

- SYSTEM DETAILS**
1. SYSTEM JUSTIFICATION: UL THROUGH-PENETRATION FIRESTOP SYSTEM NO. C-AJ-1044.
 2. ASSEMBLY: MINIMUM THICKNESS OF SOLID CONCRETE WALL IS 5-1/2" OR MAY BE CONSTRUCTED OF ANY UL CLASSIFIED CONCRETE BLOCKS.
 3. RATINGS: F - 4 HR., T - 0 HR., W - CLASS I
 4. PENETRATING ITEM(S): NOMINAL 4" DIAMETER (OR SMALLER) STEEL/EMT. CONDUIT. CONDUIT SHALL BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL OR FLOOR ASSEMBLY

- APPLICATION DETAILS**
1. INSTALL THE FIRESTOP SYMMETRICALLY ON BOTH SIDES OF THE WALL ASSEMBLY.
 2. MINIMUM ANNULAR SPACE IS 1/4". MAXIMUM ANNULAR SPACE ALLOWABLE IS 1 3/8".
 3. APPLIED TO FILL THE ANNULAR SPACE FLUSH WITH TOP SURFACE OF FLOOR. IN WALL ASSEMBLIES, REQUIRED CAULK THICKNESS TO BE INSTALLED SYMMETRICALLY ON BOTH SIDES OF WALL, FLUSH WITH WALL SURFACE. AT POINT CONTACT LOCATION BETWEEN PENETRANT AND SLEEVE OR BETWEEN PENETRANT AND CONCRETE, A MIN 1/4 IN. (6 MM) DIAM BEAD OF CAULK SHALL BE APPLIED AT TOP SURFACE OF FLOOR AND AT BOTH SURFACES OF WALL.
 4. MIN 1 IN. (25 MM) THICKNESS OF MINERAL WOOL BATT INSULATION REQUIRED IN ANNULAR SPACE ON BOTH SIDES OF FLOOR OR WALL ASSEMBLY. MIN 1 IN. (25 MM) THICKNESS OF CAULK TO BE INSTALLED FLUSH WITH EACH SURFACE OF FLOOR OR WALL ASSEMBLY.

FIRE RATED CONDUIT PENETRATION DETAIL

NTS

GENERAL DEMOLITION NOTES

1. EXIST'G. EQUIPMENT, DEVICES, DISCS., RECEPTACLES, ETC. (NOT SPECIFICALLY REFERENCED AS "TO BE REMOVED") SHALL REMAIN AS IS.
2. CONTRACTOR SHALL VERIFY SIZE AND LOCATION OF ALL EXISTING AND PROPOSED EQUIPMENT IN THE FIELD PRIOR TO INSTALLATION OF CONDUIT.
3. RE-ESTABLISH SERVICE TO ALL J-BOXES, RECEPS. OUTLETS, ETC, THAT MAY BE INTERRUPTED BECAUSE OF THE WORK.
4. PROVIDE ALL MATERIALS REQUIRED TO REROUTE, RELOCATED, REMOVE OR REINSTALL ALL ITEMS DESCRIBED.
5. RETAIN ALL MATERIALS BEING REMOVED AND NOTIFY OWNER, FOR HIS DIRECTION, AS TO WHAT MATERIALS TO BE SAVED.
6. EXISTING EQUIP. NOT TO BE REMOVED, THAT IS DAMAGED BY THE CONTRACTOR DURING THE CONSTRUCTION PROCESS, SHALL BE REPLACED AT NO ADD'L. COST TO THE OWNER.
7. THE CONTRACTOR SHALL WORK AT THE CONVENIENCE OF THE HCSO SO AS NOT TO DISRUPT DAILY ACTIVITIES AND INCONVENIENCE PERSONNEL. IT IS THE CONTRACTOR'S RESPONSIBILITY TO SCHEDULE WORK PROCEDURES THAT ARE NOISY, CREATE ODORIFEROUS FUMES, OR PRODUCE A CONDITION THAT WILL BE DISRUPTIVE, AT A TIME PRIOR SCHEDULED WITH THE HCSO. THE CONTRACTOR SHALL BECOME FAMILIAR WITH THE JAIL'S DAILY SCHEDULE AND USE THAT AS A GUIDELINE FOR PLANNING DISRUPTIVE WORK PROCEDURES. LIFE SAFETY SYSTEMS SHALL REMAIN TOTALLY OPERATIONAL AT ALL TIMES.

