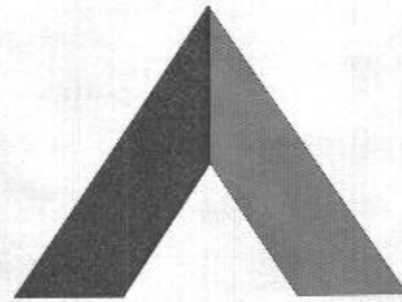


VICINITY MAP



AMERICAN TOWER®

ATC SITE NAME: WARFIELD
 SITE NUMBER: 305284
 SITE ADDRESS: 2114 SAND HILL ROAD
 MARRIOTTSTVILLE, MD 21104



LOCATION MAP

AMERICAN TOWER®
 A.T. ENGINEERING SERVICE, PLLC
 3500 REGENCY PARKWAY
 SUITE 100
 CARY, NC 27518
 PHONE: (919) 468-0112
 COA: P-4177

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REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	PL	08/27/21

ATC SITE NUMBER:
305284
 ATC SITE NAME:
WARFIELD

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 MARRIOTTSTVILLE, MD 21104



I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the state of Maryland. License No. 53883
 Expiration Date: 02/06/2023

Authorized by "EOR"
 27 Aug 2021 04:44:33

Mobile

RECEIVED
 SEP 17 2021
 LICENSES & PERMITS DIVISION

TITLE SHEET

SHEET NUMBER: **G-001**
 REVISION: **0**

**SHARED GENERATOR PROGRAM
 ANCHOR TENANT**

COMPLIANCE CODE	PROJECT SUMMARY	PROJECT DESCRIPTION	SHEET INDEX																																							
ALL WORK SHALL BE PERFORMED AND MATERIALS INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNMENT AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES. 1. 2015 INTERNATIONAL BUILDING CODE (IBC) 2. 2014 NATIONAL ELECTRIC CODE (NEC) 3. LOCAL BUILDING CODE 4. CITY/COUNTY ORDINANCES	<u>SITE ADDRESS:</u> 2114 SAND HILL ROAD MARRIOTTSTVILLE, MD 21104 COUNTY: HOWARD <u>GEOGRAPHIC COORDINATES:</u> LATITUDE: 39.31367222 LONGITUDE: -76.92699444 GROUND ELEVATION: 629' AMSL <u>ZONING INFORMATION:</u> JURISDICTION: HOWARD PARCEL NUMBER: 03-298183	THE PROPOSED PROJECT INSTALLS AN OPTIONAL STANDBY GENERATOR SYSTEM, AUTOMATIC TRANSFER SWITCH, GENERATOR AUXILIARY POWER DISTRIBUTION, AND REMOTE MONITORING COMMUNICATIONS CIRCUITRY FOR A COMMUNICATION TOWER TENANT. <u>PROJECT NOTES</u> 1. THE FACILITY IS UNMANNED. 2. A TECHNICIAN WILL VISIT THE SITE APPROXIMATELY ONCE A MONTH FOR ROUTINE INSPECTION AND MAINTENANCE. 3. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT LAND DISTURBANCE OR EFFECT OF STORM WATER DRAINAGE. 4. NO SANITARY SEWER, POTABLE WATER OR TRASH DISPOSAL IS REQUIRED. 5. HANDICAP ACCESS IS NOT REQUIRED. 