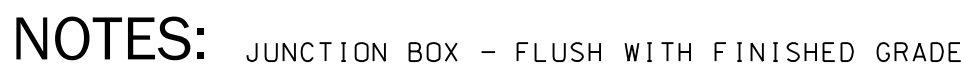
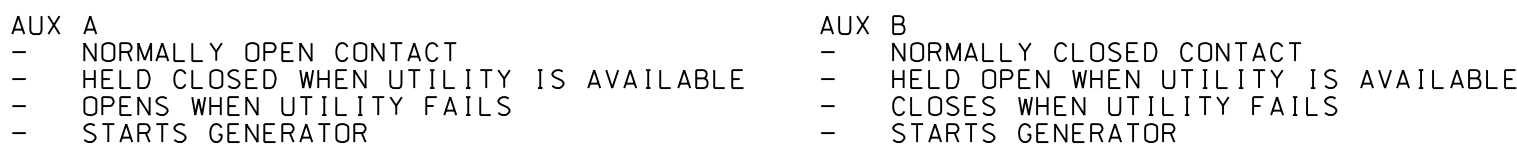


- A. #8 GA. STEEL WIRE MESH, 6" O.C. VERTICALLY OR #6 REBAR, 12" O.C. HORIZ.
- B. CONNECT TO GENERATOR GROUND CONNECTION LUG. VERIFY STUB UP LOCATION WITH MANUFACTURERS SHOP DRAWINGS. WATERPROOF CONDUIT END WITH SEALING COMPOUND.
- C. ANCHOR BOLTS FURNISHED WITH GENERATOR SET. PROVIDE SIX MINIMUM. TIE TO REINFORCING STEEL.
- D. DIMENSION SHALL BE 6" (12" OVERALL DEPTH) UP TO & INCLUDING 600 KW. 12" (18" OVERALL DEPTH) LARGER THAN 600 KW.



- A. JUNCTION BOXES SHALL BE QUATZITE POLYMER CONCRETE TYPE "PG" OPEN BOTTOM, OR EQUIVALENT BY OLD CASTLE OR PENCIL.
- B. THE COVER SHALL BE TIER 22 RATED. LOGO - "ELECTRIC".
- C. BOX DIMENSIONS SHALL BE AS NOTED ON THE DRAWINGS.
- D. PROVIDE A BASE OF CRUSHED STONE, 12" DEEP AND EXTENDING 12" BEYOND THE BOX ON ALL SIDES.
- E. PROVIDE A CONCRETE SUPPORT AROUND THE BOX, 12" WIDE AND 12" DEEP, ALL SIDES.
- F. CONDUIT ENTRY SHALL BE THROUGH THE SIDE WALL AT THE BOTTOM BELOW THE CONCRETE OR UP THROUGH THE BOTTOM.
- G. FOR ALL CONDUCTORS: PROVIDE PERMANENT TAGS IDENTIFYING ALL CABLES.

E0.1) N. T. S.



INPUT POSITION 'A' AT REMOTE MONITORING UNIT	INPUT POSITION 'B' AT REMOTE MONITORING UNIT	CONDITION RESULT	OPERATION STATUS
CLOSED	OPEN	NORMAL (NO FAULT)	UTILITY AVAILABLE
OPEN	CLOSED	NORMAL (NO FAULT)	LOSS OF UTILITY GENERATOR STARTS
OPEN	OPEN	ABNORMAL (FAULT)	LOSS OF INTEGRITY (CUT/SHORT)
CLOSED	CLOSED	ABNORMAL (FAULT)	LOSS OF INTEGRITY (CUT/SHORT)

E0.1 SCALE: NONE



<b>J</b>	JUNCTION BOX, 4" SQUARE BOX W/ COVER
<b>BC</b>	GENERATOR BATTERY CHARGER
<b>CH</b>	GENERATOR COOLANT HEATER
	ATS AUTOMATIC TRANSFER SWITCH
<b>E</b>	EPO
<b>P</b>	FLUSH-IN-GRADE POLYMER CONCRETE PULL BOX

- G1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE, NFPA 70, 2020 EDITION AND ALL STATE & LOCAL ORDINANCES.
- G2. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS. CONSTRUCTION PERMIT FEES SHALL BE INCLUDED IN THE BID.
- G3. EACH GENERATOR SHALL BE FULLY TESTED AND CERTIFIED BY THE GENERATOR MANUFACTURER PRIOR TO FINAL ACCEPTANCE.
- G4. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER FOR EACH SITE PRIOR TO BEGINNING WORK. ANY REQUESTED OUTAGE SHALL BE APPROVED IN WRITING 3-DAYS PRIOR TO THE REQUESTED DATE. PROVIDE OWNER WITH BEGINNING AND ENDING DATES FOR DURATION OF OUTAGE.
- G5. PROVIDE TEMPORARY EMERGENCY GENERATORS AT THE ACADEMY CREEK WASTE WATER TREATMENT PLANT FOR THE 750KW AND THE 350KW GENERATORS. ENSURE PLANT OPERATIONS ARE NOT INTERRUPTED DUE TO POWER FAILURE.
- G6. PROVIDE TEMPORARY EMERGENCY POWER AT EACH WATER PLANT DURING CONSTRUCTION. ENSURE WATER PLANT OPERATIONS ARE NOT INTERRUPTED DUE TO POWER FAILURE.
- G7. THE CONTRACTOR SHALL OBTAIN ENTRY PERMIT FOR ALL PERSONNEL DURING THE WORK AT THE FLETC FACILITY. APPLICATION REQUIRED TO BE COMPLETED WITH AND APPROVED BY FLETC TO BE GRANTED ENTRY.
- G8. THE STATIONARY GENERATORS, LISTED IN SCOPE OF WORK NOTE 1 ARE OWNER FURNISHED. CONTRACTOR INSTALLED. REVIEW THE SPECIFICATION FOR REQUIRED COORDINATION.

- A. THE GENERATOR AND AUTOMATIC TRANSFER SWITCHES BEING SUPPLIED BY DIRECT OWNER PURCHASE SHALL COMPLY WITH THE PLANS AND SPECIFICATIONS. THE EQUIPMENT SHALL BE PROVIDED WITH THE CORRESPONDING ACCESSORIES, FEATURES AND ACCESSORIES AS SPECIFIED. THIS IS THE RESPONSIBILITY OF THE GENERATOR MANUFACTURER AND/OR THE GENERATOR SALES ORGANIZATION.
  - B. THE CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION OF THE OWNER FURNISHED EQUIPMENT, RECEIVING THE EQUIPMENT AT THE PROJECT SITES, AND PROTECTING THE EQUIPMENT ONCE IN THE POSSESSION OF THE CONTRACTOR. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR POWER, CONTROL AND ALARM WIRING.
  - C. TESTING SHALL BE COORDINATED BETWEEN THE OWNER, THE GENERATOR SUPPLIES AND THE CONTRACTOR.
- G9. EXTEND NEW FEEDERS FROM THE GENERATOR TO THE AUTOMATIC TRANSFER SWITCH (ATS); FROM THE ATS TO THE DISTRIBUTION PANEL/MCC (AS APPLICABLE); FROM THE SERVICE DISCONNECT TO THE ATS. TYPICAL FOR ALL SITES IN THIS PROJECT.
- G10. EXTEND COOLANT HEATER AND BATTERY CHARGER CIRCUITS TO EACH GENERATOR. PROVIDE 3/4" W/2NO.12, 1NO.12(G) FOR EACH CIRCUIT. COORDINATE SOURCE PANEL WITH EACH SITE. EXCEPTION: THE LARGE GENERATORS WITH INTERMEDIATE DISTRIBUTION PANELS FOR BRANCH LOADS! FOR THESE SITUATIONS COORDINATE THE REQUIRED FEEDER WITH THE EQUIPMENT PROVIDED.
- G11. EXTEND A SUPERVISED START/STOP CONTROL CIRCUIT FROM THE ATS TO THE GENERATOR. REFER TO DETAIL 2/EQ.1. EXCEPT FOR THE HOWARD COFFIN WTP. ALL SITES WILL BE FURNISHED WITH NEW ATS'S. AT HOWARD COFFIN WTP, FIELD COORDINATE THE AVAILABILITY OF AUXILIARY CONTACTS AND/OR THE ABILITY TO MODIFY THE EXISTING ATS TO PROVIDE A SUPERVISED START/STOP CIRCUIT.
- G12. DEMOLISH, REMOVE, ETC. ALL ABANDONED FEEDERS, CONTROL, AUXILIARY CIRCUITS AND CONDUITS ABOVE GRADE. UNDERGROUND CONDUCTORS SHALL BE REMOVED, IF POSSIBLE. OTHERWISE ABANDON CONDUIT AND CONDUCTORS IN PLACE.

THIS PROJECT INVOLVES THE REPLACEMENT OF EXISTING STATIONARY GENERATORS AT THE FOLLOWING LOCATIONS:

- A. ACADEMY CREEK WWTP, MAIN ELECTRICAL SERVICE
  - i. 750KW/938KVA 480Y/277V 3-PHASE 4-WIRE
    - i. EXISTING GENERATOR LOCATED INSIDE BUILDING WITH REMOTE RADIATOR.
    - ii. NEW GENERATOR WITH SUB-BASE FUEL TANK AND NON-SOUND ATTENUATING, 150MPH, ALUMINUM ENCLOSURE TO BE LOCATED OUTSIDE ON NEW FOUNDATION PAD.
    - iii. EXISTING 1000W/3P AUTOMATIC TRANSFER SWITCH LOCATED ON SECOND FLOOR IN GENERATOR ROOM.
    - iv. NEW 1000A/3P AUTOMATIC TRANSFER SWITCH TO BE INSTALLED IN SAME LOCATION. FIELD VERIFY DIMENSIONS OF EXISTING AND NEW ATS'S PRIOR TO ORDERING.
  - 2. 350KW/438KVA 480Y/277V 3-PHASE 4-WIRE
    - i. EXISTING GENERATOR LOCATED INSIDE BUILDING WITH REMOTE RADIATOR.
    - ii. NEW GENERATOR WITH SUB-BASE FUEL TANK AND NON-SOUND ATTENUATING, 150MPH, ALUMINUM ENCLOSURE TO BE LOCATED OUTSIDE ON NEW FOUNDATION PAD.
    - iii. EXISTING 800A/3P AUTOMATIC TRANSFER SWITCH LOCATED ON SECOND FLOOR IN GENERATOR ROOM.
    - iv. NEW 800A/3P AUTOMATIC TRANSFER SWITCH TO BE INSTALLED IN SAME LOCATION. FIELD VERIFY DIMENSIONS OF EXISTING AND NEW ATS'S PRIOR TO ORDERING.
- B. FLETC WATER TREATMENT PLANT, FEDERAL LAW ENFORCEMENT TRAINING CENTER.
  - 1. 200KW/250KVA 480Y/277V 3-PHASE 4-WIRE
    - i. EXISTING GENERATOR LOCATED INSIDE BUILDING
    - ii. NEW GENERATOR WITH SUB-BASE FUEL TANK AND SOUND ATTENUATING, 150MPH, ALUMINUM WEATHER ENCLOSURE TO BE LOCATED OUTSIDE OF THE BUILDING ON NEW FOUNDATION PAD.
    - iii. EXISTING 400A/3P AUTOMATIC TRANSFER SWITCH LOCATED IN MAIN PUMP ROOM.
    - iv. NEW 400A/3P AUTOMATIC TRANSFER SWITCH TO BE INSTALLED AT SAME LOCATION.
    - v. INFILL RADIATOR EXHAUST, ENGINE EXHAUST AND INTAKE AIR LOUVER WALL PENETRATIONS.
- C. GOODYEAR WATER TREATMENT PLANT, LOCATED NEAR HOSPITAL.
  - 1. 230KW/288KVA 480Y/277V 3-PHASE 4-WIRE
    - i. EXISTING GENERATOR LOCATED INSIDE BUILDING
    - ii. NEW GENERATOR WITH SUB-BASE FUEL TANK AND SOUND ATTENUATING, 150MPH, ALUMINUM WEATHER ENCLOSURE TO BE LOCATED OUTSIDE OF THE BUILDING ON NEW FOUNDATION PAD.
    - iii. EXISTING 400A/3P AUTOMATIC TRANSFER SWITCH LOCATED IN MAIN PUMP ROOM.
    - iv. NEW 400A/3P AUTOMATIC TRANSFER SWITCH TO BE INSTALLED AT SAME LOCATION. FIELD VERIFY DIMENSIONS OF EXISTING AND NEW ATS'S PRIOR TO ORDERING.
    - v. INFILL RADIATOR EXHAUST, ENGINE EXHAUST AND INTAKE AIR LOUVER WALL PENETRATIONS.
- D. HOWARD COFFIN WATER TREATMENT PLANT
  - 1. 175KW/219KVA 480Y/277V 3-PHASE 4-WIRE
    - i. EXISTING GENERATOR LOCATED INSIDE BUILDING
    - ii. NEW GENERATOR WITH SUB-BASE FUEL TANK AND SOUND ATTENUATING, 150MPH, ALUMINUM WEATHER ENCLOSURE TO BE LOCATED OUTSIDE OF THE BUILDING ON NEW FOUNDATION PAD.
    - iii. EXISTING 400A/3P AUTOMATIC TRANSFER SWITCH LOCATED IN MAIN PUMP ROOM.
    - iv. NEW 400A/3P AUTOMATIC TRANSFER SWITCH TO BE INSTALLED AT SAME LOCATION. FIELD VERIFY DIMENSIONS OF EXISTING AND NEW ATS'S PRIOR TO ORDERING.
    - v. INFILL RADIATOR EXHAUST, ENGINE EXHAUST AND INTAKE AIR LOUVER WALL PENETRATIONS.
- E. MALLORY WATER TREATMENT PLANT
  - 1. 215KW/269KVA 480Y/277V 3-PHASE 4-WIRE
    - i. EXISTING GENERATOR LOCATED INSIDE BUILDING
    - ii. NEW GENERATOR WITH SUB-BASE FUEL TANK AND SOUND ATTENUATING, 150MPH, ALUMINUM WEATHER ENCLOSURE TO BE LOCATED OUTSIDE OF THE BUILDING ON NEW FOUNDATION PAD.
    - iii. EXISTING UNDERGROUND FUEL TANK TO BE ADDRESSED BY OWNER.
    - iv. PROVIDE NEW FEEDER, WITHOUT SPLICES, FROM THE GENERATOR, THROUGH THE PULL BOX, TO THE AUTOMATIC TRANSFER SWITCH.
    - v. EXTEND NEW FEEDER WATER AND BATTERY CHARGER CIRCUITS FROM THE EXISTING BUILDING TO THE NEW GENERATOR.
    - vi. PROVIDE NEW 400A/3P AUTOMATIC TRANSFER SWITCH AT SAME LOCATION. FIELD VERIFY DIMENSIONS OF EXISTING AND NEW ATS'S PRIOR TO ORDERING.