TESTING REQUIREMENTS

1. PROPOSED CABLES 600V OR LESS AND SIZE No.3 OR LARGER SHALL BE MEGGERED USING AN INDUSTRY-APPROVED "MEGGER WITH A MINIMUM OF 500VDC INTERNAL GENERATING VOLTAGE FOR (1) MINUTE.. ALL INSPECTION, CLEANING AND TESTING PROCEDURES SHALL BE IN COMPLIANCE WITH THE RECOMMENDATIONS AND STANDARDS OUTLINE IN THE "MAINTENANCE TESTING SPECIFICATIONS FOR ELECTRICAL POWER DISTRIBUTION EQUIPMENT AND SYSTEMS," LATEST EDITION, PUBLISHED BY INTERNATIONAL ELECTRICAL TESTING ASSOCIATION (NETA). READINGS SHALL BE RECORDED IN THE PRESENCE OF A DESIGN ENGINEER OR AN OWNERS'S REPRESENTATIVE. PROVIDE A SCHEDULE OF TESTING TO THE ENGINEER A MINIMUM OF TEN DAYS PRIOR TO TESTING. INSULATION RESISTANCE TEST VALUES SHALL BE NO LESS THAN 250 MEGAOHMS. A TYPEWRITTEN REPORT OF ALL READINGS SHALL BE PREPARED AND SUBMITTED.

PROJECT PHASING NOTES

1. THE CONSTRUCTION PHASING OF THIS PROJECT IS OF THE UTMOST IMPORTANCE. ALL SERVICE INTERRUPTIONS ESSENTIAL TO THE WORK SHALL BE SCHEDULED WITH THE HCSO (7) DAYS IN ADVANCE. COORDINATE ALL WORK TO ALLOW THE COMPLETION OF THE TASK(S) WITH THE MINIMUM INTERFERENCE TO HCSO OPERATIONS.
2. THE CONTRACTOR SHALL PROVIDE AND UPDATE AS NEEDED A PHASING SCHEDULE FOR THIS PROJECT. THIS SCHEDULE SHALL BE SUBJECT TO APPROVAL BY THE ENGINEER AND THE HCSO.

