

ELECTRICAL LEGEND AND ABBREVIATIONS

ABBREVIATIONS	DESCRIPTION	POWER	DESCRIPTION	SYSTEMS	DESCRIPTION	SINGLE LINE	DESCRIPTION
A, AMP	AMPERE	JB	JUNCTION BOX				
AC	ALTERNATING CURRENT	KVAIL	THOUSAND CIRCULAR MILS (KCM)				
AF	AMPERE FRAME	KV	KILOVOLTS				
AFG	ABOVE FINISHED CEILING	KVA	KILOVOLT-AMPERE				
AFF	ABOVE FINISHED FLOOR	KVAR	KILOVOLT-AMPERE REACTIVE				
AFG	ABOVE FINISHED GRADE	KW	KILOWATT				
AHU	AIR HANDLING UNIT	KWH	KILOWATT-HOUR				
AC	AMPERES INTERRUPTING CAPACITY	LA	LIGHTNING ARRESTOR				
AL	ALUMINUM	LED	LIGHT EMITTING DIODE				
AM	AMMETER	LF	LINEAR FOOT				
ANNUN	ANNUNCIATOR PANEL	LP	LIGHTING PANEL				
AS	AMMETER SWITCH	LV	LOW VOLTAGE				
AT	AMPERE TRIP	MCB	MAIN CIRCUIT BREAKER				
ATC	AUTOMATIC TEMPERATURE CONTROL	MCC	MOTOR CONTROL CENTER				
ATS	AUTOMATIC TRANSFER SWITCH	MCP	MOTOR CIRCUIT PROTECTOR				
AUX	AUXILIARY	MLO	MAIN LUGS ONLY				
AWG	AMERICAN WIRE GAUGE	MH	MANHOLE				
BAS	BUILDING AUTOMATION SYSTEM	(N)	NEW WORK				
BKR	BREAKER	N	NEUTRAL				
BOC	BOTTOM OF CONDUIT	NAC	NOTIFICATION APPLIANCE CIRCUIT				
C	CONDUIT	NC	NORMALLY CLOSED				
CAT	CATALOG	NEC	NATIONAL ELECTRICAL CODE				
CATV	CENTRAL ANTENNA TELEVISION	NEF	NOT IN CONTRACT				
CB	CIRCUIT BREAKER	NL	NIGHT LIGHT				
CCTV	CLOSED CIRCUIT TELEVISION	NO	NORMALLY OPEN				
CKT	CIRCUIT	NTS	NOT TO SCALE				
CLD	CEILING	OL	OVERLOAD				
CP	CONTROL PANEL	PE	PHOTO ELECTRIC				
CPT	CONTROL POWER TRANSFORMER	PF	POWER FACTOR				
CT	CURRENT TRANSFORMER	PH	PHASE				
DC	DIRECT CURRENT	PNL	PANELBOARD				
DET	DUAL ELEMENT TIME DELAY	PP	POWER PANEL				
DN	DOWN	PR	PRIMARY				
DP	DOUBLE POLE	PT	POTENTIAL TRANSFORMER				
DT	DOUBLE THROW	PVC	POLYVINYL CHLORIDE CONDUIT				
DWG	DRAWING	(R)	RELOCATE EXISTING				
D/W	DISHWASHER	RECEP	RECEPTACLE				
(E)	EXISTING TO REMAIN	RMC	RIGID METAL CONDUIT (SCHEDULE 40)				
EC	ELECTRICAL CONTRACTOR	RMS	ROOF MEAN SQUARE				
EF	EXHAUST FAN	SEC	SECONDARY				
EGC	EQUIPMENT GROUNDING CONDUCTOR	SF	SUPPLY FAN				
EMERG	EMERGENCY	SFC	SIGNAL LINE CIRCUIT (ADDRESSABLE LOOP)				
EMT	ELECTRICAL METALLIC TUBING	50 FT	SQUARE FOOT				
ENCL	ENCLOSED	SW	SWITCH				
EOL	END OF LINE RESISTOR	SWBD	SWITCHBOARD				
(ER)	EXISTING RELOCATED	SWGR	SWITCHGEAR				
EW	ELECTRIC WATER COOLER	TEL	TELEPHONE				
EWI	ELECTRIC WATER HEATER	TV	TELEVISION				
E	EISED	TYP	TYPICAL				
FA	FIRE ALARM	UH	UNIT HEATER				
FACP	FIRE ALARM CONTROL PANEL	UHN	UNLESS OTHERWISE NOTED				
FCU	FAN COIL UNIT	UPS	UNINTERRUPTIBLE POWER SUPPLY				
FLR	FLOOR	V	VOLTS				
FLUOR	FLUORESCENT	VA	VOLT-AMPERE				
FUSE	FUSE	VFD	VARIABLE FREQUENCY DRIVE				
FMNR	FULL VOLTAGE, NON-REVERSING	W	WIRE, WATTS				
GC	GENERAL CONTRACTOR	WP	WEATHER PROOF				
G/D	GARAGE DISPOSAL	WNR	TRANSFORMER				
GE	GROUNDING ELECTRODE CONDUCTOR						
GI	GROUND FAULT INTERRUPTING						
G, GND	GROUND						
HD	HIGH INTENSITY DISCHARGE						
HDA	HAND-OFF-AUTOMATIC						
HP	HORSEPOWER						
HT	HEAT TRACE						
HZ	HERTZ						
IC	INITIATING DEVICE CIRCUIT						
IG	ISOLATED GROUND						

### GENERAL NOTES

- ELECTRICAL EQUIPMENT AND INSTALLATIONS SHALL COMPLY WITH THE 2014 EDITION OF THE NEC AND ALL LOCAL CODES ENFORCED BY THE AUTHORITY HAVING JURISDICTION.
- ELECTRICAL EQUIPMENT, DEVICES AND CONDUIT ROUTINGS ARE SHOWN ON DRAWINGS TO INDICATE SCOPE AND GENERAL ARRANGEMENT ONLY AND MAY NOT INDICATE ALL REQUIRED EQUIPMENT AND DEVICES REQUIRED FOR A COMPLETE SYSTEM. PROVIDE ALL REQUIRED ELECTRICAL EQUIPMENT, DEVICES AND CONDUIT AS REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM. COORDINATE INSTALLATION OF ELECTRICAL SYSTEMS WITH BUILDING STRUCTURE, OTHER UTILITIES, AND ALL OTHER TRADES.
- LOCATIONS OF UNDERGROUND UTILITIES SHOWN ON THE SITE PLAN HAVE NOT BEEN VERIFIED BY THE ENGINEER. VERIFY WITH THE UTILITY COMPANY HORIZONTAL AND VERTICAL LOCATIONS OF ALL UNDERGROUND UTILITIES PRIOR TO THE START OF CONSTRUCTION. COORDINATE INSTALLATION OF ELECTRICAL WORK TO AVOID INTERFERENCES. HAND DIG IN AREAS ADJACENT TO OTHER UTILITIES.
- PROVIDE BRANCH CIRCUIT WRING TO ALL ITEMS REQUIRING ELECTRICAL CONNECTIONS. WHERE BRANCH CIRCUIT WRING IS NOT SHOWN, CONNECT ITEMS TO CIRCUITS INDICATED. THE CONTRACTOR SHALL DETERMINE EXACT ROUTING OF CONDUITS AND WIRING UNLESS INDICATED OTHERWISE. ALL BRANCH CIRCUITS SHALL BE #12 AWG.
- LOCATE ALL CEILING MOUNTED DEVICES ACCORDING TO ARCHITECTURAL REFLECTED CEILING PLANS. COORDINATE LIGHT FIXTURE MOUNTING AND TRIM REQUIREMENTS WITH CEILING TYPE.
- CONNECT ALL EXT AND EMERGENCY LIGHTS TO THE LOCAL LIFE SAFETY EMERGENCY LIGHTING BRANCH CIRCUIT SERVING THE AREA OR AREA NEARBY, AHEAD OF ANY SWITCHED LEG(S).
- THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR THE CORRECT PHASE SEQUENCE OF ALL THREE-PHASE FEEDERS AND BRANCH CIRCUITS. VERIFY PROPER ROTATION OF ALL MOTORS.
- WHERE FEEDERS AND BRANCH CIRCUITS EXCEED 60 FEET (120V) OR 120 FEET (277 VOLT) TO CENTER OF LOAD, USE NO. 10 AWG WIRE TO THAT POINT. VOLTAGE DROP SHALL NOT EXCEED 3% FOR FEEDERS AND 3% FOR BRANCH CIRCUITS. UNLESS NOTED OTHERWISE, ALL BATTERY POWERED DC EMERGENCY LIGHTING CIRCUITS (SUCH AS FOR REMOTE HEADS) SHALL BE #10 AWG.
- MULTIPLE HOME RUNS MAY BE COMBINED INTO A SINGLE CONDUIT. APPLY NEC DERATING FACTORS FOR ALL MULTI-CIRCUIT HOME RUNS. PROVIDE DEDICATED NEUTRALS FOR ALL BRANCH CIRCUITS, WHETHER IN DEDICATED OR MULTI-CIRCUIT CONDUITS. INCLUDE NEUTRAL CONDUCTORS IN DERATING CALCULATIONS.
- THE LEGEND IS NOT INTENDED TO DEFINE THE SCOPE OF WORK. SYMBOLS ON THE LEGEND MAY NOT APPEAR ON THE PLANS.
- PROVIDE SEALING FITTINGS AND SEAL CONDUITS AT ALL LOCATIONS EMERGING FROM BELOW GRADE.
- FIRE ALARM AND ALL EMERGENCY SYSTEMS SHALL REMAIN OPERATIONAL FOR THE DURATION OF THE PROJECT. WHERE EXISTING EQUIPMENT IS REMOVED, EXISTING FIRE ALARM AND EMERGENCY EQUIPMENT SHALL NOT BE REMOVED UNTIL NEW EQUIPMENT IS INSTALLED AND FUNCTIONAL.

### GENERAL DEMOLITION NOTES

- REMOVE ALL DEVICES SHOWN ON THE DEMOLITION PLANS INCLUDING ALL WIRING, CONDUIT, HANGERS, SUPPORTS, FASTENERS, AND ALL ASSOCIATED APPURTENANCES, UNLESS OTHERWISE NOTED.
- ANY DRAWING NOTE LISTED IN THE HATCHED DEMOLITION AREA SHALL APPLY TO ALL ROOMS/AREAS WITHIN THE HATCHED DEMOLITION AREA.
- WHERE DEMOLITION OF WALLS, CEILINGS, DEVICES OR PIECES OF EQUIPMENT EXPOSES WIRING OR REMOVES POWER TO EXISTING-TO-REMAIN EQUIPMENT, SPICE AND EXTEND WIRING AS REQUIRED TO REMAIN CONCEALED AND RETAIN POWER TO EXISTING-TO-REMAIN LOAD(S).
- WHERE IT IS INDICATED THAT A CIRCUIT, CONDUIT, OR WIRING IS TO BE REMOVED, IT SHALL BE REMOVED IN ITS ENTIRETY, UNLESS OTHERWISE NOTED. BEING REMOVED IN ITS ENTIRETY SHALL MEAN THAT ALL OF THE WIRE, CONDUIT, CONTROLS, HANGERS, CONNECTORS, COUPLINGS, DISCONNECT SWITCHES, ETC. SHALL BE REMOVED FROM THE EQUIPMENT/DEVICE TO THE SOURCE. IF ANY PORTION OF CONDUIT EMBEDDED IN WALLS OR FLOORS NOT BEING DEMOLISHED, IT SHALL BE DETERMINED BY THE OWNER AND ENGINEER IF THE CONDUIT MAY BE ABANDONED IN PLACE. WHERE ABANDONED IN PLACE, ALL WIRING SHALL BE REMOVED AND THE CONDUIT ENDS SHALL BE SATISFACTORILY CLOSED.
- CIRCUITS TO EQUIPMENT OR DEVICES INDICATED TO BE REMOVED SHALL BE REMOVED IN THEIR ENTIRETY EVEN IF THE CIRCUIT OR SOURCE IS OUTSIDE THE DEFINED AREA OF DEMOLITION.
- OWNER SHALL HAVE FIRST RIGHTS TO ALL EQUIPMENT BEING REMOVED DURING DEMOLITION. COORDINATE WITH OWNER PRIOR TO ANY DEMOLITION WHICH EQUIPMENT SHALL BE REMOVED AT THE DISCRETION OF THE ELECTRICAL CONTRACTOR, RETURNED TO THE OWNER, OR STORED FOR REUSE. ANY EQUIPMENT THAT IS BEING RETAINED SHALL BE CAREFULLY REMOVED, PROPERLY WRAPPED IN BUBBLE WRAP, LABELED, AND BOXED. ANY EQUIPMENT BEING RETURNED TO THE OWNER SHALL BE RETURNED ONCE DEMOLITION IS COMPLETE. ANY EQUIPMENT BEING REUSED DURING NEW WORK SHALL BE SAFELY STORED BY THE ELECTRICAL CONTRACTOR UNTIL EQUIPMENT IS NEEDED DURING NEW WORK TO BE REUSED.
- ANY EQUIPMENT/DEVICES THAT ARE EXISTING TO REMAIN WITHIN THE HATCHED DEMOLITION AREA SHALL BE RETAINED, EVEN IF ITS ORIGINAL SOURCE IS BEING REMOVED. FOR THE EQUIPMENT/DEVICES RETAINED, A NEW BRANCH CIRCUIT SHALL BE PROVIDED AS REQUIRED DURING NEW WORK FROM A NEW SOURCE TO THE EXISTING DEVICE MATCHING EXISTING WIRE AND CONDUIT TYPES, QUANTITIES, AND SIZES. IF EQUIPMENT/DEVICE IS NOT SHOWN ON THE NEW WORK PLAN YET RETAINED DURING DEMOLITION, IT SHALL BE UNDERSTOOD THAT THE ELECTRICAL CONTRACTOR SHALL PROVIDE A NEW BRANCH CIRCUIT THE RETAINED EQUIPMENT/DEVICES TO THE NEAREST PANELBOARD WITH ADEQUATE CAPACITY. IF EQUIPMENT/DEVICES ARE SHOWN WITHIN THE PANEL SCHEDULES BUT NOT SPECIFICALLY INDICATED ON THE NEW WORK DRAWINGS, IT SHALL BE UNDERSTOOD THAT THE ELECTRICAL CONTRACTOR SHALL PROVIDE A NEW BRANCH CIRCUIT FOR THE RETAINED EQUIPMENT/DEVICES TO THE INDICATED PANEL SCHEDULE.
- WHERE A WIRING DEVICE IS REMOVED AND THE BACK BOX REMAINS, PROVIDE A BLANK WALL PLATE MATCHING THE EXISTING WALL PLATES IN THE AREA.

