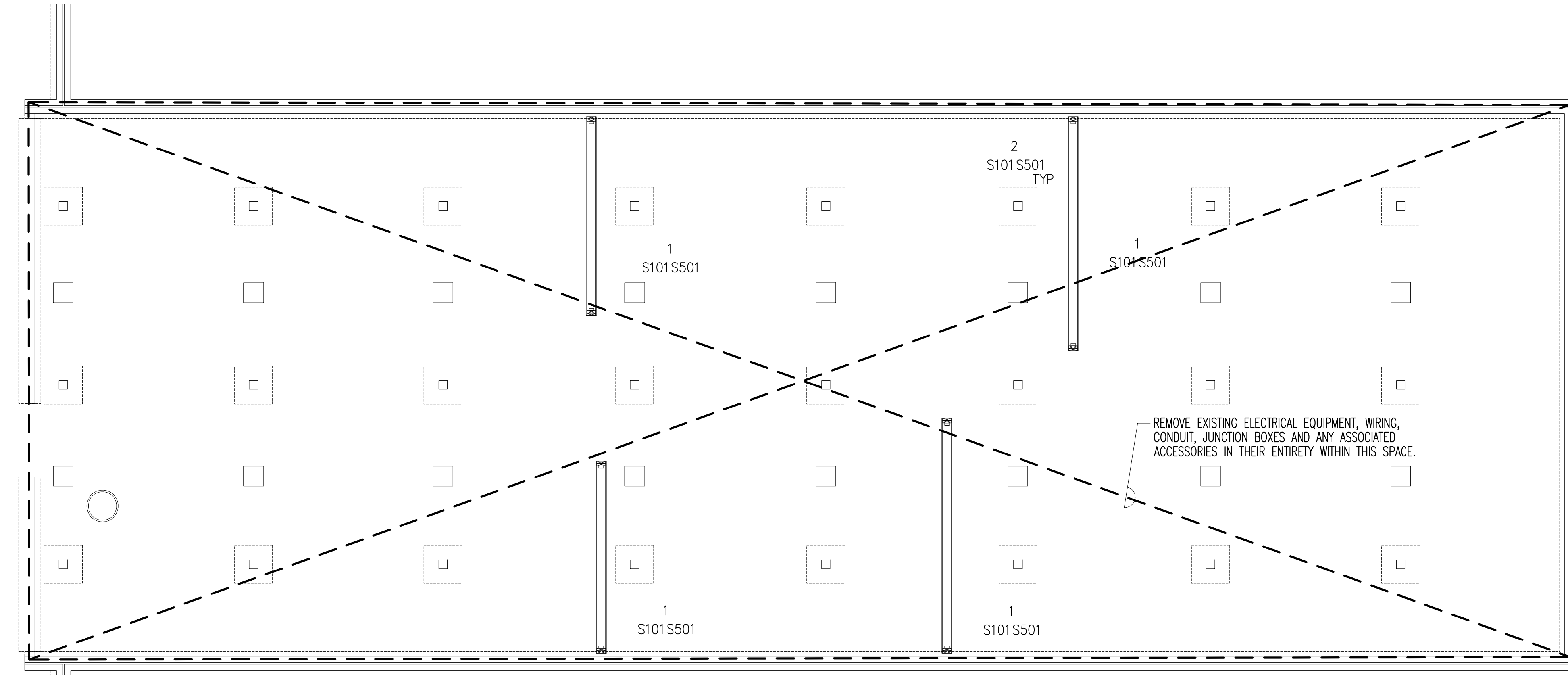
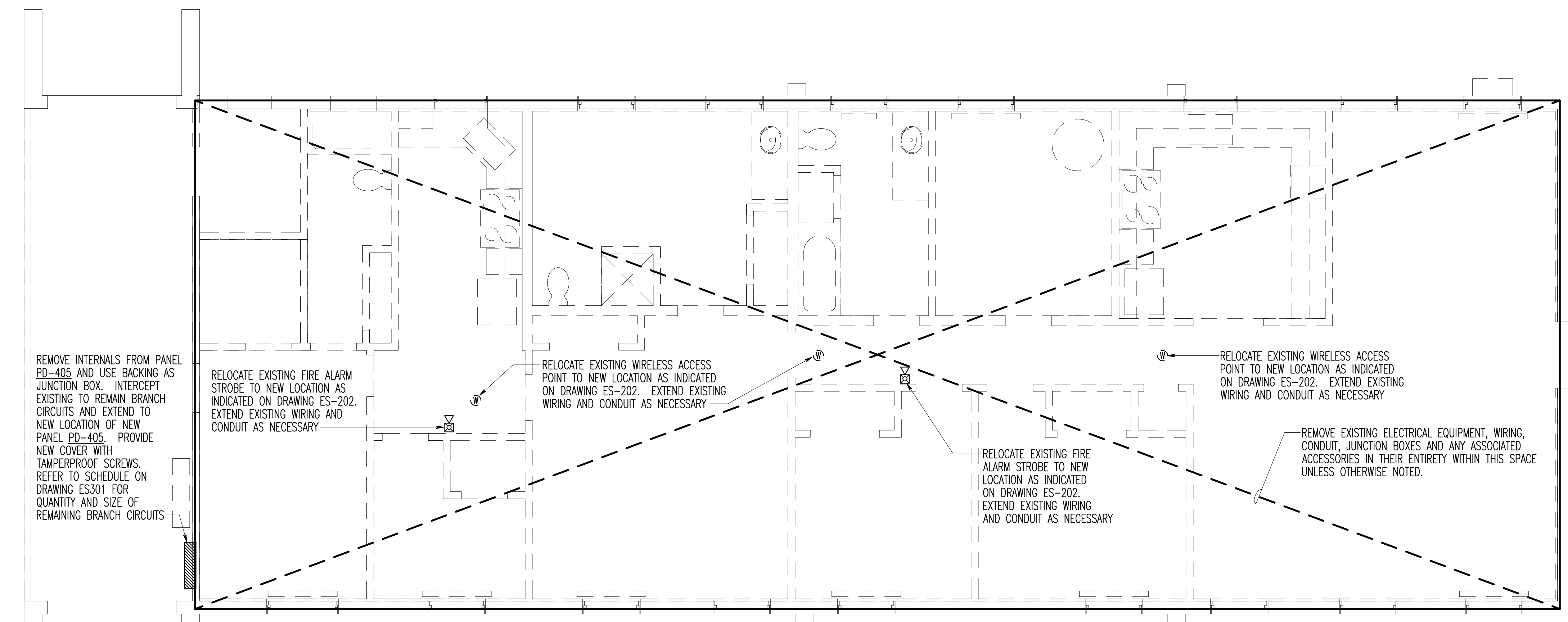


DRAWING NOTES: (APPLICABLE TO THIS DRAWING ONLY)
 1. EXISTING SHOWN WITH LIGHT WEIGHT LINE, ———
 2. DEMOLITION WORK SHOWN WITH HEAVY WEIGHT, DASHED LINE ———



