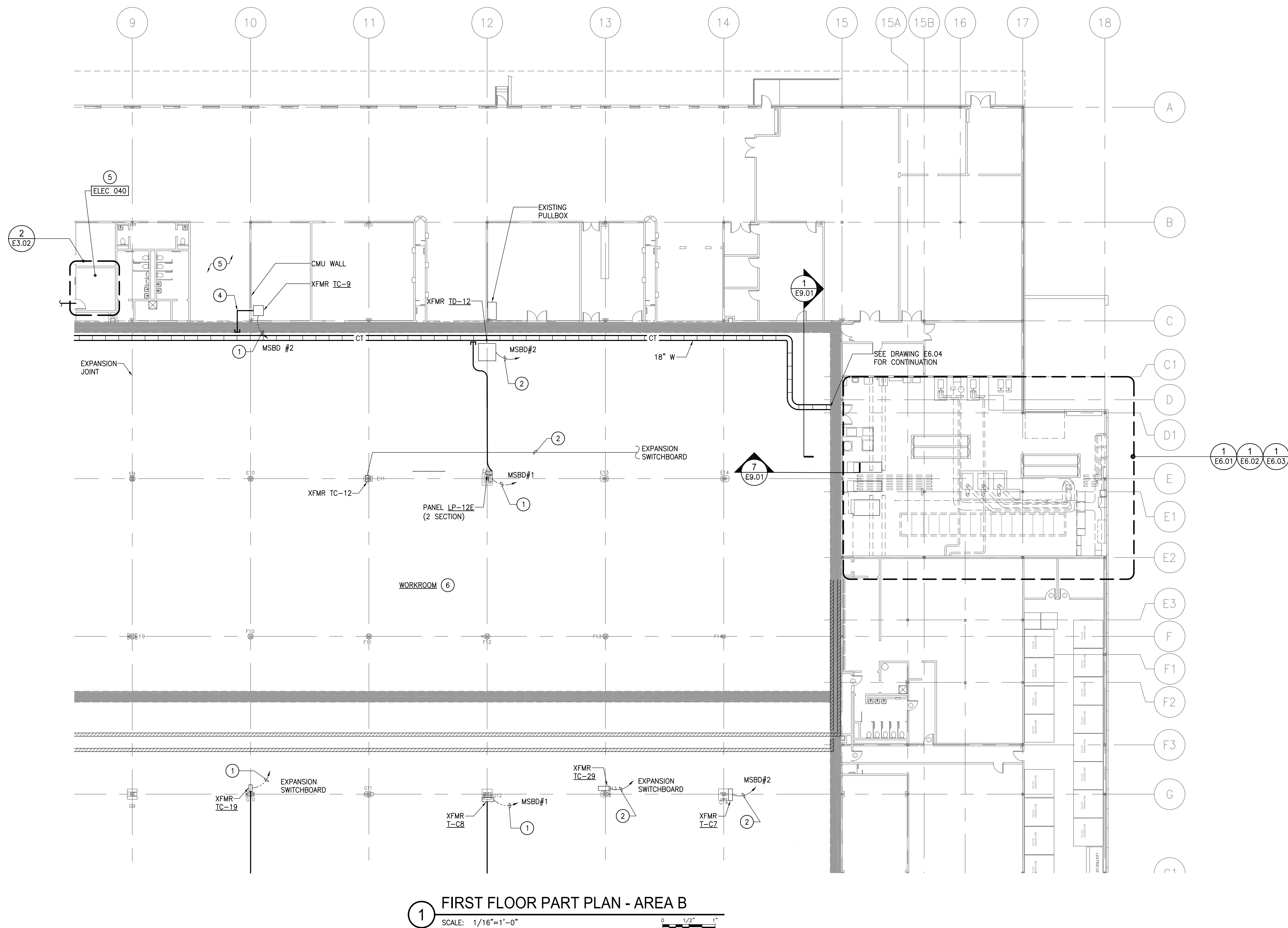


KEY PLAN



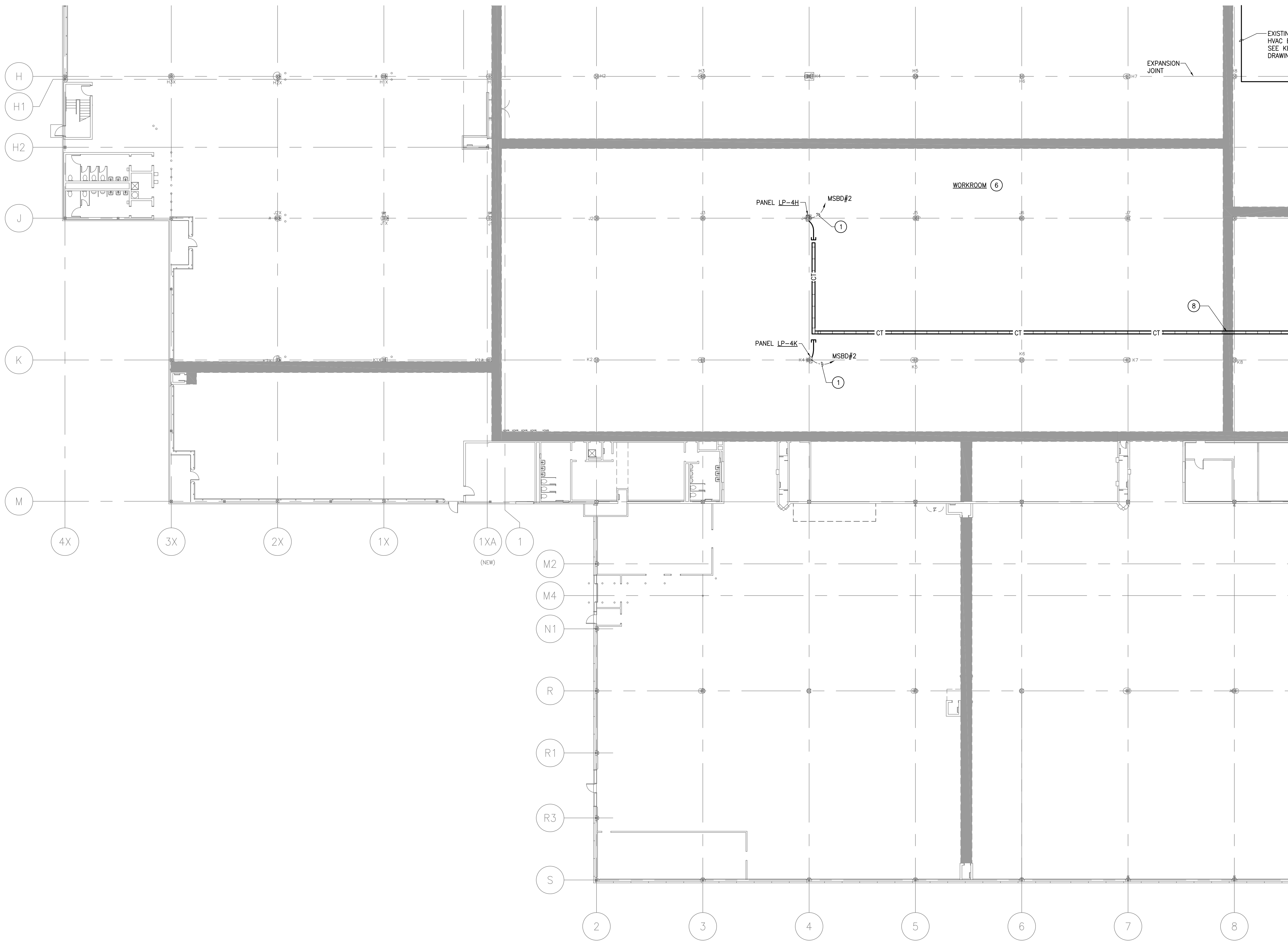
- NOTES**
- FOR LEGEND, ABBREVIATIONS AND GENERAL NOTES, REFER TO DRAWING E0.01.
 - FOR GENERAL PHASING NOTES, REFER TO DRAWING E0.01.
 - SEE DRAWINGS E7.01 THROUGH E7.04 FOR ONE-LINE DIAGRAMS.
 - UNLESS NOTED OTHERWISE, PANELS, TRANSFORMERS, AND BUS DUCT SHOWN ON THIS DRAWING ARE EXISTING TO REMAIN.
 - PROPOSED CABLE TRAY ROUTING IS SCHEMATIC IN NATURE. ACTUAL ROUTING SHALL BE CLOSELY COORDINATED WITH FACILITY MAINTENANCE. CABLE TRAY SHALL BE INSTALLED 20' AFF MINIMUM.
 - FOR ALL EXISTING EQUIPMENT BEING RE-FED, PROVIDE NEW NAME PLATES INDICATING EQUIPMENT NAME AND SOURCE FEED. REMOVE OLD NAME TAGS AND/OR IDENTIFICATION. PROVIDE TEXT "<EQUIPMENT NAME> FED FROM HMDP-X ON ROOF (E-HOUSE)".
 - CUT BACK EXISTING UNDERGROUND FEEDERS TO BE DEMOLISHED AND LABEL AS ABANDONED.

- KEY NOTES:**
- NOTED EXISTING FEEDERS RUN BELOW SLAB SHALL BE ABANDONED AND PANELBOARDS RE-FED WITH NEW FEEDERS VIA NEW OVERHEAD RACEWAY. DISCONNECTION OF EXISTING PANELBOARD FEEDERS SHALL BE PART OF A PHASED CUT-OVER PLAN DEVELOPED BY THE CONTRACTOR. SEE DRAWING E0.01.
 - EXISTING SWITCHBOARD TO REMAIN.
 - NOTED HVAC BUS DUCT FEEDER CONDUCTORS SHALL BE DEMOLISHED. CONDUITS SHALL BE ABANDONED. SEE DRAWINGS E3.03 AND E3.04 FOR CONTINUATION.
 - NOTED TCC#11 NEW FEEDER (FROM OVERHEAD) SHALL BE ROUTED ABOVE THE LOOKOUT GALLERY AND DOWN INTO ACCESSIBLE CEILING SPACE IN THE ELECTRICAL ROOM AND DROP DOWN INTO THE EQUIPMENT.
 - NOTED VESTIBULE HAS A T-GRID CEILING @ 10' AFF.
 - WORKROOM CEILING IS OPEN TO STRUCTURE APPROXIMATELY 25' AFF.
 - NOT USED.
 - NOTED LOCATIONS HAVE CABLE TRAY WHICH WILL PENETRATE THE FALSE WALL ABOVE THE LOOKOUT GALLERY. THE PANELING IS ASSUMED TO BE AN ASBESTOS-CONTAINING MATERIAL. PROVIDE ABATEMENT AS REQUIRED.

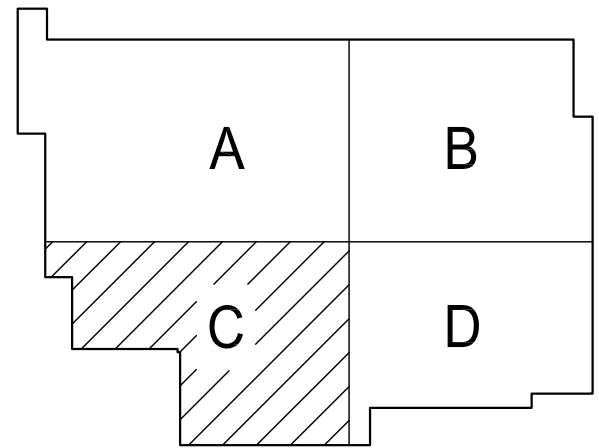


- NOTES**
- FOR LEGEND, ABBREVIATIONS AND GENERAL NOTES, REFER TO DRAWING E0.01.
 - FOR GENERAL PHASING NOTES, REFER TO DRAWING E0.01.
 - SEE DRAWINGS E7.01 THROUGH E7.04 FOR ONE-LINE DIAGRAMS.
 - UNLESS NOTED OTHERWISE, PANELS, TRANSFORMERS, AND BUS DUCT SHOWN ON THIS DRAWING ARE EXISTING TO REMAIN.
 - PROPOSED CABLE TRAY ROUTING IS SCHEMATIC IN NATURE. ACTUAL ROUTING SHALL BE CLOSELY COORDINATED WITH FACILITY MAINTENANCE. CABLE TRAY SHALL BE INSTALLED 20' AFF MINIMUM.
 - FOR ALL EXISTING EQUIPMENT BEING RE-FED, PROVIDE NEW NAME PLATES INDICATING EQUIPMENT NAME AND SOURCE FEED. REMOVE OLD NAME TAGS AND/OR IDENTIFICATION. PROVIDE TEXT "<EQUIPMENT NAME> FED FROM HMDP-X ON ROOF (E-HOUSE)".
 - CUT BACK EXISTING UNDERGROUND FEEDERS TO BE DEMOLISHED AND LABEL AS ABANDONED.

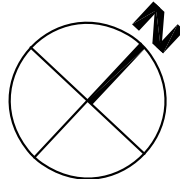
- KEY NOTES:**
- NOTED EXISTING FEEDERS RUN BELOW SLAB SHALL BE ABANDONED AND PANELBOARDS RE-FED WITH NEW FEEDERS VIA NEW OVERHEAD RACKWAY. DISCONNECTION OF EXISTING PANELBOARD FEEDERS SHALL BE PART OF A PHASED CUT-OVER PLAN DEVELOPED BY THE CONTRACTOR. SEE DRAWING E0.01.
 - NOTED EXISTING FEEDERS IN THE WORKROOM HOMERUN TO THE EXISTING SWITCHBOARD IN THE MECHANICAL/ELECTRICAL ROOM. THESE FEEDERS SHALL BE INTERCEPTED AND EXTENDED TO NEW SWITCHBOARDS PER DRAWING E6.01 KEY NOTE 2.
 - NOT USED
 - NOTED XFRM TC-9 NEW FEEDER (FROM OVERHEAD) SHALL BE ROUTED ABOVE THE LOOKOUT GALLERY AND DOWN INTO ACCESSIBLE CEILING SPACE. PENETRATE CMU WALL AND DROP INTO THE EQUIPMENT.
 - NOTED VESTIBULE AND ROOM 040 HAVE T-GRID CEILINGS @ 10' AFF.
 - WORKROOM CEILING IS OPEN TO STRUCTURE APPROXIMATELY 25' AFF.