### MOUNTING HEIGHTS

ALL DIMENSIONS ARE TO CENTERLINE OF DEVICE, U.O.N.

EXIT SIGNS - WALL MOUNTED	ABOVE DOORS
FIRE ALARM A/V APPLIANCES	84" AFF
FIRE ALARM PULL STATION	44" AFF
MOTOR STARTERS	72" AFF MAXIMUM
PANELBOARDS	72" MAX AFF TO TOP
RECEPTACLES	18" AFF
COUNTERTOP RECEPTACLES	40" MAX AFF TO TOP
SAFETY SWITCHES	72" MAX AFF TO TOP
SWITCHES	42" AFF
TELEPHONE - WALL TYPE	48"
TELEPHONE/DATA OUTLET	18" AFF

JOHN J. VEISZ, AIA, CSEA  
 NJ-214036900 | PA-PA001819  
 WILLIAM D. HOPKINS III, AIA, LEED AP  
 NJ-214070600 | PA-PA025200  
 GEORGE R. DUTHE JR., AIA, PP  
 NJ-214076900

**GFVHD architects**  
**planners**  
**Fraytak Veisz Hopkins Duthe P C**  
 Corporate: 1515 Lower Ferry Road - Trenton - New Jersey 08628  
 Pennsylvania: 140 Whitaker Ave - Mont Clare - Pennsylvania 19453

Project Name  
 Additions, Alterations  
 and Renovations at  
 Northern Burlington  
 County Regional High  
 School - Phase 1

Project Owner Name  
 Northern Burlington  
 County Regional  
 School District

Project Location  
 160 Mansfield Rd. East,  
 Columbus, NJ 08022

Project Number  
 5086.3A

Project Date  
 07.12.2019

Checked By  
 PDF

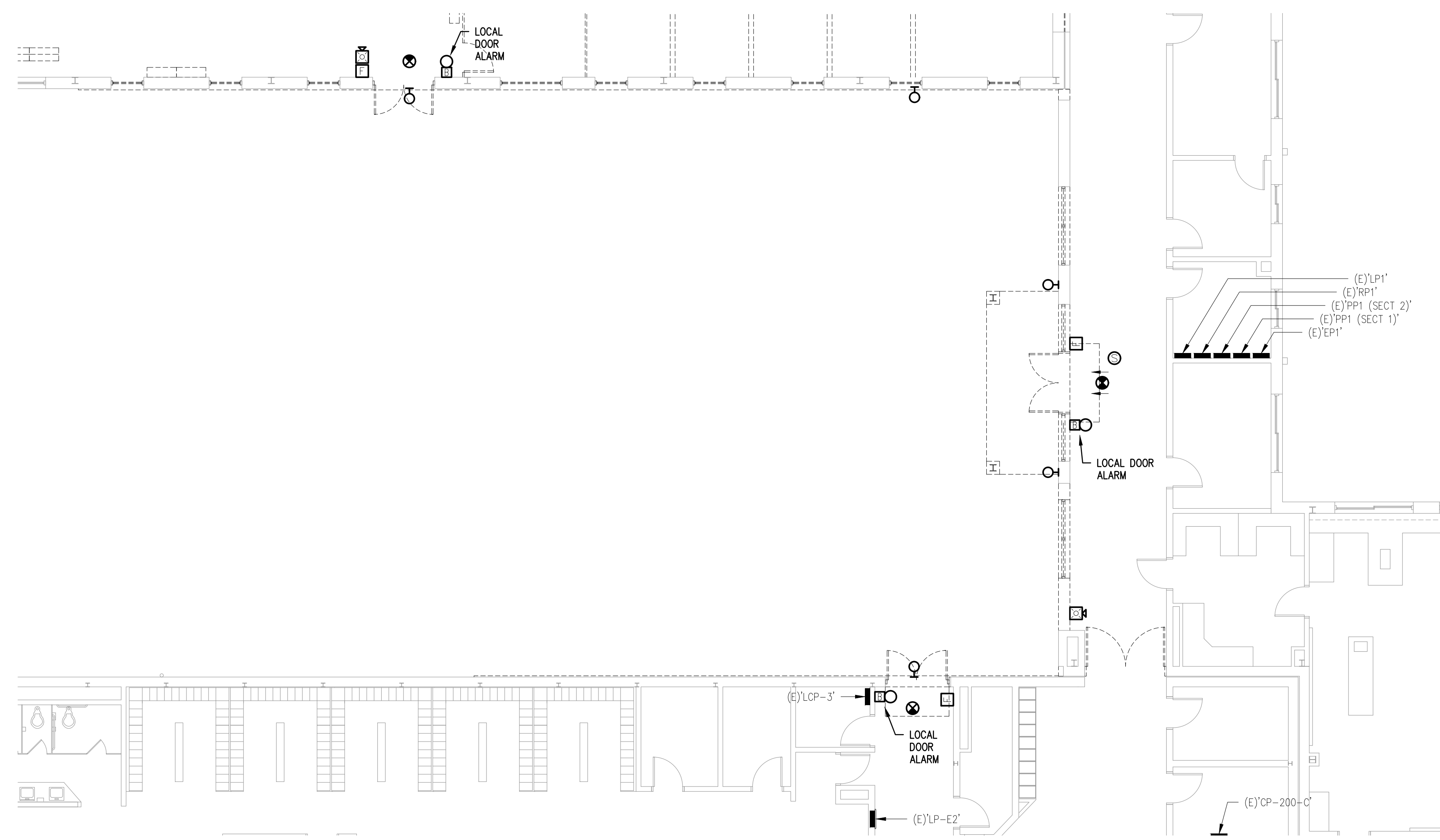
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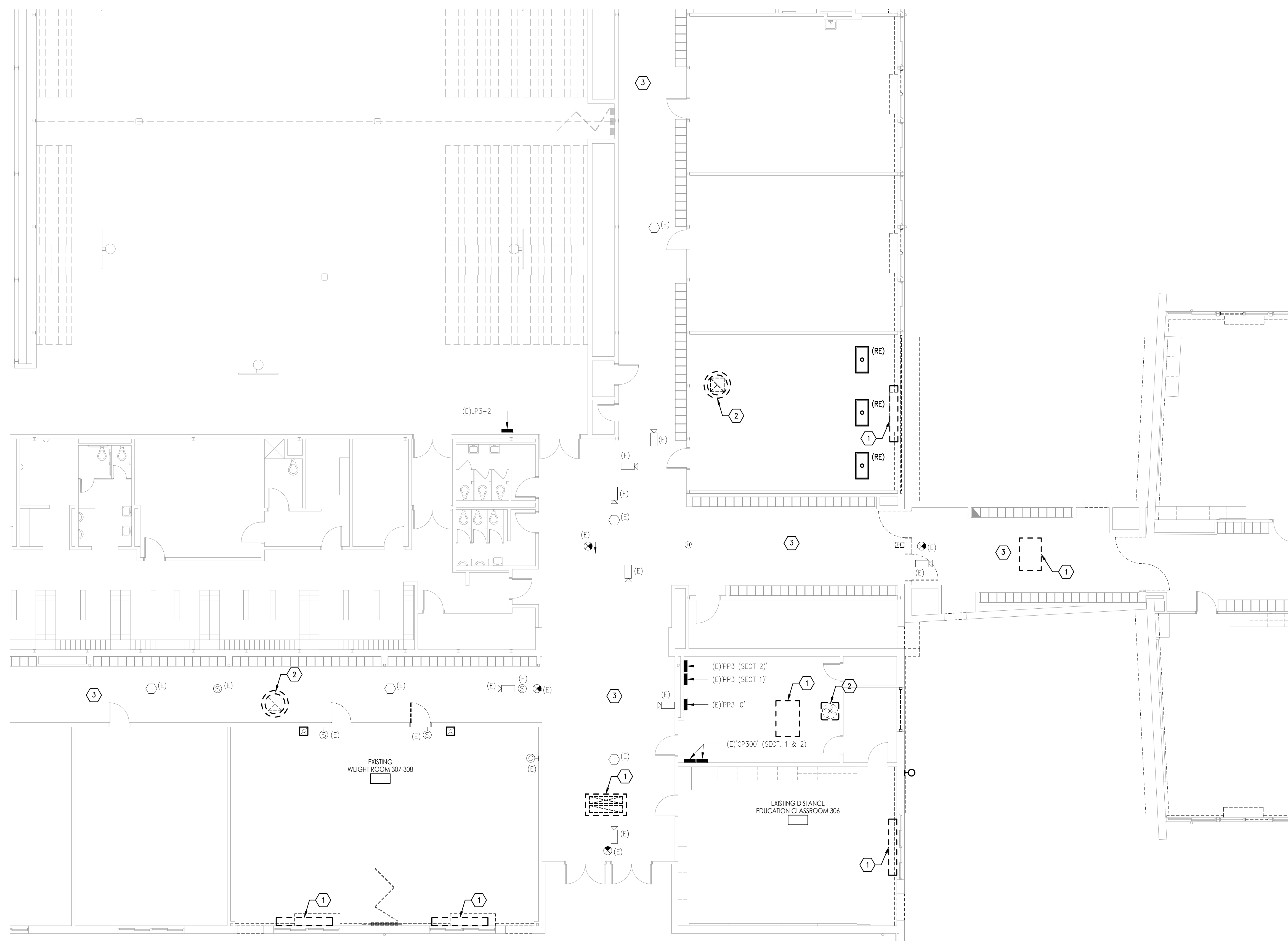
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 ELECTRICAL  
 COVER SHEET

Revisions  
 No. | Date | Description

Drawing Number  
 E001



2 ELECTRICAL - DEMOLITION WORK - FITNESS CENTER AREA  
 E101 SCALE: 1/8" = 1'-0"



1 ELECTRICAL - DEMOLITION WORK - BLOCK 'A'  
 E101 SCALE: 1/8" = 1'-0"

- DEMOLITION KEY NOTES:**
- 1 DISCONNECT AND REMOVE POWER TO EXISTING HVAC EQUIPMENT. REMOVE ALL ASSOCIATED SWITCHES, WIRING, EXPOSED PORTIONS OF CONDUIT, BOXES, HANGERS, SUPPORTS, AND ALL ASSOCIATED APPURTENANCES.
  - 2 DISCONNECT AND REMOVE POWER TO EXISTING HVAC EQUIPMENT LOCATED ON ROOF. REMOVE ALL ASSOCIATED SWITCHES, WIRING, EXPOSED PORTIONS OF CONDUIT, BOXES, HANGERS, SUPPORTS, AND ALL ASSOCIATED APPURTENANCES.
  - 3 TEMPORARILY HANG ALL ELECTRICAL DEVICES RECESSED IN CEILING FROM STRUCTURE ABOVE TO FACILITATE REMOVAL OF GRID BY GENERAL CONTRACTOR. DEVICES SHOWN ARE FOR REFERENCE ONLY. VERIFY DEVICES IN FIELD.

