

#### DELAWARE OFFICE:

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ARCHITECTS

ENGINEERS

**FACILITIES SOLUTIONS** 

## ASI No. 4 - Lighting Replacement

TO : Conventional Builders

FROM : Dan Shurina

DATE : 01/26/2024

REFERENCE: 19121 East Wing HVAC Replacement at DelDOT Admin Bldg

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## Changes to Scope:

1. Provide cost proposal for to replace lighting in the OSEC area as described herein.

- 2. Existing wiring may be reused to the extent permitted by field conditions and following an evaluation of the existing conductors by the Contractor.
- 3. Owner will furnish light fixtures for installation. Contractor to field verify quantities of fixtures and include total fixture quantity in cost proposal to Contractor.
- 4. The cost proposal is to include demolition of existing can light fixtures which have been abandoned above ceiling and demolition of associated wiring.
- 5. The contractor is to provide hangers at existing wiring in the OSEC area which is not properly supported and is to remain.
- 6. See attached drawings for lighting replacement scope of work.

## **Changes to Drawings:**

- 1. Drawing E-000
  - a. Added new lighting controls symbols under Electrical Symbol Legend.
  - b. Added Light Fixture Schedule.
- 2. Drawing ED112A Added new drawing with lighting and lighting devices demolition work.
- 3. Drawing E112A Added new drawing with new lighting and lighting device replacements.

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**Ballasts** 

Compact Fluorescent

Fluorescent

Halogen

High Intensity Discharge (HID)

Incandescent

Lampholders/Sockets

Smart Connected

Light

LED Lamps

LED Luminaires & Retrofit Kits

**LED Modules** 

**LED Power Supplies** 

Return to Search Print Page

Product Number: 62698

Order

PANELF3BS035UNVD8SC722GWH

Abbreviation:

General Description:

Lumen and CCT Selectable LED Panel 3B, 20/30/35W, 120-277V, 0-10V

dim, 2200/3300/4000 lumens, 80+ CRI, 3500/4000/5000K, 2x2, White

#### **Product Information**

Power Factor ≥ 0.90

Total Harmonic Distortion

(THD)

Efficacy (LPW)

105 lm/W

< 20 %

Operating Voltage (V) 120

Power (W) 120

Abbrev. With Packaging

PANELF3BS035UNVD8SC722GWH 4/CS 1/SKU

Info.

Color Temperature/CCT (K) 3500

Ordering Abbreviation PANELF3BS035UNVD8SC722GWH

Average Rated Life 1 (hr) 50000

UPC Code UPC046135626982

Color Rendering Index

(CRI)

80

50000

Service Life Rating

2200 ... 4000 lm

Lumens (lm)

 Wattage (W)
 35.00 W

 Color Range
 3500 K

Connectors WAGO

Fixture Warranty 5 years

Housing Aluminum|Steel

Luminaire Finish White
Luminaire Type Panel

Mounting Recessed/Suspended/Surface

Certification Listing RoHS,FCC

Nominal Length (inch) 23.819 in

Width (in) 23.82 in

Width (mm) 605.00 mm

# **ELECTRICAL ABBREVIATIONS**

(D) - DENOTES EQUIPMENT OR WIRING TO BE DEMOLISHED (E) - DENOTES EXISTING EQUIPMENT OR WIRING TO REMAIN (N) - DENOTES NEW EQUIPMENT OR WIRING

AF - AMPERE FRAME AFF - ABOVE FINISHED FLOOR AT - AMPERE TRIP ATS - AUTOMATIC TRANSFER SWITCH BLDG - BUILDING C - CONDUIT CB - CIRCUIT BREAKER **ENCL - ENCLOSURE** 

FA - FIRE ALARM

KA - KILO AMPERE

KV - KILO VOLT

GE - GENERAL ELECTRIC

G - GROUND

MCB - MAIN CIRCUIT BREAKER MDP - MAIN DISTRIBUTION PANEL MTS - MANUAL TRANSFER SWITCH MVASC - MEGA VOLT AMPERE SHORT CIRCUIT OC - ON CENTER PH - PHASE QO - QWIK OPEN PROTECTION SPD - SURGE PROTECTIVE DEVICE SW - SWITCH SWBD - SWITCHBOARD UG - UNDERGROUND W - WATTS OR WIRE

