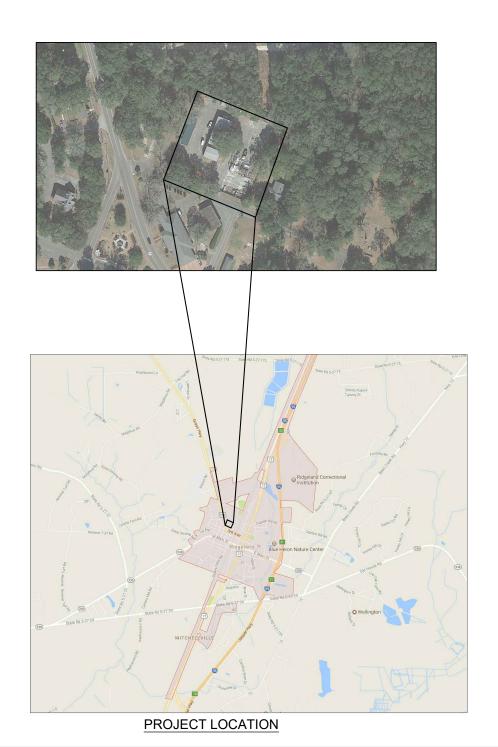
# GENERAL SERVICES BUILDING GENERATOR EQUIPMENT INSTALLATION TOWN OF RIDGELAND RIDGELAND, SOUTH CAROLINA

TOR 2021-01 (A)





#### **MAYOR**

JOSEPH N. MALPHRUS, JR

### **MAYOR PRO TEMPORE**

**TOMMY RHODES** 

### **COUNCIL MEMBERS**

JOSEPHINE BOYLES **CHRIS DUBOSE GRADY WOODS** 

#### **TOWN ADMINISTRATOR**

DENNIS E. AVERKIN

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DATE:	MARCH 2021	
ISSUE:	100%	

PREPARED BY





COVER AND SHEET INDEX

**COVER** 

#### GENERAL NOTES:

- THE CONTRACTOR SHALL PROTECT ALL BENCHMARKS AND MONUMENTS FROM DAMAGE AND SHALL ESTABLISH OFFSET POINTS AS REQUIRED FOR THIS WORK. THE CONTRACTOR IS
  RESPONSIBLE FOR THE LAYOUT OF ALL SCHEDULED IMPROVEMENTS AS SHOWN ON THE CONTRACT DRAWINGS.
- ALL CONSTRUCTION THAT PERTAINS TO WATER AND SEWER SHALL CONFORM TO THE TOWN OF RIDGELAND STANDARD SPECIFICATIONS FOR WATER AND SEWER SYSTEMS, LATEST EDITION.
   ALL CONSTRUCTION THAT PERTAINS TO ROADWAY AND DRAINAGE THAT IS NOT SPECIFICALLY NOTED OR DETAILED IN THE CONSTRUCTION DRAWINGS SHALL CONFORM TO THE SCDOT SPECIFICATIONS. LATEST EDITION.
- 3. AVAILABLE INFORMATION AS TO THE LOCATION OF EXISTING UTILITIES HAS BEEN COLLECTED FROM VARIOUS SOURCES. THE RESULT OF SUCH INVESTIGATIONS, AS MAY BE SHOWN ON THE CONTRACT DRAWING, ARE NOT GUARANTEED AS TO ACCURACY OR COMPLETENESS. ALL EXISTING UTILITIES ARE SHOWN FOR INFORMATION ONLY. THE CONTRACTOR SHALL CONTACT THE LOCAL UTILITY MARK-OUT SERVICE PROVIDER AND VERIFY AREA OF ALL UTILITIES (AS NECESSARY) PRIOR TO COMMENCING WORK.
- 4. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE AND PROTECT ANY EXISTING ABOVEGROUND AND UNDERGROUND UTILITIES, CONDUITS, STRUCTURES, EQUIPMENT, FOUNDATIONS, PIPE, ETC. AS NECESSARY TO COMPLETE THE PROJECT. THE CONTRACTOR SHALL NOTIFY THE OWNER'S OF THE UTILITY 72 HOURS PRIOR TO STARTING WORK AND SHALL BEAR ALL COSTS ASSOCIATED WITH SAME. VARIOUS UTILITIES MAY NEED TO BE RESET BY THE AFFECTED UTILITY COMPANY. THE CONTRACTOR SHALL COORDINATE HIS WORK WITH THAT OF THE UTILITY COMPANY TO AVOID DELAYS. NO EXTENSION OF TIME WILL BE PROVIDED DUE TO THE LACK OF COORDINATION BY THE CONTRACTOR. THE CONTRACTOR SHALL PERFORM TEST PITS WHERE EXISTING UTILITIES ARE TO BE CROSSED. TEST PIT INFORMATION SHALL BE GIVEN TO THE TOWN ENGINEER PRIOR TO CONSTRUCTION TO PERMIT ADJUSTMENTS AS MAY BE REQUIRED TO AVOID CONFLICTS.
- 5. THE CONTRACTOR SHALL BE RESPONSIBLE TO CONSTRUCT ALL IMPROVEMENTS WITHIN SCDOT AND TOWN R.O.W.'S AND EASEMENTS. ALL SURVEY LAYOUT VERIFYING THE EXACT LOCATION OF THE R.O.W.'S SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. ALL COSTS FOR SAME SHALL BE INCLUDED WITHIN THE VARIOUS BID ITEMS.
- 6. THE CONTRACTOR SHALL TAKE CARE IN MAINTAINING ALL LANDSCAPING AND YARD STRUCTURES WITHIN THE CONSTRUCTION LIMITS AS NECESSARY PER PROJECT. WHEN RELOCATION IS NECESSARY OR WHERE ANY DAMAGE IS DONE TO SAID ITEMS THEY SHALL BE RESTORED BY THE CONTRACTOR, AT HIS EXPENSE, TO THE SATISFACTION OF THE TOWN ENGINEER.
- 7. ANY CONCRETE DRIVEWAY, WALKWAY, OR CURB WHICH IS NOT SHOWN, DIRECTED, OR MARKED OUT BY THE ENGINEER TO BE REPLACED, BUT IS REMOVED, MISALIGNED OR DAMAGED AS A RESULT OF THE CONTRACTOR'S CONSTRUCTION SHALL BE REPLACED BY THE CONTRACTOR PER DETAILS IN THE CONSTRUCTION DRAWINGS OR (IF NOT INDICATED IN THE CONSTRUCTION DRAWINGS) SCDOT STANDARDS AT NO ADDITIONAL COSTS TO THE OWNER.