1 FIRST FLOOR PART PLAN - AREA C
SCALE: 1/16"=1'-0"

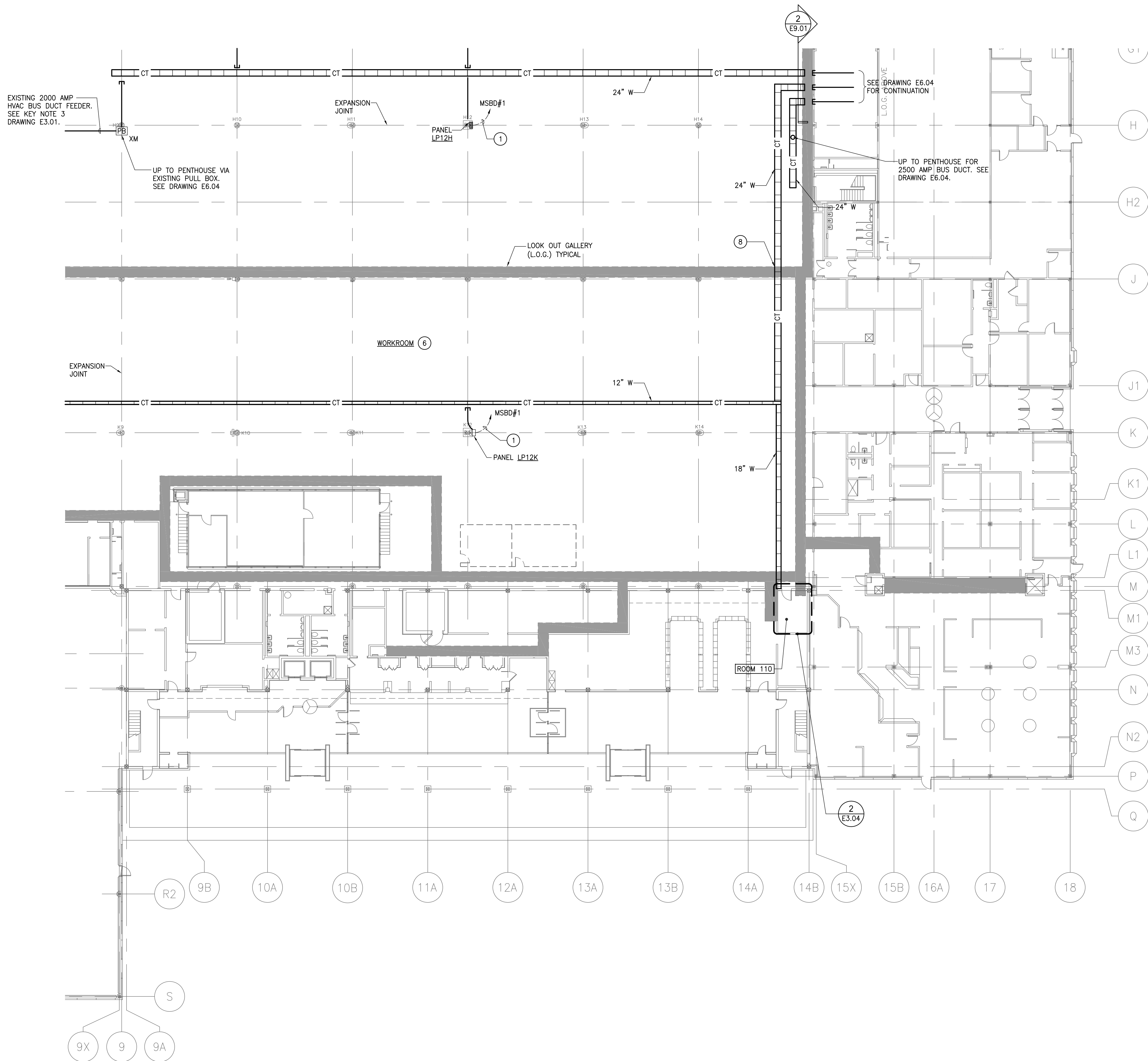


KEY PLAN

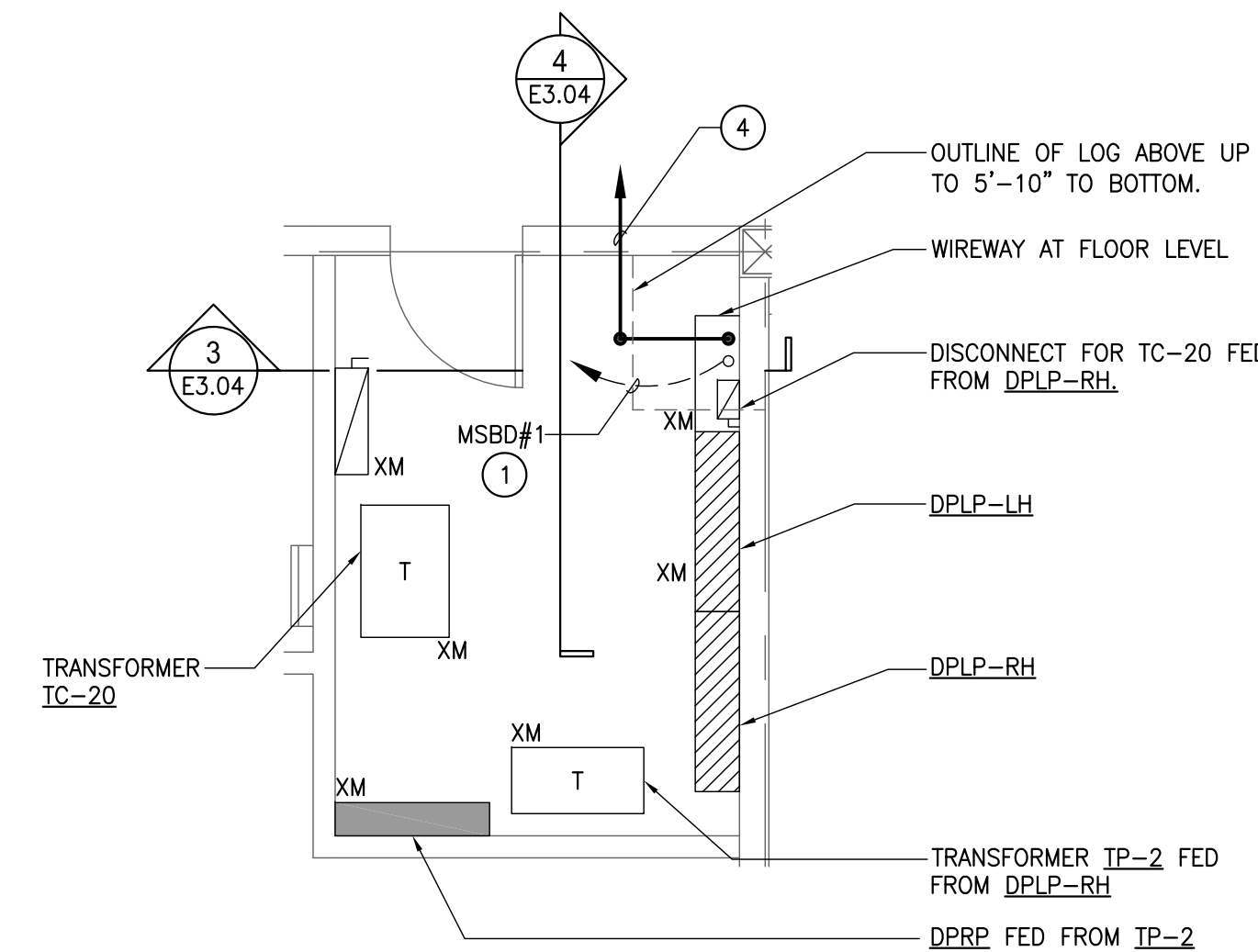


- NOTES**
1. FOR LEGEND, ABBREVIATIONS AND GENERAL NOTES, REFER TO DRAWING E0.01.
 2. FOR GENERAL PHASING NOTES, REFER TO DRAWING E0.01.
 3. SEE DRAWINGS E7.01 THROUGH E7.04 FOR ONE-LINE DIAGRAMS.
 4. UNLESS NOTED OTHERWISE, PANELS, TRANSFORMERS, AND BUS DUCT SHOWN ON THIS DRAWING ARE EXISTING TO REMAIN.
 5. PROPOSED CABLE TRAY ROUTING IS SCHEMATIC IN NATURE. ACTUAL ROUTING SHALL BE CLOSELY COORDINATED WITH FACILITY MAINTENANCE. CABLE TRAY SHALL BE INSTALLED 20' AFF MINIMUM.
 6. FOR ALL EXISTING EQUIPMENT BEING RE-FED, PROVIDE NEW NAME PLATES INDICATING EQUIPMENT NAME AND SOURCE FEED. REMOVE OLD NAME TAGS AND/OR IDENTIFICATION. PROVIDE TEXT "<EQUIPMENT NAME> FED FROM HMDP-X ON ROOF (E-HOUSE)".
 7. CUT BACK EXISTING UNDERGROUND FEEDERS TO BE DEMOLISHED AND LABEL AS ABANDONED.

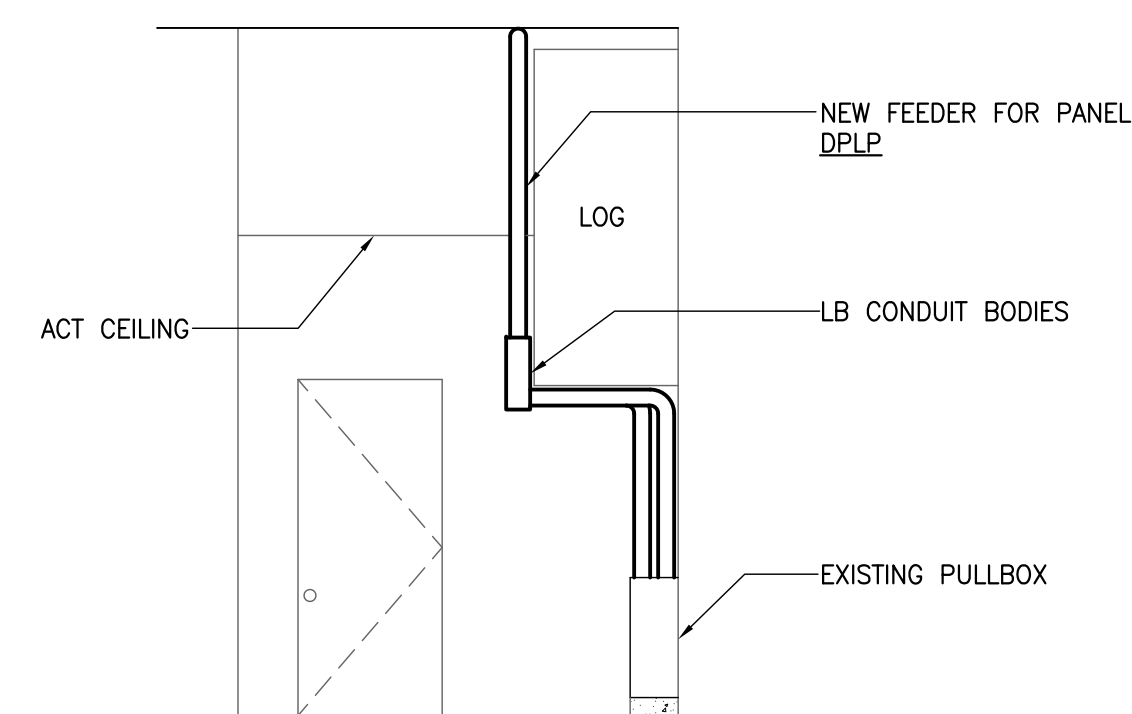
- KEY NOTES:**
- 1 NOTED EXISTING FEEDERS RUN BELOW SLAB SHALL BE ABANDONED AND PANELBOARDS RE-FED WITH NEW FEEDERS VIA NEW OVERHEAD RACEWAY. DISCONNECTION OF EXISTING PANELBOARD FEEDERS SHALL BE PART OF A PHASED CUT-OVER PLAN DEVELOPED BY THE CONTRACTOR. SEE DRAWING E0.01.
 - 2 NOT USED.
 - 3 NOT USED.
 - 4 NOT USED.
 - 5 NOT USED.
 - 6 WORKROOM CEILING IS OPEN TO STRUCTURE APPROXIMATELY 25' AFF.
 - 7 NOT USED.
 - 8 NOTED LOCATIONS HAVE CABLE TRAY WHICH WILL PENETRATE THE FALSE WALL ABOVE THE LOOKOUT GALLERY. THE PANELING IS ASSUMED TO BE AN ASBESTOS-CONTAINING MATERIAL. PROVIDE ABATEMENT AS REQUIRED.



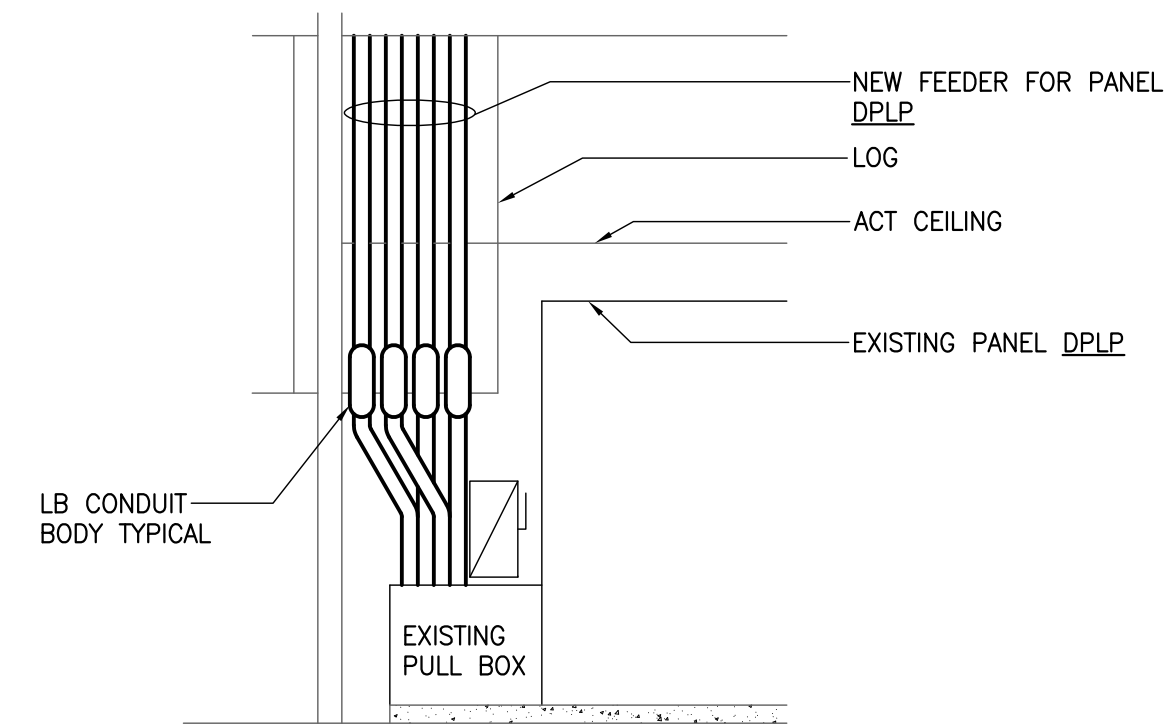
1 FIRST FLOOR PART PLAN - AREA D
SCALE: 1/16"=1'-0"



