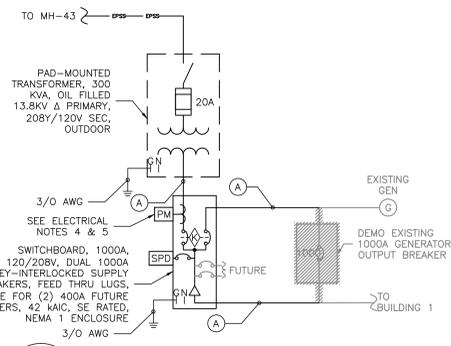
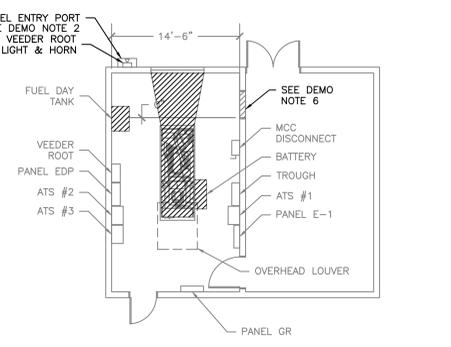


one and one half inches = one foot
 three quarters inch = one foot
 one inch = one foot
 three quarters inch = one foot
 one half inch = one foot
 three eighths inch = one foot
 one quarter inch = one foot
 one eighth inch = one foot

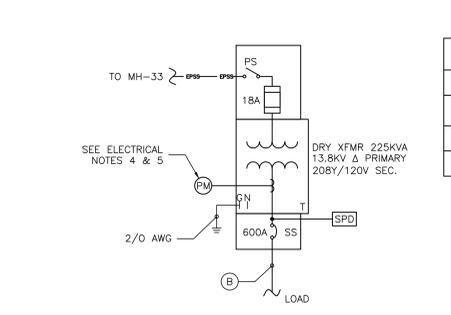
1 BUILDING 1 POWER PLAN
 E-107 SCALE 1/8" = 1'



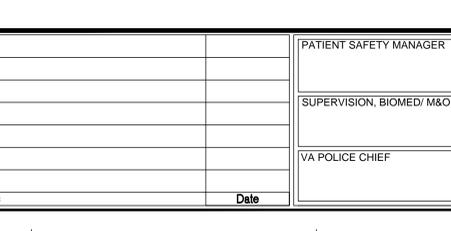
7 BUILDING 1 ONE-LINE DIAGRAM
 E-107 SCALE NTS



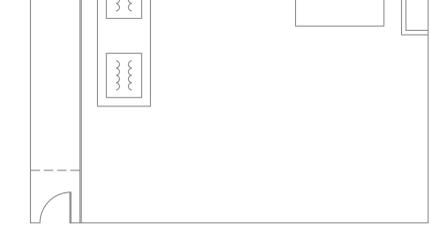
5 BUILDING 138 DEMO
 E-107 SCALE 1/8" = 1'



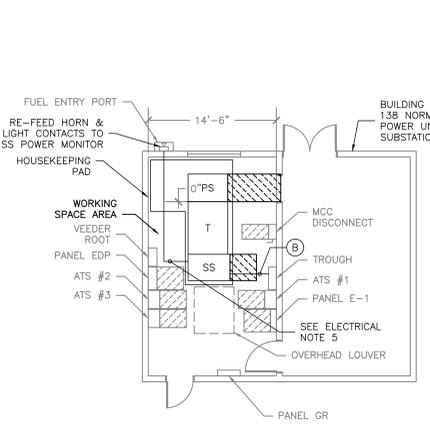
9 BUILDING 138 ONE-LINE DIAGRAM
 E-107 SCALE NTS