2. ONE PORTABLE GENERATOR REPLACEMENT IS INCLUDED IN THE SCOPE OF THIS PROJECT.
- A. ACADEMY CREEK WWTP, ELECTRICAL SERVICE AT THE OPERATIONS BUILDING.
- i. 1500KW/1875KVA 480Y/277V 3-PHASE 4-WIRE
  - ii. THE EXISTING 2150V GENERATOR IS TO BE DISCONNECTED AND RELOCATED TO A LOCATION DESIGNATED BY THE OWNER.
  - iii. NEW GENERATOR WITH SUB-BASE FUEL TANK AND NON-SOUND ATTENUATING, 150MHP, ALUMINUM WEATHER ENCLOSURE TO BE LOCATED OUTSIDE OF THE BUILDING ON NEW FOUNDATION PAD AND TO BE INSTALLED WITH THE TOP OF THE FUEL TANK ABOVE THE 100YR FLOOD ELEVATION.
  - iiii. NEW SERVICE DISTRIBUTION, AUTOMATIC TRANSFER SWITCH AND DISTRIBUTION EQUIPMENT TO BE PROVIDED ON AN ELEVATED PLATFORM ABOVE THE 100YR FLOOD ELEVATION.
3. FIVE PORTABLE GENERATORS SHALL BE FURNISHED UNDER THIS PROJECT.
- A. THE GENERATOR SHALL BE 200KW/250KVA TRILER MOUNTED UNITS.
- i. THE GENERATORS SHALL BE FURNISHED WITH FOUR SELECTABLE OUTPUT VOLTAGES.
  - ii. THE GENERATORS SHALL BE PROVIDED WITH TWO SETS OF POWER CABLES.
  - iii. THE GENERATORS SHALL BE FURNISHED WITH ONE CONTROL CABLE
  - iiii. THE GENERATOR POWER CABLE CAMLOCK CONFIGURATION SHALL BE COORDINATED WITH THE RESPECTIVE DOCKING STATIONS (400A VS. 200A)
  - v. THE GENERATOR CONTROL CABLE CONNECTORS SHALL BE COORDINATED WITH THE DOCKING STATIONS. THIS SHOULD BE COMMON/INTER-CHANGEABLE TO ALL GENERATORS AND DOCKING STATIONS.

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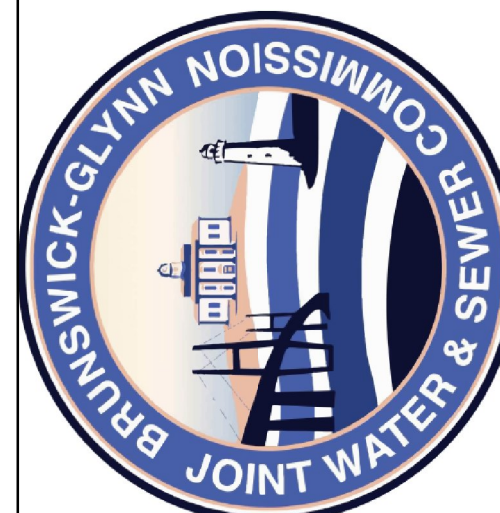
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BRUNSWICK-GLYNN JOINT  
WATER & SEWER COMMISSION  
GENERATOR REPLACEMENT  
PROJECT NO. 801

