



The City of **WORCESTER**

Administration & Finance – Purchasing Division
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October 8, 2026

To All Bidders:

Subject: **Bid No. 8819-M7 – Sprinkler & Fire Alarm Modifications – Union Station / WRA**

ADDENDUM NO. 3

To Whom It May Concern:

With reference to our bid request relative to the above subject, please refer to the changes/modifications/clarifications to the original proposal request.

General Bid Clarification:

- Part 2 of this addendum indicates revisions to the Project Manual.
- Part 3 of this addendum indicates revisions to the Drawings.
- Part 4 of this addendum indicates clarification to Contractors Questions

PART 2 – PROJECT MANUAL

No Changes.

PART 3 - DRAWINGS

Drawing M001, Mechanical Legend and Abbreviations, Revise as follows:

- ADD leak detector to legend.

Drawing MD102, Mechanical First Floor Demolition Plan, Revise as follows:

- ADD point of deactivation and associated Keyed Note 1.

Drawing M101, Mechanical Partial Basement New Work Plan, Revise as follows:

- REVISE General Note C.
- REVISE Keyed Notes 1 and 3.
- ADD Leak detectors and associated Keyed Note 10.



Drawing M601, Mechanical Schedules, Revise as follows:

- ADD sensor schedule.
- ADD Leak Detection Detail.
- ADD Drawing E100, Electrical Power Partial Basement New Work Plan, adding junction boxes to provide power for leak detection controllers.

Drawing E101, Electrical Power Partial First Floor New Work Plan, Revise as follows:

- ADD power supply circuit for fire alarm remote command center.
- ADD panel schedule for existing Panel ESP-1.

Drawing FA001, Fire Alarm Legend and Notes, Revise as follows:

- ADD symbols to Legend for Beam Detector Transmitter/Receiver and Reflecting Mirror for Beam Detectors.

Drawing FAD101, Electrical Fire Alarm Partial Basement Demolition Plan, Revise as follows:

- DELETE reference to Keyed Note 1 at smoke detector M1-31.

Drawing FAD102, Electrical Fire Alarm Partial Basement and Bus Terminal Demolition Plan, Revise as follows:

- REVISE three pull stations from “Existing to Remain” to “Remove and Replace”.
- REVISE fire alarm annunciator panel to be “Existing to Remain”.

Drawing FAD103, Electrical Fire Alarm First Floor Demolition Plan, Revise as follows:

- REVISE one smoke detector from “Remove and Replace” to “Remove Existing”.
- ADD missing heat detector to remain monitored by addressable monitor module M1-99.
- REVISE wiring shown for heat detectors from addressable monitor modules for address points M1-65 and M1-66 to dashed line for demo and label associated modules to be “Remove Existing”.

Drawing FAD104, Electrical Fire Alarm First Floor Demolition Plan, Revise as follows:

- DELETE reference to Note 1 at Addressable Monitor Module (M1-61).
- REVISE heat detector monitored from Addressable Monitor Module M1-61 from “Remove Existing” to “Existing to Remain”.
- REVISE Keyed Note 1.



Drawing FAD105, Electrical Fire Alarm Second Floor Demolition Plan, Revise as follows:

- REVISE Note 3 to describe modifications to the beam detectors.
- REVISE symbols for Beam Detectors.
- REVISE Beam Detectors from “Existing to Remain” to “Remove and Replace”.
- REVISE two NAC panels from “Remove and Replace” to “Existing to Remain”.
- REVISE label for one addressable monitor module from “M2-50” to “M2-30”.

Drawing FA101, Electrical Fire Alarm Partial Basement New Work Plan, Revise as follows:

- DELETE reference to Keyed Note 1 at smoke detector M1-33.
- ADD addressable monitor module for leak detector controller monitoring and associated Keyed Note 6.

Drawing FA102, Electrical Fire Alarm Partial Basement and Bus Terminal New Work Plan, Revise as follows:

- REVISE pull station M3-17 from “Existing to Remain” to “New to Replace Existing”.
- REVISE fire alarm annunciator panel from “New to Replace Existing” to “Existing to Remain”.
- ADD addressable monitor module for leak detector controller monitoring and associated Keyed Note 1.
- ADD addressable monitor module for temperature sensor controller monitoring and associated Keyed Note 2.
- ADD notation for new strobe with “n”

Drawing FA103, Electrical Fire Alarm First Floor New Work Plan, Revise as follows:

- ADD missing heat detector to remain monitored by addressable monitor module M1-99.
- DELETE wiring shown for demolished heat detectors from addressable monitor modules for address points M1-65 and M1-66.

Drawing FA104, Electrical Fire Alarm First Floor New Work Plan, Revise as follows:

- REVISE heat detector monitored from Addressable Monitor Module M1-61 from “New to Replace Existing” to “Existing to Remain”.
- ADD Keyed Note 2 and associated reference.



Drawing FA105, Electrical Fire Alarm Second Floor New Work Plan, Revise as follows:

- REVISE Note 3 to describe modifications to the existing beam detectors and identifying reflector mirror for transmitter/receiver located on opposite wall.
- REVISE symbols for Beam Detectors.
- REVISE Beam Detectors from “Existing to Remain” to “New to Replace Existing”.
- REVISE label for one addressable monitor module from “M2-50” to “M2-30”.
- ADD “er” to existing NAC panel to remain.

Drawing FA301, Electrical Fire Alarm Second Floor New Work Plan, Revise as follows:

- ADD leak detection controllers and temperature controller to I/O Matrix.

Drawing FA401, Electrical Fire Alarm Second Floor New Work Plan, Revise as follows:

- REVISED beam detectors from being “Existing to Remain” to “New to Replace Existing”.
- REVISE Addressable Monitor Module for Beam Detectors from “New to Replace Existing” to “Remove Existing”.
- REVISE wiring for new Remote Command Center from Fiber Optic Cable to copper cables.
- ADD 120V power supply for Remote Command Center.
- ADD a total of three addressable monitor modules for two leak detection controllers and temperature controller.
- ADD rewiring of NAC panel at Food Hub and demolition of associated control relay.
- DELETE addressable monitor modules with address point M1-65 and M1-66.

PART 4- CONTRACTOR QUESTIONS

Q: FA102: Is the 15CD Strobe-only device shown near ER Smoke M3-12 existing to remain or a brand-new device? FAD102 doesn't show the device at all, and although it appears in **BOLD** on FA102, there is no notation near it indicating its actual status.

A: The strobe is a new device/location.

Q: RFI response issued with Addendum 2 states "annunciator panels at the Harding Street exit and at the bus terminal exit shall be existing to remain" (and mentioned "Harding Street exit" AND "bus terminal exit." FAD102 shows one (1) "FA" annunciator device with "rr" notation (remove and replace); and FA102 has notation "nr" next to the same annunciator device. Please clarify scope.

A: Revision to previous Addendum response is as follows: There are no current annunciator panels at Harding Street exit and no new annunciator required. The annunciator at the bus terminal exit shall be existing to remain.



Q: Other than the main lobby annunciator, how many other annunciators are there, whether "er" or "rr"?

A: There are two existing remote annunciators. One at the main lobby which will be replaced with the new remote command center. The other at the bus terminal exit which will be existing to remain.

Q: There are several other discrepancies between FAD105 and FA105 regarding the counts and addresses on various "C" and "AMM" devices. M2-30, M2-77, M2-113. The modules that control the beam detectors are still not shown. Please clarify all.

A: Existing M2-30 being added to FAD105. The control relays for the two NAC panels are being removed. With the switch over to IDNet, the signal circuits go directly to internal signal relays in the NAC panels without the need for external control relays. The response to location of the beam detector addressable modules not being able to be located and documented remains unchanged.

Q: FAD105 (revised, Addendum 2) still has notation "rr" next to both FA NAC panels. FA105 has removed the "nr" notation next to these panels (one has added "er" notation). Please clarify scope.

A: Both NAC panels shall be existing to remain.

Q: The plans and specs make it clear that all new wiring is to be in 3/4" EMT. This makes sense in areas like the basement for new SLC devices in the unfinished basement, but for the new NAC circuits running from the new basement Transponder panel to the first, second and attic floors, is the intention for walls and ceilings to be opened up everywhere to accommodate a code-compliant installation of 3/4" conduit with a Class-A Fire Alarm wiring configuration (ie independent "supply" and "return" runs above sheetrock ceilings and inside sheetrock walls where called for on the drawings)? Please advise.

A: The intent is for all fire alarm wiring to be run in conduit. However, to accommodate spaces where conduit cannot be installed such as above hard ceilings or within existing wall cavities, fire alarm MC cable with red painted steel armor may be used to fish wiring in such spaces.

Q: Riser Diagram for 1st Floor, left-hand side shows 13 new NAC devices in total. (1) 75CD speaker/strobe and (1) 110CD speaker/strobe cannot be found on the floor plan.

A: Delete (1) 75CD speaker/strobe and (1) 110CD speaker/strobe from the riser.

Q: Riser Diagram for 1st Floor, right-hand side shows 15 new NAC devices in total. (1) 15 CD speaker/strobe and (1) 15CD strobe cannot be found on the floor plan.

A: Delete (1) 15CD speaker/strobe and (1) 15CD strobe from the riser.



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Q: Riser Diagram for 2nd Floor, left-hand side shows 7 new NAC devices in total. (2) 75 CD speaker/strobes cannot be found on the floor plan.

A: Revise (1) 75CD speaker/strobe to be 15CD speaker/strobe on the riser and Delete (1) 75CD speaker/strobe.

Bidders are requested to acknowledge and/or include this addendum with submission. All other terms, conditions and specifications remain unchanged.

Very truly yours,

Stephen R. McDonald
Assistant Purchasing Director

ABBREVIATIONS

NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
NTS	NOT TO SCALE
OA	OUTSIDE AIR
ODB	OPPOSED BLADE DAMPER
PE	PRESSURE DROP
PD	POLYETHYLENE
PEX	CROSS LINKED POLYETHYLENE
PF	PROPELLER FAN
PG	PROPANE GAS OR PROPYLENE GLYCOL
PP	POLYPROPYLENE
PRE	POWER ROOF EXHAUST
PRV	PRESSURE REDUCING VALVE
PSI	POUNDS PER SQUARE INCH
PSIG	POUND SQUARE INCH GAUGE
PWE	POWER WALL EXHAUSTER
R/A	RETURN AIR
RD	ROOF DRAIN
RH	RELATIVE HUMIDITY
RR	RETURN REGISTER
RTU	ROOFTOP UNIT
S/A	SUPPLY AIR
SCR	SILICON-CONTROLLED RECTIFIER
SD	SMOKE DAMPER OR SUPPLY DIFFUSER
SF	SUPPLY FAN
SH	SHOWER
SIC	SQUARE INLINE CENTRIFUGAL
SP	STATIC PRESSURE
SPR	SUPPLY REGISTER
SS	STAINLESS STEEL
T/A	TRANSFER AIR
TAB	TESTING, ADJUSTING & BALANCING
TD	TRENCH DRAIN
TG	TUBING GRILLE
TIC	TUBULAR INLINE CENTRIFUGAL
TMX	THERMOSTATIC MIXING VALVE
TD	TOP OF DUCT
TSP	TOTAL STATIC PRESSURE
TYP	TYPICAL
UCD	UNDERCUT DOOR
UG	UNDERGROUND
UH	UNIT HEATER
UR	URINAL
US	UTILITY SINK
V	VENT
VAV	VARIABLE AIR VOLUME
VB	VACUUM BREAKER
VD	VOLUME DAMPER
VR	VARIABLE FREQUENCY DRIVE
VTR	VENT THROUGH ROOF
WB	WET BULB
WC	WATER CLOSET OR WATER COLUMN
WCO	WALL CLEANOUT
WG	WATER GAUGE
XP	EXPLOSION PROOF
	POINT OF DEACTIVATION OR NEW CONNECTION TO EXISTING UNIT TYPE
FTR-1	
1.0	FLOW (GPM)
8'-0"	
	ACTIVE LENGTH
VAV-1	VAV BOX SIZE
800	MAX. FLOW (CFM)
500	MIN. FLOW (CFM)
SD-1 (100)	DIFFUSER TYPE AIR FLOW

	VALVE, REFER TO SPECIFICATION FOR TYPE
	AUTOMATIC FLOW CONTROL
	CHECK
	BALANCING
	VALVE IN TEE DROP
	VALVE IN TEE RISE
	VALVE IN ELBOW DROP
	VALVE IN ELBOW RISE
	2-WAY CONTROL (ELECTRONIC)
	3-WAY CONTROL (ELECTRONIC)
	2-WAY CONTROL (PNEUMATIC)
	3-WAY CONTROL (PNEUMATIC)
	PRESSURE REGULATING OR REDUCING
	RELIEF
	ANGLE PATTERN MULTI PURPOSE PUMP DISCHARGE
	STRAIGHT PATTERN MULTI PURPOSE PUMP DISCHARGE

	EXPANSION LOOP
	EXPANSION JOINT
	PIPE TURNING DOWN (PIPE DROP)
	PIPE TURNING UP (PIPE RISE)
	TEE UP (OFF TOP)
	TEE DOWN (OFF BOTTOM)
	PIPE DROP IN RUN
	PIPE DROP AND TURN
	TEE OFF TOP
	TEE OFF BOTTOM
	PLAIN ELBOW
	PLAIN TEE (OFF SIDE)
	CONCENTRIC REDUCER
	ECCENTRIC REDUCER
	UNION
	FLANGED JOINT
	PIPE CAP
	THREADED HOSE END WITH CAP
	PIPE GUIDE
	PIPE ANCHOR
	WALL SLEEVE
	FLEX CONNECTION
	PRESSURE GAUGE
	TEMPERATURE GAUGE
	AUTOMATIC AIR VENT
	MANUAL AIR VENT
	PUMP
	DIFFERENTIAL PRESSURE
	TEST PLUG
	WATER FILTER HOUSING AND CARTRIDGE
	WYE STRAINER
	WYE STRAINER W/BLOWDOWN
	BASKET STRAINER
	VACUUM BREAKER
	BACKFLOW PREVENTER
	DRAIN
	PUMP SUCTION DIFFUSER
	FAN

	EXISTING WORK TO REMAIN
	EXISTING WORK TO BE REMOVED ON DEMOLITION DRAWINGS
	NEW WORK ON PROPOSED DRAWINGS
HWS	HOT WATER SUPPLY
HWR	HOT WATER RETURN
CHS	CHILLED WATER SUPPLY
CHR	CHILLED WATER RETURN
GCHS	GLYCOL CHILLED WATER SUPPLY
GCHR	GLYCOL CHILLED WATER RETURN
GHWS	GLYCOL HOT WATER SUPPLY
GHWR	GLYCOL HOT WATER RETURN
CDS	CONDENSER WATER SUPPLY
CDR	CONDENSER WATER RETURN
RL	REFRIGERANT LIQUID
RS	REFRIGERANT SUCTION
LPS	LOW PRESSURE STEAM SUPPLY
LPR	LOW PRESSURE CONDENSATE RETURN
MPS	MEDIUM PRESSURE STEAM SUPPLY
MPR	MEDIUM PRESSURE CONDENSATE RETURN
HPS	HIGH PRESSURE STEAM SUPPLY
HPR	HIGH PRESSURE CONDENSATE RETURN
PC	PUMPED CONDENSATE
CD	CONDENSATE DRAIN
G	GAS PIPING
FOF	FUEL OIL FILL
FOS	FUEL OIL SUPPLY
FOR	FUEL OIL RETURN
FOV	FUEL OIL VENT
	DIRECTION OF FLOW
	PITCH PIPE DOWN

	SUPPLY AIR DUCT/OUTDOOR AIR (RISE UP)
	SUPPLY AIR DUCT/OUTDOOR AIR (DROP DOWN)
	RETURN AIR DUCT (RISE UP)
	RETURN AIR DUCT (DROP DOWN)
	EXHAUST DUCT (RISE UP)
	EXHAUST DUCT (DROP DOWN)
	DUCT SIZE (FIRST DIMENSION SIDE SHOWN)
	RISE IN DIRECTION OF FLOW
	DROP IN DIRECTION OF FLOW
	ELBOW WITH TURNING VANES
	DUCT WITH ACOUSTICAL LINING
	DOUBLE WALL DUCT
	STAINLESS STEEL DUCT
	INSULATED DUCT
	STAINLESS STEEL DUCT w/ INSULATION
	FLEXIBLE DUCT
	END CAP
	45° TAKE-OFF (RECTANGULAR)
	TRANSITION (RECTANGLE TO ROUND)
	TRANSITION (ROUND TO RECTANGLE)
	CONCENTRIC REDUCER
	ECCENTRIC REDUCER
	VOLUME DAMPER
	FIRE DAMPER
	MOTOR OPERATED DAMPER
	BACK DRAFT DAMPER
	HUMIDIFIER
	SMOKE DAMPER
	FIRE/SMOKE DAMPER
	SMOKE DETECTOR
	ACCESS DOOR (SCHEMATIC)
	ACCESS DOOR (SIDE)
	FLEXIBLE CONNECTION
	FLOW ARROW
	SUPPLY AIR DIFFUSER/REGISTER OR GRILLE
	RETURN AIR REGISTER OR GRILLE
	EXHAUST AIR REGISTER OR GRILLE
	THERMOSTAT
	HUMIDISTAT
	PRESSURE SWITCH
	FLOW SWITCH
	FACILITY MANAGEMENT SYSTEM PANEL
	TEMPERATURE SENSOR
	VARIABLE SWITCH
	HAND/AUTO SWITCH
	TIMER SWITCH
	LEAK DETECTOR

INSTRUMENT OR DEVICE

 CC: INSTRUMENT TYPE IDENTIFICATION
BB: INSTRUMENT NUMBER
CC: VARIABLE VALUE

FLOW UNIT: GPM
PRESSURE UNIT: PSIG
TEMPERATURE UNIT: DEG. F.

