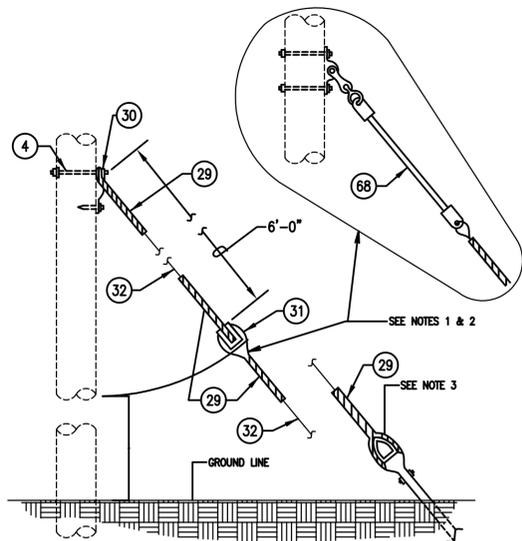


- 1 FLAT STEEL BRACE (TWO PIECES)
- 2 MACHINE BOLT, 3/8" X LENGTH NEEDED WITH WASHER, NUT AND LOCKWASHER
- 3 8" WOOD CROSSARM WITH CROSS SECTION DIMENSIONS OF 3 1/2" X 4 1/2"
- 4 MACHINE BOLT, 5/8" X LENGTH NEEDED WITH WASHER, NUT AND LOCKWASHER
- 5 TIMBER CONNECTOR
- 6 LAGSCREW, 1/2" X 4"
- 7 ANGLE STEEL BRACE (TWO PIECES)
- 8 MACHINE BOLT, 1/2" X LENGTH NEEDED, WITH WASHER, NUT & LOCKWASHER
- 9 DEADEND BOX
- 10 STEEL PIN
- 11 PIN INSULATOR
- 12 GRID GAIN, USED ONLY WHEN THERE IS NO POLE GAIN
- 13 ANGLE STEEL BRACE (ONE PIECE)
- 14 10' WOOD CROSSARM WITH CROSS SECTION DIMENSIONS OF 3 1/2" X 4 1/2"
- 15 5/8" EYE NUT
- 16 5/8" EYE BOLT, LENGTH AS NEEDED, WITH WASHER, NUT & LOCKWASHER
- 17 EXTENSION LINK
- 18 BELL TYPE SUSPENSION INSULATOR WITH CONNECTING HARDWARE
- 19 STRAIN CLAMP
- 20 STEEL ANGLE PIN
- 21 CLUSTER MOUNTING BRACKET, STEEL
- 22 TRANSFORMER GROUNDING CONNECTION
- 23 STIRRUP
- 24 SECONDARY LEAD SUPPORT BRACKET
- 25 ADAPTER PLATE FOR CLUSTER MOUNTING
- 26 CLEVIS BRACKET FOR SPOOL INSULATOR
- 27 SPOOL INSULATOR
- 28 U BOLT CLAMP
- 29 PREFORMED GUY GRIP
- 30 GUY HOOK
- 31 GUY STRAIN INSULATOR
- 32 GUY WIRE, SIZE AS SPECIFIED
- 33 #4 WP CU. SOFT DRAWN GROUND WIRE
- 34 GROUND CLAMP
- 35 CONDUIT COUPLING
- 36 CONDUIT BEND
- 37 INSULATED BUSHING
- 38 PERFORATED STRAPPING, 1-1/2" WIDE
- 39 HOT LINE CLAMP
- 40 FUSED CUTOFF, AS SPECIFIED
- 41 SURGE ARRESTER, 10KV
- 42 POLE TOP PIN (RIDGE PIN) - 24 INCHES LONG
- 43 CROSSARM ANGLE PIN
- 44 ANGLE POLE TOP PIN
- 45 WEATHERPROOF SOFT DRAWN WIRE-SIZE  
(a) TO MATCH OR EXCEED AMPACITY OF CONNECTING CABLE, OR  
(b) AT 125% OF TRANSFORMER FULL LOAD CURRENT, BUT NOT LESS THAN NO. 4 AWG

- 46 TRI-MOUNT BRACKET
- 47 TERMINATOR
- 48 MOUNTING BRACKET
- 49 CABLE GRIP HANGER
- 50 HOSE CLAMP
- 51 STUD, 3/4" X 1-3/4"
- 52 LINE POST INSULATOR
- 53 TRIPLE INSULATOR BRACKET
- 54 ANGLE CLAMP
- 55 INSULATOR, LINE POST CLAMP
- 56 4" CROSSARM
- 57 CROSSARM GAIN BRACKET
- 58 PULLEY BRACKET
- 59 WEDGE CLAMP
- 60 MIDSPAN SERVICE CLAMP
- 61 STUD, 7"
- 62 SADDLE, ANGLE
- 63 SADDLE CROSSARM
- 64 FITTING, POLE TOP
- 65 CONNECTOR
- 66 SUSPENSION CLAMP
- 67 TIE, SERVICE CABLE
- 68 54" FIBERGLASS STRAIN INSULATOR
- 69 PVC RISER SHIELD
- 70 PVC EXTENSION SHIELD
- 71 PVC BACK PLATE
- 72 8" WOOD CROSSARM WITH CROSS SECTION DIMENSIONS OF 4 3/4" X 5 3/4"
- 73 10' WOOD CROSSARM WITH CROSS SECTION DIMENSIONS OF 4 3/4" X 5 3/4"
- 74 BACK-UP CURRENT LIMITING FUSE

### POLE LINE MATERIAL LIST

NOT TO SCALE



- NOTES**
- DRAWING REPRESENTS SYMBOL FOR "GUY-I". OMIT ITEM (31) FOR THE "GUY" SYMBOL.
  - ON CIRCUIT OPERATING VOLTAGES GREATER THAN 15KV, SUBSTITUTE (68) FOR (31).
  - COORDINATE INSTALLATION WITH ANCHOR AS SPECIFIED.
  - UTILIZE ITEM (68) WHEN GUYING ATTACHMENT IS LOCATED IN THE PRIMARY AREA OF THE POLE AS INDICATED BY SPECIFIC DESIGN REQUIREMENTS PROVIDED.
  - BOND ALL GUYS (SUPPLY & COMMUNICATION) AND CONNECT TO POLE GROUND AND SYSTEM NEUTRAL (IF EXISTING).

### 3 TYPICAL GUYING DETAIL

ES506 NOT TO SCALE

### SYMBOL LEGEND

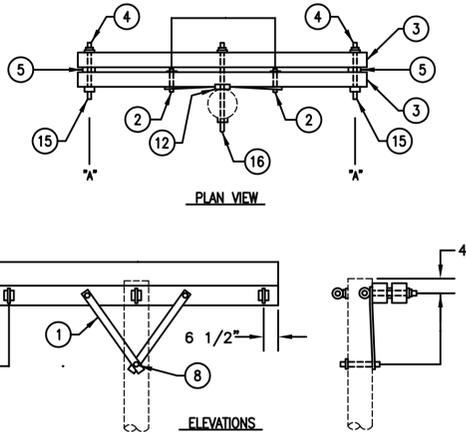
|    |                       |      |                       |
|----|-----------------------|------|-----------------------|
| A  | ANGLE                 | AB   | ANGLE BRACE           |
| D  | DOUBLE                | CL   | CURRENT LIMITING      |
| DE | DEADEND               | DE   | DEADEND               |
| F  | FLAT (HORIZONTAL)     | FB   | FLAT BRACE            |
| HD | HEAVY DUTY            | I    | INSULATED             |
| PP | PHASE TO PHASE        | N    | NEUTRAL               |
| R  | RIDGE OR POLE TOP PIN | R    | SECONDARY, OPEN WIRE  |
| S  | SECONDARY, TRIPLEX    | S    | SECONDARY, QUADRUPLIX |
| ST | STRAIN                | T    | TERMINATOR            |
| SQ | SUSPENSION CLAMP      | TERM | TERMINATOR            |
| T  | TERMINATOR            | UG   | UNDERGROUND           |
| V  | VERTICAL              | X    | CROSSARM, 8"          |
| X  | CROSSARM, 10"         | X10  | CROSSARM, 10"         |

### GENERAL NOTES

- SYMBOLS COMPRISING THE OVERHEAD SKETCHES ARE NOT INTENDED TO BE "ALL INCLUSIVE" FOR USE ON EVERY DISTRIBUTION POLE LINE CONFIGURATION. ONLY SKETCHES WHICH REFLECT TYPICAL ARRANGEMENTS ARE INCLUDED. FOR OTHER DESIRED ARRANGEMENTS, PROVIDE SEPARATE DETAILS DRAWN TO REFLECT THE SPECIFIC CONDITIONS.
- THE METHOD OF SHOWING INFORMATION ON SITE PLAN IS OPTIONAL; HOWEVER, IT SHALL BE CONSISTENT WITH INFORMATION CONTAINED IN THE GUIDE LEGEND (APPENDIX C) INCLUDED IN "TECHNICAL GUIDELINES AND CRITERIA FOR ELECTRICAL DESIGN". THE CHARACTERISTICS AND IDENTIFICATION OF ALL CIRCUITS SHALL BE INCLUDED ON THE SITE PLAN.
- EACH SKETCH CONTAINS MATERIAL ITEMS WHICH COMPRISE A PART OF EACH INDIVIDUAL SYMBOL REFERENCED BY THAT SKETCH. THESE ITEMS ARE INDICATED BY CIRCLED NUMERALS WHICH ARE IDENTIFIED BY SKETCHES OH-1.5 AND OH-1.5A.
- SPACING REQUIREMENTS RELATED TO INDIVIDUAL COMPONENTS OF A SYMBOL ARE INDICATED ON THE APPROPRIATE SKETCH. VERTICAL SPACING REQUIREMENTS BETWEEN CIRCUITS AND/OR SYSTEMS ARE INDICATED ON SKETCH OH-1.4. ALL OTHER SEPARATIONS BETWEEN CIRCUITS, EQUIPMENT, ETC., SHALL CONFORM TO THE NATIONAL ELECTRICAL SAFETY CODE, IEEE C2.
- FOR NEW CONSTRUCTION OR OPERATING VOLTAGES GREATER THAN 5KV, LIMIT THE NUMBER OF CONDUCTORS ON ANY CROSSARM TO A MAXIMUM OF 3.
- USE 10' CROSSARMS FOR ALL UNDERBUILD CIRCUITS WITH OPERATING VOLTAGES GREATER THAN 15KV.