2 ELECTRICAL ROOM 110 PART PLAN
SCALE: 1/4"=1'-0"



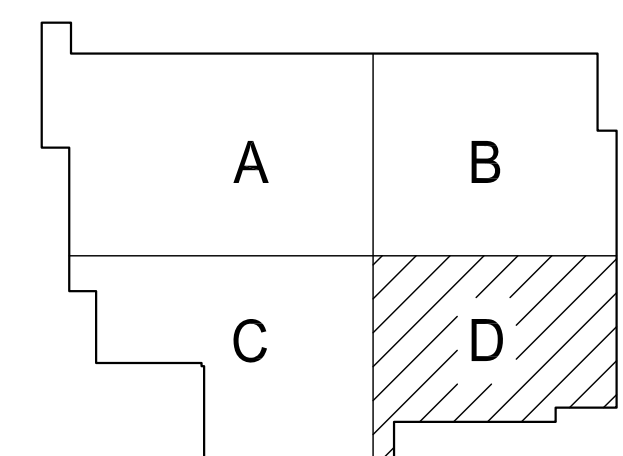
3 ELECTRIC ROOM 110 ELEVATION
SCALE: 1/4"=1'-0"



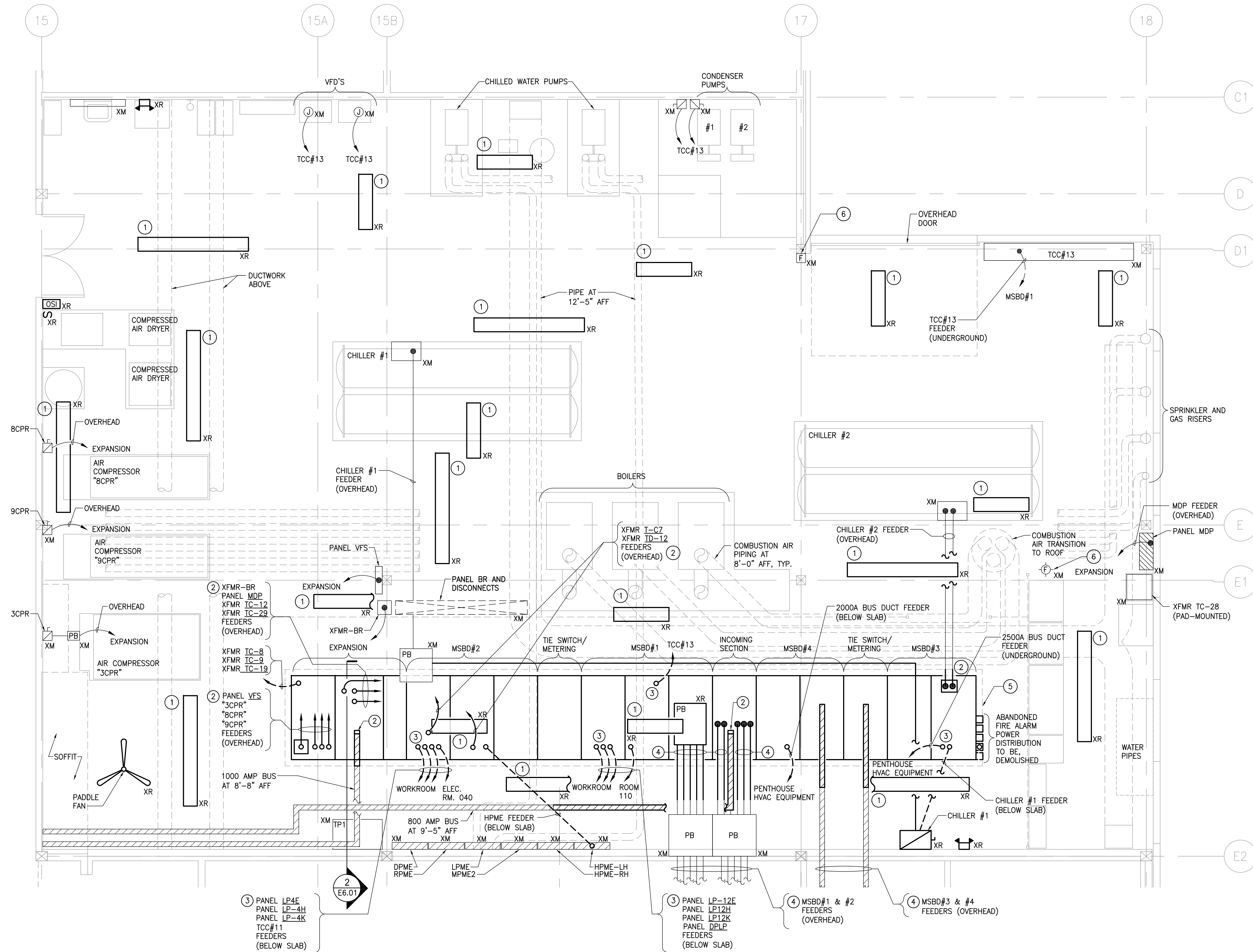
4 ELECTRIC ROOM 110 ELEVATION
SCALE: 1/4"=1'-0"

- NOTES**
- FOR LEGEND, ABBREVIATIONS AND GENERAL NOTES, REFER TO DRAWING E0.01.
 - FOR GENERAL PHASING NOTES, REFER TO DRAWING E0.01.
 - SEE DRAWINGS E7.01 THROUGH E7.04 FOR ONE-LINE DIAGRAMS.
 - UNLESS NOTED OTHERWISE, PANELS, TRANSFORMERS, AND BUS DUCT SHOWN ON THIS DRAWING ARE EXISTING TO REMAIN.
 - PROPOSED CABLE TRAY ROUTING IS SCHEMATIC IN NATURE. ACTUAL ROUTING SHALL BE CLOSELY COORDINATED WITH FACILITY MAINTENANCE. CABLE TRAY SHALL BE INSTALLED 20' AFF MINIMUM.
 - FOR ALL EXISTING EQUIPMENT BEING RE-FED, PROVIDE NEW NAME PLATES INDICATING EQUIPMENT NAME AND SOURCE FEED. REMOVE OLD NAME TAGS AND/OR IDENTIFICATION. PROVIDE TEXT "<EQUIPMENT NAME> FED FROM HMDP-X ON ROOF (E-HOUSE)".
 - CUT BACK EXISTING UNDERGROUND FEEDERS TO BE DEMOLISHED AND LABEL AS ABANDONED.

- KEY NOTES:**
- NOTED EXISTING FEEDERS RUN BELOW SLAB SHALL BE ABANDONED AND PANELBOARDS RE-FED WITH NEW FEEDERS VIA NEW OVERHEAD RACEWAY. DISCONNECTION OF EXISTING PANELBOARD FEEDERS SHALL BE PART OF A PHASED CUT-OVER PLAN DEVELOPED BY THE CONTRACTOR. SEE DRAWING E0.01.
 - NOT USED.
 - NOT USED.
 - NOTED NEW FEEDER (FROM OVERHEAD) SHALL BE ROUTED ABOVE THE LOOKOUT GALLERY AND DOWN INTO ACCESSIBLE CEILING SPACE IN ROOM 110 AND DROP INTO THE EQUIPMENT.
 - NOT USED.
 - WORKROOM CEILING IS OPEN TO STRUCTURE APPROXIMATELY 21'-1" AFF.
 - NOT USED.
 - NOTED LOCATIONS HAVE CABLE TRAY WHICH WILL PENETRATE THE FALSE WALL ABOVE THE LOOKOUT GALLERY. THE PANELING IS ASSUMED TO BE AN ASBESTOS-CONTAINING MATERIAL. PROVIDE ABATEMENT AS REQUIRED.

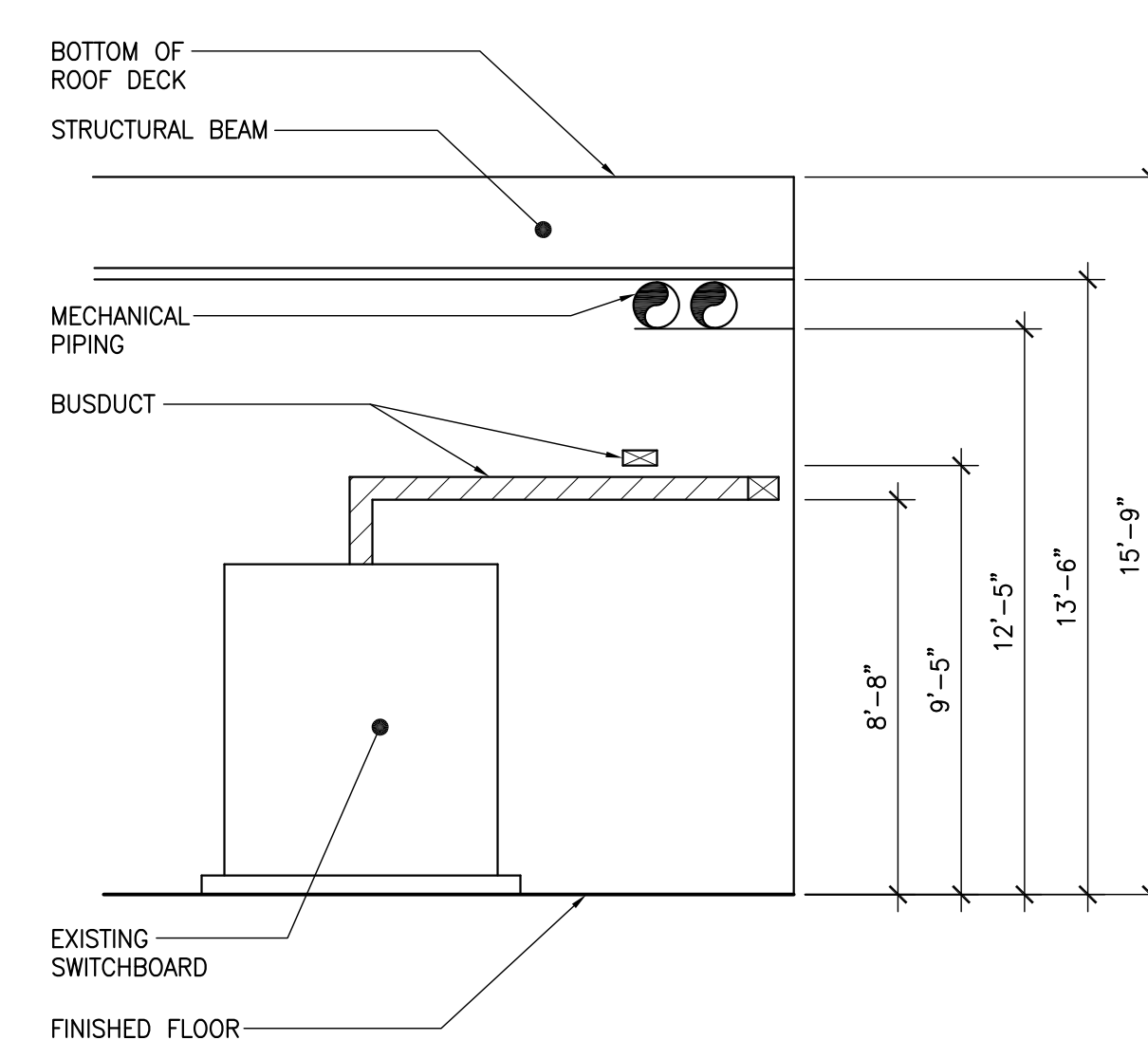


KEY PLAN



**MECHANICAL / ELECTRICAL ROOM
POWER PLAN - REMOVAL**
1 SCALE: 1/4"=1'-0"

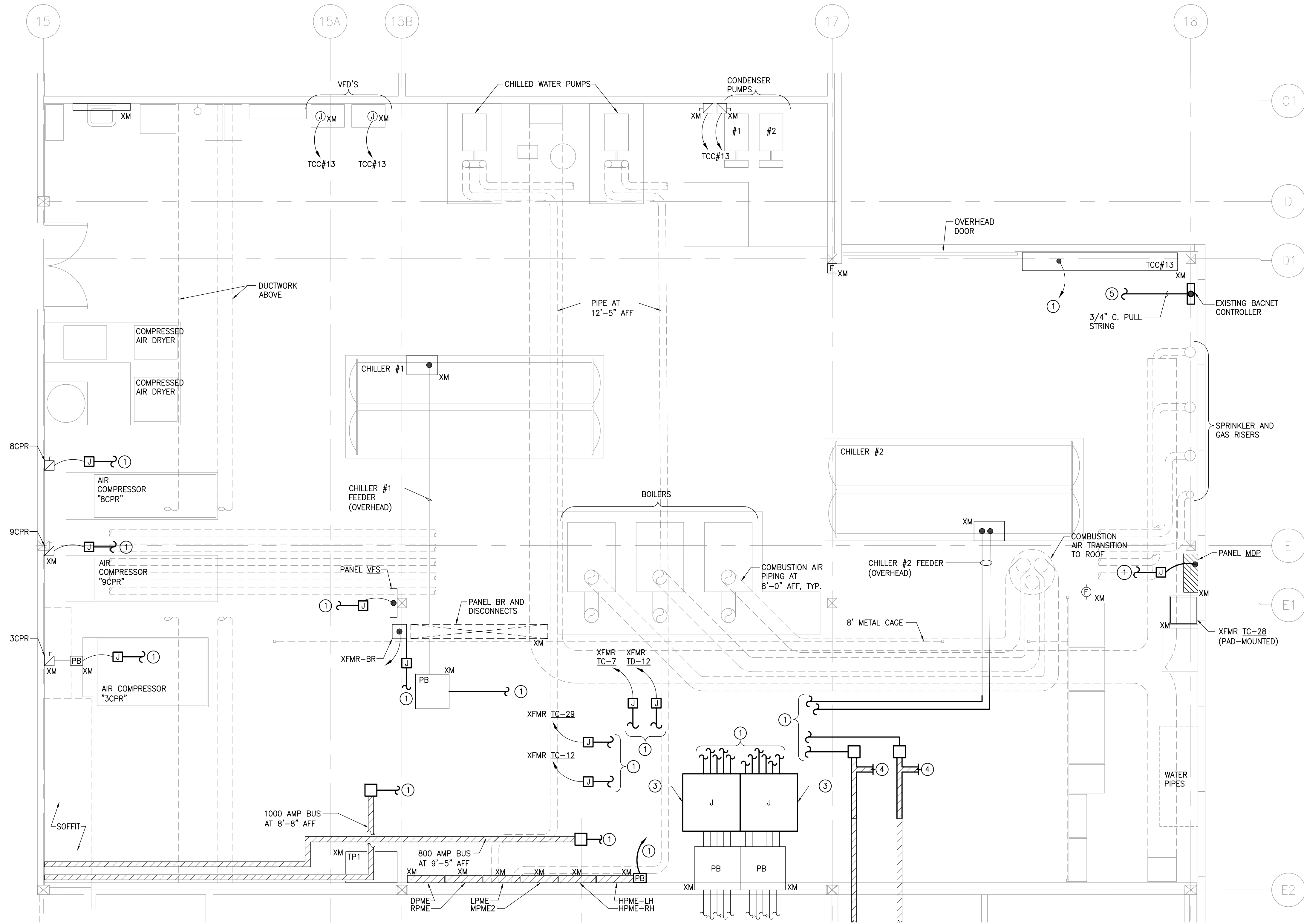
**MECHANICAL / ELECTRICAL ROOM
PARTIAL SECTION**
2 SCALE: 1/4"=1'-0"