- 8. THE CONTRACTOR SHALL ENSURE THAT POSITIVE DRAINAGE AWAY FROM BUILDINGS AND ALONG ROAD GUTTERS IS MAINTAINED AT ALL LOCATIONS DISTURBED WITH IN THE PROJECT LIMITS.
- 9. IF IT SHALL BECOME ABSOLUTELY NECESSARY TO PERFORM WORK AT NIGHT, THE TOWN SHALL BE INFORMED IN ADVANCE. GOOD LIGHTING AND ALL OTHER NECESSARY FACILITIES FOR PROPERLY CARRYING OUT AND INSPECTING THE WORK SHALL BE PROVIDED BY THE CONTRACTOR. THE CONTRACTOR SHALL ALSO COMPLY WITH ALL STATE AND LOCAL REGULATIONS GOVERNING HOURS DURING WHICH CONSTRUCTION EQUIPMENT MAY BE OPERATED. NIGHT WORK MAINTENANCE OF TRAFFIC INCLUDING PEDESTRIAN MUST BE SET UP AND MAINTAINED DURING NIGHT WORK AND IS THE RESPONSIBILITY OF THE CONTRACTOR.
- 10. OPEN TRENCHES SHALL BE KEPT TO A MINIMUM. NO EXCAVATION AREAS ARE TO REMAIN OPEN OVERNIGHT. BITUMINOUS STABILIZED BASE COURSE SHALL BE PLACED IN ALL TRENCH AREAS WITHIN THE ROADWAY AT THE END OF EACH DAYS WORK.
- 11. IN THE EVENT A SITUATION ARISES IN WHICH MATERIALS NOT SPECIFIED ON THE PLANS ARE TO BE USED FOR EXTRA WORK, THEN THE MATERIALS SHALL CONFORM TO THE TOWN OF RIDGELAND STANDARD SPECIFICATIONS FOR WATER AND SEWER SYSTEMS AND SCDOT SPECIFICATIONS FOR ROADWAY AND DRAINAGE SYSTEMS.
- 12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DISPOSAL OF ALL MATERIALS EXCAVATED OF WHATEVER NATURE AT HIS OWN EXPENSE. THE OWNER IS NOT OBLIGATED TO SUPPLY A DISPOSAL SITE. THE CONTRACTOR CANNOT DEPOSIT ANY OF THE EXCESS MATERIALS WITHIN TOWN LIMITS WITHOUT THE EXPRESS PERMISSION OF THE TOWN. MATERIALS MUST BE DISPOSED OF IN ACCORDANCE WITH ALL STATE REGULATIONS REGARDING SAME.
- 13. ALL STRUCTURES SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS AND DETAILS.
- 14. PROTECTION OF EXISTING TREES WITHIN THE LIMITS OF DISTURBANCE SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE TOWN ENGINEER SHALL DETERMINE IN THE FIELD OR ON THE CONSTRUCTION PLANS WHICH TREES REQUIRE TREE PROTECTION PER PROJECT AS NECESSARY. NO CONSTRUCTION EQUIPMENT OR SUPPLIES SHALL BE STOCKPILED OR STORED WITHIN THE DRIP LINE OF ANY EXISTING TREE TO REMAIN.
- 15. ALL PROPERTY CORNERS OR MONUMENTS REMOVED OR DAMAGED DURING CONSTRUCTION SHALL BE REPLACED BY A SOUTH CAROLINA LICENSED LAND SURVEYOR, AT NO ADDITIONAL COST TO THE OWNER.
- 16. THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO MAINTAIN DUST CONTROL AS REQUIRED OR DIRECTED BY THE TOWN ENGINEER. ALL VEHICLES SHALL BE CLEAN AND ALL ROADWAYS SHALL BE MAINTAINED AS DIRECTED BY THE TOWN ENGINEER.
- 17. ALL DISTURBED PAVEMENT MARKINGS AND SIGNS SHALL BE RESTORED AND SHALL CONFORM TO THE SCDOT STANDARDS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE ALL EXISTING PAVEMENT MARKINGS. CONTRACTOR SHALL NOTIFY TOWN ENGINEER AND SCDOT (AS NECESSARY) WHEN TRAFFIC STRIPES AND PAVEMENT MARKINGS HAVE BEEN LAID OUT PRIOR TO PAINTING. THE TOWN ENGINEER AND/OR SCDOT (AS NECESSARY) WILL INSPECT AND APPROVE LAYOUT PRIOR TO CONTRACTOR PAINTING TRAFFIC STRIPES AND PAVEMENT MARKINGS.
- 18. THE CONTRACTOR IS RESPONSIBLE FOR THE CONSTRUCTION STEAKOUT. OFFSET LINES WITH STAKES SHALL BE SET AT APPROPRIATE INTERVALS TO FACILITATE CONSTRUCTION.
- 19. THE CONTRACTOR SHALL NOTIFY THE TOWN ENGINEER IMMEDIATELY IF ANY FIELD CONDITIONS ENCOUNTERED DIFFER FROM THOSE SHOWN HEREIN.
- 20. CONTRACTOR IS RESPONSIBLE FOR ALL NECESSARY PROJECT PERMITS INCLUDING SCDOT ENCROACHMENT PERMIT IF NECESSARY
- 21. THESE GENERAL NOTES SHALL APPLY FOR THE ENTIRE PROJECT.





