

# CITY OF LYNCHBURG

## GENERATOR UPGRADES

### LYNCHBURG, VIRGINIA

PROJECT CODE: B&G MAINTENANCE BUILDING BM111  
 PROJECT CODE: FIRE STATION #3 BM117  
 PROJECT CODE: FIRE STATION #8 BM120

FOR CONSTRUCTION  
 JANUARY 30, 2015

**GENERAL NOTES:**

1. THESE DRAWINGS ARE SCHEMATIC IN NATURE AND ARE NOT INTENDED FOR USE AS FABRICATION DRAWINGS. THESE DRAWINGS INDICATE THE GENERAL AND APPROXIMATE SIZE AND LOCATION OF MATERIAL. FIELD VERIFY ALL DIMENSIONS AND LOCATIONS PRIOR TO BEGINNING WORK. ALL UTILITIES NOTED ON PLANS ARE APPROXIMATE AND CONTRACTOR SHALL FIELD VERIFY LOCATION.
2. ALL WORK SHALL BE INSTALLED IN ACCORDANCE WITH APPLICABLE CODES AND REGULATIONS, INCLUDING, BUT NOT LIMITED TO, THE 2012 VIRGINIA UNIFORM STATEWIDE BUILDING CODE (JULY 14, 2014) AND ASSOCIATED CODES OF REFERENCE. REFER TO APPLICABLE CODES LIST THIS DRAWING.
3. CONTRACTOR SHALL OBTAIN ALL BUILDING AND TRADE PERMITS FOR CONSTRUCTION; HOWEVER, THE CITY OF LYNCHBURG SHALL WAIVE ALL FEES REQUIRED FOR PERMITS.
4. ALL MATERIAL SHALL BE NEW UNLESS OTHERWISE NOTED. MATERIALS ARE BASED ON THE INDICATED MANUFACTURERS/MODELS AND ARE INTENDED ONLY TO SHOW THE GENERAL SIZE, CONFIGURATION, LOCATION, CONNECTIONS, AND SUPPORT FOR INDICATED MATERIAL WITH RELATION TO OTHER BUILDING SYSTEMS. MATERIAL BY ANY MANUFACTURER THAT MEETS THE SCHEDULED CRITERIA IS ACCEPTABLE. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ACTUAL INSTALLED MATERIAL AND ASSOCIATED CHANGES.
5. CONTRACTOR SHALL COORDINATE THE WORK WITH EXISTING CONDITIONS, INCLUDING BEAMS, COLUMNS, SITE FEATURES, AND OTHER OBSTRUCTIONS, WHETHER OR NOT SUCH IS SHOWN ON DRAWINGS.
6. CONTRACTOR SHALL COORDINATE THE WORK BETWEEN ALL TRADES. MATERIAL LOCATIONS SHALL BE COORDINATED BETWEEN CIVIL, ARCHITECTURAL, STRUCTURAL, MECHANICAL, PLUMBING, ELECTRICAL, FIRE PROTECTION, AND DEMOLITION PLANS TO AVOID CONFLICTS.
7. EXISTING MATERIAL TO BE REMOVED SHALL BE REMOVED CAREFULLY TO AVOID DAMAGING MATERIAL TO REMAIN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE THAT OCCURS TO EXISTING MATERIAL TO REMAIN OR TO BE RELOCATED DURING DEMOLITION AND CONSTRUCTION.
8. ALL MATERIAL SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS, MAINTAINING ALL REQUIRED CLEARANCES AND WITH ALL COMPONENTS ACCESSIBLE AND SERVICEABLE.
9. CONTRACTOR SHALL PROVIDE MATERIAL DATA SUBMITTALS FOR ALL NEW MATERIAL. REFER TO INDIVIDUAL SHEETS FOR ADDITIONAL SUBMITTAL REQUIREMENTS. THE CONTRACTOR SHALL PROVIDE A SUBMITTAL SCHEDULE WITHIN 30 DAYS OF AWARD OF CONTRACT.
10. CONTRACTOR SHALL BE RESPONSIBLE FOR ASSEMBLING OPERATION AND MAINTENANCE MANUALS CONTAINING ALL MATERIAL SUBMITTALS, INSTALLATION AND OPERATING INSTRUCTIONS, AND WARRANTY INFORMATION. THREE (3) COPIES OF O&M MANUALS SHALL BE SUBMITTED TO THE A/E AT THE TIME OF SUBSTANTIAL COMPLETION.
11. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING A SET OF AS-BUILT DRAWINGS ON SITE WHICH INDICATE IN RED ALL DEVIATIONS FROM ORIGINAL CONSTRUCTION DOCUMENTS, INCLUDING APPROVED CONSTRUCTION CHANGE ORDERS. AS-BUILT DRAWINGS SHALL BE SUBMITTED TO THE A/E AT THE TIME OF SUBSTANTIAL COMPLETION. AS-BUILT DRAWINGS SHALL BE CLEARLY LEGIBLE AND COMPLETE.
12. CONTRACTOR SHALL KEEP PUBLIC AREAS FREE OF TRASH AND CONSTRUCTION DEBRIS AND CLEAN ENTIRE WORK AREA ON A DAILY BASIS.
13. TEMPORARY POWER AND WATER SERVICE ARE AVAILABLE ON SITE FOR THE CONTRACTOR'S USE. CONTRACTOR SHALL COORDINATE ACCESS WITH OWNER AND SHALL PROVIDE ANY REQUIRED TEMPORARY CONNECTIONS AND EXTENSIONS.
14. CONTRACTOR SHALL PROVIDE A TEMPORARY TOILET FACILITY FOR USE BY CONTRACTOR'S PERSONNEL FOR THE DURATION OF THE PROJECT.
15. CONTRACTOR SHALL VISIT THE SITE TO BECOME FAMILIAR WITH THE SCOPE OF WORK AND TO VERIFY EXISTING CONDITIONS PRIOR TO BIDDING THIS PROJECT. ANY DISCREPANCIES OR AMBIGUOUS ITEMS MUST BE REPORTED TO THE A/E AND THE OWNER FOR CLARIFICATION PRIOR TO BIDDING.
16. CONTRACTOR IS TYPICALLY PERMITTED TO WORK BETWEEN 7:00 AM AND 6:00 PM MONDAY THRU FRIDAY. WORK OUTSIDE THESE HOURS SHALL BE COORDINATED WITH OWNER'S PROJECT MANAGER DURING CONSTRUCTION. CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH OWNER AND BUILDING TENANTS FOR SPECIAL EVENTS.
17. CONTRACTOR SHALL PROVIDE A DUST-PROOF BARRIER BETWEEN THE CONSTRUCTION ZONE AND OCCUPIED PORTIONS OF THE BUILDING. CONTRACTOR SHALL FILTER EXISTING HVAC GRILLES IN WORK AREA TO MITIGATE SPREAD OF DUST INTO OCCUPIED AREAS OF THE BUILDING.
18. CONTRACTOR SHALL PROTECT THE BUILDING, ADJACENT FEATURES, ROADWAYS, WALKWAYS, SITE IMPROVEMENTS, EXTERIOR PLANTINGS, LANDSCAPING, ETC. AS REQUIRED FROM DAMAGE AND CORRECT DAMAGE RESULTING FROM CONSTRUCTION ACTIVITIES TO THE SATISFACTION OF THE OWNER.
19. CONTRACTOR SHALL COLLECT DEMOLISHED MATERIALS AND PLACE IN APPROPRIATE DISPOSAL CONTAINERS. DEMOLISHED MATERIALS SHALL BE PROMPTLY REMOVED FROM THE OWNER'S PROPERTY AND DISPOSED OF LEGALLY.
20. CONTRACTOR SHALL COORDINATE MATERIAL STORAGE AND DUMPSTER LOCATION WITH OWNER DURING CONSTRUCTION.
21. CONTRACTOR SHALL PROVIDE PRE-DEMOLITION PHOTOGRAPHIC OR VIDEOGRAPHIC DOCUMENTATION TO SHOW EXISTING CONDITIONS OF FINISHED SURFACES IN WORK AREA AND ADJOINING CONSTRUCTION INCLUDING SITE STORAGE AND ACCESS AREAS PRIOR TO PRE-CONSTRUCTION MEETING AND A MINIMUM OF 10 WORKING DAYS PRIOR TO COMMENCEMENT OF WORK.
22. CONTRACTOR SHALL NOTIFY OWNER OF ANY INTERRUPTION OF UTILITIES INCLUDING BUT NOT LIMITED TO POWER, WATER, COMMUNICATIONS, ETC AND COORDINATE OUTAGE WITH OWNER AND ALL BUILDING TENANTS.
23. ANY ROAD/PARKING LOT CLOSURE SHALL BE DONE IN ACCORDANCE WITH THE LATEST VERSION OF THE VIRGINIA WORK AREA PROTECTION MANUAL.
24. DEFINITIONS:  
 FURNISH: SUPPLY AND DELIVER TO PROJECT SITE FOR INSTALLATION BY OTHERS.  
 INSTALL: INSTALL ITEMS FURNISHED BY OTHERS, INCLUDING UNLOADING, TEMPORARILY STORING, UNPACKING, AND ASSEMBLY.  
 PROVIDE: FURNISH AND INSTALL, COMPLETE AND READY FOR THE INTENDED USE.  
 REMOVE: DETACH ITEMS FROM EXISTING CONSTRUCTION AND LEGALLY DISPOSE OF THEM OFF-SITE UNLESS INDICATED TO BE REMOVED AND SALVAGED OR REMOVED AND REINSTALLED.  
 REMOVE AND REINSTALL: DETACH ITEMS FROM EXISTING CONSTRUCTION, PREPARE FOR REUSE, AND REINSTALL WHERE INDICATED.  
 REMOVE AND SALVAGE: CAREFULLY DETACH FROM EXISTING CONSTRUCTION, IN A MANNER TO PREVENT DAMAGE, AND DELIVER TO OWNER.