### SYMBOL LEGEND

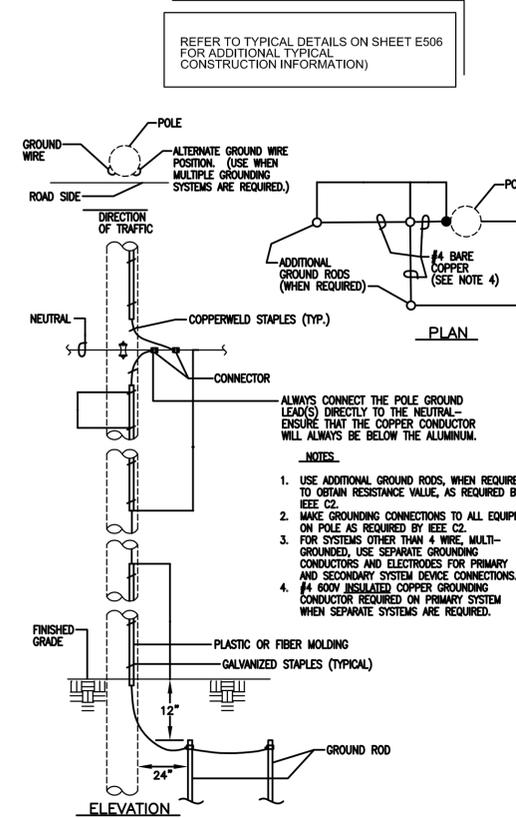
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- NOTE**
- DRAWING INDICATES SYMBOL DX-DE-FB. SUBSTITUTE (7) FOR (1) AND (6) FOR (2) ON SYMBOL DX-DE-AB.

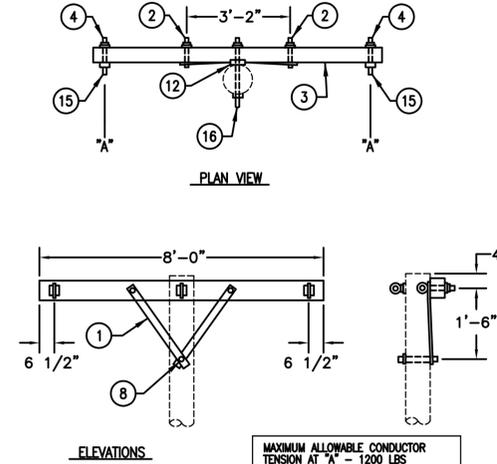
### 2 TYPICAL DOUBLE CROSSARM POLE CONSTRUCTION DETAIL

ES506 NOT TO SCALE



### 4 TYPICAL GROUNDING DETAIL

ES506 NOT TO SCALE



- NOTE**
- DRAWING INDICATES SYMBOL X-DE-FB. SUBSTITUTE (7) FOR (1) ON SYMBOL X-DE-AB.

### 1 TYPICAL SINGLE CROSSARM POLE CONSTRUCTION DETAIL

ES506 NOT TO SCALE

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

BWR KDM BKB

PMDCM

BRANCH MANAGER

CHIEF ENGR ARCH

FIRE PROTECTION

DEPARTMENT OF THE NAVY

NAVAL FACILITIES ENGINEERING COMMAND

NAVAL FACILITIES ENGINEERING COMMAND - WASHINGTON

DODCA

MARINE CORPS BASE QUANTICO, VIRGINIA

QUANTICO, VA

REPLACE QUANTICO M/H SCHOOL

MARINE CORPS BASE QUANTICO

ELECTRICAL SITE DETAILS

SCALE: P-021

CONSTR. CONTR. NO. W91236-15-C-0023

NAVFAC DRAWING NO. 13091361

SHEET 607 OF 789

ES506

DATE

SYN DESCRIPTION

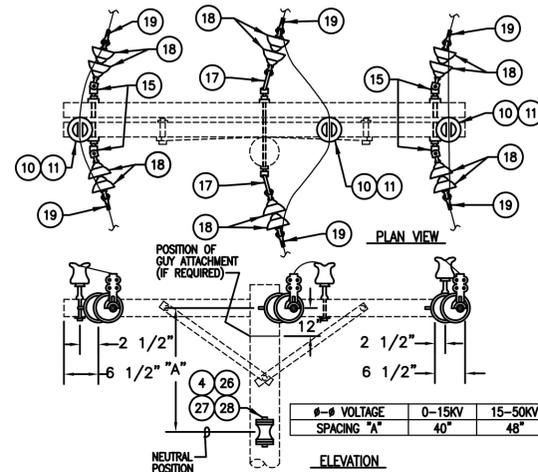
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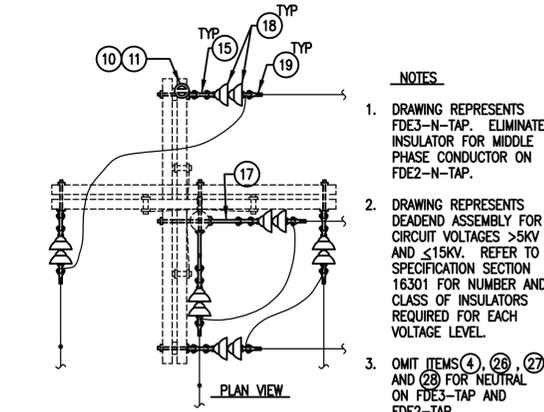
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Philadelphia, PA 19106-1500  
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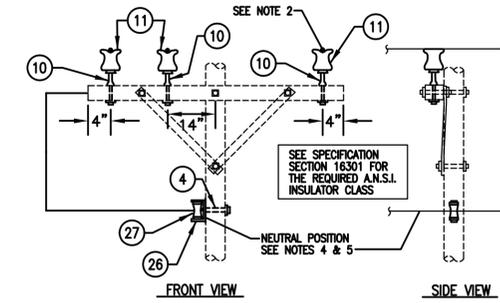
REFER TO TYPICAL DETAILS ON SHEET E506 FOR ADDITIONAL TYPICAL CONSTRUCTION INFORMATION



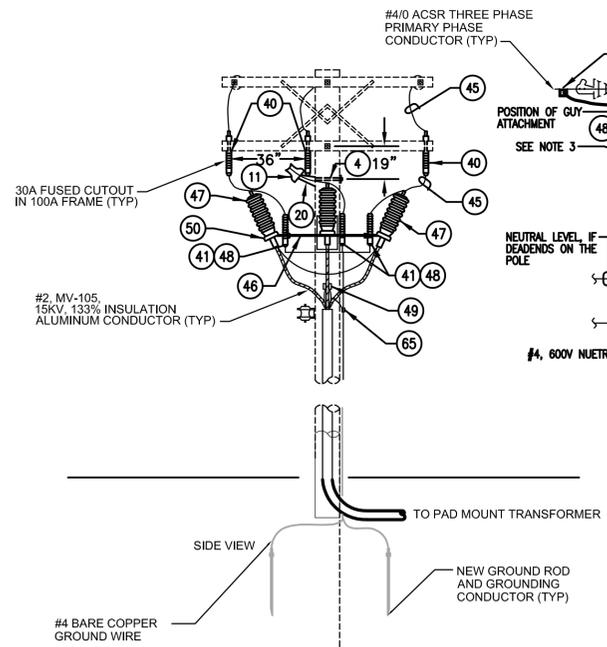
4 MID SPAN ANGLED POLE DETAIL NOT TO SCALE



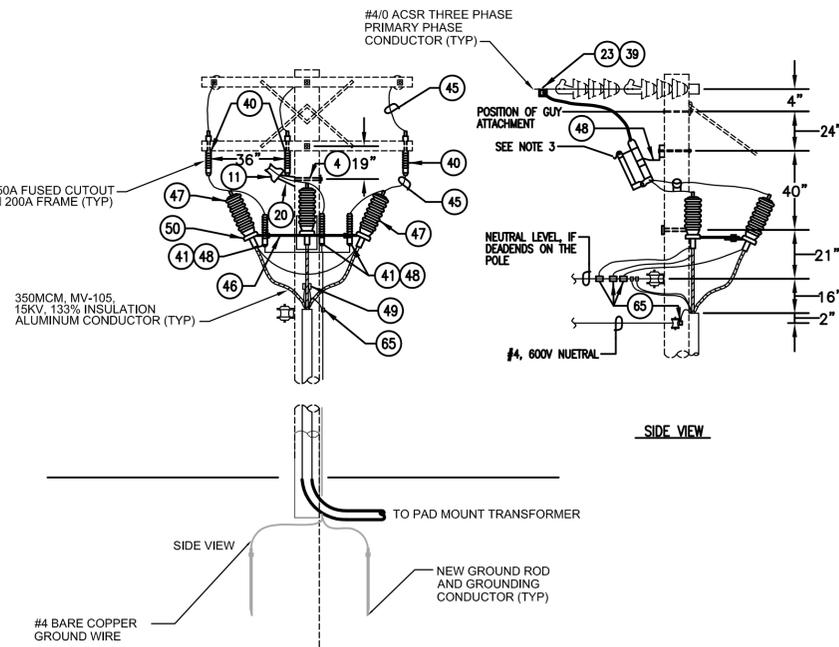
3 90 DEGREE ANGLED POLE DETAIL NOT TO SCALE