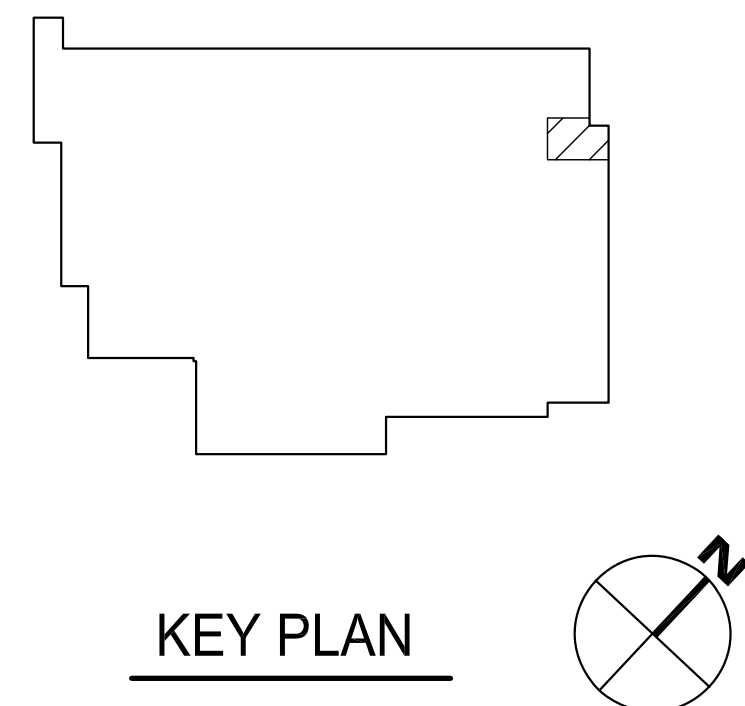
- NOTES**
- FOR ELECTRICAL LEGEND, PHASING NOTES AND GENERAL NOTES, REFER TO DRAWING E0.01.
 - DEMOLISH ALL CONDUITS, WIRE, BOXES, STRAPS, MOUNTING HARDWARE, ETC. WHICH ARE NO LONGER UTILIZED. SEE ALSO KEY NOTE 1.
 - THE LOCATIONS/HEIGHTS OF EQUIPMENT/SYSTEMS ABOVE FINISHED FLOOR ARE APPROXIMATE. DO NOT RELY ON LISTED HEIGHTS FOR CONSTRUCTION. IN ADDITION, NOT ALL EQUIPMENT/SYSTEMS PRESENT ARE SHOWN ON THIS DRAWING. FIELD VERIFY HEIGHTS AND LOCATIONS PRIOR TO PERFORMING THE WORK.
 - DEMOLISH ALL SWITCHBOARD SECTIONS AND CONCRETE PAD.
 - SEE PARTIAL ONE-LINE DIAGRAM ON DRAWINGS E7.01 TO E7.04.

- KEY NOTES:**
- EXISTING FLUORESCENT LUMINAIRE TO BE REMOVED. MAINTAIN EXISTING BRANCH CIRCUIT WIRING FOR EXTENSION TO NEW LUMINAIRES.
 - NOTED BUS DUCT AND CONDUIT EXITING THE EXISTING SWITCHBOARDS OVERHEAD FEED DOWNSTREAM LOADS IN THE WORKROOM AND THE MECHANICAL/ELECTRICAL ROOM. INTERCEPT FROM ABOVE AND INSTALL JUNCTION BOXES AND CABLE TAP BOXES SUITABLE TO EXTEND THE CIRCUITS TO THE NEW SWITCHBOARDS.
 - NOTED CONDUITS ROUTED UNDERGROUND FROM THE EXISTING SWITCHBOARDS FEED DOWNSTREAM LOADS IN THE WORKROOM AND HVAC PENTHOUSE. UPON COMPLETION OF THE POWER CUTOVER, THESE FEEDERS SHALL BE CUT 6 INCHES BELOW FINISHED FLOOR AND ABANDONED. PATCH CONCRETE TO A FINISHED LEVEL SURFACE.
 - NOTED BUS DUCT AND CONDUITS ENTERING THE EXISTING SWITCHBOARDS ARE THE MAIN ELECTRICAL FEEDERS. REMOVE AS SHOWN. EXTEND FEEDERS TO NEW SWITCHBOARDS. IN ADDITION, MAINTAIN EXISTING FEED TO EXISTING SWITCHBOARDS UNTIL POWER CUTOVER IS COMPLETE. SEE THE ONE-LINE DIAGRAMS.
 - EXISTING CONCRETE HOUSEKEEPING PAD TO REMAIN. ABANDONED CONDUIT STUBS SHALL BE GROUND SMOOTH AND FILLED WITH GROUT MIN 6".
 - TIE THE NEW E-HOUSE INITIATION/NOTIFICATION DEVICES INTO THE EXISTING FIRE ALARM SYSTEM AT NOTED EXISTING DEVICES. SEE PARTIAL FIRE ALARM SYSTEM RISER DIAGRAM ON E6.01.

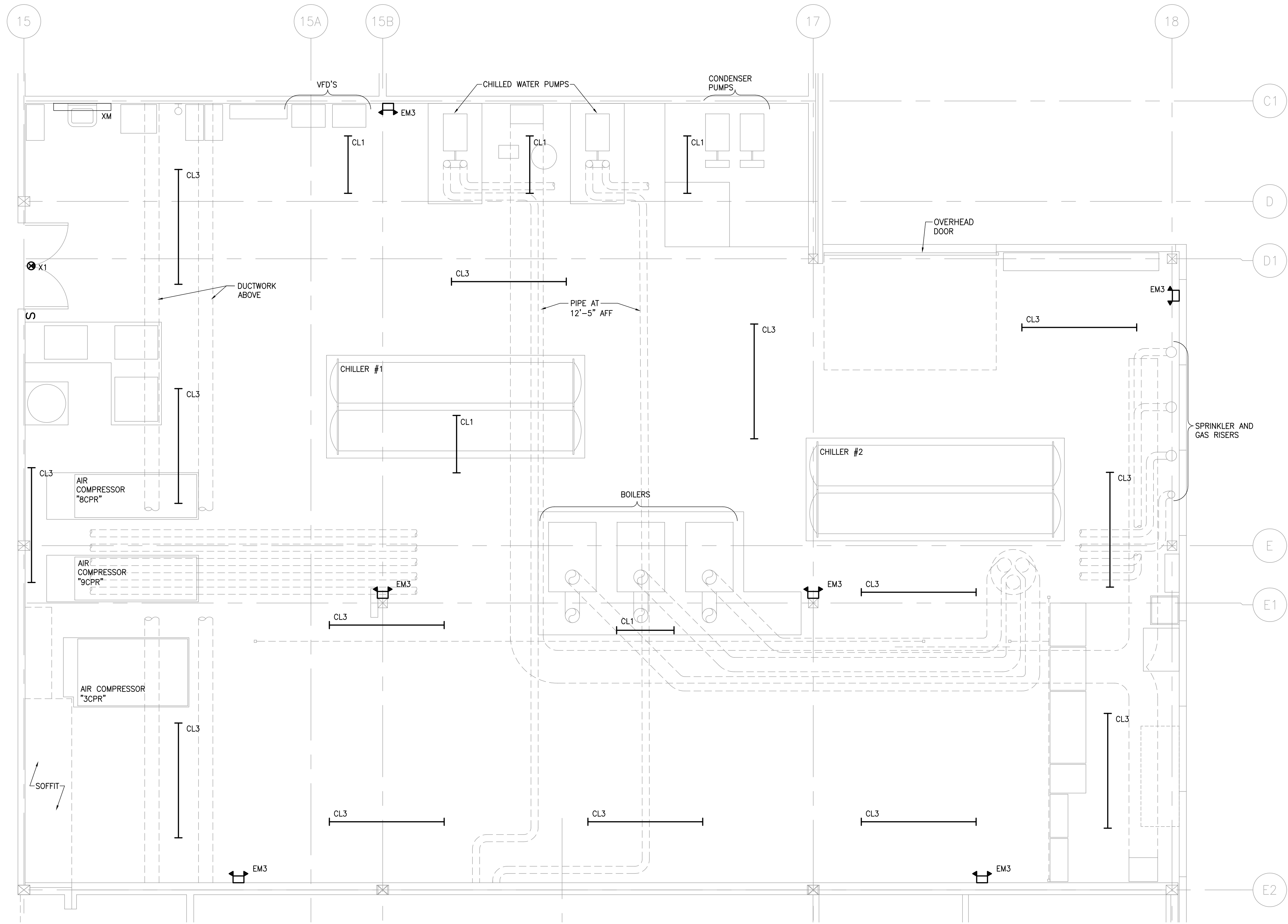
KEY PLAN



MECHANICAL / ELECTRICAL ROOM
POWER PLAN - NEW WORK
1 SCALE: 1/4"=1'-0"



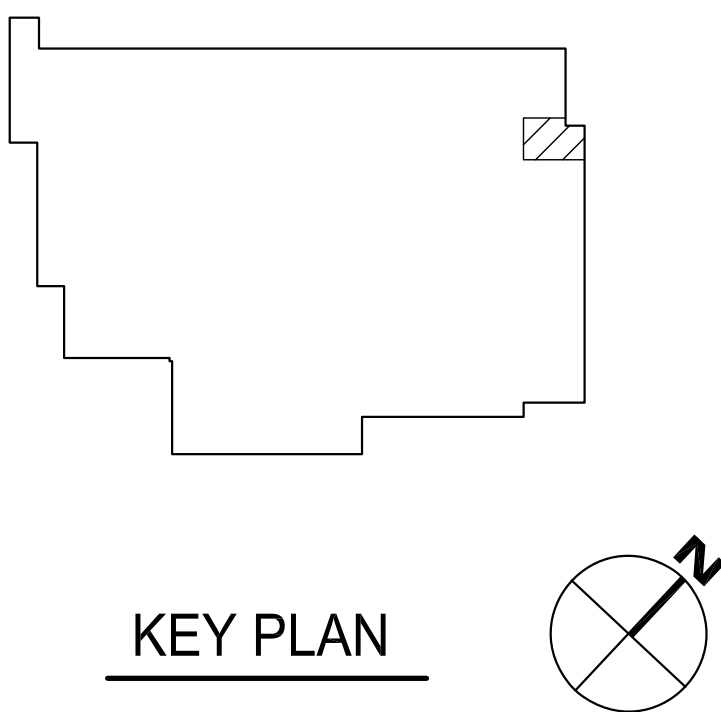
- NOTES**
- FOR ELECTRICAL LEGEND, PHASING NOTES AND GENERAL NOTES, REFER TO DRAWING E0.01.
 - BUS DUCT, FUSED SWITCHES, AHU'S, TCC'S, ETC. IN THE PENTHOUSE ARE EXISTING TO REMAIN.
 - FOR ALL EXISTING EQUIPMENT BEING RE-FED, PROVIDE NEW NAME PLATES INDICATING EQUIPMENT NAME AND SOURCE FEED. REMOVE OLD NAME TAGS AND/OR IDENTIFICATION. PROVIDE TEXT "<EQUIPMENT NAME> FED FROM HMDP-X ON ROOF (E-HOUSE)".
 - SEE PARTIAL ONE-LINE DIAGRAMS ON DRAWINGS E7.01 TO E7.04.
- KEY NOTES:**
- PROVIDE/EXTEND NEW CIRCUITS TO THE ROOF-MOUNTED E-HOUSE. SEE ONE-LINE DIAGRAMS FOR FEEDER QUANTITY/SIZES.
 - NOT USED.
 - PROVIDE NOTED JUNCTION BOXES TO MAINTAIN EXISTING FEED TO SWITCHBOARDS.
 - PROVIDE TEMPORARY BUS DUCT CONNECTION TO EXISTING SWITCHBOARDS.
 - PROVIDE CONDUIT WITH PULL STRING TO E-HOUSE FOR INSTALLATION OF BACNET WIRING BY DIV 25. COORDINATE ROUTING WITH GENERAL CONTRACTOR AND DIV 25.