2 BUILDING 1 COURTYARD
 E-107 SCALE 1/8" = 1'



6 BUILDING 138 POWER PLAN
 E-107 SCALE 1/8" = 1'



6 BUILDING 138 POWER PLAN
 E-107 SCALE 1/8" = 1'

LOW VOLTAGE FEEDER SCHEDULE

TAG	AMPACITY	DESCRIPTION
A	1000A	(3) PARALLEL RUNS, EACH 4-400 kCMIL, 3/0 AWG EG, IN 3-1/2" C
B	600A	(2) PARALLEL RUNS, EACH 4-350 kCMIL, 1 AWG EG, IN 3" C
C	400A	(2) PARALLEL RUNS, EACH 4-3/0 AWG, 3 AWG EG, IN 2" C

TRANSFORMER SCHEDULE

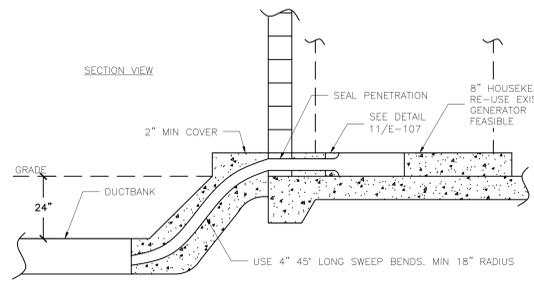
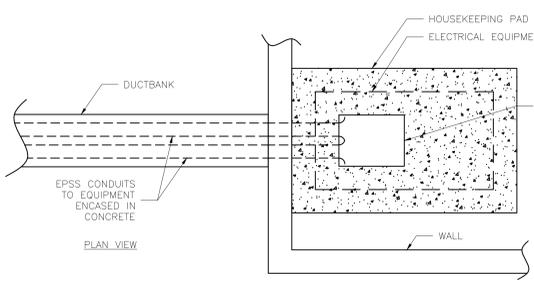
BLDG.	PRI. VOLTAGE	PRI. SW.	TYPE	SIZE	SEC. VOLTAGE	SEC. OCPD.	POWER MONITORING	SURGE PROTECTION
1	13.8KV	INTERNAL FUSED	OIL	300KVA	208Y/120V	1000A	YES	YES
138	13.8KV	YES, FUSED	DRY	225KVA	208Y/120V	600A	YES	YES
139	13.8KV	YES, NF	DRY	300KVA	480Y/277V	400A	YES	YES

- ELECTRICAL NOTES:**
- ALL RECEPTACLE CONDUCTORS SHALL BE 2-12 AWG, 1-12 AWG EG IN 3/4" EMT OR MC CABLE UNLESS NOTED OTHERWISE.
 - VERIFY LOCATION OF MECHANICAL EQUIPMENT WITH MECHANICAL DRAWINGS.
 - THE TRANSFORMER USED IN CONJUNCTION WITH AN AUTOMATIC TRANSFER SWITCH WITH A SOLID NEUTRAL IS NOT A SEPARATELY DERIVED SYSTEM. AS SUCH, DO NOT BOND THE NEUTRAL TO GROUND AT THE TRANSFORMER SECONDARY OR SECONDARY DISCONNECT.
 - CONTRACTOR PROVIDE POWER MONITORING FOR ALL TRANSFORMERS. MONITORING SHALL INCLUDE AT A MINIMUM INSTANTANEOUS & PEAK A, KW, KVA, PF, AND L-L & L-N VOLTAGES, AND A LOSS OF VOLTAGE, LOSS OF PHASE ALARM WITH REMOTE CONTACT.
 - PROVIDE LOSS OF POWER/LOSS OF PHASE ALARM SIGNAL TO EXISTING ALARM LIGHT & HORN ON OUTSIDE OF BUILDING. (SEE FUEL DEMOLITION NOTES).
 - RELOCATE EXISTING VEEDER ROOT PANEL AND ANY OTHER EQUIPMENT AS NEEDED.
 - CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO SUBMITTING BID.
 - ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH LATEST NEC AND LOCAL CODES.
 - CONTRACTOR TO RELOCATE, AS NECESSARY EXISTING EQUIPMENT INTERFERING WITH NEW WORK.
- BONDING OF NEUTRAL TO GROUND:**
- THE EMERGENCY POWER GENERATOR OR UNIT SUBSTATION SUPPLYING 3-POLE AUTOMATIC TRANSFER SWITCH(ES) WITH SOLID NEUTRAL DOES NOT CONSTITUTE A SEPARATELY DERIVED SYSTEM.
 - CONTRACTOR VERIFY EACH EMERGENCY POWER SYSTEM IS CONFIGURED AS FOLLOWS PRIOR TO DEMOLITION.
 - SERVED AUTOMATIC TRANSFER SWITCHES ARE 3-POLE WITH SOLID NEUTRAL.
 - NEUTRAL IS NOT BONDED TO GROUND IN THE GENERATOR OR OUTPUT DISCONNECT OR SWITCHBOARD.
 - IF ITEM #2 IS NOT THE CASE, NOTIFY COTR FOR FUTURE GUIDANCE.
 - DO NOT BOND NEUTRAL TO GROUND AT THE SECONDARY OF THE TRANSFORMER OR IN THE SECONDARY SIDE (SS) DISCONNECT.
 - PER NEC (2011) ARTICLE 700.7, VERIFY OR INSTALL SIGNAGE AT THE ASSOCIATED MAIN SERVICE POINT. SIGNAGE SHALL READ:

WARNING
 SHOCK HAZARD EXISTS IF GROUNDING ELECTRODE CONDUCTOR OR BONDING JUMPER CONNECTION IN THIS EQUIPMENT IS REMOVED WHILE ALTERNATE SOURCE IS ENERGIZED

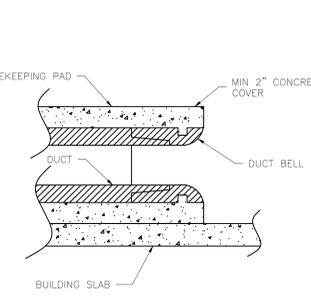
 GROUNDING LOCATION FOR NORMAL SERVICE AND FOR UNIT SUBSTATION LOCATED IN (BUILDING/ROOM #).

- DEMOLITION NOTES:**
- DEMO ELECTRICAL CONDUCTORS AND CONDUIT BACK TO FIRST JUNCTION BOX ABOVE CEILING, FOR ALL DEVICES SHOWN IN THIS PLAN.
 - DEMO FUEL LINE TO OUTSIDE BUILDING. CAP LINE ABOVE GRADE UNDER BOX. SEAL OPENING TO BUILDING. (SEE FUEL DEMOLITION NOTES).
 - REMOVAL OF GENERATOR SHALL INCLUDE ALL GENERATOR APPURTENANCES (BATTERY CHARGER, FUEL PUMPS & DAY TANKS).
 - VEEDER ROOT ALARM SHALL REMAIN IN OPERATION, RELOCATE, AS NEEDED.
 - DO NOT REMOVE OR MODIFY ROOM VENTILATION UNLESS OTHERWISE NOTED IN MECHANICAL DRAWINGS.
 - CUT AND FRAME 36" X 84" OPENING IN EXISTING WALL.
- FUEL SYSTEM DEMOLITION:**
- EMPTY, DISCONNECT, & REMOVE DAY TANK & APPURTENANCES.
 - REMOVE FUEL LINES BACK TO FLEXIBLE HOSES LOCATED UNDER METAL BOX JUST OUTSIDE BUILDING.
 - CAP & SEAL LINES.
 - REPLACE BOX.
 - EMPTY IN-GROUND TANK COMPLETELY. CONDITION FUEL & TRANSFER ELSEWHERE AS DIRECTED BY COTR.
 - WHEN IN-GROUND TANK HAS BEEN EMPTIED, DISCONNECT ALARM LIGHT & HORN FROM VEEDER ROOT MONITOR & CONNECT TO UNIT SUB-STATION POWER MONITOR.
- NOTE: EXISTING VEEDER-ROOT TLS-300 MONITOR MUST REMAIN IN OPERATION UNTIL IN-GROUND TANKS ARE CLEANED, FILLED, & ABANDONED IN PLACE, OR TANKS ARE REMOVED. IN GROUND TANK WORK IS NOT INCLUDED IN THIS CONTRACT.