CONTROL POINT

 ZZ: CONTROL TYPE IDENTIFICATION
YY: POINT NUMBER
ZZ: CONTROL SYSTEM

AI	ANALOG INPUT
AO	ANALOG OUTPUT
DI	DIGITAL INPUT
DO	DIGITAL OUTPUT

AE	CURRENT ELEMENT (SENSOR)
AI	ANALYSIS INDICATOR
AIT	ANALYSIS INDICATING TRANSMITTER
AS	ANALYSIS SWITCH
AT	ANALYSIS TRANSMITTER
FC	FLOW CONTROL
FE	FLOW ELEMENT (SENSOR)
FI	FLOW INDICATOR
FIC	FLOW INDICATING CONTROL
FIT	FLOW INDICATING TRANSMITTER
FS	FLOW SWITCH
FT	FLOW TRANSMITTER
FV	FLOW VALVE
IE	CURRENT ELEMENT (SENSOR)
IS	CURRENT SWITCH
LE	LEVEL ELEMENT
LG	LEVEL GLASS (SITE GLASS)
LI	LEVEL INDICATOR
LIU	LEVEL INDICATING TRANSMITTER
LS	LEVEL SWITCH
LSH	LEVEL SWITCH HIGH
LSHH	LEVEL SWITCH HIGH HIGH
LSL	LEVEL SWITCH LOW
LSLL	LEVEL SWITCH LOW LOW
LT	LEVEL TRANSMITTER
PDI	PRESSURE DIFFERENTIAL INDICATOR
POS	PRESSURE DIFFERENTIAL SWITCH
POT	PRESSURE DIFFERENTIAL TRANSMITTER
PE	PRESSURE ELEMENT (SENSOR)
PI	PRESSURE INDICATOR
PIT	PRESSURE INDICATING TRANSMITTER
PS	PRESSURE SWITCH
PT	PRESSURE TRANSMITTER
SC	SPEED CONTROL
SD	SMOKE DETECTOR
ST	SPEED TRANSMITTER
TE	TEMPERATURE ELEMENT (SENSOR)
TI	TEMPERATURE INDICATOR
TIT	TEMPERATURE INDICATING TRANSMITTER
TS	TEMPERATURE SWITCH
TT	TEMPERATURE TRANSMITTER
VFD	VARIABLE FREQUENCY DRIVE
WE	WEIGHT ELEMENT SENSOR
WI	WEIGHT INDICATOR
WT	WEIGHT TRANSMITTER
XE	OTHER ELEMENT (SENSOR)
XI	OTHER INDICATOR
XIT	OTHER INDICATING TRANSMITTER
XIS	OTHER SWITCH
XOT	OTHER TRANSMITTER
YA	STATE ALARM
YCS	PRESENCE/STATE CONTROL (E.G. START/STOP)
YI	PRESENCE/STATE INDICATOR
YIS	STATE INDICATOR SWITCH
YIT	PRESENCE/STATE INDICATING TRANSMITTER
YIS	PRESENCE/STATE SWITCH
YIS	PRESENCE/STATE TRANSMITTER (E.G. STATUS)
ZC	POSITION CONTROL
ZE	POSITION ELEMENT (SENSOR)
ZI	POSITION INDICATOR
ZIC	POSITION INDICATING CONTROLLER
ZIT	POSITION INDICATING TRANSMITTER
ZS	POSITION SWITCH
ZSC	POSITION SWITCH CLOSED
ZSO	POSITION SWITCH OPEN
ZT	POSITION TRANSMITTER

 MOTOR W/ STARTER
 (REFERENCE ONLY, SEE DIV. 16)

 MOTOR W/ VARIABLE FREQUENCY DRIVE
 (REFERENCE ONLY, SEE DIV. 16)

 CONTROL RELAY

 DAMPER WITH ACTUATOR

KEYED NOTES:

10/7/2026 ADDENDUM 3

KEY PLAN

2 10/7/2026 ADDENDUM 3

KEY PLAN

MECHANICAL LEGEND AND ABBREVIATIONS

JOB NUMBER: 1680.3
JOB TITLE:

SPRINKLER AND FIRE ALARM
MODIFICATIONS PHASE 2
UNION STATION
WORCESTER, MA

CONSULTANT

CONSULTANT

HallamICS
AN EMPLOYEE OWNED COMPANY

575 West Street, Suite 220
Mansfield, MA 02048
Tel: 508.821.9759 www.Hallam-ICS.com

ARCHITECT

NAULT ARCHITECTS, INC.
 71 HOPE AVENUE
 WORCESTER, MA 01603
 TEL: (508) 755-6134
 FAX: (508) 754-4661

	DRAWING NO.
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SCALE

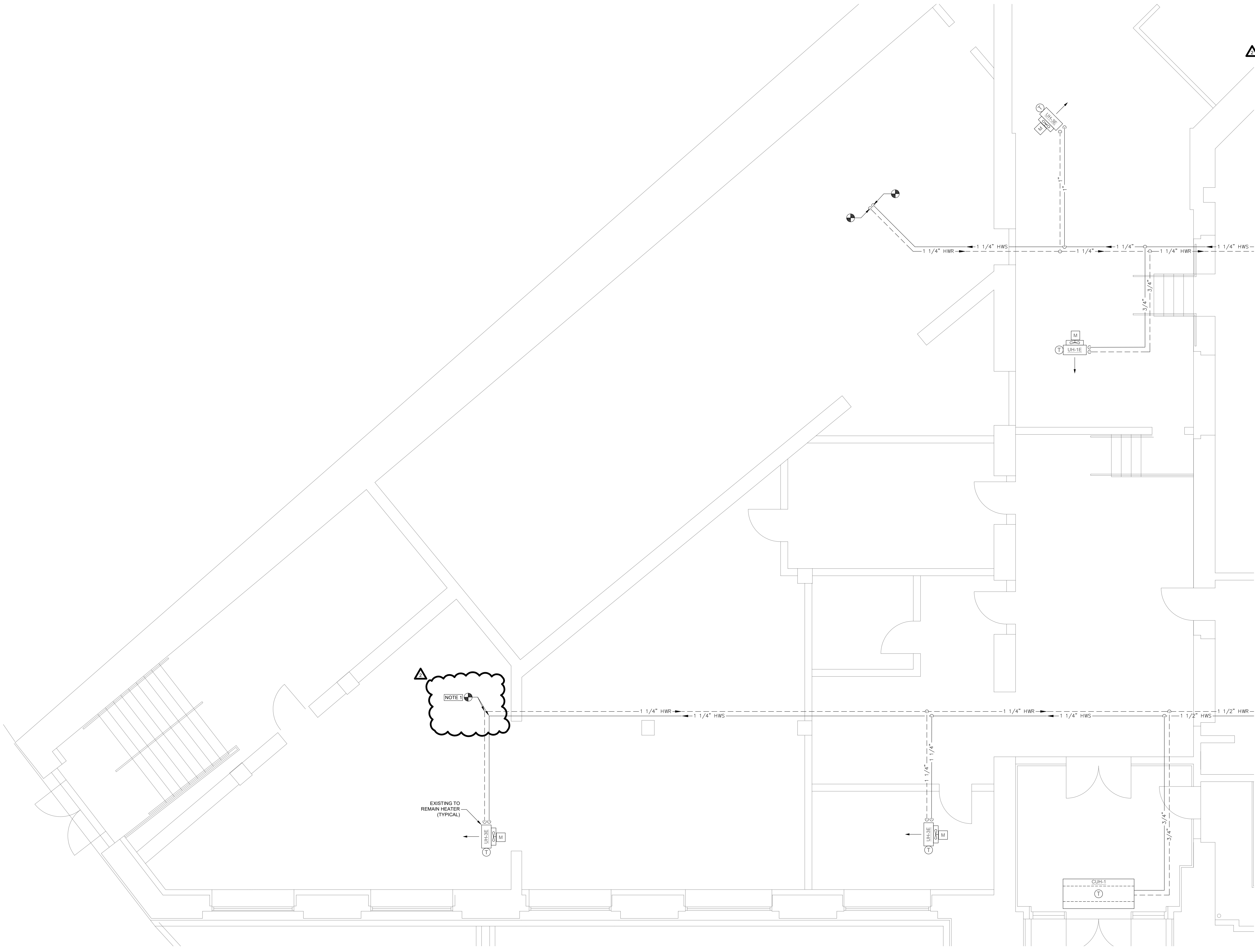
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MAY 2026

M001

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- GENERAL NOTES:
- A. GENERAL CONTRACTOR TO CONFIRM PIPE SIZE AND LOCATION ON SITE.
 - B. THE INTENT OF THIS PLAN IS LIMITED TO PROVIDE TEMPORARY HEATING TO THE UNOCCUPIED SPACE TO AVOID PIPING FREEZING.

- KEYED NOTES:
- 1. REMOVE ELBOW IN PREPARATION OF INSTALL OF TEE.

10/7/2026

ADDENDUM 3

KEY PLAN

KEY PLAN NOT TO SCALE

S

W

E

N

CALL
NORTH

DRAWING TITLE

MECHANICAL FIRST FLOOR DEMOLITION PLAN

JOB NUMBER: 1680.3

JOB TITLE:

SPRINKLER AND FIRE ALARM
MODIFICATIONS PHASE 2
UNION STATION
WORCESTER, MA

CONSULTANT

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71 HOPE AVENUE
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FAX: (508) 754-4661

DRAWING NO.

MD102

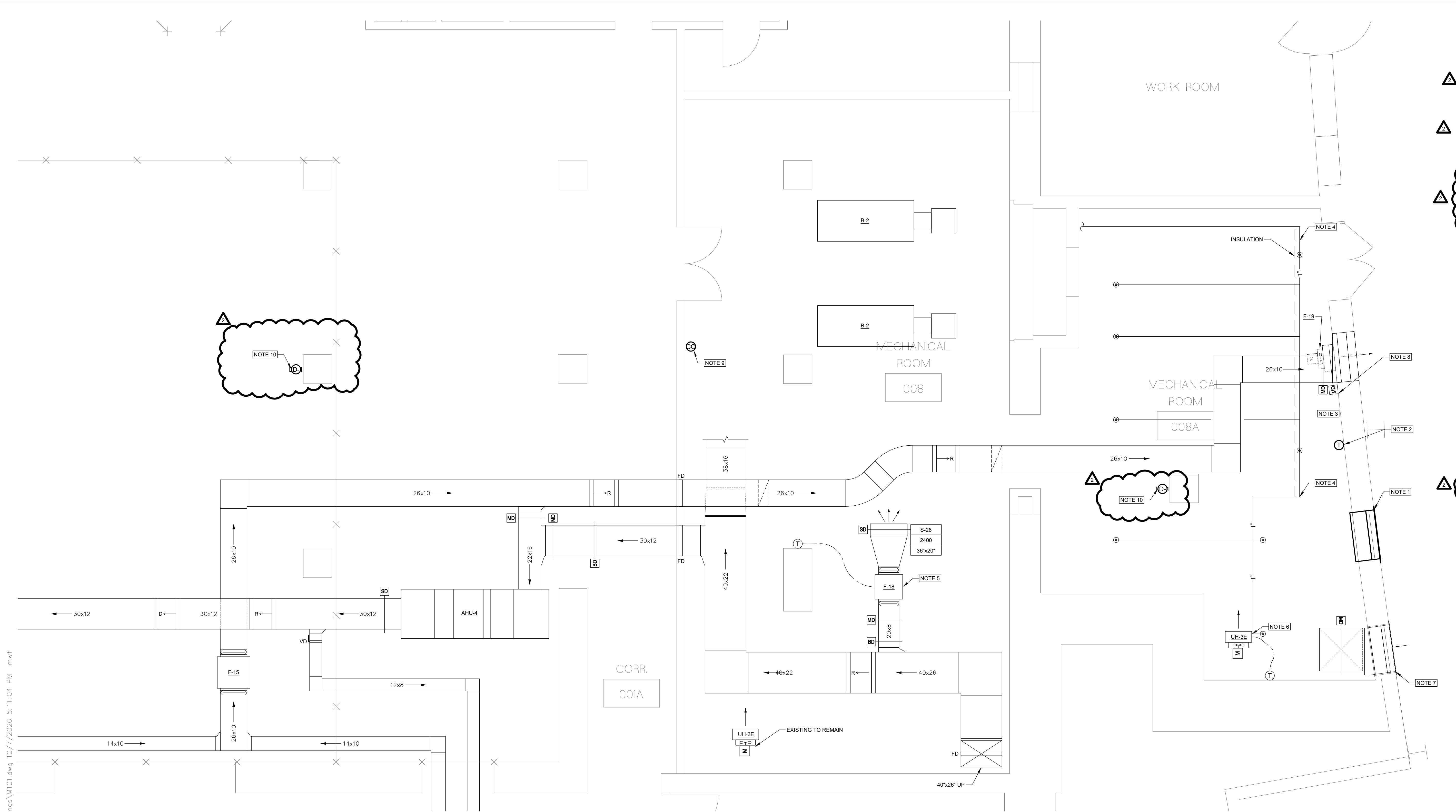
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1/4" = 1'-0"

DATE

MAY 2026

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GENERAL NOTES:

- GENERAL CONTRACTOR TO CONFIRM FIRE PROTECTION PIPE SIZE AND LOCATION ON SITE.
- THE INTENT OF THIS PLAN IS LIMITED TO PROTECTING THE FIRE PROTECTION PIPING IN THE MECHANICAL ROOM FROM FREEZING DURING THE WINTER SEASON. NOT ALL EQUIPMENT INSIDE THE MECHANICAL ROOM ARE SHOWN ON THIS PLAN.
- CONTRACTOR SHALL PROVIDE NEW CONTROLLER IN THIS AREA TO PICKUP NEW LEAK DETECTORS. NEW MODULE SHALL HAVE MINIMUM 16 I/O FOR FUTURE EXPANSION.

KEYED NOTES:

- ADD NEW METAL DUCT BEHIND THE LOUVER TO CLOSE IT. INSULATE TO AVOID CONDENSATION. PITCH BOTTOM OF SHEET METAL ENCLOSURE TOWARDS BOTTOM OF LOUVER TO ALLOW ANY MOISTURE TO DRIP BACK OUT BOTTOM OF LOUVER.
- PROVIDE REVERSE ACTING THERMOSTAT TO ENERGIZE THE FAN F-18 WHEN THE TEMPERATURE INSIDE THE ROOM IS ABOVE 90°F (ADJUSTABLE).
- PROVIDE AUDIO/VISUAL ALARM FOR HIGH/LOW TEMPERATURE IN THE MECHANICAL ROOM. THE ALARM SHALL BE SET ON 100°F (ADJUSTABLE) FOR HIGH TEMPERATURE AND 50°F (ADJUSTABLE) FOR LOW TEMPERATURE. THE ALARM SHALL BE CONNECTED TO THE EXISTING BMS. COORDINATE LOCATION OF THE AUDIO/VISUAL ALARM DEVICE WITH THE OWNER. TEMPERATURE SENSOR SHALL HAVE DRY CONTACTS FOR ALARM. TO BE CONNECTED TO THE BUILDING FIRE ALARM SYSTEMS.
- PROVIDE FIBERGLASS INSULATION TO THE FIRE PROTECTION PIPE PORTION LOCATED NEXT TO THE EXTERIOR WALL. ADD LABEL ABOVE THE INSULATION JACKET TO INDICATE THE FUNCTION OF THE PIPE.
- EXISTING FAN F-18 SHALL RUN WHEN THE ROOM TEMPERATURE IS ABOVE 90°F (ADJUSTABLE). MECHANICAL CONTRACTOR TO VERIFY THE EXISTING REVERSE THERMOSTAT IS CONNECTED TO THE BMS SYSTEM & THE FAN / ASSOCIATED DAMPERS ARE FUNCTIONING PROPERLY AND BALANCED TO THE SHOWN AIR FLOW.
- EXISTING HEATER (58 MBH) HAS AN EXISTING TO REMAIN REVERSE ACTING THERMOSTAT. MECHANICAL CONTRACTOR TO VERIFY THE HEATER SHALL BE ENERGIZED (FAN IS RUNNING & HOT WATER IS SUPPLIED) WHEN THE SPACE TEMPERATURE IS BELOW 55°F. IF SPACE TEMPERATURE IS OVER 55°F & THE BOILERS ARE RUNNING THEN ONLY THE FAN OF THE UNIT HEATER SHALL BE ON. THE UNIT HEATER STATUS SHALL BE MONITORED BY BMS.
- EXISTING 42"x38" LOW INTAKE TO REMAIN IN PLACE. MOTORIZED DAMPER SHALL BE OPEN WHEN ONE OR BOTH THE BOILERS ARE ON. BALANCE THE DAMPER OPENING TO PROVIDE 1350 CFM WHEN THE MD IS FULLY OPEN. MECHANICAL CONTRACTOR TO ENSURE THE BURNER SHALL NOT OPERATE IF THE OUTSIDE AIR LOUVER MOTORIZED DAMPER IS CLOSED.
- REPLACE THE BACK DRAFT DAMPER WITH NEW LOW-LEAKAGE CLASS 1A MOTORIZED DAMPER TO FAN 19. THE MD SHALL BE FULLY OPEN WHEN THE FAN IS ON AND FULL CLOSED WHEN THE FAN IS OFF.
- PROVIDE CARBON MONOXIDE (CO) DETECTOR IN THE MECHANICAL ROOM AND INTEGRATE WITH THE BMS SYSTEM TO GENERATE ALARM WHEN CO LEVEL IS HIGHER THAN 25 PPM (ADJUSTABLE).
- LD-1 SHALL ALARM THE BMS AND NOTIFY FIRE ALARM SYSTEM IN THE EVENT OF WATER DETECTION.

10/7/2026 ADDENDUM 3

KEY PLAN

KEY PLAN NOT TO SCALE

DRAWING TITLE

MECHANICAL PARTIAL BASEMENT NEW WORK PLAN

JOB NUMBER: 1680.3
JOB TITLE:
SPRINKLER AND FIRE ALARM
MODIFICATIONS PHASE 2
UNION STATION
WORCESTER, MA

CONSULTANT

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Tel: 508.821.9759 www.Hallam-ICS.com

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TEL: (508) 755-6134
FAX: (508) 754-4951

DRAWING NO.