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ENERAL NOTES

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**G-1** 

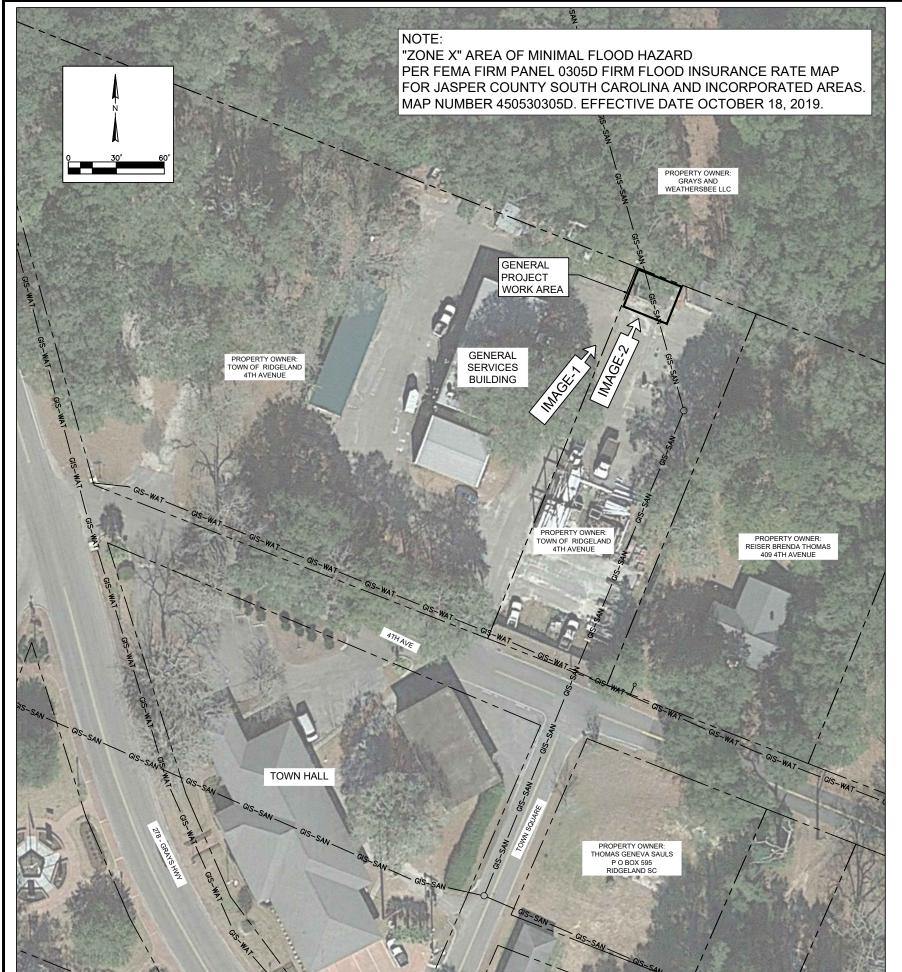




IMAGE-1 LOOKING NORTHEAST



IMAGE-2 LOOKING NORTHEAST



EXISTING CONDITIONS

EXISTIN

ABB SD JOB# 17-1007.007 ISSUE MARCH DATE 2021

JR WATERS AB JOB IN LE BEACH FLORIDA 32250

TUUK WI

C ENGINE

4 6th AVEN. JACKSONVILE BEACH.

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#### 1000 GALLON FUEL TANK REHABILITATION

- THE CONTRACTOR SHALL FURNISH ALL SUPERVISION, LABOR, TOOLS, MATERIALS, EQUIPMENT, SCAFFOLDING OR OTHER STRUCTURES, AND SUPERVISION REQUIRED FOR THE TRANSPORTATION, UNLOADING, STORAGE, AND APPLICATION OF THE PAINT/COATING AND ASSOCIATED PRODUCTS COVERED BY THIS SPECIFICATION
- THE CONTRACTOR SHALL PERFORM SURFACE PREPARATION AND APPLICATION OF THE PAINTING/COATING STRICTLY AS SPECIFIED HEREIN OR RECOMMENDED BY THE PAINTING/COATING MANUFACTURER OR THE MANUFACTURER'S REPRESENTATIVE FOR EACH ITEM AS SPECIFIED HEREIN OR
- ANY CODE REQUIRED LABELS, SUCH AS UNDERWRITERS' LABORATORIES AND FACTORY MUTUAL, OR ANY EQUIPMENT IDENTIFICATION, PERFORMANCE RATING, NAME OR NOMENCLATURE PLATES SHALL NOT BE PAINTED/COATED.

  BEFORE APPLICATION OF THE PRIME COAT AND EACH SUCCEEDING COAT, ALL SURFACES TO BE COATED SHALL BE SUBJECT TO INSPECTION BY THE
- OWNER'S REPRESENTATIVE OR THE COATING MANUFACTURER. ANY DEFECTS OR DEFICIENCIES SHALL BE CORRECTED BY THE CONTRACTOR BEFORE APPLICATION OF ANY SUBSEQUENT COATING.

  COATING THICKNESS SHALL BE DETERMINED BY THE USE OF A PROPERLY CALIBRATED "NORDSON-MIKROTEST" "POSITEST" COATING THICKNESS GAUGE
- (OR EQUAL) FOR FERROUS METAL OR AN OG232 "TOOKE" PAINT INSPECTION GAUGE (OR EQUAL) FOR NON-FERROUS AND CEMENTITIOUS SURFACES.
  PLEASE NOTE THAT USE OF THE "TOOKE" GAUGE IS CLASSIFIED AS A DESTRUCTIVE TEST AND REPAIRS DUE TO TESTING SHALL BE PERFORMED BY THE CONTRACTOR. THICKNESS TESTING SHALL BE PERFORMED IN THE PRESENCE OF THE OWNER'S REPRESENTATIVE.
- 6. ALL EQUIPMENT FOR APPLICATION OF THE PAINT AND THE COMPLETION OF THE WORK SHALL BE FURNISHED BY THE CONTRACTOR IN FIRST-CLASS CONDITION AND SHALL COMPLY WITH RECOMMENDATIONS OF THE PAINTING/COATING MANUFACTURER.
- ALL MATERIALS SPECIFIED HEREIN SHALL BE MANUFACTURED BY ONE OF THE SUPPLIERS LISTED IN BELOW. THESE PRODUCTS ARE SPECIFIED TO ESTABLISH STANDARDS OF QUALITY AND ARE APPROVED FOR USE ON THIS PROJECT. NO ALTERNATIVES WILL BE ACCEPTABLE.
- TNEMEC COMPANY, INC. 6800 CORPORATE DRIVE, KANSAS CITY, MO 64120 CARBOLINE COMPANY 2150 SCHUETZ ROAD, ST. LOUIS, MO 63146 CORROCOAT 6525 GREENLAND ROAD, JACKSONVILLE, FL 32258
- 8 COLORS WHERE NOT SPECIFIED SHALL MATCH AS CLOSE AS POSSIBLE TO THE EXISTING COLOR OF THE EXISTING FACILITIES OR AS SELECTED BY THE OWNER OR OWNER'S REPRESENTATIVE.