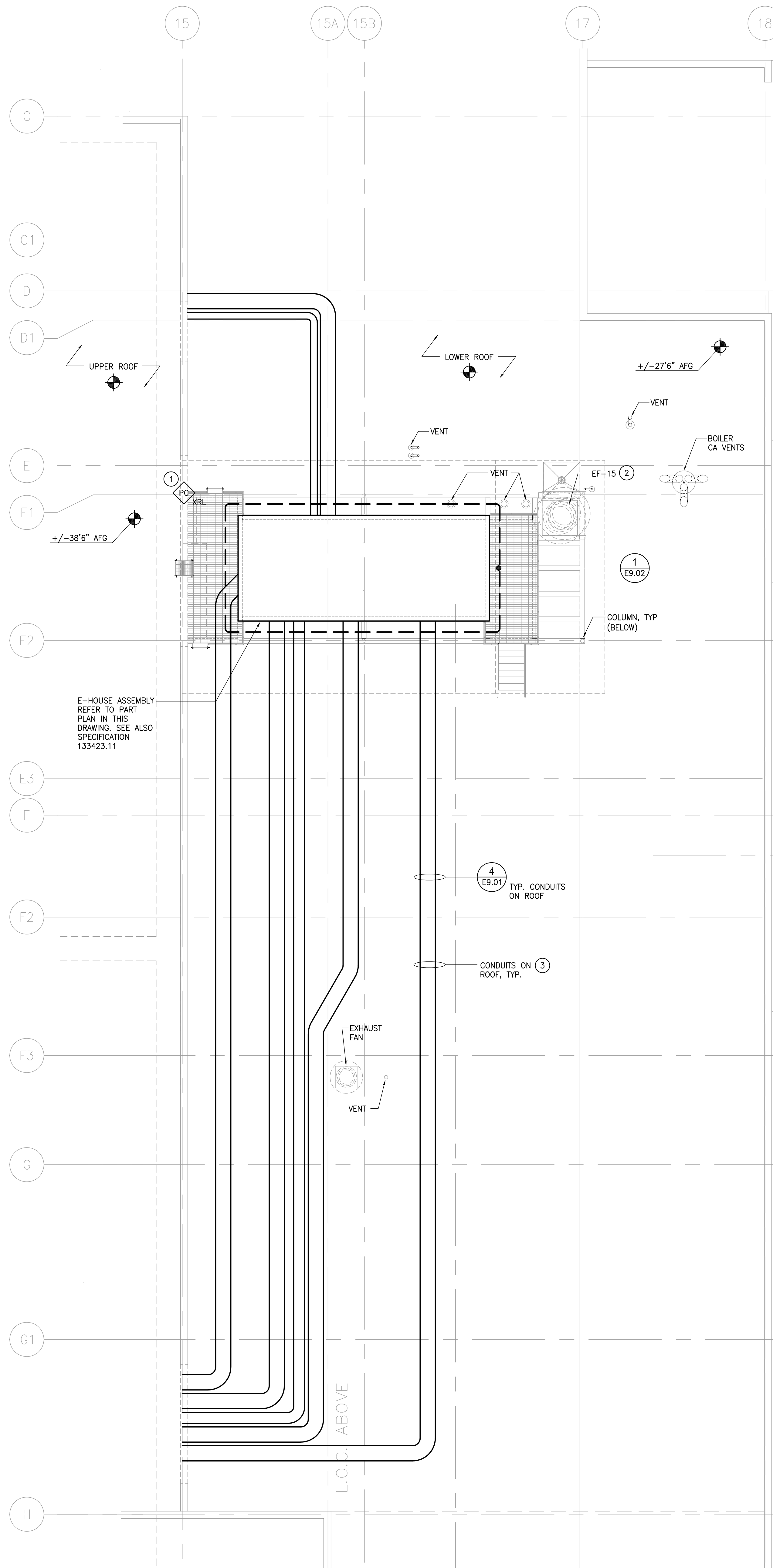


1 MECHANICAL / ELECTRICAL ROOM
LIGHTING PLAN - NEW WORK
SCALE: 1/4"=1'-0"

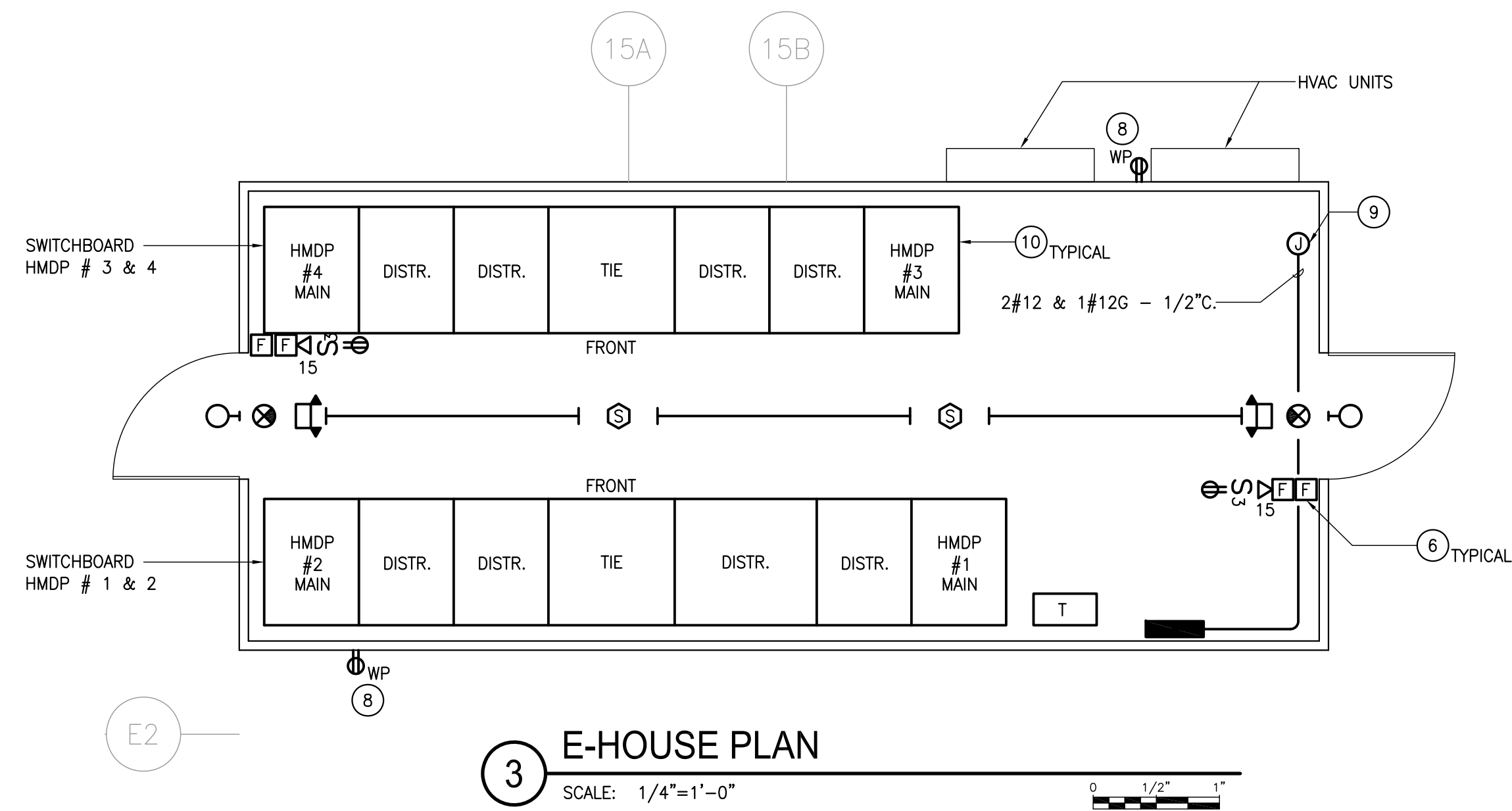
- NOTES
1. FOR ELECTRICAL LEGEND, PHASING NOTES AND GENERAL NOTES, REFER TO DRAWING E0.01.
 2. FOR CLARITY, NOT ALL CEILING SUSPENDED EQUIPMENT IS SHOWN.
 3. EMERGENCY LUMINAIRES AND EXIT SIGNS SHALL BE WIRED AHEAD OF SWITCHING.
 4. EXISTING BRANCH CIRCUIT SHALL BE UTILIZED TO SERVE NEW LUMINAIRES IN THE MECHANICAL ROOM.

- KEY NOTES:
- 1 CHAIN SUSPEND LUMINAIRES AT 10'-0" ABOVE FINISHED FLOOR. CEILING IS OPEN TO STRUCTURE APPROXIMATELY 15'-9" TO BOTTOM OF METAL DECK.

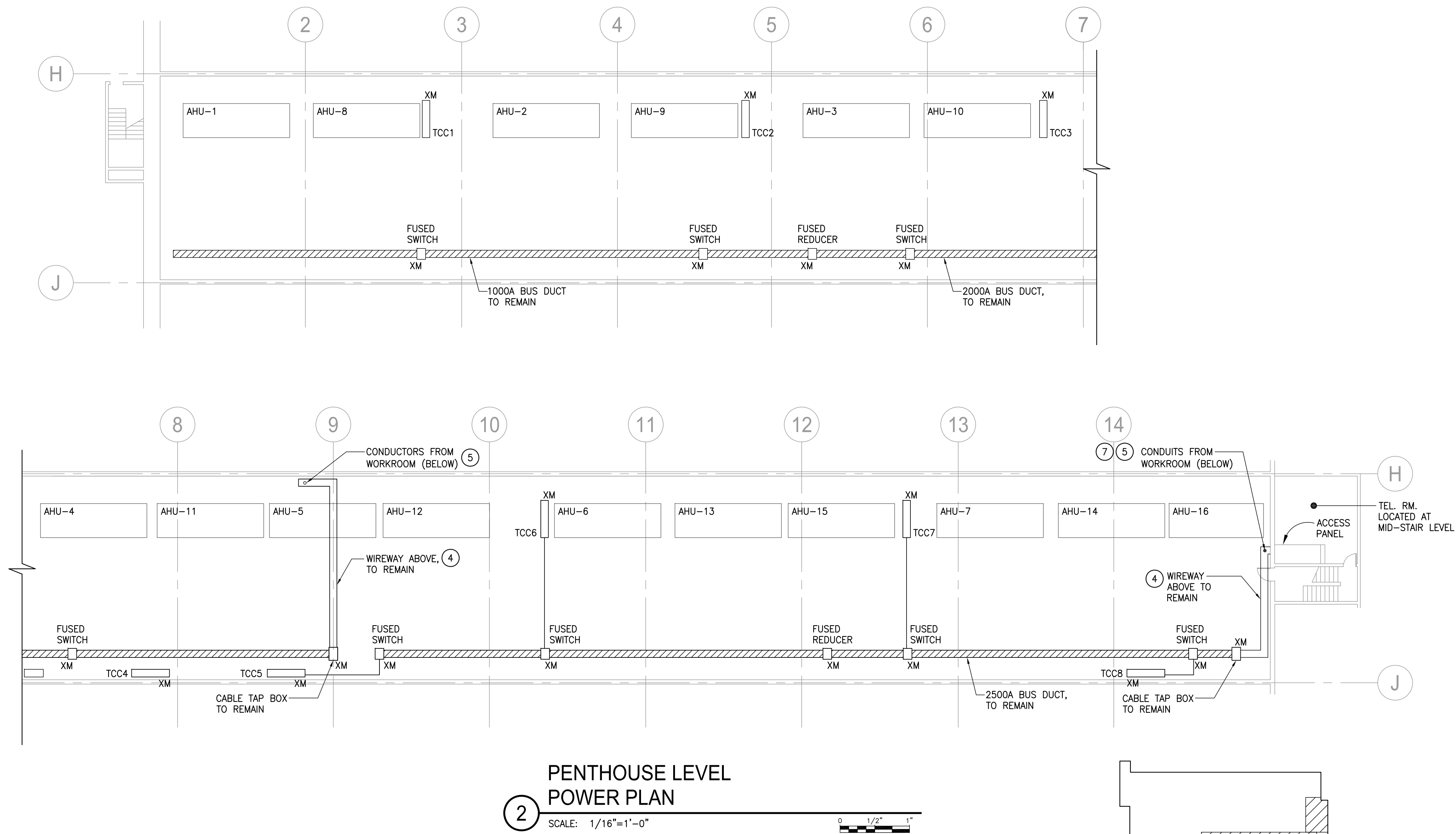




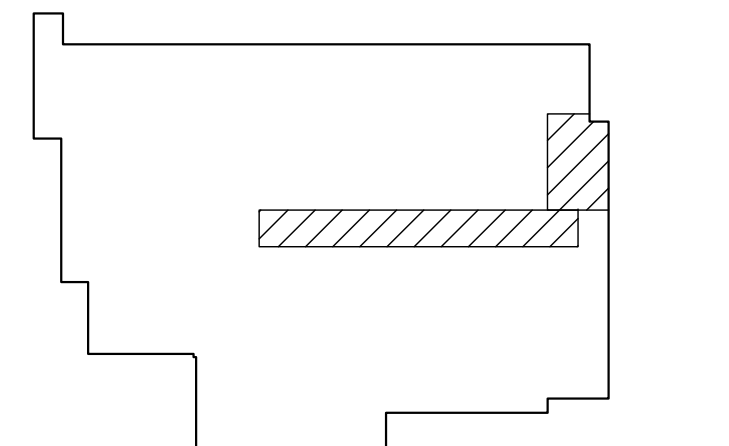
1 PARTIAL ROOF PLAN
SCALE: 1/8"=1'-0"