M101

SCALE

1/4" = 1'-0"

DATE

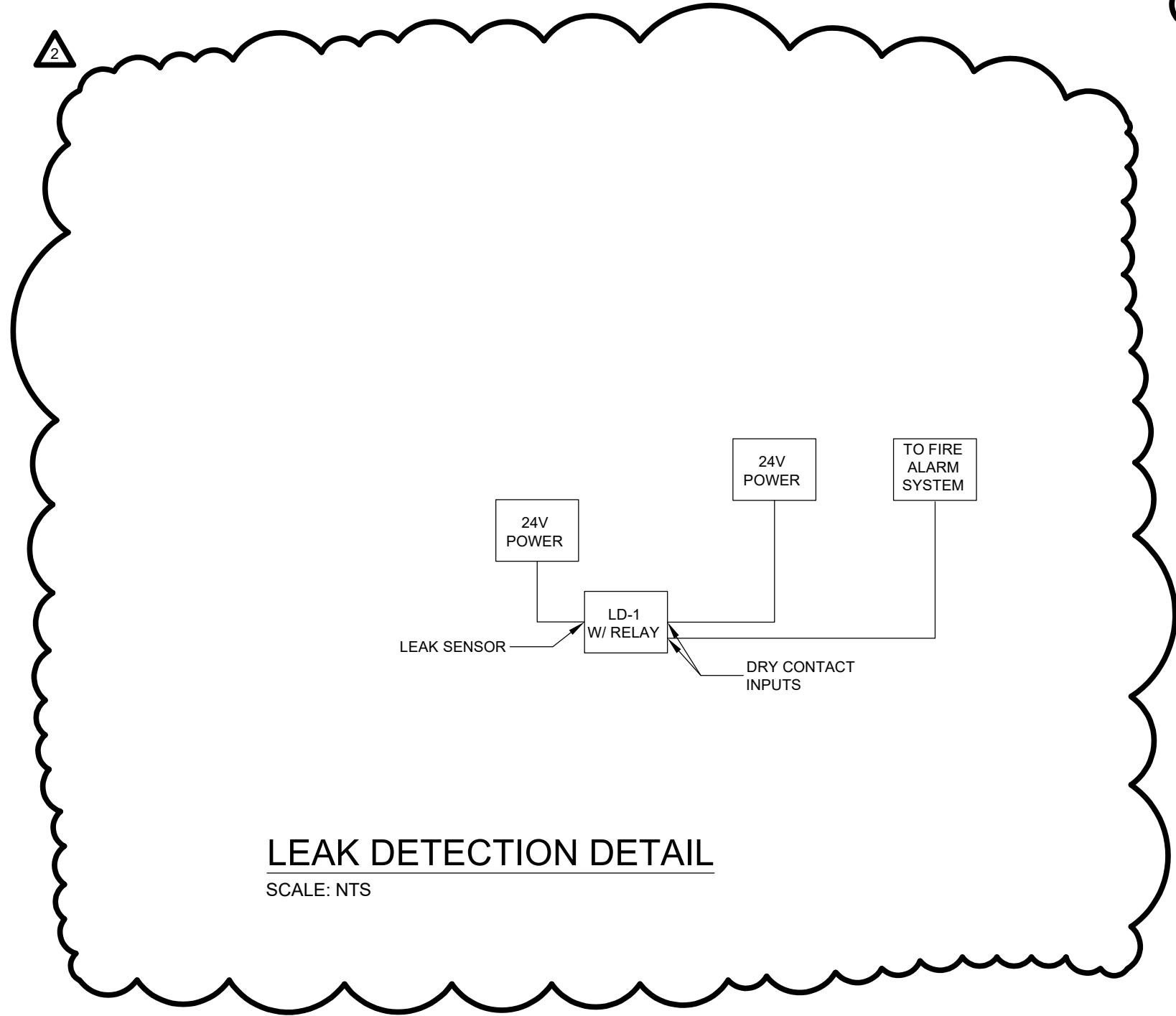
MAY 2026

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NEW UNIT HEATER SCHEDULE															
UNIT NO.	LOCATION	TYPE	CAP. MBH	AIR			WATER				MOTOR				MANUFACTURER & MODEL NUMBER
				CFM	ENT. °F	LVG. °F	GPM	ENT. °F	LVG. °F	P.D.	H.P.	VOLTS	PHASE	CYCLE	
UH-2	SEE DRAWINGS	HORIZONTAL	36.0	800	60°	99°	3.5	190°	170°	.23	1/20	115	1	60	ROSMEX H-36-1R
UH-3	SEE DRAWINGS	HORIZONTAL	58.0	1500	60°	95°	6.3	190°	170°	.9	1/8	115	1	60	ROSMEX H-70-1R

EXISTING UNIT HEATER SCHEDULE															
UNIT NO.	LOCATION	TYPE	CAP. MBH	AIR			WATER				MOTOR				MANUFACTURER & MODEL NUMBER
				CFM	ENT. °F	LVG. °F	GPM	ENT. °F	LVG. °F	P.D.	H.P.	VOLTS	PHASE	CYCLE	
UH-2E	SEE DRAWINGS	HORIZONTAL	34.6	815	60°	99°	3.56	190°	170°	.23	1/20	115	1	60	TRANE MODEL S
UH-3E	SEE DRAWINGS	HORIZONTAL	58.1	1535	60°	95°	6.3	190°	170°	.9	1/8	115	1	60	TRANE MODEL S

SENSOR SCHEDULE						
UNIT TAG	LOCATION	TYPE	MANUFACTURER	MODEL	POWER SUPPLY (V)	REMARKS
LD-1	SEE PLANS	"HOCKEY PUCK" STYLE LEAK DETECTOR	HONEYWELL	WD3	24	1, 2, 3
REMARKS						
1. CONTROLS CONTRACTOR SHALL PROVIDE 24V POWER SUPPLY AND 120/24V TRANSFORMER. TAKE OFF CONTROLS POWER FROM JUNCTION BOX PROVIDED BY ELECTRICAL CONTRACTOR.						
2. PROVIDE DPDT RELAY WITH MINIMUM 2 DRY CONTACT. DRY CONTACTS SHALL BE CONNECTED TO BMS AND TO FIRE ALARM.						
3. PROVIDE BACNET I/O MODULE AND BMS CONTROLLER FOR INTEGRATION INTO EXISTING BMS. I/O MODULE SHALL BE 24V POWER.						



10/7/2026 ADDENDUM 3

KEY PLAN

DRAWING TITLE

MECHANICAL SCHEDULES

JOB NUMBER: 1680.3
JOB TITLE:
SPRINKLER AND FIRE ALARM
MODIFICATIONS PHASE 2
UNION STATION
WORCESTER, MA

CONSULTANT
Hallam ICS
AN EMPLOYEE OWNED COMPANY
575 West Street, Suite 220
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ARCHITECT
NAULT ARCHITECTS, INC.
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FAX: (508) 764-4881

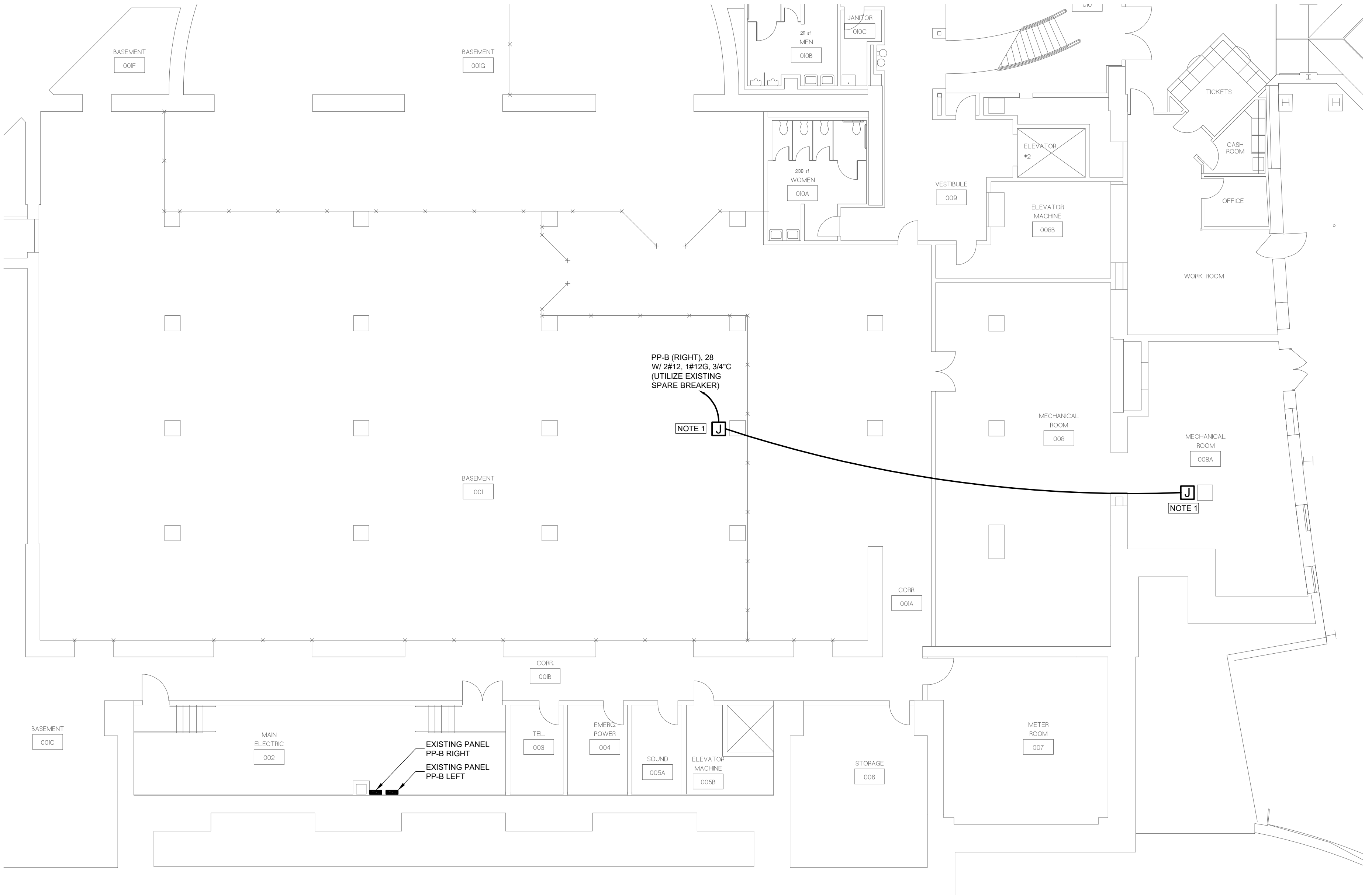
DRAWING NO.

M-601

SCALE
NONE

DATE
MAY 2026

VOLTAGE: 208Y/120V 3 PHASE, 4 WIRE, 60 HERTZ INCOMING FEEDER LOCATION: BOTTOM PANEL MANUFACTURER/TYPE: SQUARE D NQ0D			PANEL NAME: PP-B RIGHT SECTION (EXISTING) PANEL LOCATION: (SEE FLOOR PLAN) FED FROM: (NOT IDENTIFIED) AIC RATING: 10K			MAIN BUS SIZE: 225A MAIN BREAKER: 150A MOUNTING: SURFACE		
CKT NO.	CIRCUIT DESCRIPTION	BRANCH CIRCUIT	BKR SIZE	Ø	BKR SIZE	CIRCUIT DESCRIPTION	BRANCH CIRCUIT	CKT
1	NORTHEAST FLOOR RECEPTACLE		20/1	A Ø	20/1	HAND DRYER - WOMEN'S		2
3	NORTHEAST FLOOR RECEPTACLE		20/1	B Ø	20/1	OH MACHINE		4
5	EAST MIDDLE FLOOR RECEPTACLE		20/1	C Ø	20/1	HAND DRYER - WOMEN'S		6
7	GFI BATHROOMS		20/1	A Ø	20/1	PLUGS SOUND ROOM		8
9	MACHINE RM PLUGS		20/1	B Ø	20/1	HAND DRYER - MEN'S		10
11	PLUGS 001D,C,006, 007		20/1	C Ø	20/1	HAND DRYER - MEN'S		12
13	PLUGS 001		20/1	A Ø	20/1	UH WALL 010 AND TV OUTLET		14
15	PLUGS 001		20/1	B Ø	20/1	PLUGS VESTIBULE CORRIDOR 911		16
17	FIRE OVERHEAD DOOR #1		20/1	C Ø	20/1	PLUGS ELEVATOR ROOM		18
19	FIRE OVERHEAD DOOR #1		20/1	A Ø	20/1	PLUGS SOUND ROOM		20
21	HOT WATER CIRCULATOR PUMP		20/1	B Ø	20/1	PLUGS MACHINE ROOM		22
23	HANDICAP DOORS, DIGITAL SIGNAGE		20/1	C Ø	20/1	CP MACHINE ROOM		24
25	PLUGS SOUND ROOM		20/1	A Ø	20/1	SOUTHEAST FLOOR RECEPTACLES		26
27	UH#2		20/1	B Ø	20/1	LEAK DETECTOR CONTROLLERS	2#12, 1#12G, 3/4" C.	28
29	UH#1		20/1	C Ø	20/1	EAST MIDDLE FLOOR RECEPTACLES		30



1 PARTIAL ELECTRICAL POWER PARTIAL BASEMENT NEW WORK PLAN
3/32"=1'-0"

- GENERAL NOTES:
- A. SEE DRAWING E001 FOR LEGEND AND ABBREVIATIONS.
- KEYED NOTES:
1. PROVIDE JUNCTION BOX FOR TEMPERATURE CONTROL 120V/24V TRANSFORMER TO LEAK DETECTION CONTROLLER. COORDINATE FINAL LOCATION WITH THE TEMPERATURE CONTROL CONTRACTOR.

10/7/2026 ADDENDUM 3

KEY PLAN

KEY PLAN NOT TO SCALE

DRAWING TITLE

ELECTRICAL POWER PARTIAL BASEMENT NEW WORK PLAN

JOB NUMBER: 1680.3
JOB TITLE:
SPRINKLER AND FIRE ALARM MODIFICATIONS PHASE 2
UNION STATION
WORCESTER, MA

CONSULTANT

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DRAWING NO.

E100

SCALE

3/32" = 1'-0"