JOHN J. VEISZ, AIA, CSBA  
 NJ: 2140369901 PA: PA010819  
 WILLIAM D. HOPKINS III, AIA, LEED AP  
 NJ: 2140370000 PA: PA012520  
 GEORGE B. DUTHE, JR., AIA, PP  
 NJ: 2140370000  
 Architect  
 Date: 7/12/19

**FVHHD**  
 architects  
 planners  
 Fraytak Veisz Hopkins Duthe P C  
 Corporate: 1615 Lower Ferry Road - Trenton - New Jersey 08628  
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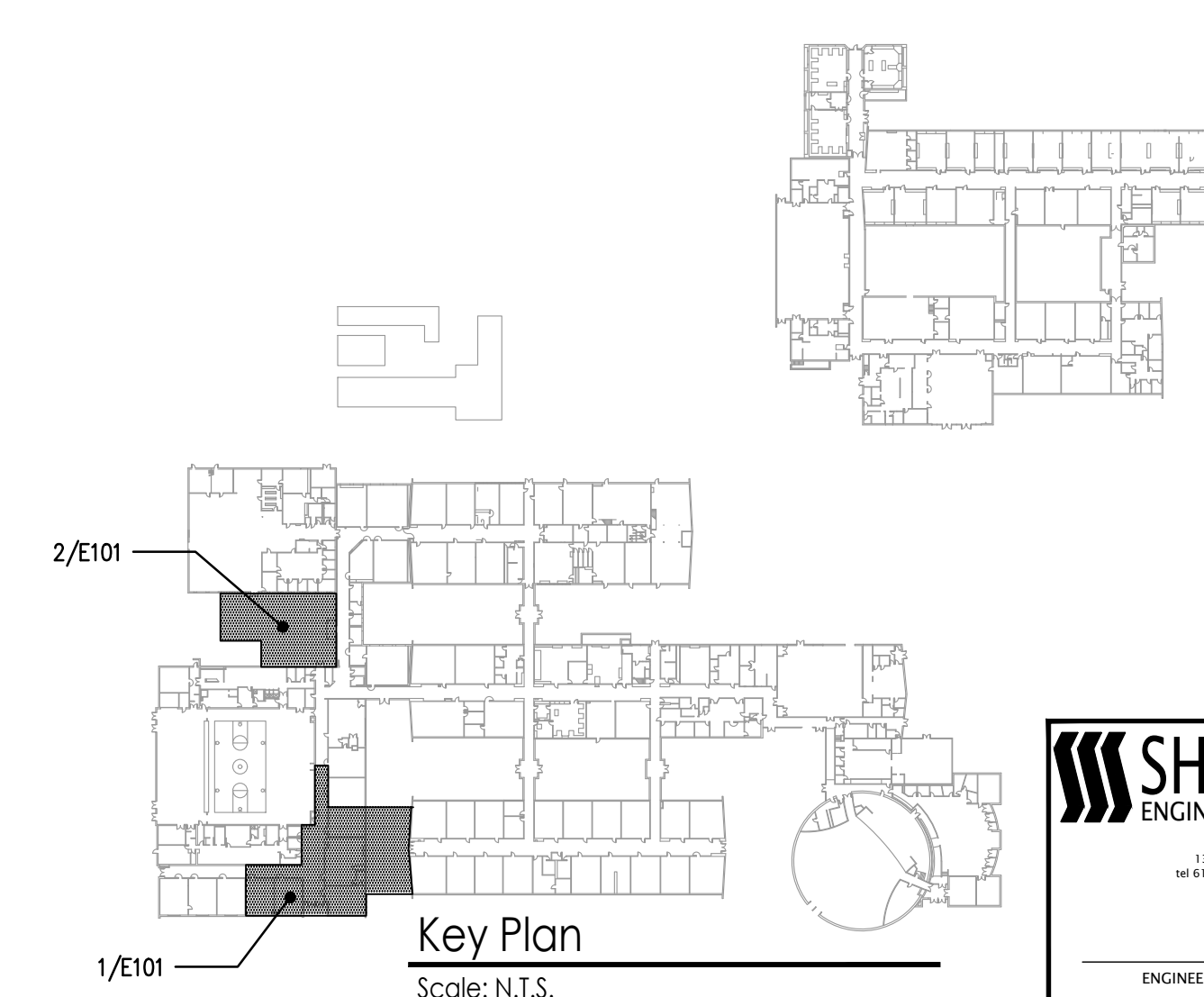
Project Location  
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 5086.3A  
 Project Date  
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 Checked By  
 RDF  
 Drawn By  
 DFW  
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Drawing Name  
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 DEMOLITION

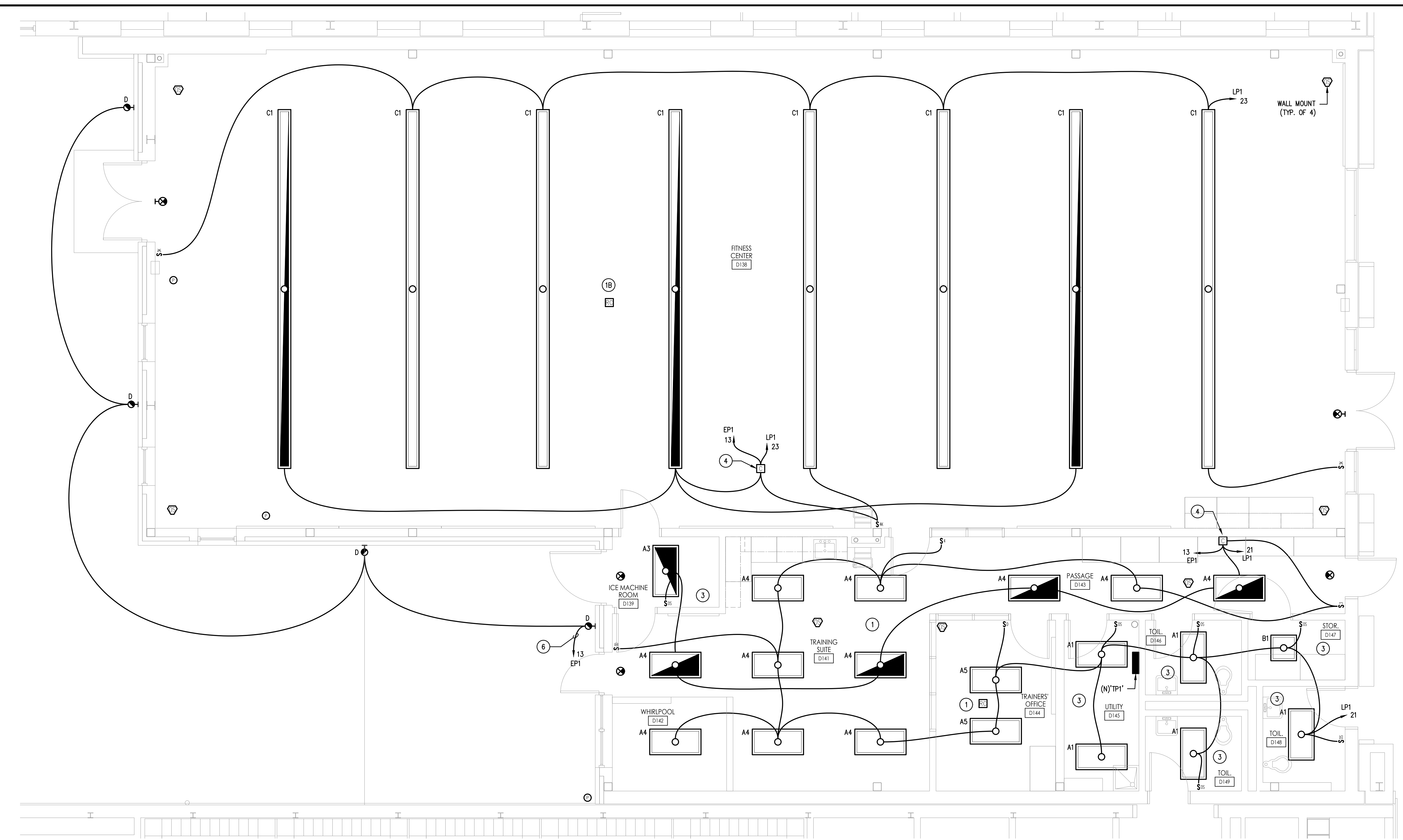
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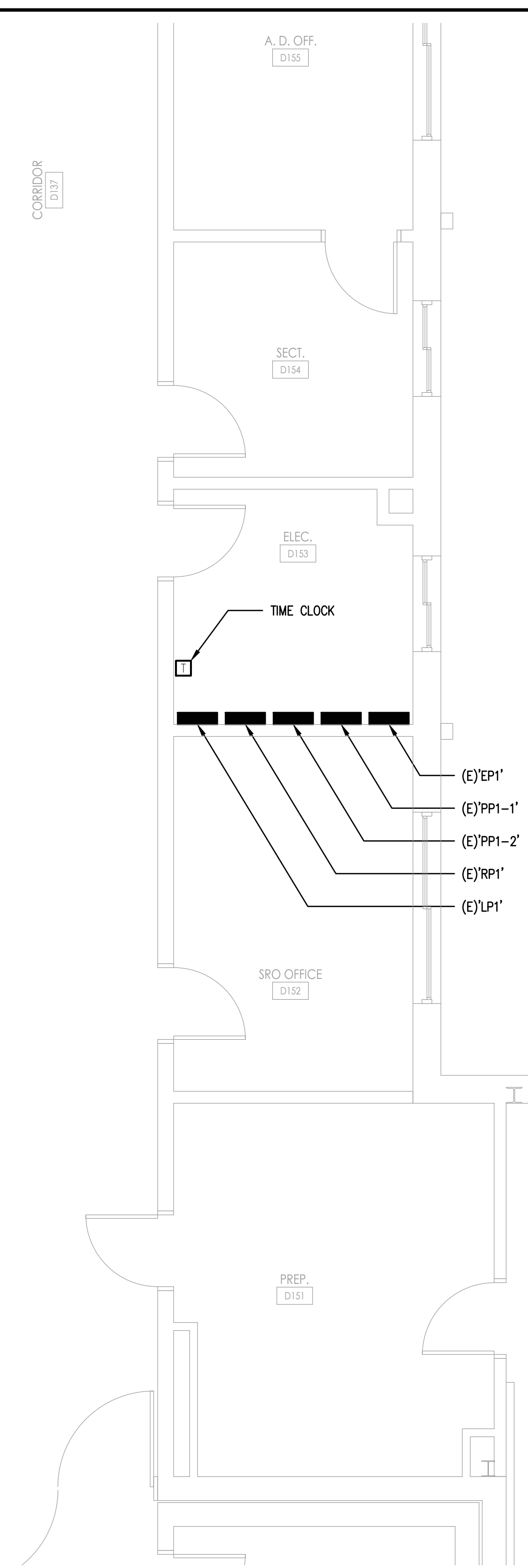


**SHARPE**  
 ENGINEERING, INC.  
 NJ Consulting Engineers  
 1000 Route 202, Suite 200, Trenton, NJ 08646  
 609-988-8311 Fax: 609-988-8312  
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 DATE: 7-12-2019  
 ENGINEER: JOHN E. SHARPE, P.E.  
 NJ Lic. No.: JAE04025500