3 E-HOUSE PLAN
SCALE: 1/4"=1'-0"

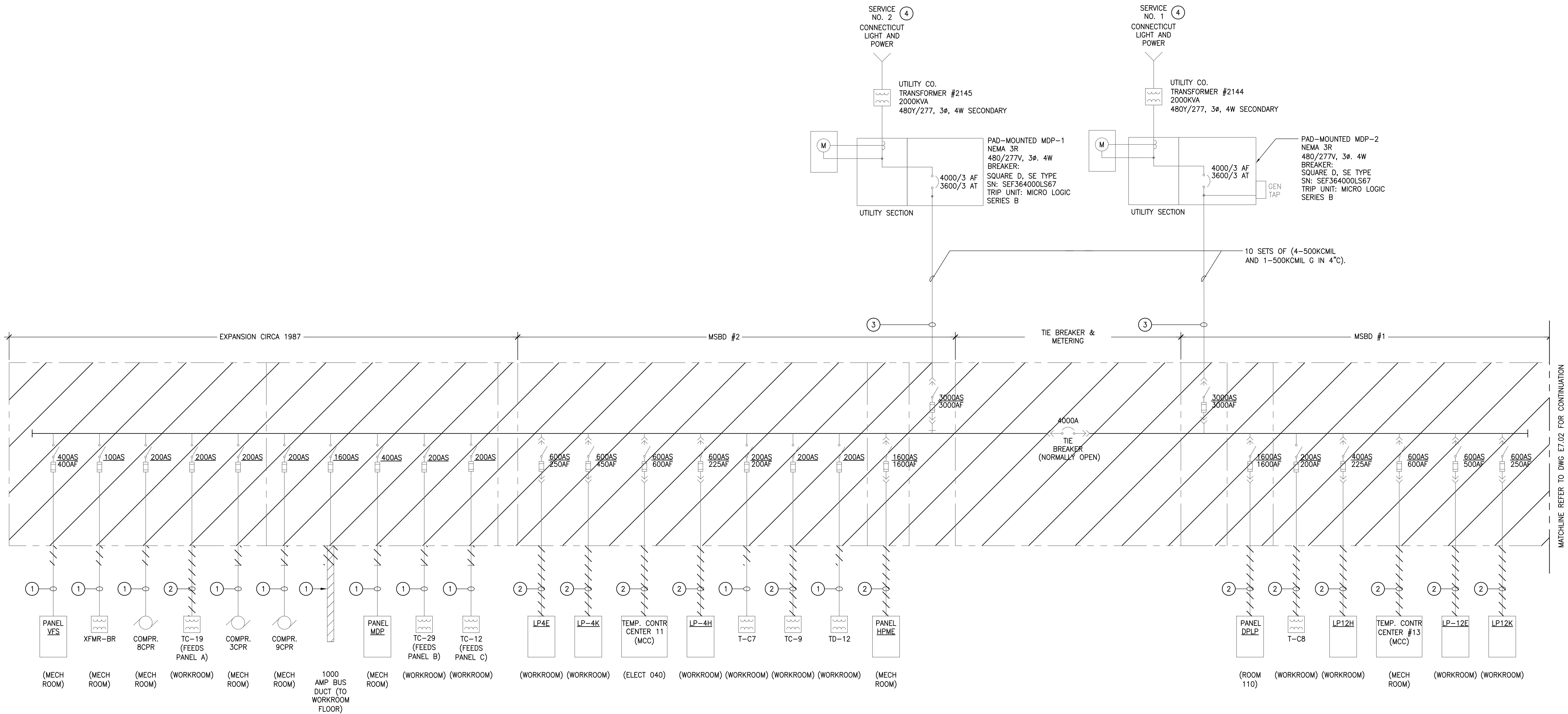


2 PENTHOUSE LEVEL POWER PLAN
SCALE: 1/16"=1'-0"



KEY PLAN

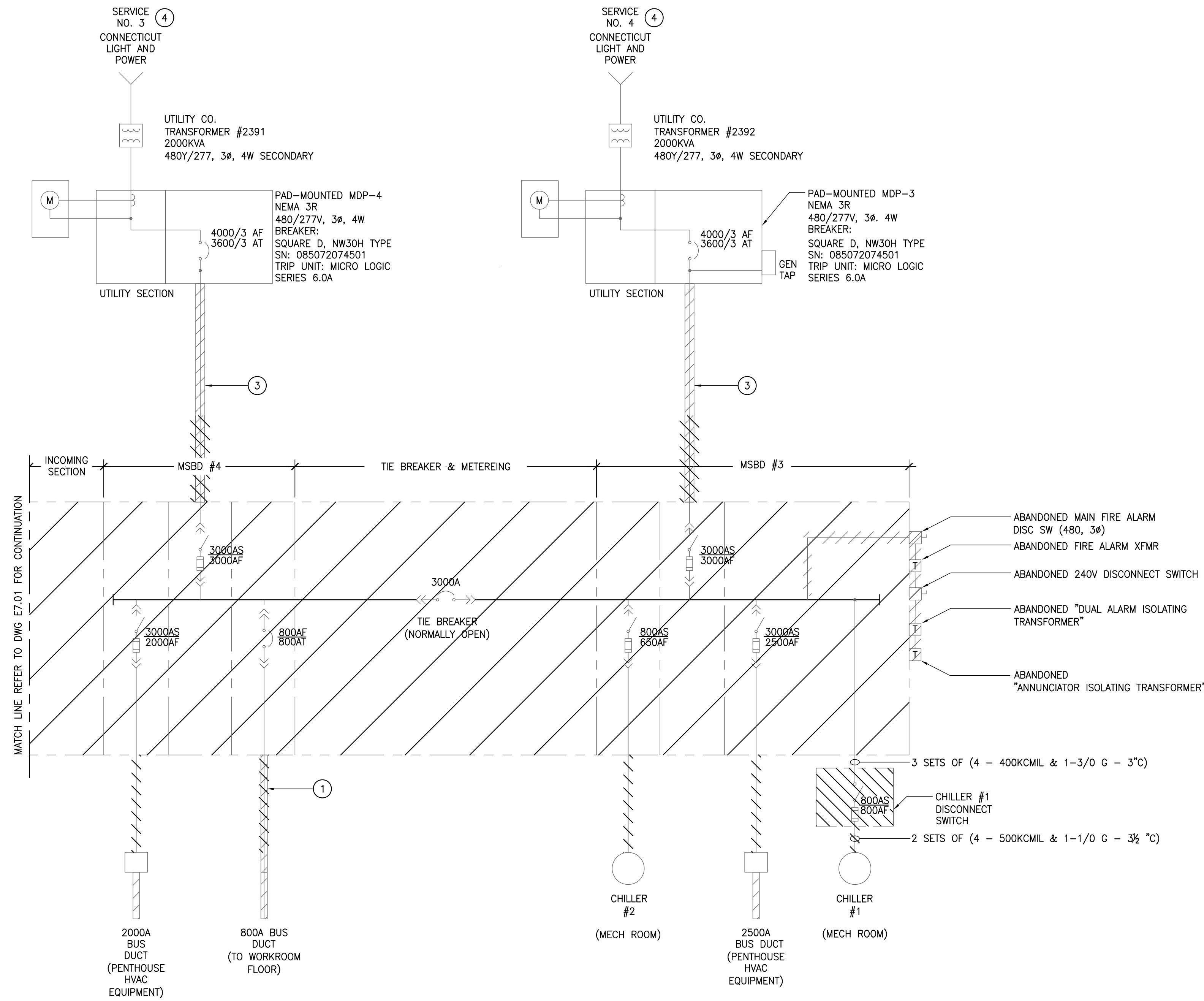
- NOTES**
- FOR ELECTRICAL LEGEND, PHASING NOTES AND GENERAL NOTES, REFER TO DRAWING E0.01.
- KEY NOTES**
- NOTED PHOTOCELL IS LOCATED ABOVE ROOF ON CONDUIT. THE PHOTOCELL SHALL BE RELOCATED OUT OF THE FOOTPRINT OF THE NEW GRATING FOR THE E-HOUSE. PROVIDE NEW RACEWAY AND CABLING AS REQUIRED. IT IS UNKNOWN WHERE THE PHOTOCELL CABLING IS TERMINATED WITHIN THE BUILDING. ASSUME 200 FEET OF NEW CABLING FOR BIDDING PURPOSES.
 - DISCONNECT AND MAKE SAFE EXISTING EXHAUST FAN FOR RELOCATION BY DIVISION 23. INTERCEPT EXISTING BRANCH CIRCUIT WIRING AND EXTEND TO NEW FAN LOCATION. COORDINATE EXACT REQUIREMENTS WITH DIVISION 23 PRIOR TO ROUGHING.
 - CONDUIT ROUTING ON THE ROOF IS SCHEMATIC IN NATURE. ACTUAL ROUTING SHALL BE DETERMINED IN THE FIELD. REVIEW CONDUIT ARRANGEMENTS, SUPPORT SYSTEM, ELEVATIONS, AND ROUTING CAREFULLY TO ENSURE SMOOTH TRANSITIONS INTO THE BUILDING AND THE E-HOUSE SWITCHBOARDS, LIMITING UNNECESSARY BENDS. SEE DETAIL 4 ON DRAWING E9.01 FOR REQUIREMENTS INCLUDING SHOP DRAWING SUBMITTALS.
 - REMOVE EXISTING HVAC CONDUCTORS FROM EXISTING WIREWAYS AT THE HVAC PENTHOUSE.
 - ROUTE NOTED HVAC BUS DUCT CONDUCTORS IN EXISTING WIREWAY AND TERMINATE TO EXISTING CABLE TAP BOXES.
 - PROVIDE NOTED FIRE ALARM SYSTEM DEVICES/CABLING WITHIN E-HOUSE. REFER TO FIRE ALARM RISER DIAGRAM ON E8.01.
 - CORE THROUGH CONCRETE DECK FROM THE WORKROOM TO THE PENTHOUSE AND ENTER EXISTING WIREWAY. MODIFY THE WIREWAY FOR BOTTOM ENTRY. PROVIDE FIRESTOPPING PER THE SPECIFICATIONS.
 - PROVIDE CAST ALUMINUM, LOCKING, WEATHERPROOF, IN-USE COVERS FOR NOTED EXTERIOR RECEPTACLES AT THE E-HOUSE.
 - FOR NEW BAS GATEWAY.
 - SWITCHBOARDS, PANELBOARD, TRANSFORMER, LIGHTING, WIRING DEVICES, HVAC AND ASSOCIATED BRANCH CIRCUIT WIRING SHOWN IS PROVIDED BY E-HOUSE MANUFACTURER. FIRE ALARM, BAS COMPONENTS AND ASSOCIATED WIRING SHALL BE PROVIDED BY CONTRACTOR AND FIELD WIRED AFTER INSTALLATION OF E-HOUSE. REFER TO SPECIFICATION FOR ADDITIONAL INFORMATION.



1 PARTIAL ONE-LINE DIAGRAM - REMOVAL
SCALE: NOT TO SCALE

- NOTES**
1. FOR ELECTRICAL LEGEND, PHASING NOTES AND GENERAL NOTES, REFER TO DRAWING E0.01.
 2. REMOVAL SHOWN ON THIS PLAN SHALL BE SEQUENCED IN ACCORDANCE WITH THE APPROVED CUTOVER PLAN. SEE DRAWING E0.01.
 3. PRIOR TO PURCHASING NEW SWITCHBOARD EQUIPMENT, UTILIZE A CIRCUIT TRACER TO FIELD VERIFY ALL END LOADS ORIGINATING FROM THE EXISTING SWITCHBOARDS MATCH WHAT IS SHOWN ON THE ONE-LINE DIAGRAMS. NOTIFY THE A/E OF ANY DISCREPANCIES. SUBMIT SHOP DRAWINGS WITH ANY REQUIRED CHANGES TO EQUIPMENT LAYOUTS, AND INCLUDE A WRITTEN DESCRIPTION OF THE CHANGES. REFER TO DRAWINGS E7.01 AND E7.02.

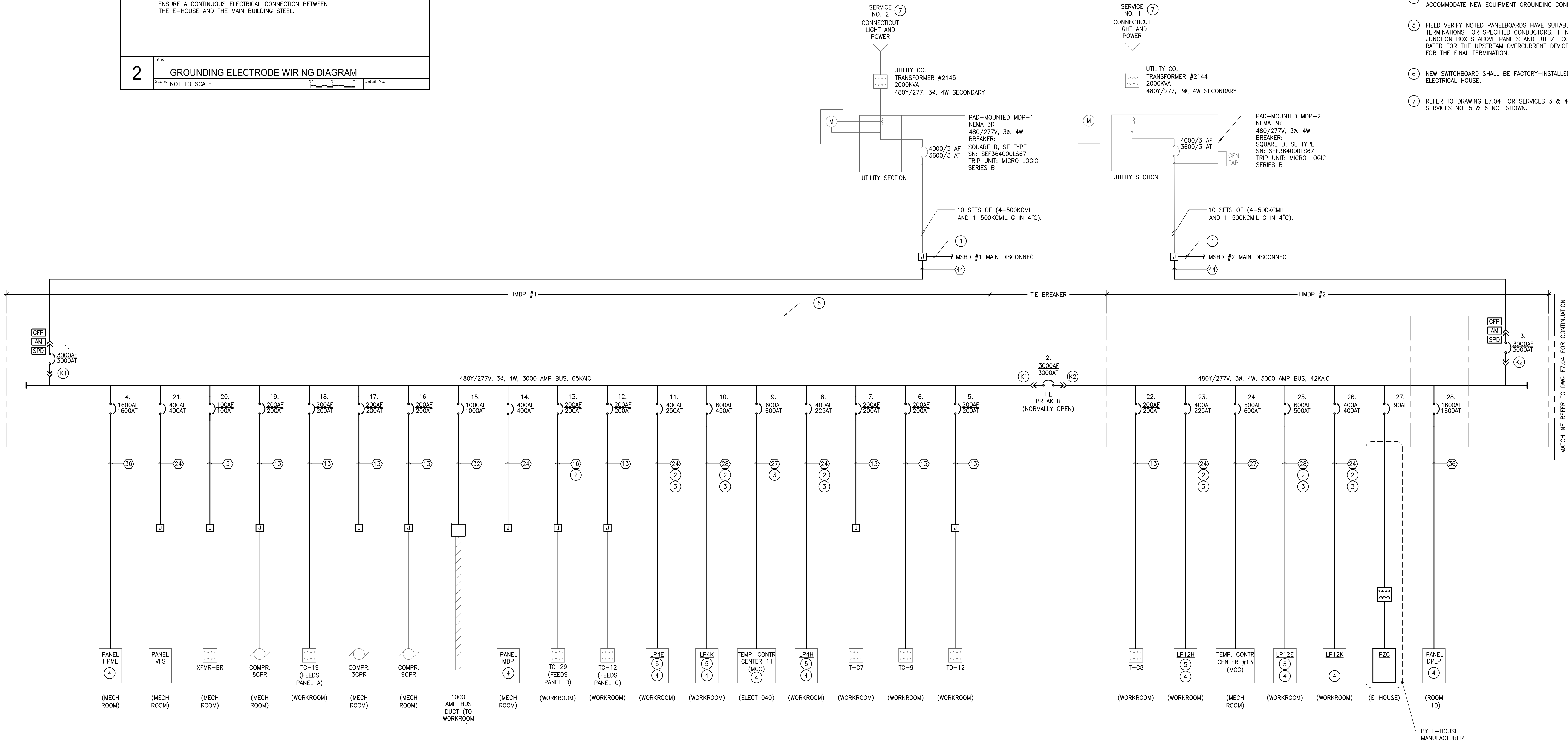
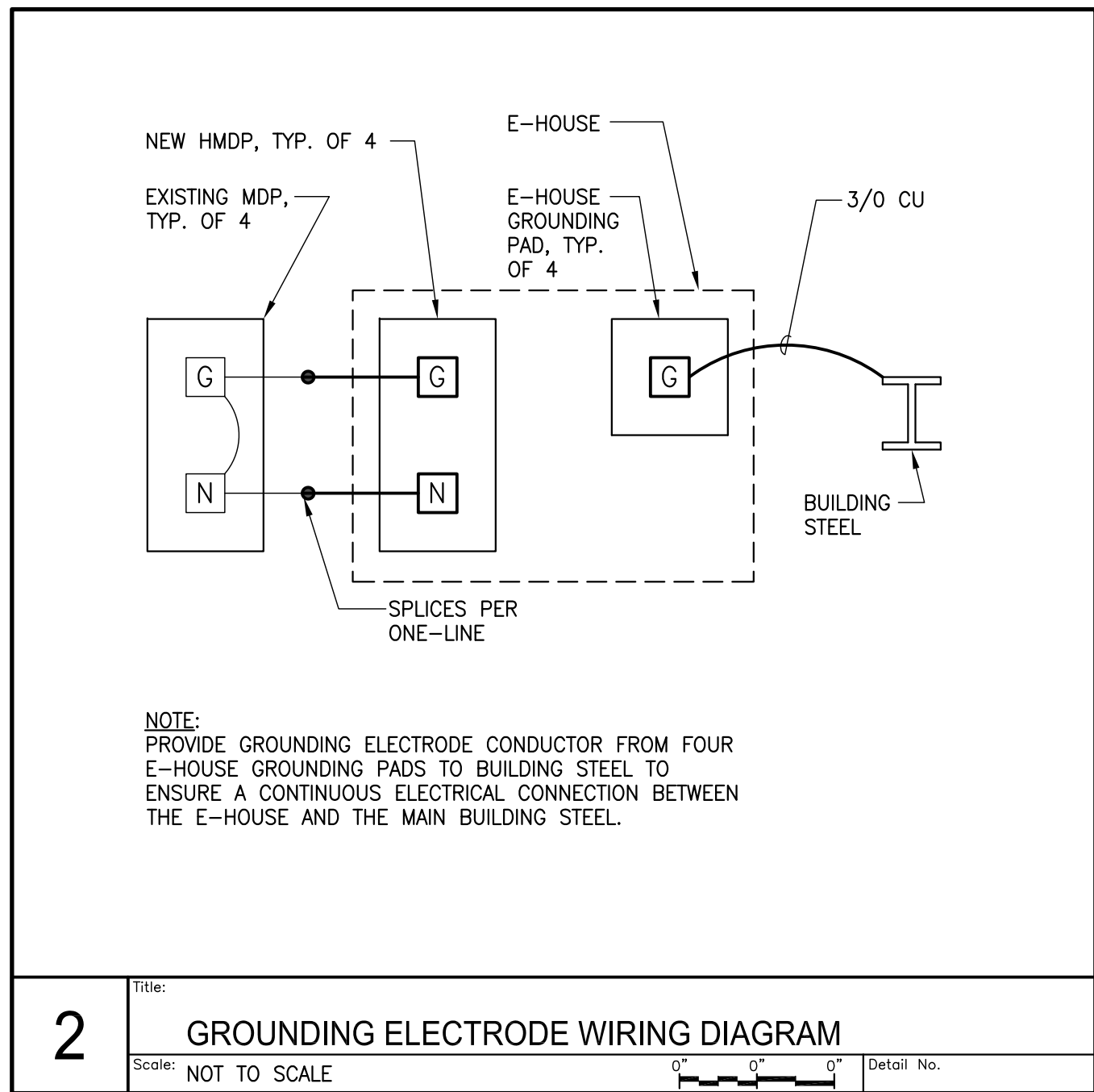
- KEY NOTES:**
- 1 NOTED FEEDERS ARE ROUTED OVERHEAD. INTERCEPT IN AN ACCESSIBLE LOCATION IN THE ELECTRICAL/MECHANICAL ROOM AND INSTALL A JUNCTION BOX. EXTEND FEEDER TO NEW SWITCHBOARDS.
 - 2 NOTED FEEDERS ARE ROUTED BELOW SLAB. PROVIDE NEW OVERHEAD FEEDERS IN ACCORDANCE WITH THE CUTOVER PLAN.
 - 3 INTERCEPT EXISTING SERVICE LATERALS MSBD #1 AND MSBD #2 AND PROVIDE A JUNCTION BOX. SEE E7.03 FOR NEW WORK REQUIREMENTS.
 - 4 REFER TO DRAWING E7.02 FOR SERVICES NO. 3 & 4. SERVICES NO. 5 & 6 NOT SHOWN.



