1. Temporary Electrical Service - Temporary Conductor Material and Sizes.

   Temporary service shall be permitted.

   Metal-clad cable, type MC, shall be permissible.

   Vacuum-pressure impregnation process to seal equipment ground bus: adequate for feeder and

   2. Interiors shall be factory assembled into a unit.

   Interconnect ground rods with grounding bus. Bus shall be fully rated the entire length.

   Motors will be provided with the equipment they include in this division. Where manual motor

   3. Sensing a combination of heat and movement in area detectors sensitivity: detect a person of

   4. Transformers rated 15 kVA and larger:

   a. NEMA 250, Type 5 or Type 12.

   b. Indoor dry and clean locations: NEMA 250, Listed and Type.

   c. Indoor occupancy sensors:

   d. Solid-state units with a separate relay unit. Specific

   e. Microprocessor input; complying with UL 773A. Specific

   5. Fuses for fused switches: equal to 10 percent of

   6. Two spares for each panelboard.

   7. Panelboards. Submit final versions after load

   8. Product data: for each type of panelboard.

   9. Voltage: 480 Vn, 3ph, 60 Hz.

   10. Apparatus will develop capacities and

   11. Standard to toggle switch. Switching mechanism

   12. Time switch shall be capable of operating as an

   13. Reflect those times.

   14. Defects within a reasonable time to be specified

   15. The responsibility of the electrical contractor.

   16. Where indicated on both sides of doorways,

   17. Where indicated on drawings.

   18. The unit shall be UL 924 and CUL listed and

   19. Any area within a building.

   20. The designers and contractors shall verify that equipment to be

   21. The temporary service is necessary temporary lighting and receptacles.

   22. The temporary service.

   23. The temporary service.

   24. The temporary service.

   25. The temporary service.

   26. The temporary service.

   27. The temporary service.

   28. The temporary service.

   29. The temporary service.

   30. The temporary service.
C. A. RECEPTACLES UP, AND ON HORIZONTALLY MOUNTED MATCHING, LOCKING-TYPE PLUG AND RECEPTACLE MAKING CONNECTIONS.

LENGTH.

SECTION 087100 "DOOR HARDWARE." CONNECT HARDWARE CEILING-MOUNTED LUMINAIRE SUPPORT:

PIGTAILS FOR DEVICE CONNECTIONS.

SCALE:

6.

COLOR-CODED WIRES SHALL BE USED.

WIRES SHALL BE AS REQUIRED FOR SYSTEM OPERATION.

AMOUNT OF EACH TYPE INSTALLED, BUT NO FEWER THAN 1 UNIT OF EACH TYPE.

2.3 DESCRIPTION: SINGLE-PIECE, RIVETLESS, FOUR (4) SECONDS. THE DETECTOR SHALL SUPPORT THE USE OF AUDIBLE ALARM-INDICATING DEVICES: INSTALL NOT LESS THAN 1 UNIT OF EACH TYPE.

FUSES, LOCKABLE HANDLE WITH CAPABILITY TO ACCEPT TWO STRANDS FROM STRANDED WIRE.

PART 3 - AUDIBLE ALARM-INDICATING DEVICES SHALL BE PROVIDED WITH ADDRESSABLE ZONE INTERFACE THROUGHOUT THE BUILDING TO OPERATE, SHALL CAUSE SUPERVISORY, OR TROUBLE SIGNAL FROM FIRE-ALARM ALARM-INITIATING CONNECTION TO ACTIVATE INTEGRAL RELAY: CAPABLE OF PROVIDING A DIRECT SIGNAL TO THE SYSTEM WITHIN FOUR (4) MONTHS OF DATE OF SUBSTANTIAL COMPLETION, PROVIDE SUPERVISORY CONNECTIONS AT ELEVATOR SHUNT-TRIP GREAT FOR WALL MOUNTED AND WHITE FOR CEILING MOUNTED.

LED DISPLAY.

PART 4 - MANUFACTURER'S WRITTEN SPECS FOR EACH SIZE AND TYPE, BUT NO FEWER THAN THREE FOR EACH CATEGORY, FROM SINGLE MANUFACTURER.

ALL SUBMITTALS SHALL BE APPROVED BY AUTHORITIES HAVING JURISDICTION FOR INSTALLATION AND QUALIFIED TESTING AGENCY, AND MARKED FOR INTENDED LOCATION AND APPLICATION.

PART 5 - H. O. T. A. E. PRODUCTS

PART 6 - MANUFACTURERS: SUBJECT TO COMPLIANCE WITH NFPA 72.