1 CRAWL SPACE PLAN - ELECTRICAL DEMOLITION
 SCALE: 1/4" = 1'-0"



2 FIRST FLOOR PLAN - ELECTRICAL DEMOLITION
 SCALE: 1/4" = 1'-0"

REMOVE INTERNALS FROM PANEL PD-405 AND USE BACKING AS JUNCTION BOX. INTERCEPT EXISTING TO REMAIN BRANCH CIRCUITS AND EXTEND TO NEW LOCATION OF NEW PANEL PD-405. PROVIDE NEW COVER WITH TAMPERPROOF SCREWS. REFER TO SCHEDULE ON DRAWING ES301 FOR QUANTITY AND SIZE OF REMAINING BRANCH CIRCUITS

RELOCATE EXISTING FIRE ALARM STROBE TO NEW LOCATION AS INDICATED ON DRAWING ES-202. EXTEND EXISTING WIRING AND CONDUIT AS NECESSARY

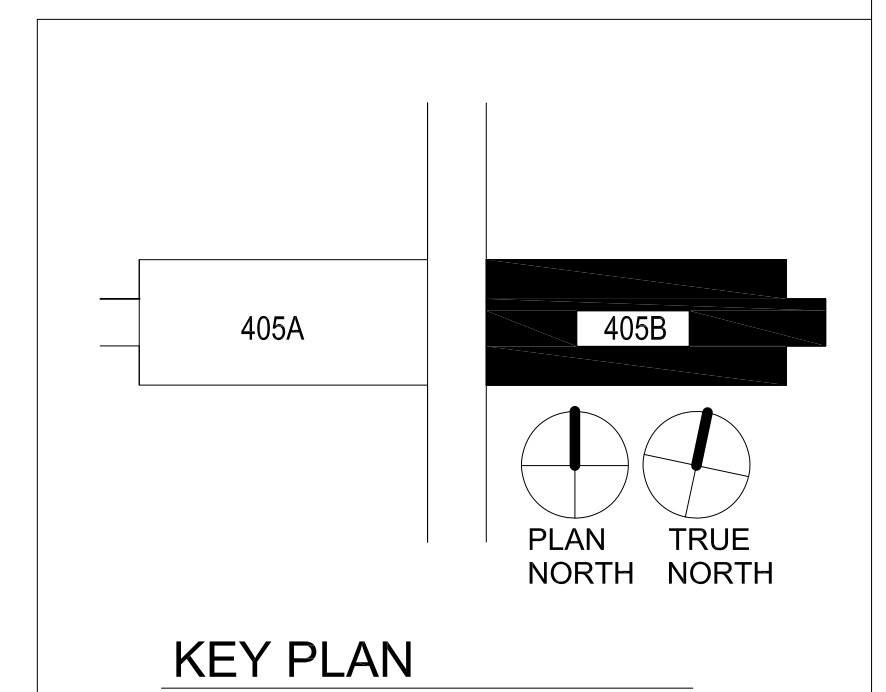
RELOCATE EXISTING WIRELESS ACCESS POINT TO NEW LOCATION AS INDICATED ON DRAWING ES-202. EXTEND EXISTING WIRING AND CONDUIT AS NECESSARY

RELOCATE EXISTING WIRELESS ACCESS POINT TO NEW LOCATION AS INDICATED ON DRAWING ES-202. EXTEND EXISTING WIRING AND CONDUIT AS NECESSARY

RELOCATE EXISTING FIRE ALARM STROBE TO NEW LOCATION AS INDICATED ON DRAWING ES-202. EXTEND EXISTING WIRING AND CONDUIT AS NECESSARY

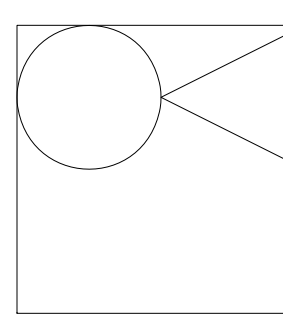
REMOVE EXISTING ELECTRICAL EQUIPMENT, WIRING, CONDUIT, JUNCTION BOXES AND ANY ASSOCIATED ACCESSORIES IN THEIR ENTIRETY WITHIN THIS SPACE UNLESS OTHERWISE NOTED.

EXISTING FACP TO REMAIN



1/4" = 1' - 0"

Revisions:	Date
Revisions by the VA	09/19/2019
100% Construction Documents Submission	05/31/13
95% Construction Documents Submission	05/10/13
60% Design Development Submission	03/28/13

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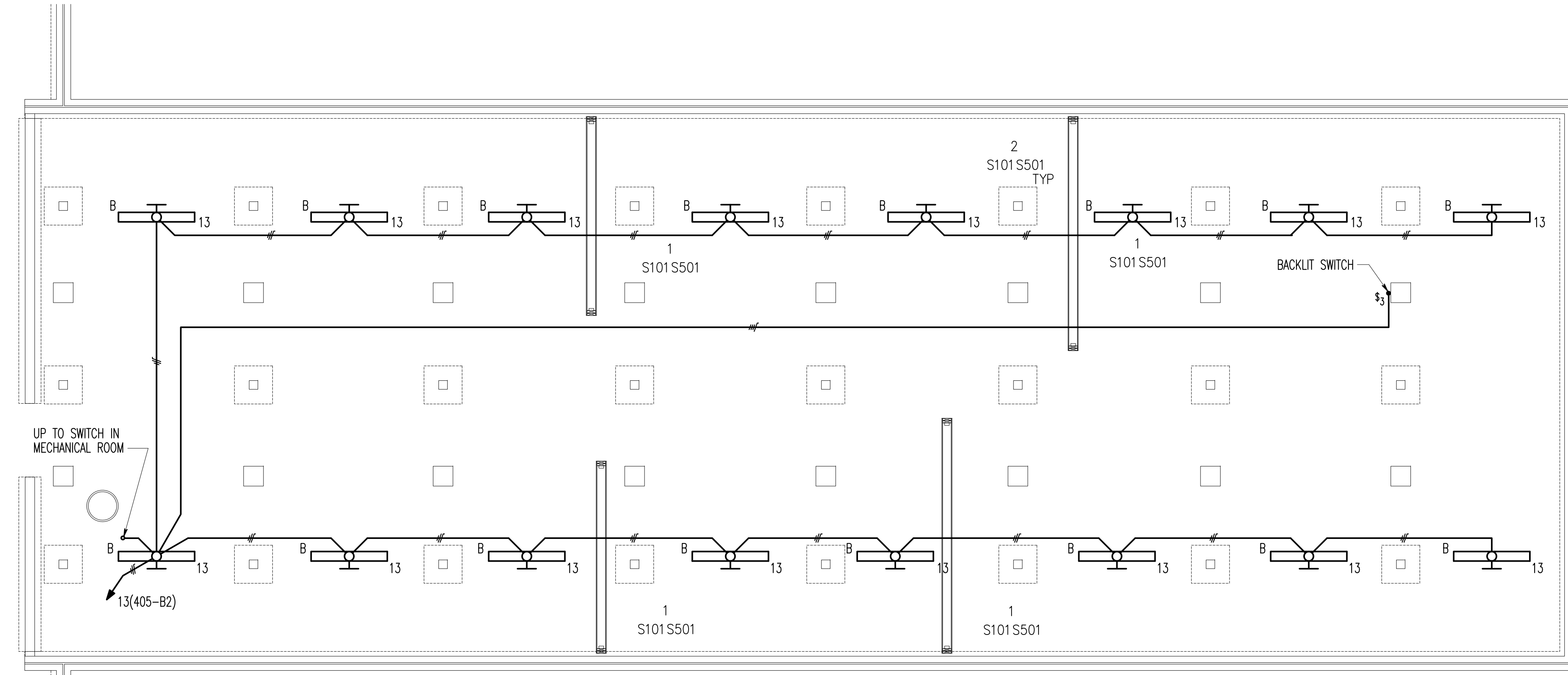
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Drawing Title
ELECTRICAL DEMOLITION
 Approved: Project Director