Z - IMPEDANCE

KVA - KILO VOLT AMPERE

LI - LONG TIME + INSTANTANEOUS

LSI - LONG TIME + SHORT TIME + INSTANTANEOUS

LG - LG CORPORATION

E	LECTRICAL SYMBOL LEGEND					
Power Dev	ices					
Ф	TWIST LOCK, GENERAL PURPOSE RECESSED SINGLE RECEPTACLE, CEILING MOUNTED - 20AMP, 125VOLTS, NEMA L5-20R. ELECTRICAL BOX TO BE 2-1/8" DEEP.					
φ	GENERAL PURPOSE RECESSED SINGLE RECEPTACLE - 20AMP, 125VOLTS, NEMA5-20R. ELECTRICAL BOX TO BE 2-1/8" DEEP.					
φ	GENERAL PURPOSE DUPLEX RECEPTACLE - 20AMP, 125VOLTS, NEMA5-20R. ELECTRICAL BOX TO BE 2-1/8" DEEP (MIN.).					
#	GENERAL PURPOSE QUADRUPLEX RECEPTACLE - 20AMP, 125VOLTS, NEMA5-20R. ELECTRICAL BOX TO BE 2-1/8" DEEP (MIN.).					
GFCI♠ <u>OR</u> ♣GFCI	GENERAL PURPOSE GFCI RECEPTACLE (DUPLEX OR QUADRUPLEX) - 20AMP, 125VOLTS, NEMA5-20R. ELECTRICAL BOX TO BE 2-1/8" DEEP. OUTLETS INSTALL OUTDOORS OR ON ROOF SHALL HAVE DIECAST ALUMINUM BOX 2-1/8" DEEP (MIN.), AND WHILE IN USE COVER THOMAS&BETTS CKSUV OR APPROVED EQUAL.					
B	JUNCTION BOX - FOR FUTURE ACCESS CONTROL HARDWARE					
SM	FRACTIONAL HORSEPOWER MOTOR STARTER WITH OVERLOAD IN NEMA 1 ENCLOSURE; SQ'D FG2P OR APPROVED EQUAL FOR INDOORS, FW2P FOR OUTDOORS WITH NEMA 4 ENCLOSURE					
₽ •	FUSED DISCONNECT SWITCH-HEAVY DUTY, 3POLE WITH FUSE CLIPS SUITABLE FOR CLASS "R" FUSES. NEMA1 UNLESS NOTED. WP-WEATHER PROOF-NEMA3R ENCLOSURE. (NOMENCLATURE: 30A/20A = SWITCH SIZE/FUSE SIZE). SQ D CLASS 3110 OR EQUAL					
⊠-	COMBINATION MAGNETIC STARTER, FUSIBLE DISCONNECT SWITCH TYPE, 3POLE, FULL VOLTAGE NON-REVERSIBLE TYPE WITH: FUSED CONTROL TRANSFORMER, BI-METALLIC OVERLOAD RELAYS, ON/OFF PUSH BUTTONS OR HAND-OFF-AUTO.SELECTOR SWITCH, (1)N.O./(1)N.C., AUXILIARY CONTACTS AND LED PILOT LIGHT, CLASS "R" FUSE CLIPS. NEMA1 ENCLOSURE UNLESS NOTED- SQ D CLASS 8538 OR EQUAL. NEMA 1 - SIZE 1.					
VFD	VFD - VENDOR SUPPLIED - SEE ELECTRICAL GENERAL NOTE #31.					
· · ·	CIRCUIT BREAKER					
$\bigcirc$	MOTOR					
Fire Alarm	Devices					
FACP	FIRE ALARM CONTROL PANEL					
EVAC	VOICE EVACUATION CONTROL PANEL					
ODD OR OD	DETECTION DEVICE - SMOKE DETECTOR - DUCT DETECTOR (SUPPLIED AND INSTALLED BY MECHANICAL EQUIPMENT VENDOR, WIRED BY ELECTRICAL CONTRACTOR). SEE DUCT DETECTOR CONTROL WIRING DIAGRAM & DUCT DETECTOR CONTROL WIRING DETAIL ON SHEET E-500. ELECTRICAL CONTRACTOR TO PROVIDE EACH DUCT DETECTOR WITH A MONITORING MODULE, CONTROL RELAY, AND TEST SWITCH.					
CTR	CONTROL RELAY - PROVIDE LOW VOLTAGE WIRING TO FACP.					
\$ <sub>DD</sub>	DUCT DETECTOR REMOTE TEST SWITCH - SEE DUCT DETECTOR CONTROL WIRING DIAGRAM & DUCT DETECTOR CONTROL WIRING DETAIL ON SHEET E-500.					
Lighting Co	ontrols					
\$	WALL SWITCH - 20A, 120/277V, SINGLE POLE, HEAVY DUTY, TOGGLE TYPE					