ELECTRICAL GENERAL NOTES

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE NEC 2014, ARTICLES 695 & 700 AND ANY OTHER APPLICABLE LOCAL ORDINANCES.
2. THE CONTRACTOR SHALL PROVIDE ALL LABOR AND MATERIALS NECESSARY TO DELIVER A COMPLETE PROJECT AS REASONABLY IMPLIED IN THESE DOCUMENTS.
3. ALL WORK SHALL BE SCHEDULED WITH THE HCSO TO MINIMIZE DISRUPTION OF THE ONGOING JAIL OPERATIONS.
4. PROPOSED CONDUIT ROUTINGS SHALL BE COORDINATED WITH EXISTING CONDITIONS PRIOR TO THE START OF INSTALLATION.
5. ELECTRICAL PANELS SHALL NOT BE USED AS RACEWAYS.
6. CONDUIT PENETRATIONS THROUGH FIRE RATED PARTITIONS SHALL BE SEALED USING O.Z./GEDNEY TYPE FIRE SEALS OR "APPROVED" FIRE SAFING COMPOUND.
7. REFER TO MANUFACTURER DWG FOR EXACT LOCATION OF CONDUIT ENTRIES.
8. COORD. ROUTING WITH EXIT'G. PIPING, DUCTWORK, STRUCTURAL BEAMS, ETC. PRIOR TO THEIR INSTALLATION.
9. MINIMUM SIZE CONDUCTOR SHALL BE #12 AWG.. ALL CONDUCTORS SHALL BE "STRANDED" TYPE.
10. CONTRACTOR SHALL VERIFY SIZE AND LOCATION OF ALL EQUIPMENT IN THE FIELD PRIOR TO RUNNING FEEDERS AND MAKING FINAL CONNECTIONS.
11. ALL ELECTRICAL EQUIPMENT IS SHOWN DIAGRAMMATICALLY, EXACT LOCATIONS ARE TO BE DETERMINED IN THE FIELD TO AVOID INTERFERENCES.
12. PROVIDE GROUND CONDUCTORS W/I ALL RACEWAYS.
13. IT IS THE CONTRACTOR'S RESPONSIBILITY TO HAVE VERIFIED EXISTING JOB SITE CONDITIONS DURING THE BIDDING PERIOD SO HE WILL HAVE OBTAINED THE SCOPE OF ELECTRICAL WORK INVOLVED.
14. THE CONTINUITY OF THE EQUIPMENT GROUNDS, NEUTRALS AND HOT LEGS SHALL NOT BE INTERRUPTED BY THE WORK.
15. ALL EXPOSED CONDUITS SHALL BE HEAVY WALL, RIGID GALVANIZED STEEL TYPE.
16. ALL EXPOSED CONDUIT SHALL BE ROUTED PARALLEL & PERPENDICULAR TO STRUCTURAL ELEMENTS.
17. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ENGRAVED "PLASTIC LAMINATE" NAME PLATES ON ALL PROPOSED BRKRS. NAME PLATES SHALL BE WHITE WITH BLACK CORE, 2"x4" AND 1/4" HIGH BLOCK LETTERING, INDICATING THE DESCRIPTION, VOLTAGE AND SOURCE.
18. LOCKOUT/TAGOUT PROCEDURES SHALL BE PROVIDED IN CONFORMANCE WITH THE LATEST APPLICABLE EDITION OF OSHA STANDARD 1-7.3-29CFR 1910.47 AND NFPA 70E.
19. WORKPLACE SAFETY REGULATIONS SHALL BE INSTITUTED TO HEIGHTEN THE AWARENESS OF HAZARDS ASSOCIATED WITH ELECTRICAL ARCS. THE HAZARD LEVEL MUST BE QUANTIFIED AND WORKERS PROPERLY PROTECTED BEFORE ENTERING PROXIMITY TO EXPOSED ENERGIZED CONDUCTORS. THE CONTRACTOR SHALL THEREFORE COMPLY WITH THE LATEST EDITION OF NFPA 70E-STANDARD FOR ELECTRICAL SAFETY REQUIREMENTS FOR EMPLOYEE WORKPLACES. THE HAZARD LEVEL SHALL BE QUANTIFIED AND CONSTRUCTION WORKERS SHALL BE PROPERLY PROTECTED.

LOAD SUMMARY - EXISTING GENERATOR #3 (800 KW @ 277/480Y; 888 KVA @ pf=0.9)

FULL LOAD GENERATOR RATING = 888 KVA
EXIST'G. LOAD (HOUSING UNITS) = (543 KVA)*
PROPOSED 75 HP FIRE PUMP = (70 KVA)
REMAINING SPARE CAPACITY = 275 KVA

* 654 AMPS RECORDED 3/10/2020
654 AMPS @ 277/480Y = 543 KVA

STARTING KVA - EXIST'G. GENERATOR #3
800 KW @ 277/480Y (STANDBY RATING)

STARTING KVA RATING = 2600 KVA
EXIST'G. LOAD (HOUSING UNITS) @ 250% = (1358 KVA)
PROPOSED 75 HP FIRE PUMP @ 200% = (140 KVA)

REMAINING AVAILABLE STARTING KVA = 1102 KVA

ELECTRICAL DRAWING INDEX

- E-001 ELECTRICAL GENERAL NOTES & DETAILS
- E-101 FLOOR PLANS (BLDG #13) - DEMOLITION/POWER & MISC.
- E-201 PARTIAL EXISTING & PROPOSED ONE LINE DIAGRAMS