RECEPTACLES: MATCH PLUG CONFIGURATIONS. CORD AND PLUG SETS:

A. FEEDERS: CLASS RK1, FAST ACTING CIRCUIT BREAKER, ACCESSORY, AND COMPONENT INDICATED.

1. GENERAL EXTERIOR LIGHTING INSTALLATION REQUIREMENTS

2. FIRE ALARM SYSTEM INSTALLED AS SHOWN ON DRAWINGS

3. INSTALL LAMPS IN EACH LUMINAIRE.

4. D. PROVIDE FUSE PULLERS: FOR EACH SIZE OF FUSE, WHERE IDENTIFICATION: "SPARE FUSES" IN 1-1/2-INCH- (38-MM-) SIZED: ADEQUATE FOR STORAGE OF SPARE FUSES FOR EACH SIZE AND TYPE OF FUSE.

5. B. Paneldrives: NEMA PB 1, LIGHTING AND APPLIANCE PANELBOARDS: NEMA PB 1, LIGHTING AND APPLIANCE DISTRIBUTION PANEL USE TO IDENTIFY THE MODULE TYPE.

6. 3.5.5. SUBMITTALS - CATEGORY, FROM SINGLE MANUFACTURER.

7. E. THERMOPLASTIC MATERIAL FOR UNFINISHED SPACES: SMOOTH, HIGH-IMPACT PANEL USE TO IDENTIFY THE MODULE TYPE.

8. GENERAL REQUIREMENTS
APPROXIMATE NORMAL FEEDERS RISE UP LOCATION AT KILN ROOM C306 BELOW. STUB OUT AND FIRE SEAL ALL PENETRATIONS.

APPROXIMATE PARALLEL EMERGENCY FEEDERS RISE UP LOCATION AT KILN ROOM C306 BELOW. STUB OUT AND FIRE SEAL ALL PENETRATIONS.

EXISTING SWITCHBOARD 'G' 480/277V., 3Ø, 4W.

APPROXIMATE LOCATION OF 800 AMP SERVICE ENTRANCE DISCONNECT SWITCH FOR GENERATOR FEEDER. VERIFY WITH CCAC AND ENGINEER THE FINAL LOCATION PRIOR TO ROUGH-IN.

APPROXIMATE LOCATION OF EXISTING GENERATOR TO REMAIN

EXISTING LIGHT POLE SHALL BE DISCONNECTED AND RELOCATED. PROVIDE NEW CONCRETE FOOTER FOR LIGHTING POLE. REWORK EXISTING UNDERGROUND CONDUIT FOR GENERATOR PAD. NEW LOCATION TO BE DETERMINED BY CCAC.

APPROXIMATE LOCATION OF GENERATOR. COORDINATE FINAL LOCATION WITH CCAC PRIOR TO ROUGH-IN. CALL LOCAL UTILITIES FOR MARKING OF EXISTING UNDERGROUND SERVICES.

CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY OCCUR BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATED AND PRESERVE ANY AND ALL UTILITIES.

CONTRACTOR SHALL NOTIFY THE PA ONE CALL SYSTEM NOT LESS THAN THREE (3) DAYS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE AN APPROXIMATE DATE AND TIME THAT DIGGING WILL OCCUR. THE ONE CALL SYSTEM WILL THEN NOTIFY THE PUBLIC AND PRIVATE UTILITIES IN THE AREA. PUBLIC AND PRIVATE UTILITIES WILL THEN COORDINATE DIRECTLY WITH THE CONTRACTOR FOR ACTUAL FIELD LOCATIONS.

PA ONE CALL SYSTEM PHONE: 8-1-1 OR 1-800-242-1776.

GENERAL UTILITY & ONE CALL INFORMATION:

ALL EARTH/ASPHALT MATERIAL THAT IS LEFTOVER FROM TRENCHING OR FROM GENERATOR PAD AND CONSTRUCTION, SHALL BE REMOVED OFF SITE IN A MANNER THAT MEETS EPA AND LOCAL JURISDICTION REQUIREMENTS BY THE ELECTRICAL CONTRACTOR. METHOD OF REMOVAL SHALL BE DISCUSSED AND APPROVED WITH CCAC WEST HILLS CENTER CAMPUS PRIOR TO REMOVAL.
NORMAL FEEDERS
RISE UP LOCATION
FROM KILN ROOM C306 BELOW.
STUB OUT AND FIRE SEAL ALL PENETRATIONS.

PANEL TR473C
PARALLEL EMERGENCY FEEDERS RISE UP LOCATION FROM KILN ROOM C306 BELOW.
STUB OUT AND FIRE SEAL ALL PENETRATIONS.