*DD	CONTROL WIRING DETAIL ON SHEET E-500.						
Lighting Controls							
\$	WALL SWITCH - 20A, 120/277V, SINGLE POLE, HEAVY DUTY, TOGGLE TYPE						
<b>\$</b> <sub>3</sub>	WALL SWITCH (3-WAY) - 20A, 120/277V, SINGLE POLE, HEAVY DUTY, TOGGLE TYPE						
<b>\$</b> <sub>4</sub>	WALL SWITCH (4-WAY) - 20A, 120/277V, SINGLE POLE, HEAVY DUTY, TOGGLE TYPE						
\$ <sub>DMS</sub>	WALL SWITCH (DIMMING MOTION SENSOR) - 20A, 120/277V, SINGLE POLE, HEAVY DUTY, TOGGLE TYPE. PROVIDE 0-10V WIRING BETWEEN LIGHT FIXTURES AND DIMMER SWITCH. LEGRAND-DW-311 OR APPROVED EQUAL.						
\$ <sub>D</sub>	SLIDING DIMMER WITH ON/OFF SWITCH, RATED FOR 120/277V - 10/5 AMP, LEGRAND / CD4FBL3P OR APPROVED EQUAL. COLOR TO BE SELECTED BY ARCHITECT. PROVIDE LOW VOLTAGE WIRING BETWEEN SWITCH AND LIGHT FIXTURES.						
MS	MOTION SENSOR, CEILING MOUNTED, 2000 SQFT - HUBBELL / OMNI-DT-2000 OR APPROVED EQUAL. PROVIDE LOW VOLTAGE WIRING TO POWER PACK.						
РР	POWER PACK - HUBBELL / UVPP OR APPROVED EQUAL. PROVIDE LOW VOLTAGE WIRING TO MOTION SENSOR. CONNECT TO LOCAL LIGHTING CIRCUIT WITH 2#12 + 1#12G - 3/4"C WIRING.						

GRAPHIC CONVENTIONS						
Wiring Devices  HOMERUN PANEL — PLA-11 — BRANCH CIRCUIT DESIGNATION  OUTLETS TO BE MOUNTED AT STANDARD HEIGHT UNLESS OTHERWISE NOTED	Disconnects  30A, WP 20A, RK1  PROOF  FUSE SIZE, TYPE RK1					

LIGHTING FIXTURE SCHEDULE								
TYPE	LAMPS	VOLTAGE	MOUNT	FIXTURE DESCRIPTION	MANUFACTURER/CATALOG NUMBER	REMARKS		
A	LED 3390 LUMENS	120/277	RECESSED	2X2 ENERGY EFFICIENT LED FLAT PANEL	MAXLITE / MLFP-22-G4-30W-40 OR APPROVED EQUAL	PROVIDE MOUNTING HARDWARE AS REQUIRED. PROVIDE 10-YEAR STANDARD WARRANTY.		

# ELECTRICAL GENERAL NOTES

- PROVIDE ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, COORDINATION, ADDITIONAL DESIGN AND ALL INCIDENTALS NECESSARY TO PROVIDE A COMPLETE AND OPERABLE SYSTEM AS DETAILED ON PLANS TO THE SATISFACTION OF THE ENGINEER AND THE OWNER. COORDINATE ALL WORK WITH THE ENGINEER BEFORE THE START OF WORK.
- PRIOR TO SUBMITTING BID, THE CONTRACTOR SHALL VISIT THE SITE AND BE THOROUGHLY FAMILIAR WITH THE EXISTING CONDITIONS AND PROPOSED CONSTRUCTION. CONTRACTOR SHALL INCLUDE IN THEIR BID ALL MATERIAL, LABOR, AND ALL INCIDENTALS FOR A COMPLETE INSTALLATION WHETHER SPECIFICALLY INDICATED OR NOT. ALL ERRORS. DISCREPANCIES AND MISSED ITEMS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER DURING THE BIDDING PROCESS BY THE CONTRACTOR. THESE ITEMS SHALL BE INCLUDED IN THE BID PRICE. NO EXTRA COST WILL BE ALLOWED FOR ANY DISCREPANCY WHICH COULD HAVE BEEN NOTICED AT THE SITE VISIT BY THE CONTRACTOR.
- B. PERFORM WORK AS REQUIRED BY APPLICABLE CODES, REGULATIONS, AND LAWS OF LOCAL, STATE, AND FEDERAL GOVERNMENTS AND OTHER AUTHORITIES WITH LAWFUL JURISDICTION. ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE NATIONAL ELECTRIC CODE.
- I. MATERIAL AND EQUIPMENT SHALL BE NEW (UNLESS NOTED), UL, NEMA, ANSI, IEEE, ADA & CMB APPROVED FOR INTENDED PURPOSE. MATERIAL AND INSTALLATION SHALL MEET REQUIREMENTS OF NATIONAL AND LOCAL ELECTRICAL CODE.
- 5. GIVE NOTICES, FILE PLANS, OBTAIN PERMITS, AND LICENSES, PAY FEES AND BACK CHARGES, AND OBTAIN NECESSARY APPROVALS FROM AUTHORITIES THAT HAVE JURISDICTION.
- 6. MAINTAIN RECORD DRAWINGS ON SITE. RECORD SET MUST BE COMPLETE AND CURRENT AND AVAILABLE FOR INSPECTION WHEN REQUISITIONS FOR PAYMENT ARE SUBMITTED.
- 7. GUARANTEE WORK IN WRITING PER SPECIFICATIONS, REPAIR OR REPLACE DEFECTIVE MATERIALS OR INSTALLATION AT NO COST TO OWNER DURING THE GUARANTEE PERIOD. CORRECT DAMAGE CAUSED IN MAKING NECESSARY REPAIRS AND
- B. COORDINATE ALL ELECTRICAL ITEMS WITH EXISTING FIELD CONDITIONS. LOCATIONS SHOWN ARE APPROXIMATE AND MAY REQUIRE MINOR ADJUSTMENT IN THE FIELD TO SATISFY THE DESIGN INTENT.