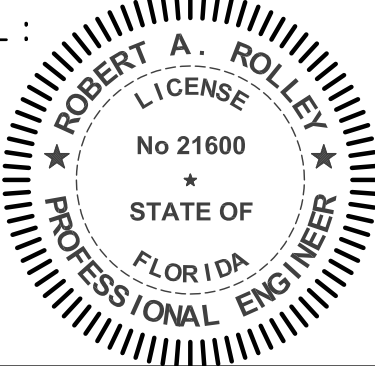


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Mechanical
Plumbing Fire Protection

SEAL :



PROJECT :
**ORIENT ROAD JAIL
FIRE PUMP REPLACEMENT**

LOCATION :
**1201 ORIENT ROAD,
Tampa, FL 33619**

REVISIONS

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delta	date	revision

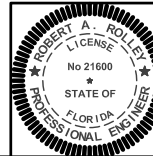
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ELECTRICAL GENERAL NOTES & DETAILS

DRAWN BY: RAR
DATE: 09/23/2020
COMM. NO. 20024

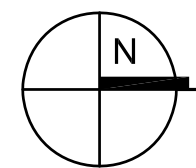
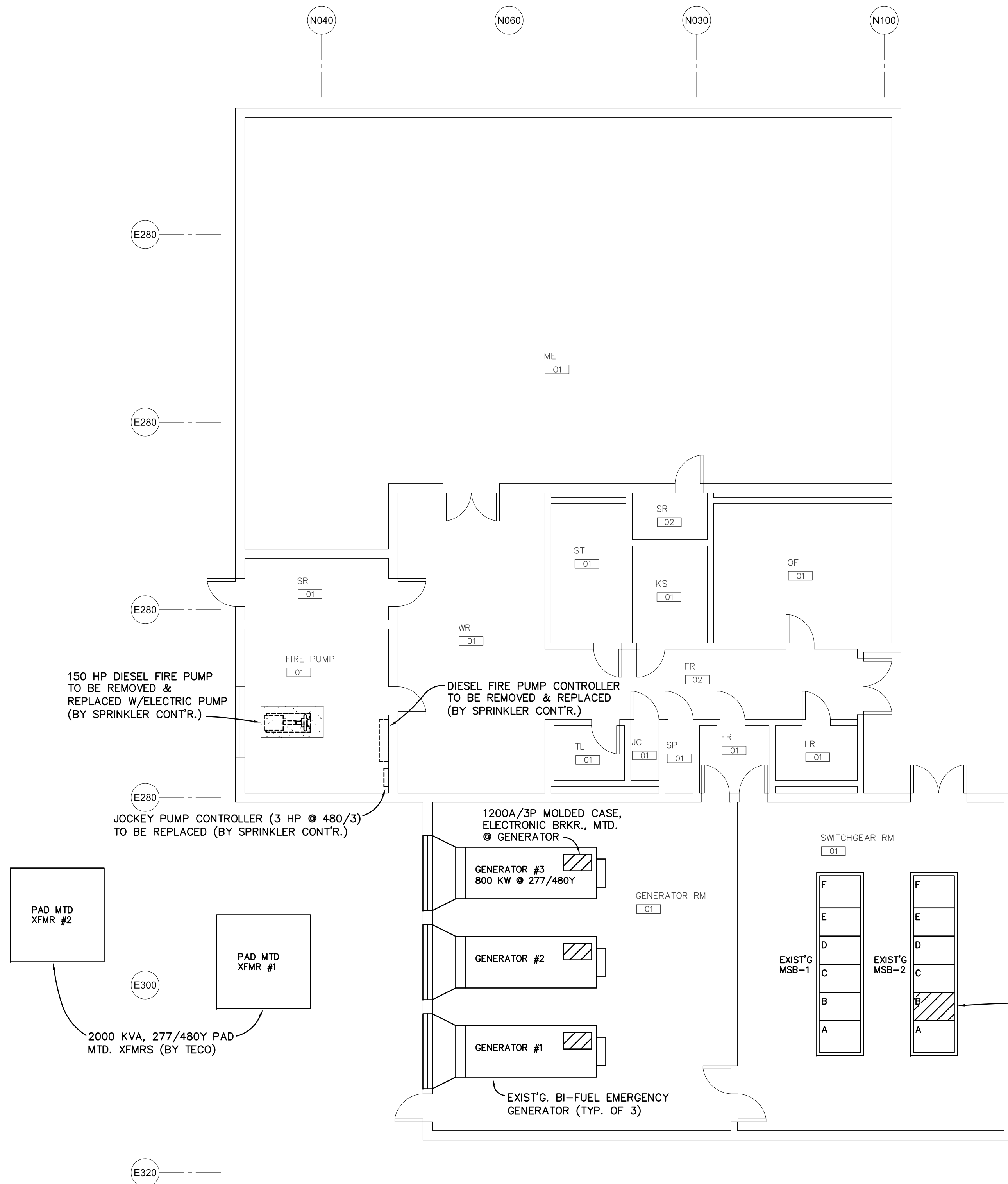
SHEET NO. :