# GEORGIA

BRUNSWICK



Sheet Title

sheet title

LEGEND  
GENERAL NOTES  
SCOPE OF WORK  
& DETAILS

Job No. 21030.00

Drawn CC

Checked \_\_\_\_\_ PM

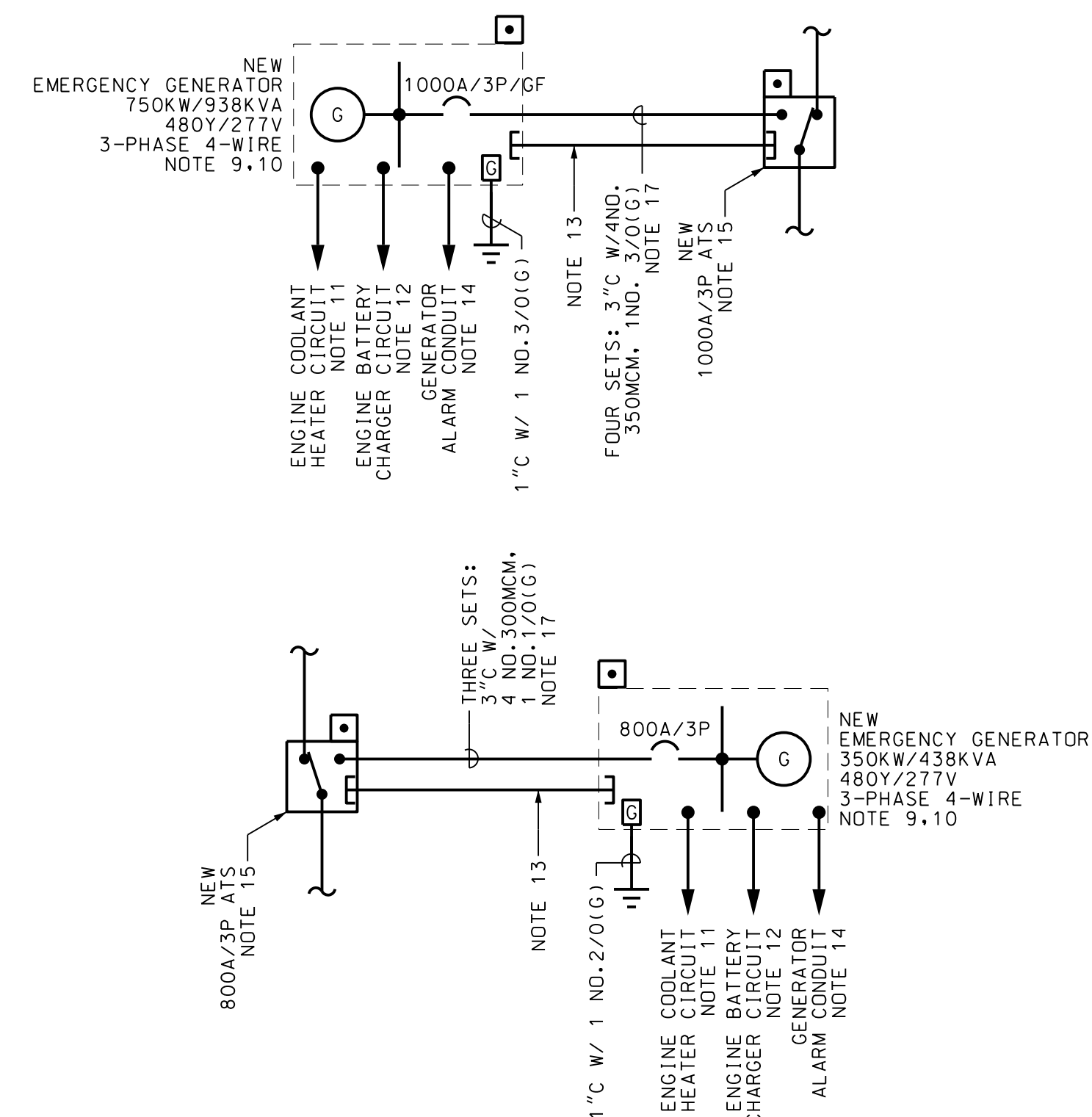
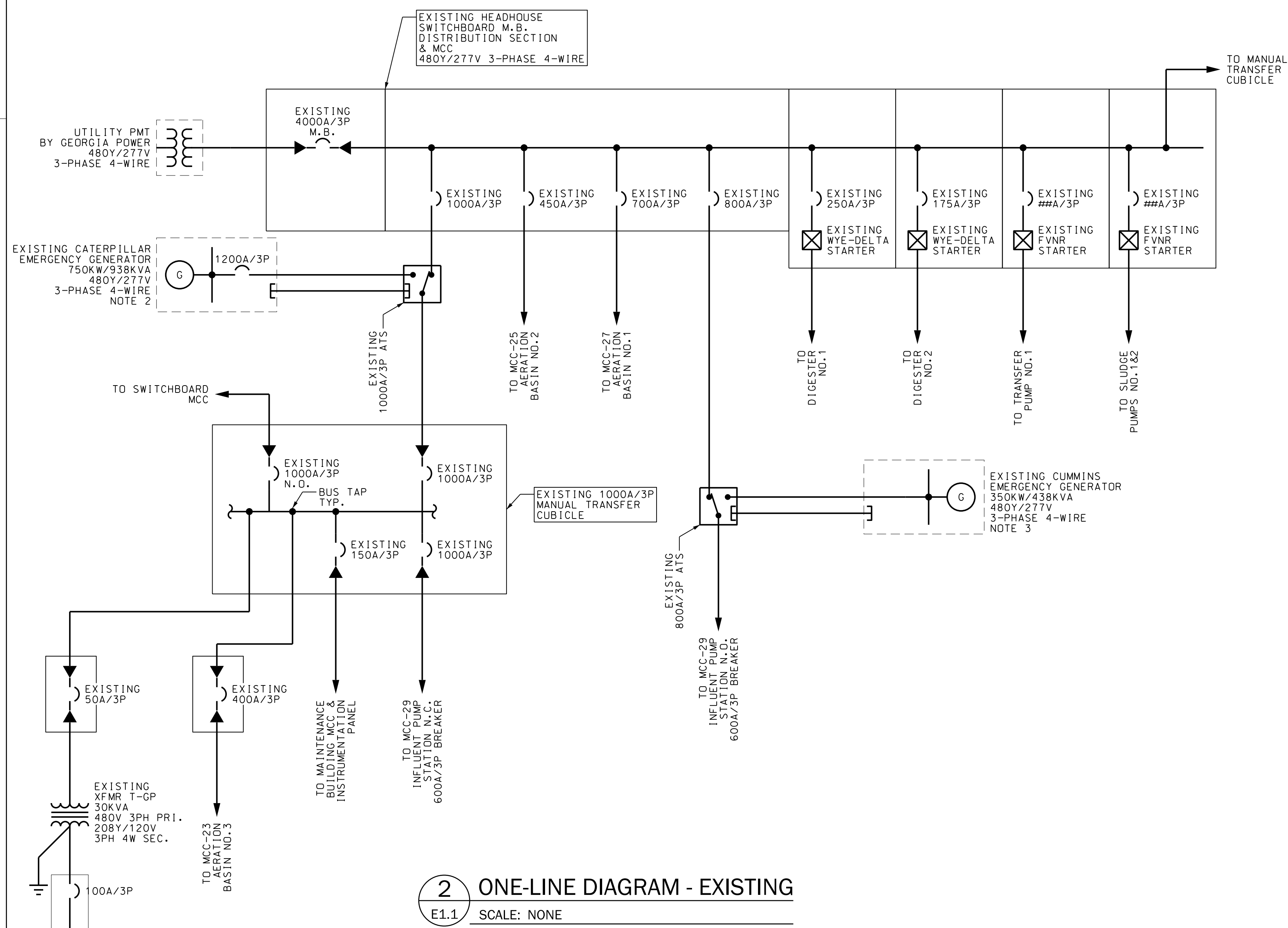
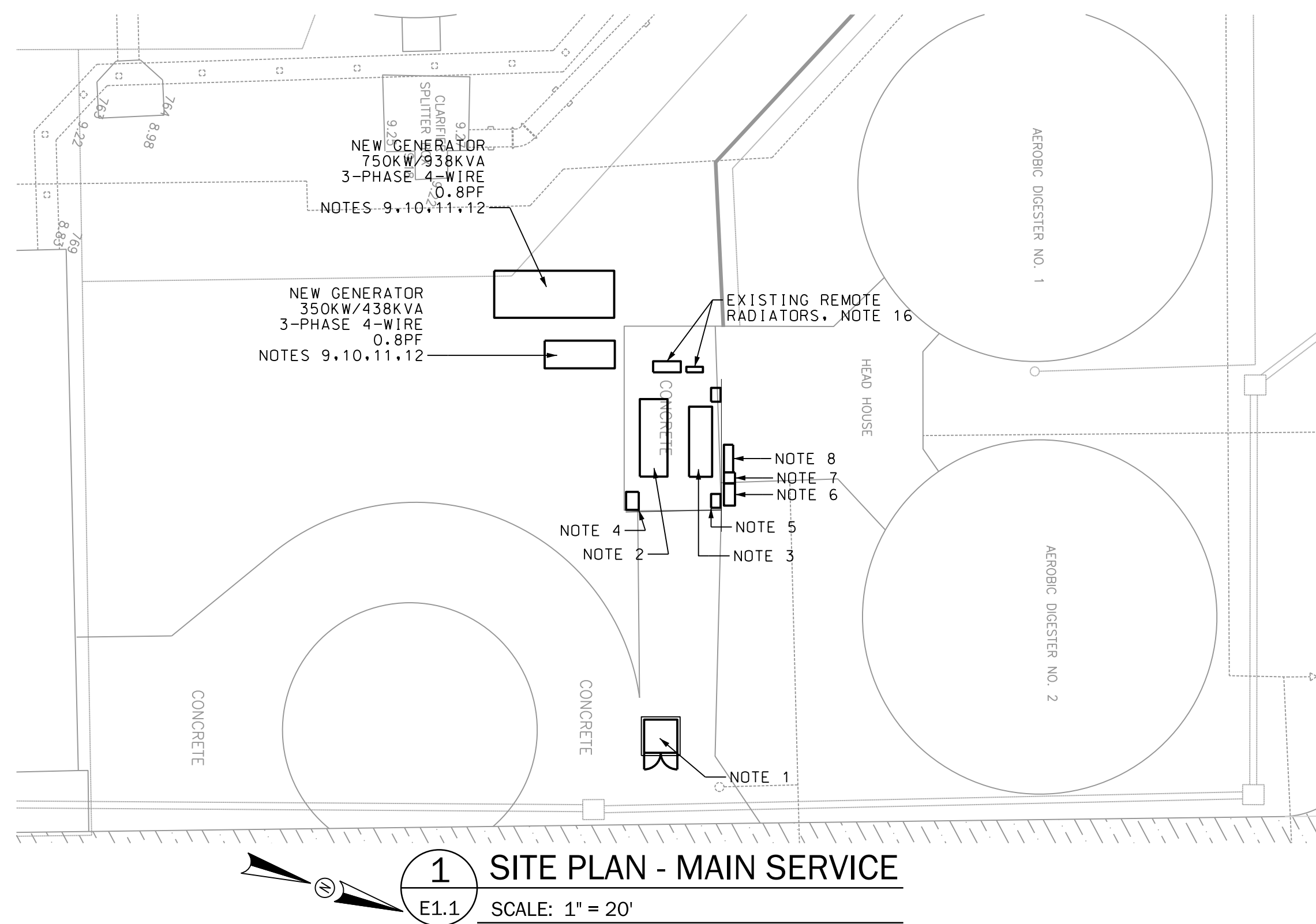
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## EO.1

Sheet No

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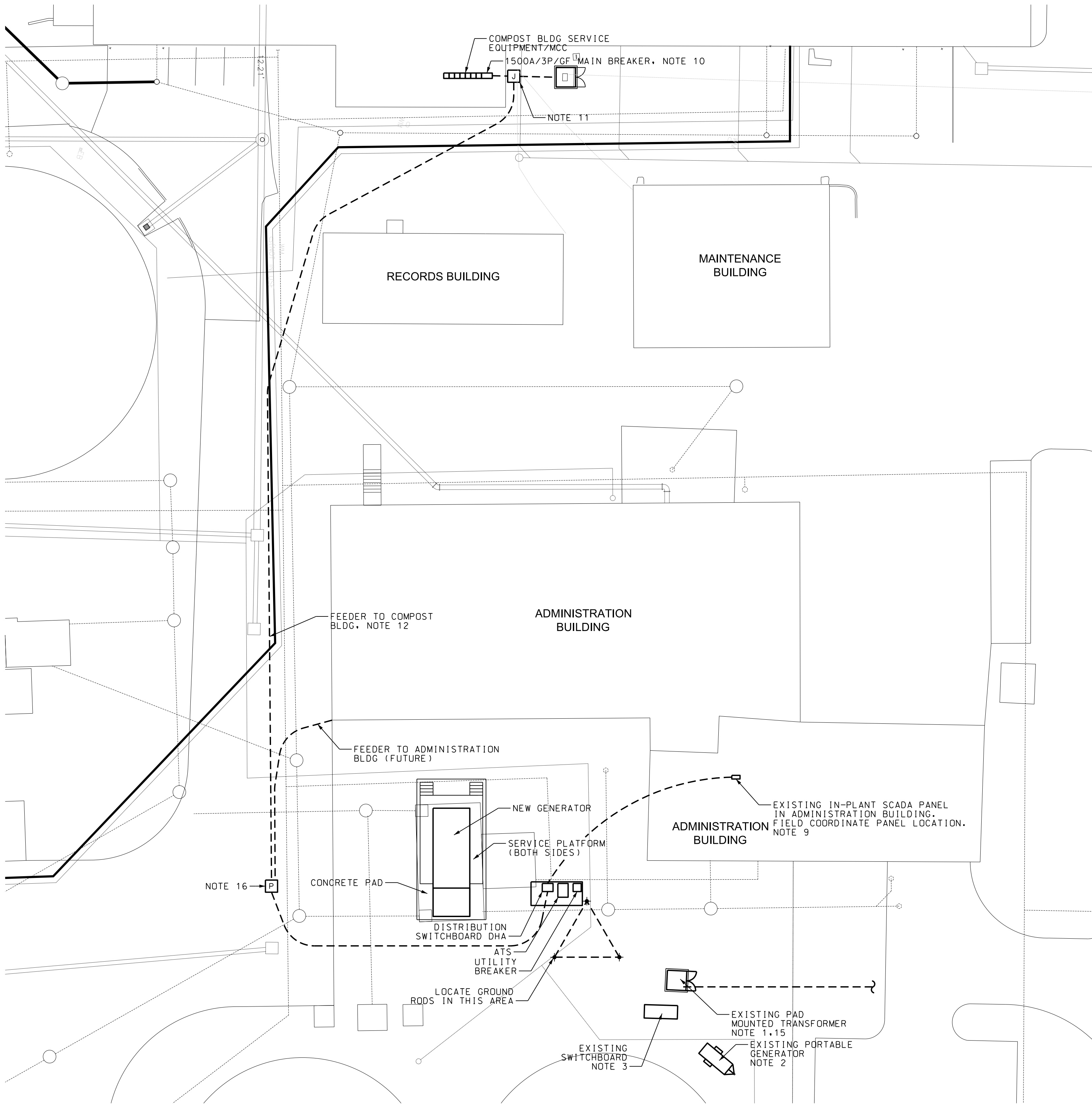
- NOTES:

1. EXISTING PAD MOUNTED TRANSFORMER BY GEORGIA POWER.
2. BASE BID: REMOVE EXISTING 750KW CATERPILLAR GENERATOR AND RELOCATE TO DESIGNATED LOCATION.  
  
ALTERNATE: DISCONNECT EXISTING 750KW CATERPILLAR GENERATOR AND ABANDON IN PLACE.
3. BASE BID: REMOVE EXISTING 350KW CUMMINS GENERATOR AND RELOCATE TO DESIGNATED LOCATION.  
  
ALTERNATE: DISCONNECT EXISTING 350KW CUMMINS GENERATOR AND ABANDON IN PLACE.
4. EXISTING CUMMINS 1000A ATS TO BE REPLACED.
5. EXISTING CUMMINS 800A ATS TO BE REPLACED.
6. EXISTING DISTRIBUTION SWITCHBOARD TO REMAIN
7. EXISTING MAIN BREAKER TO REMAIN.
8. EXISTING MCC TO REMAIN.
9. PROVIDE A NEW CONCRETE PAD FOR THE NEW GENERATORS. FIELD COORDINATE THE LOCATION WITH ANY UNDERGROUND OBSTRUCTIONS; COORDINATE WITH THE OWNER AS TO THE FINAL LOCATION.
10. FURNISH NEW GENERATOR WITH WEATHER ENCLOSURE, 150MPH MIN., ALUMINUM CONSTRUCTION, NON-SOUND ATTENUATED.
11. EXTEND EXISTING ENGINE COOLANT HEATER CIRCUITS FROM PANEL GP TO THE NEW GENERATORS. PANEL GP IS LOCATED IN THE LOWER LEVEL OF THE EXISTING GENERATOR BUILDING, "HEAD HOUSE", 100A M.B., 208Y/120V 3-PHASE 4-WIRE PANEL.
12. EXTEND EXISTING BATTERY CHARGER CIRCUIT FROM PANEL GP TO EACH GENERATOR.
13. EXTEND THREE 1" CONDUITS WITH CONDUCTORS AS REQUIRED FROM EACH GENERATOR TO THE RESPECTIVE AUTOMATIC TRANSFER SWITCH.
14. EXTEND 1" C W/CONDUCTORS AS REQUIRED FROM THE ATS TO THE NEW IN-PLANT SCADA PANEL IN THE MAIN ELECTRICAL ROOM.
15. FURNISH NEW AUTOMATIC TRANSFER SWITCH. FIELD COORDINATE REQUIRED LUGS WITH THE EXISTING AND NEW FEEDERS. FIELD VERIFY DIMENSIONS OR EXISTING AND NEW ATS PRIOR TO ORDERING.
16. DISCONNECT AND REMOVE THE EXISTING REMOTE RADIATORS/HEAT EXCHANGERS, DEMOLISH THE FANS, THE FEEDERS, AND THE STARTERS (IN THE EXISTING GENERATOR ROOM). DEMOLISH THE BRANCH FEEDER CIRCUIT BACK TO THE SOURCE, DRAIN AND DISPOSE OF THE ENGINE COOLANT/ANTIFREEZE.
17. FIELD COORDINATE THE CONDUIT ROUTE FROM THE NEW GENERATORS TO THE AUTOMATIC TRANSFER SWITCHES.