**DRAWING LIST:**

DRAWING NO	TITLE
T1	TITLE SHEET
E1	LEGEND, ABBREVIATIONS, AND GENERAL NOTES
E2	FIRE STATION #3 DEMOLITION PLAN
E3	FIRE STATION #3 IMPROVEMENT PLAN AND POWER DISTRIBUTION DIAGRAM
E4	FIRE STATION #8 DEMOLITION PLAN
E5	FIRE STATION #8 IMPROVEMENT PLAN AND POWER DISTRIBUTION DIAGRAM
E6	BUILDINGS AND GROUNDS IMPROVEMENT PLAN AND POWER DISTRIBUTION DIAGRAM
E7	PARTIAL SITE - POWER PLAN
E8	SCHEDULES
E9	INTERNET MONITORING
E10	GENERATOR DETAILS

**GENERAL INFORMATION:**

<b>PROJECT INFORMATION:</b> AGENCY: PROJECT TITLE: PROJECT CODES:	CITY OF LYNCHBURG CITY OF LYNCHBURG GENERATOR UPGRADES BM117, BM120, BM111
<b>BUILDING INFORMATION:</b> BUILDING NAME/NUMBER:	FIRE STATION 3 4701 FORT AVENUE LYNCHBURG, VIRGINIA 24502  FIRE STATION 8 213 OLD GRAVES MILL ROAD LYNCHBURG, VIRGINIA 24502  PUBLIC WORKS BUILDING AND SHOP BUILDING 800 ORCHARD STREET LYNCHBURG, VIRGINIA 24501
WORK PERMITTED:	GENERATOR UPGRADES
<b>APPLICABLE CODES &amp; STANDARDS:</b> BUILDING CODES:	2012 VIRGINIA UNIFORM STATEWIDE BUILDING CODE - VUSBC (EFFECTIVE JULY 14, 2014) NATIONAL ELECTRICAL CODE - NFPA-70 (2011)

**ASBESTOS DISCLOSURE STATEMENT:**

AN ASBESTOS INSPECTION WAS NOT PERFORMED. THE CONTRACTOR SHALL NOTIFY THE CITY'S PROJECT MANAGER OF ANY SUSPECTED MATERIALS FOR REMOVAL BY THE CITY OF LYNCHBURG.

**LEAD PAINT DISCLOSURE STATEMENT:**

AN INSPECTION TO IDENTIFY LEAD CONTAINING OR COATED BUILDING COMPONENTS HAS NOT BEEN CONDUCTED. ASSUME THAT ALL PAINTED SURFACES CONTAIN LEAD-BASED PAINT. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COMPLY WITH ALL VIRGINIA OCCUPATIONAL SAFETY AND HEALTH (VOSH) REGULATIONS AS THEY PERTAIN TO EMPLOYEE EXPOSURES TO LEAD.

**DISCLAIMER STATEMENT:**

VIRGINIA A&E ASSUMES NO RESPONSIBILITY FOR THE ADEQUACY OR ACCURACY OF THE ASBESTOS AND LEAD BASED PAINT INFORMATION PROVIDED ABOVE BY THE OWNER. THE CONTRACTOR SHALL ADDRESS ANY RELATED QUESTIONS TO THE OWNER'S PROJECT MANAGER.

VIRGINIA A&E, PLLC  
 1115 VISTA PARK DRIVE  
 FOREST, VA 24551  
 PHONE: (434) 316-6001



VAE PROJECT NO: 14079



Job No.: 14079

Drawing No.:

**T1**

LEGEND

SYMBOLS	CONDUCTORS AND RACEWAYS	ABBREVIATIONS	GENERAL NOTES
<p><b>1</b> CONSTRUCTION NOTE</p> <p><b>1</b> DEMOLITION NOTE</p> <p> LIMIT OF DEMOLITION</p> <p> NEW-TO-EXISTING POINT OF CONNECTION</p> <p><b>POWER</b></p> <p><b>E</b> EQUIPMENT CONNECTION</p> <p> DUPLEX RECEPTACLE, WALL MOUNTED 18" AFF, UON. WP = WEATHERPROOF WITH GROUND FAULT CIRCUIT PROTECTION AC = MOUNT 3" ABOVE COUNTER BACKSPLASH GFI = GROUND FAULT PROTECTION</p> <p> QUAD RECEPTACLE, MOUNT 18" AFF, UON.</p> <p> SIMPLEX RECEPTACLE, MOUNT 18" AFF, UON.</p> <p> SPECIAL PURPOSE RECEPTACLE, AS NOTED, WALL MOUNT 18" AFF, UON.</p> <p> MANUAL MOTOR STARTER WITH THERMAL OVERLOADS, WALL-MOUNT 48" AFF UON.</p> <p> <u>480V, 3P, 100A</u> DISCONNECT <u>VOLTAGE, POLES, AMP RATING</u> 70A, NEMA 1 <u>FUSE SIZE, ENCLOSURE TYPE</u></p> <p> <u>480V, 3P, 0</u> MOTOR STARTER <u>VOLTAGE, POLES, NEMA SIZE</u> FVNR, 3R, CB <u>TYPE, ENCLOSURE, DISCONNECT</u></p> <p> <u>400A</u> FUSED SWITCH <u>SWITCH SIZE</u> <u>300A</u> <u>FUSE SIZE</u></p> <p> <u>400AF</u> CIRCUIT BREAKER <u>AMP FRAME</u> <u>300AT</u> <u>AMP TRIP</u></p> <p> TRANSFER SWITCH</p> <p> LP3 PANELBOARD PANELBOARD NUMBER 120/208 VOLTAGE 3P/4W POLES, WIRES 225A AMP RATING MCB</p>	<p><u>CONDUCTORS AND RACEWAYS</u></p> <p>----- CONDUIT RUN CONCEALED UNDER FLOOR</p> <p>_____ CONDUIT RUN EXPOSED OR ABOVE CEILING</p> <p> HOMERUN CIRCUIT TO OTHER CIRCUIT. CONDUCTORS AND RACEWAY SIZE AS NOTED.</p> <p> HOMERUN TO PANEL AND CIRCUIT NUMBER AS INDICATED. CONDUCTOR AND RACEWAY SIZE AS INDICATED IN PANELBOARD SCHEDULE, UON.</p> <p> INDICATES MULTIPLE HOMERUN CIRCUITS FROM SINGLE PANEL/CIRCUIT.</p> <p> JUNCTION BOX</p> <p> CONDUIT TURNING DOWN</p> <p> CONDUIT TURNING UP</p>	<p>A AMPERE</p> <p>AC ABOVE COUNTER</p> <p>A/E ARCHITECT/ENGINEER</p> <p>AF AMP FRAME</p> <p>AT AMP TRIP</p> <p>AFF ABOVE FINISHED FLOOR</p> <p>APPROX APPROXIMATE</p> <p>BCSD BARE COPPER SOFT DRAWN</p> <p>C CONDUIT</p> <p>CB CIRCUIT BREAKER</p> <p>CWL COLD WATER LINE</p> <p>DWG DRAWING</p> <p>(E) EXISTING</p> <p>ECB ENCLOSED CIRCUIT BREAKER</p> <p>EMT ELECTRICAL METALLIC TUBING</p> <p>FD FUSED DISCONNECT</p> <p>FMC FLEXIBLE METALLIC CONDUIT</p> <p>FTL FEED THROUGH LUGS</p> <p>FVNR FULL VOLTAGE NON REVERSING</p> <p>G GROUND</p> <p>G, GND GROUND</p> <p>GFI GROUND FAULT INTERRUPTING</p> <p>HOA HAND-OFF-AUTO</p> <p>HP HORSEPOWER</p> <p>HVAC HEATING, VENTILATING, AND AIR CONDITIONING</p> <p>JB JUNCTION BOX</p> <p>KVA KILOVOLTAMPS</p> <p>LFMC LIQUID-TIGHT FLEXIBLE METALL CONDUIT</p> <p>MAX MAXIMUM</p> <p>MC METAL CLAD CABLE</p> <p>MCA MIN CIRCUIT AMPACITY</p> <p>MCB MAIN CIRCUIT BREAKER</p> <p>MIN MINIMUM</p> <p>MLO MAIN LUGS ONLY</p> <p>MOPD MAX OVERCURRENT PROTECTION DEVICE</p> <p>N NEUTRAL</p> <p>NF NON FUSED</p> <p>NIC NOT IN CONTRACT</p> <p>OCPD OVERCURRENT PROTECTION DEVICE</p> <p>P PHASES OR POLES</p> <p>PB PUSHBUTTON</p> <p>R+R REMOVE AND REPLACE</p> <p>RNC RIGID NONMETALLIC CONDUIT</p> <p>RSC RIGID STEEL CONDUIT</p> <p>STP SHIELDED TWISTED PAIR</p> <p>TVSS TRANSIENT VOLTAGE SURGE SUPPRESSION</p> <p>TYP TYPICAL</p> <p>UG UNDERGROUND</p> <p>UON UNLESS OTHERWISE NOTED</p> <p>UTP UNSHIELDED TWISTED PAIR</p> <p>V VOLTS</p> <p>VFD VARIABLE FREQUENCY DRIVE</p> <p>W WIRES</p> <p>W/ WITH</p> <p>W/O WITHOUT</p> <p>WP WEATHERPROOF</p> <p>XFMR TRANSFORMER</p>	<p>1. THESE DRAWINGS ARE SCHEMATIC IN NATURE AND INDICATE THE GENERAL AND APPROXIMATE LOCATION OF EQUIPMENT AND EXISTING CONSTRUCTION. FIELD-VERIFY ALL DIMENSIONS AND LOCATIONS. INDICATED UNDERGROUND OBSTRUCTIONS WERE DEVELOPED FROM EXISTING RECORDS AND ABOVE-GROUND INSPECTION. ACCURACY OR COMPLETENESS OF LOCATION AND DEPTH OF UNDERGROUND UTILITIES AND STRUCTURES CANNOT BE GUARANTEED. VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND FACILITIES BEFORE STARTING WORK.</p> <p>2. THESE DRAWINGS MAY NOT INDICATE ALL FITTINGS, PARTS AND ACCESSORIES THAT ARE REQUIRED FOR A COMPLETE AND FUNCTIONAL SYSTEM. NO EXCLUSION FROM OR LIMITATION IN THE SYMBOLISM USED ON THE DRAWINGS FOR THE WORK, OR THE LANGUAGE USED IN THE SPECIFICATIONS FOR THE WORK SHALL BE INTERPRETED AS A REASON FOR OMITTING THE APPURTENANCES OR ACCESSORIES NECESSARY TO COMPLETE AND REQUIRED WORK, SYSTEM, OR ITEM OF EQUIPMENT.</p> <p>3. ALL ELECTRICAL WORK ON THIS PROJECT SHALL BE INSTALLED IN ACCORDANCE WITH THE 2012 VIRGINIA UNIFORM STATEWIDE BUILDING CODE (EFFECTIVE JULY 14, 2014), NFPA 70-201 (NATIONAL ELECTRICAL CODE), AND NFPA 72-2007 (NATIONAL FIRE ALARM CODE).</p> <p>4. COORDINATE ARRANGEMENT, MOUNTING, AND SUPPORT OF ELECTRICAL EQUIPMENT TO AVOID INTERFERENCES WITH ELECTRICAL AND OTHER TRADES. COORDINATE WORK WITH EXISTING CONDITIONS INCLUDING BEAMS, COLUMNS, SITE FEATURES, AND OTHER CONSTRUCTION WHETHER OR NOT SUCH IS SHOWN ON THE DRAWINGS. SET SLEEVES IN CAST-IN-PLACE CONCRETE AND MASONRY WALLS, AS THEY ARE CONSTRUCTED. COORDINATE LOCATION OF ACCESS PANELS AND DOORS FOR ELECTRICAL EQUIPMENT THAT ARE BEHIND FINISHED SURFACES OR ARE OTHERWISE CONCEALED. COORDINATE AMPACITY, VOLTAGE, PHASING, OVERCURRENT PROTECTION, AND LOCAL DISCONNECT REQUIREMENTS WITH ACTUAL EQUIPMENT PROVIDED.</p> <p>5. MAINTAIN A SET OF AS-BUILT RED-LINE MARKUPS INDICATING ACTUAL INSTALLATION. DELIVER TO OWNER AT CONCLUSION OF PROJECT.</p> <p>6. PROVIDE PRODUCT DATA SUBMITTALS FOR THE FOLLOWING EQUIPMENT: PANELBOARDS, ENCLOSED CONTROLLERS, ENCLOSED SWITCHES, AND DEVICES. MATERIALS INSTALLED PRIOR TO OBTAINING AN APPROVED SUBMITTAL ARE AT CONTRACTOR'S RISK.</p> <p>7. CUT EXISTING CONSTRUCTION AS NEEDED FOR DEMOLITION AND CONSTRUCTION. USE CUTTING METHODS THAT MINIMIZE DAMAGE TO FINISHED AND ADJACENT SURFACES. PATCH EXISTING AND NEW CONSTRUCTION AND REPAIR ALL DAMAGED SURFACES TO MATCH EXISTING. PATCH UNUSED AND ABANDONED PENETRATIONS.</p> <p>8. CONTRACTOR SHALL ADVISE A/E IMMEDIATELY OF DISCREPANCIES WITHIN DRAWINGS. MINOR DEVIATIONS FROM THE PLANS MAY BE MADE TO AVOID MINOR CONFLICTS. WHERE MAJOR CONFLICTS ARE ENCOUNTERED, THE AFFECTED WORK SHALL NOT BE INSTALLED UNTIL THE CONFLICT HAS BEEN RESOLVED. THE A/E IS NOT RESPONSIBLE FOR THE CONSEQUENCES OF PROCEEDING WITH WORK BASED ON CONTRACTOR INTERPRETATION OR ON DIRECTION FROM OTHER PARTIES.</p> <p>9. CONTACT INFORMATION SITE REPRESENTATIVE: RANDY DALTON 434-455-4407  ELECTRIC UTILITY: AMERICAN ELECTRIC POWER</p>