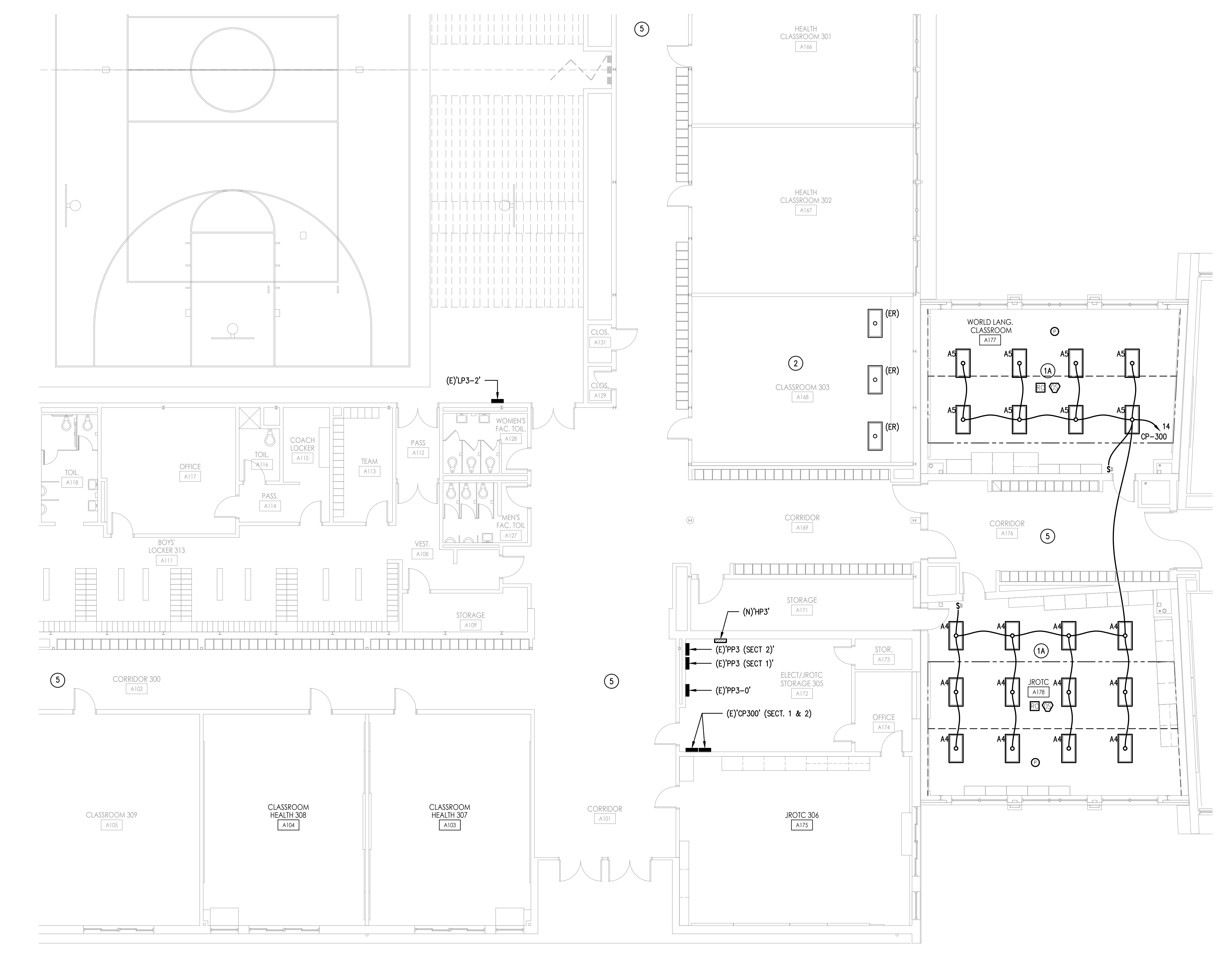




2 ELECTRICAL - PARTIAL PLAN - TRAINER'S OFFICE LIGHTING  
SCALE: 1/4" = 1'-0"

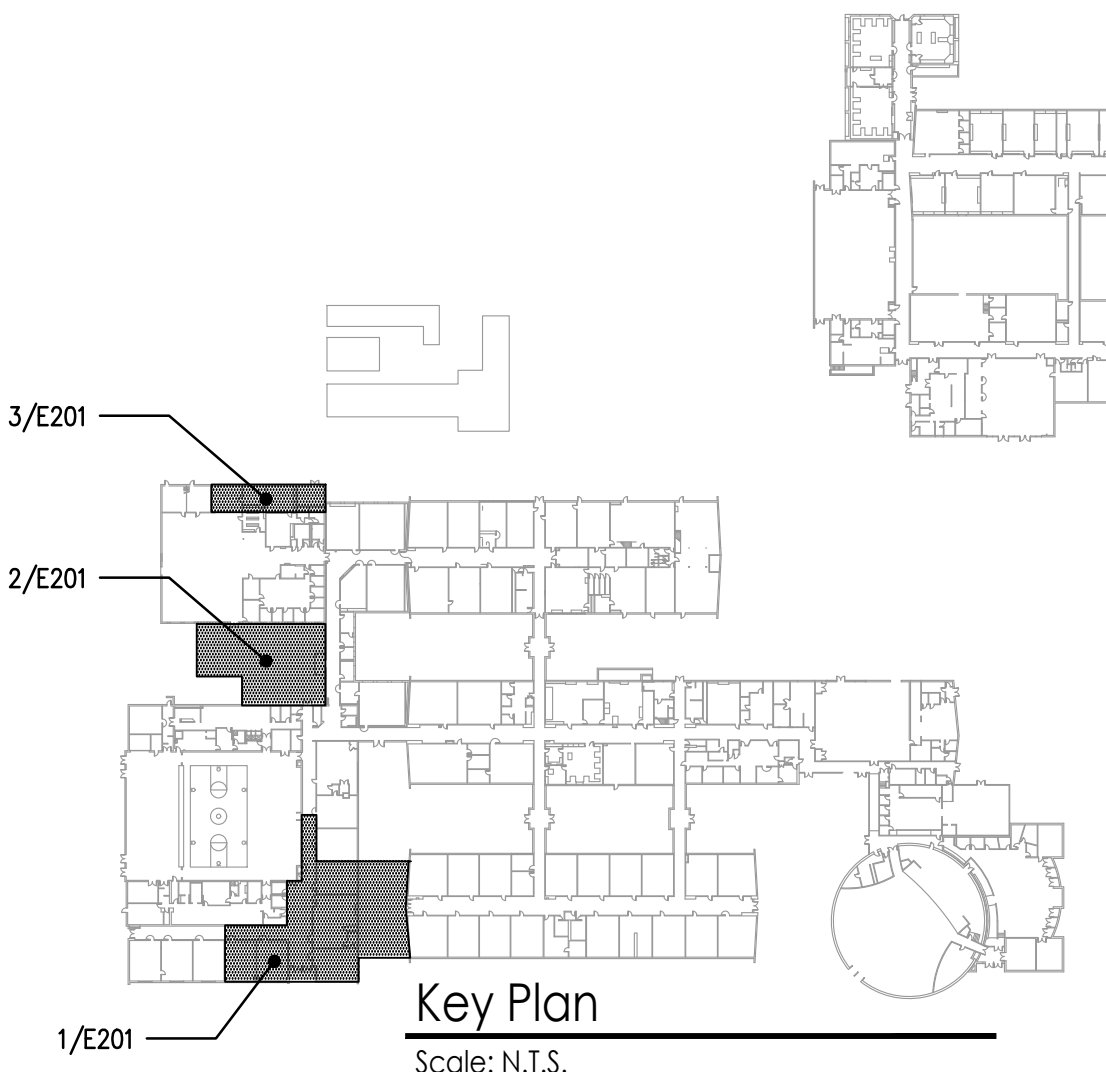
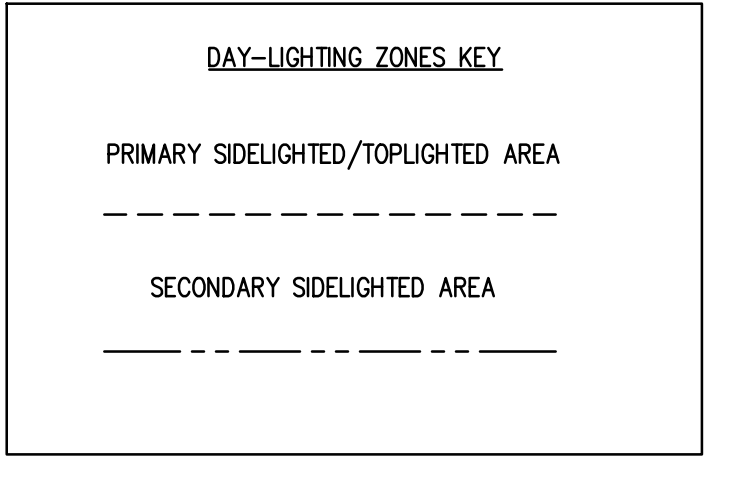


3 ELECTRICAL - NEW WORK - MEDIA CENTER LIGHTING  
SCALE: 1/8" = 1'-0"



1 ELECTRICAL - NEW WORK - BLOCK 'A' LIGHTING  
SCALE: 1/8" = 1'-0"

- KEY NOTES**
- 1 PROVIDE A LIGHTING CONTROL SCHEME IN THIS AREA THAT INCLUDES LOCAL LOW VOLTAGE SWITCHES WITH DIMMING CAPABILITIES AND OCCUPANCY SENSOR CONTROLS CONNECTED TO A ROOM CONTROLLER. OCCUPANCY SENSOR SHALL TURN OFF ALL LIGHTS AFTER 20 MINUTES OF DETECTING NO OCCUPANCY AND SHALL BE SET TO MANUAL ON. SEE LIGHTING PLAN AND WIRING DIAGRAM 2/E302 FOR MORE INFORMATION. IF SPACE IS SMALL ENOUGH FOR WALL OCCUPANCY SENSOR/SWITCH WITH DIMMING CAPABILITIES, ROOM CONTROLLER CAN BE OMITTED. OCCUPANCY SENSOR SWITCH SHALL TURN OFF LIGHTS AFTER DETECTING NO OCCUPANCY AND SHALL BE SET TO MANUAL ON.
  - 2 RELOCATE EXISTING LIGHT FIXTURES, SPICE AND EXTEND EXISTING BRANCH CIRCUIT WIRING, AS REQUIRED.
  - 3 PROVIDE A LIGHTING CONTROL SCHEME IN THIS AREA THAT INCLUDES WALL OCCUPANCY SENSOR/SWITCH, OCCUPANCY SENSOR SHALL TURN OFF ALL LIGHTS AFTER 20 MINUTES OF DETECTING NO OCCUPANCY.
  - 4 CONNECT EMERGENCY LIGHTING CONTROL RELAY TO CONTROL LOCAL NORMAL AND EMERGENCY LIGHT FIXTURES VIA LOCAL LIGHTING SWITCH, BUT AUTOMATICALLY TURN EMERGENCY LIGHTS ON TO FULL BRIGHTNESS IN EVENT OF POWER FAILURE. MOUNT CONTROL RELAYS IN CONCEALED ACCESSIBLE SPACE ABOVE CEILING. SEE WIRING DIAGRAM DETAIL 4/E302.
  - 5 REINSTALL ALL LIGHT FIXTURES AND DEVICES TEMPORARILY HUNG FROM STRUCTURE ABOVE IN NEW CEILING GRID. COORDINATE WORK WITH GENERAL CONTRACTOR.
  - 6 CONTROL EXTERIOR LIGHTING FIXTURES WITH PHOTOCELL AND TIME CLOCK. SEE WIRING DIAGRAM DETAIL 6/E302.



**SHARPE ENGINEERING, INC.**  
Professional Engineers  
1000 Pennsylvania Blvd., Suite 200  
Parsippany, NJ 07054  
Tel: 973-261-1111 Fax: 973-261-1112  
www.sharpe-engineering.com  
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DATE: 7/12/2019  
ENGINEER: JOHN E. SHARPE, P.E.  
NO. Lic. No.: NJ-0000025500

JOHN J. VEISZ, AIA, CSBA  
NJ-214006903 PA-RAD01819  
WILLIAM D. HOPKINS III, AIA, LEED AP  
NJ-214070600 PA-RAD02020  
GEORGE R. DUTHIE, JR., AIA, PP  
NJ-214070600

**GFVHHD** architects  
planners  
Frattak Veisz Hopkins Duthie P C  
Corporate: 1515 Lower Ferry Road - Trenton - New Jersey 08628  
Pennsylvania: 140 Whitaker Ave - Mont Clear - Pennsylvania 19453

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Project Owner Name: Northern Burlington County Regional School District

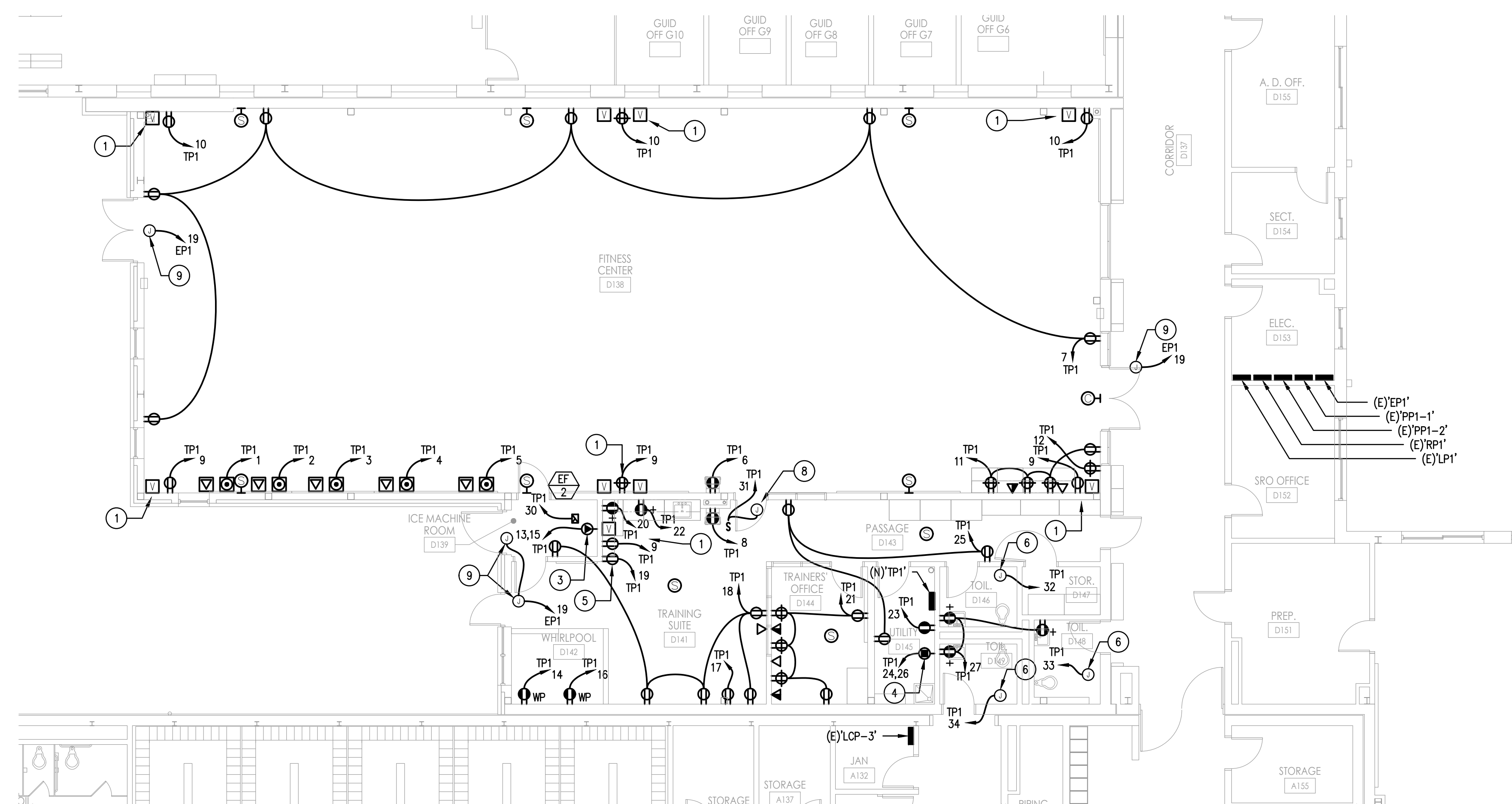
Project Location: 160 Mansfield Rd. East, Columbus, NJ 08022

Project Number: 5086.3A  
Project Date: 07.12.2019  
Checked By: RFD  
Drawn By: DFW  
Scale: AS NOTED  
Drawing Name: ELECTRICAL NEW WORK - LIGHTING