NOTES:

- EXISTING PAD MOUNTED TRANSFORMER BY GEORGIA POWER. FIELD COORDINATE WITH GEORGIA POWER FOR REPLACEMENT AND/OR RELOCATION OF THE TRANSFORMER BY GEORGIA POWER.
- EXISTING PORTABLE CATERPILLAR GENERATOR TO BE DISCONNECTED AND REMOVED TO OWNER DESIGNATED LOCATION. RETAIN FOR USE AS TEMPORARY EMERGENCY POWER DURING CONSTRUCTION.
- EXISTING ELECTRICAL SERVICE EQUIPMENT TO BE REMOVED. PROVIDE TEMPORARY ELECTRICAL SERVICE TO MAINTAIN PLANT OPERATIONS DURING CONSTRUCTION.
- PROVIDE A NEW CONCRETE PAD FOR THE NEW GENERATOR. FIELD COORDINATE THE LOCATION WITH ANY UNDERGROUND OBSTRUCTIONS; COORDINATE WITH THE OWNER AS TO THE FINAL LOCATION.
- FURNISH NEW GENERATOR WITH WEATHER ENCLOSURE, 150MPH MIN., ALUMINUM CONSTRUCTION, NON-SOUND ATTENUATED.
- EXTEND 80A FEEDER FROM PANEL B TO THE NEW GENERATOR.
- BATTERY CHARGER, COOLANT HEATER AND MAINTENANCE LIGHTING CIRCUITS FOR THE GENERATOR SHALL BE PROVIDED FROM THE INTERNAL DISTRIBUTION PANEL LOCATED IN THE GENERATOR ENCLOSURE. FIELD COORDINATE WITH GENERATOR PROVIDED.
- EXTEND THREE 1" CONDUITS WITH CONDUCTORS AS REQUIRED FROM THE GENERATOR TO THE AUTOMATIC TRANSFER SWITCH.
- EXTEND 1" C W/CONDUCTORS AS REQUIRED FROM THE ATS TO THE NEW IN-PLANT SCADA PANEL IN THE ADMINISTRATION BUILDING.
- FIELD COORDINATE THE REQUIRED LUGS WITH THE FEEDER FROM THE NEW DISTRIBUTION SWITCHBOARD.
- INTERCEPT THE EXISTING SERVICE FOR INSTALLATION OF THE IN-GRADE PULL BOX.  
A. FIELD COORDINATE WITH GEORGIA POWER FOR DEMOLITION OF THE ELECTRICAL SERVICE.  
B. FIELD COORDINATE WITH THE OWNER FOR INTERRUPTION OF POWER TO THE COMPOST BUILDING AND ASSOCIATED PLANT FACILITIES.
- FIELD COORDINATE ROUTING OF THE NEW FEEDER WITH EXISTING UNDERGROUND OBSTRUCTIONS AND WITH THE OWNER.
- COORDINATE WITH GEORGIA POWER FOR INSTALLATION OF THE NEW GENERATOR PAD AND ROUTING OF THE EXISTING UNDERGROUND PRIMARY FEEDER.
- ALL ELECTRICAL EQUIPMENT SHALL BE MOUNTED 1' MINIMUM ABOVE THE 100YR FLOOD ELEVATION. FIELD COORDINATE WITH THE OWNER AS TO THE SPECIFIC FLOOD ELEVATION. PROVIDE SITE ELEVATION MODIFICATIONS AND FOUNDATION AS REQUIRED.
- COORDINATE NEW SERVICE FROM THE EXISTING PAD MOUNTED TRANSFORMER TO THE MAIN BREAKER. CONTACT GREG MCCRANIE DISTRIBUTION ENGINEER, 912-267-5127. COORDINATE REQUIRED UPGRADE OF THE EXISTING PAD MOUNTED TRANSFORMER, FURNISH NEW PAD AS REQUIRED IN ACCORDANCE WITH GEORGIA POWER BLUE BOOK.
- 48" X 48" X 36"D POLYMER CONCRETE PULL BOX SET FLUSH IN GRADE WITH 12" X 12" CONCRETE COLLAR AROUND BOX. PROVIDE WITH TIER 22 LID, PENTA-HEAD BOLTS, "ELECTRICAL" LOGO. REFER TO DETAIL 4/E0.1.



1 SITE PLAN - ADMIN & COMPOST SERVICE  
E1.2 SCALE: 1" = 20'

CADD PLOT  
07-FEB-2022  
17:22  
lcauley

CHATHAM

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Revisions	No.	Date	Description	By

BRUNSWICK-GLYNN JOINT  
WATER & SEWER COMMISSION  
GENERATOR REPLACEMENT  
PROJECT NO. 801  
BRUNSWICK GEORGIA



Sheet Title  
ACADEMY CREEK  
WPCF ADMIN &  
COMPOST BLDG  
SERVICE

Job No. 21030.00

Drawn CC

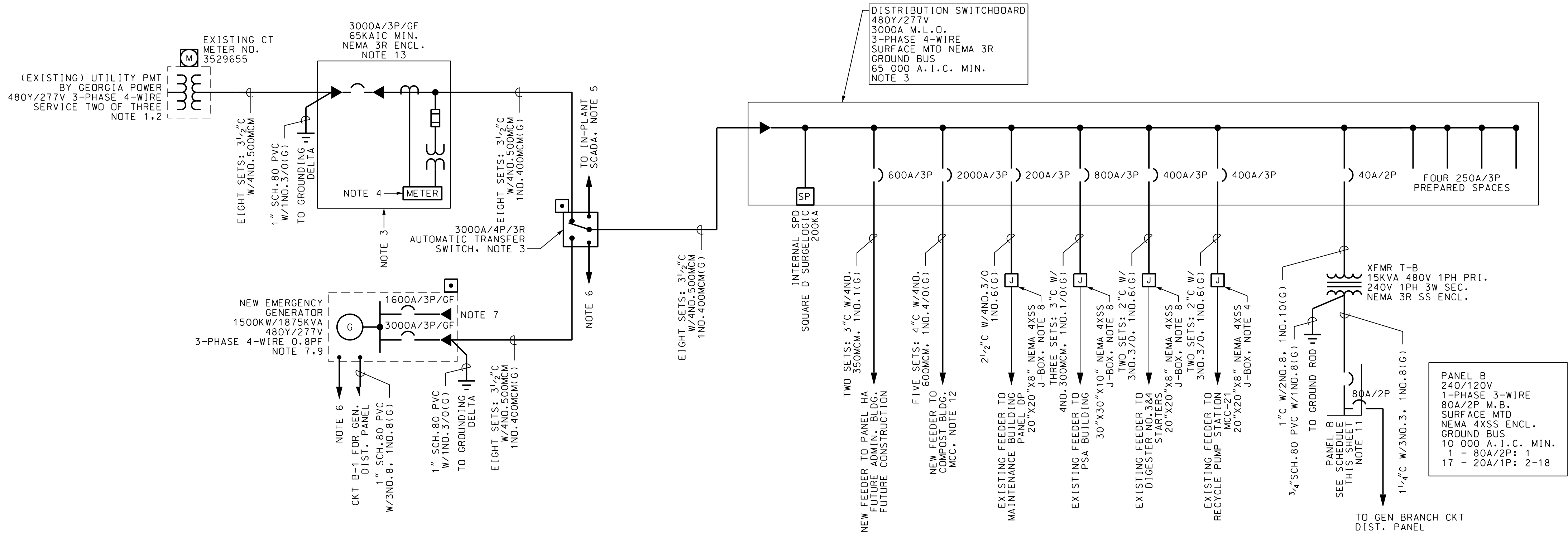
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Date 07-FEB-2022

E1.2

Sheet No.





2 SERVICE DHA RENOVATION ONE-LINE DIAGRAM  
E-2.1 SCALE: NONE

NOTES:

- EXISTING PAD MOUNTED TRANSFORMER BY GEORGIA POWER. COORDINATE REPLACEMENT/RELOCATION WITH GEORGIA POWER.
- COORDINATE NEW SERVICE FROM THE EXISTING PAD MOUNTED TRANSFORMER TO THE MAIN BREAKER. CONTACT GREG MCCRANIE DISTRIBUTION ENGINEER. 912-267-5127.
- PROVIDE FOUNDATION FOR THE NEW ELECTRICAL EQUIPMENT. MINIMAL ELEVATION SHALL BE 1' ABOVE 100YR FLOOD ELEVATION. COORDINATE GRADE ELEVATION WITH THE OWNER.
- PROVIDE METER IN MAIN BREAKER. EXTEND COMMUNICATIONS TO IN-PLANT SCADA. COORDINATE COMMUNICATIONS PROTOCOL.
- EXTEND 1" C W/ONE CAT6 CABLE TO IN-PLANT SCADA PANEL LOCATED IN THE ADMINISTRATION BUILDING. FIELD COORDINATE THE PANEL LOCATION AND THE ROUTING OF THE CONDUIT THROUGH THE BUILDING.
- EXTEND 1" C W/ONE CAT6 CABLE TO GENERATOR. PROVIDE ADDITIONAL WIRING AS REQUIRED FOR CONTROL AND ALARM ANNUNCIATION.
- FURNISH GENERATOR WITH LOAD-BANK BREAKER FOR TESTING.
- PROVIDE NEMA 4X STAINLESS STEEL JUNCTION BOXES AT STUB-UPS IN EXISTING EQUIPMENT SLAB. PROVIDE BOXES MOUNTED ON A STAINLESS STEEL CHANNEL FRAME WITH GASKETED SCREW COVERS. CONNECT NEW FEEDER TO EXISTING FEEDER TO EQUIPMENT INDICATED.
- PROVIDE A NEW CONCRETE PAD FOR THE NEW GENERATOR. FIELD COORDINATE THE LOCATION WITH ANY UNDERGROUND OBSTRUCTIONS. COORDINATE WITH THE OWNER AS TO THE FINAL LOCATION.
- FURNISH NEW GENERATOR WITH WEATHER ENCLOSURE, 150MPH MIN.. ALUMINUM CONSTRUCTION. NON-SOUND ATTENUATED.
- EXTEND FEEDER TO GENERATOR DISTRIBUTION PANEL FOR ENGINE COOLANT HEATER, BATTERY CHARGER, RECEPTACLE AND LIGHTING CIRCUITS.
- TO THE MCC IN THE COMPOST BUILDING.
- PROVIDE MAIN BREAKER WITH ARC FLASH REDUCTION MAINTENANCE SWITCH.