DATE

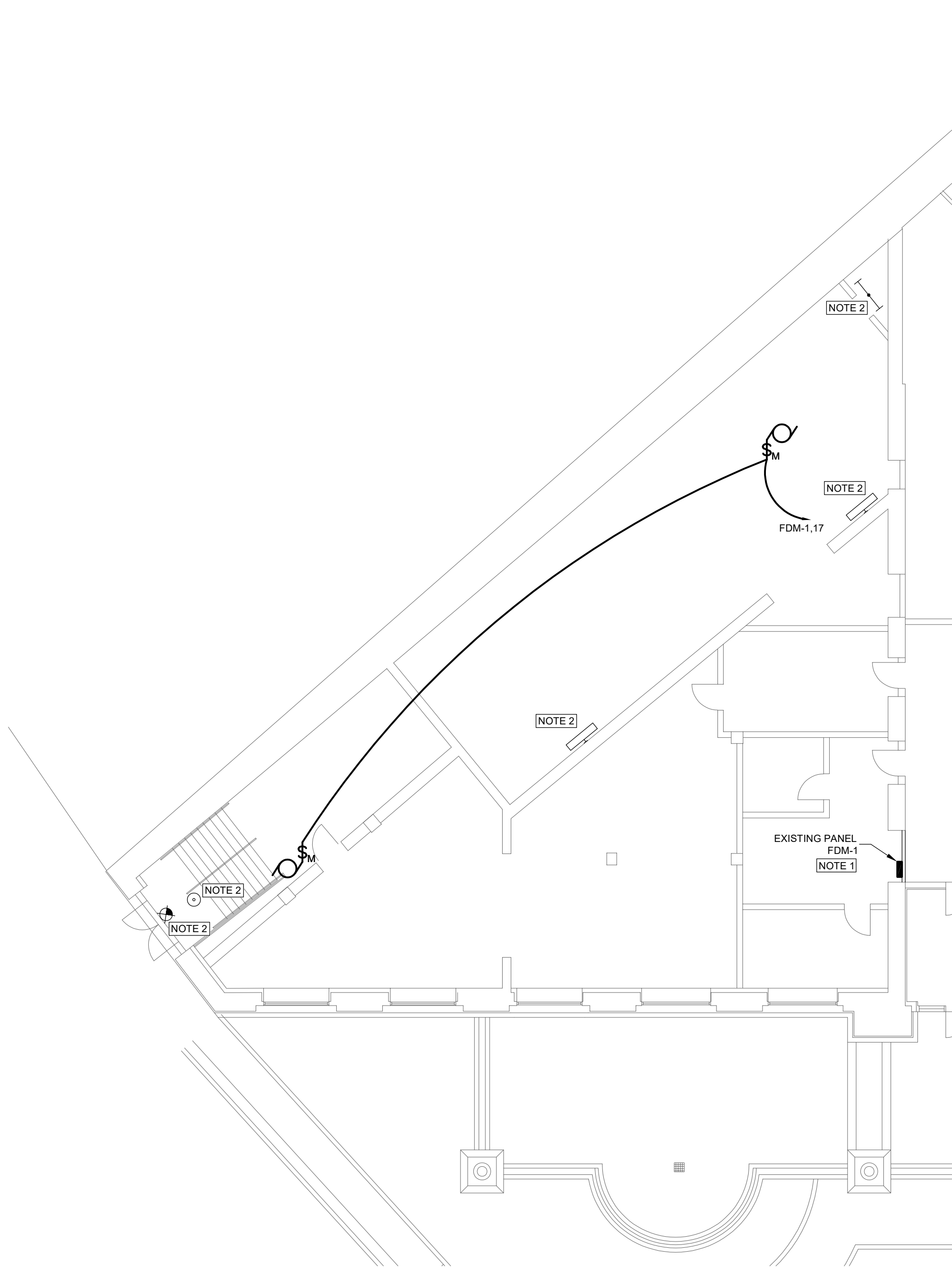
MAY 2026

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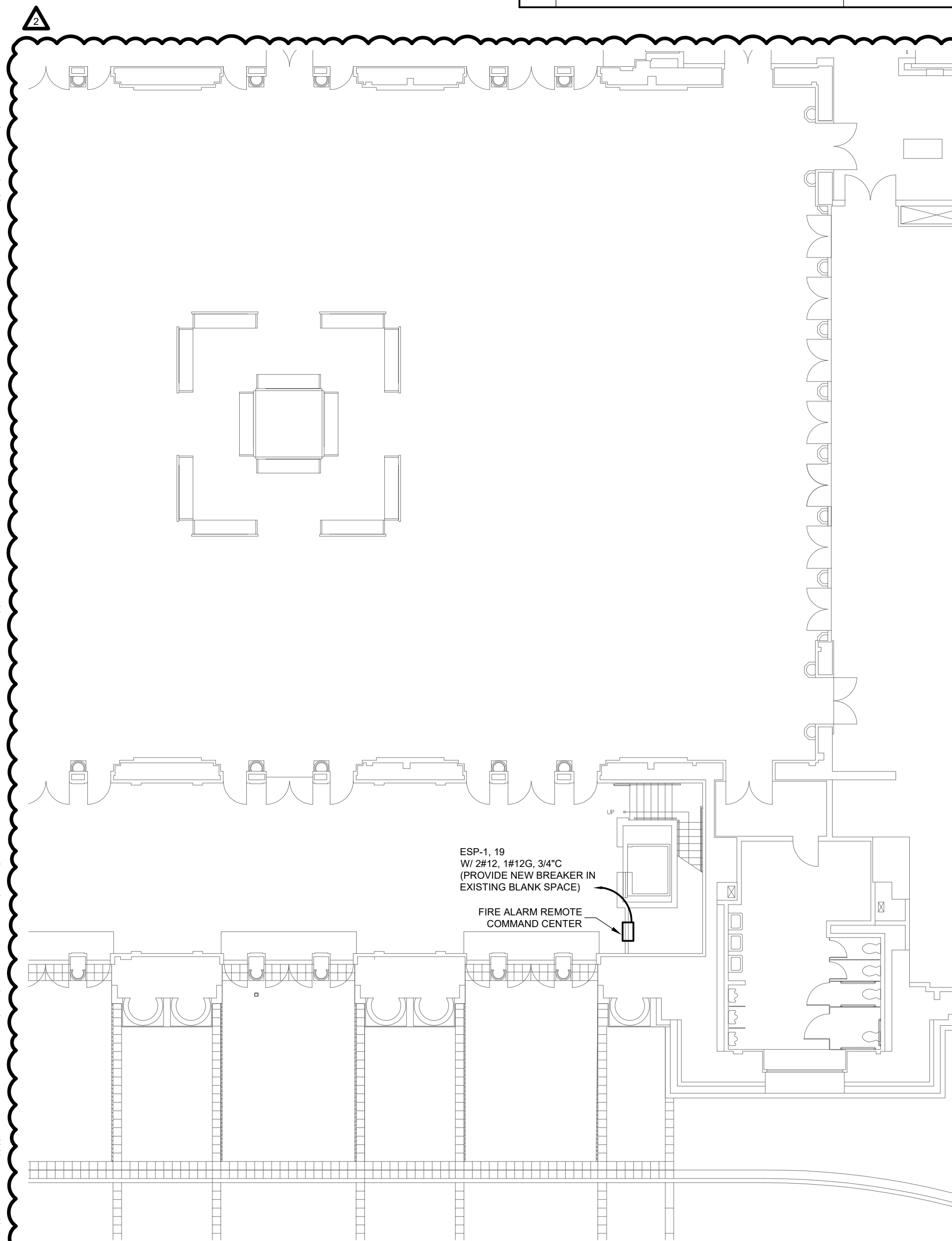
VOLTAGE: 208Y/120V 3 PHASE, 4 WIRE, 60 HERTZ INCOMING FEEDER LOCATION: BOTTOM PANEL MANUFACTURER/TYPE: SQUARE D NQDD			PANEL NAME: ESP-1 (EXISTING) PANEL LOCATION: (SEE FLOOR PLAN) FED FROM: (NOT IDENTIFIED) AIC RATING: 10K			MAIN BUS SIZE: 125A MAIN BREAKER: 200A MOUNTING: SURFACE		
CKT NO.	CIRCUIT DESCRIPTION	BRANCH CIRCUIT	BKR SIZE	Ø	BKR SIZE	CIRCUIT DESCRIPTION	BRANCH CIRCUIT	CKT
1	ROOM 17 LIGHTS		20/1	A Ø	20/1	ROOM 12, 13, 15, 16 LIGHTS		2
3	ROOM 18 LIGHTS		20/1	B Ø	20/1	ROOM 18, 19 HIGH BAY LIGHTS		4
5	ROOM 13, 15 RECEPTACLES		20/1	C Ø	20/1	ROOM 12, 13 RECEPTACLES		6
7	ROOM 12, 17 RECEPTACLES		20/1	A Ø	20/1	ROOM 20 (DATA) RECEPTACLES		8
9	ROOM 18 RECEPTACLES		20/1	B Ø	20/1	ROOM 18 RECEPTACLES		10
11	ROOM 18 RECEPTACLES		20/1	C Ø	20/1	ROOM 18 (BRICK WALL) RECEPTACLES		12
13	ROOM 19 RECEPTACLES		20/1	A Ø	20/1	ROOM 19 RECEPTACLES		14
15	ROOM 15 UNIT HEATERS		20/1	B Ø	20/1	ROOM 19 UNIT HEATERS		16
17	ROOM 15 UNIT HEATERS		20/1	C Ø	20/1	SPARE		18
19	FIRE ALARM REMOTE COMMAND CENTER	2#12, 1#12G, 3/4" C.	20/1	A Ø	20/1			20
21	BLANK SPACE			B Ø	20/1			22
23	BLANK SPACE			C Ø	20/1	SPARE		24
25	BLANK SPACE			A Ø		BLANK SPACE		26
27	BLANK SPACE			B Ø		BLANK SPACE		28
29	BLANK SPACE			C Ø		BLANK SPACE		30

VOLTAGE: 208Y/120V 3 PHASE, 4 WIRE, 60 HERTZ INCOMING FEEDER LOCATION: TOP PANEL MANUFACTURER/TYPE: EATON PRLIX			PANEL NAME: FDM-1 (EXISTING) PANEL LOCATION: (SEE FLOOR PLAN) FED FROM: (NOT IDENTIFIED) AIC RATING: 65K			MAIN BUS SIZE: 225A MAIN BREAKER: 200A MOUNTING: SURFACE		
CKT NO.	CIRCUIT DESCRIPTION	BRANCH CIRCUIT	BKR SIZE	Ø	BKR SIZE	CIRCUIT DESCRIPTION	BRANCH CIRCUIT	CKT
1	ROOM 17 LIGHTS		20/1	A Ø	20/1	ROOM 12, 13, 15, 16 LIGHTS		2
3	ROOM 18 LIGHTS		20/1	B Ø	20/1	ROOM 18, 19 HIGH BAY LIGHTS		4
5	ROOM 13, 15 RECEPTACLES		20/1	C Ø	20/1	ROOM 12, 13 RECEPTACLES		6
7	ROOM 12, 17 RECEPTACLES		20/1	A Ø	20/1	ROOM 20 (DATA) RECEPTACLES		8
9	ROOM 18 RECEPTACLES		20/1	B Ø	20/1	ROOM 18 RECEPTACLES		10
11	ROOM 18 RECEPTACLES		20/1	C Ø	20/1	ROOM 18 (BRICK WALL) RECEPTACLES		12
13	ROOM 19 RECEPTACLES		20/1	A Ø	20/1	ROOM 19 RECEPTACLES		14
15	ROOM 15 UNIT HEATERS		20/1	B Ø	20/1	ROOM 19 UNIT HEATERS		16
17	UNFINISHED SPACE UNIT HEATERS	2#12, 1#12G, 3/4" C.	20/1	C Ø	20/1	SPARE		18
19	ROOM 15 CONDENSER		30/2	A Ø	30/2	ROOM 19 CONDENSER		20
21				B Ø				22
23	PANEL RECEPTACLE		20/1	C Ø	20/1	SPARE		24
25	PANEL RECEPTACLE		20/1	A Ø	20/1	SPARE		26
27				B Ø				28
29	SPARE		20/2	C Ø	20/2	SPARE		30
31	SPARE		20/1	A Ø	20/1	SPARE		32
33	SPARE		20/1	B Ø	20/1	SPARE		34
35	SPARE		20/1	C Ø	20/1	SPARE		36
37	SPARE		20/1	A Ø	20/1	SPARE		38
39	SPARE		20/1	B Ø		SPARE		40
41	SPARE			C Ø		SPARE		42

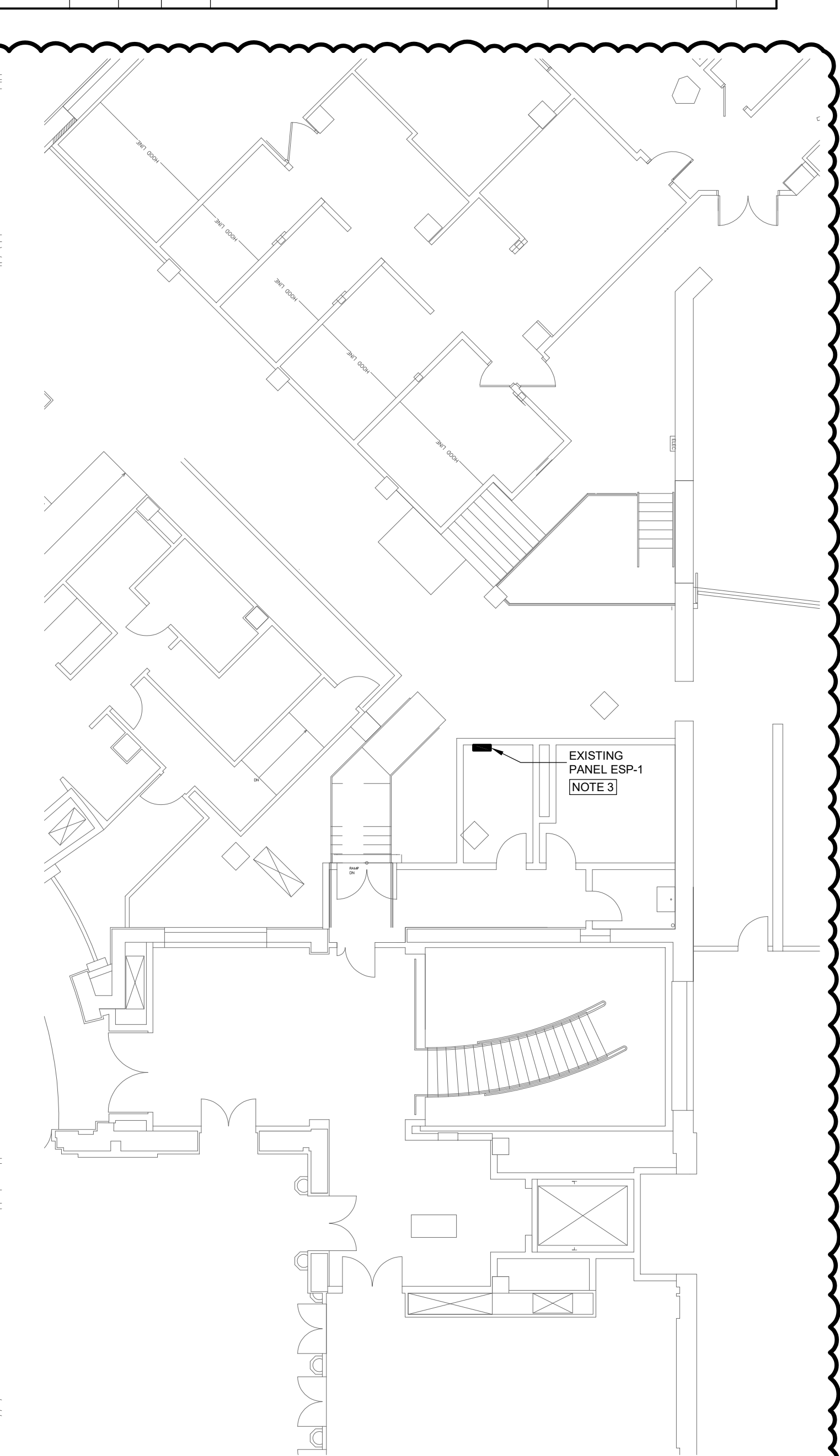
- GENERAL NOTES:
- A. SEE DRAWING E001 FOR LEGEND AND ABBREVIATIONS.
- KEYED NOTES:
1. UTILIZE EXISTING SPARE BREAKER.
2. LIGHT FIXTURES SHOWN FOR REFERENCE ONLY.
3. PROVIDE NEW BREAKER IN EXISTING BLANK SPACE. PROVIDE BREAKER LOCK.



1 PARTIAL ELECTRICAL POWER PARTIAL FIRST FLOOR NEW WORK PLAN
3/32"=1'-0"



2 PARTIAL ELECTRICAL POWER PARTIAL FIRST FLOOR NEW WORK PLAN
3/32"=1'-0"



3 PARTIAL ELECTRICAL POWER PARTIAL FIRST FLOOR NEW WORK PLAN
3/32"=1'-0"

10/7/2026 ADDENDUM 3

KEY PLAN

KEY PLAN NOT TO SCALE

DRAWING TITLE

ELECTRICAL POWER PARTIAL FIRST FLOOR NEW WORK PLAN

JOB NUMBER: 1680.3
JOB TITLE:
SPRINKLER AND FIRE ALARM MODIFICATIONS PHASE 2
UNION STATION
WORCESTER, MA

CONSULTANT

Hallam ICS
AN EMPLOYEE OWNED COMPANY
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FAX: (508) 754-4661

DRAWING NO.

E101

SCALE 3/32" = 1'-0"

DATE MAY 2026

REFER TO ELECTRICAL SPECIFICATIONS DIVISION 28 FOR MORE INFORMATION.

	MANUAL FIRE PULL STATION
	MASTER BOX
	BELL
	SPEAKER
	STROBE LIGHT/SPEAKER
	STROBE LIGHT/SPEAKER (LOW WATTAGE)
	STROBE LIGHT/HORN
	HORN
	STROBE LIGHT-WALL MOUNTED
	STROBE LIGHT-CEILING MOUNTED
	MAGNETIC DOOR HOLDER
	REMOTE ALARM INDICATOR STATION
	STROBE LIGHT/CHIME

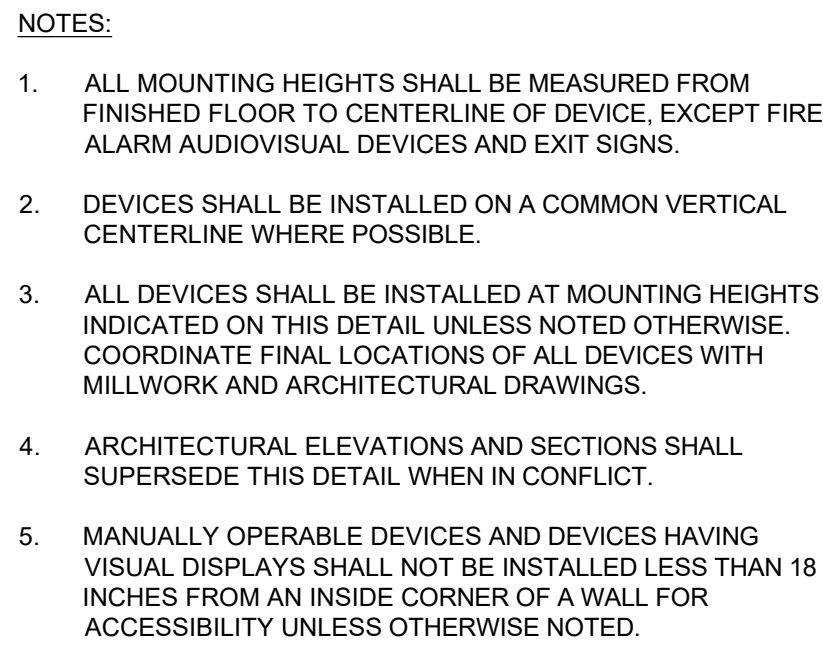
	HEAT DETECTOR
	CO DETECTOR
	DUCT MOUNTED SMOKE DETECTOR
	DUCT MOUNTED HEAT DETECTOR
	SPRINKLER TAMPER SWITCH
	SPRINKLER FLOW SWITCH
	SPRINKLER PRESSURE SWITCH
	FIRE ALARM CONTROL PANEL
	FIRE ALARM VOICE PANEL
	FIRE ALARM ANNUNCIATOR
	FIRE ALARM CONTROL RELAY
	ADDRESSABLE MODULE MONITOR
	ISOLATION MODULE

REFLECTING MIRROR FOR BEAM DETECTOR 2

	AMPERES
AFB	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
C	CONDUIT
CB	CIRCUIT BREAKER
CLG	CEILING
BD	BUS DUCTS
DN	DOWN
DWG	DRAWING
EAS	ENVIRONMENTAL ALARM SYSTEM
EF	EXHAUST FAN
ELEV	ELEVATION
EXIST	EXISTING
FA	FIRE ALARM
FACP	FIRE ALARM CONTROL PANEL
FG	FINISHED GRADE
FOC	FIBER OPTIC CABLE
FS	FLOAT SWITCH
G	GROUND
GEN	GENERATOR
HH	HAND HOLD
IDF	INTERMEDIATE DISTRIBUTION FRAME
JBOX	JUNCTION BOX
LP	LIGHTING PANEL
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MDF	MAIN DISTRIBUTION FACILITY
MH	MAN HOLE/MAGNETIC HOLD
MIN	MINIMUM
MLO	MAIN LUG ONLY
MOP	MAXIMUM OVERCURRENT PROTECTION
NACP	NOTIFICATION APPLIANCE CONTROL PANEL
NIC	NOT IN CONTRACT
ø	PHASE
P	POLE
PP	POWER PANEL
PR1	PRIMARY
SEC	SECONDARY
SW	SWITCH
TYP	TYPICAL
UPS	UNINTERRUPTIBLE POWER SUPPLY
V	VOLTS
VFD	VARIABLE FREQUENCY DRIVE
VSD	VARIABLE SPEED DRIVE
W	WIRE
WW	WEATHERPROOF
WW	WIREWAY