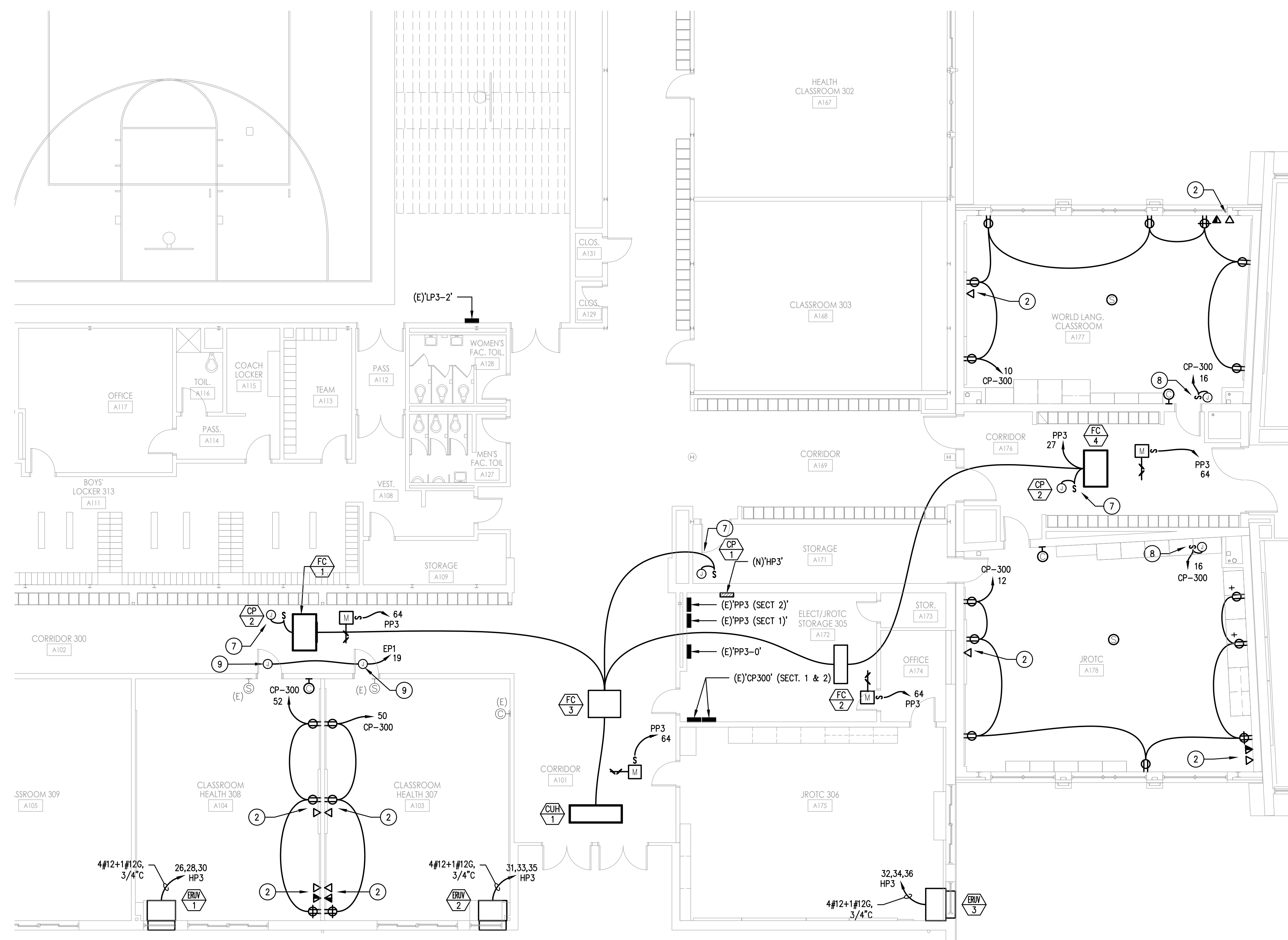
Revisions:

No.	Date	Description

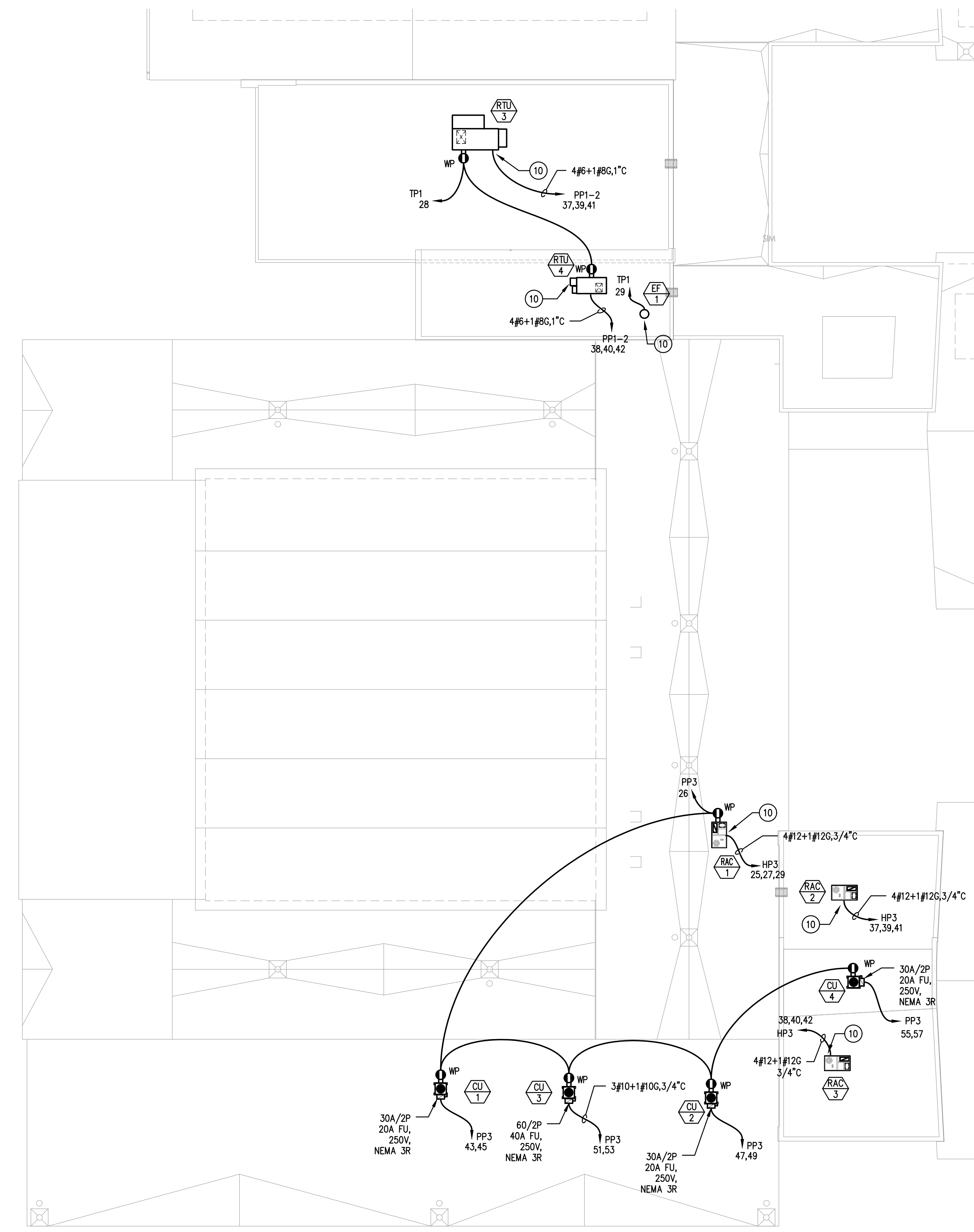
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2 ELECTRICAL - NEW WORK - FITNESS CENTER POWER  
SCALE: 1/8" = 1'-0"

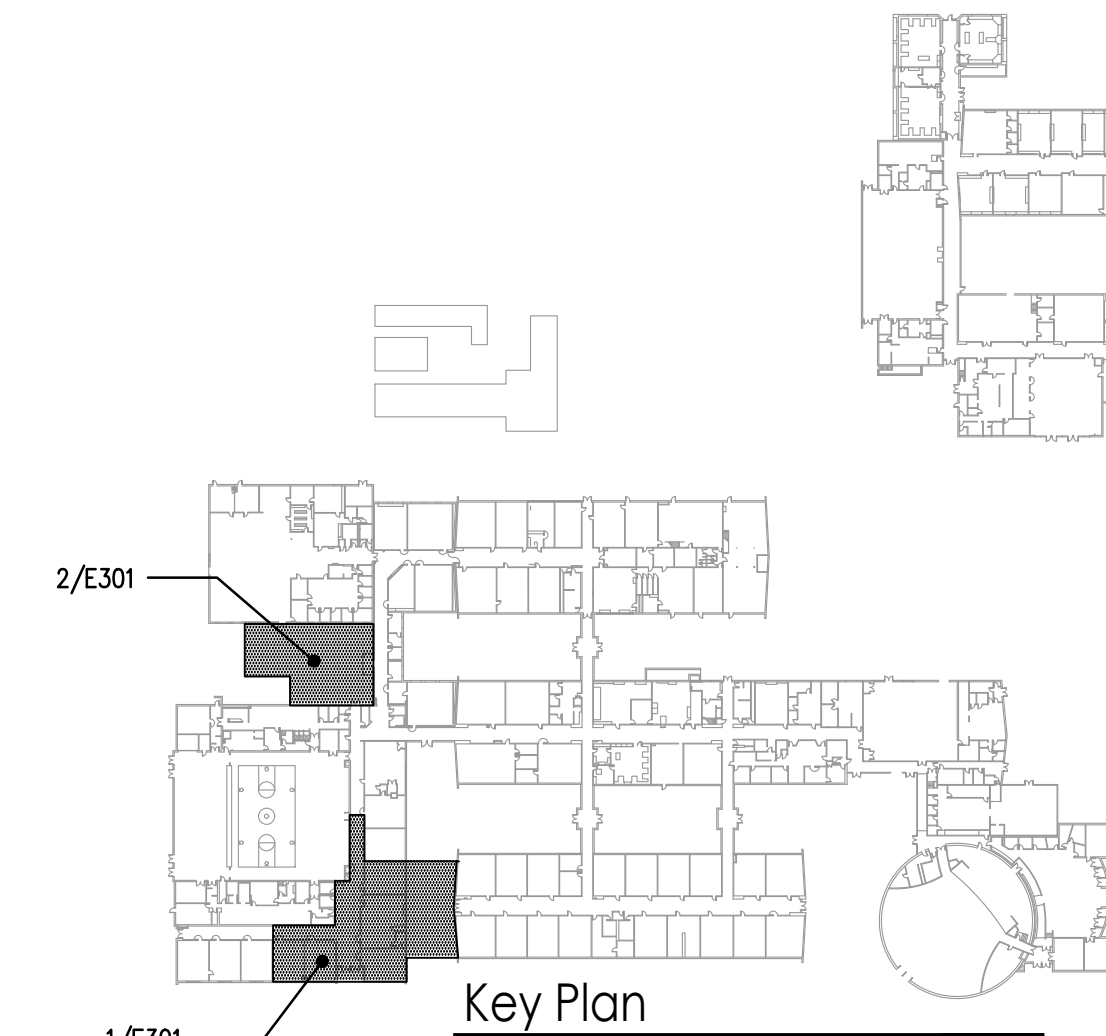


1 ELECTRICAL - NEW WORK - BLOCK 'A' POWER  
SCALE: 1/8" = 1'-0"



3 ELECTRICAL - ROOF PLAN  
SCALE: 1/16" = 1'-0"

- KEY NOTES
- RECEPTACLE AND VIDEO OUTLET FOR CEILING MOUNTED TV/MONITOR. COORDINATE MOUNTING HEIGHT AND LOCATION WITH MOUNTING HEIGHT AND LOCATION OF CEILING MOUNTED TV/MONITOR. FOR VIDEO OUTLET, PROVIDE EMPTY BACK BOX AND 1-1/2" CONDUIT WITH PULL STRING UP TO ACCESSIBLE CONCEALED SPACE ABOVE CEILING.
  - POWER AND DATA FOR SMART BOARD. IN AREAS OF EXISTING CMU CONSTRUCTION, MOUNT RECEPTACLE AND EMPTY 2-GANG BACK BOX BENEATH SMART BOARD. COORDINATE MOUNTING HEIGHTS WITH MOUNTING HEIGHTS OF SMART BOARDS. IN AREAS OF NEW CONSTRUCTION AND EXISTING DRYWALL CONSTRUCTION, PROVIDE RECEPTACLE AND (2) EMPTY BOXES IN A RECESSED IN-WALL MEDIA BOX, BASIS OF DESIGN: HUBBELL #NSA124M. PROVIDE EMPTY 2-GANG BACK BOX AT TEACHER'S DESK. PROVIDE ONE 1" CONDUIT AND ONE 1-1/2" CONDUIT WITH PULL STRINGS FROM EMPTY BACK BOXES) AT SMART BOARD TO EMPTY BACK BOX AT TEACHER'S DESK OR OTHER INDICATED LOCATION.
  - RECEPTACLE FOR RELOCATED ICE MAKER. PROVIDE NEMA 14-20R RECEPTACLE MOUNTED AT 72" AFF. CONFIRM NEMA RECEPTACLE TYPE PRIOR TO PURCHASE. PROVIDE 3/4" WITH 1/2" GROUND IN 3/4" CONDUIT BACK TO POWER SOURCE.
  - RECEPTACLE FOR CLOTHES DRYER. PROVIDE NEMA 14-30R RECEPTACLE. PROVIDE 3/4" WITH 1/2" GROUND IN 3/4" CONDUIT BACK TO POWER SOURCE.
  - RECEPTACLE FOR REFRIGERATOR. COORDINATE MOUNTING HEIGHT AND LOCATION WITH REFRIGERATOR LOCATION AND OUTLET REQUIREMENTS.
  - POWER FOR HAND DRYER.
  - PROVIDE DISCONNECT SWITCH AND HARD-WIRED CONNECTION TO CONDENSATE PUMP. COORDINATE LOCATION AND MOUNTING HEIGHT OF SWITCH WITH LOCATION AND MOUNTING HEIGHT OF CONDENSATE PUMP.
  - POWER FOR FUTURE RADON VENT FAN. PROVIDE SWITCH AND JUNCTION BOX IN CONCEALED, ACCESSIBLE SPACE ABOVE CEILING.
  - POWER FOR DOOR LOCKS. PROVIDE 120V CIRCUIT TO JUNCTION BOX IN CONCEALED, ACCESSIBLE SPACE ABOVE CEILING AT DOOR.
  - FACTORY MOUNTED DISCONNECT.