  THE SURFACE SHALL BE CLEANED AS SPECIFIED FOR THE PAINT SYSTEM BEING USED. ALL CLEANING SHALL BE AS OUTLINED IN THE STEEL STRUCTURES
- PAINTING COUNCIL'S SURFACE PREPARATION SPECIFICATION, UNLESS OTHERWISE NOTED, IF SURFACES ARE SUBJECT TO CONTAMINATION, OTHER THAN MILL SCALE OR NORMAL ATMOSPHERIC RUSTING. THE SURFACES SHALL BE PRESSURE WASHED, AND ACID OR CAUSTIC PHIRESIDLES. VEUTRALIZED, IN ADDITION TO THE SPECIFIED SURFACE PREPARATION. SURFACES CLOSE TO THE COAST SHALL BE CHECKED FOR CHLORIDE
- 10. ALL SURFACE PREPARATION DONE ON SITE SHALL USE SURFACE PREPARATION IN ACCORDANCE SSPC-SP1, SP2 AND/OR SP3 AS TO AVOID BLASTING ON-SITE, UNLESS SUITABLE AREA FOR BLASTING CAN BE PROVIDED ONSITE AND IS APPROVED BY OWNER, AND ALL PROPER PRECAUTIONS TAKEN BY
- 11. STANDARDS FOR SURFACE PREPARATION:
- SSPC-SP1 CHEMICAL AND/OR SOLVENT CLEANING: REMOVE ALL GREASE, OIL, SALT, ACID, ALKALI, DIRT, DUST, WAX, FAT, FOREIGN MATTER, AND CONTAMINANTS, ETC. BY ONE OF THE FOLLOWING METHODS: STEAM CLEANING, ALKALINE CLEANING, OR VOLATILE SOLVENT CLEANING.
   SSPC-SP2 HAND TOOL CLEANING: REMOVAL OF LOOSE RUST, LOOSE MILL SCALE, AND LOOSE PAINT TO A CLEAN SOUND SUBSTRATE BY HAND
- CHIPPING SCRAPING SANDING AND WIRE BRUSHING
- CHIPPING, SCRAFING, SANDING, AND WIRE BROSHING: SPC-SP3 POWER TOOL CLEANING: REMOVAL OF LOOSE RUST, LOOSE MILL SCALE, AND LOOSE PAINT TO A CLEAN SOUND SUBSTRATE BY POWER TOOL CHIPPING, DESCALING, SANDING, WIRE BRUSHING, AND GRINDING.
  SSPC-SP6 (NACE-3) COMMERCIAL GRADE BLAST CLEANING: COMPLETE REMOVAL OF ALL DIRT, RUST SCALE, MILL SCALE, FOREIGN MATTER, AND
- PREVIOUS COATINGS, ETC., LEAVING ONLY SHADOWS AND/OR STREAKS CAUSED BY RUST STAIN AND MILL SCALE OXIDES. AT LEAST 66% OF EACH SQUARE INCH OF SURFACE AREA IS TO BE FREE OF ALL VISIBLE RESIDUES, EXCEPT SLIGHT DISCOLORATION.
- SSPC-SPT (NACE-4) BRUSH-OFF BLAST CLEANING: REMOVAL OF RUST SCALE, LOOSE MILL SCALE, LOOSE RUST, AND LOOSE COATINGS, LEAVING TIGHTLY BONDED MILL SCALE, RUST AND PREVIOUS COATINGS. ON CONCRETE SURFACES, BRUSH-OFF BLAST CLEANING SHALL REMOVE ALL LATLANCE, FORM OILS, AND SOLID CONTAMINANTS, BLASTING SHOULD BE PERFORMED SUFFICIENTLY CLOSE TO THE SURFACE SO AS TO OPEN UP SURFACE VOIDS, BUG HOLES, AIR POCKETS, AND OTHER SUBSURFACE IRREGULARITIES, BUT SO AS NOT TO EXPOSE UNDERLYING AGGREGATE.
- 12. ALL WELD SEAMS, SHARP PROTRUSIONS, AND EDGES SHALL BE GROUND SMOOTH PRIOR TO SURFACE PREPARATION OR APPLICATION OF ANY
- a. MECHANICAL MIXERS. CAPABLE OF THOROUGHLY MIXING THE PIGMENT AND VEHICLE TOGETHER. SHALL MIX THE PAINT/COATING PRIOR TO USE WHERE REQUIRED BY MANUFACTURER'S INSTRUCTIONS; THOROUGH HAND MIXING WILL BE ALLOWED FOR SMALL AMOUNTS UP TO ONE (1) GALLON.
  PRESSURE POTS SHALL BE EQUIPPED WITH MECHANICAL MIXERS TO KEEP THE PIGMENT IN SUSPENSION, WHEN REQUIRED BY MANUFACTURER'S
  INSTRUCTIONS. OTHERWISE, INTERMITTENT HAND MIXING SHALL BE DONE TO ASSURE THAT NO SEPARATION OCCURS. ALL MIXING SHALL BE DONE IN ACCORDANCE WITH SSPC VOL. 1, CHAPTER 4, "PRACTICAL ASPECTS, USE AND APPLICATION OF PAINTS" AND/OR WITH MANUFACTURER'S RECOMMENDATIONS.

  b. CATALYSTS OR THINNERS SHALL BE AS RECOMMENDED BY THE MANUFACTURER AND SHALL BE ADDED OR DISCARDED STRICTLY IN ACCORDANCE
- WITH THE MANUFACTURER'S INSTRUCTION.

  14. PAINT SHALL BE APPLIED ONLY ON THOROUGHLY DRY SURFACES AND DURING PERIODS OF FAVORABLE WEATHER, UNLESS OTHERWISE ALLOWED BY THE PAINT/COATING MANUFACTURER. EXCEPT AS PROVIDED BELOW, PAINTING SHALL NOT BE PERMITTED WHEN THE ATMOSPHERIC TEMPERATURE IS BELOW 50° F, OR WHEN FRESHLY PAINTED SURFACES MAY BE DAMAGED BY RAIN, FOG, DUST, OR CONDENSATION, AND/OR WHEN IT CAN BE ANTICIPATED THAT THESE CONDITIONS WILL PREVAIL DURING THE DRYING PERIOD. NOTE SOME MATERIALS MAY HAVE A LOWER MINIMUM ATMOSPHERIC TEMPERATURE AND MANUFACTURER'S RECOMMENDATION SHALL BE FOLLOWED.

  15. DEW POINT: TEMPERATURE AT WHICH MOISTURE WILL CONDENSE ON SURFACE. NO COATINGS SHOULD BE APPLIED UNLESS SURFACE TEMPERATURE IS
- A MINIMUM OF 5° ABOVE THIS POINT TEMPERATURE MUST BE MAINTAINED DURING CURING
- EXAMPLE: IF AIR TEMPERATURE IS 70°F AND RELATIVE HUMIDITY IS 65%, THE DEW POINT IS 57°F. NO COATING SHOULD BE APPLIED UNLESS SURFACE
- TEMPERATURE IS 62°F MINIMUM. 16. NO COATINGS SHALL BE APPLIED UNLESS THE RELATIVE HUMIDITY IS BELOW 85%.
- THE PRIME COAT SHALL BE APPLIED IMMEDIATELY FOLLOWING SURFACE PREPARATION AND IN NO CASE LATER THAN THE SAME WORKING DAY, ALL PAINT SHALL BE APPLIED BY BRUSHING, PAINT MITT AND ROLLER, CONVENTIONAL SPRAYING, OR AIRLESS SPRAYING, USING EQUIPMENT APPROVED BY THE PAINT/COATING MANUFACTURER.
- 18. EACH COAT OF PAINT SHALL BE RECOATED AS PER MANUFACTURER'S INSTRUCTIONS. PAINT/COATING SHALL BE CONSIDERED RE-COATABLE WHEN AN ADDITIONAL COAT CAN BE APPLIED WITHOUT ANY DETRIMENTAL FILM IRREGULARITIES SUCH AS LIFTING OR LOSS OF ADHESION. FOLLOW THE
- MANUFACTURES PRINTED RECOAT TIMES. 19. THE CONTRACTOR SHALL GUARANTEE THE WORKMANSHIP OF THE WORK PERFORMED AND MATERIALS WILL BE FREE FROM DEFECTS OR FAILURE OF
- WORKMANSHIP FOR A PERIOD OF ONE (1) YEAR UPON COMPLETION OF THE WORK.

  20. AT COMPLETION OF THE WORK, REMOVE ALL PAINT/COATING WHERE SPILLED, SPLASHED, SPLATTERED, SPRAYED OR SMEARED ON ALL SURFACES,
- INCLUDING GLASS, LIGHT FIXTURES, HARDWARE, EQUIPMENT, PAINTED, AND UNPAINTED SURFACES.
- 21. AFTER COMPLETION OF ALL PAINTING, THE CONTRACTOR SHALL REMOVE FROM JOB SITE ALL PAINTING/COATING EQUIPMENT, SURPLUS MATERIALS, AND DEBRIS RESULTING FROM THE WORK.