EXISTING/NEW WORK ABBREVIATIONS

er	EXISTING TO REMAIN
nr	NEW DEVICE
nl	NEW LOCATION OF NEW DEVICE TO REPLACE EXISTING
nr	NEW DEVICE TO REPLACE EXISTING WITH NEW REQUIREMENTS
nn	NEW DEVICE TO REPLACE EXISTING IN EXISTING LOCATION
re	REMOVE EXISTING
rl	REMOVE AND REPLACE EXISTING IN NEW LOCATION
rr	REMOVE AND REPLACE EXISTING WITH NEW REQUIREMENTS
rn	REMOVE AND REPLACE EXISTING IN EXISTING LOCATION



SCALE: NONE

KEY PLAN

DRAWING TITLE

FIRE ALARM LEGEND AND NOTES

JOB NUMBER: 1680.3
JOB TITLE:

SPRINKLER AND FIRE ALARM
MODIFICATIONS PHASE 2
UNION STATION
WORCESTER, MA

CONSULTANT

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AN EMPLOYEE OWNED COMPANY
575 West Street, Suite 220
Mansfield, MA 02048
Tel: 508.821.9759 www.Hallam-ICS.com

ARCHITECT

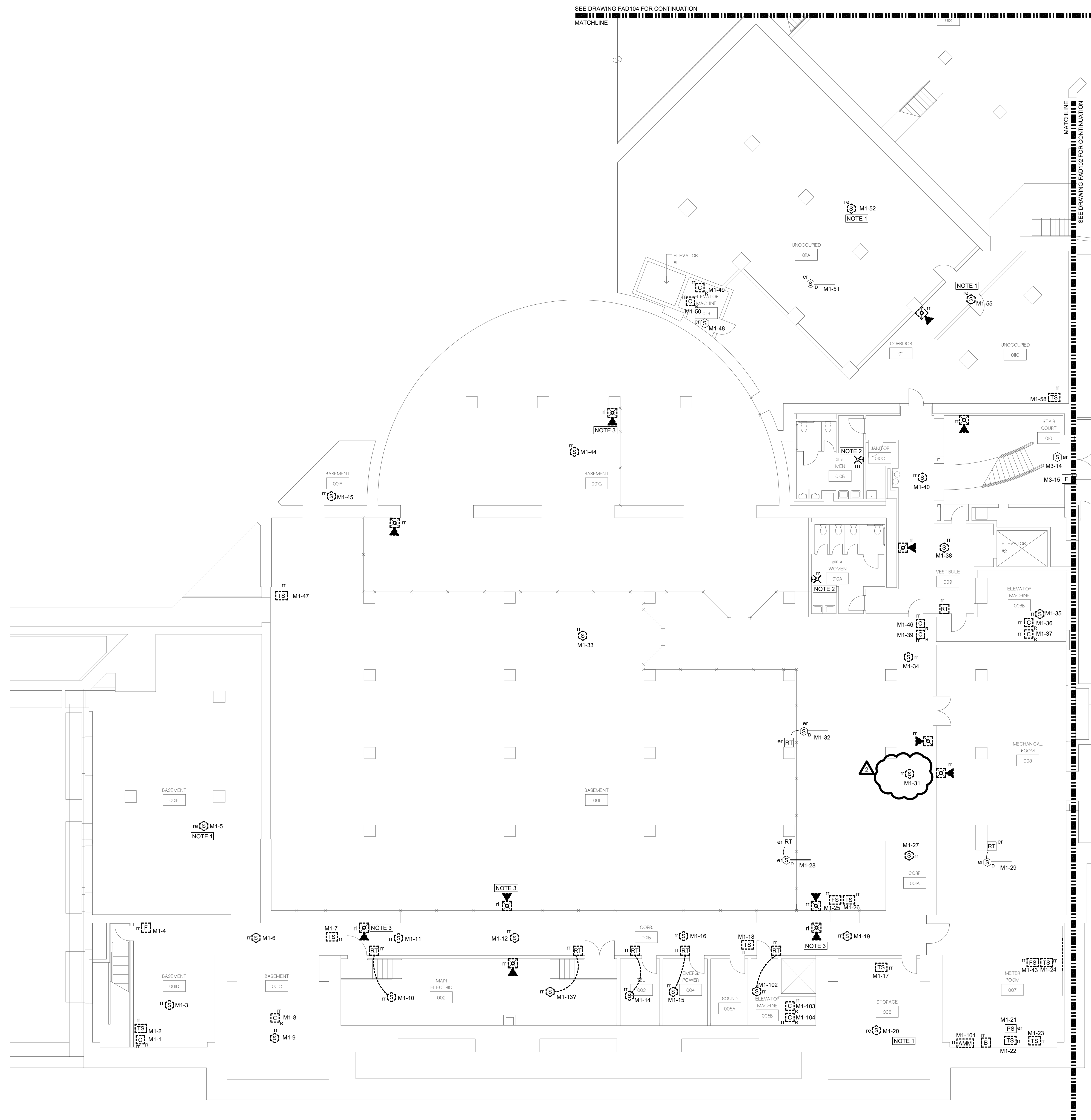
NAULT ARCHITECTS, INC.
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WORCESTER, MA 01603
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FAX: (508) 754-4661

DRAWING NO.

FA001

SCALE	AS NOTED
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DATE
MAY 2026



GENERAL NOTES:

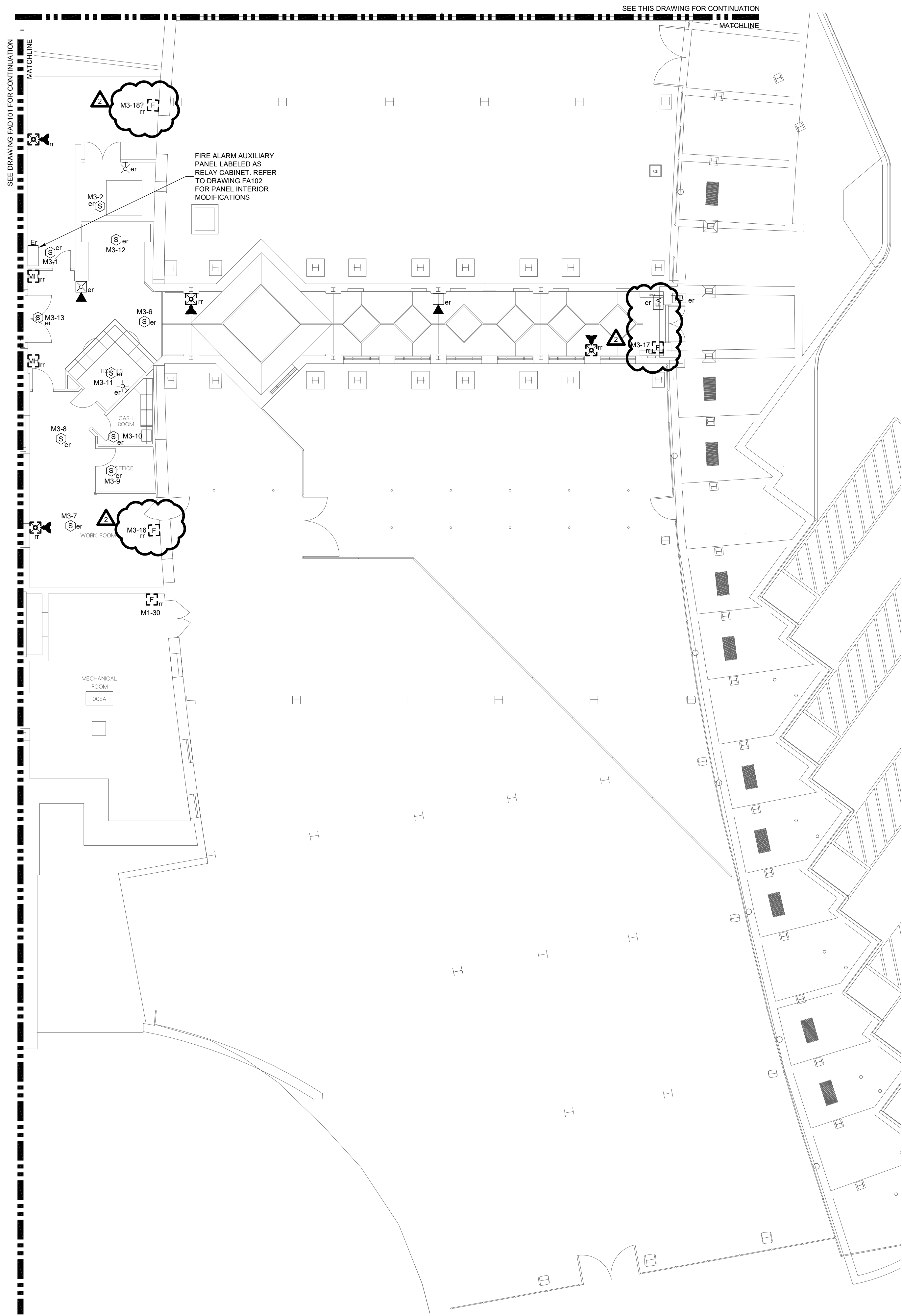
- A. SEE DRAWING FA001 FOR LEGEND AND ABBREVIATIONS.
- B. UNLESS NOTED OTHERWISE, ALL DEVICES SHOWN IN DEMOLISHED LINETYPE ARE TO BE DISCONNECTED AND REMOVED FOR REPLACEMENT WITH NEW EQUIVALENT DEVICE. EXISTING WIRING AND ADDRESS POINTS TO BE RETAINED FOR NEW DEVICE.

KEYED NOTES:

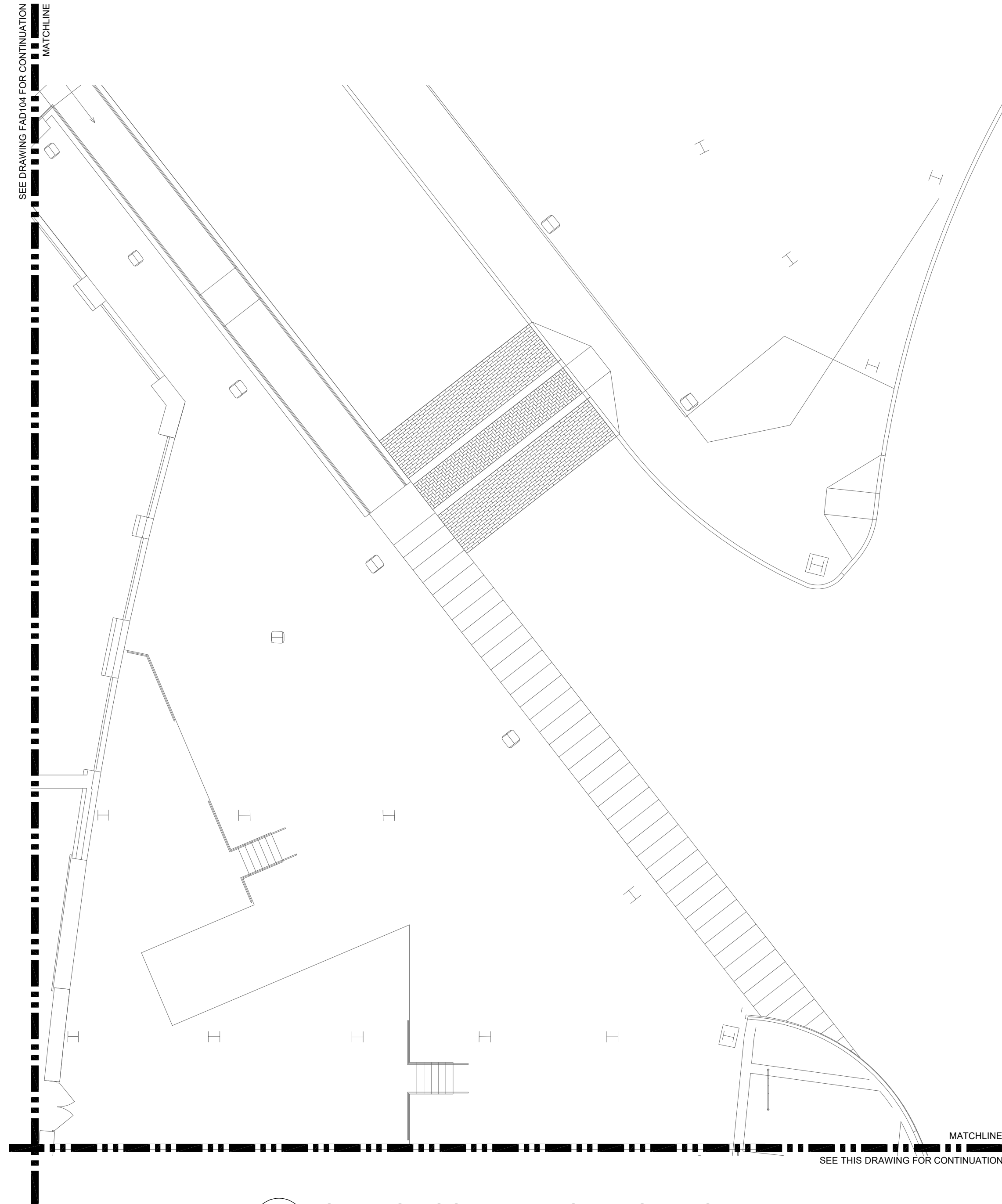
1. DISCONNECT AND REMOVE EXISTING DEVICE. PROVIDE BLANK COVER PLATE AND RETAIN EXISTING WIRING TO MAINTAIN CONTINUITY OF EXISTING SYSTEM.
2. EXISTING FIRE ALARM STROBE TO BE DISCONNECTED AND REMOVED FOR REPLACEMENT WITH NEW SPEAKER/STROBE. EXISTING WIRING TO BE RETAINED.
3. EXISTING FIRE ALARM SPEAKER/STROBE TO BE DISCONNECTED AND REMOVED FOR REPLACEMENT WITH NEW SPEAKER/STROBE AT NEW LOCATION. EXISTING WIRING TO BE RETAINED AND EXTENDED FOR NEW SPEAKER/STROBE AND LOCATION.



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1 BUS TERMINAL AND PARTIAL BASEMENT PLAN
SCALE: 3/32" = 1'-0"

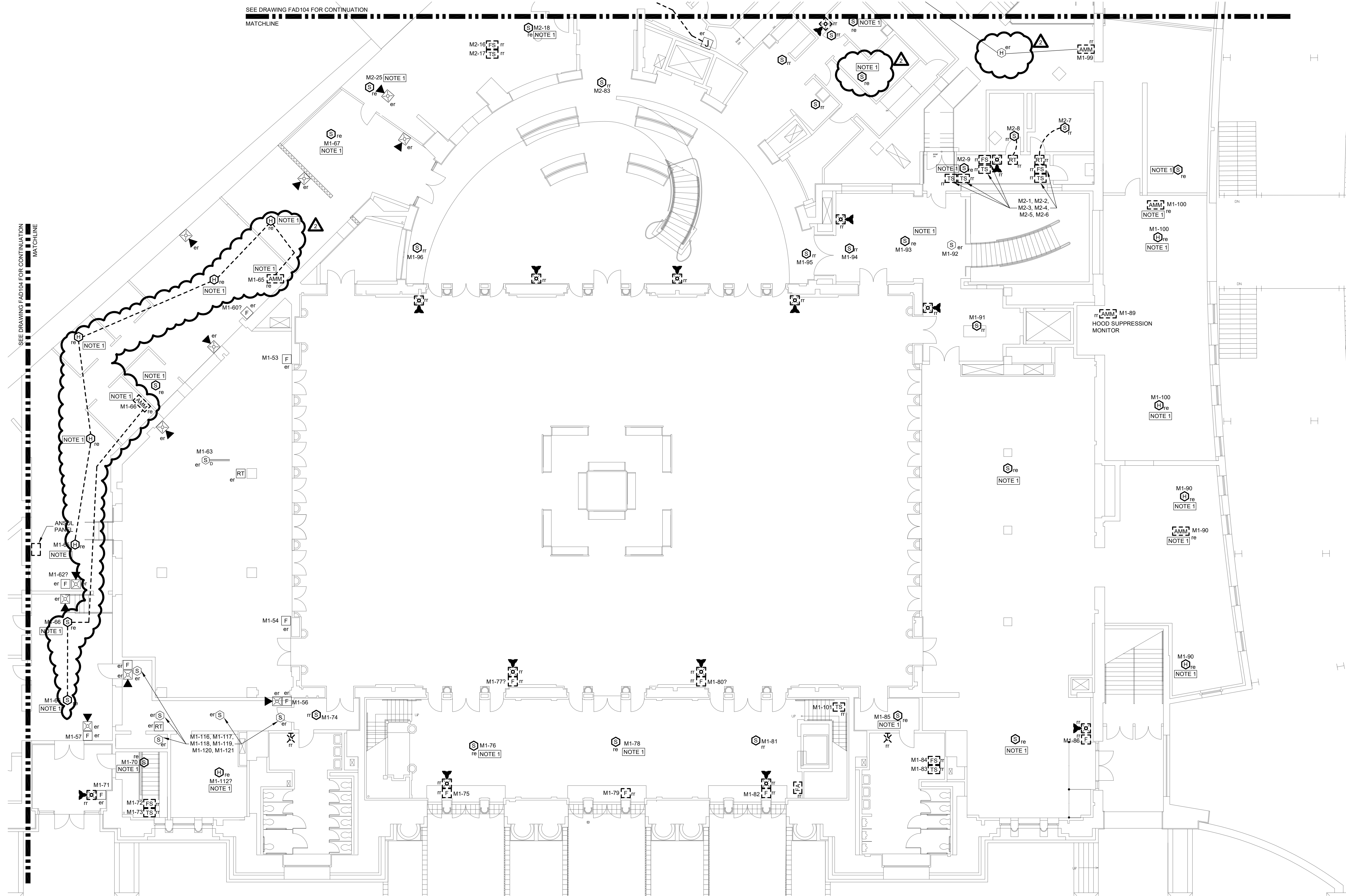


2 LOADING DOCK PLAN NORTH OF BUS TERMINAL
SCALE: 3/32" = 1'-0"

GENERAL NOTES:

- SEE DRAWING FA001 FOR LEGEND AND ABBREVIATIONS.
- UNLESS NOTED OTHERWISE, ALL DEVICES SHOWN IN DEMOLISHED LINETYPE ARE TO BE DISCONNECTED AND REMOVED FOR REPLACEMENT WITH NEW EQUIVALENT DEVICE. EXISTING WIRING AND ADDRESS POINTS TO BE RETAINED FOR NEW DEVICE.