1 PARTIAL ONE-LINE DIAGRAM - REMOVAL
SCALE: NOT TO SCALE

- NOTES**
1. FOR ELECTRICAL LEGEND, PHASING NOTES AND GENERAL NOTES, REFER TO DRAWING E0.01.
 2. REMOVAL SHOWN ON THIS PLAN SHALL BE SEQUENCED IN ACCORDANCE WITH THE APPROVED CUTOVER PLAN. SEE SHEET E0.01.
 3. PRIOR TO PURCHASING NEW SWITCHBOARD EQUIPMENT, UTILIZE A CIRCUIT TRACER TO FIELD VERIFY ALL END LOADS ORIGINATING FROM THE EXISTING SWITCHBOARDS MATCH WHAT IS SHOWN ON THE ONE-LINE DIAGRAMS. NOTIFY THE A/E OF ANY DISCREPANCIES. SUBMIT SHOP DRAWINGS WITH ANY REQUIRED CHANGES TO EQUIPMENT LAYOUTS, AND INCLUDE A WRITTEN DESCRIPTION OF THE CHANGES. REFER TO DRAWINGS E7.01 AND E7.02.

- KEY NOTES:**
- 1 NOTED FEEDERS ARE ROUTED OVERHEAD. INTERCEPT IN AN ACCESSIBLE LOCATION IN THE ELECTRICAL/MECHANICAL ROOM AND INSTALL A JUNCTION BOX. EXTEND FEEDERS TO NEW SWITCHBOARDS.
 - 2 NOT USED.
 - 3 INTERCEPT EXISTING SERVICE LATERALS TO MSBD #3 AND MSBD #4 AND PROVIDE NEW BUS DUCT AND CABLE TAP BOX. SEE E7.04 FOR NEW WORK REQUIREMENTS.
 - 4 REFER TO DRAWING E7.01 FOR SERVICES NO. 1& 2. SERVICES NO. 5 & 6 NOT SHOWN.

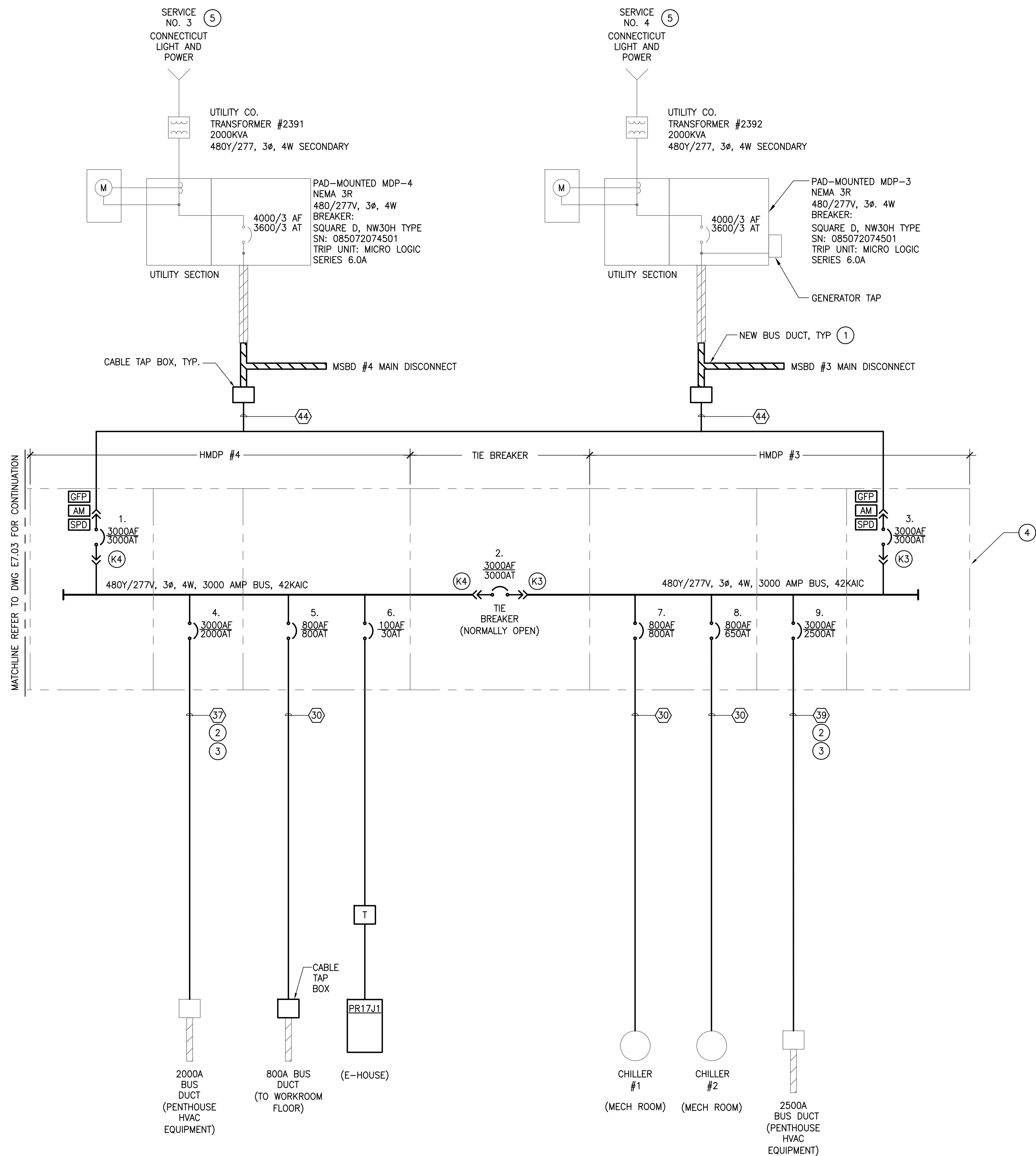


1 PARTIAL ONE-LINE DIAGRAM - NEW WORK
SCALE: NOT TO SCALE

- NOTES
- FOR ELECTRICAL LEGEND, PHASING NOTES AND GENERAL NOTES, REFER TO DRAWING E0.01.
 - REMOVAL SHOWN ON THIS PLAN SHALL BE SEQUENCED IN ACCORDANCE WITH THE APPROVED CUTOVER PLAN. SEE DRAWING E0.01.
 - PRIOR TO PURCHASING NEW SWITCHBOARD EQUIPMENT, UTILIZE A CIRCUIT TRACER TO FIELD VERIFY ALL END LOADS ORIGINATING FROM THE EXISTING SWITCHBOARDS MATCH WHAT IS SHOWN ON THE ONE-LINE DIAGRAMS. NOTIFY THE A/E OF ANY DISCREPANCIES. SUBMIT SHOP DRAWINGS WITH ANY REQUIRED CHANGES TO EQUIPMENT LAYOUTS, AND INCLUDE A WRITTEN DESCRIPTION OF THE CHANGES. REFER TO DRAWINGS E7.01 AND E7.02.

- KEY NOTES:
- PROVIDE NEW JUNCTION BOX AND CABLING AS REQUIRED TO MAINTAIN EXISTING SERVICE CONNECTIONS THROUGHOUT THE PROJECT. REMOVE THE CONNECTION UPON COMPLETION OF CIRCUIT CUTOVER TO THE NEW SWITCHBOARDS.
 - NOTED FEEDERS INCREASED IN SIZE TO ADDRESS VOLTAGE DROP.
 - NOTED FEEDERS SHALL BE INSTALLED IN CABLE TRAY WITHIN THE WORKROOM. SEE DETAILS 1 & 2 ON E9.01.
 - PROVIDE GROUND BUS IN NOTED PANELBOARDS TO ACCOMMODATE NEW EQUIPMENT GROUNDING CONDUCTORS.
 - FIELD VERIFY NOTED PANELBOARDS HAVE SUITABLE TERMINATIONS FOR SPECIFIED CONDUCTORS. IF NOT, PROVIDE JUNCTION BOXES ABOVE PANELS AND UTILIZE CONDUCTORS RATED FOR THE UPSTREAM OVERCURRENT DEVICE TRIP RATING FOR THE FINAL TERMINATION.
 - NEW SWITCHBOARD SHALL BE FACTORY-INSTALLED WITHIN THE ELECTRICAL HOUSE.
 - REFER TO DRAWING E7.04 FOR SERVICES 3 & 4. SERVICES NO. 5 & 6 NOT SHOWN.

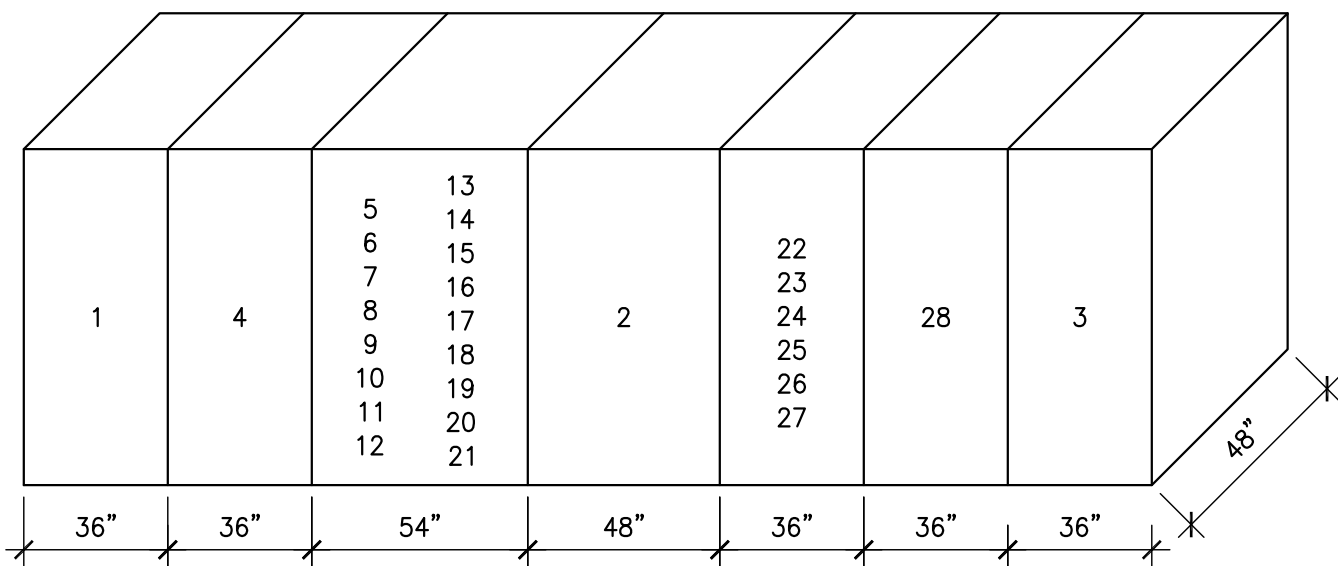




1 PARTIAL ONE-LINE DIAGRAM - NEW WORK
SCALE: NOT TO SCALE

- NOTES
1. FOR ELECTRICAL LEGEND, PHASING NOTES AND GENERAL NOTES, REFER TO DRAWING E0.01.
 2. REMOVAL SHOWN ON THIS PLAN SHALL BE SEQUENCED IN ACCORDANCE WITH THE APPROVED CUTOVER PLAN. SEE DRAWING E0.01.
 3. PRIOR TO PURCHASING NEW SWITCHBOARD EQUIPMENT, UTILIZE A CIRCUIT TRACER TO FIELD VERIFY ALL END LOADS ORIGINATING FROM THE EXISTING SWITCHBOARDS MATCH WHAT IS SHOWN ON THE ONE-LINE DIAGRAMS. NOTIFY THE A/E OF ANY DISCREPANCIES. SUBMIT SHOP DRAWINGS WITH ANY REQUIRED CHANGES TO EQUIPMENT LAYOUTS, AND INCLUDE A WRITTEN DESCRIPTION OF THE CHANGES. REFER TO DRAWINGS E7.01 AND E7.02.