BRUNSWICK-GLYNN JOINT  
WATER & SEWER COMMISSION  
GENERATOR REPLACEMENT  
PROJECT NO. 801  
BRUNSWICK  
GEORGIA



Sheet Title  
ACADEMY CREEK  
WPCF ADMIN &  
COMPOST BLDG  
SERVICE

Job No. 21030.00  
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Date 07-FEB-2022

E2.1  
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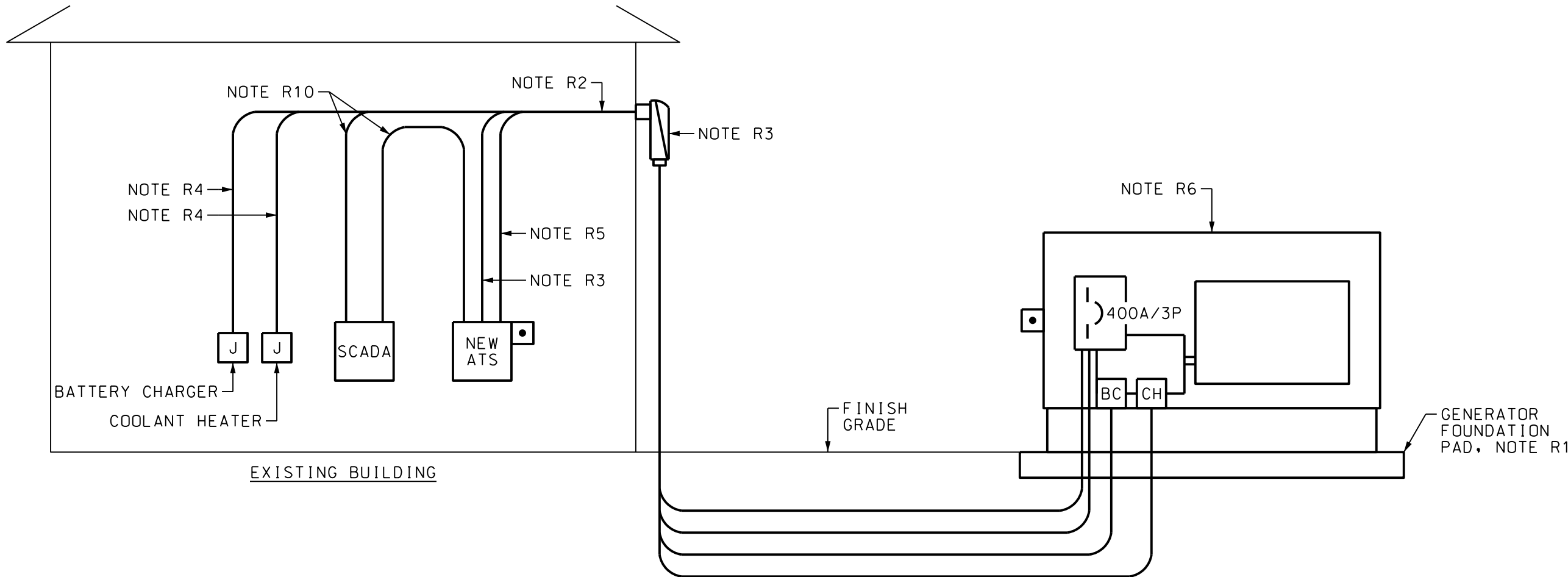


DEMOLITION NOTES:

- D1. DISCONNECT THE EXISTING 200KW/250KVA 480Y/277V 3-PHASE 4-WIRE GENERATOR. DEMOLISH THE EXISTING FEEDER, AND CONDUIT. DEMOLISH THE CONTROL, ALARM, BATTERY CHARGER AND COOLANT HEATER CIRCUITS BACK TO SOURCE.
- D2. DISCONNECT THE EXISTING RADIATOR DUCT FROM THE GENERATOR. DEMOLISH DUCT. INFILL WALL PENETRATION WITH CMU TO MATCH EXISTING. PAINT TO MATCH SURROUNDING AREA.
- D3. REMOVE THE EXISTING INTAKE AIR LOUVER. DEMOLISH THE INTERLOCK CIRCUIT AND POWER CIRCUIT TO SOURCE. INFILL LOUVER OPENING WITH CMU TO MATCH EXISTING. PAINT TO MATCH EXISTING AREA.
- D4. BASE BID: REMOVE EXISTING GENERATOR AND RELOCATE TO DESIGNATED LOCATION.
- ALTERNATE: REMOVE AND DISPOSE OF THE GENERATOR. THE GENERATOR SHALL BE REMOVED FROM THE BUILDING THROUGH THE LOUVER OPENING. DISPOSAL OF THE GENERATOR IS THE RESPONSIBILITY OF THE CONTRACTOR.
- D5. DISCONNECT AND REMOVE THE GENERATOR EXHAUST SYSTEM. INFILL LOUVER OPENING WITH CMU TO MATCH EXISTING. PAINT TO MATCH SURROUNDING AREA.
- D6. DISCONNECT THE EXISTING BATTERY CHARGER. DELIVER CHARGER TO THE OWNER. DEMOLISH CIRCUIT TO SOURCE.
- D7. DISCONNECT THE START/STOP AND ALARM ANNUNCIATION CIRCUITS. DEMOLISH TO SOURCE.
- D8. BASE BID: REMOVE AND REPLACE EXISTING AUTOMATIC TRANSFER SWITCH.
- ALTERNATE: REUSE EXISTING AUTOMATIC TRANSFER SWITCH.

RENOVATION NOTES:

- R1. FURNISH AND INSTALL NEW GENERATOR FOUNDATION PER DETAIL 1/EO.1. FIELD LOCATE THE PAD AT THE CORNER OF THE BUILDING AT THE EXISTING GENERATOR ROOM AIR LOUVER. FIELD COORDINATE THE PAD LOCATION WITH GEORGIA POWER AND THE UNDERGROUND PRIMARY FEEDER TO THE PAD MOUNTED TRANSFORMER. ORIENT THE PAD SUCH THAT THE CONTROL END OF THE GENERATOR IS TOWARD THE BUILDING. MAINTAIN 10' CLEAR BETWEEN THE BUILDING AND THE END OF THE PAD.
1. THE OWNER SHALL FURNISH THE 100YR BASE FLOOD ELEVATION AND EXISTING GRADE ELEVATION FOR THE SITE. THE TOP OF THE FUEL TANK SHALL BE SET AT 1' ABOVE THE 100YR BASE FLOOD ELEVATION.
- R2. NEW CONDUITS SHALL BE ROUTED OVERHEAD WITHIN THE BUILDING, THROUGH THE EXTERIOR WALL ADJACENT TO THE LOUVER, AND UNDERGROUND TO THE GENERATOR. CONDUITS WITHIN THE BUILDING AND ABOVE GRADE SHALL BE ALUMINUM RIGID CONDUIT. BELOW GRADE USE SCH.80 PVC.
- R3. PROVIDE A NEW 400A FEEDER FROM THE GENERATOR, TO THE AUTOMATIC TRANSFER SWITCH. PROVIDE 3/2" C W/4NO.500MCM, 1NO. 3(G). CONNECT TO THE NEW GENERATOR BREAKER. PROVIDE MOGUL LB ON BUILDING EXTERIOR AT WALL PENETRATION.
- R4. EXTEND AND CONNECT THE ENGINE COOLANT HEATER AND WINDING HEATER AUXILIARY CIRCUITS. CONNECT THE EXISTING BATTERY CHARGER CIRCUIT TO THE NEW BATTERY CHARGER. ROUTE WITH POWER FEEDER (NOTE R3). MAKE CONNECTIONS AS REQUIRED.
- R5. EXTEND SUPERVISED START/STOP AND ALARM CONDUCTORS FROM THE AUTOMATIC TRANSFER SWITCH TO THE NEW GENERATOR. PROVIDE 3/4" C W/3NO.12, 1NO.12(G). ROUTE WITH THE POWER FEEDER (NOTE R3). MAKE CONNECTIONS AS REQUIRED.
- R6. FURNISH AND INSTALL A NEW 200KW/250KVA 480Y/277V 3-PHASE 4-WIRE 0.8PF GENERATOR. PROVIDE WITH A 24 HOUR SUB-BASE FUEL TANK. PROVIDE WITH A 400A/3P BREAKER. PROVIDE WITH LEVEL II SOUND ATTENUATING ENCLOSURE 150MPH WIND RATING. ALUMINUM. FURNISH NEW CONCRETE FOUNDATION PAD PER DETAIL 1/EO.1.
- R7. PERFORM STARTUP TESTING. DEMONSTRATE A FULLY OPERATIONAL SYSTEM PRIOR TO FINAL ACCEPTANCE.
- R8. EXTEND NEW FEEDER FROM THE MAIN BREAKER TO THE AUTOMATIC TRANSFER SWITCH AND FROM THE ATS TO THE MCC. PROVIDE 3/2" C W/4NO.500MCM, 1NO.3(G).
- R9. EXTEND THREE 1" C CONDUITS FROM THE GENERATOR TO THE AUTOMATIC TRANSFER SWITCH FOR CONTROL AND ALARM ANNUNCIATION. FIELD COORDINATE WITH THE GENERATOR PROVIDED.
- R10. EXTEND 1" C W/CONDUCTORS FROM THE GENERATOR TO THE SCADA PANEL, AND FROM THE ATS TO THE SCADA PANEL. AS REQUIRED, FOR STATUS AND ALARM CONDITION ANNUNCIATION TO SCADA. FIELD COORDINATE WITH THE OWNER AND THE SCADA SYSTEM PROVIDER.



1 GENERATOR CONNECTION SCHEMATIC  
E3.1 SCALE: NONE

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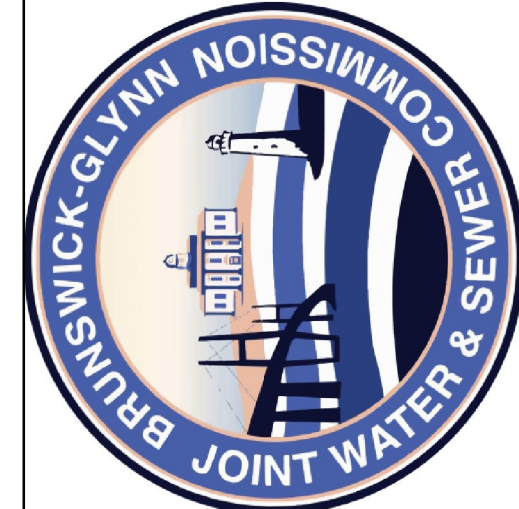
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Revisions	No.	Date	Description	By

BRUNSWICK-GLYNN JOINT  
WATER & SEWER COMMISSION  
GENERATOR REPLACEMENT  
PROJECT NO. 801

BRUNSWICK

GEORGIA



Sheet Title

FLETC WTP  
GENERATOR  
NOTES & DETAILS

Job No. 21030.00  
Drawn CC  
Checked PM  
Date 07-FEB-2022

E3.1  
Sheet No.