10/7/2026 ADDENDUM 3	
KEY PLAN 	
KEY PLAN NOT TO SCALE 	
DRAWING TITLE ELECTRICAL FIRE ALARM PARTIAL BASEMENT AND BUS TERMINAL DEMOLITION PLAN	
JOB NUMBER: 1680.3 JOB TITLE: SPRINKLER AND FIRE ALARM MODIFICATIONS PHASE 2 UNION STATION WORCESTER, MA	
CONSULTANT Hallam ICS AN EMPLOYEE OWNED COMPANY 575 West Street, Suite 220 Mansfield, MA 02048 Tel: 508.821.9759 www.Hallam-ICS.com	
ARCHITECT NAULT ARCHITECTS, INC. 71 HOPE AVENUE WORCESTER, MA 01603 TEL: (508) 755-8134 FAX: (508) 754-4681	
SCALE 3/32" = 1'-0"	DRAWING NO. FAD102 DATE MAY 2026



- GENERAL NOTES:
- SEE DRAWING FA001 FOR LEGEND AND ABBREVIATIONS.
 - UNLESS NOTED OTHERWISE, ALL DEVICES SHOWN IN DEMOLISHED LINETYPE ARE TO BE DISCONNECTED AND REMOVED FOR REPLACEMENT WITH NEW EQUIVALENT DEVICE. EXISTING WIRING AND ADDRESS POINTS TO BE RETAINED FOR NEW DEVICE.

- KEYED NOTES:
- DISCONNECT AND REMOVE EXISTING DEVICE. PROVIDE BLANK COVER PLATE AND RETAIN EXISTING WIRING TO MAINTAIN CONTINUITY OF EXISTING SYSTEM.

10/7/2026 ADDENDUM 3

KEY PLAN

KEY PLAN NOT TO SCALE

DRAWING TITLE

ELECTRICAL FIRE ALARM FIRST FLOOR DEMOLITION PLAN

JOB NUMBER: 1680.3
JOB TITLE:
SPRINKLER AND FIRE ALARM MODIFICATIONS PHASE 2
UNION STATION
WORCESTER, MA

CONSULTANT

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ARCHITECT

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FAX: (508) 754-4881

DRAWING NO.

FAD103

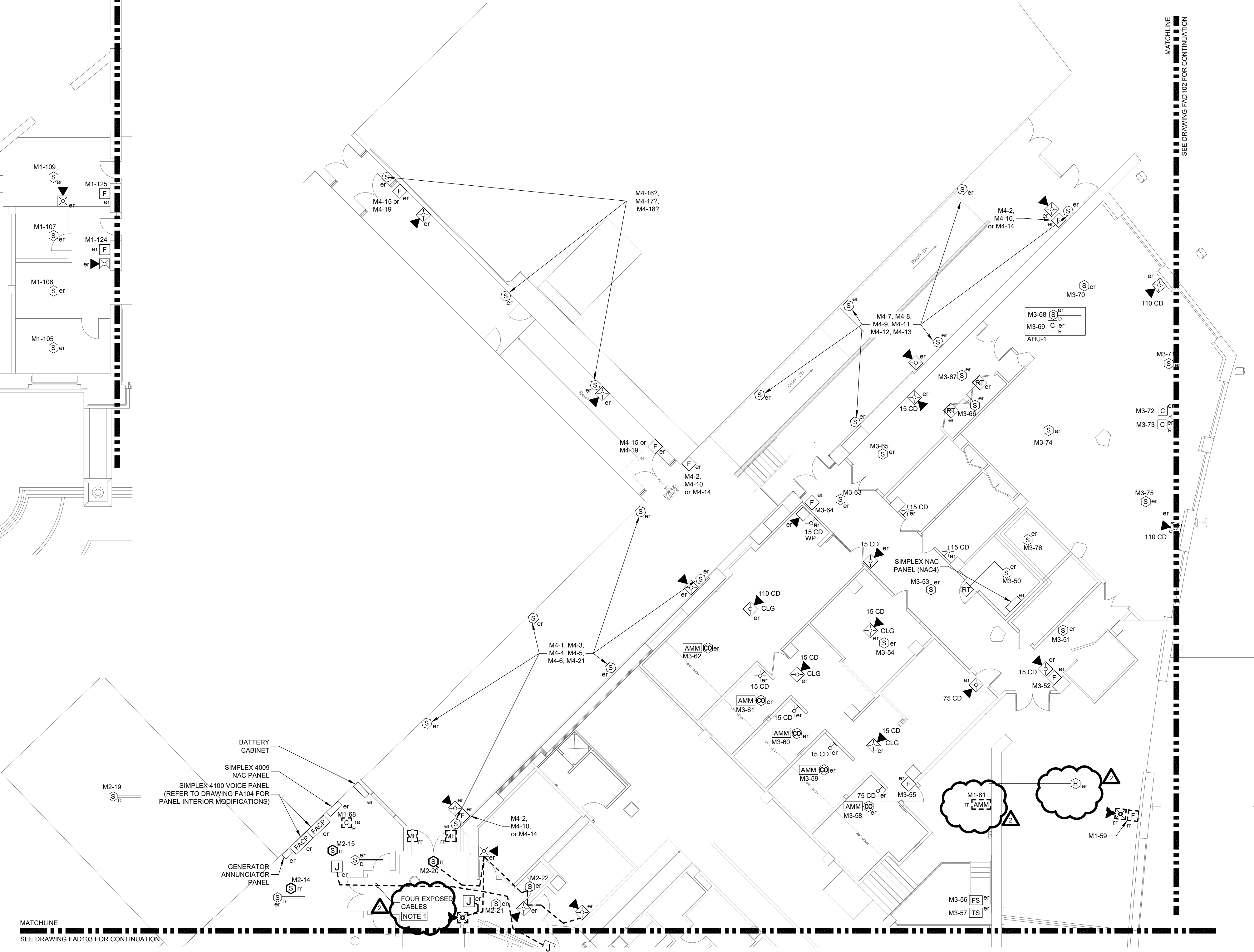
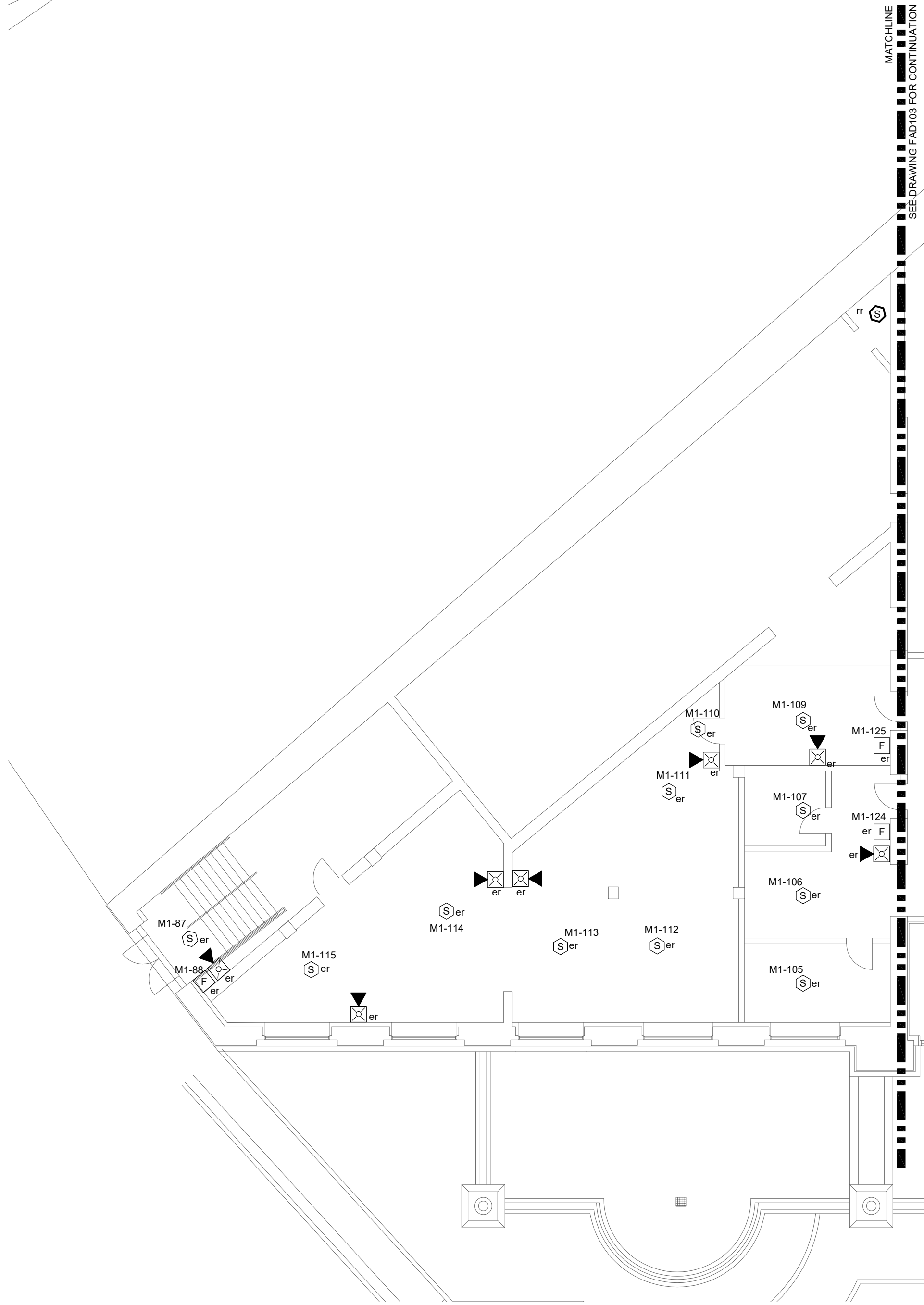
SCALE

3/32" = 1'-0"

DATE

MAY 2026

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GENERAL NOTES:

A. SEE DRAWING FA001 FOR LEGEND AND ABBREVIATIONS.

B. UNLESS NOTED OTHERWISE, ALL DEVICES SHOWN IN DEMOLISHED LINETYPE ARE TO BE DISCONNECTED AND REMOVED FOR REPLACEMENT WITH NEW EQUIVALENT DEVICE. EXISTING WIRING AND ADDRESS POINTS TO BE RETAINED FOR NEW DEVICE.

KEYED NOTES:

1. EXISTING EXPOSED FIRE ALARM WIRING TO BE REPLACED WITH WIRE RUN IN CONDUIT.

10/7/2026 ADDENDUM 3

KEY PLAN

KEY PLAN NOT TO SCALE

DRAWING TITLE

ELECTRICAL FIRE ALARM FIRST FLOOR PLAN DEMOLITION

JOB NUMBER: 1680.3

JOB TITLE:

SPRINKLER AND FIRE ALARM MODIFICATIONS PHASE 2
UNION STATION
WORCESTER, MA

CONSULTANT

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WORCESTER, MA 01603
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FAX: (508) 754-4681

DRAWING NO.

FAD104

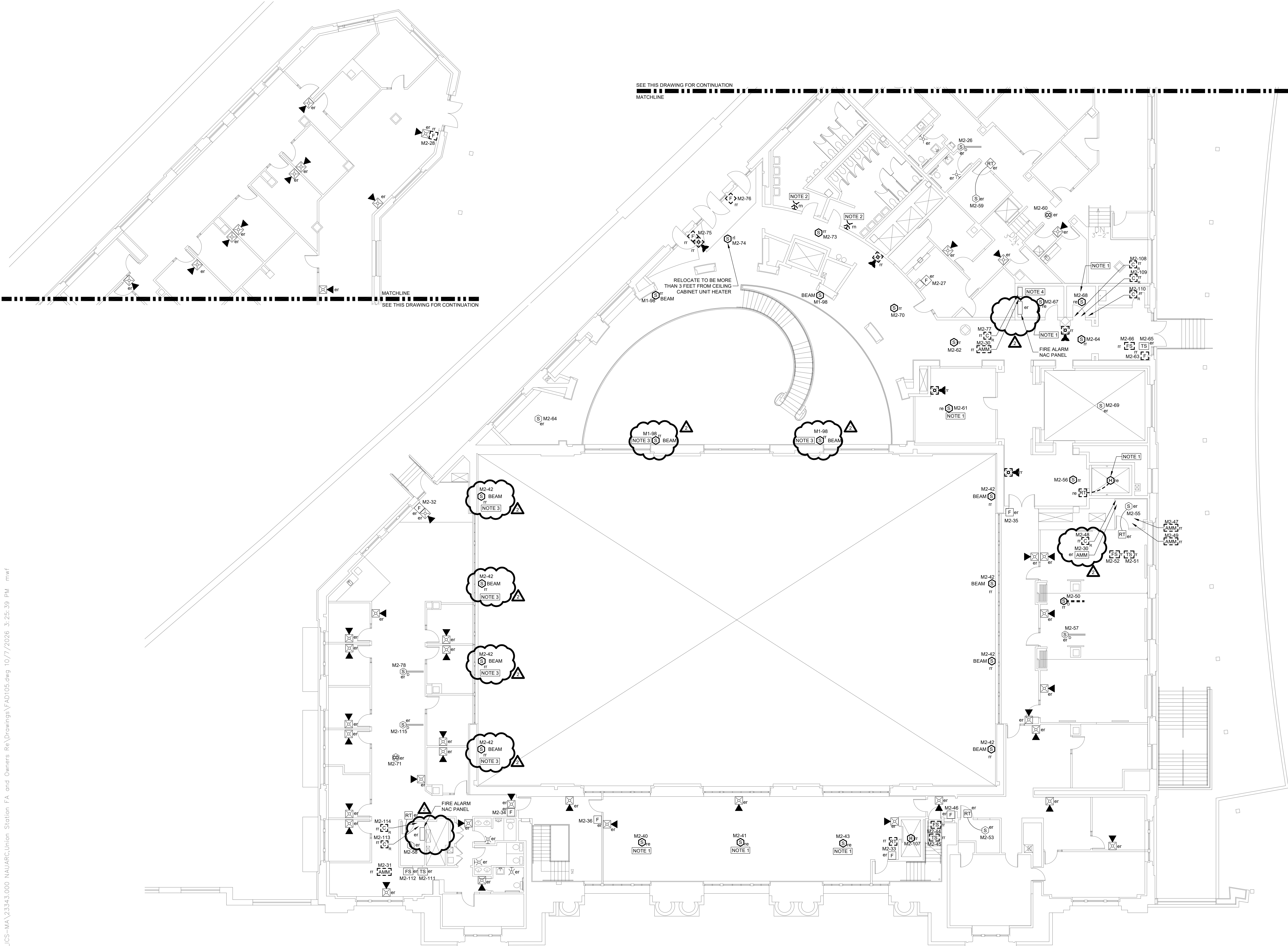
SCALE

3/32" = 1'-0"

DATE

MAY 2026

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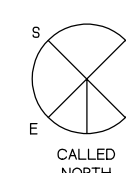
- GENERAL NOTES:
- SEE DRAWING FA001 FOR LEGEND AND ABBREVIATIONS.
 - UNLESS NOTED OTHERWISE, ALL DEVICES SHOWN IN DEMOLISHED LINETYPE ARE TO BE DISCONNECTED AND REMOVED FOR REPLACEMENT WITH NEW EQUIVALENT DEVICE. EXISTING WIRING AND ADDRESS POINTS TO BE RETAINED FOR NEW DEVICE.

- KEYED NOTES:
- DISCONNECT AND REMOVE EXISTING DEVICE. PROVIDE BLANK COVER PLATE AND RETAIN EXISTING WIRING TO MAINTAIN CONTINUITY OF EXISTING SYSTEM.
 - EXISTING FIRE ALARM STROBE TO BE DISCONNECTED AND REMOVED FOR REPLACEMENT WITH NEW SPEAKER/STROBE. EXISTING WIRING TO BE RETAINED.
 - EXISTING BEAM DETECTORS TO BE REMOVED AND REPLACED. THE TRANSMITTERS AND REFLECTORS SHALL UTILIZED EXISTING LOCATIONS. ASSOCIATED ADDRESSABLE MONITOR MODULE TO BE REMOVED.
 - EXISTING RADIO MASTER BOX TO REMAIN. DISCONNECT, REMOVE AND RELOCATE EXISTING ANTENNA. REMOVE EXISTING ANTENNA WIRING AND GROUND.

10/7/2026 ADDENDUM 3

KEY PLAN

KEY PLAN
NOT TO SCALE



DRAWING TITLE

ELECTRICAL FIRE ALARM SECOND FLOOR
DEMOLITION PLAN

JOB NUMBER: 1680.3

JOB TITLE:

SPRINKLER AND FIRE ALARM
MODIFICATIONS PHASE 2
UNION STATION
WORCESTER, MA

CONSULTANT

HallamICS
AN EMPLOYEE OWNED COMPANY
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Mansfield, MA 02048
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ARCHITECT

NAULT ARCHITECTS, INC.
71 HOPE AVENUE
WORCESTER, MA 01603 TEL: (508) 755-6134 FAX: (508) 754-4881

DRAWING NO.