2 MID SPAN POLE DETAIL NOT TO SCALE



5 PRIMARY RISER POLE DETAIL NOT TO SCALE



1 PRIMARY RISER POLE DETAIL NOT TO SCALE

APPROVED: \_\_\_\_\_

FOR COMMANDER NAVFAC ACTIVITY: \_\_\_\_\_

SATISFACTORY TO: \_\_\_\_\_ DATE: \_\_\_\_\_

BWR: \_\_\_\_\_ KOM: \_\_\_\_\_ BKB: \_\_\_\_\_

PM/CM: \_\_\_\_\_

BRANCH MANAGER: \_\_\_\_\_

CHIEF ENGR/ARCH: \_\_\_\_\_

FIRE PROTECTION: \_\_\_\_\_

DEPARTMENT OF THE NAVY  
NAVAL FACILITIES ENGINEERING COMMAND  
DODGE  
MARINE CORPS BASE QUANTICO, VIRGINIA

QUANTICO, VA

**REPLACE QUANTICO M/H SCHOOL**

ELECTRICAL SITE DETAILS

SCALE: \_\_\_\_\_

PROJECT NO.: P-021

CONSTR. CONTR. NO. \_\_\_\_\_

NAVFAC DRAWING NO. W91236-15-C-0023

13091362

SHEET 608 OF 789

ES507

DRAWING REVISION: \_\_\_\_\_ 10 MARCH 2016



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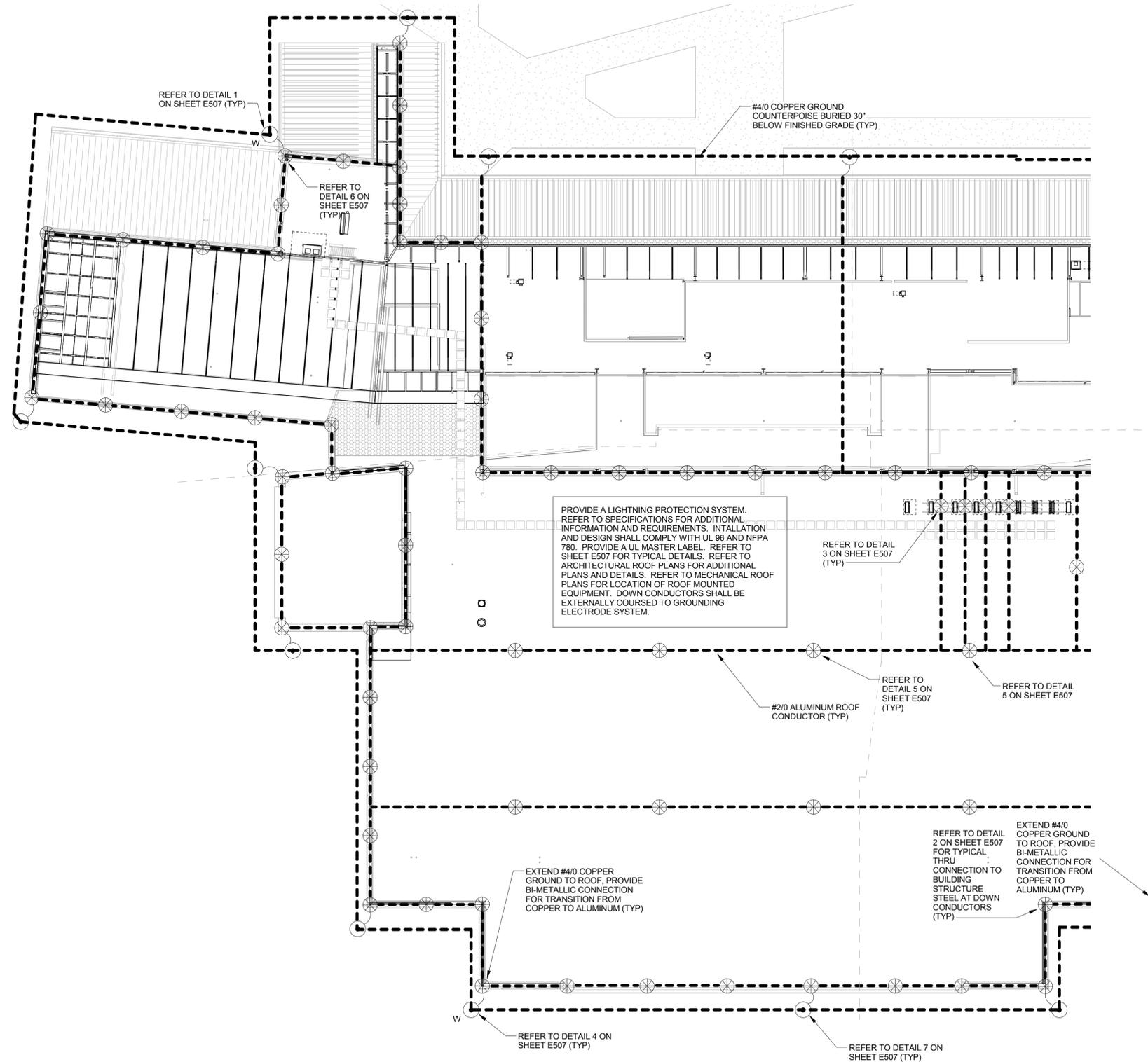
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| APPR   |                  |
| DATE   |                  |
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|   |                  |
|   |                  |
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| AE INFO  |                  |
| APPROVED   |                  |
| FOR COMMANDER NAVFAC ACTIVITY  |                  |
| SATISFACTORY TO  | DATE             |
| BWR  | KDM              |
| BKB  | BKB              |
| PRJDM  |                  |
| BRANCH MANAGER   |                  |
| CHIEF ENG ARCH   |                  |
| FIRE PROTECTION  |                  |
| DEPARTMENT OF THE NAVY<br>NAVAL FACILITIES ENGINEERING COMMAND<br>NAVAL FACILITIES ENGINEERING COMMAND - WASHINGTON<br>DODEA<br>MARINE CORPS BASE QUANTICO, VIRGINIA<br>QUANTICO, VA<br><b>REPLACE QUANTICO M/H SCHOOL</b> |                  |
| ROOF PLAN AREA A - LIGHTNING PROTECTION  |                  |
| SCALE:   | 1/16" = 1'-0"    |
| PROJECT NO.:   | P-021            |
| CONSTR. CONTR. NO.:  | W91236-15-C-0023 |
| NAVFAC DRAWING NO.:  | 13091363         |
| SHEET  | 609 OF 789       |
| EG101  |                  |
| DRAWING REVISION: 10 MARCH 2009  |                  |

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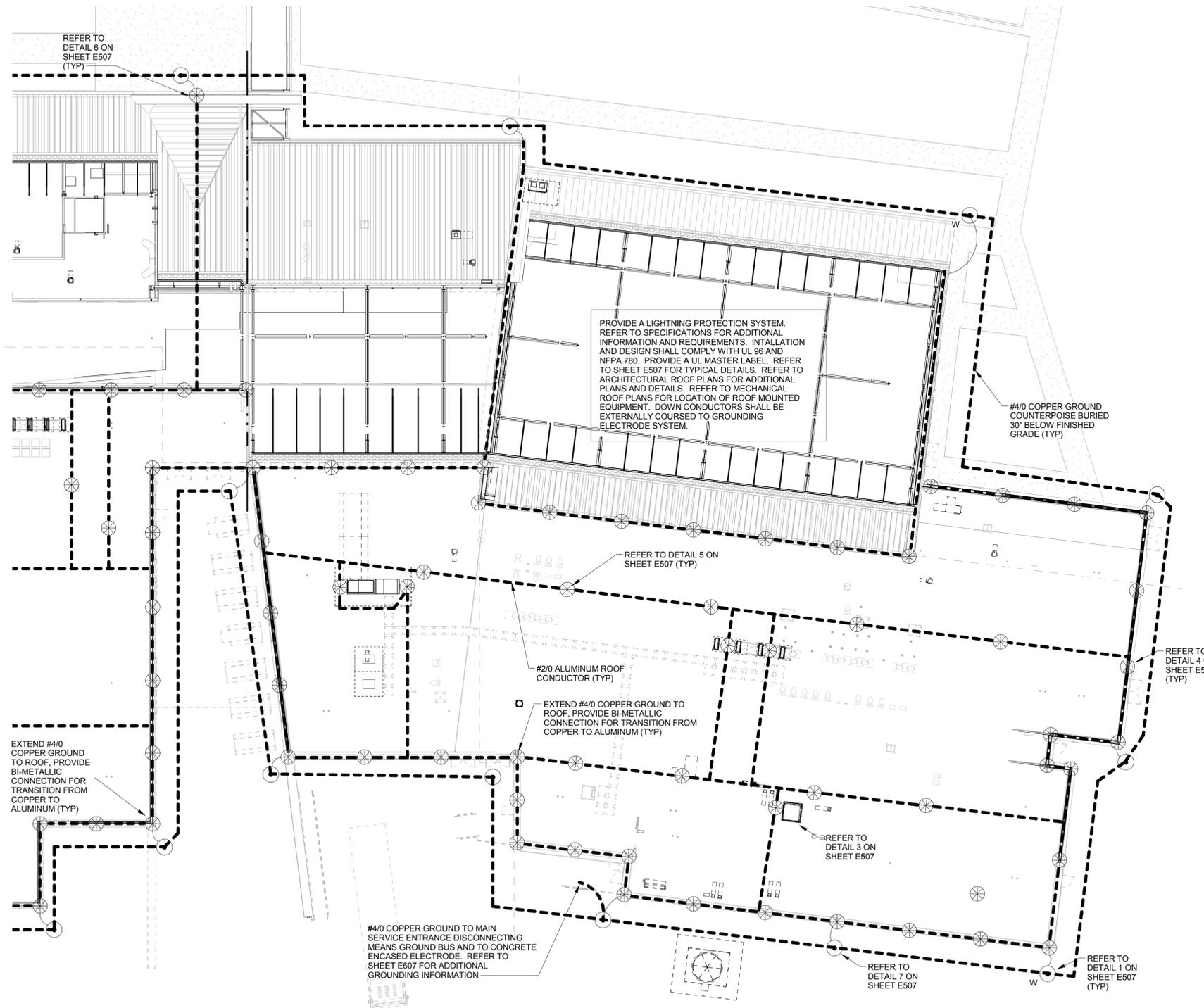
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| SYMBOL   | DESCRIPTION | DATE | APPROVED |
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| <b>EWING COLE</b><br>Federal Reserve Bank Building<br>100 North 6th Street<br>Philadelphia, PA 19106-1590<br>Tel: 215-923-2020 Fax: 215-574-0822   |             |      |          |
| AE INFO  |             |      |          |
| APPROVED   |             |      |          |
| FOR COMMANDER NAVFAC ACTIVITY  |             |      |          |
| SATISFACTORY TO  | DATE        |      |          |
| BWR  | KDM         | BKB  |          |
| PM/DM  |             |      |          |
| BRANCH MANAGER   |             |      |          |
| CHIEF ENGR ARCH  |             |      |          |
| FIRE PROTECTION  |             |      |          |
| DEPARTMENT OF THE NAVY<br>NAVAL FACILITIES ENGINEERING COMMAND - WASHINGTON<br>DOD/EA<br>MARINE CORPS BASE QUANTICO, VIRGINIA<br>QUANTICO, VA<br><b>REPLACE QUANTICO M/H SCHOOL</b><br>ROOF PLAN AREA B - LIGHTNING PROTECTION |             |      |          |
| SCALE: 1/16" = 1'-0"   |             |      |          |
| PROJECT NO.: P-021   |             |      |          |
| CONSTR. CONTR. NO. W91236-15-C-0023  |             |      |          |
| NAVFAC DRAWING NO. 13091364  |             |      |          |
| SHEET 610 OF 789   |             |      |          |
| EG102  |             |      |          |
| DRAWING REVISION: 10 MARCH 2009  |             |      |          |