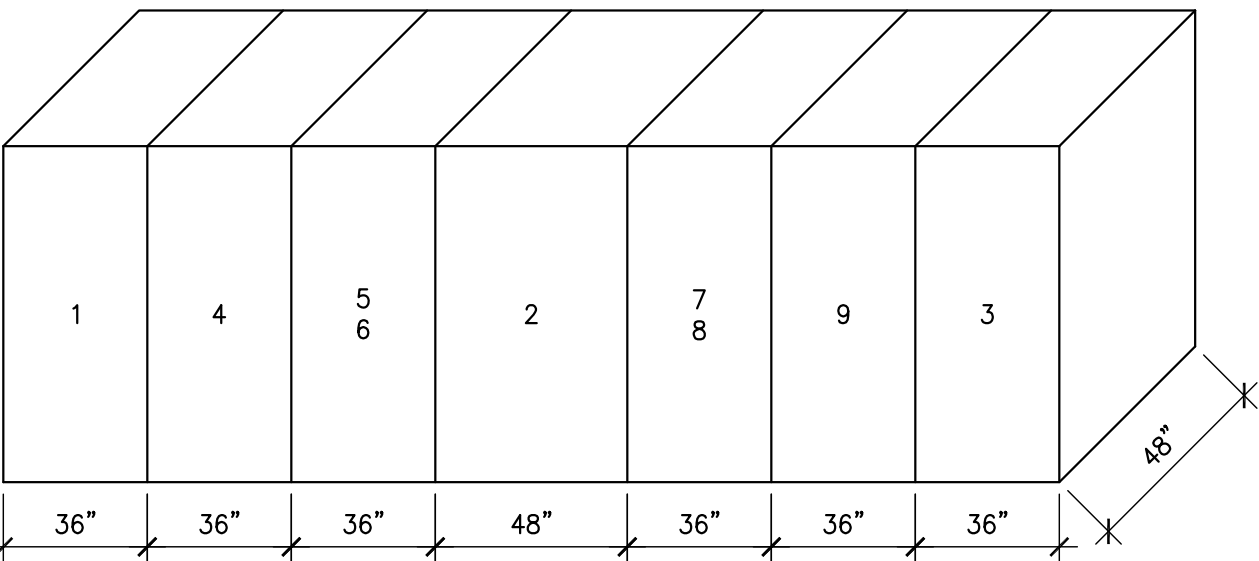
- KEY NOTES:
- 1 PROVIDE NEW BUS DUCT AS REQUIRED TO MAINTAIN EXISTING SERVICE CONNECTIONS. COORDINATE WITH THE MANUFACTURER FOR REQUIRED MATERIALS. VISIT THE SITE TO REVIEW THE EXISTING CONDITIONS PRIOR TO SUBMITTING OFFER. REMOVE CONNECTIONS UPON COMPLETION OF CIRCUIT CUTOVER TO THE NEW SWITCHBOARDS.
 - 2 NOTED FEEDERS SHALL BE INSTALLED IN CABLE TRAY WITHIN THE WORKROOM. SEE DETAILS 1 & 2 ON E9.01.
 - 3 NOTED FEEDERS SHALL TERMINATE TO EXISTING CABLE TAP BOXES IN THE PENTHOUSE PRIOR TO INSTALLATION. VERIFY THAT CABLE TAP BOXES HAVE SUITABLE LUGS TO TERMINATE CONDUCTORS SPECIFIED.
 - 4 NEW SWITCHBOARDS SHALL BE FACTORY-INSTALLED WITHIN THE ELECTRICAL HOUSE.
 - 5 REFER TO DRAWING E7.03 FOR SERVICES NO. 1 & 2. SERVICES NO. 5 & 6 NOT SHOWN.



SWITCHBOARD ELEVATION
HMDP # 1 & 2

SCALE: NOT TO SCALE

SWITCHBOARD SCHEDULE									
NAMEPLATE: HMDP # 1 & 2						MAINS: 3000	PHASE/WIRE: 3 ϕ / 4 W	VOLTAGE: 480Y/277V	
CIRCUIT BREAKER						EQUIPMENT	REMARKS		
NO.	FRAME	TRIP	POLE	TYPE	A.I.C.				
1	3000	3000	3	NW	65K	MAIN - HMDP #1	KIRK KEY INTERLOCK		
2	3000	3000	3	NW	65K	TIE	KIRK KEY INTERLOCK		
3	3000	3000	3	NW	65K	MAIN - HMDP #2	KIRK KEY INTERLOCK		
4	1600	1600	3	RK	65K	PANEL HPME			
5	200	200	3	JJ	65K	TRANSFORMER TD-12			
6	200	200	3	JJ	65K	TRANSFORMER TC-9			
7	200	200	3	JJ	65K	TRANSFORMER T-C7			
8	400	225	3	LJ	65K	PANEL LP4H			
9	600	600	3	LJ	65K	TEMP. CONTROL CENTER 11			
10	600	450	3	LJ	65K	PANEL LP4K			
11	400	250	3	LJ	65K	PANEL LP4E			
12	200	200	3	JJ	65K	TRANSFORMER TC-12 (FEEDS PANEL C)			
13	200	200	3	JJ	65K	TRANSFORMER TC-29 (FEEDS PANEL B)			
14	400	400	3	LJ	65K	PANEL MDP			
15	1000	1000	3	RK	65K	BUSDUCT WORKROOM FLOOR			
16	200	200	3	JJ	65K	COMPRESSOR #9 (9 CPR)			
17	200	200	3	JJ	65K	COMPRESSOR #3 (3 CPR)			
18	200	200	3	JJ	65K	TRANSFORMER TC-19 (FEEDS PANEL A)			
19	200	200	3	LJ	65K	COMPRESSOR #8 (8 CPR)			
20	100	100	3	HJ	65K	TRANSFORMER - BR			
21	400	400	3	LJ	65K	PANEL VFS			
22	200	200	3	JJ	65K	TRANSFORMER T-C8			
23	400	225	3	LJ	65K	PANEL LP12H			
24	600	600	3	LJ	65K	TEMP. CONTROL CENTER 13			
25	600	500	3	LJ	65K	PANEL LP12E			
26	400	400	3	LJ	65K	PANEL LP12K			
27	90		3	HJ	65K	PZC XFMR FEED			
28	1600	1600	3	RK	65K	PANEL DPLP			



SWITCHBOARD ELEVATION
HMDP # 3 & 4

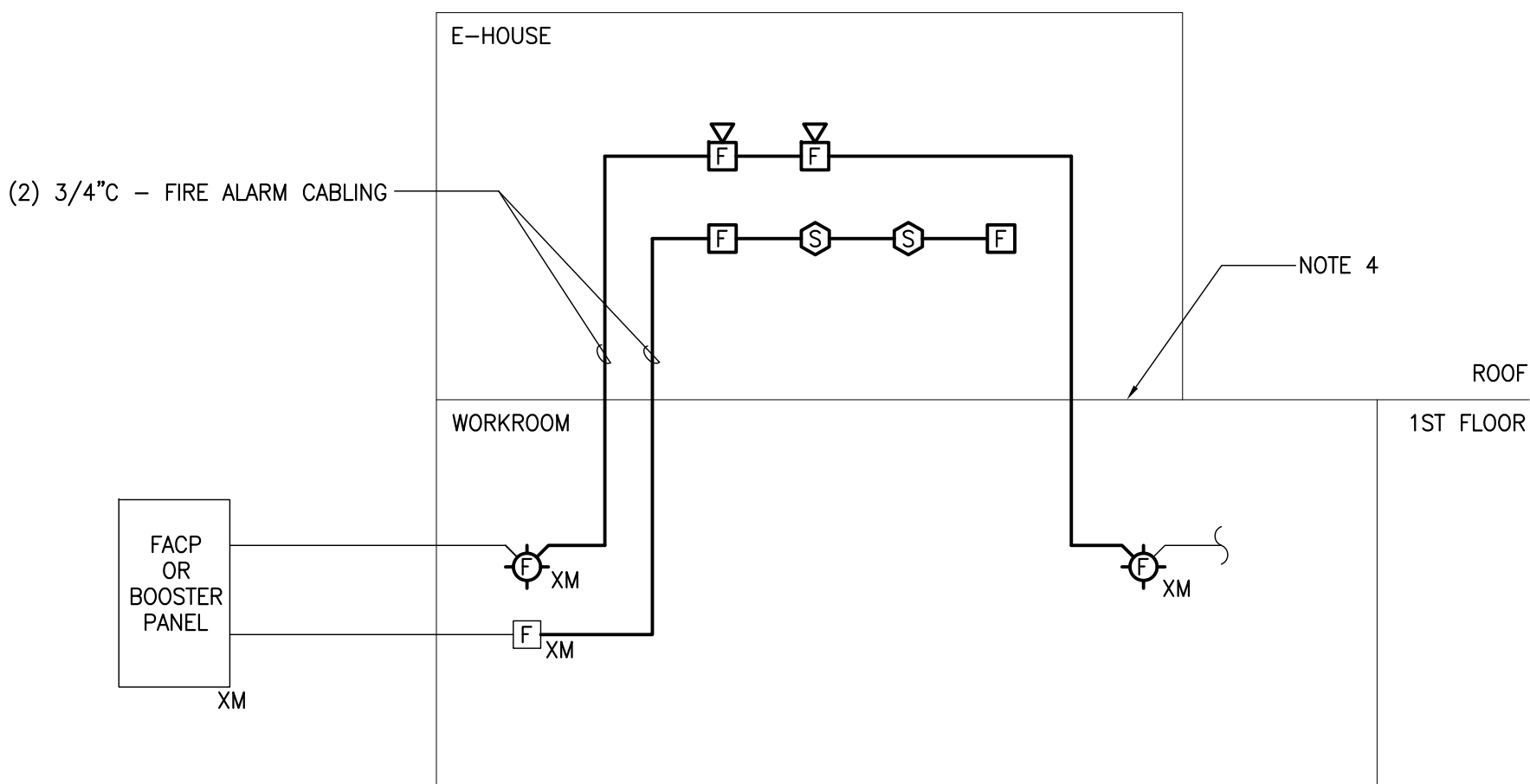
SCALE: NOT TO SCALE

SWITCHBOARD SCHEDULE									
NAMEPLATE: HMDP #3 & 4						MAINS: 3000A	PHASE/WIRE: 3 ϕ / 4 W	VOLTAGE: 480Y/277V	
CIRCUIT BREAKER						EQUIPMENT	REMARKS		
NO.	FRAME	TRIP	POLE	TYPE	A.I.C.				
1	3000	3000	3	NW	65K	MAIN - HMDP #4	KIRK KEY INTERLOCK		
2	3000	3000	3	NW	65K	TIE	KIRK KEY INTERLOCK		
3	3000	3000	3	NW	65K	MAIN - HMDP #3	KIRK KEY INTERLOCK		
4	3000	2000	3	NW	65K	2000A PLUG-IN BUSDUCT			
5	800	800	3	PK	65K	800A PLUG-IN BUSDUCT			
6	100	30	3	HJ	65K	PANEL PR17J1			
7	800	800	3	PK	65K	CHILLER #1			
8	800	650	3	PK	65K	CHILLER #2			
9	3000	2500	3	NW	65K	2500A PLUG-IN BUSDUCT			

NOTES

- FOR ELECTRICAL LEGEND, PHASING NOTES AND GENERAL NOTES, REFER TO DRAWING E0.01.

FEEDER SCHEDULE - COPPER						
OCPD RATINGS (AMPS)	TAG	3-WIRE		TAG	4-WIRE	
		1 ϕ -3W OR 3 ϕ -3W			3 ϕ -4W	
60	(1)	3#4 & 1#10 G - 1°C		(2)	4#4 & 1#10 G - 1½°C	
70	(3)	3#4 & 1#8 G - 1°C		(4)	4#4 & 1#8 G - 1½°C	
100	(5)	3#1 & 1#8 G - 1½°C		(6)	4#1 & 1#8 G - 1½°C	
125	(7)	3-1/0 & 1#6 G - 1½°C		(8)	4-1/0 & 1#6 G - 2°C	
150	(9)	3-1/0 & 1#6 G - 1½°C		(10)	4-1/0 & 1#6 G - 2°C	
175	(11)	3-2/0 & 1#6 G - 2°C		(12)	4-2/0 & 1#6 G - 2°C	
200	(13)	3-3/0 & 1#6 G - 2°C		(14)	4-3/0 & 1#6 G - 2°C	
225	(15)	3-4/0 & 1#4 G - 2°C		(16)	4-4/0 & 1#4 G - 2½°C	
250	(17)	3-250KCMIL & 1#4 G - 2½°C		(18)	4-250KCMIL & 1#4 G - 2½°C	
300	(19)	3-350KCMIL & 1#4 G - 4°C		(20)	4-350KCMIL & 1#4 G - 4°C	
350	(21)	3-500KCMIL & 1#3 G - 4°C		(22)	4-500KCMIL & 1#3 G - 4°C	
400	(23)	3-600KCMIL & 1#3 G - 4°C		(24)	4-600KCMIL & 1#3 G - 4°C	
500	(25)	2 SETS OF (3-250KCMIL & 1#2 G - 2½°C)		(26)	2 SETS OF (4-250KCMIL & 1#2 G - 2½°C)	
600	(27)	2 SETS OF (3-350KCMIL & 1#1 G-4°C)		(28)	2 SETS OF (4-350 KCMIL & 1#1 G-4°C)	
800	(29)	2 SETS OF (3-600KCMIL & 1-1/0 G - 4°C)		(30)	2 SETS OF (4-600KCMIL & 1-1/0 G -4°C)	
1000	(31)	3 SETS OF (3-400KCMIL & 1-2/0 G -4°C)		(32)	3 SETS OF (4-400KCMIL & 1-2/0 G -4°C)	
1200	(33)	3 SETS OF (3-600KCMIL & 1-3/0 G -4°C)		(34)	3 SETS OF (4-600KCMIL & 1-3/0 G -4°C)	
1600	(35)	4 SETS OF (3-600KCMIL & 1-4/0 G - 4°C)		(36)	4 SETS OF (4-600KCMIL & 1-4/0 G - 4°C)	
2000	(37)	5 SETS OF (3-600KCMIL & 1 - 250KCMIL G - 4°C)		(38)	5 SETS OF (4-600KCMIL & 1 - 250KCMIL G - 4°C)	
3000	(39)	7 SETS OF (3-600KCMIL & 1-400KCMIL G - 4°C)		(40)	7 SETS OF (4-600KCMIL & 1-400KCMIL G - 4°C)	
3600	(41)	9 SETS OF (3-600KCMIL & 1-500KCMIL G - 4°C)		(42)	9 SETS OF (4-600KCMIL & 1-500KCMIL G - 4°C)	
4000	(43)	10 SETS OF (3-600KCMIL & 1-500KCMIL G - 4°C)		(44)	10 SETS OF (4-600KCMIL & 1-500KCMIL G - 4°C)	



NOTES:

- INTERCEPT EXISTING FIRE ALARM CIRCUITS AND EXTEND TO NEW DEVICES IN THE E-HOUSE.
- EXISTING FIRE ALARM SYSTEM IS NOTIFIER.
- COORDINATE WORK WITH USPS FIRE ALARM SYSTEM SERVICE COMPANY OF RECORD. PROVIDE ALL CABLING PROGRAMMING, TESTING, STARTUP, ETC. (SEE SPECIFICATIONS). PAY ALL REQUIRED FEES.
- COORDINATE WITH GENERAL CONTRACTOR THE CONDUIT ROUTING TO THE E-HOUSE.

PARTIAL FIRE ALARM
SYSTEM RISER DIAGRAM

SCALE: NOT TO SCALE