REPLACEMENTS UNDER GUARANTEE AT NO COST TO OWNER. SUBMIT GUARANTEE TO OWNER BEFORE FINAL PAYMENT.

- ). DAMAGE TO EXISTING FACILITIES AND EQUIPMENT SHALL BE REPAIRED OR REPLACED IMMEDIATELY BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE OWNER.
- 10. THE LOCATIONS ON THESE PLANS ARE APPROXIMATE AND REQUIRE COORDINATION WITH ALL OTHER TRADES AND VERIFICATION OF EXISTING CONDITIONS. ROUTING OF CONDUIT IS DIAGRAMMATIC IN NATURE AND NOT INTENDED TO SHOW ALL REQUIRED OFFSETS AND DETAILS. THE CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFICATION OF ALL EXISTING ASSOCIATED EQUIPMENT AND CONDITIONS. COORDINATE THE LOCATION OF ALL EQUIPMENT WITH THE ENGINEER AND THE OWNER. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL OTHER TRADE'S DRAWINGS AND SPECIFICATIONS AND COORDINATING WITH ALL OTHER TRADES DURING BIDDING AND CONSTRUCTION. THE CONTRACTOR IS TO INCLUDE CIRCUIT LENGTHS OF WIRE AND CONDUIT REQUIRED TO INSTALL CONNECTED DEVICES AND EQUIPMENT SUCH AS PANELBOARDS, SWITCHBOARDS, TRANSFORMERS, ETC. WITHIN 15 FEET OF THE LOCATION SHOWN.
- 1. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING CONTINUITY OF ALL POWER, CONTROL, FIRE ALARM, SECURITY SYSTEMS, AND COMMUNICATIONS FUNCTIONS TO ALL AREAS AFFECTED BY DEMOLITION AND/OR NEW CONSTRUCTION.
- 12. REPAIR AND PATCH ANY DISTURBED AREAS TO MATCH ADJACENT CONSTRUCTION.
- 13. DISCONNECT AND MAKE SAFE ANY EQUIPMENT TO BE REMOVED BY OTHERS. COORDINATE REMOVAL OF EQUIPMENT WITH OTHER TRADES PRIOR TO DEMOLITION.
- 14. IN ANY AREA REQUIRING THE PERFORMANCE OF ANY TRADE'S WORK, THIS CONTRACTOR SHALL CAREFULLY REMOVE AND STORE ANY OR ALL ELECTRICAL ITEMS IN PATH OF WORK, REINSTALLING, AND RECONNECTING SAME AS REQUIRED, IN ACCORDANCE WITH THE PLANS AND/OR AS DIRECTED AFTER COMPLETION OF OTHER TRADE'S WORK IN THAT AREA.
- 5. PRIOR TO THE START OF DEMOLITION, CONTRACTOR SHALL FIELD VERIFY ALL BRANCH CIRCUITS AND MAINTAIN THOSE CIRCUITS THAT EXTEND OUTSIDE THE SCOPE OF WORK.
- 16. AFTER RENOVATING EXISTING ELECTRICAL WORK, THE CONTRACTOR SHALL ENSURE THAT ALL REMAINING AND NEW EQUIPMENT WILL OPERATE PROPERLY, INCLUDING BUT NOT LIMITED TO BACKFEEDING OF EXISTING POWER AND LIGHTING CIRCUITS. REFER TO SINGLE LINE DIAGRAM.
- 17. ALL ELECTRICAL WORK INDICATED TO REMAIN SHALL BE SUITABLY PROTECTED TO PREVENT ANY DAMAGE.
- 18. WHERE ELECTRICAL SYSTEMS PASS THROUGH RENOVATED AREAS TO SERVE OTHER PORTIONS OF THE PREMISES, SYSTEMS SHALL BE SUITABLY PROTECTED TO PREVENT DAMAGE OR RELOCATED AND THE SYSTEMS RESTORED TO NORMAL OPERATION. ANY OUTAGES IN SYSTEMS SHALL BE COORDINATED WITH OWNER. RESTORE POWER TO EXISTING TO REMAIN EQUIPMENT IF INTERRUPTED BY DEMOLISHED CIRCUITS IN THE AREA.
- 19. CONTRACTOR SHALL SUBMIT FOR REVIEW, SHOP DRAWINGS FOR ALL EQUIPMENT AND MATERIALS USED ON THE PROJECT. SUBMITTALS SHALL BE REVIEWED BY THE ENGINEER BEFORE PURCHASE OF MATERIALS.
- 20. ALL WIRING SHALL BE COPPER, 600V, 75°/90° RATED WITH FLAME-RETARDENT, HEAT AND MOISTURE RESISTANT INSULATION.
- 21. PERMANENTLY LABEL ALL NEW ELECTRICAL EQUIPMENT, INCLUDING BUT NOT LIMITED TO, DEVICE DESIGNATION AND SUPPLY CIRCUIT DESIGNATION. UPDATE OR REPLACE PANEL DIRECTORIES TO INCLUDE NEW CIRCUIT INFORMATION RESULTING FROM
- 22. PROVIDE TEMPORARY POWER AND LIGHTING FOR ALL TRADES AS REQUIRED TO COMPLETE THE PROJECT. ALL TEMPORARY AND INTERIM EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE CODES AND STANDARDS INCLUDING, BUT NOT LIMITED TO NFPA 110 AND NFPA 70.
- 23. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION THAT IS NOT SHOWN ON THE DRAWINGS.