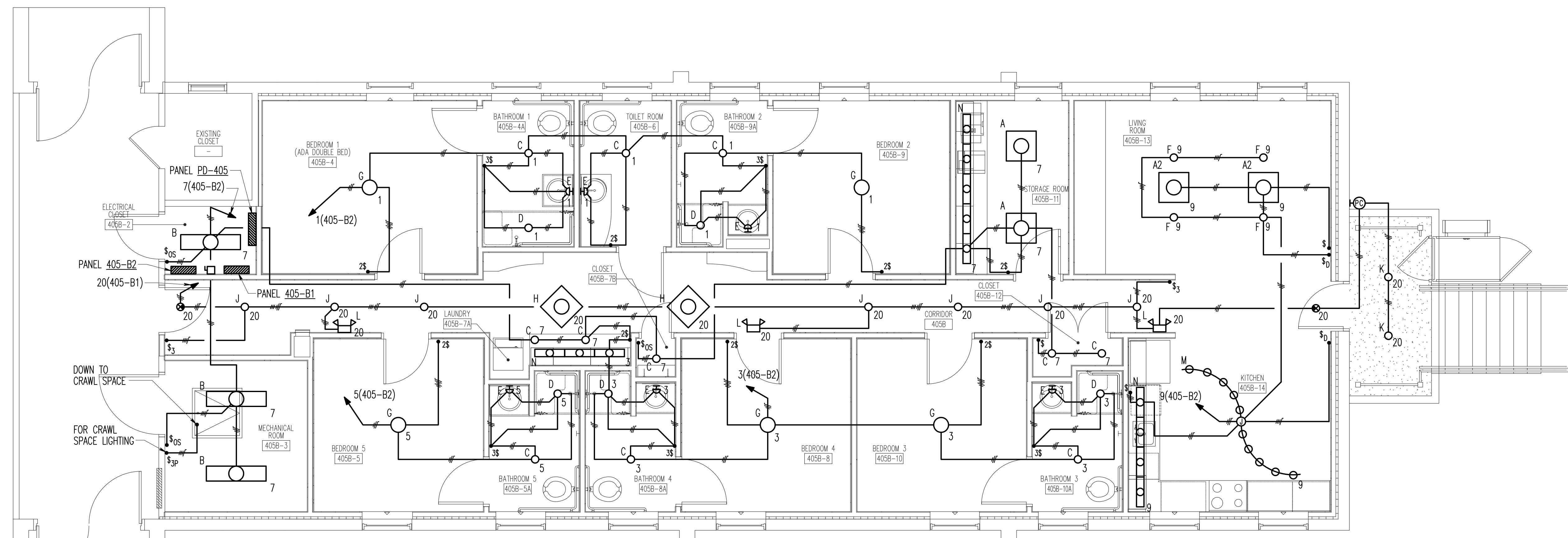
Project Title
BUILDING 405B RENOVATION
 Location
MARTINSBURG, WV
 Date
 05/31/2013

VA Project Number
613-13-115
 Building Number
405B
 Drawing Number
ES101

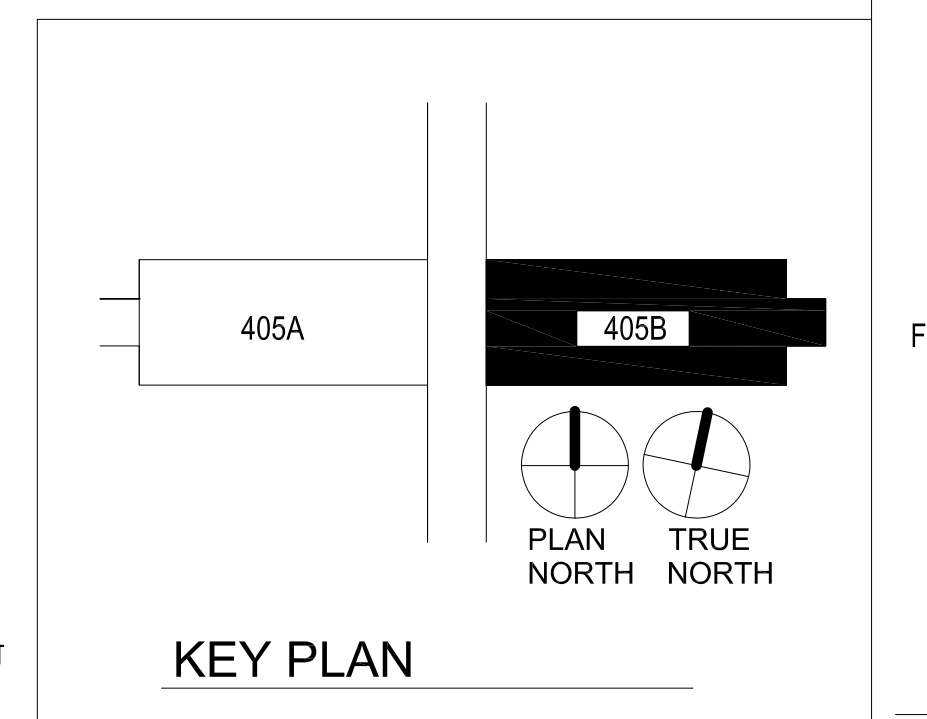
Office of Construction and Facilities Management
 Department of Veterans Affairs



1 CRAWL SPACE PLAN - ELECTRICAL NEW WORK - LIGHTING
SCALE: 1/4" = 1'-0"

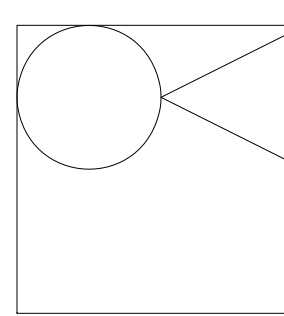


2 FIRST FLOOR PLAN - ELECTRICAL NEW WORK - LIGHTING
SCALE: 1/4" = 1'-0"



1/4" = 1'-0" 0 2 4 8 12 FT

Revisions:	Date
Revisions by the VA	03/11/2022
Revisions by the VA	09/19/2019
100% Construction Documents Submission	05/31/13
95% Construction Documents Submission	05/10/13
60% Design Development Submission	03/28/13