FOR CONSTRUCTION	NO.	BY	DATE
0			30 JAN 15



**Virginia A & E**  
 VIRGINIA A&E, PLLC  
 1115 VISTA PARK DRIVE  
 FOREST, VIRGINIA 24551  
 PHONE: (434) 316-6001

**CITY OF LYNCHBURG  
 GENERATOR UPGRADES**  
 CLIENT PROJECT CODE:  
 FIRE STATION #3, FIRE STATION #8, AND  
 BUILDINGS AND GROUNDS

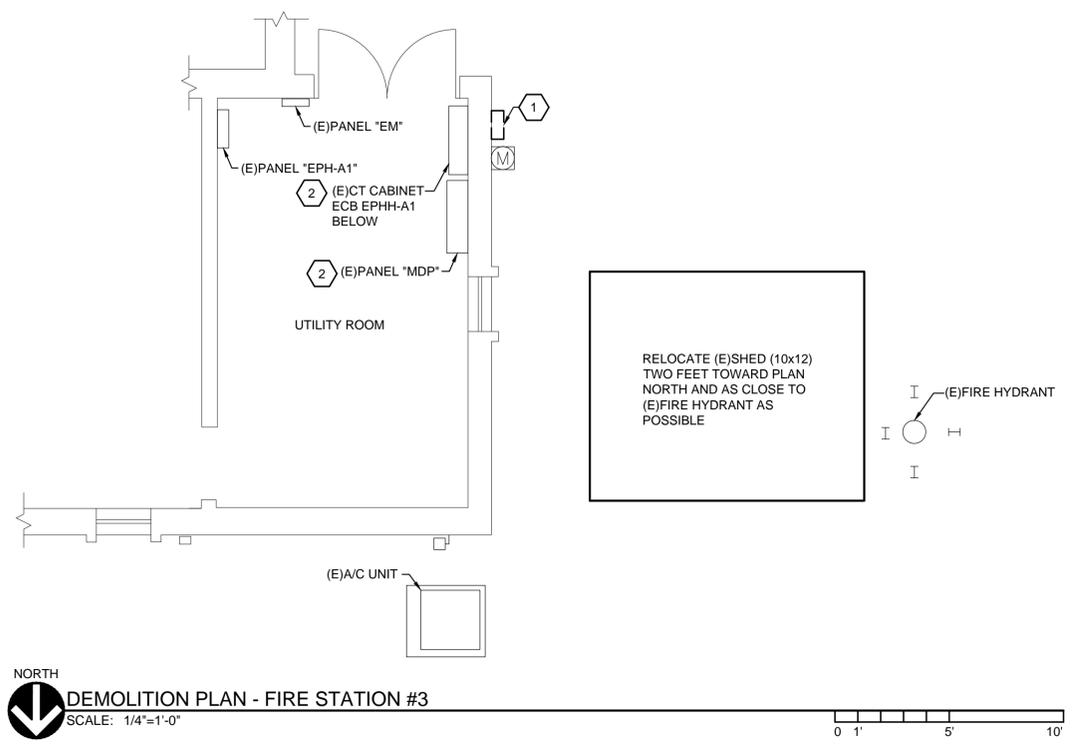
LEGEND, ABBREVIATIONS, AND  
 GENERAL NOTES

PROJECT NO:  
 14079

DATE:  
 30 JAN 15

Full Scale Verification  
 0" 1"

Drawing No.:  
**E1**



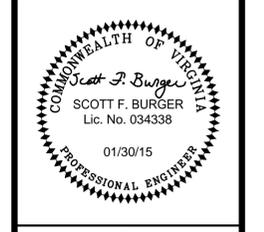
**DEMOLITION SYMBOLS LEGEND:**

- DEMOLITION NOTE
- LIMIT OF DEMOLITION

**DEMOLITION NOTES:**

1. DISCONNECT CORD SET FROM (E)PANEL "EM". REMOVE ENCLOSURE AND TURN OVER TO OWNER. PATCH BRICK WALL TO MATCH ADJACENT SPACE.
2. REMOVE CONDUCTORS AND CONDUIT BETWEEN CT CABINET AND MDP.

NO.	BY	REVISIONS	DATE
0	SFB	FOR CONSTRUCTION	30 JAN 15



**CITY OF LYNCHBURG  
GENERATOR UPGRADES**  
CLIENT PROJECT CODE:  
FIRE STATION #3, FIRE STATION #8, AND  
BUILDINGS AND GROUNDS

FIRE STATION #3  
DEMOLITION PLAN

PROJECT NO:  
14073

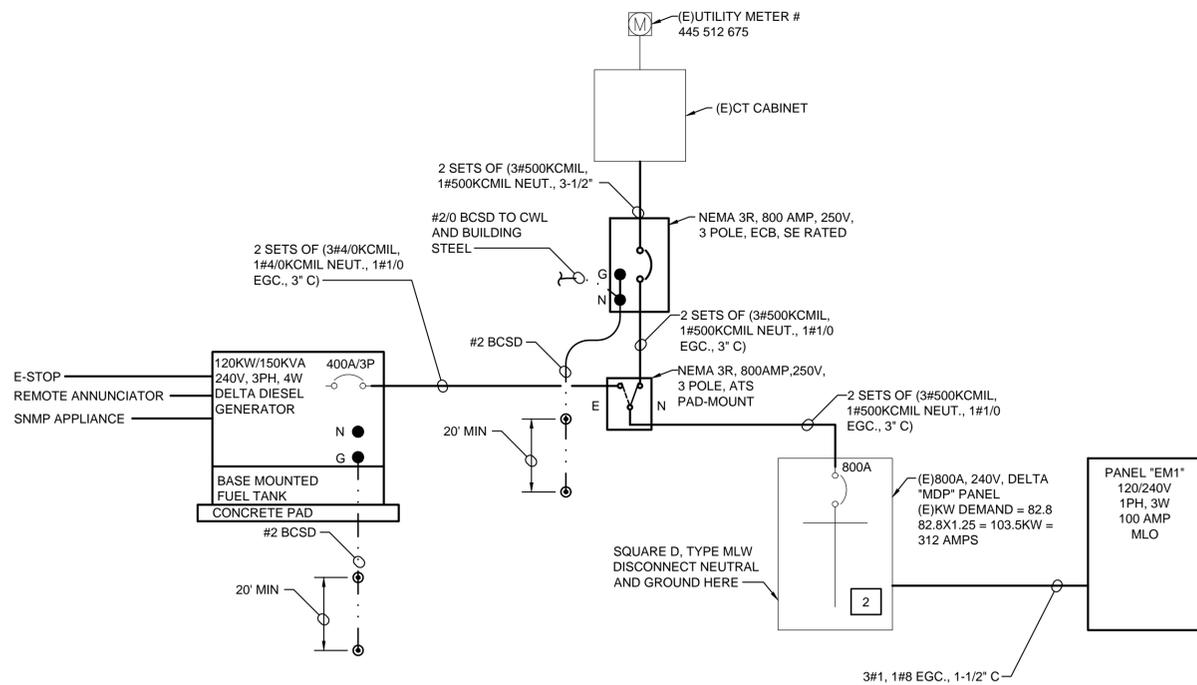
DATE:  
30 JAN 15

Full Scale Verification

0" 1"

Drawing No.:

# E2



**FIRE STATION #3 POWER DISTRIBUTION IMPROVEMENT DIAGRAM**  
SCALE: NONE

**PANEL "EM1" SCHEDULE (FS #3)**

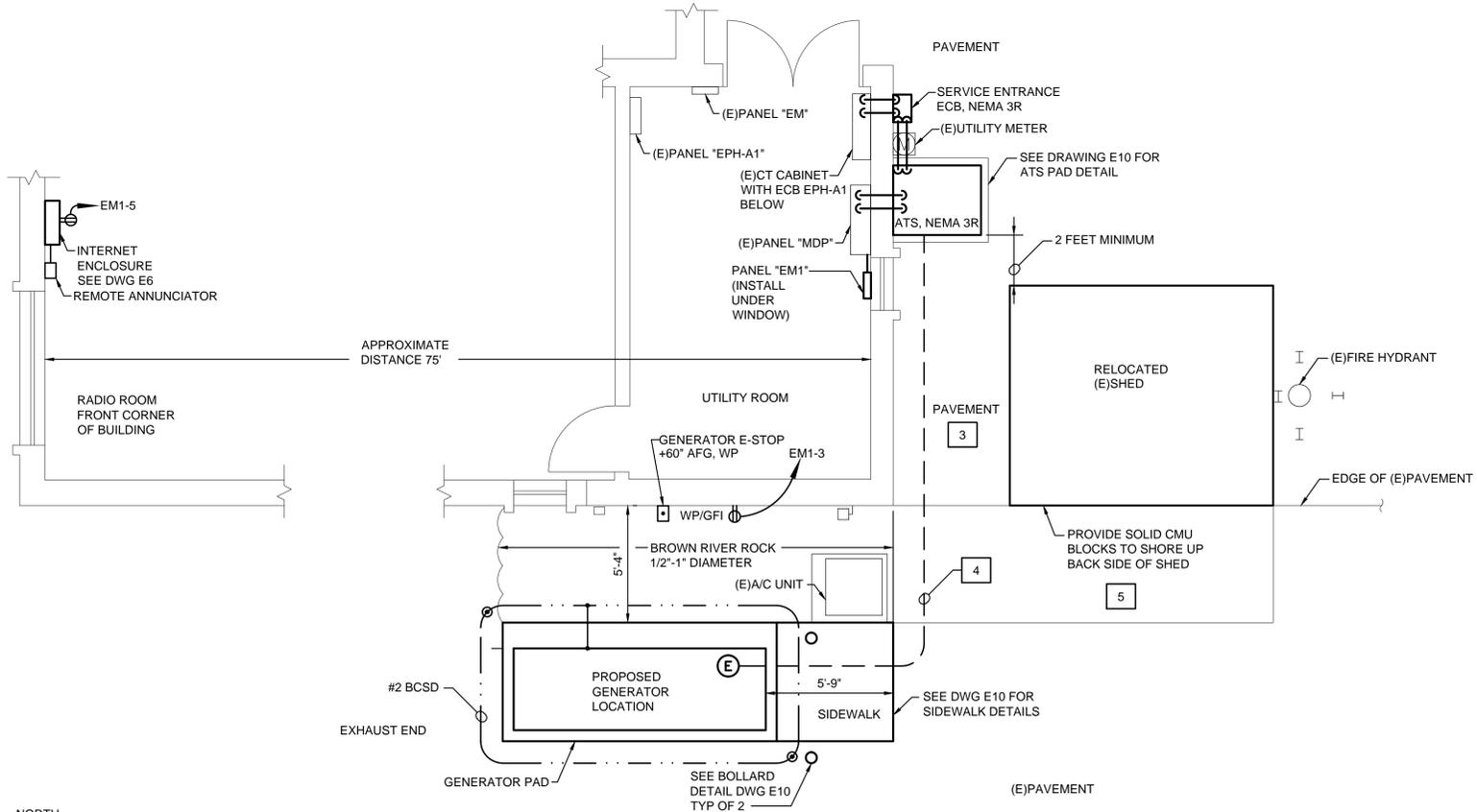
PANELBOARD CHARACTERISTICS:  
VOLTS: 120/240  
PHASES: 1  
WIRES: 3  
SOLID NEUTRAL, GROUND BAR

PHASE TO PHASE VOLTS: 240  
PHASE TO NEUT. VOLTS: 120

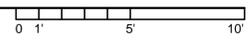
100 AMP MAIN LUGS ONLY  
MINIMUM SHORT CIRCUIT RATING: 10,000 RMS SYM AMPS  
ENCLOSURE: SURFACE NEMA 1 DOOR-WITHIN-DOOR

CKT. NO.	POLE NO.	DESCRIPTION	LOAD TYPE	CONN. KVA	CONN. AMPS		BREAKER		NO. & WIRE SIZE			COND. SIZE
					A	B	P	AT	PHASE	NEUT.	GND	
1	1	BATTERY CHARGER	E	1.0	8.3		1	20	#10	#10	#10	3/4"
3	3	RECEPTACLE EXTERIOR	R	0.2		1.5	1	20	#12	#12	#12	3/4"
5	5	GENERATOR MONITOR	E	0.1	0.8		1	20	#12	#12	#12	3/4"
7	7	SPACE					1	20				
9	9	SPACE					1	20				
11	11	SPACE					1	20				
13	13	SPACE					1	20				
15	15	SPACE					1	20				
17	17	SPACE										
19	19	SPACE										
2	2	BLOCK HEATER	E	2.0	8.3	8.3	2	30	#10	#10	#10	3/4"
4	4	SPACE										
6	6	SPACE										
8	8	SPACE										
10	10	SPACE										
12	12	SPACE										
14	14	SPACE										
16	16	SPACE										
18	18	SPACE										
20	20	SPACE										
TOTALS				3.28	17.5	9.8						

NOTES:



**PARTIAL PLAN - POWER**  
SCALE: 1/4"=1'-0"



**CONSTRUCTION NOTES:**

- NOT USED.
- PROVIDE 100A/2P BREAKER IN (E)PANEL "MDP".
- SAW CUT PAVEMENT TO INSTALL UGE GENERATOR CONDUITS. BACK FILL WITH #57 STONE AND TOP WITH PAVEMENT TO MATCH.
- UGE INCLUDES: GENERATOR POWER CONDUITS, BLOCK HEATER CIRCUIT, BATTERY CHARGER CIRCUIT, AND DATA MONITORING CIRCUIT.
- REMOVE 8" OF TOP SOIL. BACKFILL WITH 4" #57 STONE. COVER WITH ASPHALT TO MATCH ADJACENT SURFACE.

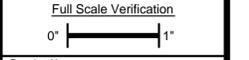
NO.	BY	REVISIONS	DATE
0	SFB	FOR CONSTRUCTION	30 JAN 15



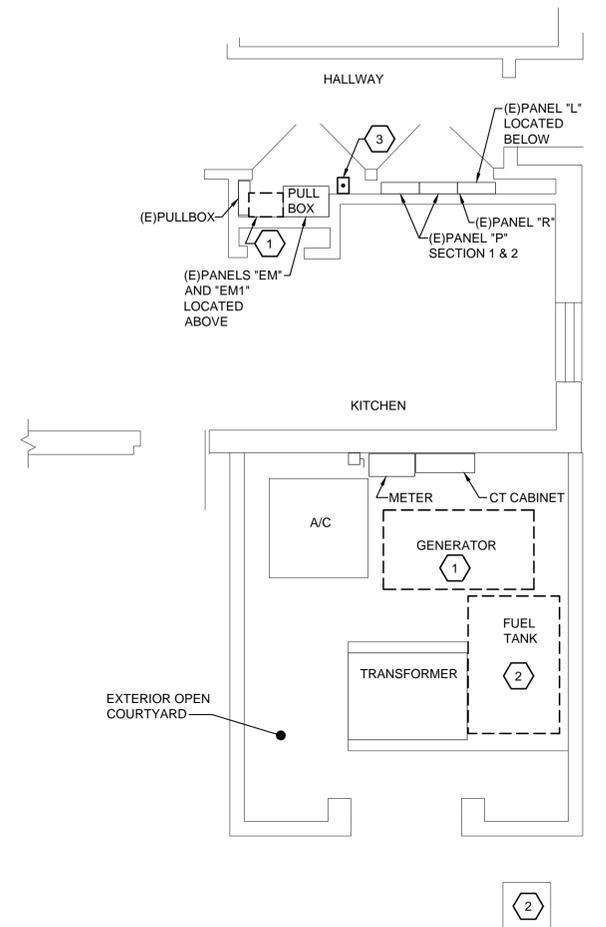
**CITY OF LYNCHBURG  
GENERATOR UPGRADES**  
CLIENT PROJECT CODE:  
FIRE STATION #3, FIRE STATION #8, AND  
BUILDINGS AND GROUNDS

FIRE STATION #3  
IMPROVEMENT PLAN  
AND POWER DISTRIBUTION  
DIAGRAM

PROJECT NO: 14079  
DATE: 30 JAN 15



Drawing No.: **E3**



NORTH  
**DEMOLITION PLAN - FIRE STATION #8**  
 SCALE: 1/4"=1'-0"  
 0' 1' 5' 10'

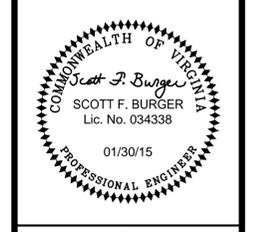
**DEMOLITION SYMBOLS LEGEND:**

-  DEMOLITION NOTE
-  LIMIT OF DEMOLITION

**DEMOLITION NOTES:**

1. REMOVE (E)GENERATOR AND ATS AND TURN OVER TO OWNER. REMOVE ALL ASSOCIATED WIRE AND CONDUIT.
2. REMOVE FUEL TANK AND FUEL DISPENSING PUMP AND TURN OVER TO OWNER. REMOVE ALL ASSOCIATED PIPING, WIRE AND CONDUIT. CAP 2" FUEL LINE TO PUMP AT GRADE.
3. REMOVE E-STOP PUSHBUTTON, BACKBOX, WIRE AND CONDUIT.

NO.	BY	REVISIONS	DATE
0	SFB	FOR CONSTRUCTION	30 JAN 15

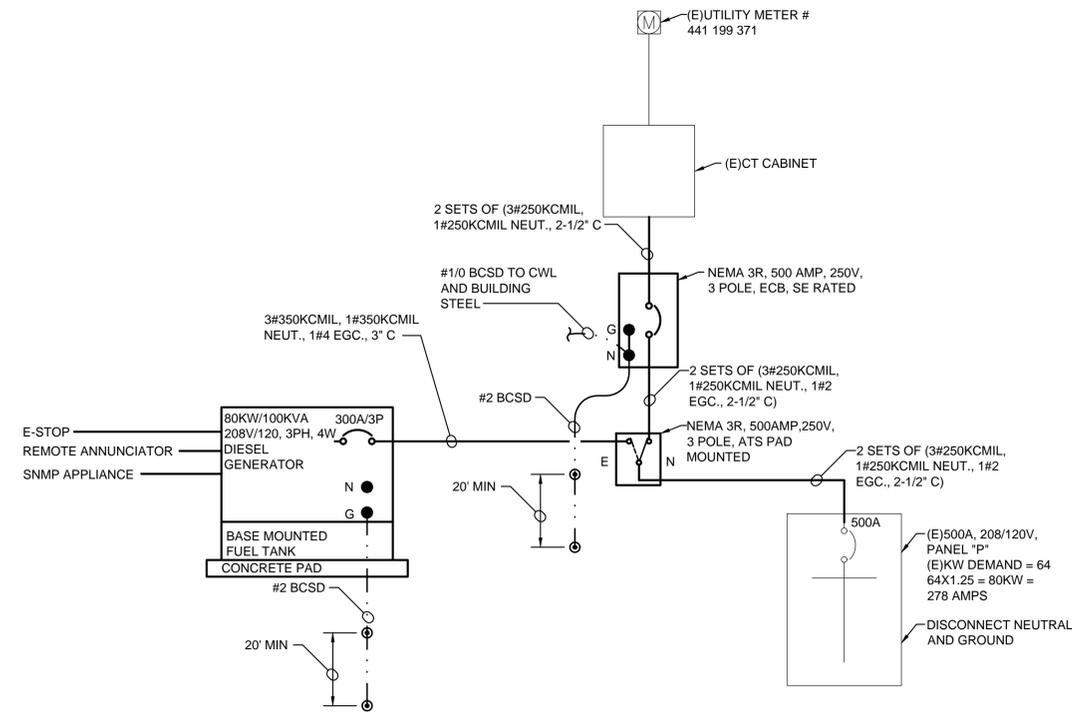


**CITY OF LYNCHBURG  
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 BUILDINGS AND GROUNDS

**FIRE STATION #8  
 DEMOLITION PLAN**  
 PROJECT NO: 14073  
 DATE: 30 JAN 15

Full Scale Verification  
 0" 1"