E-001



This item has been electronically signed and sealed by Robert A. Rolley, P.E. on the date included in the Certificate using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

ROLLEY ENGINEERING inc
Certificate Of Authorization Number #9092
7759 W. Waters Avenue, Tampa, Florida, 33615
TELEPHONE: (813) 888-0835 FAX: 884-8051
Robert Andrew Rolley, Florida P.E. #21600



FLOOR PLAN (BLDG #13) - DEMOLITON

SCALE: 1/8"=1'-0"

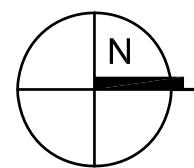
U.L. LISTED COMBINATION FIRE PUMP TRANSFER SWITCH & CONTROLLER WITH Y-Δ REDUCED VOLTAGE STARTING BY SPRINKLER CONTRACTOR; (75 HP @ 480/3, 100 KAIC).

6-#1 & 1-#1/GRND, 2 1/2"RGSC

PROVIDE 3/30/8DE HEAVY DUTY, 100 KAIC DISC. ABOVE JOCKEY PUMP CONTROLLER, REUSE EXIST'G. 480/3 EMERG. HOMERUN EMDP1-#1,#3,#5 TO FEED CONTROLLER. EXIST'G. LOADSIDE CONDUCTORS TO BE RETERMINATED

PROVIDE 2HR RATED FIRE RATED PENETRATION THRU EXTERIOR WALL

SECTION "B" CONT'G. SPARE 1600AF/1600AT DRAWOUT MAIN BRKR. "GEN. #3".



FLOOR PLAN (BLDG #13) - POWER & MISC.

SCALE: 1/8"=1'-0"

DRAWING NOTES

① THE "NORMAL" & "EMERGENCY" CONDUITS SERVING THE FIRE PUMP ARE ROUTED W/I THE ELECTRICAL & FIRE PUMP EQUIPMENT ROOMS AND THEREFORE DO NOT REQUIRE A 2 HOUR FIRE RESISTANCE RATING (NEC 695.6, EXCEPTION TO (A)(2)(d)).

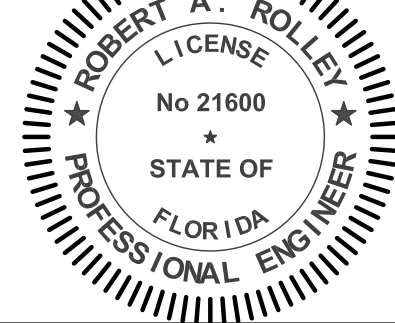


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PROJECT :
**ORIENT ROAD JAIL
FIRE PUMP REPLACEMENT**

LOCATION :
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Tampa, FL 33619**

REVISIONS

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△		
delta	date	revision

SHEET TITLE :

**FLOOR PLANS (BLDG
#13 - DEMOLITION/
POWER & MISC.**

DRAWN BY:

RAR

DATE:

09/23/2020

COMM. NO.

20024

SHEET NO. :

E- 101



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