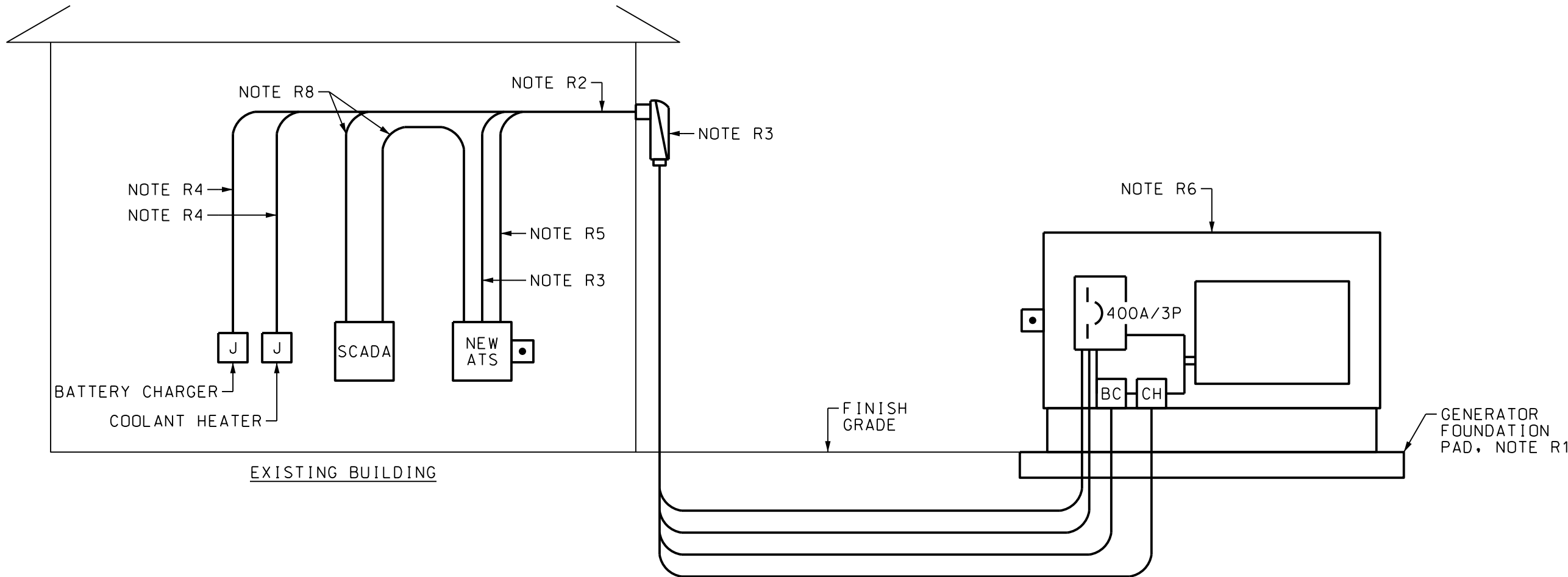


DEMOLITION NOTES:

- D1. DISCONNECT THE EXISTING 230KW/288KVA 480Y/277V 3-PHASE 4-WIRE GENERATOR. DEMOLISH THE EXISTING FEEDER TO THE ATS; DEMOLISH THE BATTERY CHARGER AND COOLANT HEATER CIRCUITS TO THEIR SOURCE. RETAIN THE BREAKERS FOR REUSE.
- D2. DEMOLISH THE EXISTING RADIATOR DUCT FROM THE GENERATOR. PATCH THE WALL PENETRATION WITH CONCRETE BLOCK AND PAINT TO MATCH THE SURROUNDING FINISHES.
- D3. DEMOLISH THE EXISTING INTAKE AIR LOUVER AND OPERATOR. PATCH THE WALL PENETRATION WITH CONCRETE BLOCK AND PAINT TO MATCH THE SURROUNDING FINISHES
- D4. BASE BID: REMOVE AND DISPOSE OF THE GENERATOR. THE GENERATOR SHALL BE REMOVED FROM THE BUILDING THROUGH THE LOUVER OPENING. DISPOSAL OF THE GENERATOR IS THE RESPONSIBILITY OF THE CONTRACTOR.
- ALTERNATE: REMOVE THE GENERATOR AND DELIVER IT TO A LOCATION DESIGNATED BY THE OWNER.
- D5. DISCONNECT AND REMOVE THE GENERATOR EXHAUST SYSTEM. PATCH THE WALL PENETRATION WITH CONCRETE BLOCK AND PAINT TO MATCH THE SURROUNDING FINISHES
- D6. REMOVE AND DISPOSE OF THE EXISTING AUTOMATIC TRANSFER SWITCH.

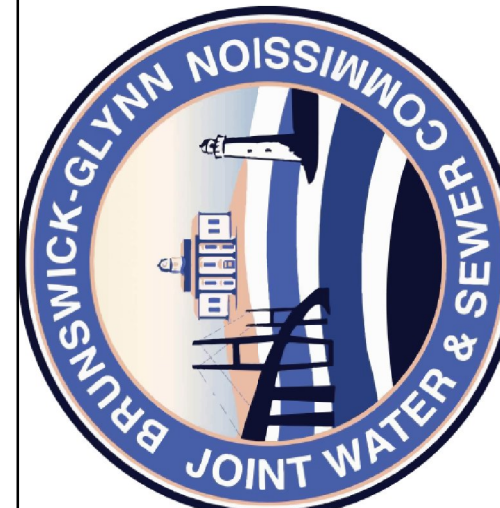
RENOVATION NOTES:

- R1. FURNISH AND INSTALL NEW GENERATOR FOUNDATION PAD PER DETAIL 1/E0.1. FIELD COORDINATE THE LOCATION OF THE GENERATOR OUTSIDE OF THE EXISTING BUILDING WITH THE OWNER. MAINTAIN A MINIMUM OF 10' FROM THE BUILDING, RELATIVELY NEAR THE AUTOMATIC TRANSFER SWITCH; FIELD COORDINATE THE PAD LOCATION WITH ANY UNDERGROUND UTILITIES. ORIENT THE PAD SUCH THAT THE CONTROL END OF THE GENERATOR IS TOWARD THE AUTOMATIC TRANSFER SWITCH.
1. THE OWNER SHALL FURNISH THE 100YR BASE FLOOD ELEVATION AND EXISTING GRADE ELEVATION FOR THE SITE. THE TOP OF THE FUEL TANK SHALL BE SET AT 1' ABOVE THE 100YR BASE FLOOD ELEVATION.
- R2. NEW CONDUITS SHALL BE ROUTED OVERHEAD WITHIN THE BUILDING, THROUGH THE EXTERIOR WALL, AND UNDERGROUND TO THE GENERATOR. CONDUITS WITHIN THE BUILDING AND ABOVE GRADE SHALL BE ALUMINUM RIGID CONDUIT. BELOW GRADE USE SCH-80 PVC.
- R3. FURNISH AND INSTALL A NEW 400A/3P AUTOMATIC TRANSFER SWITCH. EXTEND 4" C W/ 4NO.600MCM, 1NO.3(G) FROM THE AUTOMATIC TRANSFER SWITCH TO THE NEW GENERATOR. PROVIDE MOGUL LB ON BUILDING EXTERIOR AT WALL PENETRATION.
- R4. EXTEND AND CONNECT THE ENGINE COOLANT HEATER AND WINDING HEATER AUXILIARY CIRCUITS. CONNECT THE EXISTING BATTERY CHARGER CIRCUIT TO THE NEW BATTERY CHARGER. ROUTE WITH POWER FEEDER (NOTE R3). MAKE CONNECTIONS AS REQUIRED. PROVIDE 3/4" C W/2NO.12, 1NO.12(G) FOR EACH CIRCUIT.
- R5. EXTEND NEW SUPERVISED START/STOP CIRCUIT FROM THE ATS TO THE GENERATOR.
- A. PROVIDE 3/4" C W/3NO.12, 1NO.12(G).
- EXTEND NEW ALARM CONDUCTORS FROM THE GENERATOR TO THE ATS. PROVIDE TWO 1" C W/ CONDUCTORS AS REQUIRED. ROUTE WITH THE POWER FEEDER (NOTE R3). MAKE CONNECTIONS AS REQUIRED.
- R6. FURNISH AND INSTALL A NEW 230KW/288KVA 480Y/277V 3-PHASE, 4-WIRE 0.8PF GENERATOR. PROVIDE WITH A 24 HOUR SUB-BASE FUEL TANKS; FURNISH WITH A SOUND ATTENUATING HOUSING; LEVEL II, 150MPH WIND RATING, ALUMINUM. PROVIDE WITH A 400A/3P BREAKER.
- R7. PERFORM STARTUP TESTING. DEMONSTRATE A FULLY OPERATIONAL SYSTEM PRIOR TO FINAL ACCEPTANCE.
- R8. EXTEND 1" C W/CONDUITS FROM THE GENERATOR TO THE SCADA PANEL, AND FROM THE ATS TO THE SCADA PANEL. AS REQUIRED, FOR STATUS AND ALARM CONDITION ANNUNCIATION TO SCADA. FIELD COORDINATE WITH THE OWNER AND THE SCADA SYSTEM PROVIDER.



1 GENERATOR CONNECTION SCHEMATIC  
E3.2 SCALE: NONE

Revisions	No.	Date	Description	By





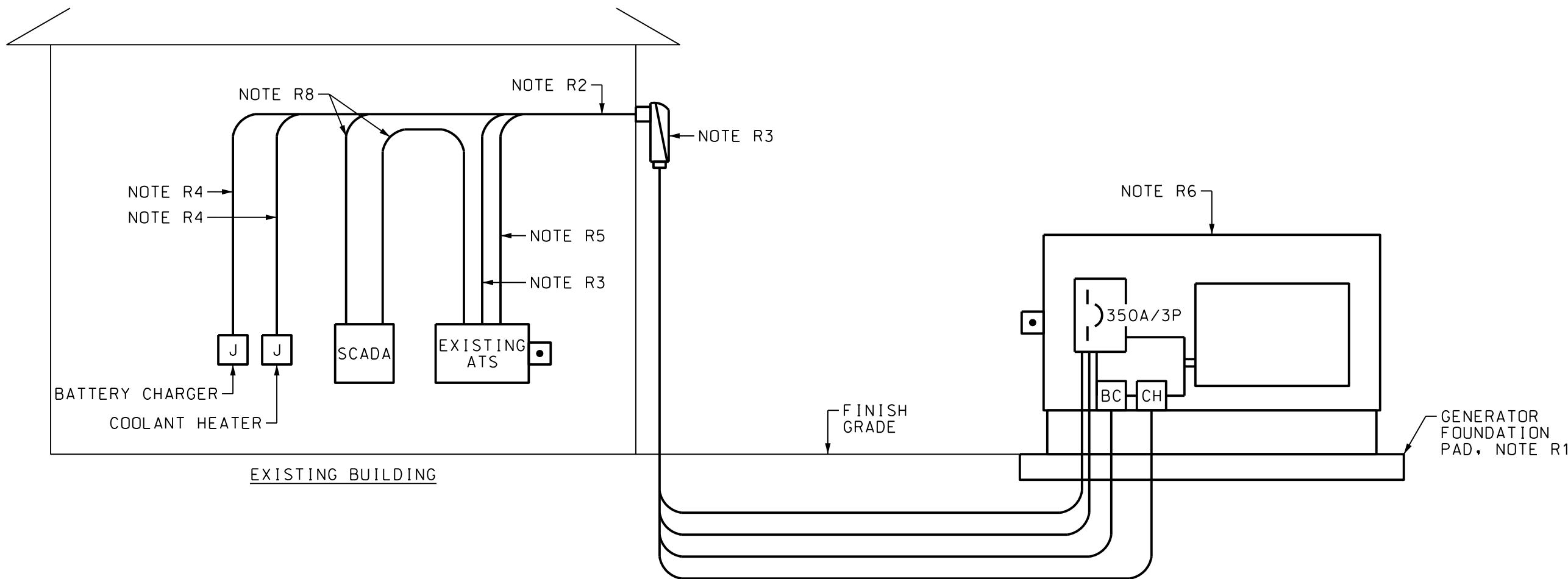


DEMOLITION NOTES

- D1. DISCONNECT THE EXISTING 175KW/219KVA 480Y/277V 3-PHASE 4-WIRE GENERATOR. DEMOLISH FEEDER, CONTROL AND ALARM CIRCUITS BACK TO THE AUTOMATIC TRANSFER SWITCH.
- D2. DISCONNECT THE EXISTING FUEL LINES FROM THE GENERATOR. REMOVE THE LINES FROM THE GENERATOR TO THE ABOVE-GROUND FUEL TANK OUTSIDE THE BUILDING. FUEL SHALL BE REMOVED BY THE OWNER UNLESS OTHERWISE INSTRUCTED.
- D3. REMOVE AND DISPOSE OF THE EMPTY FUEL TANK.
- D4. DISCONNECT AND CAP THE DOMESTIC WATER LINES TO THE GENERATOR FOR ENGINE COOLING.
- D5. DISCONNECT AND REMOVE THE GENERATOR ENGINE EXHAUST SYSTEM. PROVIDE FLASHING TO SEAL WALL PENETRATION.
- D6. DISCONNECT THE EXISTING BATTERY CHARGER CIRCUIT. DELIVER THE BATTERY CHARGER TO THE OWNER. DEMOLISH BACK TO STRUCTURE. RETAIN THE EXISTING BRANCH CIRCUIT FOR REUSE. PROVIDE A 4" SQUARE JUNCTION BOX AT THE TERMINATION POINT/STRUCTURE.
- D7. DISCONNECT THE EXISTING ENGINE COOLANT HEATER CIRCUIT. DEMOLISH BACK TO STRUCTURE. RETAIN THE EXISTING BRANCH CIRCUIT FOR REUSE. PROVIDE A 4" SQUARE JUNCTION BOX TO TERMINATE CONDUCTORS AT STRUCTURE.
- D8. REMOVE THE EXISTING GENERATOR FROM THE SITE. DISPOSAL OF THE GENERATOR SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