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POWER GENERAL NOTES (APPLICABLE TO ALL POWER SHEETS)

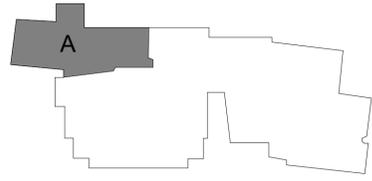
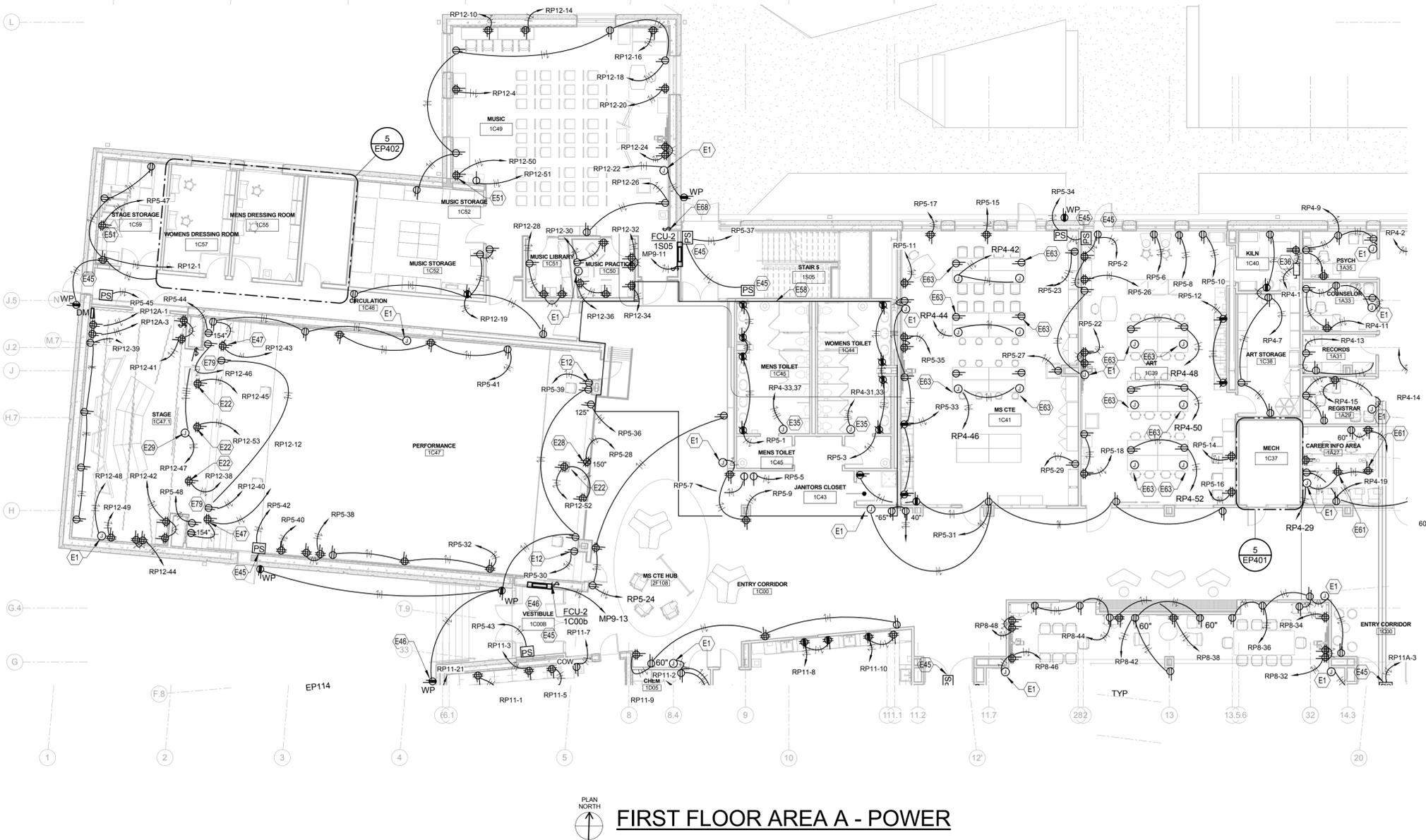
- PROVIDE CAGES AROUND ALL WALL MOUNTED DEVICES AND IN GYMNASIUM.
- ALL CONDUITS WITHIN GYMNASIUM SHALL BE CONCEALED WITHIN WALLS. WHERE CONDUITS ARE EXPOSED FOR FINAL CONNECTIONS TO PENDANT MOUNTED LIGHT FIXTURES, MOTORIZED BASKETBALL GOALS, OR OTHER EXPOSED EQUIPMENT/DEVICES, THE CONDUITS SHALL BE ROUTED TIGHT AND PARALLEL OR PERPENDICULAR TO STRUCTURAL MEMBERS AND SHALL REMAIN CONCEALED UP TO THE CEILING STRUCTURE ELEVATION.
- REFER TO ARCHITECTURAL CASEWORK PLANS AND DETAILS FOR ADDITIONAL INFORMATION ON LOCATION OF RECEPTACLES.
- RECEPTACLES IN ELEVATOR PITS SHALL BE WEATHER-PROOF (NEMA 4), WIRING SHALL BE INTENDED FOR USE IN WET LOCATIONS.
- THE LOCATION OF ALL FLOORBOXES AND POKE THRU'S IS APPROXIMATE. PRIOR TO CUTTING OF SLAB FOR POKE THRU'S OR ROUGH-IN FOR FLOORBOXES, THE CONTRACTOR SHALL REQUEST A DIMENSIONED PLAN FROM THE ARCHITECT/ENGINEER FOR EXACT DIMENSIONED LOCATIONS.
- REFER TO TYPICAL CLASSROOM TEACHING WALL ELEVATION ON SHEET E502 FOR ADDITIONAL INFORMATION ON LOCATION OF DEVICES.
- REFER TO ARCHITECTURAL PLANS FOR EXPANSION JOINT LOCATION. ALL CONDUITS CROSSING EXPANSION JOINTS SHALL HAVE APPROPRIATE EXPANSION FITTINGS.
- REFER TO ARCHITECTURAL INTERIOR ELEVATION DRAWINGS FOR PRECISE RECEPTACLE LOCATIONS FOR RECEPTACLES ABOVE OR WITHIN CASEWORK AND MILLWORK AND TEACHING WALL IN LEARNING STUDIOS.
- REFER TO ARCHITECTURAL PLANS FOR EXPANSION JOINT LOCATION. ALL CONDUITS CROSSING EXPANSION JOINTS SHALL HAVE APPROPRIATE EXPANSION FITTINGS.
- PROVIDE PLAQUES FOR ALL COW RECEPTACLES AS FOLLOWS: "COW (CART ON WHEELS) RECEPTACLE"
- REFER TO THE AV AND FA SERIES SHEETS FOR ADDITIONAL DEVICE BOX AND CONDUIT ROUGH-IN REQUIREMENTS. THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL ROUGH-INS, FLOORBOXES, CONDUITS, PULL BOXES, ETC. REFER TO GENERAL NOTES ON SHEET AV-001 FOR ADDITIONAL INFORMATION FOR ELECTRICAL CONTRACTOR
- REFER TO ARCHITECTURAL PLANS FOR TYPICAL DEVICE MOUNTING HEIGHTS AND LOCATIONS

POWER GENERAL NOTES (APPLICABLE TO ALL POWER SHEETS)

- REFER TO ARCHITECTURAL ELEVATIONS FOR EXACT MOUNTING HEIGHT AND LOCATION OF EXTERIOR WALL MOUNTED LIGHT FIXTURES AND RECEPTACLES.
- REFER TO TYPICAL CLASSROOM TEACHING WALL ELEVATION DETAIL (#5) ON SHEET EP502 FOR TYPICAL ARRANGEMENT OF DEVICES ON SMARTBOARD (TEACHING) WALL.
- REFER TO SHEET G005 FOR TYPICAL DEVICE MOUNTING HEIGHTS.
- THE CEILING SPACE IN THE PERFORMANCE 1C47 AND STAGE 1C47.1 WILL BE PAINTED BLACK. THERE SHALL BE NO OPEN CABLING IN CEILING SPACE. ALL CABLE AND WIRING SHALL BE IN CONDUIT TO ALLOW FOR PAINTING.
- REFER TO SHEET G-010 BID OPTIONS FOR ADDITIONAL INFORMATION ON BID OPTIONS.
- REFER TO LIFE SAFETY FL-101 AND FL-102 FOR RATED WALLS. PROVIDE FIRE RATED PENETRATIONS AS REQUIRED. WHERE CABLE TRAY PASSES THROUGH RATED WALLS, PROVIDE APPROVED CABLE TRAY FIRE PENETRATION ASSEMBLIES.
- COORDINATE LOCATION OF ALL EQUIPMENT IN ELEVATOR MACHINE ROOM WITH THE APPROVED ELEVATOR SUBMITTALS. COORDINATE WIRE AND OVERCURRENT PROTECTION SIZE OF ELEVATOR MOTOR WITH APPROVED ELEVATOR SUBMITTALS.
- REFER TO DOOR DETAILS ON SHEET E508 AND E509 FOR ADDITIONAL INFORMATION.
- REFER TO ATFP COMPLIANCE PLAN, SHEET G006 FOR ADDITIONAL INFORMATION.
- REFER TO SHEETS FL-001, FL-101, AND FL-102 FOR RATED WALLS, PARTITIONS, ETC. SEAL PENETRATIONS AS REQUIRED WHEN PASSING THROUGH RATED FLOORS AND WALLS.
- WHEN INSTALLING CONDUIT, PIPE, OR ANY OTHER WORK IN INSULATED CONCRETE FORM (ICF) WALLS, THE RESPONSIBLE SUBCONTRACTOR FOR THE WORK SHALL PROVIDE SPRAY FOAM INSULATION TO PATCH THE RIGID INSULATION TO MAINTAIN FULL INTEGRITY OF THE INSULATING VALUE OF THE WALL AFTER THE MECHANICAL AND ELECTRICAL WORK IS COMPLETE. FURTHERMORE ALL NEW WORK SHALL NOT BE INSTALLED IN CONCRETE CENTER OF WALL. ALL MECHANICAL AND ELECTRICAL INSTALLATIONS SHALL BE ON THE INTERIOR SIDE OF THE CONCRETE.
- REFER TO SHEET S116 FOR ADDITIONAL INFORMATION FOR UNDERGROUND CONDUIT PENETRATIONS ABOVE AND BELOW FOOTINGS IN AREA F.