- 24. OPENINGS IN EXISTING CONCRETE AND MASONRY WALLS AND FLOORS REQUIRED FOR CONDUIT INSTALLATION SHALL BE CORE DRILLED. MAXIMUM CORE DRILL SIZE SHALL BE 5" IN DIAMETER. CORE DRILL LOCATIONS SHALL BE SPACED A MINIMUM OF 6" FROM EACH OTHER MEASURED FROM THE OUTSIDE EDGE OF THE CORE DRILL. ALL CORE DRILL OPENINGS SHALL BE PROPERLY SEALED ACCORDING TO THEIR LOCATION AND APPLICATION.
- 25. ALL OUTAGES SHALL BE KEPT TO A MINIMUM. ALL WORK THAT REQUIRES A SUSTAINED EQUIPMENT OUTAGE SHALL BE PERFORMED CONTINUOUSLY AROUND THE CLOCK UNTIL WORK IS COMPLETED UNLESS NOTED OTHERWISE. COORDINATE OUTAGES WITH OWNER REPRESENTATIVE.
- 26. PROVIDE FOR EACH BRANCH CIRCUIT AND FEEDER CIRCUIT A DEDICATED EQUIPMENT GROUND WIRE. FOR SINGLE PHASE BRANCH CIRCUITS OF 120 V/1PH OR 277V/1 PH, PROVIDE DEDICATED HOT, DEDICATED NEUTRAL AND DEDICATED EQUIPMENT GROUND WIRES. SHARING OF NEUTRAL OR EQUIPMENT GROUND WIRES IS NOT PERMITTED. WIRING TO ALL HVAC EQUIPMENT OR OTHER TRADE EQUIPMENT SHALL BE IN CONDUIT. ALL EQUIPMENT AND FEEDER WIRING IN MECHANICAL ROOM/ELECTRICAL ROOM SHALL BE IN RIGID CONDUIT. USE OF MC CABLE IS LIMITED TO BRANCH CIRCUIT WIRING ABOVE RECESSED CEILING OR CONCEALED IN WALL. WIRING TO OUTLETS ON TABLE SHALL BE PROVIDE IN EITHER EMT CONDUIT OR FLEXIBLE METAL CONDUIT.
- 27. PROVIDE IDENTIFICATION LABELS FOR ALL BRANCH CIRCUITS AND FEEDERS CIRCUITS AT JUNCTION BOXES, PANELBOARDS, TROUGHS, AND SPLICE BOXES.
- 28. PROVIDE UNSPLICED FEEDERS FROM PANELBOARD OR SWITCHBOARD TO ALL EQUIPMENT, INCLUDING ALL 20 AMPERE, SINGLE POLE BRANCH CIRCUIT WIRING.
- 29. ALL WIRING DEVICES ARE TO BE RECESSED WHERE POSSIBLE. WHERE RECESSING IS NOT POSSIBLE, WIRING DEVICES ARE TO BE SURFACE MOUNTED WITH CIRCUIT WIRING ROUTED IN SURFACE MOUNTED CONDUIT PER SPECIFICATIONS.
- 30. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL (2) #14-3/4" FROM EACH VENDOR SUPPLIED DUCT SMOKE DETECTOR TO FACP. INSTALLATION OF DETECTOR BY MECHANICAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL PROVIDE ALL NECESSARY ELECTRICAL TERMINATIONS. EACH BLOWER COIL (BC) AND EACH ENERGY RECOVERY VENTILATOR (ERV) WILL HAVE (1) SUPPLY DUCT SMOKE DETECTOR AND (1) RETURN DUCT SMOKE DETECTOR.
- 31. VFD CABLE SHALL BE OKONITE C-L-X TYPE MC-HL (XHHW2) OR APPROVED EQUAL. 3/C VFD CABLE SHALL BE RATED FOR 2000V MARINE CABLE AND UL LISTED AS TYPE MC-HL CABLE PER UL2225(E38916). VFD CABLES SHALL HAVE UNCOATED SOFT COPPER STRANDED CONDUCTORS RATED FOR 90 DEG CENTIGRADE WET OR DRY , CROSS LINK POLYETHYLENE HIGH DIELECTRIC STRENGTH COLOR CODED INSULATION, AND THREE BARE SOFT STRANDED GROUND CONDUCTORS WITH NON-HYGROSCOPIC FILLER AND BINDER TAPE. SHEATH SHALL BE CLOSE FITTING, IMPERVIOUS, CONTINUOUS WELDED CORRUGATED ALUMINUM C-L-X PER UL1569. SHEATH SHALL BE PROTECTED WITH LOW TEMPERATURE BLACK PVC JACKET. CONTRACTOR SHALL PROVIDE PROPER FITTINGS FOR INSTALLATION OF VFD CABLE.
- 32. ALL CONDUIT PENETRATIONS THROUGH WALLS OR CEILINGS SHALL BE PATCHED AND SEALED WITH FIRE RATED FOAM SEALANT. 33. PROVIDE INSULATING BUSHINGS ON CONDUIT THREADS OR CONNECTORS WHERE RACEWAYS WITH CONDUITS OR MC CABLES
- ENTER A BOX OR ENCLOSURE. THIS BUSHING SHALL BE INSTALLED ON ALL CABLES AND CONDUITS.
- 34. PROVIDE FIRE ALARM RATED MC CABLE FOR CONNECTIONS BETWEEN FIRE ALARM DEVICES. MC CABLE SHALL RUN CONCEALED ABOVE CEILINGS AND IN DRYWALL. WHERE EXPOSED, PROVIDE EMT; NO EXPOSED MC CABLE IS PERMITTED.
- 35. (N) DENOTES NEW EQUIPMENT OR WIRING. (E) DENOTES EXISTING EQUIPMENT OR WIRING TO REMAIN. (D) DENOTES EQUIPMENT OR WIRING TO BE DEMOLISHED.