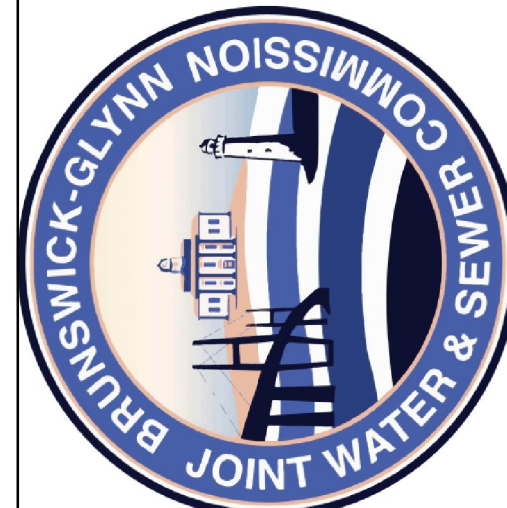
RENOVATION NOTES

- R1. FURNISH AND INSTALL NEW GENERATOR FOUNDATION PER DETAIL 1/E0.1. FIELD LOCATE THE PAD AT THE CORNER OF THE BUILDING AT THE EXISTING GENERATOR ROOM AIR LOUVER. FIELD COORDINATE THE PAD LOCATION WITH GEORGIA POWER AND THE UNDERGROUND PRIMARY FEEDER TO THE PAD MOUNTED TRANSFORMER. ORIENT THE PAD SUCH THAT THE CONTROL END OF THE GENERATOR IS TOWARD THE BUILDING. MAINTAIN 10' CLEAR BETWEEN THE BUILDING AND THE END OF THE PAD.
1. THE OWNER SHALL FURNISH THE 100YR BASE FLOOD ELEVATION AND EXISTING GRADE ELEVATION FOR THE SITE. THE TOP OF THE FUEL TANK SHALL BE SET AT 1' ABOVE THE 100YR BASE FLOOD ELEVATION.
- R2. NEW CONDUITS SHALL BE ROUTED OVERHEAD WITHIN THE BUILDING, THROUGH THE EXTERIOR WALL ADJACENT TO THE LOUVER, AND UNDERGROUND TO THE GENERATOR. CONDUITS WITHIN THE BUILDING AND ABOVE GRADE SHALL BE ALUMINUM RIGID CONDUIT, BELOW GRADE USE SCH.80 PVC.
- R3. EXTEND 3 1/2" C W/4NO.500MCM, 1NO.3(G) FROM THE AUTOMATIC TRANSFER SWITCH TO THE NEW GENERATOR. PROVIDE MOGUL LB ON BUILDING EXTERIOR AT WALL PENETRATION.
- R4. EXTEND 3/4" C W/2NO.12, 1NO.12(G) FROM THE EXISTING BATTERY CHARGER CIRCUIT, AND SEPARATELY, FROM THE COOLANT HEATER CIRCUIT. ROUTE WITH POWER FEEDER (NOTE R3). MAKE CONNECTIONS AS REQUIRED.
- R5. EXTEND 3/4" C W/3NO.12 (START/STOP), 1NO.12(G) AND 1" C W/ 2NO.12 (COMMON ALARM), 4NO.12 (SPARE), 1NO.12(G) FROM THE AUTOMATIC TRANSFER SWITCH TO THE GENERATOR. ROUTE WITH THE POWER FEEDER (NOTE R3). MAKE CONNECTIONS AS REQUIRED.
- R6. FURNISH AND INSTALL A NEW 175KW/219KVA 480Y/277V 3-PHASE 4-WIRE DIESEL GENERATOR, IN A LEVEL 11 SOUND ATTENUATING WEATHER ENCLOSURE, WITH A 24HR SUPPLY SUB-BASE TANK AND A 350A/3P MAIN CIRCUIT BREAKER. CONNECT POWER FEEDER, ALARM, CONTROL, BATTERY CHARGER AND COOLANT HEATER CIRCUITS AS REQUIRED. DEMONSTRATE FULLY OPERATIONAL SYSTEM, INCLUDING ALARM ANNUNCIATION, PRIOR TO FINAL ACCEPTANCE.
- R7. PERFORM STARTUP TESTING. DEMONSTRATE A FULLY OPERATIONAL SYSTEM PRIOR TO FINAL ACCEPTANCE.
- R8. EXTEND 1" C W/CONDUCTORS FROM THE GENERATOR TO THE SCADA PANEL, AND FROM THE EXISTING ATS TO THE SCADA PANEL, AS REQUIRED. FOR STATUS AND ALARM CONDITION ANNUNCIATION TO SCADA. FIELD COORDINATE WITH THE OWNER AND THE SCADA SYSTEM PROVIDER.



1 GENERATOR CONNECTION SCHEMATIC  
E3.3 SCALE: NONE

Revisions	No.	Date	Description	By





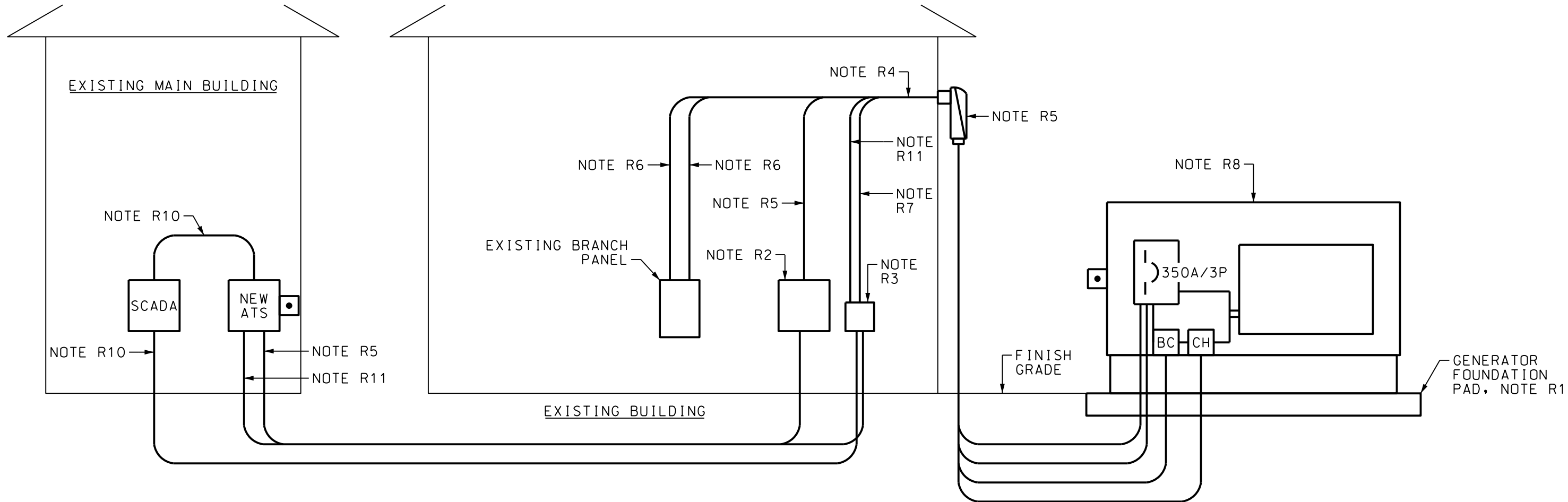


DEMOLITION NOTES

- D1. DISCONNECT THE EXISTING 215KW/269KVA 480Y/277V 3-PHASE 4-WIRE GENERATOR. REMOVE THE EXISTING FEEDER TO THE ATS. REMOVE THE AUXILIARY AND CONTROL CIRCUITS. RETAIN THE BRANCH BREAKERS FOR REUSE.
- D2. DISCONNECT THE EXISTING FUEL LINES TO THE GENERATOR. COORDINATE WITH THE OWNER FOR DEMOLITION OF THE FUEL LINES, DAY TANK, AND LINES FROM THE UNDERGROUND STORAGE TANKS.
- D3. REMOVAL OF FUEL AND DISPOSITION OF THE UNDERGROUND TANKS SHALL BE BY THE OWNER.
- D4. DISCONNECT AND CAP THE DOMESTIC WATER LINES TO THE GENERATOR FOR ENGINE COOLING.
- D5. DISCONNECT AND REMOVE THE GENERATOR ENGINE EXHAUST SYSTEM. PROVIDE FLASHING TO SEAL WALL PENETRATION.
- D6. DISCONNECT THE EXISTING BATTERY CHARGER CIRCUIT. DELIVER THE BATTERY CHARGER TO THE OWNER. RETAIN THE EXISTING BRANCH CIRCUIT FOR REUSE. PROVIDE A 4" SQUARE JUNCTION BOX AT THE CHARGER LOCATION.
- D7. DISCONNECT THE EXISTING ENGINE COOLANT HEATER CIRCUIT. RETAIN THE EXISTING BRANCH CIRCUIT FOR REUSE. PROVIDE A 4" SQUARE JUNCTION BOX TO TERMINATE CONDUCTORS.
- D8. REMOVE THE GENERATOR FROM THE SITE. DISPOSAL OF THE GENERATOR SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