TAGGED NOTES

- 120V POWER FOR DIGITAL CLOCK, MOUNT AT 8'-0" AFF. CIRCUIT TO NEAREST RECEPTACLE CIRCUIT IF CIRCUITING IS NOT SHOWN. CLOCKS SHALL BE LOCATED AT EDGE OF DRY ERASE BOARDS (ON SMARTBOARD SIDE) WHERE DRY ERASE BOARDS ARE IN THE VICINITY OF THE CLOCK OUTLET.
- RECEPTACLE FOR STAGE SPOT LIGHTS.
- REFER TO COMBINATION RECESSED FLOOR BOX DETAIL ON SHEET E502.
- PROVIDE QUADRUPEX OUTLET IN STAGE FLOOR BOX. FLOOR BOX SHALL BE FSR TYPE, SIZED TO ALLOW FOR QUADRECEPTACLE, QUAD DATA, AND 6 GANGS FOR AV (REFER SHEET AV-003 FOR ADDITIONAL INFORMATION). EXTEND 1" CONDUIT FOR POWER, 2-1" CONDUITS FOR DATA, AND AV CONDUITS (REFER TO AV SERIES SHEETS FOR QUANTITY AND SIZE OF CONDUIT) AND 3-3/4" SPARE CONDUITS FROM BOX TO NEAREST WALL. EXTEND CONDUITS AS REQUIRED FOR POWER, DATA, AND AV WIRING.
- POWER FOR WALL MOUNTED PROJECTOR. COORDINATE MOUNTING HEIGHT WITH AV SHEETS.
- POWER FOR MOTORIZED PROJECTION SCREEN. EXTEND CONTROL WIRING IN CONDUIT TO UP/DOWN SWITCH. PROVIDE ALL ROUGH-IN, WIRING, ETC.
- PROVIDE JUNCTION BOX ABOVE CEILING OF RESTROOM FOR FUTURE ELECTRICAL CONNECTION TO ELECTRIC HAND DRYERS. EXTEND CONDUIT WITH PULL STRING TO PANEL AS INDICATED.
- COORDINATE ELECTRICAL CONNECTION TO GOVERNMENT PROVIDED KILN PRIOR TO ROUGH-IN. COORDINATE FUSE SIZE IN DISCONNECT AND NEMA PLUG RATING.
- POWER SUPPLY FOR ELECTRIFIED DOOR. REFER TO DOOR DETAILS ON SHEET E508 AND E509 FOR ADDITIONAL INFORMATION.
- RECEPTACLES SHALL BE BID OPTION #3
- RECEPTACLE TO BE FLUSH MOUNTED IN FRONT OF STAGE
- POWER FOR AV RACK.
- AVOID PLACING JUNCTION BOXES IN NON-ACCESSIBLE CEILING WHERE FEASIBLE.
- EXTEND POWER FROM JUNCTION BOX IN WALL TO QUAD OUTLETS MOUNTED WITHIN CASEWORK. EXTEND IN FLEXIBLE CONDUIT.
- 120V ELECTRICAL CORD REELS WITH DUPLEX RECEPTACLE. RIGIDLY SUPPORT FROM STRUCTURE ABOVE. CORD SHALL BE SJ TYPE WITH 300V RATING. STEEL HOUSING WITH MULTI-POSITION GUIDE ARM, MULTI-DIRECTION NYLON ROLLERS ON GUIDE ARM, 12AWG/3COND, POSITIVE LATCHING MECHANISM AND PLUG. HUBBELL OR APPROVED EQUAL
- CONTROLLER FOR MOTORIZED SHADES (TOTAL OF 2). EXTEND CONTROL WIRING IN CONDUIT TO SHADES.
- MOUNT RECEPTACLE TO FACE OF STAGE.



0 2' 4' 8' 16' 24'

SCALE AT FULL SIZE: 1/8" = 1'-0"

FIRST FLOOR AREA A - POWER

APPROVED

FOR COMMANDER NAVFAC ACTIVITY

SATISFACTORY TO DATE

BWR KDM BKB

PM/DM

BRANCH MANAGER

CHIEF ENG ARCH

FIRE PROTECTION

NAVAL FACILITIES ENGINEERING COMMAND  
 NAVAL FACILITIES ENGINEERING COMMAND - WASHINGTON  
 DDOEA  
 MARINE CORPS BASE QUANTICO, VIRGINIA  
 QUANTICO, VA

REPLACE QUANTICO M/H SCHOOL

DEPARTMENT OF THE NAVY

SCALE: As indicated

PROJECT NO.: P-021

CONSTR CONTR NO.

W91236-15-C-0023

NAVFAC DRAWING NO. 13091365

SHEET 611 OF 789

EP111

10 MARCH 2016



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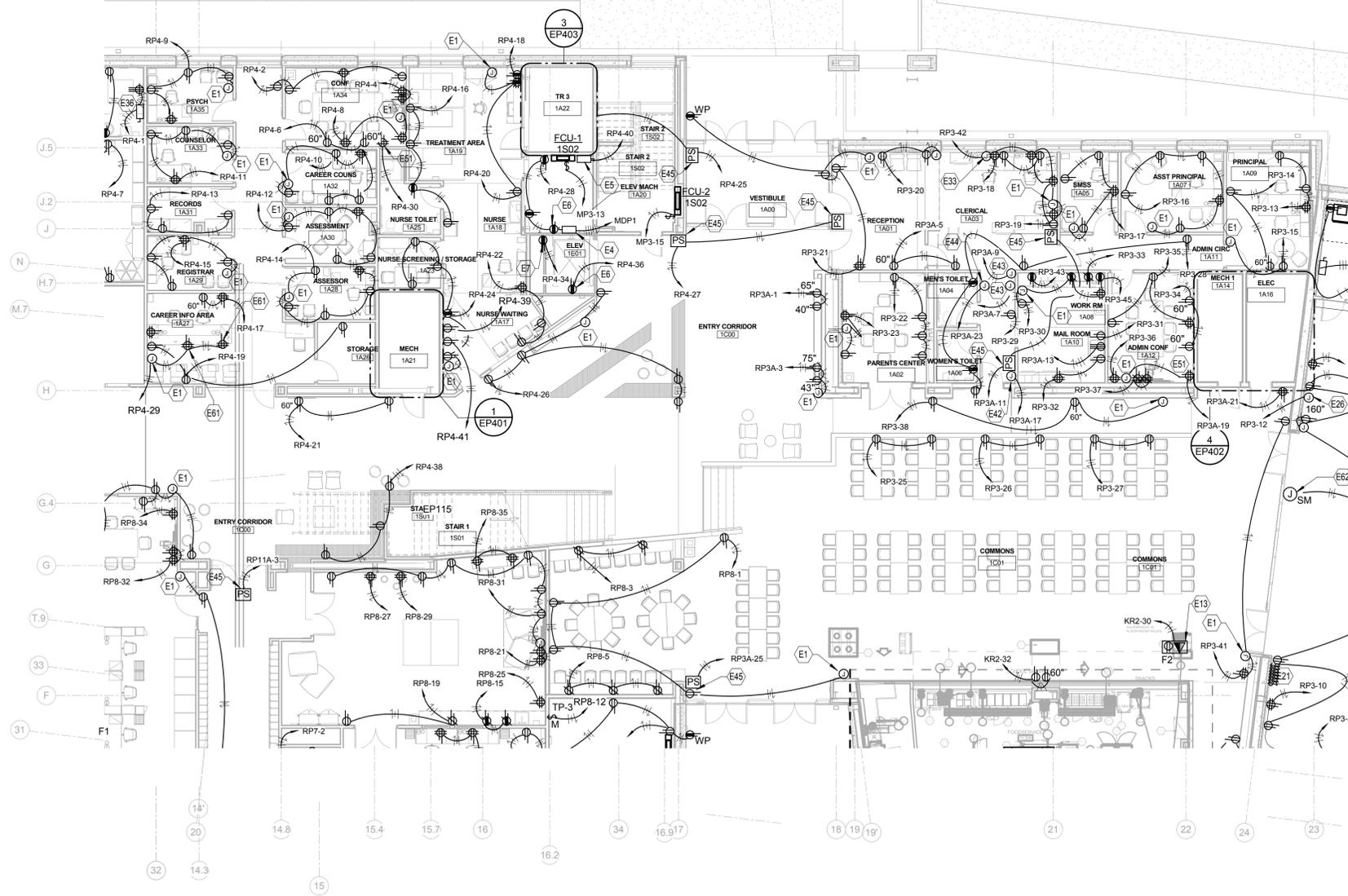
FIRST FLOOR - AREA A - POWER