DESIGNED: [Signature]
DRAWN: [Signature]
CHECKED: [Signature]

DRAWING NUMBER
PROJECT NUMBER: 1841064
DRAWING TITLE
SEAL NO.
DATE: 11-05-18
SCALE: AS SHOWN

PROJECT NAME
CCAC SOUTH CAMPUS - UPS AND GENERATOR UPGRADE
1750 Clairton Road  West Mifflin, PA 15122-3029
CCAC Project #13-C000345

KEY PLAN
FOURTH FLOOR BUILDING L OVERALL ELECTRICAL PLAN
1/8" = 1'-0"
EXISTING PANEL TR301
EXISTING PANEL TR301A
EXISTING AC UNIT

REFEED EXISTING AC UNIT AND ASSOCIATED CONDENSING UNIT FROM PANEL '1SBA'.
EXISTING PANEL BB9

ELECTRICAL CONTRACTOR SHALL REFEED EXISTING OVERHEAD AC UNIT FROM PANEL '1SBA'.

EXISTING PANEL BB9A

EXISTING PANEL TRB520

REFEED EXISTING AC UNIT AND ASSOCIATED CONDENSING UNIT FROM PANEL '1SBA'.

EXISTING PANEL TR520

EXISTING PANEL TR520A

1/2" = 1'-0"
EXISTING PANEL TR473B 150A 120/208V., 3Ø, 4W.

Provide breakers in this panel to meet panel schedule requirements.

EXISTING PANEL TR473 150A 120/208V., 3Ø, 4W.

EXISTING FIRE ALARM PANEL

PANEL TR473C 175A 120/208V., 3Ø, 4W.

112.5 KVA transformer 60/2/30/3R

Disconnect existing fire alarm device and relocate to new location. Provide all testing and reprogramming of fire alarm device.

1SBA-27, 29

1SBA-31, 33

J

AC 05

CU 06

ATS #1

ATS #2

150 KVA UPS by CCAC

Electrical contractor to provide interconnection wiring between outdoor CU and indoor AC unit.

ELECTRICAL CONTRACTOR TO PROVIDE INTERCONNECTION WIRING BETWEEN OUTDOOR CU AND INDOOR AC UNIT.

Electrical contractor to provide digital timer switch.

Electrical contractor shall install and wire disconnect switches provided under mechanical contractor's scope of work.

Provide (2) addressable smoke detectors to match base building system and provide all reprogramming into existing fire alarm system.

Electrical wireway disconnect and remove (5) existing 2' X 4' lighting fixtures. Maintain continuity of existing circuiting and switching.

Electrical contractor to provide 4" X 1/4" X 2'-0" copper ground bus bar and tie back to ground bar located in room L473 with #4/0 green.

Generator E-stop with plastic enclosure.

1SBA-10

1SBA-10

1SBA-10
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<td>DAVID C. PRICE</td>
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MECHANICAL GENERAL NOTES:
1. MOUNT THE HARD WIRED THERMOSTATS IN THE LOCATIONS SHOWN WITH WIRING CONCEALED IN SURFACE MOUNTED CONDUIT AND JUNCTION BOXES SUCH AS 500 SERIES METALLIC "WIRE-MOLD(R)".
2. M.C. TO PROVIDE APPROPRIATELY SIZED, LOCKABLE, METAL DISCONNECTS FOR EACH OUTDOOR AND INDOOR COMPONENT. E.C. TO MOUNT AND WIRE DISCONNECTS.
3. MOUNT THE REFRIGERATION PIPING TO THE STRUCTURE OF THE BUILDING USING MODULAR STRUT WITH INSULATED CLAMPS. REFRIGERATION PIPING EXTERIOR TO THE BUILDING SHALL BE ENCLOSED WITH RECTORSERL(R) "SLIMDUCT" POLYMER PRODUCT WITH FITTINGS TO PROVIDE A CLEAN APPEARANCE.

MECHANICAL KEY NOTES:
1. MOUNT THE INDOOR UNIT ON MODULAR STRUT WITH THE BOTTOM OF THE UNIT 7'0" AFF.
2. MOUNT THE OUTDOOR UNIT ON A CONCRETE PAD SIZED TO SUPPORT THE TWO CONDENSING UNITS PLUS ONE MORE FOR FUTURE EXPANSION. SURROUND THE CONCRETE PAD WITH FENCING. MAKE THE PAD AND FENCE SIMILAR TO THE EXISTING ENCLOSURE TO THE SOUTH OF THESE PROPOSED UNITS.

DESIGNED: DRAWN: CHECKED:

DRAWING NUMBER: PROJECT NUMBER: 1841064
DRAWING TITLE: PROJECT NAME: AC 05

AC 06

CU 06
CU 05

1
1
2
2

T
T

M201
BUILDING L MECHANICAL PLAN - UPS ROOM #L482B
1/2" = 1'-0"