Drawing No.:  
**E4**

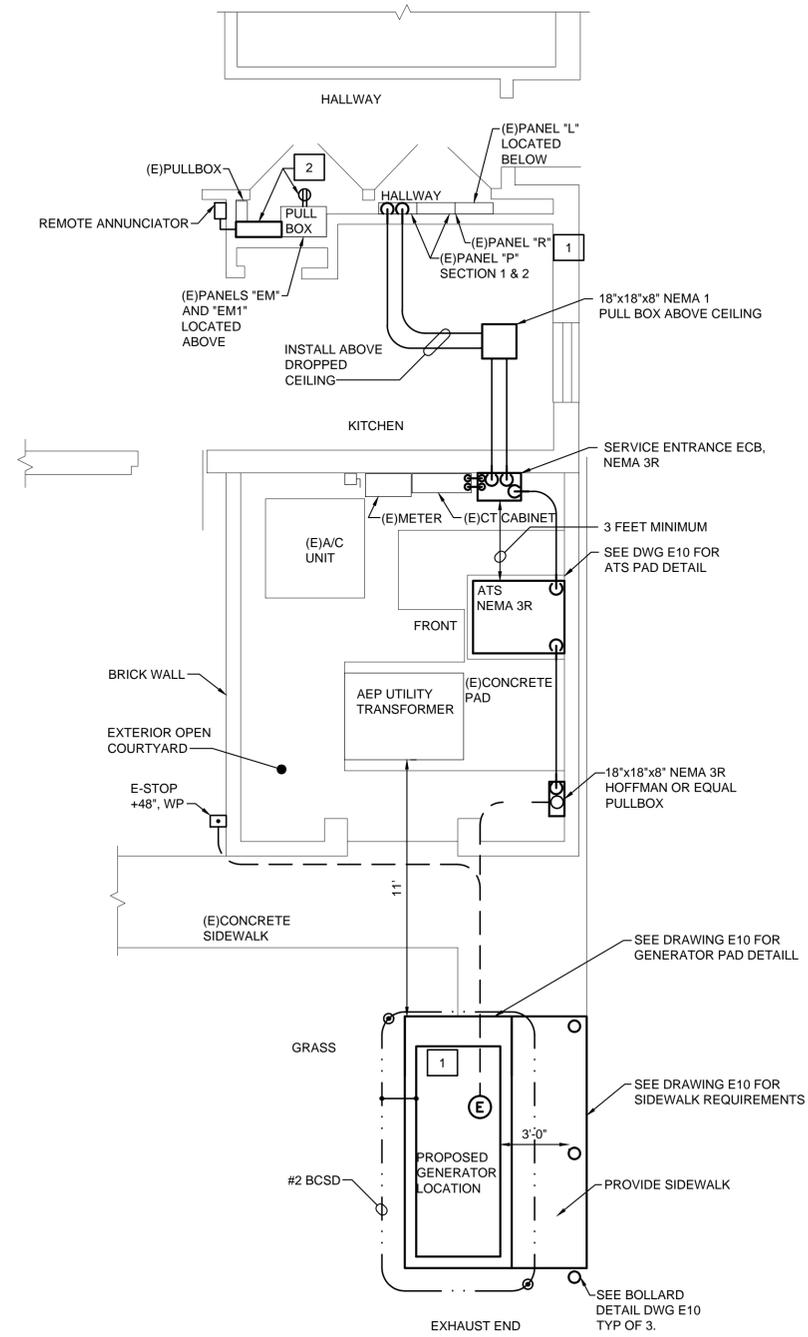


FIRE STATION #8 POWER DISTRIBUTION IMPROVEMENT DIAGRAM

SCALE: NONE

CONSTRUCTION NOTES:

- PROVIDE 30A/2P AND 20A/1P BREAKERS IN (E)PANEL "R". (E)PANEL "R" IS WESTINGHOUSE TYPE B10B. EXTEND #10 FROM 30A/2P BREAKER TO GENERATOR BLOCK HEATER. EXTEND #10 FROM 20A/1P BREAKER TO GENERATOR BATTERY CHARGER. EXTEND POWER CABLES IN 1" CONDUIT. PROVIDE 1" CONDUIT FOR GENERATOR MONITOR.
- PROVIDE INTERNET APPLIANCE ENCLOSURE PER DRAWING E6. PROVIDE 20 AMP DUPLEX RECEPTACLE ABOVE (E)PULL BOX. PROVIDE 20A/1P BREAKER IN (E)PANEL "EM". (E)PANEL "EM" IS WESTINGHOUSE TYPE B10B. EXTEND #12 IN 3/4" CONDUIT. SEE DRAWING E9 FOR GENERATOR INTERCONNECTION



PARTIAL PLAN - POWER  
SCALE: 1/4"=1'-0"

DATE: 30 JAN 15	
FOR CONSTRUCTION	REVISIONS
0	NO.
SFB	BY

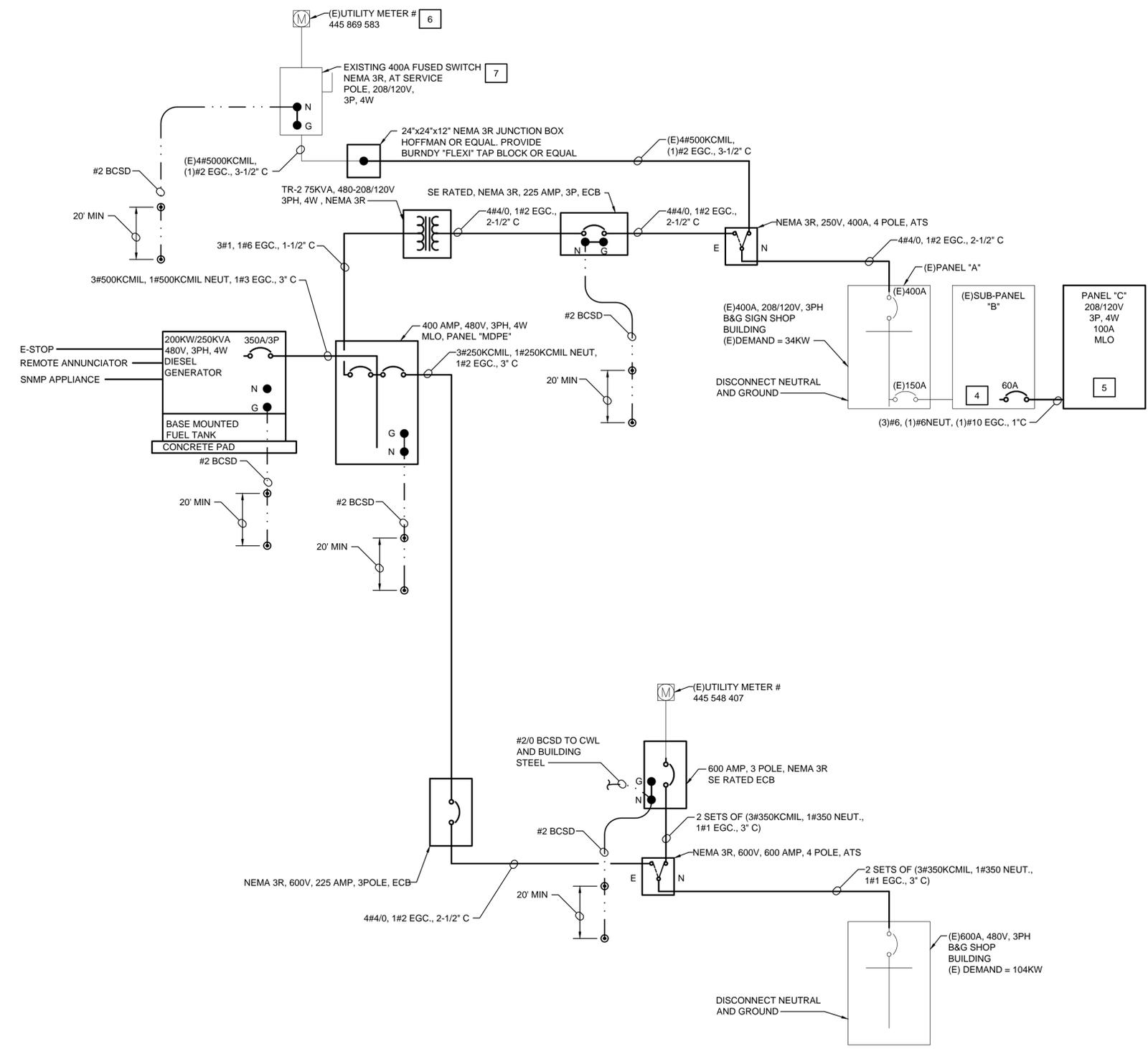
CITY OF LYNCHBURG  
GENERATOR UPGRADES  
CLIENT PROJECT CODE:  
FIRE STATION #3, FIRE STATION #8, AND BUILDINGS AND GROUNDS