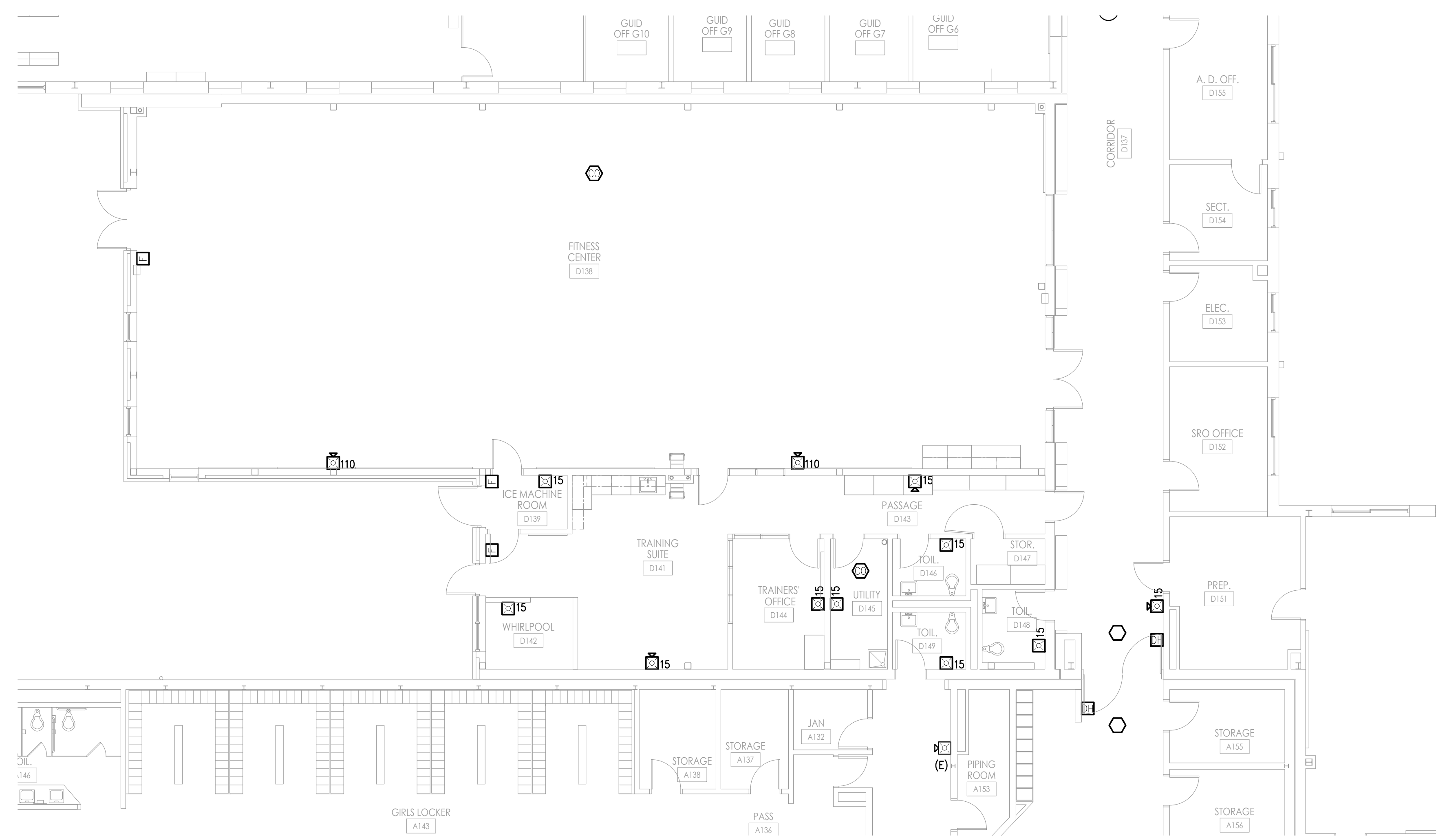


**SHARPE ENGINEERING, INC.**  
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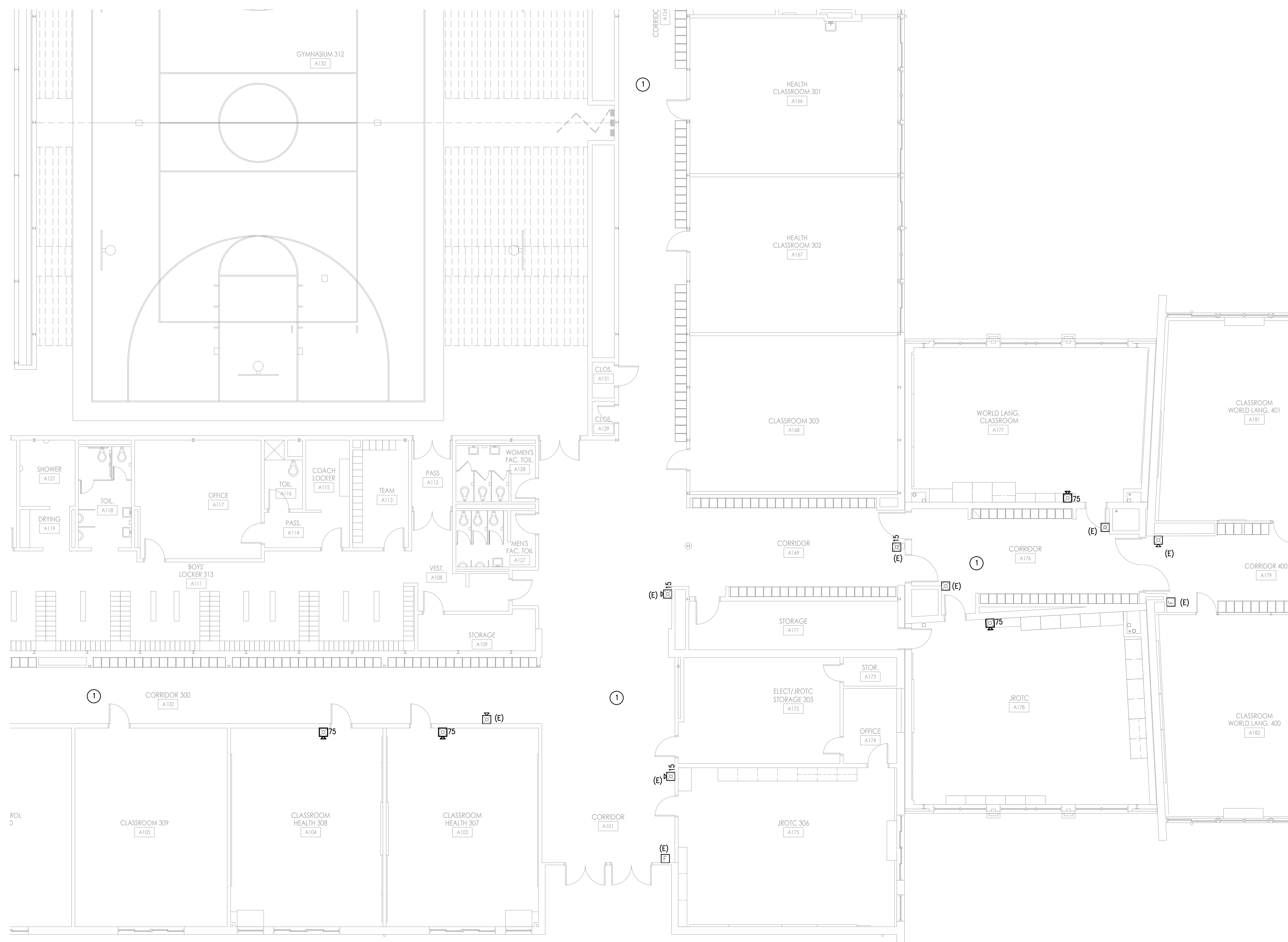
2/12/2019  
 ENGINEER: JAMES E. SHARPE, P.E. DATE: 2/12/2019  
 PROJECT NO.: 160-08022-0100

**GFVHD** architects planners  
**Fraytak Veisz Hopkins Duthe P C**  
 Corporate: 1515 Lower Ferry Road - Trenton - New Jersey 08628  
 Pennsylvania: 140 Whitaker Ave - Mont Clare - Pennsylvania 19453

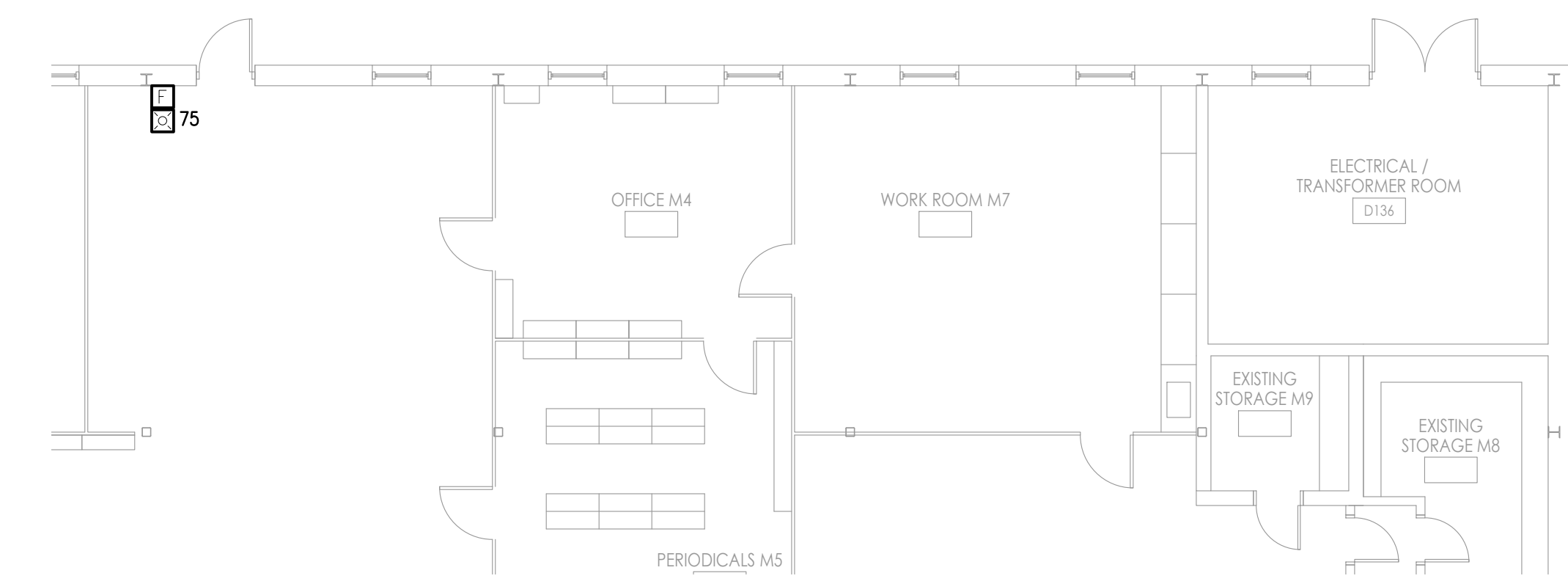
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 Checked By: RDF  
 Drawn By: DFW  
 Scale: AS NOTED  
 Drawing Name: ELECTRICAL NEW WORK - POWER  
 Revisions: No. | Date | Description  
 Drawing Number: E301