RENOVATION NOTES

- R1. FURNISH AND INSTALL NEW GENERATOR FOUNDATION PER DETAIL 1/E0.1. FIELD LOCATE THE PAD ALONG THE FENCE TO THE RIGHT OF THE BUILDING AND PARKING AREA. MAINTAIN 4' MIN. FROM THE EDGE OF THE PAD TO THE FENCE FOR MAINTENANCE AND DOOR SWING. ORIENT THE PAD SUCH THAT THE CONTROL END OF THE GENERATOR IS TOWARD THE BUILDING. MAINTAIN 10' CLEAR BETWEEN THE BUILDING AND THE EDGE OF THE PAD.
  - 1. THE OWNER SHALL FURNISH THE 100YR BASE FLOOD ELEVATION AND EXISTING GRADE ELEVATION FOR THE SITE. THE TOP OF THE FUEL TANK SHALL BE SET AT 1" ABOVE THE 100YR BASE FLOOD ELEVATION.
- R2. PROVIDE A 24"x24"x8", NEMA 1, SCREW-COVER, GALVANIZED STEEL PULL BOX. MOUNT ON FEEDER STUB UP TO DEMOLISHED GENERATOR. PROVIDE HOT DIPPED GALVANIZED B22 TYPE CHANNEL FRAME ANCHORED TO THE FLOOR FOR SUPPORT OF THE BOX.
- R3. PROVIDE A 8"x8"x4", NEMA 1, SCREW-COVER, GALVANIZED STEEL JUNCTION BOX. MOUNT ON THE CONTROL CONDUIT STUB UP TO THE DEMOLISHED GENERATOR. PROVIDE HOT DIPPED GALVANIZED STEEL B22 TYPE CHANNEL FRAME ANCHORED TO THE FLOOR FOR SUPPORT OF THE BOX.
- R4. NEW CONDUITS SHALL BE ROUTED OVERHEAD WITHIN THE BUILDING, THROUGH THE EXTERIOR WALL TOWARDS THE FENCE, AND UNDERGROUND TO THE GENERATOR. CONDUITS WITHIN THE BUILDING AND ABOVE GRADE SHALL BE ALUMINUM RIGID CONDUIT, BELOW GRADE USE SCH-80 PVC.
- R5. EXTEND 3 1/2" W/4NO.500MCM, 1NO.3(G) FROM THE JUNCTION BOX (NOTE R2) TO THE NEW GENERATOR. PROVIDE MOGUL LB ON BUILDING EXTERIOR AT WALL PENETRATION. INSTALL THE NEW FEEDER, WITHOUT SPLICES THROUGH THE PULL BOX AND TO THE ATS.
- R6. EXTEND 3/4" W/2NO.12, 1NO.12(G) FROM THE EXISTING BATTERY CHARGER CIRCUIT AND SEPARATELY, FROM THE COOLANT HEATER CIRCUIT. ROUTE WITH POWER FEEDER (NOTE R5). MAKE CONNECTIONS AS REQUIRED.
- R7. EXTEND 1" C W/2NO.12 (COMMON ALARM), 4NO.12 (SPARE), 1NO.12(G) FROM THE JUNCTION BOX (NOTE R3) TO THE GENERATOR. ROUTE WITH THE POWER FEEDER (NOTE R5). MAKE CONNECTIONS AS REQUIRED.
- R8. FURNISH AND INSTALL A NEW 215KW/269KVA 480Y/277V 3-PHASE 4-WIRE DIESEL GENERATOR. IN A LEVEL II SOUND ATTENUATING WEATHER ENCLOSURE, WITH A 24HR SUPPLY SUB-BASE TANK AND A 350A/3P MAIN CIRCUIT BREAKER. CONNECT POWER FEEDER, ALARM, CONTROL, BATTERY CHARGER AND COOLANT HEATER CIRCUITS AS REQUIRED. DEMONSTRATE FULLY OPERATIONAL SYSTEM, INCLUDING ALARM ANNUNCIATION, PRIOR TO FINAL ACCEPTANCE.
- R9. PERFORM STARTUP TESTING. DEMONSTRATE A FULLY OPERATIONAL SYSTEM PRIOR TO FINAL ACCEPTANCE.
- R10. EXTEND CONDUTORS AS REQUIRED, IN EXISTING CONDUIT, FROM THE GENERATOR TO THE SCADA PANEL, AND 1" C W/CONDUCTORS AS REQUIRED FROM THE ATS TO THE SCADA PANEL, FOR STATUS AND ALARM CONDITION ANNUNCIATION TO SCADA. FIELD COORDINATE WITH THE OWNER AND THE SCADA SYSTEM PROVIDER.
- R11. EXTEND 3NO.12, 1NO.12(G) FROM THE GENERATOR TO THE ATS FOR THE SUPERVISED START/STOP CONTROL. INSTALL IN EXISTING CONDUIT FROM THE JUNCTION BOX TO THE ATS. INSTALL IN 3/4" C FROM THE JUNCTION BOX TO THE GENERATOR.

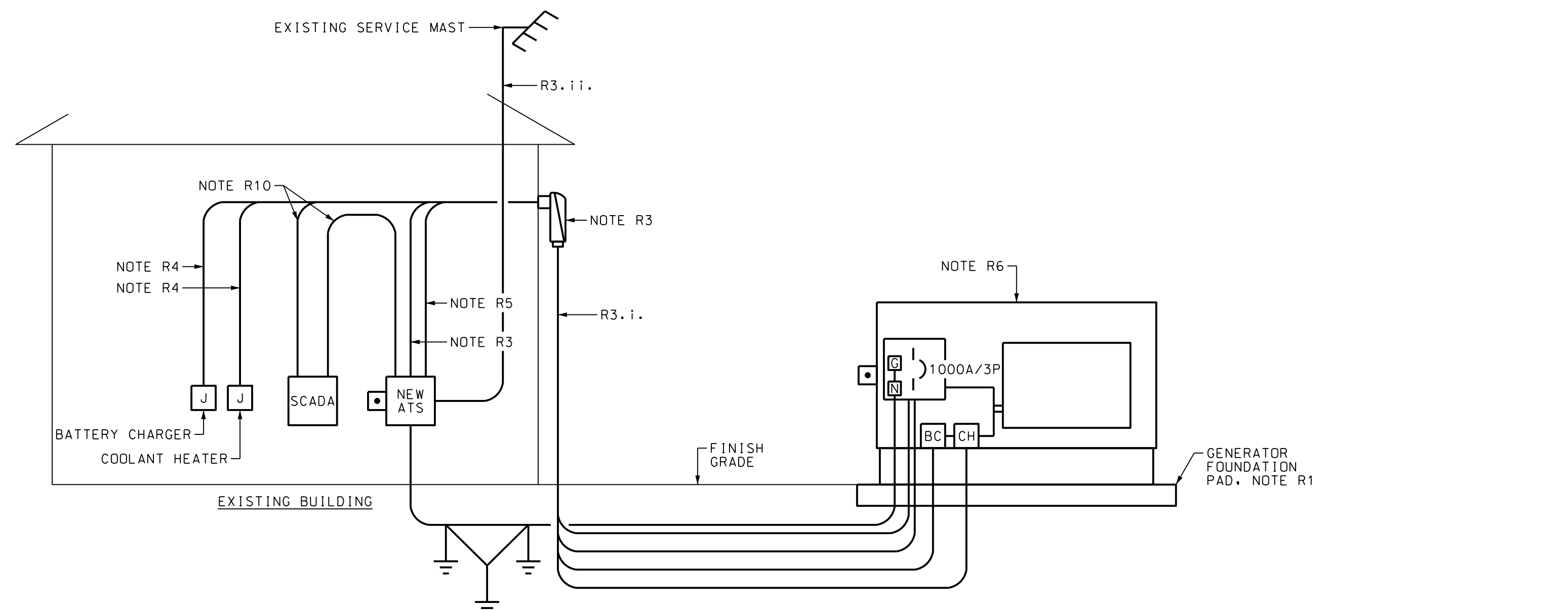


1 GENERATOR CONNECTION SCHEMATIC  
E3.4 SCALE: NONE

Revisions	No.	Date	Description	By







## 1 GENERATOR CONNECTION SCHEMATIC

DEMOLITION NOTES:

- D1. DISCONNECT THE EXISTING 300KW/375KVA 240/120V 3-PHASE 4-WIRE DELTA GENERATOR. REMOVE THE EXISTING FEEDER, CONTROL AND AUXILIARY CIRCUIT WIRING. RETAIN THE CONDUITS FOR REUSE.
- D2. DISCONNECT THE EXISTING FUEL LINES TO THE GENERATOR. COORDINATE WITH THE OWNER FOR DEMOLITION OF THE LINES TO THE EXISTING UNDERGROUND STORAGE TANK.
- D3. REMOVAL OF FUEL AND DISPOSITION OF THE UNDERGROUND TANK SHALL BE BY THE OWNER.
- D4. REMOVE THE EXISTING GENERATOR FROM THE SITE. DISPOSAL OF THE GENERATOR SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- D5. DEMOLISH THE EXISTING GENERATOR FOUNDATION PAD. PROTECT THE FEEDER, CONTROL, BATTERY CHARGER AND COOLANT HEATER CONDUITS FROM DAMAGE.
- D6. REMOVE THE EXISTING AUTOMATIC TRANSFER SWITCH FROM THE SITE. DISPOSAL OF THE GENERATOR SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- D7. REMOVE AND DISPOSE OF AUTOMATIC TRANSFER SWITCH

## RENOVATION NOTES:

1. FURNISH AND INSTALL A NEW GENERATOR FOUNDATION PAD PER DETAIL 1/E0-1.1. THE NEW PAD SHALL BE IN THE SAME LOCATION AS THE EXISTING. FIELD COORDINATE LOCATION OF THE EXISTING FUEL TANK CONTROL AND ALARM CONDUIT STUB-UPS WITH THE NEW GENERATOR.
  - i. THE OWNER SHALL FURNISH THE 100YR BASE FLOOD ELEVATION AND EXISTING GRADE ELEVATION FOR THE SITE. THE TOP OF THE FUEL TANK SHALL BE SET AT 1' ABOVE THE 100YR BASE FLOOD ELEVATION.
2. NEW CONDUITS SHALL BE ROUTED OVERHEAD WITHIN THE BUILDING, THROUGH THE EXTERIOR WALL ADJACENT TO THE LOUVER, AND UNDERGROUND TO THE GENERATOR. CONDUITS WITHIN THE BUILDING AND ABOVE GROUND SHALL BE ALUMINUM RIGID CONDUIT, BELOW GRADE USE SCH.80 PVC.
3. FURNISH AND INSTALL A NEW 1000A/4P SERVICE ENTRANCE TYPE AUTOMATIC TRANSFER SWITCH.
  - i. EXTEND THREE SETS OF 3" C W/ 4NO.400CMC, 1NO.2/0(G) FROM THE AUTOMATIC TRANSFER SWITCH TO THE NEW GENERATOR. PROVIDE MOGUL LB FITTINGS ON BUILDING EXTERIOR AT WALL PENETRATION.
  - ii. PROVIDE NEW SERVICE ENTRANCE CONDUCTORS: THREE SETS OF 4NO.400CMC IN THE EXISTING SERVICE CONDUITS. EXTEND AND MODIFY CONDUITS AS REQUIRED TO CONNECT TO NEW ATS. COORDINATE WORK WITH GEORGIA POWER.
4. EXTEND AND CONNECT THE ENGINE COOLANT HEATER AND WINDING HEATER AUXILIARY CIRCUITS. CONNECT THE EXISTING BATTERY CHARGER CIRCUIT TO THE NEW BATTERY CHARGER. ROUTE WITH POWER FEEDER (NOTE R3). MAKE CONNECTIONS AS REQUIRED.
5. EXTEND SUPERVISED START/STOP CONTROL CONDUCTORS FROM THE NEW ATS TO THE GENERATOR. PROVIDE 3" C W/3NO.12, 1NO.12(G). EXTEND NEW ALARM CONDUCTORS FROM THE AUTOMATIC TRANSFER SWITCH TO THE NEW GENERATOR. PROVIDE 1" C W/CONDUCTORS AS REQUIRED. ROUTE WITH THE POWER FEEDER (NOTE R3). MAKE CONNECTIONS AS REQUIRED.
6. FURNISH AND INSTALL A NEW 300KW/375KVA 240/120V 3-PHASE 4-WIRE DELTA 0.8PF DIESEL GENERATOR WITH A 24 HOUR SUPPLY SUB IN THE FUEL TANK. PROVIDE GENERATOR WITH A 1000A/3P BREAKER. FURNISH WITH A LEVEL II SOUND ATTENUATING ENCLOSURE.
7. PERFORM STARTUP TESTING, DEMONSTRATE A FULLY OPERATIONAL SYSTEM PRIOR TO FINAL ACCEPTANCE.
8. PROVIDE GROUNDING DELTA BETWEEN THE GENERATOR AND THE BUILDING. BOND THE NEUTRAL OF THE GENERATOR AS A SEPARATELY DERIVED SOURCE TO THE DELTA. PROVIDE BONDING JUMPER BETWEEN THE GENERATOR NEUTRAL AND GROUND(FRAME).
  - i. EXTEND 1" SCH.80 PVC W/1NO.3/0(G) FROM THE GENERATOR NEUTRAL BUS TO THE GROUNDING DELTA.
9. PROVIDE NEW SERVICE BONDING AND GROUNDING AT THE NEW ATS. REFER TO NOTE R8.
10. EXTEND 1" C W/CONDUCTORS FROM THE GENERATOR TO THE SCADA PANEL. ADD NEW FEEDLATS TO THE SCADA PANEL. AS REQUIRED, FOR STATUS AND ALARM CONDITION ANNUNCIATION TO SCADA. FIELD COORDINATE WITH THE OWNER AND THE SCADA SYSTEM PROVIDER.