D

C

B

A



**FIRST FLOOR AREA B - POWER**

| TAGGED NOTES |  |
|--------------|--|
| E1           | 120V POWER FOR DIGITAL CLOCK. MOUNT AT 8'-0" AFF. CIRCUIT TO NEAREST RECEPTACLE CIRCUIT IF CIRCUITING IS NOT SHOWN. CLOCKS SHALL BE LOCATED AT EDGE OF DRY ERASE BOARDS (ON SMARTBOARD SIDE) WHERE DRY ERASE BOARDS ARE IN THE VICINITY OF THE CLOCK OUTLET. |
| E2           | 120V CONNECTION FOR DDC CONTROL PANEL. COORDINATE EXACT LOCATION WITH HVAC CONTROLS CONTRACTOR.  |
| E4           | CONNECTION FOR ELEVATOR MOTOR CONTROLLER.  |
| E5           | 20A/1P ENCLOSED CIRCUIT BREAKER FOR CAB LIGHTING, RECEPTACLES, VENTILATION, AND HEATING AND AIR.   |
| E6           | EXTEND CIRCUIT TO LIGHT FIXTURES IN THIS SPACE, CIRCUIT TO LINE SIDE OF GFI RECEPTACLE.  |
| E7           | RECEPTACLE FOR PIT SUMP PUMP.  |
| E13          | REFER TO COMBINATION RECESSED FLOOR BOX DETAIL ON SHEET E502.  |
| E21          | CONTROL STATION FOR MOTORIZED GOALS AND CURTAIN.   |
| E28          | 120V CONNECTION TO SCOREBOARD. COORDINATE ROUGH-IN LOCATION AND ELEVATION WITH ARCHITECTURAL PLANS.  |
| E33          | POWER FOR MARQUIS SIGN. EXTEND CIRCUIT ONTO PANEL AS INDICATED.  |
| E36          | COORDINATE ELECTRICAL CONNECTION TO GOVERNMENT PROVIDED KILN PRIOR TO ROUGH-IN. COORDINATE FUSE SIZE IN DISCONNECT AND NEMA PLUG RATING.   |
| E42          | 120V CONNECT TO DRESS BUTTON DIGITAL DIALER  |
| E43          | 120V CONNECT TO FIRE ALARM CONTROL AND MASS NOTIFICATION PANEL.  |
| E44          | 120V CONNECTION TO DOOR ACCESS SECURITY CONTROL PANEL.   |
| E45          | POWER SUPPLY FOR ELECTRIFIED DOOR. REFER TO DOOR DETAILS ON SHEET E508 AND E509 FOR ADDITIONAL INFORMATION.  |
| E51          | POWER FOR AV RACK.   |
| E61          | EXTEND POWER FROM JUNCTION BOX IN WALL TO QUAD OUTLETS MOUNTED WITHIN CASEWORK. EXTEND IN FLEXIBLE CONDUIT.  |
| E62          | 120V CONNECTION TO MOTORIZED WINDOW ROLLER SHADES. EXTEND CONTROL WIRING FROM SHADES TO CONTROLLER (REFER TO ARCHITECTURAL PLANS AND SPECS FOR ADDITIONAL INFORMATION).  |

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| APPR        |  |
| DATE        |  |
| DESCRIPTION |  |
| SYM         |  |

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Tel: 215-923-2020 Fax: 215-574-0582

AE INFO

APPROVED

FOR COMMANDER NAVFAC  
ACTIVITY

|                  |      |
|------------------|------|
| SATISFACTORY TO  | DATE |
| BWR              | KDM  |
| BRANCH MANAGER   | BKB  |
| CHIEF ENG'D ARCH |      |
| FIRE PROTECTION  |      |

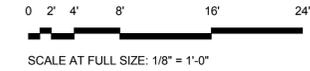
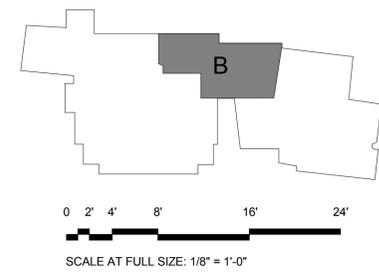
DEPARTMENT OF THE NAVY  
NAVAL FACILITIES ENGINEERING COMMAND - WASHINGTON  
DOD/EA  
MARINE CORPS BASE QUANTICO, VIRGINIA  
QUANTICO, VA

**REPLACE QUANTICO M/H SCHOOL**

FIRST FLOOR - AREA B - POWER

SCALE: As indicated  
PROJECT NO.: P-021  
CONSTR. CONTR. NO.: W91236-15-C-0023  
NAVFAC DRAWING NO.: 13091366  
SHEET 612 OF 789  
EP112

DRAWFORM REVISION: 10 MARCH 2009



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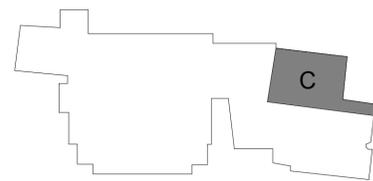
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| TAGGED NOTES |  |
|--------------|--|
| E1           | 120V POWER FOR DIGITAL CLOCK, MOUNT AT 8'-0" AFF. CIRCUIT TO NEAREST RECEPTACLE CIRCUIT IF CIRCUITING IS NOT SHOWN. CLOCKS SHALL BE LOCATED AT EDGE OF DRY ERASE BOARDS (ON SMARTBOARD SIDE) WHERE DRY ERASE BOARDS ARE IN THE VICINITY OF THE CLOCK OUTLET. |
| E2           | 120V CONNECTION FOR DDC CONTROL PANEL. COORDINATE EXACT LOCATION WITH HVAC CONTROLS CONTRACTOR.  |
| E21          | CONTROL STATION FOR MOTORIZED GOALS AND CURTAIN.   |
| E24          | QUAD RECEPTACLE IN LOWEST FACE OF BLEACHER RISER. EXTEND FLEXIBLE CONDUIT/WIRING TO JUNCTION BOX ON WALL BEHIND BLEACHER.  |
| E25          | COMBINE ALL CABLING IN A COMMON FLEXIBLE BUNDLE. ROUTE THROUGH THE BLEACHER STRUCTURE, ARRANGED TO MOVE WITH BLEACHERS.  |
| E26          | 120V CONNECTION TO SCOREBOARD. COORDINATE ROUGH-IN LOCATION AND ELEVATION WITH ARCHITECTURAL PLANS.  |
| E35          | PROVIDE JUNCTION BOX ABOVE CEILING OF RESTROOM FOR FUTURE ELECTRICAL CONNECTION TO ELECTRIC HAND DRYERS. EXTEND CONDUIT WITH PULL STRING TO PANEL AS INDICATED.  |
| E38          | 120V CONNECT FOR ICE MAKER   |
| E45          | POWER SUPPLY FOR ELECTRIFIED DOOR. REFER TO DOOR DETAILS ON SHEET E508 AND E509 FOR ADDITIONAL INFORMATION.  |
| E51          | POWER FOR AV RACK.   |
| E62          | 120V CONNECTION TO MOTORIZED WINDOW ROLLER SHADES. EXTEND CONTROL WIRING FROM SHADES TO CONTROLLER (REFER TO ARCHITECTURAL PLANS AND SPECS FOR ADDITIONAL INFORMATION).  |
| E65          | CONTROLLER FOR MOTORIZED SHADES (TOTAL OF 10). EXTEND CONTROL WIRING IN CONDUIT TO SHADES.   |



PLAN NORTH  
 **FIRST FLOOR AREA C - POWER**



0 2' 4' 8' 16' 24'  
 SCALE AT FULL SIZE: 1/8" = 1'-0"

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|---|---------------|------|
| APPROVED  | DATE          | APPR |
| FOR COMMANDER NAVFAC ACTIVITY                     |               |      |
| SATISFACTORY TO                                   | DATE          |      |
| BWR   | KDM           | BKB  |
| PM/DM   |               |      |
| BRANCH MANAGER                                    |               |      |
| CHIEF ENG/ ARCH                                   |               |      |
| FIRE PROTECTION                                   |               |      |
| NAVAL FACILITIES ENGINEERING COMMAND              | QUANTICO, VA  |      |
| NAVAL FACILITIES ENGINEERING COMMAND - WASHINGTON | QUANTICO, VA  |      |
| DOD/EA  | QUANTICO, VA  |      |
| MARINE CORPS BASE QUANTICO                        | QUANTICO, VA  |      |
| <b>REPLACE QUANTICO M/H SCHOOL</b>                |               |      |
| SCALE: As indicated                               |               |      |
| PROJECT NO.: P-021                                |               |      |
| CONSTR. CONTR. NO. W91236-15-C-0023               |               |      |
| NAVFAC DRAWING NO. 13091367                       |               |      |
| SHEET 613 OF 789                                  |               |      |
| EP113   |               |      |
| DRAWING REVISION                                  | 10 MARCH 2009 |      |




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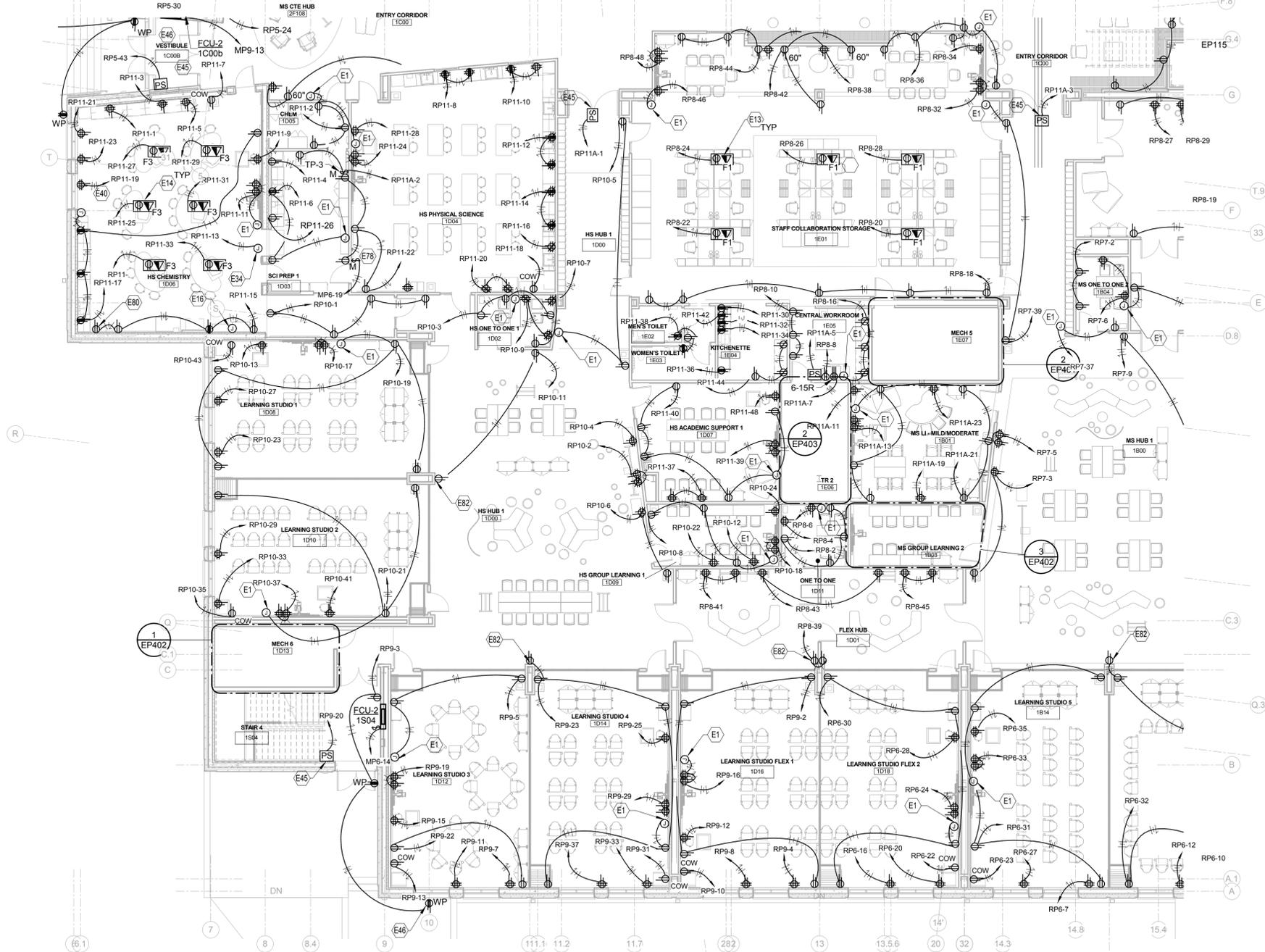
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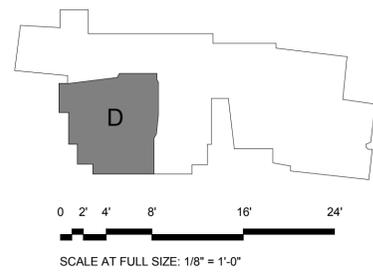
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PLAN NORTH  
**FIRST FLOOR AREA D - POWER**