# FIRE ALARM SYSTEM

PROVIDE NEW FIRE ALARM SYSTEM DEVICES AND CONNECT TO EXISTING FIRE ALARM SYSTEM (LOCATED IN STORAGE RM E-L000). ALL NEW DEVICES AND WIRING SHALL BE COMPATIBLE WITH EXISTING FIRE ALARM SYSTEM. PROVIDE REQUIRED TESTING AND INSPECTION AS REQUIRED BY STATE OF DELAWARE FIRE MARSHALL'S OFFICE.

AND IS PREPARED FOR THE EXCLUSIVE USE OF IT CLIENTS AT THE LOCATION INDICATED. NO OTHER USE IS AUTHORIZED OR INTENDED.

ARCHITECT / ENGINEER SEAL

OMB / DIVISION OF FACILITIES MANAGEMENT
OMB / DFM PROJECT NO. MJ5511000003
ADMINISTRATION BUILDING
HVAC REPLACEMENT

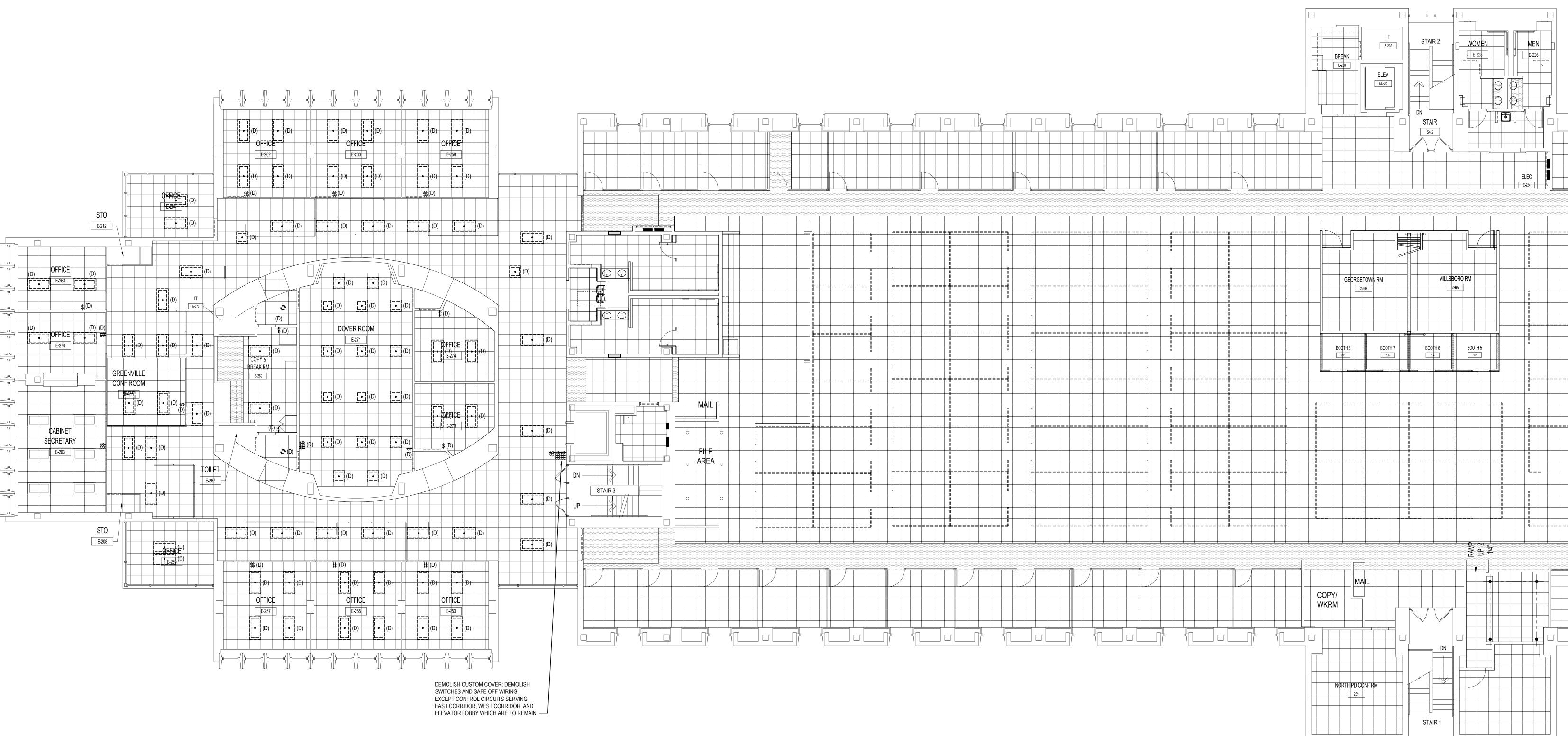
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SHEET TITLE										

SYMBOLS, ABBREVIATIONS AND NOTES

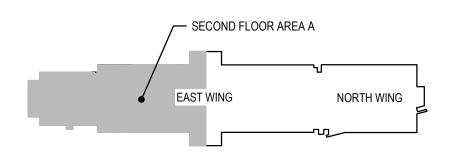
> **BIDDING DOCUMENTS**

JUNE 1, 2022