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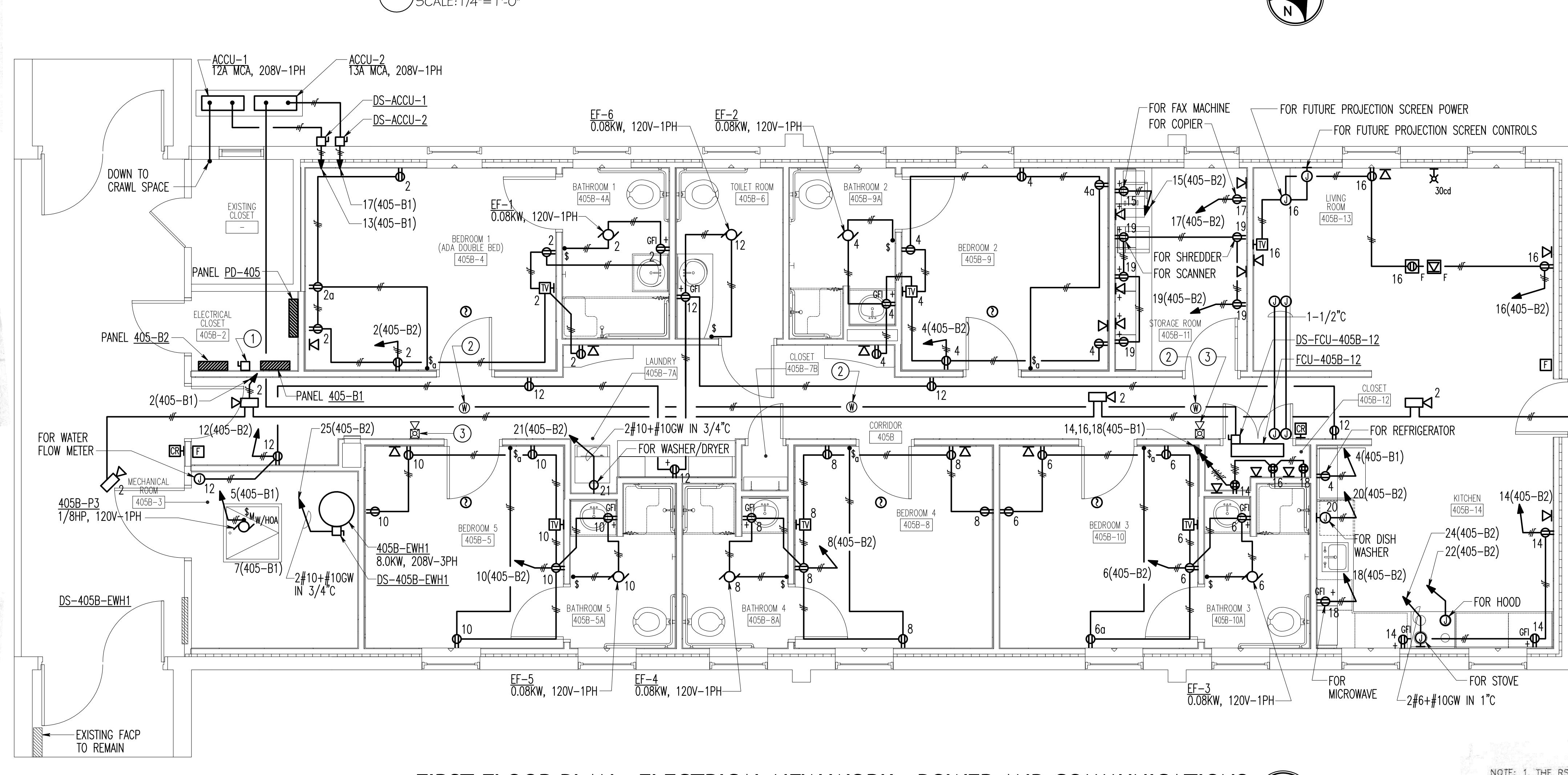
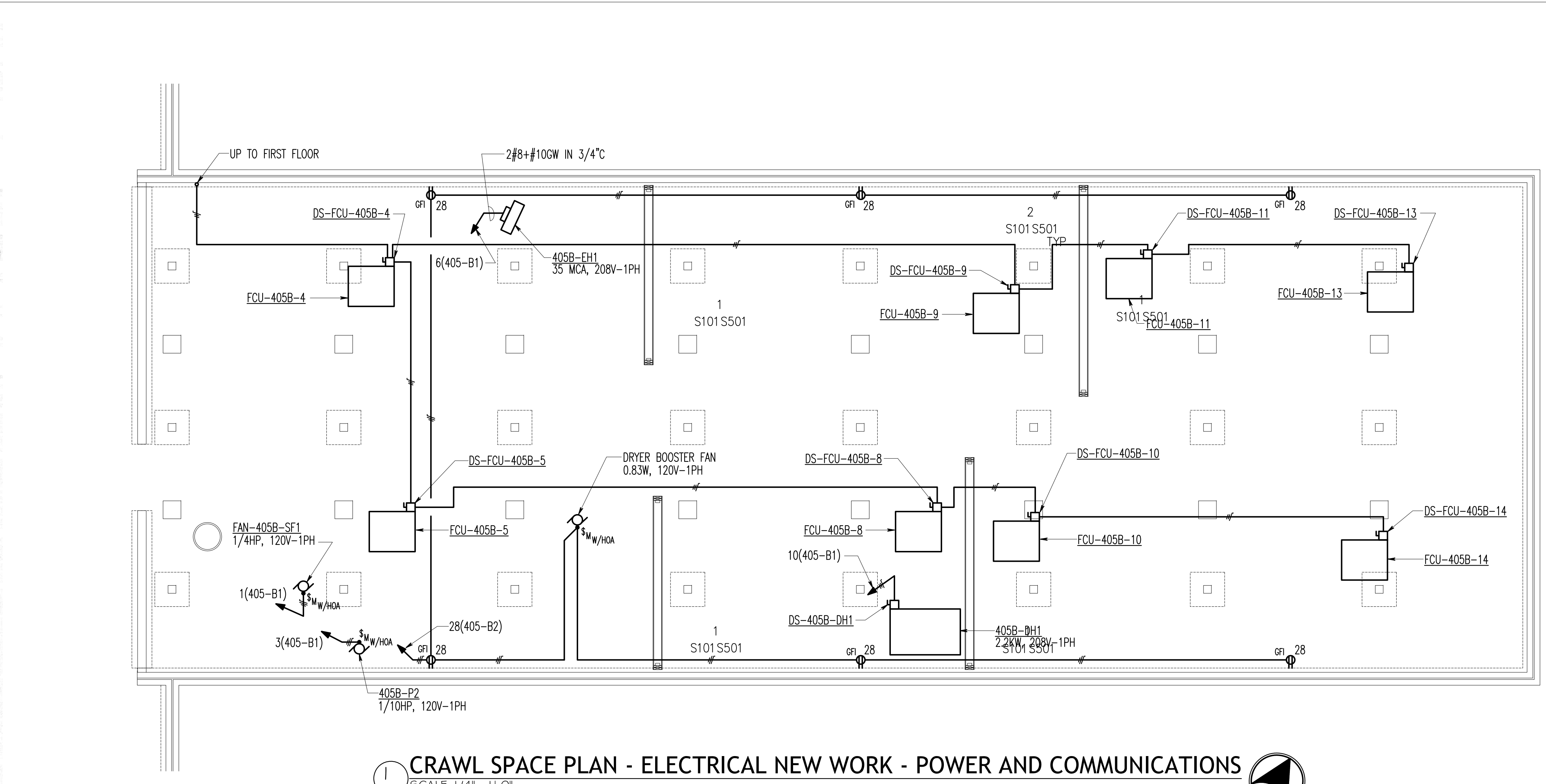
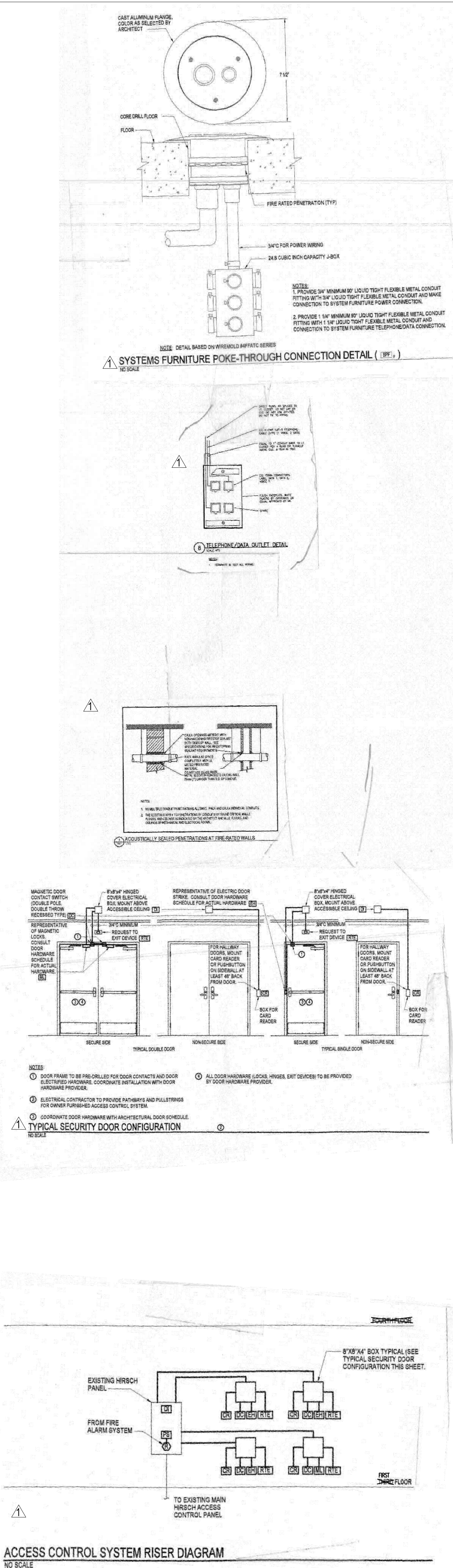
Stamp/Seal
 Drawing Title
ELECTRICAL NEW WORK - LIGHTING
 Approved: Project Director