| TAGGED NOTES |  |
|--------------|--|
| E1           | 120V POWER FOR DIGITAL CLOCK, MOUNT AT 8'-0" AFF. CIRCUIT TO NEAREST RECEPTACLE CIRCUIT IF CIRCUITING IS NOT SHOWN. CLOCKS SHALL BE LOCATED AT EDGE OF DRY ERASE BOARDS (ON SMARTBOARD SIDE) WHERE DRY ERASE BOARDS ARE IN THE VICINITY OF THE CLOCK OUTLET.                         |
| E13          | REFER TO COMBINATION RECESSED FLOOR BOX DETAIL ON SHEET E502.  |
| E14          | REFER TO COMBINATION FLUSH FLOOR SERVICE PEDESTAL DETAIL ON SHEET E502 FOR DATA AND POWER (POWER CONNECTION TO RECEPTACLE IN DESK AND MOTORIZED UP/DOWN MOTOR).  |
| E16          | REFER TO EMERGENCY SHUT-OFF WIRING DIAGRAM (SHEET E503) FOR SHUT OFF OF POWER AT LAB TABLES AND GAS SOLENOID VALVES FOR (REFER TO PL SERIES SHEETS FOR ADDITIONAL INFORMATION. LOCATE ADJACENT (3" SEPERATION) TO GAS VALVE BOX, REFER TO PLUMBING PLANS FOR ADDITIONAL INFORMATION. |
| E17          | 20A, 120V TWISTLOCK RECEPTACLE MOUNTED AT BOTTOM OF RACK TO ALLOW FOR CONNECTION TO PDU.   |
| E34          | PROVIDE POWER CONNECTION TO FUME HOOD FOR INTEGRAL LIGHTS AND RECEPTACLES. WIRE INTERNALLY WITHIN FUME HOOD TO LIGHTS AND RECEPTACLES ACCORDINGLY.   |
| E45          | POWER SUPPLY FOR ELECTRIFIED DOOR. REFER TO DOOR DETAILS ON SHEET E508 AND E509 FOR ADDITIONAL INFORMATION.  |
| E46          | RECEPTACLES SHALL BE BID OPTION #3   |
| E78          | DISCONNECTING MEANS FOR HVAC CURRICULUM DEMONSTRATION HEAT PUMP.   |
| E80          | 120V CONNECTION TO GOGGLE CABINET.   |
| E82          | MOUNT RECEPTACLE WITH BOTTOM OF BOX AT 24" AFF.  |



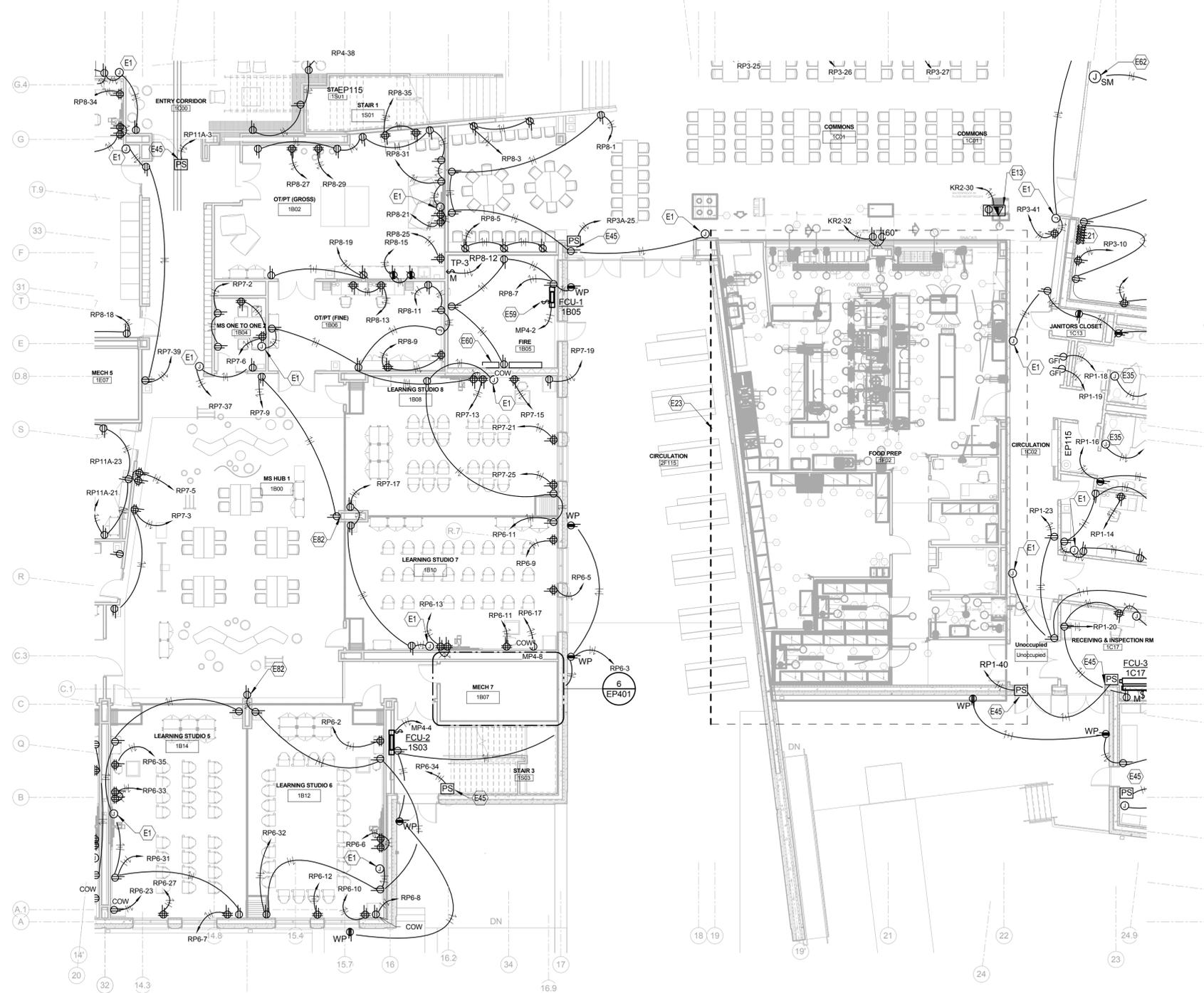
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| APPR   | DATE             |     |
| SYN  | DESCRIPTION      |     |
| <br><br><b>EWING COLE</b><br>Federal Reserve Bank Building<br>100 North 6th Street<br>Philadelphia, PA 19106-1590<br>Tel: 215-923-2020 Fax: 215-574-0892 |                  |     |
| AE INFO  |                  |     |
| APPROVED   |                  |     |
| FOR COMMANDER NAVFAC   | ACTIVITY         |     |
| SATISFACTORY TO  | DATE             |     |
| BWR  | KDM              | BKB |
| PM/DM  |                  |     |
| BRANCH MANAGER   |                  |     |
| CHIEF ENO ARCH   |                  |     |
| FIRE PROTECTION  |                  |     |
| DEPARTMENT OF THE NAVY<br>NAVAL FACILITIES ENGINEERING COMMAND - WASHINGTON<br>DODEA<br>MARINE CORPS BASE QUANTICO, VIRGINIA<br><b>REPLACE QUANTICO M/H SCHOOL</b><br>QUANTICO, VA<br>FIRST FLOOR - AREA D - POWER   |                  |     |
| SCALE:   | As Indicated     |     |
| PROJECT NO.:   | P-021            |     |
| CONSTR. CONTR. NO.:  | W91236-15-C-0023 |     |
| NAVFAC DRAWING NO.:  | 13091368         |     |
| SHEET  | 614 OF 789       |     |
|  | EP114            |     |
| DRAWN/FORM REVISION: 10 MARCH 2009   |                  |     |