FIRE STATION #8  
IMPROVEMENT PLAN  
AND POWER DISTRIBUTION  
DIAGRAM

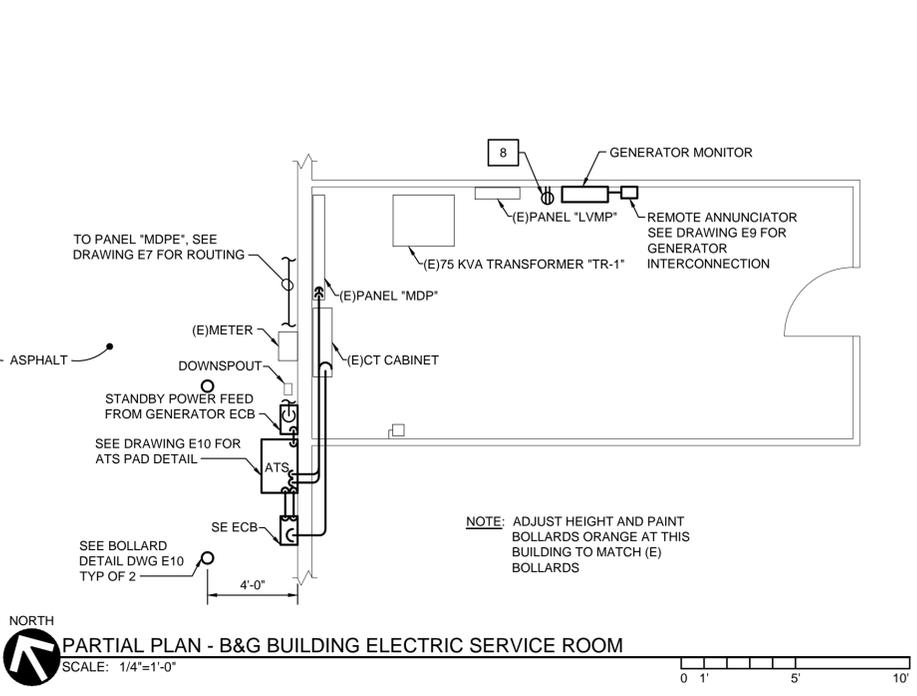
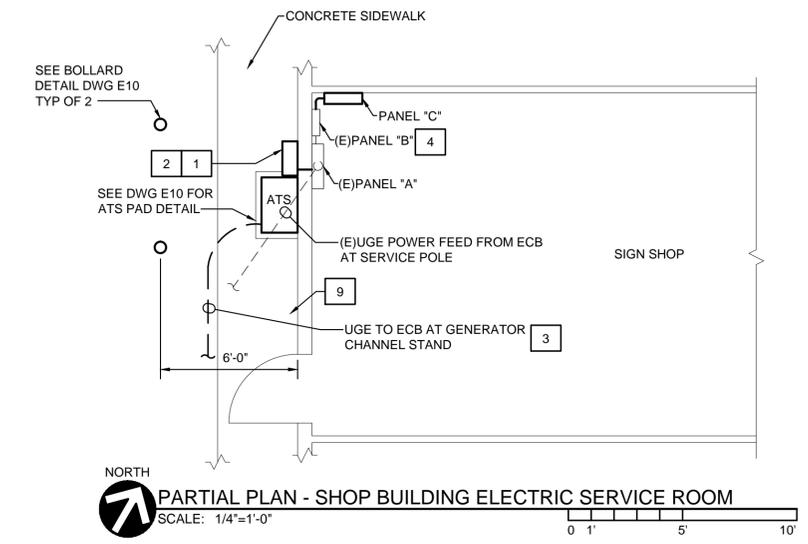
Full Scale Verification  
0" 1"  
Drawing No.:  
**E5**

CONSTRUCTION NOTES:

1. PROVIDE NEMA 3R HOFFMAN OR EQUAL 18"x18"x8" PULL BOX INSTALLED APPROXIMATELY 24" ABOVE FINISHED GRADE.
2. EXCAVATE DOWN AND INTERCEPT THE EXISTING BUILDING SERVICE ENTRANCE CABLES AND CONDUIT AND EXTEND TO NEW PULL BOX IN NOTE 1. PULL EXISTING UNDERGROUND CONDUCTORS BACK AT POLE MOUNTED ENCLOSED CIRCUIT BREAKER TO ALLOW REWORKING OF CONDUIT AT SHOP BUILDING AND THEN RE-PULL CONDUCTORS INTO PULL BOX. PROVIDE SPLICE BLOCK PER POWER DISTRIBUTION DIAGRAM.
3. SAW CUT PAVEMENT TO INSTALL SHOP BUILDING UGE FEEDER AND BACK FILL WITH #57 STONE AND TOP PAVEMENT TO MATCH EXISTING.
4. MOVE ONE (E)20A/1P CIRCUIT FROM (E)SUB-PANEL "B" TO NEW PANEL "C". PROVIDE 60A/3P BREAKER IN (E)SUB-PANEL "B". EXTEND (3)#6, (1)#6, (1)#10 EGC., 1" C TO NEW PANEL "C"
5. EXTEND CONDUCTORS AND CONDUIT TO GENERATOR HEATER, GENERATOR BATTERY, AND GENERATOR MONITOR PER SCHEDULE.
6. RELOCATE EXISTING ELECTRIC METER UP THE POLE TO APPROXIMATELY 5 FEET ABOVE FINISHED GRADE. COORDINATE EXACT LOCATION WITH AEP.
7. RELOCATE EXISTING SHOP BUILDING SERVICE ENTRANCE RATED 400 AMP FUSED SWITCH TO THE BACK SIDE OF THE POLE AND A MINIMUM OF 24" ABOVE FINISHED GRADE TO BOTTOM OF SWITCH. PROVIDE 4 #500KCMIL COPPER CONDUCTORS AND 3-1/2" CONDUIT FROM METER BASE TO RELOCATED FUSED SWITCH.
8. PROVIDE 20A/1P BREAKER IN (E)PANEL "LVMP". (E)PANEL IS GENERAL ELECTRIC NLAB. EXTEND (3)#12, IN 3/4" FROM RECEPTACLE TO EXISTING PANEL.
9. SAW CUT AND REMOVE APPROXIMATELY 30 SQUARE FEET OF SIDEWALK. REPLACE SIDEWALK TO MATCH EXISTING PER DETAIL ON DWG E10.



BUILDINGS AND GROUNDS STANBY GENERATOR DISTRIBUTION IMPROVEMENT DIAGRAM  
SCALE: NONE



PARTIAL PLAN - B&G BUILDING ELECTRIC SERVICE ROOM  
SCALE: 1/4"=1'-0"

NO.	BY	REVISIONS	DATE
0	SFB	FOR CONSTRUCTION	30 JAN 15



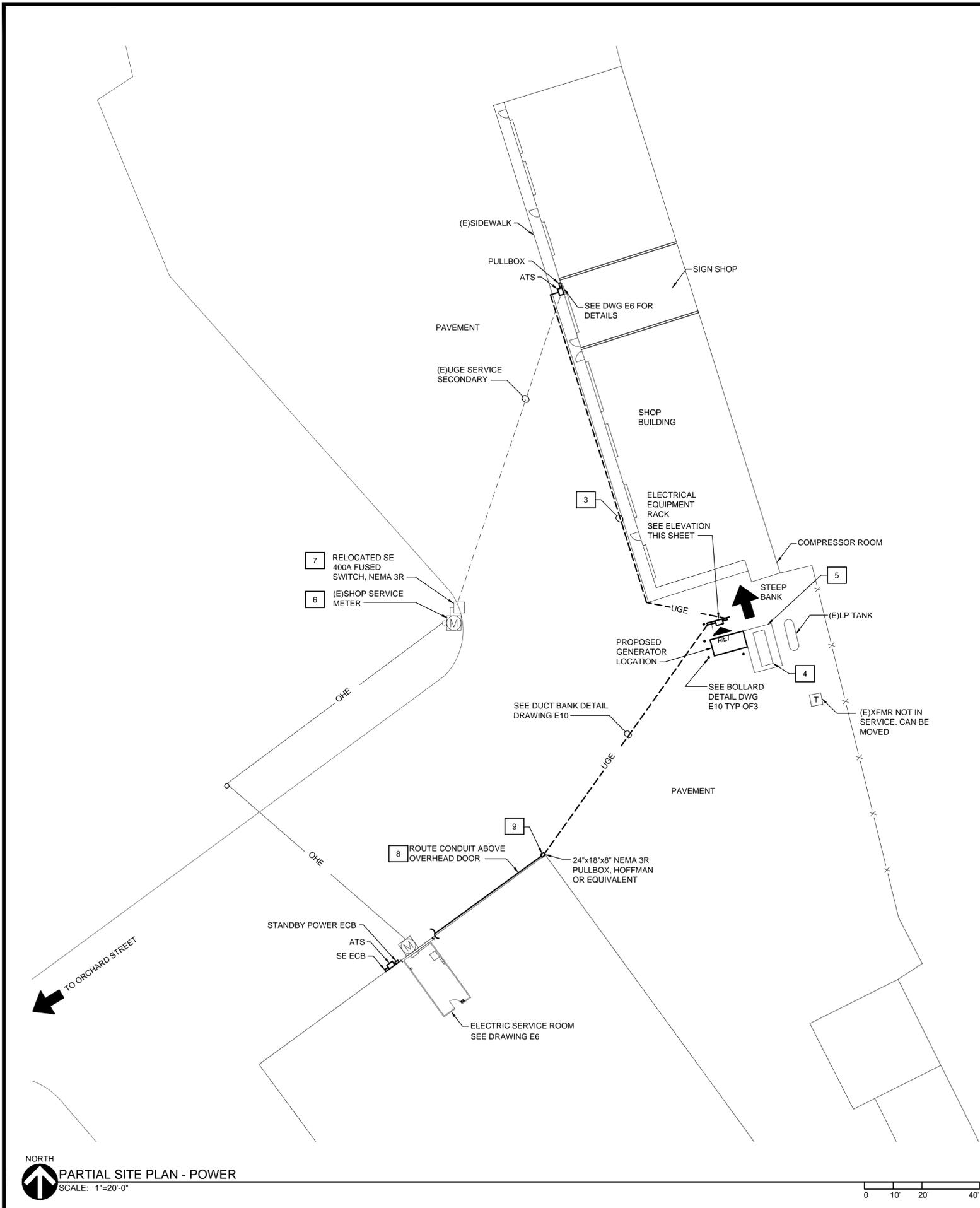
**Virginia A & E**  
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 1115 VISTA PARK DRIVE  
 FOREST, VIRGINIA 24551  
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**CITY OF LYNCHBURG  
 GENERATOR UPGRADES**  
 CLIENT PROJECT CODE:  
 FIRE STATION #3, FIRE STATION #8, AND  
 BUILDINGS AND GROUNDS

**BUILDINGS AND GROUNDS  
 IMPROVEMENT PLAN  
 AND POWER DISTRIBUTION  
 DIAGRAM**

Full Scale Verification  
 0' 1'