ELECTRICAL DEMOLITION NOTES: 1. ALL DEMO FIXTURES AND SWITCHES ARE INDICATED IN THICK LINES WITH THE (D) NOTATION. ALL WIRING IS TO BE RETAINED AND REUSED IN NEW CONSTRUCTION. THIS DRAWING IS THE PROPERTY OF <u>STUDIOJAEI</u> AND IS PREPARED FOR THE EXCLUSIVE USE OF ITS CLIENTS AT THE LOCATION INDICATED. NO OTHER MILLSBORO RM USE IS AUTHORIZED OR INTENDED. GEORGETOWN RM 226A ARE UNDERTAKEN FOR AND ARE PERFORMED IN THE INTEREST OF [NAME OF PERSON EMPLOYING ARCHITECT]. NO CONTRACTUAL OBLIGATION IS ASSUMED BY THE ARCHITECT FOR THE BENEFIT OF ANY OTHER PERSON INVOLVED IN THE SIGNATURE: \_\_\_\_\_\_DATE OF SIGNATURE: \_\_\_\_\_DATE OF REGISTRATION EXPIRATION: \_ ARCHITECT / ENGINEER SEAL STATE OF DELAWARE
AB / DIVISION OF FACILITIES MANAGEMEN
OMB / DFM PROJECT NO. MJ5511000003 COPY/ WKRM STAIR 1 REVISIONS DESCRIPTION ASI #4



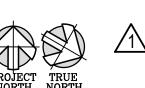
ELECTRICAL SECOND FLOOR DEMOLITION PLAN - AREA A ED112A SCALE: 1/8" = 1'-0"