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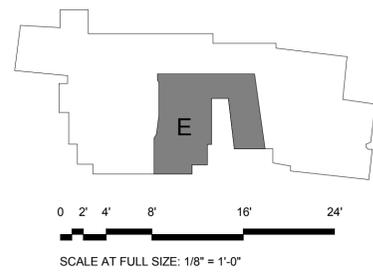
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PLAN NORTH  
**FIRST FLOOR AREA E - POWER**

| TAGGED NOTES |  |
|--------------|--|
| E1           | 120V POWER FOR DIGITAL CLOCK. MOUNT AT 8'-0" AFF. CIRCUIT TO NEAREST RECEPTACLE CIRCUIT IF CIRCUITING IS NOT SHOWN. CLOCKS SHALL BE LOCATED AT EDGE OF DRY ERASE BOARDS (ON SMARTBOARD SIDE) WHERE DRY ERASE BOARDS ARE IN THE VICINITY OF THE CLOCK OUTLET. |
| E13          | REFER TO COMBINATION RECESSED FLOOR BOX DETAIL ON SHEET E502.  |
| E21          | CONTROL STATION FOR MOTORIZED GOALS AND CURTAIN.   |
| E23          | REFER TO ENLARGED KITCHEN PLAN SHEET EP404.  |
| E35          | PROVIDE JUNCTION BOX ABOVE CEILING OF RESTROOM FOR FUTURE ELECTRICAL CONNECTION TO ELECTRIC HAND DRYERS. EXTEND CONDUIT WITH PULL STRING TO PANEL AS INDICATED.  |
| E45          | POWER SUPPLY FOR ELECTRIFIED DOOR. REFER TO DOOR DETAILS ON SHEET E508 AND E509 FOR ADDITIONAL INFORMATION.  |
| E59          | FIRE PUMP CONTROLLER AND TRANSFER SWITCH. REFER TO FIRE PROTECTION SHEET FX-501 AND ELECTRICAL ONE-LINE SHEETS E601 AND E602 FOR ADDITIONAL INFORMATION.   |
| E60          | JOCKEY PUMP CONTROLLER. REFER TO FIRE PROTECTION SHEET FX-501 AND ELECTRICAL ONE-LINE SHEETS E601 AND E602 FOR ADDITIONAL INFORMATION.   |
| E62          | 120V CONNECTION TO MOTORIZED WINDOW ROLLER SHADES. EXTEND CONTROL WIRING FROM SHADES TO CONTROLLER (REFER TO ARCHITECTURAL PLANS AND SPECS FOR ADDITIONAL INFORMATION).  |
| E82          | MOUNT RECEPTACLE WITH BOTTOM OF BOX AT 24" AFF.  |



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| APPROVED   | AE INFO          |
| FOR COMMANDER NAVFAC ACTIVITY  |                  |
| SATISFACTORY TO  | DATE             |
| BWR  | KDM              |
| PM/DM  | BKB              |
| BRANCH MANAGER   |                  |
| CHIEF ENG'D ARCH   |                  |
| FIRE PROTECTION  |                  |
| DEPARTMENT OF THE NAVY<br>NAVAL FACILITIES ENGINEERING COMMAND - WASHINGTON<br>DDOEA<br>MARINE CORPS BASE QUANTICO, VIRGINIA<br>QUANTICO, VA<br><b>REPLACE QUANTICO M/H SCHOOL</b><br>FIRST FLOOR - AREA E - POWER |                  |
| SCALE:   | As Indicated     |
| PROJECT NO.:   | P-021            |
| CONSTR. CONTR. NO.:  | W91236-15-C-0023 |
| NAVFAC DRAWING NO.:  | 13091369         |
| SHEET  | 615 OF 789       |
|  | EP115            |
| DRAWING REVISION: 10 MARCH 2016  |                  |

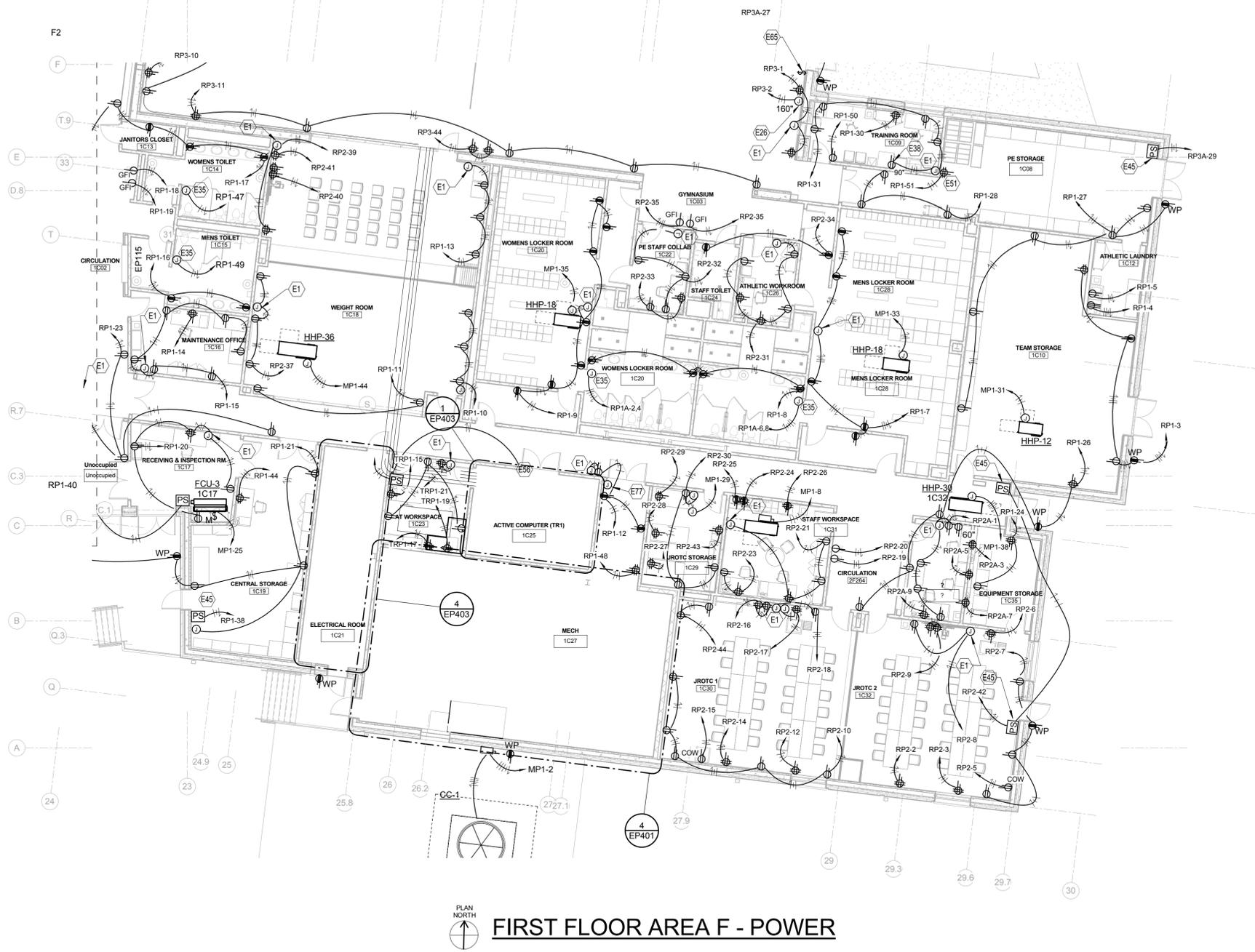


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| TAGGED NOTES |  |
|--------------|--|
| E1           | 120V POWER FOR DIGITAL CLOCK. MOUNT AT 8'-0" AFF. CIRCUIT TO NEAREST RECEPTACLE CIRCUIT IF CIRCUITING IS NOT SHOWN. CLOCKS SHALL BE LOCATED AT EDGE OF DRY ERASE BOARDS (ON SMARTBOARD SIDE) WHERE DRY ERASE BOARDS ARE IN THE VICINITY OF THE CLOCK OUTLET.                                       |
| E21          | CONTROL STATION FOR MOTORIZED GOALS AND CURTAIN.   |
| E26          | 120V CONNECTION TO SCOREBOARD. COORDINATE ROUGH-IN LOCATION AND ELEVATION WITH ARCHITECTURAL PLANS.  |
| E35          | PROVIDE JUNCTION BOX ABOVE CEILING OF RESTROOM FOR FUTURE ELECTRICAL CONNECTION TO ELECTRIC HAND DRYERS. EXTEND CONDUIT WITH PULL STRING TO PANEL AS INDICATED.  |
| E38          | 120V CONNECT FOR ICE MAKER   |
| E45          | POWER SUPPLY FOR ELECTRIFIED DOOR. REFER TO DOOR DETAILS ON SHEET E508 AND E509 FOR ADDITIONAL INFORMATION.  |
| E51          | POWER FOR AV RACK  |
| E56          | REFER TO SHEET EP403 FOR CONTINUATION.   |
| E65          | CONTROLLER FOR MOTORIZED SHADES (TOTAL OF 10). EXTEND CONTROL WIRING IN CONDUIT TO SHADES.   |
| E77          | EMERGENCY STOP FOR BOILER B-1 AND B-2 AND WATER HEATER WH-1 AND WH-2. REFER TO SHEET M301 FOR ADDITIONAL INFORMATION. E-STOP SHALL DISCONNECT POWER TO EQUIPMENT, PROVIDE CONTACTORS AS REQUIRED TO DISCONNECT CIRCUIT. REFER TO SHUT OFF WIRING DIAGRAM ON SHEET E503 FOR ADDITIONAL INFORMATION. |

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| APPROVED   | DATE                        |     |
| FOR COMMANDER NAVFAC ACTIVITY  | DESCRIPTION                 |     |
| SATISFACTORY TO  | DATE                        |     |
| BWR  | KDM                         | BKB |
| PM/DM  |                             |     |
| BRANCH MANAGER   |                             |     |
| CHIEF ENG'D ARCH   |                             |     |
| FIRE PROTECTION  |                             |     |
| DEPARTMENT OF THE NAVY<br>NAVAL FACILITIES ENGINEERING COMMAND - WASHINGTON<br>DODEA<br>MARINE CORPS BASE QUANTICO, VIRGINIA | QUANTICO, VA                |     |
| <b>REPLACE QUANTICO M/H SCHOOL</b>   |                             |     |
| FIRST FLOOR - AREA F - POWER   |                             |     |
| SCALE: As indicated  | PROJECT NO.: P-021          |     |
| CONSTR. CONTR. NO. W91236-15-C-0023  | NAVFAC DRAWING NO. 13091370 |     |
| SHEET 616 OF 789   | EP116                       |     |
| DRAWING REVISION: 10 MARCH 2009  |                             |     |

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