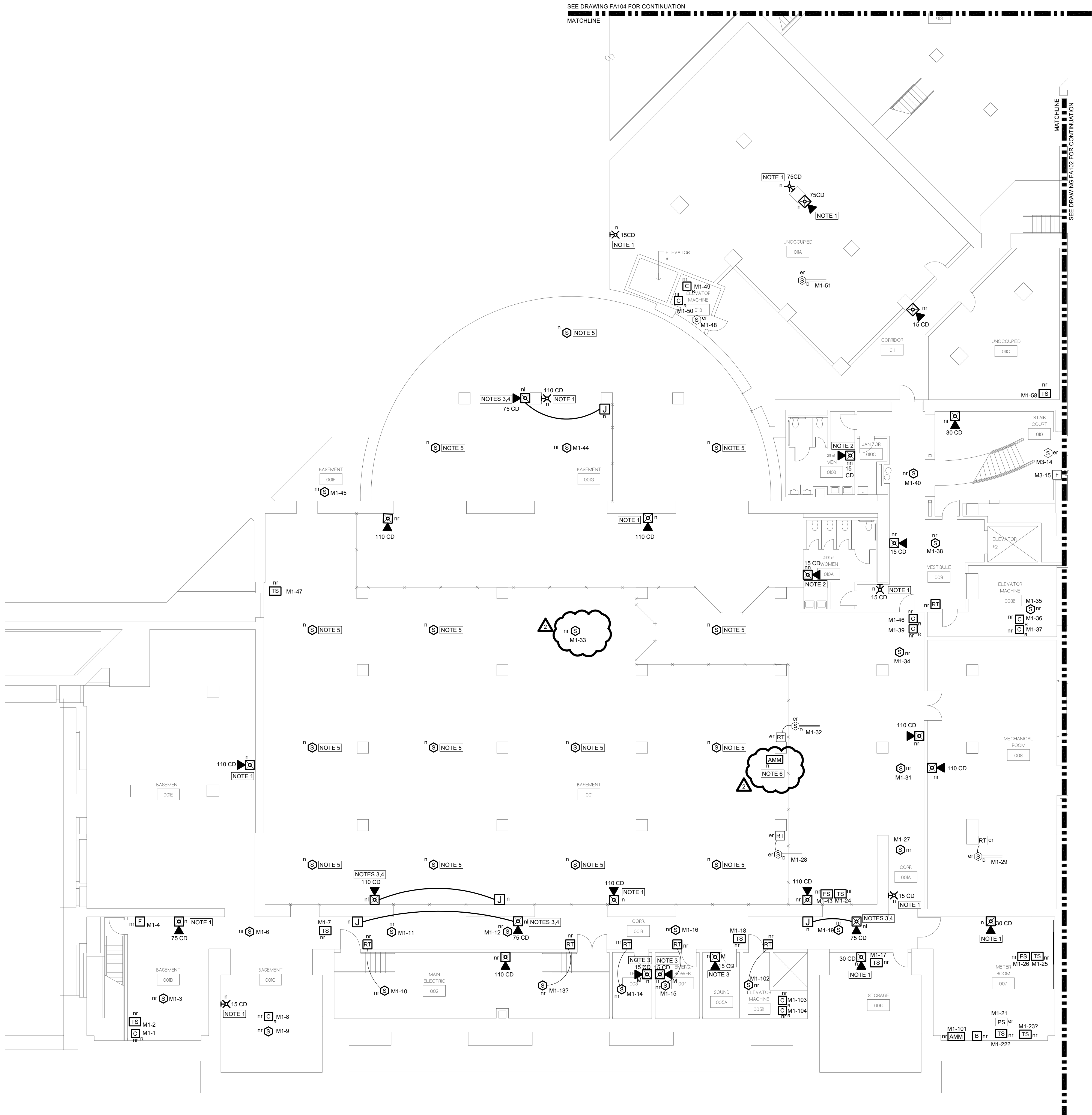
FAD105

SCALE

3/32" = 1'-0"

DATE

MAY 2026



GENERAL NOTES:

- SEE DRAWING E001 FOR LEGEND AND ABBREVIATIONS.
- UNLESS NOTED OTHERWISE, NEW DEVICES SHALL REPLACE EXISTING DEVICES IN SAME LOCATION. EXISTING WIRING, ADDRESS POINTS, AND PROGRAMMING SEQUENCES TO BE RETAINED.

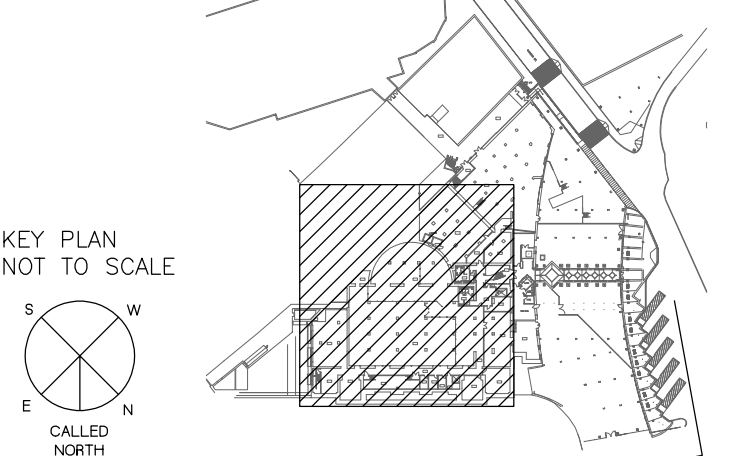
KEYED NOTES:

- PROVIDE NEW DEVICE AS SHOWN TO IMPROVE AUDIO AND VISUAL ALARM NOTIFICATION.
- NEW FIRE ALARM SPEAKER/STROBE TO REPLACE EXISTING STROBE-ONLY DEVICE. EXISTING STROBE WIRING AND PROGRAMMING SEQUENCE TO BE RETAINED. PROVIDE NEW SPEAKER WIRING.
- NEW FIRE ALARM SPEAKER OR SPEAKER/STROBE AT NEW LOCATION. PROVIDE NEW SPEAKER AND STROBE WIRING.
- NOTED NEW SPEAKER/STROBE SHALL BE LOW-WATTAGE TYPE.
- PROVIDE NEW SMOKE DETECTOR AND WIRING AT NEW LOCATION. ADDRESS TO BE DETERMINED IN THE FIELD DURING CONSTRUCTION.
- PROVIDE NEW ADDRESSABLE MONITOR MODULE AND WIRING TO MONITOR LEAK DETECTION CONTROLLER. ADDRESS TO BE DETERMINED IN THE FIELD DURING CONSTRUCTION.



10/7/2026 APPENDUM 3

KEY PLAN



DRAWING TITLE

ELECTRICAL FIRE ALARM PARTIAL BASEMENT NEW WORK PLAN

JOB NUMBER: 1680.3
JOB TITLE:

SPRINKLER AND FIRE ALARM
MODIFICATIONS PHASE 2
UNION STATION
WORCESTER, MA

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ARCHITECT

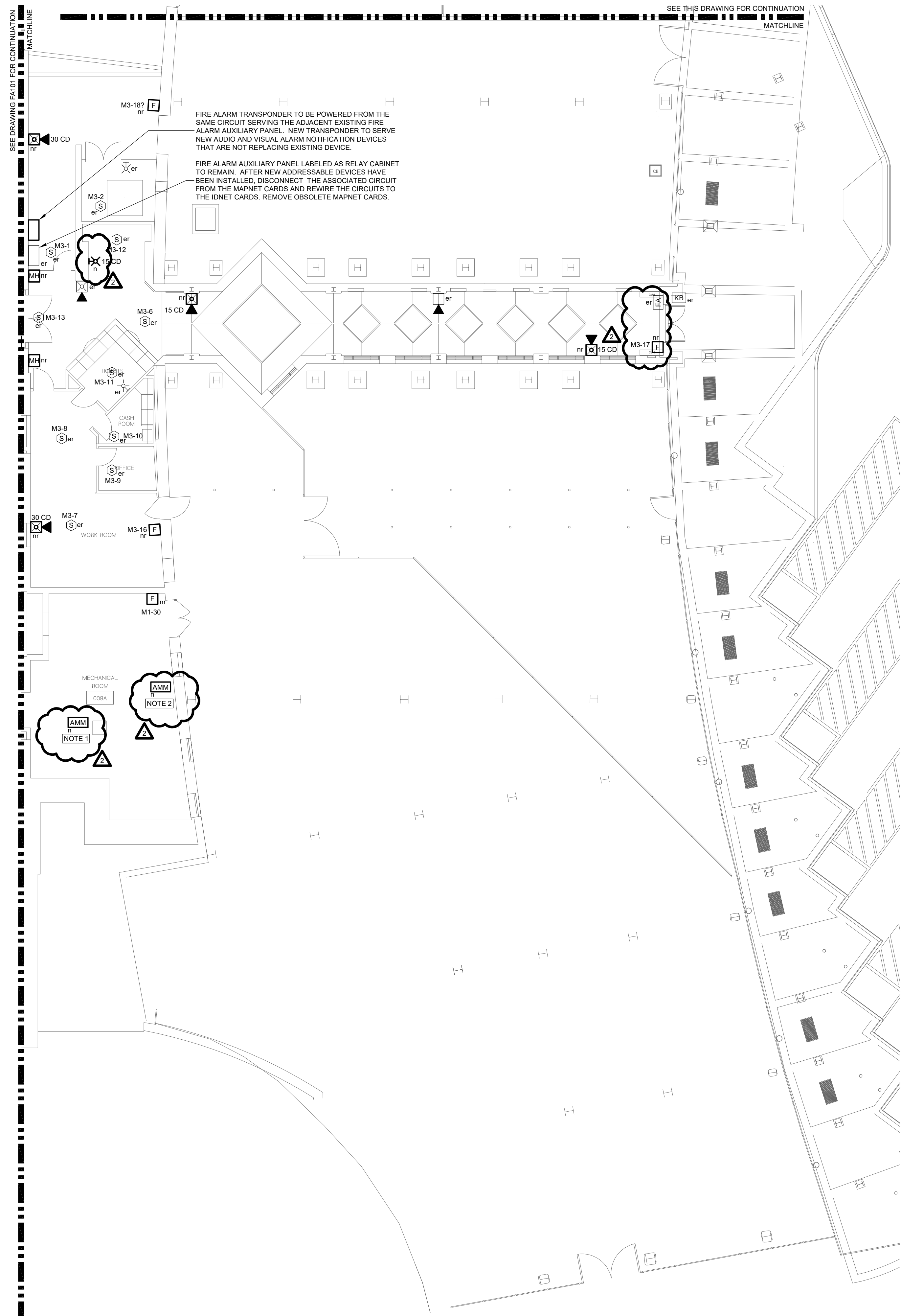
NAULT ARCHITECTS, INC.
21 HOPE AVENUE
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DRAWING NO.

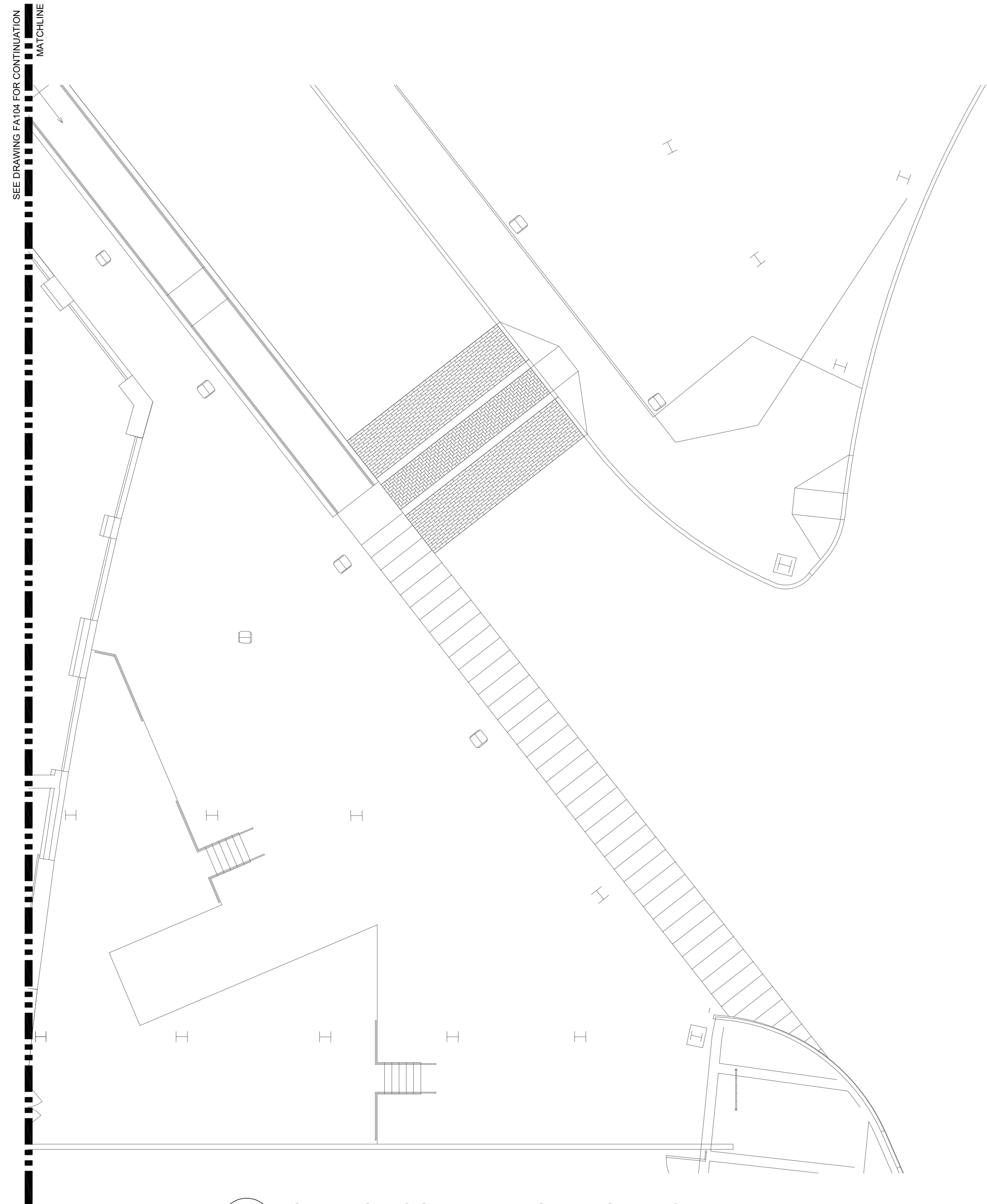
FA101

SCALE
3/32" = 1'-0"

DATE
MAY 2026



1 BUS TERMINAL AND PARTIAL BASEMENT PLAN
SCALE: 3/32"=1'-0"

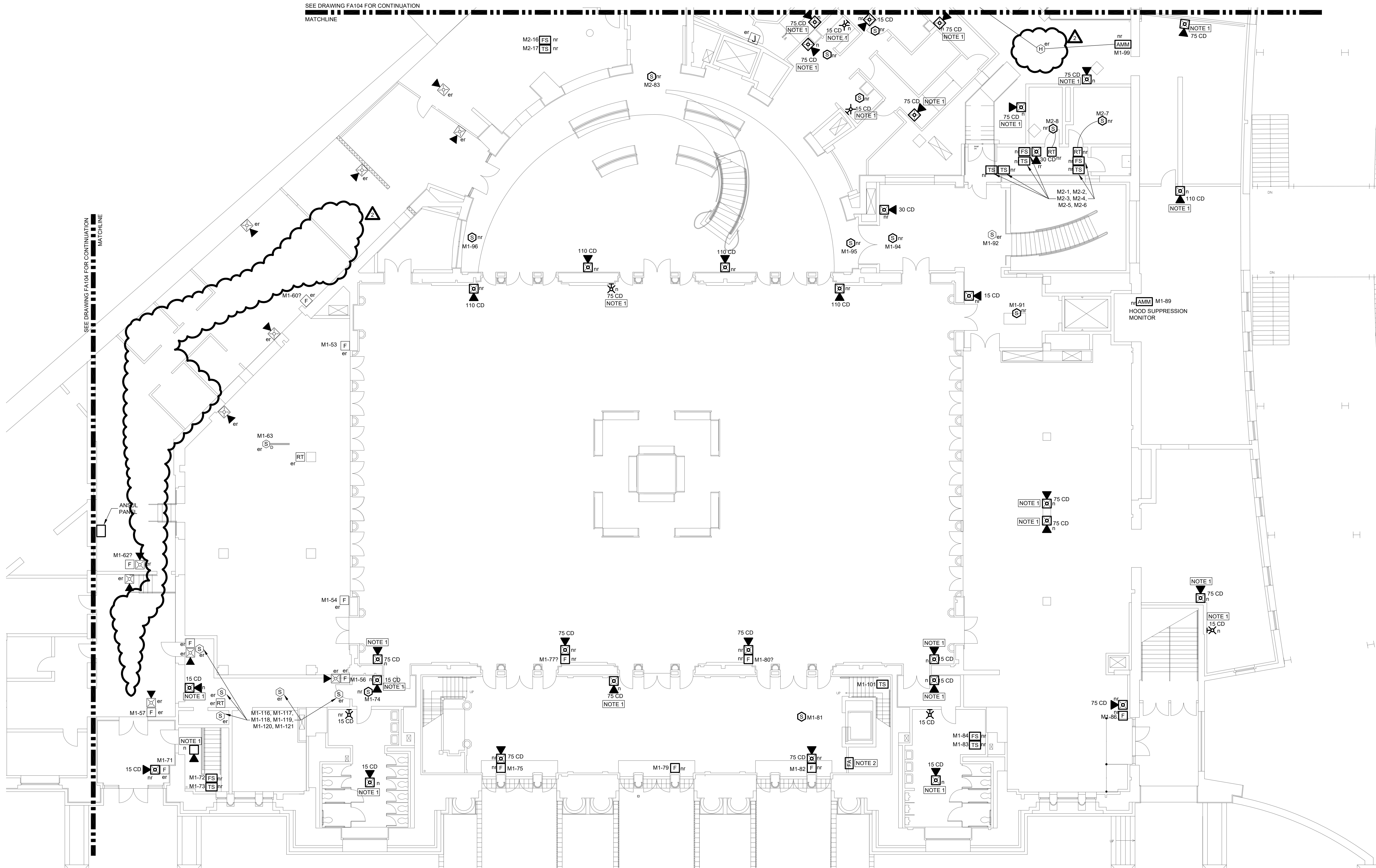


2 LOADING DOCK PLAN NORTH OF BUS TERMINAL
SCALE: 3/32"=1'-0"

- GENERAL NOTES:
- SEE DRAWING E001 FOR LEGEND AND ABBREVIATIONS.
 - UNLESS NOTED OTHERWISE, NEW DEVICES SHALL REPLACE EXISTING DEVICES IN SAME LOCATION. EXISTING WIRING, ADDRESS POINTS, AND PROGRAMMING SEQUENCES TO BE RETAINED.