  22. THE CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL AND PROPER DISPOSAL OF ALL HAZARDOUS MATERIALS FROM THE JOBSITE IN ACCORDANCE
- 22. THE CONTRACTOR IS RESPONSIBLE FOR THE REMOVEL AND PROPERT BISPOSAL OF ALT ARZANDOUS MATERIALS FOR THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (USEPA).

  23. A NOTARIZED STATEMENT SHALL BE PRESENTED TO THE OWNER AND OWNER'S REPRESENTATIVE THAT ALL HAZARDOUS MATERIALS HAVE BEEN DISPOSED OF PROPERLY INCLUDING BUT NOT LIMITED TO: NAME OF DISPOSAL COMPANY, DISPOSAL SITE, LISTING OF HAZARDOUS MATERIALS, WEIGHTS OF ALL MATERIALS, COST PER POLIND AND LISEPA REGISTRATION NUMBER
- PRIOR TO COATING APPLICATION, USING CHLOR\*TEST OR EQUAL, CONTRACTOR SHOULD VERIFY THAT THE CHLORIDE CONTENT IS ≤ 25 PPM AND THAT THE SURFACE PH IS BETWEEN 4 AND 9. IF THE CHLORIDE LEVEL IS HIGHER THAN ALLOWABLE LIMITS AND / OR THE PH IS OUTSIDE OF THE ALLOWABLE LIMITS, CONTRACTOR SHOULD USE CHOR\*RID OR EQUAL TO WASH UNTIL CLEAN. ADDITIONAL SWEEP BLAST OF SUBSTRATE WILL BE REQUIRED IF WASH IS NECESSARY.
- THE CONTRACTOR SHALL CONDUCT FOR THE PRIME AND INTERMEDIATE COATS A STEEL HOLIDAY TEST IN ACCORDANCE TO ASTM G62. TEST
- THE CONTRACTOR SHALL GOODDOLF FOR THE PRIME AND INTERMEDIATE COST AS STEEL HOLDING TEST IN ACCORDANCE TO ASTM 362. TEST RESULTS SHALL BE CERTIFIED BY AN INDEPENDENT COATING INSPECTOR CERTIFIED BY NACE.

  THE CONTRACTOR SHALL CONDUCT FOR THE FINISH COAT A SPARK TEST IN ACCORDANCE TO ASTM D5162. TEST RESULTS SHALL BE CERTIFIED BY AN INDEPENDENT COATING INSPECTOR CERTIFIED BY NACE.
- 25. OUTSIDE FUEL TANK COATING

SURFACE PREPARATION: PREFERRED IS SWEEP BI ASTING PER SSPC SP7 TO OBTAIN A MINIMUM 1.5 MILS PROFILE. SPOT BLAST ANY BARE AND RUSTED AREAS TO AN SSPC SP6 AND FEATHER TO TIGHTLY, WELL ADHERED COATING. ACCEPTABLE IS A HIGH PRESSURE WATER CLEANING PER SSPC WJ4. POWER TOOL CLEAN ANY RUSTED OR BARE AREAS PER SSPC SP3 AND FEATHER TO WELL ADHERED COATING

	CARBOLINE	CORROCO	DAT	TNEMEC		
Coats		DFT-mils		DFT-mils		DFT-mils
1st	Carbomastic 615 Aluminum	5 – 10	Plasmet ZF	6	Spot prime Tnemec Series 135 Chembuild	7-May
2nd	Carbomastic 615 Tan	5 – 10	Plasmet ZF	6	Full coat of Tnemec Series 135 Chembuild	6-Apr
3rd	Carboxane 2000	3 – 7	Corrothane AP1	2-4	Tnemec Series 740 UVX	3 – 5



EXISTING 1000 GALLON FUEL TANK AND CONTAINMENT (SHOWN INSTALLED AT FORMER LOCATION AT JIMMY MIXSON WRF)

#### FUEL TANK SECONDARY CONTAINMENT NOTES

- SECONDARY CONTAINMENT STRUCTURES SHALL MEET THE PRIVISIONS IN 40 CFR PART 112. SECONDARY CONTAINMNET STRUCUTRES SHALL BE SIZED TO CONTAIN AT LEAST 110 PERCENT OF
- THE VOLUME OF THE TANK WITH THE TANK DISPLACEMENT VOLUME ACCOUNTED FOR IN THE CALCULATIONS. CONTRACTOR TO ENSURE STATE REQUIRMENTS ARE MET FOR ADDITIONAL CAPACITY RELATED TO FREEBOARD FOR STORM EVENTS.
- 3. SECONDARY CONTAINMENT SHALL BE DESIGNED WITH A FLAT FLOOR, FOUR WALLS OF EQUAL
- HEIGHT AND CORNERS THAT ARE 90 DEGREES.

  4. SECONDARY CONTAINMENT STRUCTURES SHALL BE MADE OF REINFORCED CAST IN PLACE CONCRETE OR FILLED MASONRY BLOCK. STRUCTURE SHALL BE COATED OR LINED WITH CHEMICAL RESISTANT COATING PER MANUFACTURERS REQUIREMENTS. APPROVED COATING MANUFACTURERS ARE CARBOLINE, CORROCOAT, AND TNEMEC.
- 5. CONTRACTOR SHALL PROVIDE SUBMITTAL FOR SECONDARY CONTAINMENT DESIGN WHICH INCLUDES DIMENSIONS, VOLUME CALCULATIONS, AND MATERIALS OF CONSTRUCTION FOR CONTAINMENT SYSTEM AND COATING SYSTEM.



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EL TANK REHABILITATION (ALTERNATE) FUEL

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C-2

# GENERAL NOTES: (APPLICABLE TO ALL DRAWINGS)

- G1. WHEN CONDUCTOR SIZE IS INDICATED FOR BRANCH CIRCUIT HOME RUN, THE CONDUCTOR SIZE INDICATED SHALL BE USED FOR THE COMPLETE CIRCUIT.
- G2. EQUIPMENT GROUNDING CONDUCTORS SHALL BE PROVIDED FOR ALL BRANCH AND FEEDER CIRCUITS.
- G3. PROVIDE A NYLON PULL CORD IN ALL EMPTY CONDUITS.
- G4. ALL CONDUITS SHALL BE RUN PARALLEL OR PERPENDICULAR TO THE BUILDING STRUCTURE.
- G5. CONDUITS ENTERING SURFACE MOUNTED PANELS SHALL BE GROUPED AND SECURED TO LIGHTWEIGHT CHANNEL WITH INDIVIDUAL CLAMPS.
- G6. CIRCUITS WITH GFCI RECEPTACLES SHALL HAVE A DEIDICATED NEUTRAL CONDUCTOR.
- G7. SERIES A.I.C. RATING OF CIRCUIT BREAKER COMBINATIONS ARE NOT ACCEPTABLE.
- G8. ALL WEATHERPROOF RECEPTACLES SHALL BE RATED "WEATHER RESISTANT" (WR)
  TYPE AND SHALL HAVE A EXTRA DUTY COVER THAT MAINTAINS THE WEATHERPROOF
  INTEGRITY OF THE OUTLET WITH THE ATACHMENT PLUG CAP INSERTED OR
  REMOVED. COVERS SHALL BE SELF CLOSING AND SHALL HAVE A LOCKING TAB.
- G9. SEAL ALL CONDUITS ENTERING EXTERIOR MOUNTED ELECTRICAL EQUIPMENT.
- G10. ALL EXTERIOR UNDERGROUND ELECTRICAL AND COMMUNICATIONS CONDUITS SHALL HAVE DETECTABLE LINES PLASTIC LINE MARKERS LOCATED DIRECTLY ABOVE CONDUITS, 12" BELOW FINISH GRADE.
- G11. INSTALL ALL RECEPTACLES WITH GROUND ON TOP.
- G12. COORDINATE ELEVATION WITH EXISTING FEEDER CONDUITS.
- G13. THE CONTRACTOR SHALL VISIT THE SITE TO FAMILIARIZE HIMSELF WITH THE PROJECT SITE CONDITIONS. ANY QUESTIONS SHALL BE SUBMITTED TO THE ENGINEER IN WRITING TEN (10) DAYS PRIOR TO THE BID.
- G14. FIELD COORDINATE WITH THE ELECTRICAL UTILITY. CONTACT PARKS MOSS, DOMINION ENERGY, 843-815-8808.