Project Title
BUILDING 405B RENOVATION
 Location
MARTINSBURG, WV
 Date
 05/31/2013
 Checked
 KMG
 Drawn
 MLS

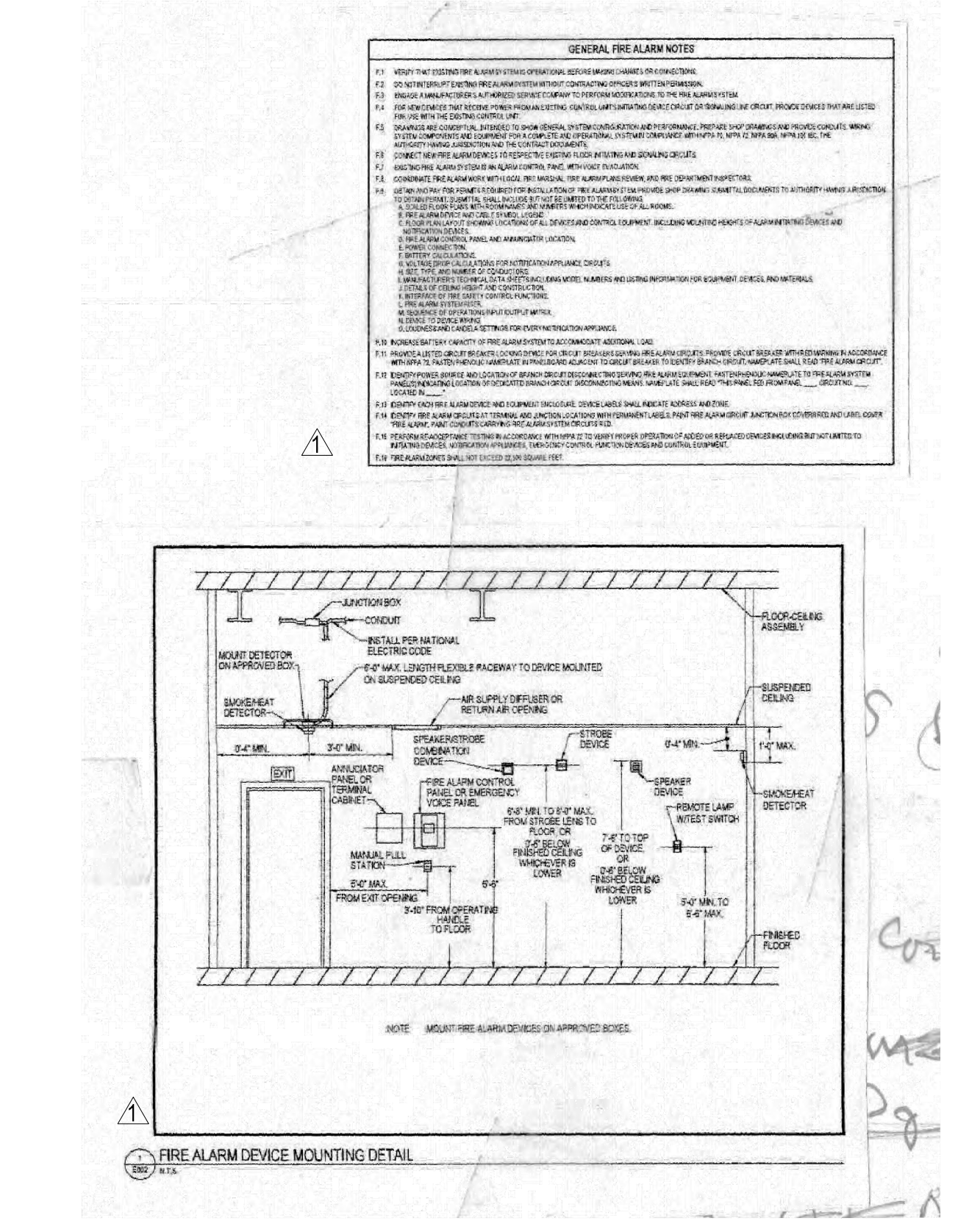
VA Project Number
613-13-115
 Building Number
405B
 Drawing Number
ES201