**E6**

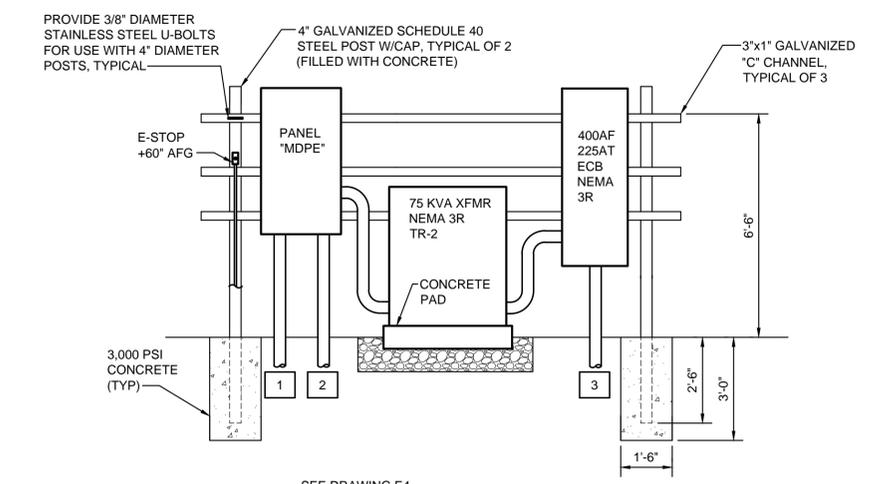


**DRAWING NOTES:**

- COORDINATE GENERATOR LOCATION WITH OWNER BEFORE ELECTRICAL ROUGH-IN.
- GENERATOR POWER CONDUITS, SAW CUT PAVEMENT, BACKFILL WITH #57 STONE, PATCH PAVEMENT TO MATCH EXISTING.
- UNDERGROUND ELECTRICAL TO B&G BUILDING, SAW CUT PAVEMENT, BACKFILL WITH #57 STONE, PATCH PAVEMENT TO MATCH EXISTING.
- UNDERGROUND ELECTRICAL TO SHOP BUILDING, SAW CUT PAVEMENT JUST BEYOND SIDEWALK, BACKFILL WITH #57 STONE, PATCH PAVEMENT TO MATCH EXISTING.
- FILL (E)PIT WITH #57 STONE LEVEL WITH CONCRETE APRON. (E)PIT IS 12'x4'x6'.
- MODIFY EXISTING BRANCH CIRCUIT RECEPTACLE CONDUIT, WIRING AND BOX THAT IS PRESENTLY MOUNTED TO THE CHAIN LINK FENCE: THE RECEPTACLE SHALL BE INSTALLED 18" ABOVE FINISHED GRADE, CONDUIT SHALL BE RIGID STEEL AND SUPPORTS SHALL BE PER THE SPECIFICATIONS. THE EXISTING UNISTRUT CHANNEL MAY BE MODIFIED TO PROPERLY SUPPORT THE CONDUIT AND BOX. THE NEW RECEPTACLE BOX SHALL BE CAST WITH A SINGLE 3/4" HUB. THE RECEPTACLE SHALL BE A GFCI DEVICE, 20 AMPS, INDUSTRIAL GRADE WITH A WEATHERPROOF WHEN CONNECTED COVER PLATE.
- RELOCATE EXISTING ELECTRIC METER UP THE POLE APPROXIMATELY 5 FEET ABOVE FINISHED GRADE. COORDINATE EXACT LOCATION WITH AMERICAN ELECTRIC POWER.
- RELOCATE EXISTING SHOP BUILDING SERVICE ENTRANCE RATED 400 AMP FUSED SWITCH TO THE BACK SIDE OF THE POLE AND A MINIMUM OF 24" ABOVE FINISHED GRADE TO BOTTOM OF SWITCH. PROVIDE 4#500KCMIL COPPER CONDUCTORS AND 3-1/2" CONDUIT FROM METER BASE TO RELOCATED FUSED SWITCH.
- OFF SET CONDUITS AROUND ROOF DRAIN DOWN SPOUTS. DO NOT USE FLEX CONDUIT FOR THE OFF SETS.
- SAW CUT AND REMOVE APPROXIMATELY 30 SQUARE FEET OF SIDEWALK. REPLACE PAVEMENT TO MATCH ADJACENT SURFACE .

**CONSTRUCTION NOTES:**

- GENERATOR POWER CONDUITS, SAW CUT PAVEMENT, BACKFILL WITH #57 STONE, PATCH PAVEMENT TO MATCH EXISTING.
- UNDERGROUND ELECTRICAL TO B&G BUILDING, SAW CUT PAVEMENT, BACKFILL WITH #57 STONE, PATCH PAVEMENT TO MATCH EXISTING.
- UNDERGROUND ELECTRICAL TO SHOP BUILDING, SAW CUT PAVEMENT JUST BEYOND SIDEWALK, BACKFILL WITH #57 STONE, PATCH PAVEMENT TO MATCH EXISTING.
- FILL (E)PIT WITH #57 STONE LEVEL WITH CONCRETE APRON. (E)PIT IS 12'x4'x6'.
- MODIFY EXISTING BRANCH CIRCUIT RECEPTACLE CONDUIT, WIRING AND BOX THAT IS PRESENTLY MOUNTED TO THE CHAIN LINK FENCE: THE RECEPTACLE SHALL BE INSTALLED 18" ABOVE FINISHED GRADE, CONDUIT SHALL BE RIGID STEEL AND SUPPORTS SHALL BE PER THE SPECIFICATIONS. THE EXISTING UNISTRUT CHANNEL MAY BE MODIFIED TO PROPERLY SUPPORT THE CONDUIT AND BOX. THE NEW RECEPTACLE BOX SHALL BE CAST WITH A SINGLE 3/4" HUB. THE RECEPTACLE SHALL BE A GFCI DEVICE, 20 AMPS, INDUSTRIAL GRADE WITH A WEATHERPROOF WHEN CONNECTED COVER PLATE.
- RELOCATE EXISTING ELECTRIC METER UP THE POLE APPROXIMATELY 5 FEET ABOVE FINISHED GRADE. COORDINATE EXACT LOCATION WITH AMERICAN ELECTRIC POWER.
- RELOCATE EXISTING SHOP BUILDING SERVICE ENTRANCE RATED 400 AMP FUSED SWITCH TO THE BACK SIDE OF THE POLE AND A MINIMUM OF 24" ABOVE FINISHED GRADE TO BOTTOM OF SWITCH. PROVIDE 4#500KCMIL COPPER CONDUCTORS AND 3-1/2" CONDUIT FROM METER BASE TO RELOCATED FUSED SWITCH.
- OFF SET CONDUITS AROUND ROOF DRAIN DOWN SPOUTS. DO NOT USE FLEX CONDUIT FOR THE OFF SETS.
- SAW CUT AND REMOVE APPROXIMATELY 30 SQUARE FEET OF SIDEWALK. REPLACE PAVEMENT TO MATCH ADJACENT SURFACE .



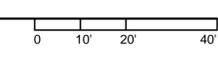
**A ELECTRICAL EQUIPMENT RACK ELEVATION**  
SCALE: NONE

PROJECT NO. 14073	DATE: 30 JAN 15
PARTIAL SITE - POWER PLAN	
CITY OF LYNCHBURG GENERATOR UPGRADES CLIENT PROJECT CODE: FIRE STATION #3, FIRE STATION #8, AND BUILDINGS AND GROUNDS	
NO. 0	BY SFB
REVISIONS FOR CONSTRUCTION	DATE 30 JAN 15

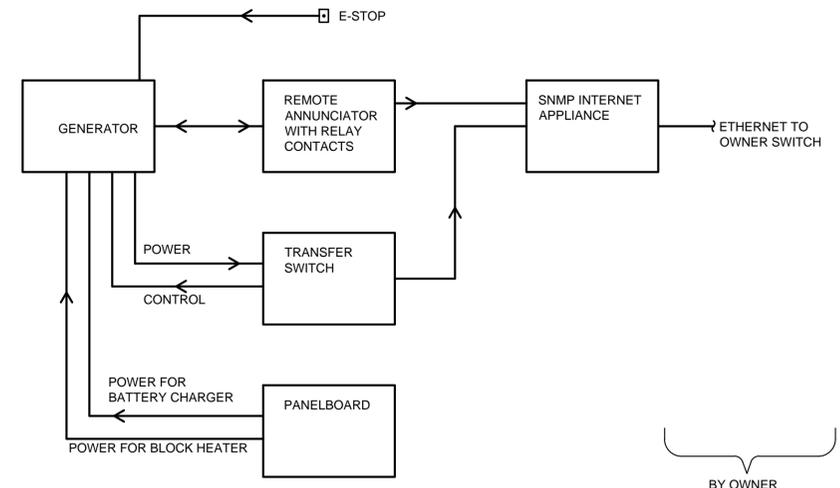
Full Scale Verification

0" 1"

Drawing No. **E7**

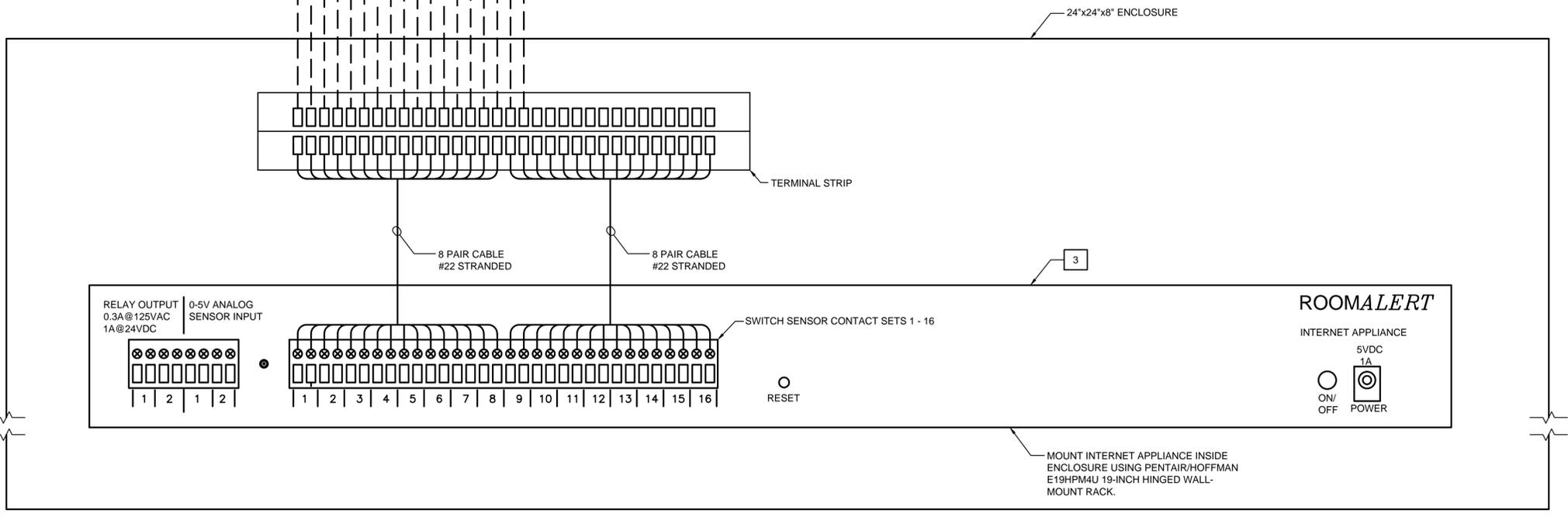
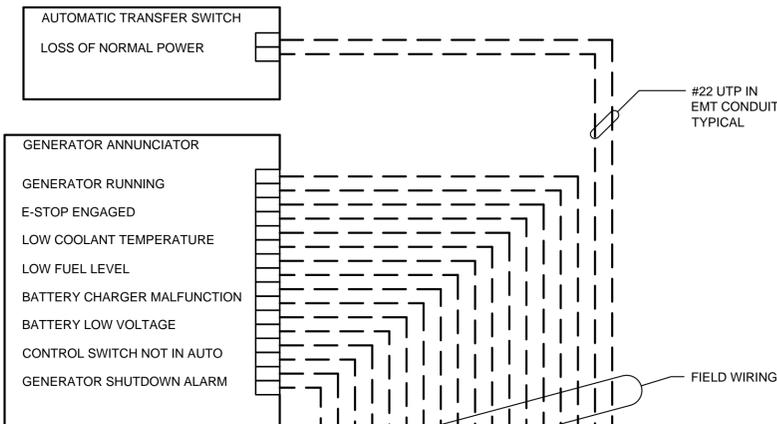






**6** GENERATOR INTERCONNECTION  
 E8 E6 SCALE: NONE

- INTERNET APPLIANCE SPECIFICATIONS:**
1. PROVIDE SNMP INTERNET APPLIANCE WITHIN 24"x24"x8" ENCLOSURE. PROVIDE ONE PER GENERATOR.
  2. INTERNET SNMP APPLIANCE ENCLOSURE TO INCLUDE TERMINAL STRIPS AND INTERNET APPLIANCE.
  3. PROVIDE INTERNET APPLIANCE. AVTECH ROOM ALERT RA32E-TH1-RAS.