LEGEND				
SYMBOL DESCRIPTION				
_	PANELBOARD,SURFACE MOUNTED			
	EQUIPMENT AS NOTED			
M	ELECTRIC METER			
	GROUND ROD LOCATION			
SP	SURGE PROTECTION DEVICE: SQUARE D XDSE SERIES, CAT NO. SSP01XDSE15A2 OR EQUAL BY GE/ABB OR EATON			
•	GENERATOR EMERGENCY SHUTOFF SWITCH (E-STOP)			

# SCOPE OF WORK

- 1. THE EXISTING GENERATOR AND 400A/4P/3R AUTOMATIC TRANSFER SWITCH ARE LOCATED AT THE RIDGELAND GENERAL SERVICE YARD.
- 2. THE BASE BID FOR THIS PROJECT IS THAT THE CONTRACTOR SHALL PROVIDE A DOUBLE-WALL SUB-BAS FUEL TANK FROM BLUE STAR, WITH INTEGRAL LEAK CONTAINMENT. THE SUB-BASE TANK SHALL PROVIDE FOR 24 HOURS OF CONTINUOUS RUN TIME AT FULL LOAD. CONTACT MIKE JOYER, CURRENT EDGE SOLUTIONS, 912-659-3233.

  A. THE ALTERNATE BID IS TO RELOCATE THE EXISTING SEPERATE FUEL TANK, SAND BLAST, AND REPAINT THE TANK; CONSTRUCT A CONTAINMENT DIKE/BASIN; PROVIDE NEW STEEL FUEL PIPING FROM THE TANK TO THE GENERATOR; PROVIDE FOR PROTECTIVE OSHA GUARD AND PAINTING OF THE PIPE; THE PIPING SHALL INCLUDE BOTH SUPPLY AND RETURN LINES. REFER TO DETAILS 6 & 7/E-2.
- 3. THE GENERATOR ALTERNATOR SHALL BE RECONNECTED FOR 240/120V 1-PHASE 3-WIRE SERVICE.
  - A. THE EXISTING 300A/3P BREAKER SHALL BE REPLACED WITH A 400A/2P BREAKER.

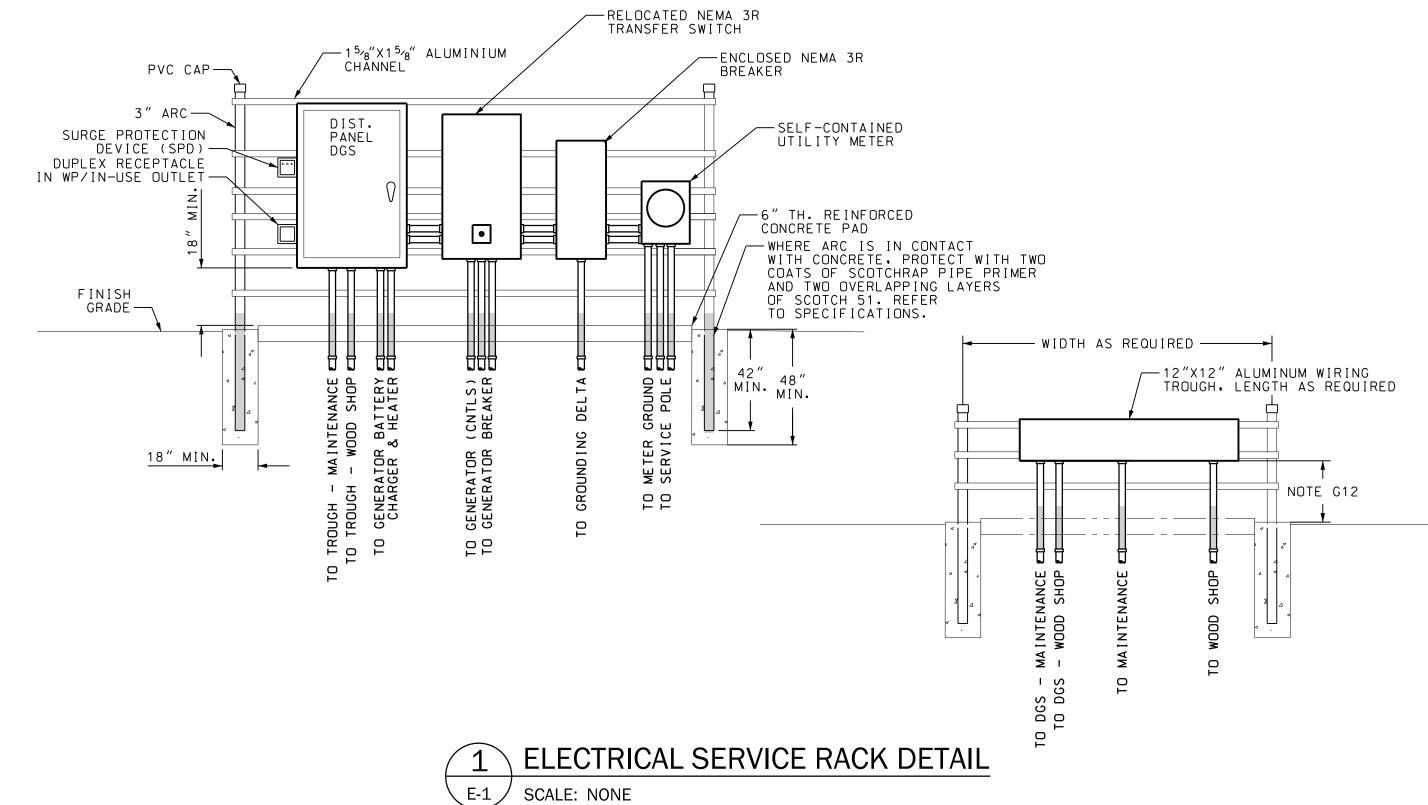
    B. THE GENERATOR SETTINGS AND CONTROLS SHALL BE RECONFIGURED FOR THE NEW VOLTAGE.