- KEYED NOTES:
- PROVIDE NEW ADDRESSABLE MONITOR MODULE AND WIRING TO MONITOR LEAK DETECTION CONTROLLER. ADDRESS TO BE DETERMINED IN THE FIELD DURING CONSTRUCTION.
 - PROVIDE NEW ADDRESSABLE MONITOR MODULE AND WIRING TO MONITOR LEAK DETECTION CONTROLLER. ADDRESS TO BE DETERMINED IN THE FIELD DURING CONSTRUCTION.

10/7/2026 ADDENDUM 3	
KEY PLAN	
KEY PLAN NOT TO SCALE	
DRAWING TITLE	
ELECTRICAL FIRE ALARM PARTIAL BASEMENT AND BUS TERMINAL NEW WORK PLAN	
JOB NUMBER: 1680.3 JOB TITLE: SPRINKLER AND FIRE ALARM MODIFICATIONS PHASE 2 UNION STATION WORCESTER, MA	
CONSULTANT Hallam ICS AN EMPLOYEE OWNED COMPANY 575 West Street, Suite 220 Mansfield, MA 02048 Tel: 508.821.9759 www.Hallam-ICS.com	
ARCHITECT NAULT ARCHITECTS, INC. 71 HOPE AVENUE WORCESTER, MA 01603 TEL: (508) 755-8134 FAX: (508) 754-4681	
DRAWING NO. FA102	
SCALE 3/32" = 1'-0"	DATE MAY 2026



- GENERAL NOTES:
- A. SEE DRAWING E001 FOR LEGEND AND ABBREVIATIONS.
- B. UNLESS NOTED OTHERWISE, NEW DEVICES SHALL REPLACE EXISTING DEVICES IN SAME LOCATION. EXISTING WIRING, ADDRESS POINTS, AND PROGRAMMING SEQUENCES TO BE RETAINED.
- KEYED NOTES:
1. PROVIDE NEW DEVICE AS SHOWN TO IMPROVE AUDIO AND VISUAL ALARM NOTIFICATION.
2. NOTED ANNUNCIATOR SHALL BE A REMOTE COMMAND CENTER WITH MICROPHONE. REFER TO SHEET FA401 FOR FIBER OPTIC INTERCONNECTION. REMOTE COMMAND CENTER SHALL HAVE LIVE VOICE OVERRIDE CAPABILITY WITH THREE LIVE VOICE CHANNELS:
- 2.1. ALL SYSTEM (UNION STATION AND MBTA EAST PLATFORM).
- 2.2. UNION STATION
- 2.3. MBTA EAST PLATFORM

10/7/2026 ADDENDUM 3

KEY PLAN

KEY PLAN NOT TO SCALE

DRAWING TITLE

ELECTRICAL FIRE ALARM FIRST FLOOR NEW WORK PLAN

JOB NUMBER: 1680.3

JOB TITLE:

SPRINKLER AND FIRE ALARM MODIFICATIONS PHASE 2 UNION STATION WORCESTER, MA

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DRAWING NO.

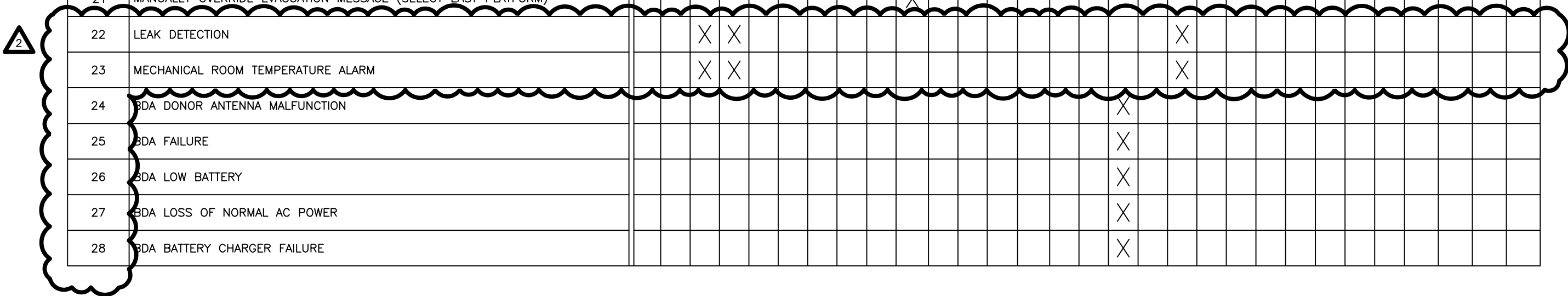
FA103

SCALE

3/32" = 1'-0"

DATE

MAY 2026



		FIRE ALARM INPUT/OUTPUT MATRIX																													
		CONTROL UNIT ANNUNCIATION						NOTIFICATION														REQUIRED FIRE SAFETY CONTROL									
		ACTIVATE COMMON ALARM SIGNAL INDICATOR	ACTIVATE AUDIBLE ALARM SIGNAL	ACTIVATE COMMON SUPERVISORY SIGNAL INDICATOR	ACTIVATE AUDIBLE SUPERVISORY SIGNAL	ACTIVATE COMMON TROUBLE SIGNAL INDICATORY	ACTIVATE COMMON AUDIBLE TROUBLE SIGNAL	ACTIVATE BUILDING AUDIBLE PRE-RECORDED EVACUATION SIGNAL	ACTIVATE BUILDING VISUAL EVACUATION SIGNAL	OVERRIDE TO LIVE AUDIBLE EVACUATION VOICE INPUT FOR UNION STATION	OVERRIDE TO LIVE AUDIBLE EVACUATION VOICE INPUT FOR EAST PLATFORM	OVERRIDE TO ALL-SYSTEM LIVE AUDIBLE EVACUATION VOICE INPUT	ACTIVATE EXTERIOR STROBE LOCATED AT STREET SIDE OF BUILDING	TRANSMIT FIRE ALARM SIGNAL TO SUPERVISING STATION (MASTER BOX ZONE 1)	TRANSMIT WATER FLOW ALARM SIGNAL TO SUPERVISING STATION (MASTER BOX ZONE 2)	TRANSMIT SPRINKLER SUPERVISORY SIGNAL TO SUPERVISING STATION (MASTER BOX ZONE 3)	TRANSMIT CARBON MONOXIDE ALARM TO SUPERVISING STATION (MASTER BOX ZONE 4)	TRANSMIT BDA/DAS TROUBLE SIGNAL TO SUPERVISING STATION (MASTER BOX ZONE 5)	TRANSMIT RADIO MASTER BOX BY-PASS SIGNAL TO SUPERVISING STATION (MASTER BOX ZONE 6)	TRANSMIT GENERAL SYSTEM SUPERVISORY SIGNAL TO SUPERVISING STATION (MASTER BOX ZONE 7)	TRANSMIT GENERAL SYSTEM TROUBLE SIGNAL TO SUPERVISING STATION (MASTER BOX ZONE 8)	ACTIVATE ELECTRIC WATER BELL	SIGNAL SHUTDOWN OF FAN ASSOCIATED WITH DUCT SMOKE DETECTOR	SIGNAL ELEVATOR TO RECALL TO PRIMARY LEVEL – 1 ST FLOOR	SIGNAL ELEVATOR TO RECALL TO SECONDARY LEVEL – BASEMENT LEVEL	SIGNAL ELEVATOR TO RECALL TO SECONDARY LEVEL – 2 ND FLOOR	CAUSE ELEVATOR FIRE FIGHTER HAT TO FLASH	RELEASE MAGNETIC DOOR HOLDERS	CAUSE SOLENOID VALVE TO KITCHEN APPLIANCES TO CLOSE	CAUSE GREAT SOUND SYSTEM TO BE DISABLED	CAUSE FIRE SHUTTER TO CLOSE
SYSTEM INPUTS		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD
1	MANUAL PULL STATION	X	X					X	X				X	X														X		X	X
2	SMOKE DETECTOR	X	X					X	X				X	X														X		X	X
3	DUCT SMOKE DETECTOR			X	X															X			X								
4	SMOKE DETECTOR IN 3-FLOOR ELEVATOR LOBBY (NOT ON PRIMARY LEVEL)	X	X					X	X				X	X										X				X		X	X
5	SMOKE DETECTOR IN 3-FLOOR ELEVATOR LOBBY (ON PRIMARY LEVEL)	X	X					X	X				X	X										X				X		X	X
6	SMOKE DETECTOR IN 2-FLOOR ELEVATOR LOBBY (NOT ON PRIMARY LEVEL)	X	X					X	X				X	X									X					X		X	X
7	SMOKE DETECTOR IN 2-FLOOR ELEVATOR LOBBY (ON PRIMARY LEVEL)	X	X					X	X				X	X										X		X		X		X	X
8	SMOKE DETECTOR IN ELEVATOR MACHINE ROOM	X	X					X	X				X	X									X				X		X	X	X
9	KITCHEN HOOD HOOD ANSUL SYSTEM ALARM	X	X					X	X				X	X														X	X	X	X
10	SPRINKLER FLOW SWITCH	X	X					X	X				X	X	X							X						X		X	X
11	SPRINKLER CONTROL VALVE			X	X											X															
12	CARBON MONOXIDE DETECTOR			X	X												X														
13	NOTIFICATION APPLIANCE CIRCUIT SHORT					X	X														X										
14	FIRE ALARM AC POWER FAILURE					X	X														X										
15	FIRE ALARM SYSTEM LOW BATTERY					X	X														X										
16	OPEN CIRCUIT					X	X														X										
17	GROUND FAULT					X	X														X										
18	PLACE RADIO MASTER BOX IN BY-PASS																		X												
19	MANUALLY OVERRIDE EVACUATION MESSAGE (SELECT ALL-CALL)											X																			
20	MANUALLY OVERRIDE EVACUATION MESSAGE (SELECT UNION STATION)									X																					
21	MANUALLY OVERRIDE EVACUATION MESSAGE (SELECT EAST PLATFORM)										X																				
22	LEAK DETECTION			X	X															X											
23	MECHANICAL ROOM TEMPERATURE ALARM			X	X															X											
24	BDA DONOR ANTENNA MALFUNCTION																	X													
25	BDA FAILURE																	X													
26	BDA LOW BATTERY																	X													
27	BDA LOSS OF NORMAL AC POWER																	X													
28	BDA BATTERY CHARGER FAILURE																	X													



10/7/2026 ADDENDUM 3

KEY PLAN

DRAWING TITLE

FIRE ALARM I/O MATRIX

JOB NUMBER: 1680.3
JOB TITLE:
SPRINKLER AND FIRE ALARM
MODIFICATIONS PHASE 2
UNION STATION
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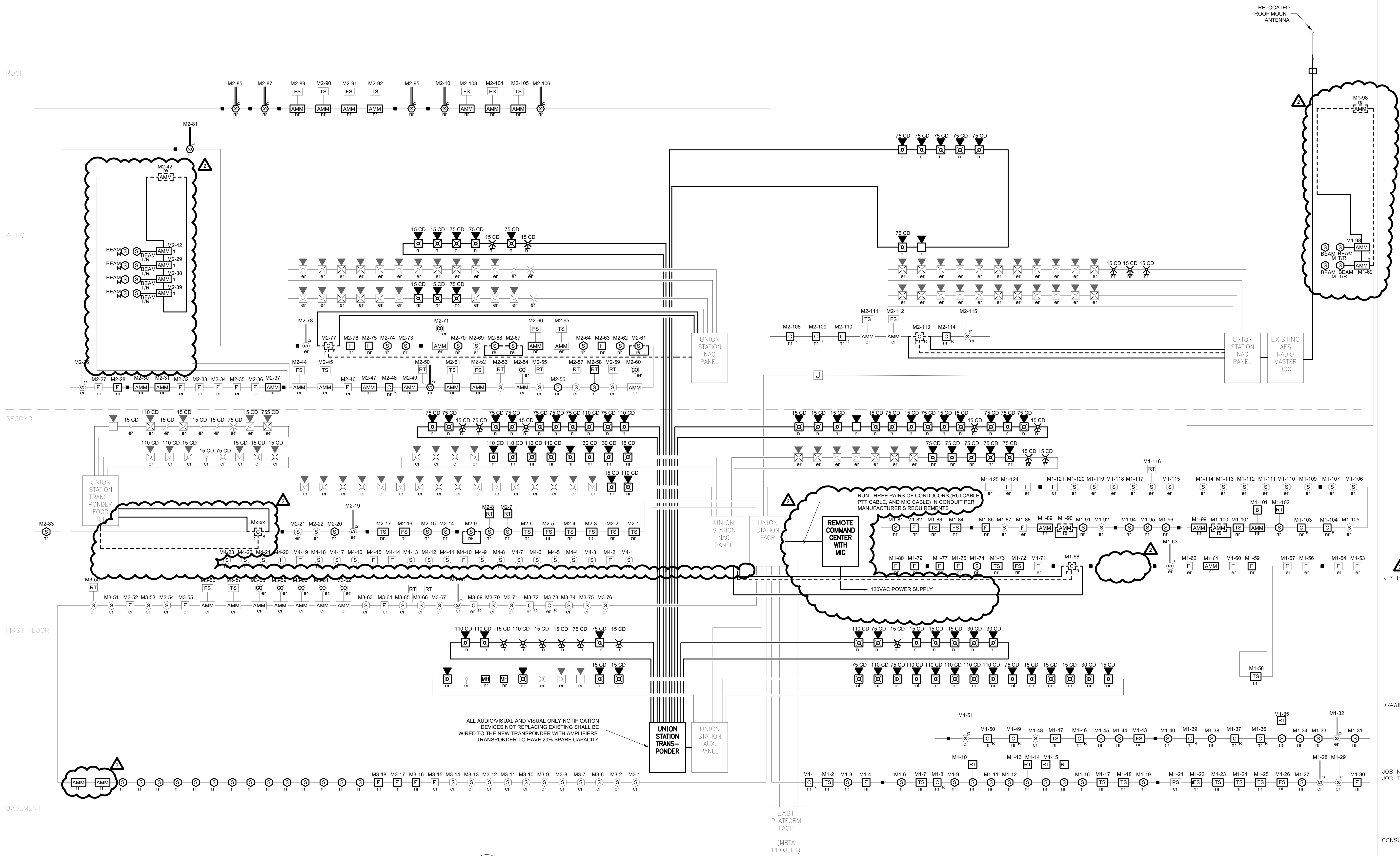
DRAWING NO.

FA301

SCALE
AS NOTED

DATE
MAY 2026

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1 FIRE ALARM RISER DIAGRAM NOT TO SCALE

FIRE ALARM RISER NOTES:

- ALL WIRING SHALL BE IN MINIMUM 3/4" EMT CONDUIT. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- SEE PLANS FOR QUANTITY AND LOCATION OF DEVICES AND EQUIPMENT. DEVICES SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 72. FINAL LOCATION OF FIRE ALARM DEVICES SHALL CONFORM TO ALL APPLICABLE STATE AND LOCAL CODES AND FIRE MARSHALL REQUIREMENTS.
- CIRCUITRY SHALL BE CONDUCTOR SIZE, QUANTITY, AND TYPE AS RECOMMENDED BY MANUFACTURER FOR SPECIFIC USE AS INITIATION, NOTIFICATION, RELAY, OR SIGNALING LINE CIRCUIT CONDUCTORS. WIRE AWG SIZE SHALL BE AS RECOMMENDED BY MANUFACTURER FOR GIVEN LENGTH AND LOAD. WIRING SHALL BE INSTALLED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS. CABLE SHIELD SHALL BE CONNECTED AT SINGLE POINT AS DIRECTED BY MANUFACTURER AND ONLY AT THAT POINT, SHALL BE CONTINUOUS THROUGHOUT THE CIRCUIT, AND SHALL BE INSULATED FROM GROUND.
- SIGNALING LINE CIRCUITS SHALL BE PROVIDED WITH A MINIMUM OF 25% SPARE ADDRESSES FOR FUTURE USE. ROUTE SIGNALING LINE CIRCUITS IN CONDUITS SEPARATE FROM AUDIO/TONE SPEAKER NOTIFICATION CIRCUITS.
- SMOKE AND HEAT DETECTORS SHALL BE LOCATED A MINIMUM OF 36" FROM HVAC SUPPLY, RETURN AND EXHAUST AIR DIFFUSERS, GRILLES AND OUTLETS. COORDINATE EXACT LOCATIONS WITH THE MECHANICAL CONTRACTOR AND EXISTING FIELD CONDITIONS.
- OWNER ACCEPTED ROOM NUMBERS SHALL BE USED WHEN PROGRAMMING THE SYSTEM. COORDINATE WITH OWNER.
- PERFORM BATTERY CALCULATIONS ON NEW FIRE ALARM SYSTEM.
- THE SYSTEM SHALL BE 100% OPERATIONAL AT THE COMPLETION OF THE PROJECT.