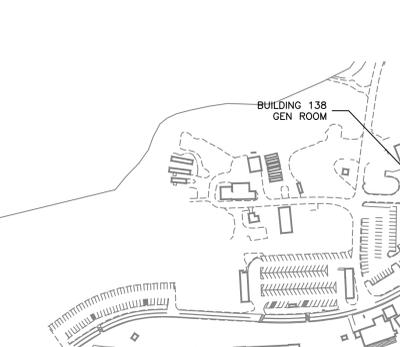


10 EPSS CONDUITS TO EQUIPMENT DETAIL
 E-107 SCALE NTS

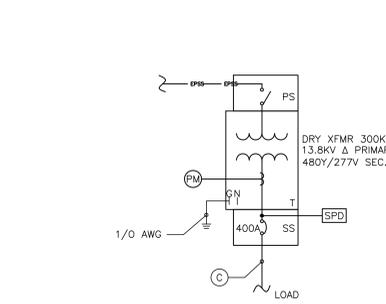
3 BUILDING 139 DEMO
 E-107 SCALE 1/8" = 1'



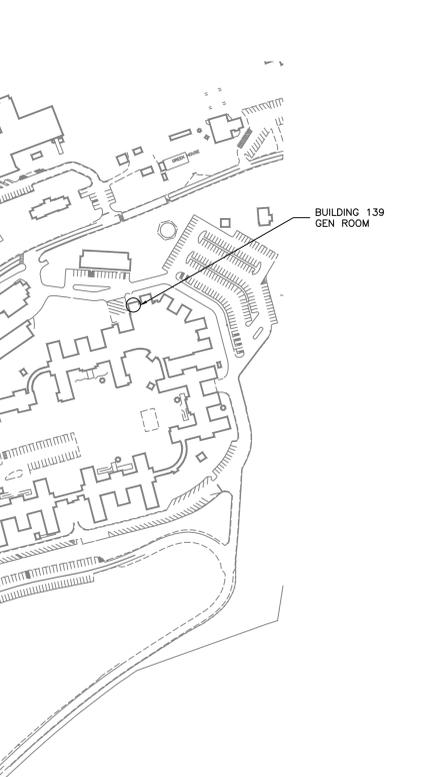
11 HOUSEKEEPING PAD BELL END DETAIL
 E-107 SCALE NTS



4 BUILDING 139 POWER PLAN
 E-107 SCALE 1/8" = 1'



8 BUILDING 139 ONE-LINE DIAGRAM
 E-107 SCALE NTS



KEY PLAN
 SCALE NTS

100% CONSTRUCTION DOCUMENTS

PATIENT SAFETY MANAGER	INFECTION PREVENTIONIST	SUPERVISOR, PROJECT SECTION	PROJECT MANAGER (COTR)
SUPERVISION, BIOMEDI/M&O	ENVIRON HEALTH FIRE/SAFETY SECTION	SAFETY/OCCUPATIONAL HEALTH MANAGER	CHIEF, ACQUISITION MGT SECT, CONTRACTING OFFICER
VA POLICE CHIEF	PATIENT CARE SECTION	GENERAL PROPERTIES SECTION	GENERAL UTILITIES SECTION

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Professional Stamp/Seal	Drawing Title ELECTRICAL DEMO & POWER PLANS, BUILDING 1, 138, 139	Project Title COATESVILLE - VA MEDICAL CENTER AVE INSTALL EMERGENCY GENERATOR	Date 9/23/11
Approved: Chief Engineering Service	Drawn DJR/NAC	Building Number ---	Project No. 542-11-104
Approved: Medical Center Director	Checked JMB/JDC	Location COATESVILLE, PENNSYLVANIA	DRAWING No. E-107
			Dwg. 8 of 15