    C. THE GENERATOR SHALL BE TESTED TO NFPA 110 REQUIREMENTS FOR ANNUAL MAINTENANCE, DO NOT EXCEED 75% LOADING OF THE GENERATOR.
- 4. THE CONTRACTOR SHALL SAW CUT AND REMOVE THE EXISTING CONCRETE SLAB FOR THE NEW GENERATOR PAD. FIELD COORDINATE LOCATION FOR ALL REQUIRED CLEARANCES AND ACCESS.
- 5. THE CONTRACTOR SHALL CONSTRUCT A NEW SERVICE PER THE ONE-LINE DIAGRAM. THE NEW SERVICE EQUIPMENT SHALL BE LOCATED PARALLEL TO, AND ALONG THE EXISTING FENCE, ADJACENT TO THE EXISTING SERVICE EQUIPMENT.
- 6. THE EXISTING SERVICE SHALL BE DEMOLISHED AND REMOVED BY THE CONTRACTOR.
  A. THE FEEDERS (WOODSHOP AND MAINTENANCE BUILDING) SHALL BE PROTECTED FROM DAMAGE AND RETAINED FOR
- B. THE EXISTING B-PHASE (HIGH-LEG) CONDUCTOR SHALL BE TAPED/SAFED AND SECURED IN THE NEW WIRING TROUGH.
- Z NEW CONDUITS CHALL BE INCTALLED OA" BELOW CDARE MINIMUM
- 7. NEW CONDUITS SHALL BE INSTALLED 24" BELOW GRADE, MINIMUM.
  A. THE GROUNDING ELECTRODE CONDUCTOR TO, AND FOR, THE GROUNDING DELTA SHALL BE INSTALLED 30" BELOW GRADE, MINIMUM.
- B. GROUND RODS SHALL BE DRIVEN TO 12" BELOW GRADE TO TOP OF ROD, MINIMUM, ALL CONNECTIONS TO GROUND RODS SHALL BE EXOTHERMIC WELD.

# NOTES: PANELBOARD

- 1. GROUND BARS SHALL BE FACTORY BRAZED OR RIVETED OR INSTALLED ON STUDS BOLTED TO PANEL ENCLOSURES.
- 2. PANELBOARD DIRECTORY HOLDERS SHALL BE METAL WITH CLEAR PLASTIC DIRECTORY COVERS.
- 3. MOUNT PANEL BOARDS WITH TOP CIRCUIT NOT MORE THAN 6'-6" ABOVE FINISHED GRADE.
- 4. FURNISH AND INSTALL A NAME PLATE FOR EACH PANEL BOARD IDENTIFYING THE COLOR CODING UTILIZED TO IDENTIFY CONDUCTORS PER NEC 210.5. POST ON INSIDE OF PANELS.
- 5. FURNISH AND INSTALL ARC FLASH HAZARD WARNING LABELS PER NEC 110.16
- 6. SERVICE EQUIPMENT PANELBOARD SHALL BE FIELD MARKED PER NEC 110.24 WITH THE MAXIMUM AVAILABLE FAULT CURRENT AND DATE FAULT CURRENT CALCULATION WAS PERFORMED.
- 7. SERIES RATED CIRCUIT BREAKER COMBINATIONS ARE NOT ACCEPTABLE.
- 8. GROUNDED CONDUCTORS (NEUTRALS) WITHIN ENCLOSURES SHALL BE IDENTIFIED PER NEC 200.6, (A) & (B).
- 9. ONLY PRODUCTS OF SQUARE D, GE/ABB OR EATON WHICH COMPLY WITH THESE SPECIFICATIONS SHALL BE ACCEPTABLE.
- 10. ALL BUS BARS SHALL BE COPPER. EACH PANEL SHALL CONTAIN A FULL SIZE GROUNDING BUS AND, WHEN REQUIRED, A FULL SIZE INSULATED NEUTRAL BUS.

	ABBREVIATIONS
A OR AMP	AMPERES
AFF	ABOVE FINISHED FLOOR
AIC	AMPERE INTERRUPTING CAPACITY
ASYM	ASYMMETRICAL
С	CONDUIT
СВ	CIRCUIT BREAKER
CKT	CIRCUIT
CNTL	CONTROL
D	DEPTH
G OR GND	GROUND
Н	HEIGHT
KVA	KILOVOLT - AMPS
KW	KILOWATTS
L	LENGTH
MCB OR MB	MAIN CIRCUIT BREAKER
MH OR MTG	MOUNTING HEIGHT
MT OR MTD	MOUNT OR MOUNTED
NEC	NATIONAL ELECTRICAL CODE
NFPA	NATIONAL FIRE PROTECTION ASSOC.
NTS	NOT TO SCALE
Р	POLE
PNL	PANELBOARD
RECEPT	RECEPTACLE
RMS	ROOT MEAN SQUARE
SP SPD	SURGE PROTECTION DEVICE
SW	SWITCH
SYM	SYMMETRICAL
TYP	TYPICAL
UG	UNDERGROUND
UL	UNDERWRITERS LABORATORIES
UNO	UNLESS NOTED OTHERWISE
V	VOLTS
W	WIDTH
W/	WITH
WP	WEATHER PROOF



# **ELECTRICAL SPECIFICATIONS**

#### A. GENERAL

- 1. FURNISH LABOR, MATERIAL AND EQUIPMENT NECESSARY TO INSTALL COMPLETE AND MAKE OPERABLE, THE ITEM OR SYSTEMS SPECIFIED.
- 2. MATERIALS, DEVICES, ETC., SHALL BE NEW AND CONFORM TO THE SPECIFICATIONS AND SHALL BE U.L. LABELED.
- INSTALLATION SHALL CONFORM WITH THE OF THE NATIONAL ELECTRICAL CODE (2017 WITH SC MODIFICATIONS), INTERNATIONAL BUILDING CODE (2018 WITH SC MODIFICATIONS), AND ALL LOCAL ORDINANCES.
- 4. COORDINATE WITH ALL OTHER TRADES AND EXISTING CONDITIONS TO AVOID INTERFERENCES AND CONDITIONS WHICH WILL NOT ALLOW THE INSTALLATION OF DEVICES, ETC., AS INDICATED.
- 5. PERMITS: OBTAIN ALL PERMITS AND INSPECTIONS REQUIRED FOR THE WORK INVOLVED.
- 6. WARRANTY: THE CONTRACTOR SHALL WARRANT TO THE OWNER THAT ALL WORK SHALL BE FREE FROM DEFECTS AND WILL CONFORM TO THE CONTRACT DOCUMENTS. THIS WARRANTY SHALL EXTEND NOT LESS THAN ONE YEAR FROM THE DATE OF BENEFICIAL OCCUPANCY.