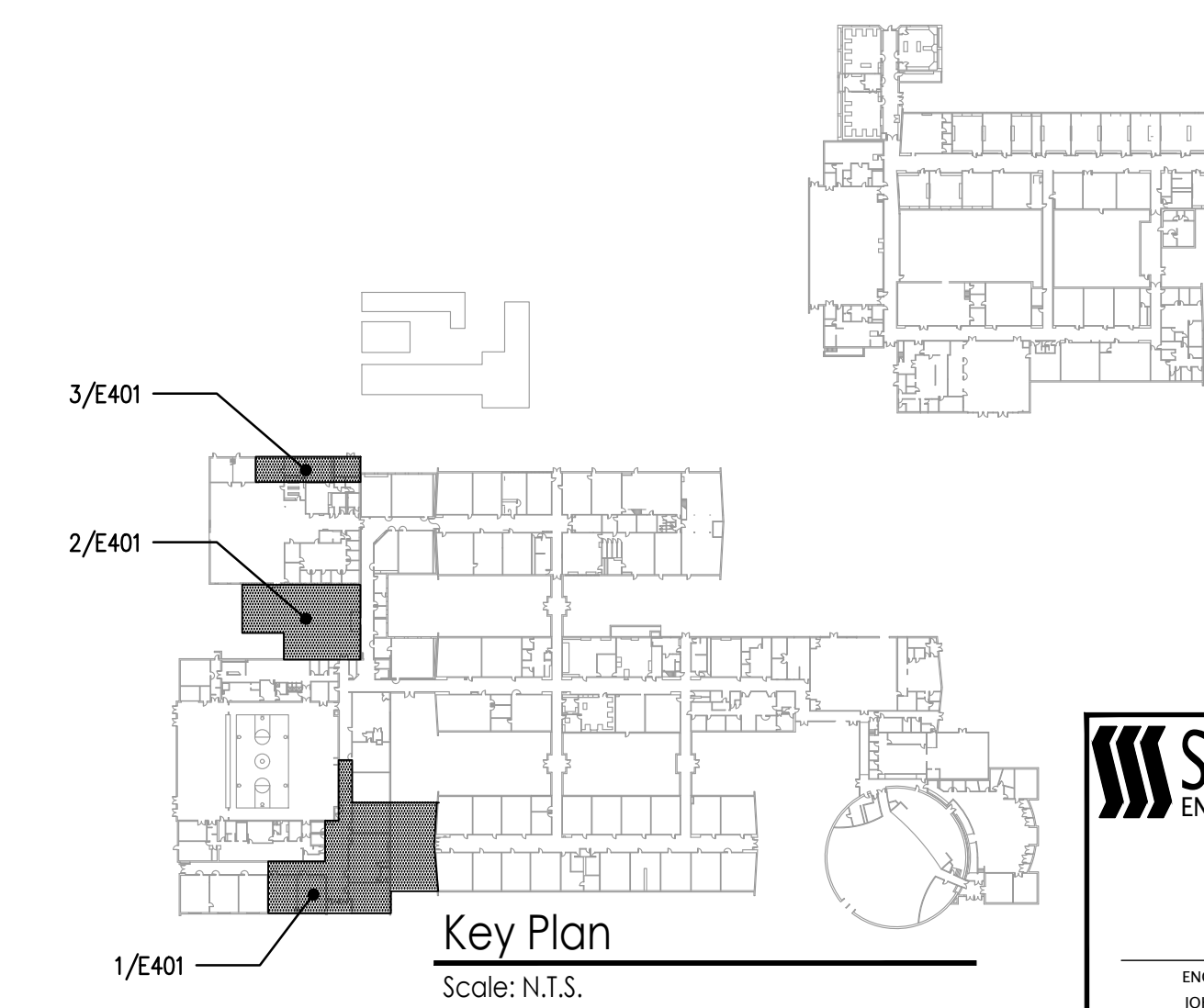
2 ELECTRICAL - NEW WORK - FITNESS CENTER FIRE ALARM  
SCALE: 1/8" = 1'-0"



1 ELECTRICAL - NEW WORK - BLOCK 'A' FIRE ALARM  
SCALE: 1/8" = 1'-0"



3 ELECTRICAL - NEW WORK - MEDIA CENTER FIRE ALARM  
SCALE: 1/8" = 1'-0"



**SHARPE ENGINEERING, INC.**  
Professional Engineers  
1000 North 10th Street, Suite 200  
Allentown, PA 18103  
Tel: 610-261-1111 Fax: 610-261-1112  
www.sharpe-engineering.com

DATE: 7-12-2019  
ENGINEER: JOHN E. SHARPE, P.E.  
PROJECT NO.: 160-08022-01

**KEY NOTES**  
1 REINSTALL ALL ELECTRICAL DEVICES TEMPORARILY HUNG FROM STRUCTURE ABOVE IN NEW CEILING GRID. COORDINATE WORK WITH GENERAL CONTRACTOR. REFER TO ARCHITECTURAL PLANS FOR EXTENT OF CEILING WORK.

JOHN J. VEISZ, AIA, CSBA  
No. 214008690 (PA, RA)081918  
WILLIAM D. HOPKINS III, AIA, LEED AP  
No. 214070600 (PA, RA)025200  
GEORGE B. DUTHIE, JR., AIA, PP  
No. 214070690

*William D. Hopkins III*  
Architect  
7/12/19  
Date

**FVH D** architects  
planners  
Fraytak Veisz Hopkins Duthie P C  
Corporate: 1515 Lower Ferry Road - Trenton - New Jersey 08628  
Pennsylvania: 140 Whitaker Ave - Mont Clare - Pennsylvania 19453

F V H D P C O M

Project Name  
Additions, Alterations and Renovations at Northern Burlington County Regional High School - Phase 1

Project Owner Name  
Northern Burlington County Regional School District

Project Location  
160 Mansfield Rd, East, Columbus, NJ 08022

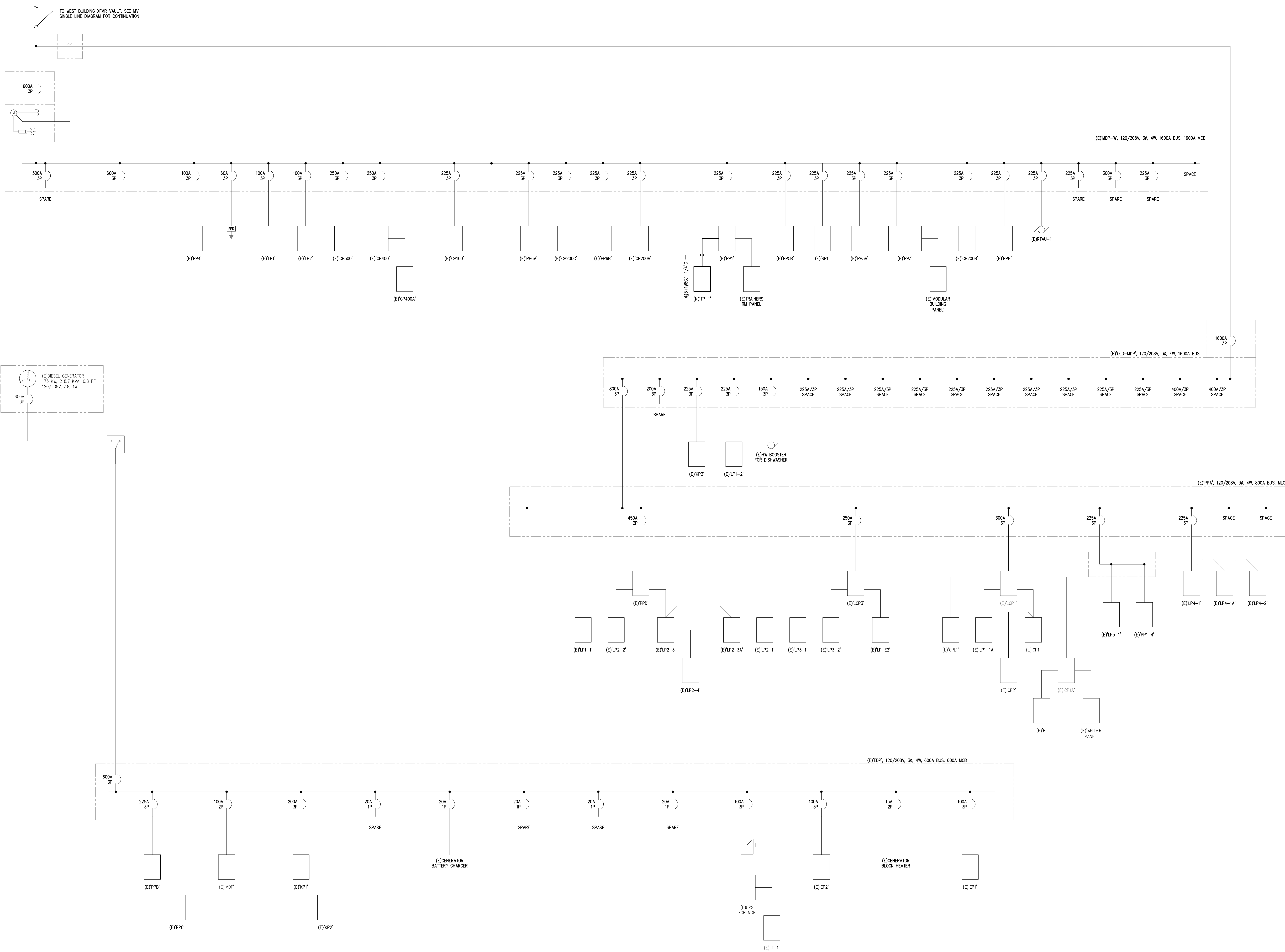
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5086.3A  
Project Date  
07.12.2019  
Checked By  
PDF  
Drawn By  
DFW  
Scale  
AS NOTED

Drawing Name  
ELECTRICAL NEW WORK - FIRE ALARM

Revisions		
No.	Date	Description

Drawing Number  
**E401**





1 PARTIAL SINGLE LINE DIAGRAM - WEST BUILDING  
SCALE: NONE

JOHN J. VEISZ, AIA, CSBA  
NJ: 214036990 | PA: RA01819  
WILLIAM D. HOPKINS III, AIA, LEED AP  
NJ: 214036990 | PA: RA012520  
GEORGE B. DUTHE, JR., AIA, PP  
NJ: 214036990

**GFVHD** architects  
planners  
engineers

**Fraytak Veisz Hopkins Duthe P C**

Corporate: 1515 Lower Ferry Road - Trenton - New Jersey 08628  
Pennsylvania: 140 Whitaker Ave - Mont Clare - Pennsylvania 19453

F V H D P C O M

7/12/19  
Date

Project Name  
Additions, Alterations  
and Renovations at  
Northern Burlington  
County Regional High  
School - Phase 1

Project Owner Name  
Northern Burlington  
County Regional  
School District

Project Location  
160 Mansfield Rd. East,  
Columbus, NJ 08022

Project Number  
5086.3A

Project Date  
07.12.2019

Checked By  
RDF

Drawn By  
RDF

Scale  
AS NOTED

Drawing Name  
ELECTRICAL  
DETAILS

Revisions		
No.	Date	Description

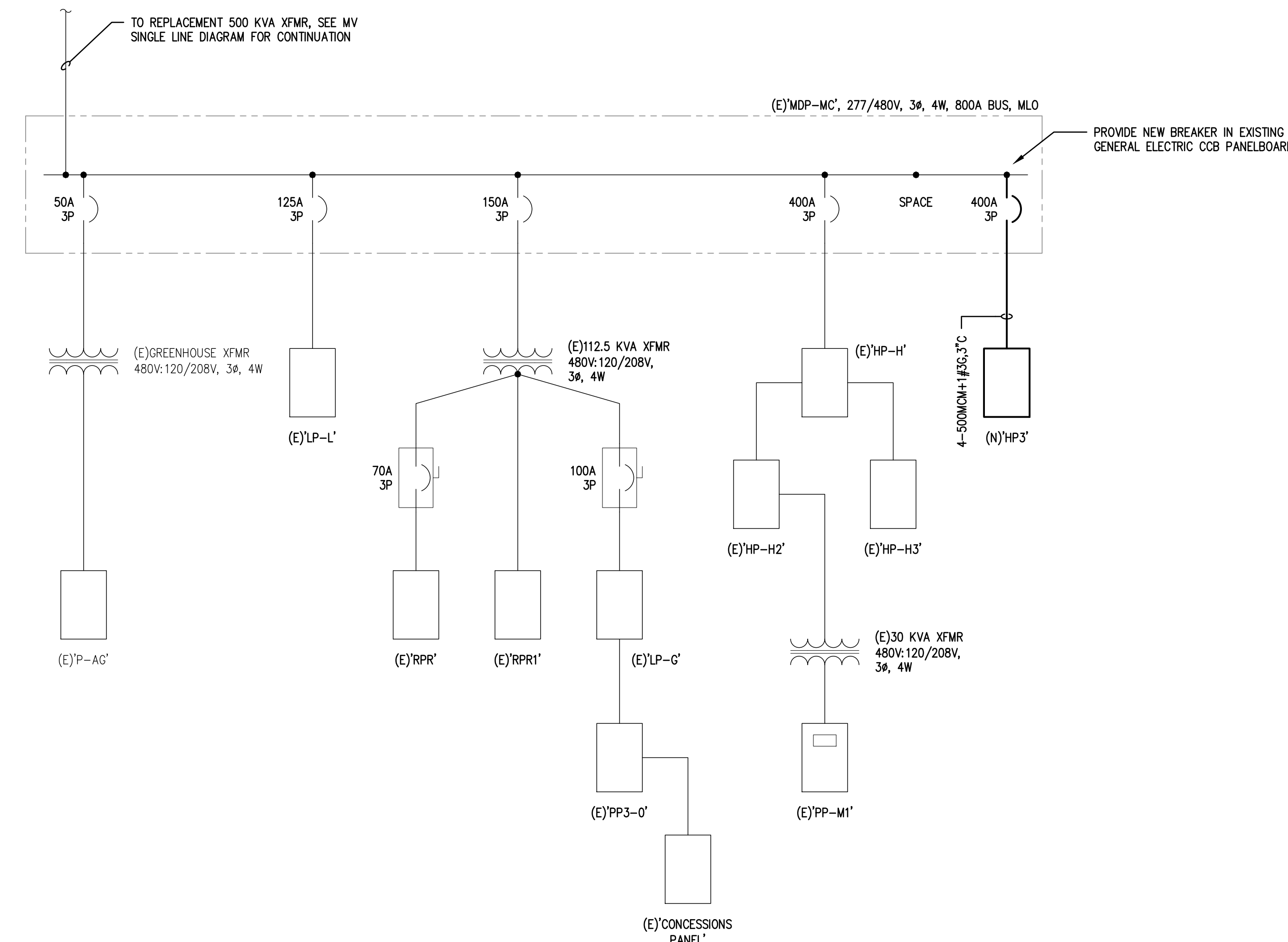
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**SHARPE**  
ENGINEERING, INC.