Office of Construction and Facilities Management
 Department of Veterans Affairs

3" = 1'-0"
1 1/2" = 1'-0"
1" = 1'-0"
3/4" = 1'-0"
1/2" = 1'-0"
3/8" = 1'-0"
1/4" = 1'-0"
1/8" = 1'-0"

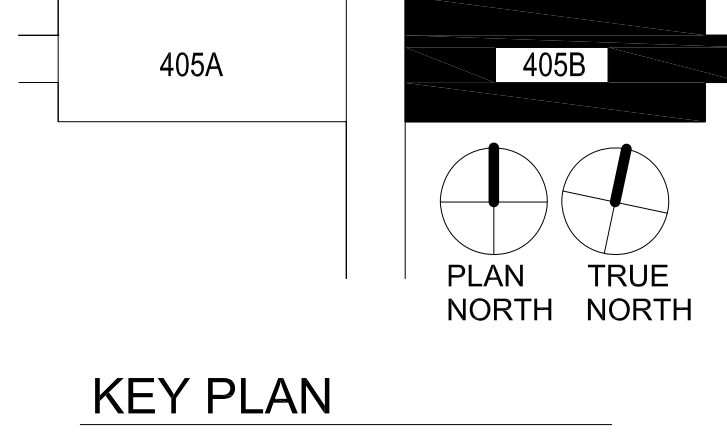


- DRAWING NOTES: (APPLICABLE TO THIS SHEET ONLY)**
- D1. NEW PANELBOARDS SHALL BE PROVIDED WITH A DOOR-IN-DOOR COVER.
 - D2. PROVIDE 3/4" CONDUIT AND COAX CABLE FOR EACH CAMERA AND ROUTE CABLES TO IT CLOSET 7B.
- SPECIAL NOTES: (APPLICABLE TO THIS SHEET ONLY)**
- 1 PROVIDE PHENOLIC NAME PLATE LABELED "OCCUPIED" AND PLACE ON ENCLOSURE NEXT TO SWITCH IN "ON" POSITION. PROVIDE PHENOLIC NAME PLATE LABELED "UNOCCUPIED" AND PLACE ON ENCLOSURE NEXT TO SWITCH IN "OFF" POSITION.
 - 2 RELOCATED EXISTING WIRELESS ACCESS POINT.
 - 3 RELOCATED FIRE ALARM STROBE.



WIRE LEGEND

DESIG.	DESCRIPTION	WIRE TYPE
A	24VDC	2 #14 AWG
B	RESSES	1 #18 AWG TWISTED SHIELDED PAIR
C	HORN/STROBE CIRCUIT	2 #14 AWG
D	ADDRESSABLE LOOP	2 #16 AWG



ARCHITECT / ENGINEERS:

Revisions by the VA	03/11/2022
Revisions by the VA	03/19/2019
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Stamp/Seal

Drawing Title
ELECTRICAL NEW WORK - POWER & COMMUNICATIONS

Approved: Project Director

Project Title
BUILDING 405B RENOVATION

Location
MARTINSBURG, WV

Date
05/31/2013

Checked
KMG

Drawn
MLS

VA Project Number
613-13-115

Building Number
405B

Drawing Number
ES202

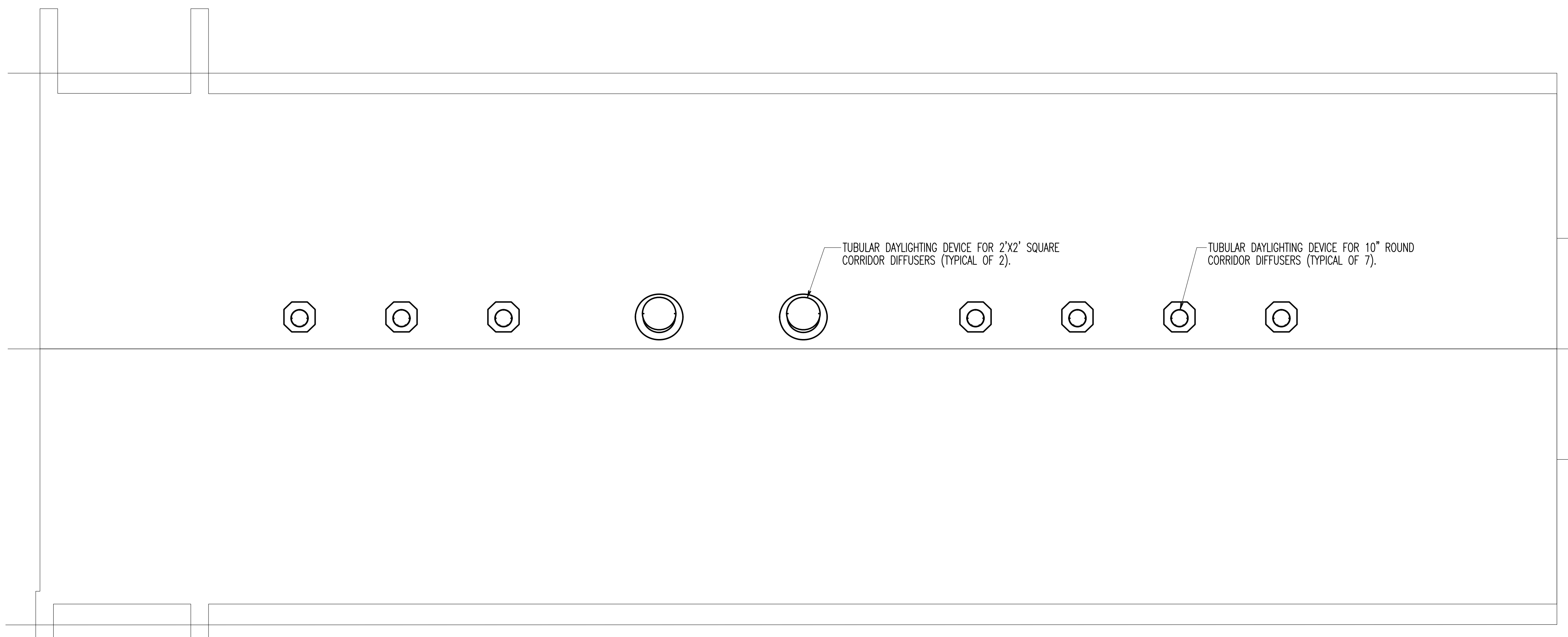
Office of Construction and Facilities Management
Department of Veterans Affairs