### B. CONDUIT SYSTEMS

- 1. SCHEDULE 80 PVC SHALL BE USED BELOW GRADE, ALUMINUM RIGID CONDUIT (ARC) ABOVE GRADE.
- 2. ARC FITTINGS SHALL BE STANDARD THREADED COUPLINGS, THREADED HUBS, BUSHINGS, AND ELBOWS. ALL ARC FITTINGS SHALL BE ALUMINUM ALLOY; SET SCREW OR NON THREADED FITTINGS ARE NOT PERMITTED. NON-METALLIC CONDIT FITTINGS SHALL BE OF THE SAME MATERIAL AS THE CONDUIT FURNISHED AND SHALL BE THE PRODUCT OF THE SAME MANUFACTURER.
- 3. CONDUIT SYSTEMS SHALL BE COMPLETE WITH BOXES, FITTINGS AND SUPPORTS. INSTALL PULL WIRE IN EMPTY CONDUIT SYSTEMS.
- 4. SUPPORT CONDUIT SYSTEM IN ACCORDANCE WITH N.E.C.
- 5. ALL CONDIT SUPPORT PARTS AND HARDWARE SHALL BE STAINLESS STEEL. CONDUIT STRAPS SHALL BE TWO-PIECE STAINLESS STEEL METAL TYPE.
- 6. CONDUITS SHALL BE TERMINATED TO ENCLOSURES WITH THREADED HUBS, ALL LOCATIONS.
- 7. ALL CONDUITS ENTERING OR EXITING CONCRETE OR INSTALLED BELOW GRADE SHALL BE
- 1. METALLIC CONDUITS SHALL BE PROTECTED FROM CORROSION AS FOLLOWS:
  - A. APPLY TWO COATS OF 3M SCOTCHRAP PIPE PRIMER. ALLOW THE PRIMER TO DRY
- BEFORE APPLICATION OF THE SECOND COAT OR APPLICATION OF TAPE.

  B. APPLY TWO OVERLAPPING LAYERS OF 3M SCOTCHRAP 51 TAPE.
- C. PIPE PRIMER AND TAPE SHALL EXTEND FROM THE END OF THE METALLIC CONDUIT TO 6" ABOVE GRADE OR CONCRETE.

### C. CONDUCTORS - 600 VOLTS

PROTECTED FROM CORROSION.

- 1. CONDUCTORS SHALL BE SOLID COPPER (FOR NO.10 SMALLER) OR STRANDED (FOR NO.8 & LARGER) 90 DEGREES C TYPE THHN/THWN OR XHHN WITH COLOR CODED INSULATION.
- 2. NOT MORE THAN TWO BRANCH CIRCUITS OF OPPOSITE PHASES, SHALL BE INSTALLED IN ANY ONE CONDUIT UNLESS NOTED OTHERWISE ON PLAN SHEETS.
- 3. ALL CONDUCTORS NO. 6 AND SMALLER SHALL HAVE SOLID COLOR COMPOUND INSULATION OR COATING. NO. 4 AND LARGER SHALL HAVE SOLID COLOR COMPOUND OR COLORED PHASE TAPE; TAPE SHALL BE INSTALLED ON CONDUCTORS IN EVERY BOX, TERMINATION POINT, CABINET, OR ENCLOSURE. CODING SHALL BE AS FOLLOWS:
- A. 240/120 VOLT SINGLE PHASE THREE WIRE SYSTEM: PHASE A-BLACK, PHASE B-RED,
- NEUTRAL-WHITE. B. GROUNDING CONDUCTORS SHALL BE GREEN.
- C. NEUTRAL CONDUCTORS NO. 6 AND SMALLER SHALL HAVE SOLID INSULATION OR CONTINUOUS COLOR TAPE FOR THE ENTIRE LENGTH OF CONDUCTOR. NEUTRAL CONDUCTORS NO. 4 AND LARGER SHALL HAVE COLORED PHASE TAPE. COLORED TAPE SHALL BE INSTALLED ON CONDUCTORS IN EVERY BOX, AT EACH TERMINATION POINT, CABINET OR OTHER ACCESSIBLE
- 4. GROUP AND LACE WITH NYLON TIE STRAPS ALL CONDUCTORS WITHIN ENCLOSURES. MAKE SPLICES IN CONDUCTORS ONLY WITHIN JUNCTION BOXES, WIRING TROUGHS, OR OTHER NEC APPROVED ENCOLSURES. DO NOT SPLICE CONDUCTORS IN SWITCHBOARDS, PANELBOARDS, SAFETY SWITCHES, PULL BOXES, OR MOTOR CONTROL ENCLOSURES. IDENTIFY EACH CONDUCTOR AS TO CIRCUIT CONNECTION IN ALL BOXES AND ENCLOSURES.
- 5. ALL MECHANICAL CABLE TERMINATIONS SHALL BE MADE USING ANTI-OXIDATION COMPOUND (IDEAL NOALOX) OR EQUAL.

# D. GROUNDING

- 1. GROUND ALL NONCURRENT CARRYING PARTS OF ELECTRICAL SYSTEM, I.E. RACEWAY, EQUIPMENT ENCLOSURES, JUNCTION AND OUTLET BOXES.
- 2. INSTALL A GREEN INSULATED GROUNDING CONDUCTOR IN ALL RACEWAY SYSTEMS.
- 3. GROUND DEVICES AND ASSOCIATED OUTLET BOXES TO GROUNDING CONDUCTORS.

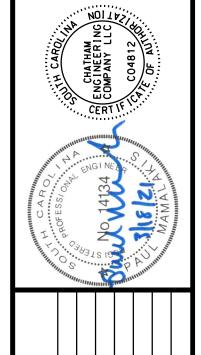
### E. ENCLOSED BREAKERS

- CIRCUIT BREAKERS SHALL BE QUICK-MAKE/QUICK-BREAK, THERMAL-MAGNETIC TYP, WITH A COMMON TRIP HANDLE.
- 2. BREAKERS IN SEPERATE ENCLOSURES SHALL BE FURNISHED WITH A NEMA 3R ENCLOSURE.
  3. BREAKERS FOR SERVICE APPLICATIONS SHALL BE PROVIDED WITH AN INSULATED NEUTRAL BUS, A BONDING JUMPER, AND A U.L. SERVICE LABEL. THE NEUTRAL BUS AND ENCLOSURE SHALL BE FURNISHED WITH SUFFICIENT QUANTITY OF MECHANICAL LUGS SUCH THAT ALL CABLES ARE INDIVIDUALLY TERMINATED.
- 4. PROVIDE INTERRUPTING RATING AS SPECIFIED AND HIGHER IF REQUIRED BY AVAILABLE FAULT FROM THE ELECTRICAL UTILITY.

### F. ELECTRICAL IDENTIFICATION

- 1. INSTALL ENGRAVED PLASTIC LAMINATE SIGN ON EACH MAJOR UNIT OF ELECTRICAL EQUIPMENT. PROVIDE A SINGLE LINE OF TEXT. HIGH LETTERING ON 11/2" HIGH SIGN (OR 2" HIGH SIGN IF 2 LINES REQUIRED). PROVIDE SIGNS FOR EACH UNIT OF THE FOLLOWING:
  - A. ELECTRICAL CABINETS AND ENCLOSURES.
  - B. PANELBOARDS.





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