SECOND FLOOR KEY PLAN

SCALE: NTS

PROJECT TRUE NORTH



JUNE 1, 2022

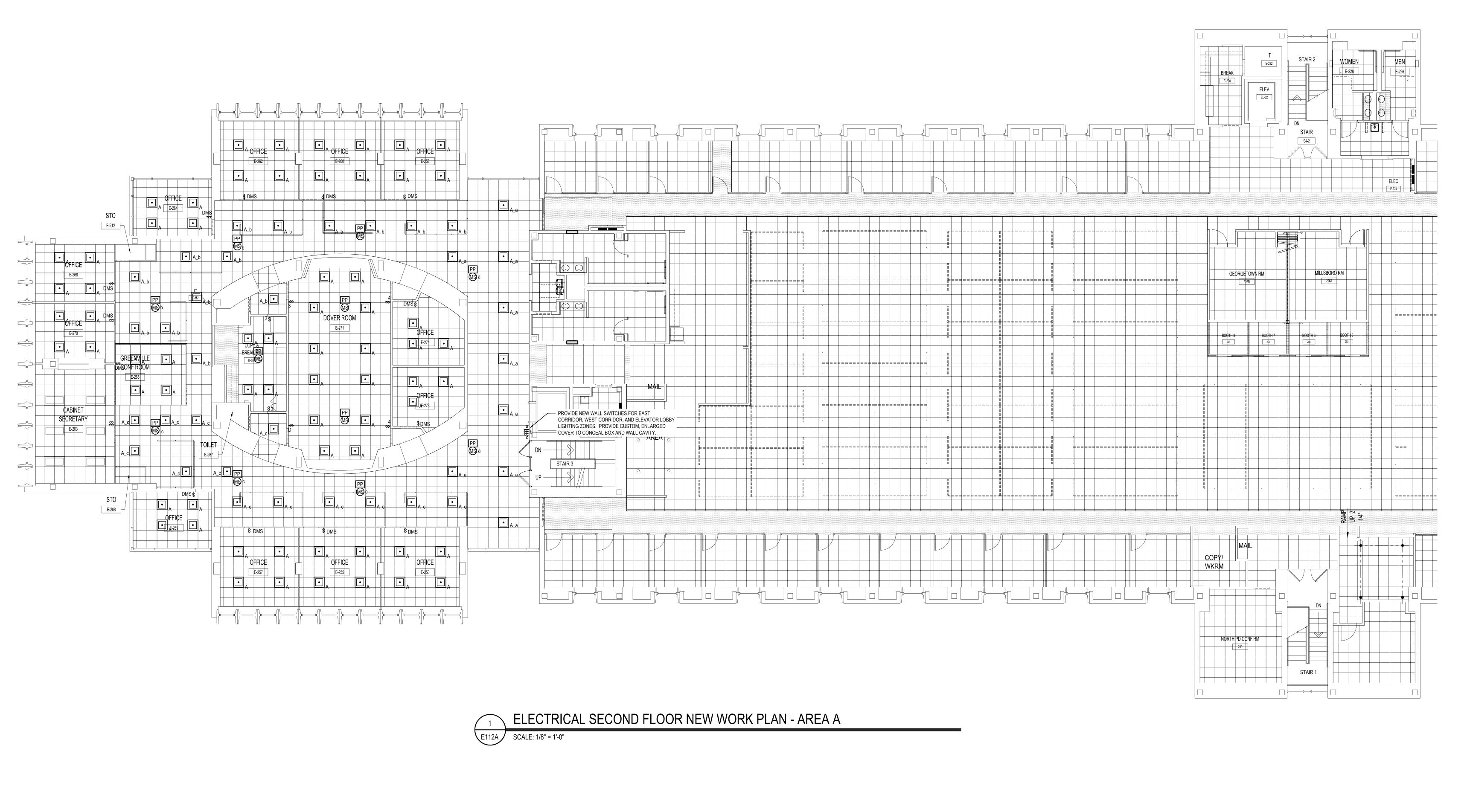
SECOND FLOOR

LIGHTING DEMOLITION

PLAN - AREA A

**BIDDING** 

DOCUMENTS



ARCHITECTS = ENGINEERS = FACILITIES SOLUTIONS
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STATE OF DELAWARE

AB / DIVISION OF FACILITIES MANAGEMEN

OMB / DFM PROJECT NO. MJ5511000003

MINISTRATION BUILDING

HIGHWAY ADMINISTRATION BUILDING

DIECT OMB / [

REVISIONS

MARK DESCRIPTION DATE

1 ASI #4 1/26/24

SHEET TITLE

SECOND FLOOR LIGHTING PLAN - AREA A

BIDDING DOCUMENTS

DOCUMENT
JUNE 1, 2022

DRAWN CHK'D PRO

PROJECT TRUE NORTH

PROJECT NO. 19121

SECOND FLOOR KEY PLAN

— SECOND FLOOR AREA A

ELECTRICAL NEW CONSTRUCTION NOTES:

PACKS AS INDICATED ON DRAWING.

1. PROVIDE NEW LIGHT FIXTURES, SWITCHES, MOTION SENSORS, AND POWER

2. ALL LIGHTING DEVICES ARE TO BE ASSOCIATED AND WIRED WITH THEIR

3. ALL WIRING IS TO BE REUSED TO RECONNECT TO NEW LIGHT FIXTURES AND

4. FOR ALL NEW MOTION SENSORS AND POWER PACKS, PROVIDE NEW 2#12 + 1#12G - 3/4"C WIRING AND LOW VOLTAGE WIRING AS NECESSARY. SEE E-000 FOR MORE

SWITCHES. PROVIDE WIRING EXTENSIONS AS NECESSARY.

RESPECTIVE LIGHT FIXTURES WITHIN THE OFFICE/SPACE UNLESS INDICATED

SCALE: NTS