**A** INTERNET APPLIANCE ENCLOSURE ELEVATION AND INTERCONNECTION  
 E6 E6 SCALE: NONE

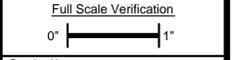
NO.	BY	REVISIONS	DATE
0	SFB	FOR CONSTRUCTION	30 JAN 15



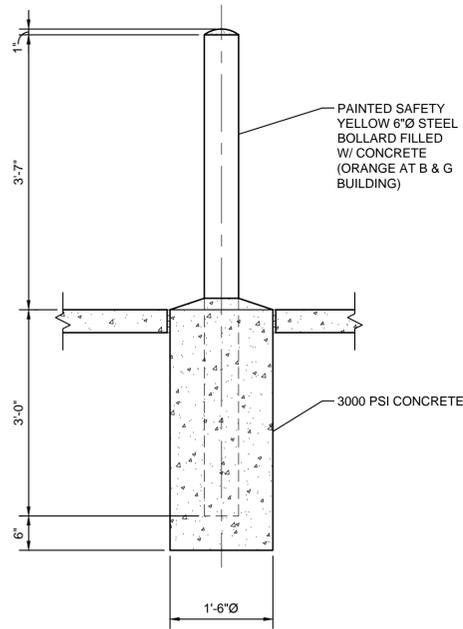
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**CITY OF LYNCHBURG  
 GENERATOR UPGRADES**  
 CLIENT PROJECT CODE:  
 FIRE STATION #3, FIRE STATION #8, AND  
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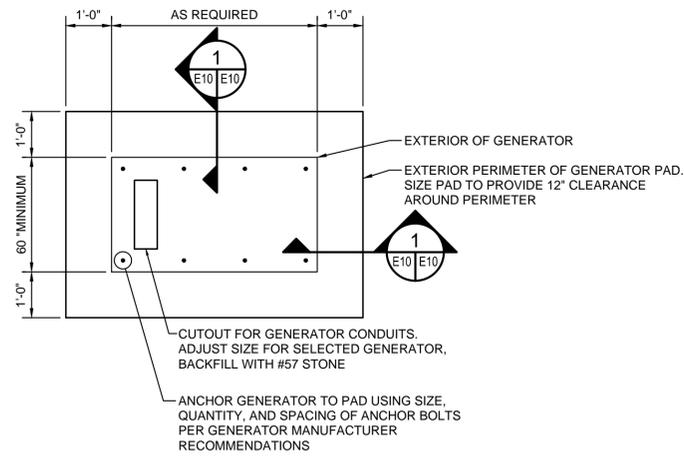
**INTERNET MONITORING**  
 PROJECT NO.: 14079  
 DATE: 30 JAN 15



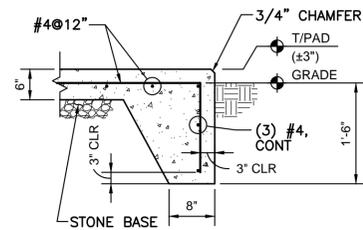
Drawing No.: **E9**



**BOLLARD DETAIL**  
SCALE: NONE



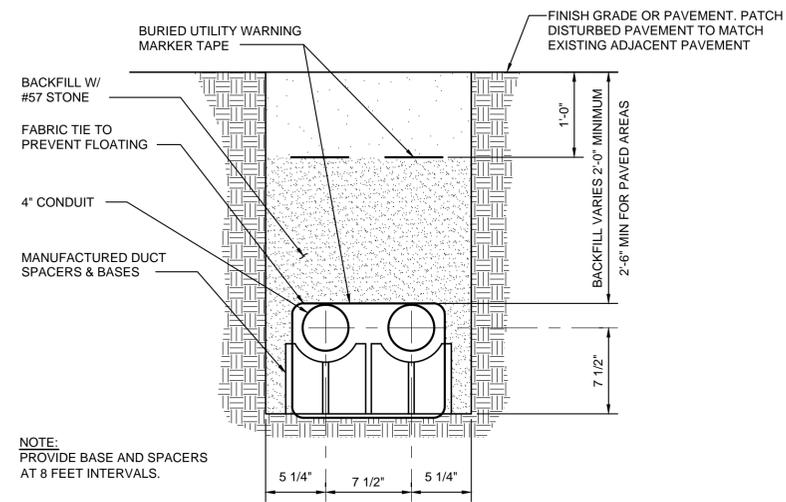
**A GENERATOR PAD ENLARGED PLAN**  
SCALE: NONE



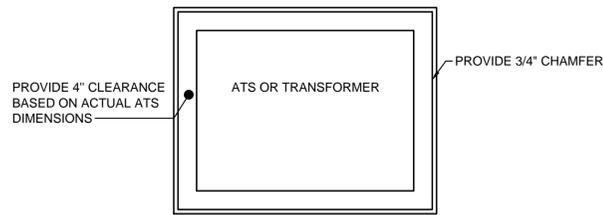
**1 GENERATOR PAD ENLARGED PLAN**  
SCALE: NONE

**GENERATOR PAD CONCRETE AND REINFORCEMENT NOTES:**

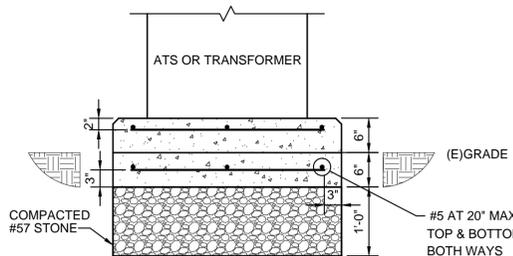
- GENERATOR PAD SOIL BEARING CAPACITY SHALL BE A MINIMUM 1,500 PSF. CONTRACTOR SHALL ENGAGE INSPECTOR TO VERIFY SOIL BEARING CAPACITY AND REINFORCEMENT PLACEMENT PRIOR TO CONCRETE PLACEMENT. SUBMIT INSPECTION REPORT TO AVE FOR REVIEW.
- CONCRETE SHALL BE NORMAL WEIGHT 145 PCF WITH A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI AT 28 DAYS.
- REINFORCING BARS SHALL BE ROLLED FROM NEW BILLET STEEL CONFORMING WITH ASTM A615/A615M, GRADE 60, UNLESS OTHERWISE NOTED.
- THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR ALL REINFORCEMENT, UNLESS OTHERWISE NOTED:
  - CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH: 3"
  - CONCRETE EXPOSED TO EARTH OR WEATHER: #5 BAR AND SMALLER: 1 1/2"
- LAP ALL REINFORCING SPLICES AT LEAST 48 BAR DIAMETERS (24" MINIMUM) UNLESS OTHERWISE NOTED.
- ALL REINFORCING SHALL BE SECURELY WIRED TOGETHER IN FORMS AS CALLED FOR IN "PLACING REINFORCING BARS" BY CRSI.
- STONE BASE SHALL BE 4" THICK, COMPACTED #57 STONE.



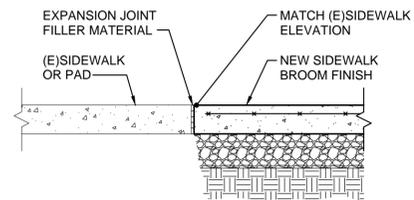
**DUCTBANK DETAIL**  
SCALE: NONE



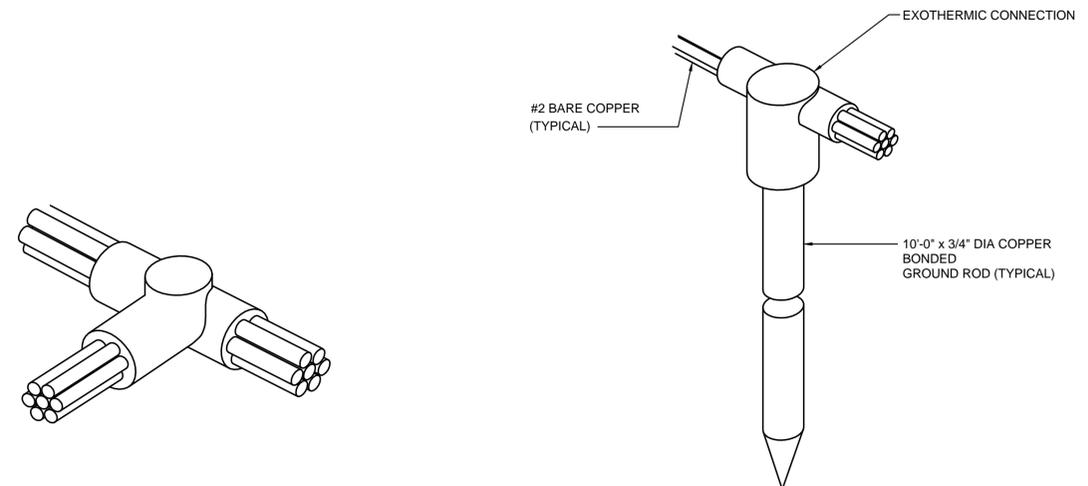
**EQUIPMENT PAD PLAN VIEW**  
SCALE: NONE



**EQUIPMENT PAD SECTION DETAIL**  
SCALE: NONE



**NEW TO EXISTING SIDEWALK DETAIL**  
SCALE: 3/4"=1'-0"



**DETAIL - EXOTHERMIC CONNECTION WIRE TO WIRE**  
SCALE: NONE

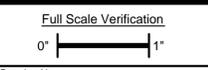
**DETAIL - EXOTHERMIC CONNECTION WIRE TO GROUND ROD**  
SCALE: NONE

NO.	BY	REVISIONS	DATE
0	SFB	FOR CONSTRUCTION	30 JAN 15



**CITY OF LYNCHBURG  
GENERATOR UPGRADES**  
CLIENT PROJECT CODE:  
FIRE STATION #3, FIRE STATION #8, AND  
BUILDINGS AND GROUNDS

**GENERATOR DETAILS**



**E10**