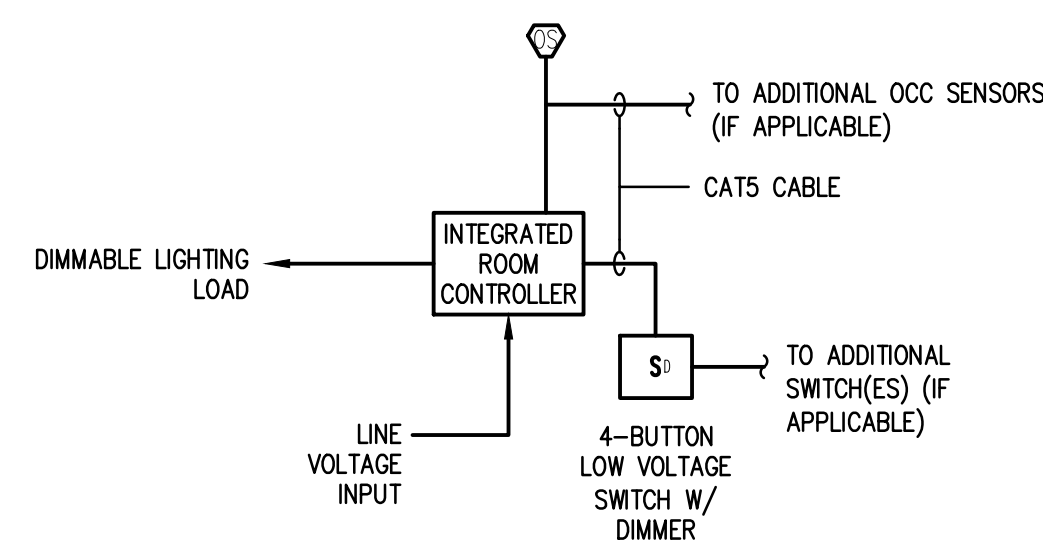
100 Corporate Center Drive  
Suite 200  
Columbus, NJ 08022  
Tel: 609.499.8111 Fax: 609.499.8111  
www.sharpe-engineering.com

Professional Engineers  
NJ Lic. No. 24C200212000

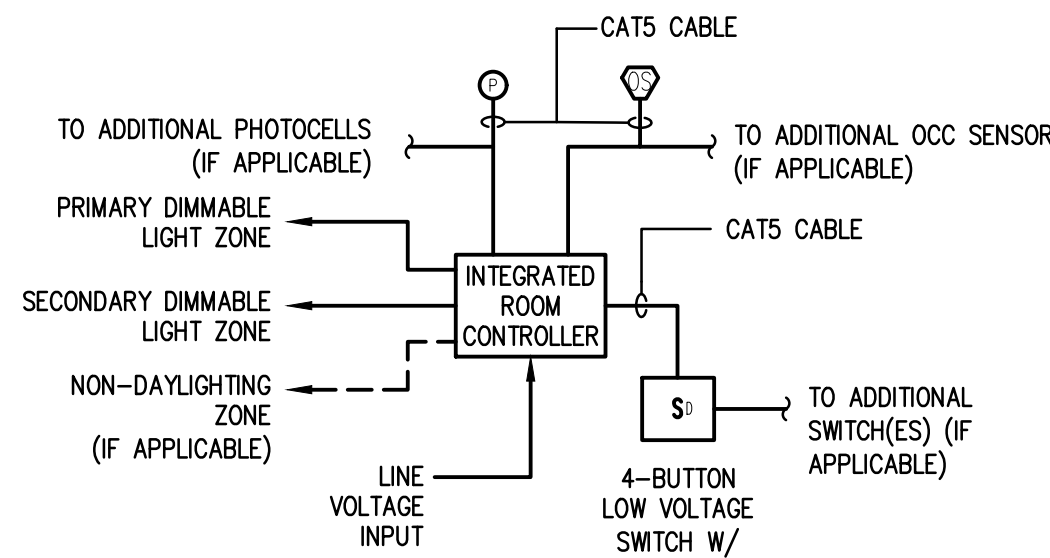
7/12/2019 DATE  
JPM: E. SHARPE, P.E. NJ Lic. No. 24C000215000



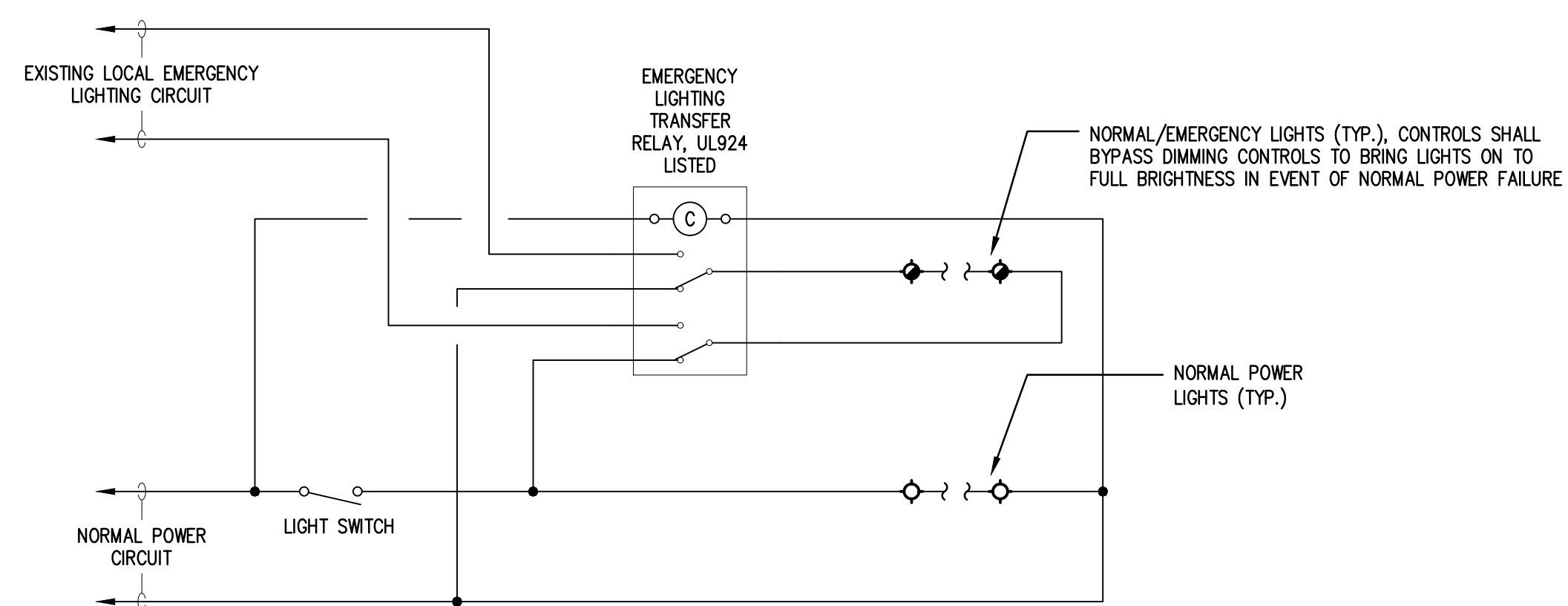
1 SINGLE LINE DIAGRAM - MEDIA CENTER  
SCALE: NONE



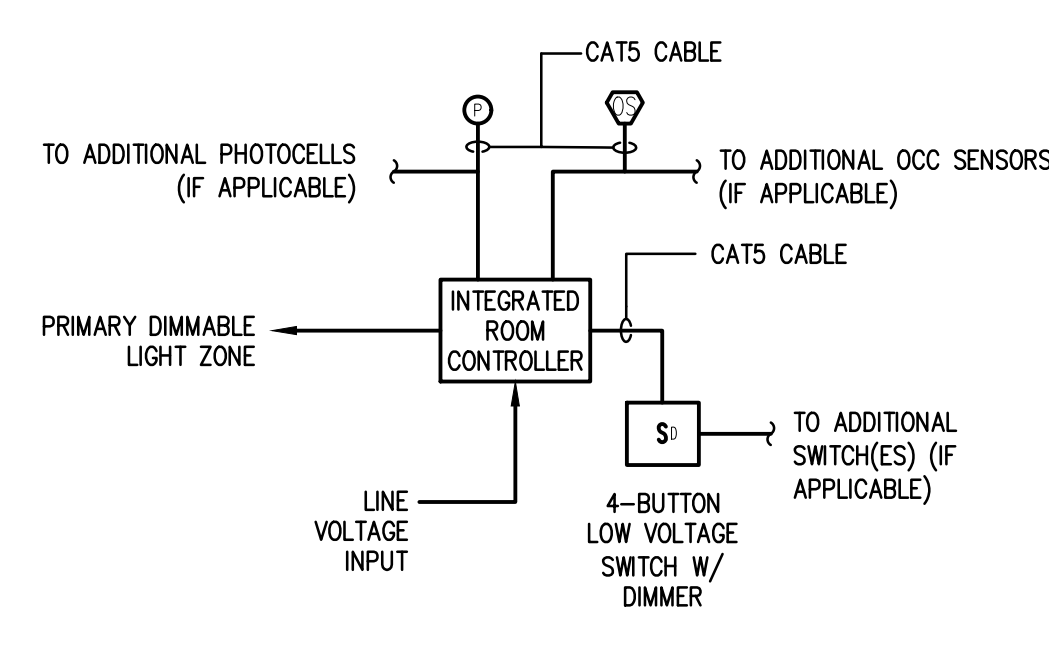
2 LIGHTING CONTROL DIAGRAM - DIMMING, OCC. SENSOR  
SCALE: NONE



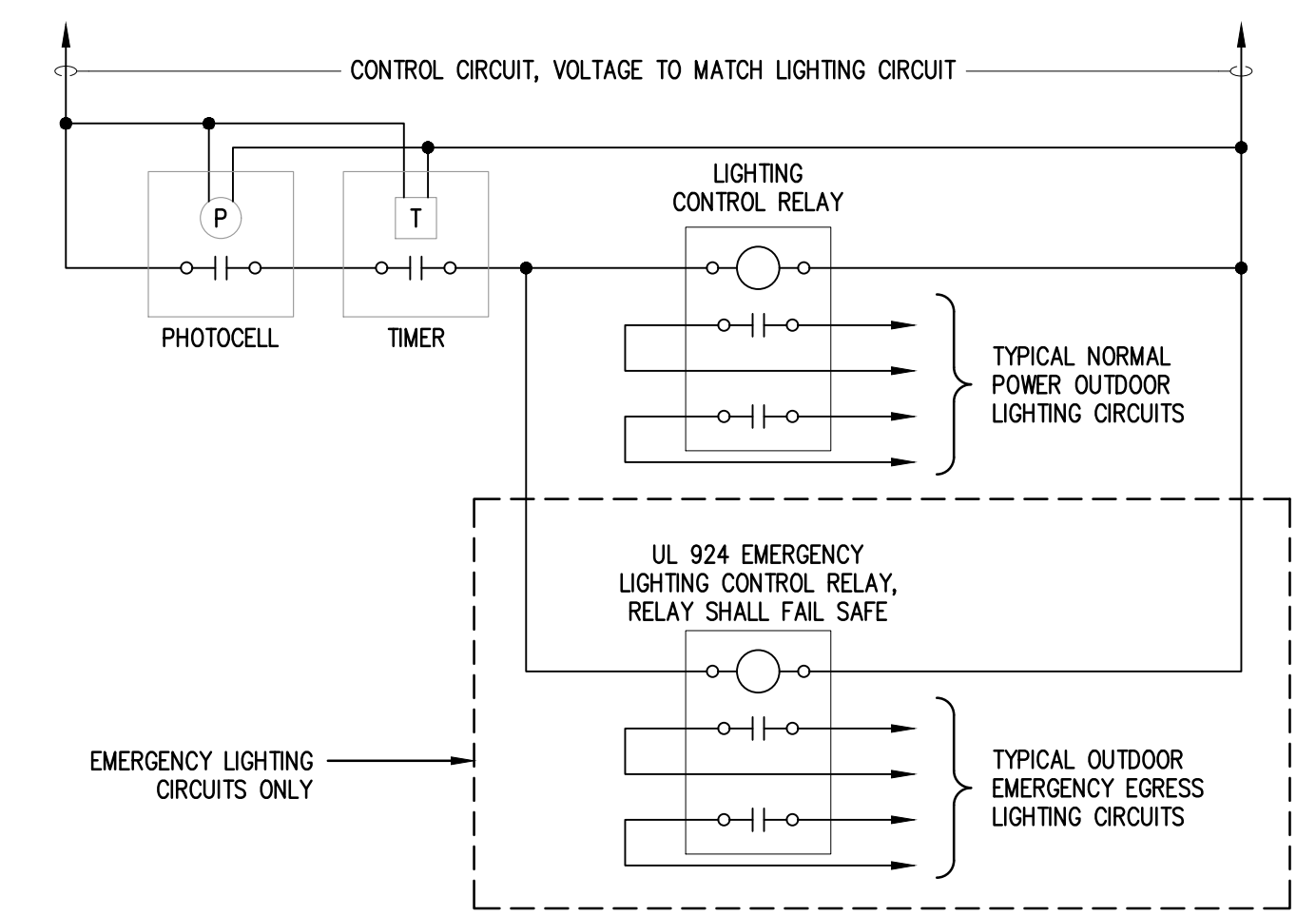
3 LIGHTING CONTROL DIAGRAM - DIMMING, OCC. SENSOR, DAYLIGHT HARVESTING  
SCALE: NONE



4 NORMAL/EMERGENCY LIGHTING CONTROL DIAGRAM  
SCALE: NONE



5 LIGHTING CONTROL DIAGRAM - FITNESS CENTER  
SCALE: NONE



6 NORMAL/EMERGENCY EXTERIOR LIGHTING CONTROL DIAGRAM  
SCALE: NONE

Revisions		
No.	Date	Description