SPECIFICATIONS FOR HEAT TRACE SYSTEM DESIGN

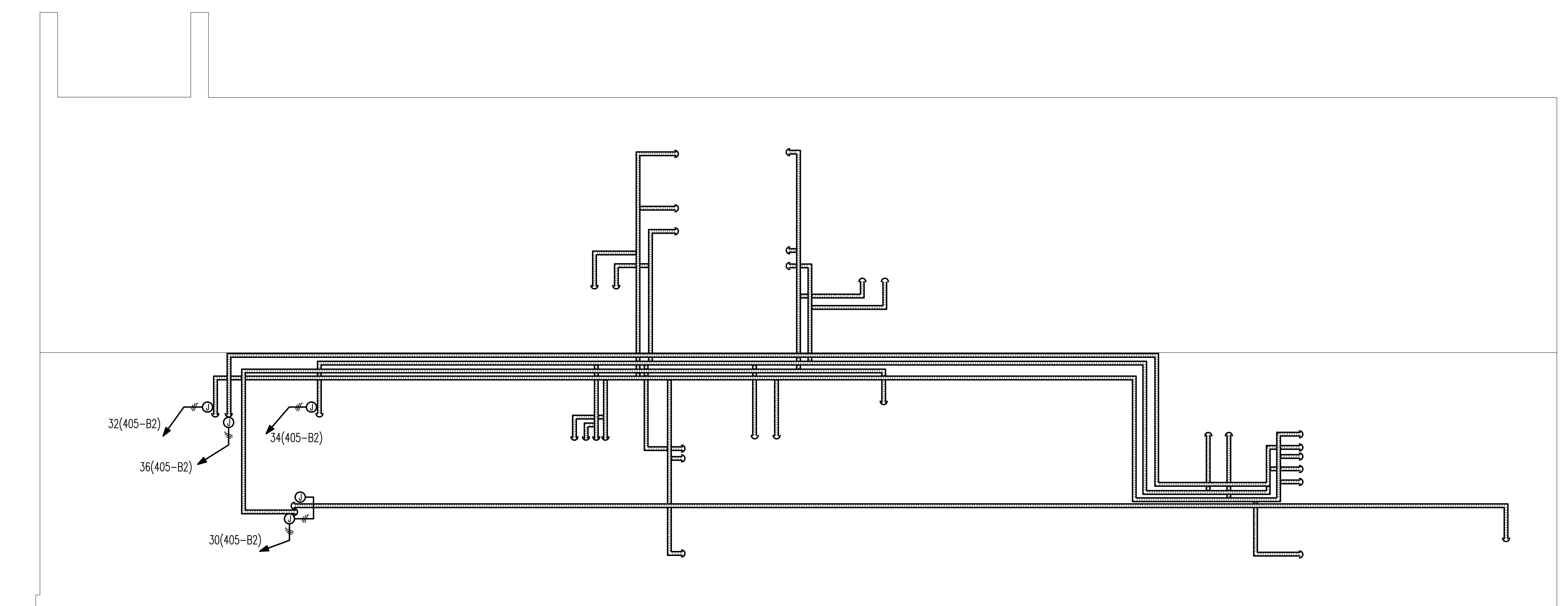
- PART 1 GENERAL**
- 1.1 RELATED DOCUMENTS
- DRAWINGS AND GENERAL PROVISIONS OF THE CONTRACT, INCLUDING GENERAL AND SUPPLEMENTARY CONDITIONS, AND DIVISION 1 SPECIFICATION SECTIONS, APPLY TO THIS SECTION.
- 1.2 SUMMARY
- SECTION INCLUDES:
 - HEAT TRACING MELTING CABLES.
 - SPLICES AND CONNECTORS.
 - END SEAL KITS.
 - RELATED SECTIONS:
 - SECTION "COMMON WORK RESULTS FOR ELECTRICAL."
 - SECTION "GROUNDING & BONDING FOR ELECTRICAL SYSTEMS" FOR COORDINATION WITH GROUNDING EQUIPMENT AND ATTACHMENTS.
 - SECTION "TRACWAYS AND BOXES FOR ELECTRICAL SYSTEMS."
 - SECTION "PIPES AND TUBES FOR PLUMBING PIPING AND EQUIPMENT" FOR COORDINATION WITH PIPING MATERIALS AND PIPING INSTALLATION.
 - SECTION "PIPES AND TUBES FOR HVAC PIPING AND EQUIPMENT" FOR COORDINATION WITH PIPING MATERIALS AND PIPING INSTALLATION.
- 1.3 SYSTEM DESCRIPTION
- GENERAL SYSTEM DESCRIPTION: THE HEAT TRACE CABLE SYSTEM SHALL PROVIDE AUTOMATIC OPERATION TO PREVENT THE FREEZING OF PROTECTED PIPING SYSTEMS. SYSTEM SHALL MAINTAIN A MINIMUM TEMPERATURE OF 40°F ALONG THE ENTIRE PROTECTED PIPE LENGTH. THE CONTROL OF THE CABLE SHALL BE PROVIDED BY THE FOLLOWING DEVICE:
 - AUTOMATIC SELF-REGULATING CABLE.
 - SYSTEM AND ALL COMPONENTS SHALL BE UL LISTED.
 - HEAT TRACE SYSTEM SHALL PROVIDE PROTECTION FOR THE FOLLOWING SYSTEM(S), PER DRAWINGS AND SPECIFICATIONS:
 - AHU PIPING AS INDICATED.
- 1.4 SUBMITTALS
- SUBMITTAL REQUIREMENTS OF THIS SECTION:
 - HEAT TRACE CABLES.
 - SPLICES AND CONNECTORS.
 - GROUND FAULT PROTECTION DEVICES.
 - PRODUCT DATA, INCLUDING CONSTRUCTION, MATERIALS, PERFORMANCE DATA, ETC.
 - PRODUCT TEST REPORTS: CERTIFIED COPIES OF MANUFACTURER'S DESIGN AND ROUTINE FACTORY TESTS REQUIRED BY THE REFERENCED STANDARDS.
 - PROVIDE SUBMITTAL DATA FOR EACH CABLE OR CONDUCTOR TYPE:
 - TO VERIFY SPECIFICATIONS HAVE BEEN MET/EXCEEDED.
 - INDICATE UL LISTING FOR ALL PRODUCTS.
- 1.5 DELIVERY, STORAGE AND PROTECTION OF EQUIPMENT
- PACKING, SHIPPING, HANDLING AND UNLOADING:
 - DELIVER WIRE AND CABLE ACCORDING TO NEMA WC26, "BINATIONAL WIRE AND CABLE PACKAGING STANDARD" AND MANUFACTURER'S INSTRUCTIONS.
 - STORAGE AND PROTECTION:
 - STORE CABLES OUT OF RAIN AND DIRT.
 - PROTECT FROM PHYSICAL DAMAGE.
 - GUARD AGAINST NICKS AND SCRATCHES.
- PART 2 PRODUCTS**
- 2.1 MANUFACTURER
- AVAILABLE MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE A SYSTEM BY THE NAMED "BASIS OF DESIGN" MANUFACTURER, OR A COMPARABLE PRODUCT OF ONE OF THE OTHER FOLLOWING NAMED MANUFACTURERS:
 - RAYCHEM CORPORATION (BASIS OF DESIGN).
 - CHROMALOX
 - EASY HEAT
 - TYCO THERMAL
- 2.2 HEAT TRACING CABLE
- UL LISTED, SELF-REGULATING HEAT TRACE CABLE.
 - TWO (2) 16-GAUGE NICKEL COPPER WIRES.
 - SELF-REGULATING POLYMER CORE.
 - VARYING HEAT OUTPUT IN RESPONSE TO TEMPERATURE ALONG ITS ENTIRE LENGTH.
 - NO OVERHEATING WHERE CABLES MAY CROSS OVER ITSELF.
 - MAY BE FIELD CUT TO PROVIDE EXACT LENGTH REQUIRED.
 - CROSS-LINKED DIELECTRIC, SEMI-CONDUCTING INSULATION LAYER.
 - BRANDED, TINNED COPPER SHEATH.
 - 70 MIL MODIFIED POLYOLEFIN OUTER JACKET.
 - 120 VOLTS, 1 PHASE CONNECTION.
 - RAYCHEM 5XL-2-OR.
- 2.3 TERMINATIONS & SPLICES
- SPLICE AND TERMINATION KITS FOR THE SYSTEM SHALL BE PROVIDED BY THE CABLE MANUFACTURER, SPECIFICALLY DESIGNED TO BE USED WITH THE PROPOSED CABLES.
 - WATER RESISTANT ASSEMBLY.
 - INTERNAL ADHESIVE/SEALANT.
 - HEAT SHRINKABLE, CROSS-LINKED POLYMER OUTER SLEEVE.
 - RAYCHEM END SEAL KIT (RAYCLIC-E) OR SPLICE KIT (RAYCLIC-S).
- 2.4 JUNCTION BOXES
- PROVIDE NEMA 4X JUNCTION BOX FOR TERMINATING SYSTEM CABLE(S) ABOVE GRADE AND FOR CONNECTION TO BUILDING WIRING SYSTEM.
 - UL LISTED, WEATHERPROOF JUNCTION BOX.
 - NON-METALLIC CONSTRUCTION.
 - RAYCHEM JUNCTION BOX (EMK-XJB).
- 2.5 GROUND FAULT PROTECTION DEVICE
- SINGLE GROUND FAULT PROTECTION DEVICE, WITH ENCLOSURE, SUITABLE FOR PROTECTING HEAT TRACING CABLE, PER NEC REQUIREMENTS.
 - 1 POLE, 20 AMP RATED CIRCUIT BREAKER.
 - 30 MA DETECTION FOR GROUND FAULT CURRENTS.
 - NEMA 3R OUTDOOR ENCLOSURE.
 - RAYCHEM (EMK-GF).
- PART 3 EXECUTION**
- 3.1 INSTALLATION
- INSTALL CABLES AS INDICATED, ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS.
 - INSTALL DIRECTLY ATTACHED TO PIPING, USING MANUFACTURER'S MOUNTING SYSTEM AND HARDWARE.
 - PROTECT THE HEATING CABLE WHERE IT IS EXPOSED IN UNHEATED AREAS.
 - TERMINATE CABLES USING MANUFACTURER'S END SEAL KIT.
 - PROVIDE END-SEAL KITS AT ENDS OF ALL RADIAL INSTALLATIONS. INSTALL KITS PER MANUFACTURER.
 - PROVIDE GROUND FAULT PROTECTION FOR ALL HEATING CABLE CIRCUITS. GFP MAY BE PROVIDED VIA GFP CIRCUIT BREAKERS IN ELECTRIC PANELBOARDS, OR VIA MANUFACTURER'S STAND-ALONE DEVICES.
- 3.2 FIELD QUALITY CONTROL
- GENERAL:
 - BEFORE MAKING TESTS, COMPLETE ALL CONNECTIONS AT SPLICES, TERMINATIONS, ETC.
 - ACCEPTANCE TESTING: TAKE AND RECORD THE FOLLOWING READINGS ON SYSTEMS 600 VOLTS AND BELOW:
 - MEGGER TESTS OF ALL HEATING CABLES WITH A 2500 VDC MEGGER, PER MANUFACTURER'S INSTRUCTIONS. PERFORM ALL TESTS BEFORE AND AFTER CONCRETE POURS.
 - TEST GROUND FAULT PROTECTION DEVICES USING CURRENT INJECTION, OR SIMILAR METHOD, TO VERIFY OPERATION OF GFP SYSTEM.
 - TEST REPORTS:
 - CERTIFY THAT ALL CABLE SECTIONS HAVE BEEN TESTED AND PASSED THE REQUIRED TESTS
 - SEND FINAL CERTIFIED TEST REPORTS AND CERTIFICATIONS TO ARCHITECT AND OWNER FOR APPROVAL, IN ACCORDANCE WITH DIVISION 1 SECTION "SUBMITTALS."
- 3.3 ADJUSTING
- GENERAL:
 - MAKE AND PERFORM ALL ADJUSTMENTS AFTER HEATING SYSTEM AND ALL CONTROL DEVICES ARE INSTALLED AND OPERATING.

DRAWING NOTES: (APPLICABLE TO THIS DRAWING ONLY)

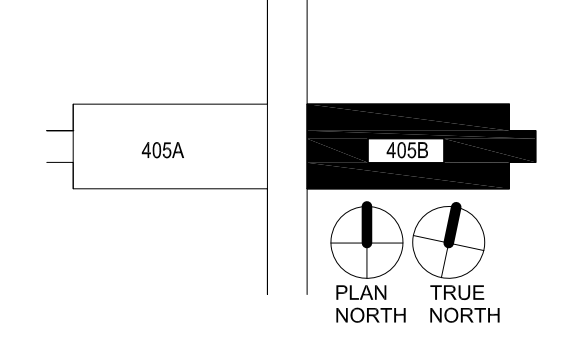
- COORDINATE EXACT LOCATIONS OF TUBULAR DAYLIGHTING DEVICES IN FIELD, SPACE BETWEEN TRUSSES. FOR ADDITIONAL INFORMATION AND DETAILS ON DAYLIGHTING SYSTEM, REFER TO ARCHITECTURAL DRAWINGS.



1 ROOF PLAN
SCALE: 1/4" = 1'-0"



2 ATTIC PLAN - ELECTRICAL NEW WORK
SCALE: 1/4" = 1'-0"



KEY PLAN

1/4" = 1' - 0"

Revisions	Date
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Stamp/Seal	Drawing Title ELECTRICAL NEW WORK - ROOF PLAN	Project Title BUILDING 405B RENOVATION	VA Project Number 613-13-115	Office of Construction and Facilities Management
	Approved: Project Director	Location MARTINSBURG, WV	Building Number 405B	
		Date 05/31/2013	Checked KMG	Drawn MLS
			Drawing Number ES203	Department of Veterans Affairs