6. THE PROJECT DEPICTED IN THESE PLANS QUALIFIES AS AN ELIGIBLE FACILITIES REQUEST ENTITLED TO EXPEDITED REVIEW UNDER 47 U.S.C. § 1455(A) AS A MODIFICATION OF AN EXISTING WIRELESS TOWER THAT INVOLVES THE COLLOCATION, REMOVAL, AND/OR REPLACEMENT OF TRANSMISSION EQUIPMENT THAT IS NOT A SUBSTANTIAL CHANGE UNDER CFR § 1.81000 (B)(7).	<table border="1"> <thead> <tr> <th>SHEET NO.</th> <th>DESCRIPTION:</th> <th>REV:</th> <th>DATE:</th> <th>BY:</th> </tr> </thead> <tbody> <tr> <td>G-001</td> <td>TITLE SHEET</td> <td>0</td> <td>08/27/21</td> <td>PL</td> </tr> <tr> <td>G-002</td> <td>GENERAL NOTES</td> <td>0</td> <td>08/27/21</td> <td>PL</td> </tr> <tr> <td>C-101</td> <td>SITE PLAN</td> <td>0</td> <td>08/27/21</td> <td>PL</td> </tr> <tr> <td>C-501</td> <td>CONCRETE PAD DETAILS</td> <td>0</td> <td>08/27/21</td> <td>PL</td> </tr> <tr> <td>E-601</td> <td>ELECTRICAL ONE-LINE AND WIRING DETAILS</td> <td>0</td> <td>08/27/21</td> <td>PL</td> </tr> <tr> <td>R-601</td> <td>SUPPLEMENTAL</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>					SHEET NO.	DESCRIPTION:	REV:	DATE:	BY:	G-001	TITLE SHEET	0	08/27/21	PL	G-002	GENERAL NOTES	0	08/27/21	PL	C-101	SITE PLAN	0	08/27/21	PL	C-501	CONCRETE PAD DETAILS	0	08/27/21	PL	E-601	ELECTRICAL ONE-LINE AND WIRING DETAILS	0	08/27/21	PL	R-601	SUPPLEMENTAL			
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E-601	ELECTRICAL ONE-LINE AND WIRING DETAILS	0	08/27/21	PL																																						
R-601	SUPPLEMENTAL																																									
<u>UTILITY COMPANIES</u> POWER COMPANY: BALTIMORE GAS @ ELECTRIC PHONE: (800) 685-0123 TELEPHONE COMPANY: VERIZON PHONE: (800) 275-2355	<u>PROJECT TEAM</u> <u>ATC REGIONAL NETWORK DEVELOPMENT PROJECT MANAGER:</u> MICHAEL JOYCE (508) 328-6522 <u>ATC NETWORK OPERATIONS CENTER:</u> (877) 518-6937 <u>TOWER OWNER:</u> AMERICAN TOWER 10 PRESIDENTIAL WAY WOBURN, MA 01801 <u>PROPERTY OWNER:</u> JOHN G. JR. & LAURA J. WARFIELD 1970 SAND HILL ROAD MARRIOTTSTVILLE, MD 21104 <u>ENGINEERED BY:</u> ATC TOWER SERVICES 3500 REGENCY PARKWAY SUITE 100 CARY, NC 27518	<u>PROJECT LOCATION DIRECTIONS</u> FROM I-895 TO I-70 WEST TO EXIT 83, MAKE RIGHT ON MARRIOTTSTVILLE RD. TAKE TO RT. 99 OLD FREDERICK RD. MAKE LEFT TAKE TO SAND HILL RD. MAKE LEFT, GO ABOUT 1/2 MILE TOWER ON LEFT.																																								



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GENERAL CONSTRUCTION NOTES:

- ALL WORK SHALL CONFORM TO ALL CURRENT APPLICABLE FEDERAL, STATE, AND LOCAL CODES, INCLUDING ANSII/AIA-222, AND COMPLY WITH ATC CONSTRUCTION SPECIFICATIONS.
- CONTRACTOR SHALL CONTACT LOCAL 311 FOR IDENTIFICATION OF UNDERGROUND UTILITIES PRIOR TO START OF CONSTRUCTION.
- CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL REQUIRED INSPECTIONS.
- ALL DIMENSIONS TO, OF, AND ON EXISTING BUILDINGS, DRAINAGE STRUCTURES, AND SITE IMPROVEMENTS SHALL BE VERIFIED IN FIELD BY CONTRACTOR WITH ALL DISCREPANCIES REPORTED TO THE ENGINEER.
- DO NOT CHANGE SIZE OR SPACING OF STRUCTURAL ELEMENTS.
- DETAILS SHOWN ARE TYPICAL; SIMILAR DETAILS APPLY TO SIMILAR CONDITIONS UNLESS OTHERWISE NOTED.
- THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY WHICH SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- CONTRACTOR SHALL BRACE STRUCTURES UNTIL ALL STRUCTURAL ELEMENTS NEEDED FOR STABILITY ARE INSTALLED. THESE ELEMENTS ARE AS FOLLOWS: LATERAL BRACING, ANCHOR BOLTS, ETC.
- CONTRACTOR SHALL DETERMINE EXACT LOCATION OF EXISTING UTILITIES, GROUNDS DRAINS, DRAIN PIPES, VENTS, ETC. BEFORE COMMENCING WORK.
- INCORRECTLY FABRICATED, DAMAGED, OR OTHERWISE MISFITTING OR NONCONFORMING MATERIALS OR CONDITIONS SHALL BE REPORTED TO THE ATC CM PRIOR TO REMEDIAL OR CORRECTIVE ACTION. ANY SUCH REMEDIAL ACTION SHALL REQUIRE WRITTEN APPROVAL BY THE ATC CM PRIOR TO PROCEEDING.
- EACH CONTRACTOR SHALL COOPERATE WITH THE ATC CM, AND COORDINATE HIS WORK WITH THE WORK OF OTHERS.
- CONTRACTOR SHALL REPAIR ANY DAMAGE CAUSED BY CONSTRUCTION OF THIS PROJECT TO MATCH EXISTING PRE-CONSTRUCTION CONDITIONS TO THE SATISFACTION OF THE ATC CONSTRUCTION MANAGER.
- ALL CABLE/CONDUIT ENTRY/EXIT PORTS SHALL BE WEATHERPROOFED DURING INSTALLATION USING A SILICONE SEALANT.
- WHERE EXISTING CONDITIONS DO NOT MATCH THOSE SHOWN IN THIS PLAN SET, CONTRACTOR SHALL NOTIFY THE ATC CONSTRUCTION MANAGER IMMEDIATELY.
- CONTRACTOR SHALL ENSURE ALL SUBCONTRACTORS ARE PROVIDED WITH A COMPLETE AND CURRENT SET OF DRAWINGS AND SPECIFICATIONS FOR THIS PROJECT.
- CONTRACTOR SHALL REMOVE ALL RUBBISH AND DEBRIS FROM THE SITE AT THE END OF EACH DAY.
- CONTRACTOR SHALL COORDINATE WORK SCHEDULE WITH LANDLORD AND TAKE PRECAUTIONS TO MINIMIZE IMPACT AND DISRUPTION OF OTHER OCCUPANTS OF THE FACILITY.
- CONTRACTOR SHALL FURNISH ATC WITH A PDF MARKED UP AS-BUILT SET OF DRAWINGS UPON COMPLETION OF WORK.
- PRIOR TO SUBMISSION OF BID, CONTRACTOR SHALL COORDINATE WITH ATC CM TO DETERMINE WHAT, IF ANY, ITEMS WILL BE PROVIDED. ALL ITEMS NOT PROVIDED SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR. CONTRACTOR WILL INSTALL ALL ITEMS PROVIDED.
- PRIOR TO SUBMISSION OF BID, CONTRACTOR SHALL COORDINATE WITH ATC CONSTRUCTION MANAGER TO DETERMINE IF ANY PERMITS WILL BE OBTAINED BY ATC. ALL REQUIRED PERMITS NOT OBTAINED BY ATC MUST BE OBTAINED, AND PAID FOR, BY THE CONTRACTOR.
- CONTRACTOR SHALL INSTALL ALL SITE SIGNAGE IN ACCORDANCE WITH ATC SPECIFICATIONS AND REQUIREMENTS.
- CONTRACTOR SHALL SUBMIT ALL SHOP DRAWINGS TO ATC FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.
- ALL EQUIPMENT SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND LOCATED ACCORDING TO ATC SPECIFICATIONS, AND AS SHOWN IN THESE PLANS.
- THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED HEREIN. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
- CONTRACTOR SHALL NOTIFY ATC CM A MINIMUM OF 48 HOURS IN ADVANCE OF POURING CONCRETE OR BACKFILLING ANY UNDERGROUND UTILITIES, FOUNDATIONS OR SEALING ANY WALL, FLOOR OR ROOF PENETRATIONS FOR ENGINEERING REVIEW AND APPROVAL.
- CONTRACTOR SHALL BE RESPONSIBLE FOR SITE SAFETY INCLUDING COMPLIANCE WITH ALL APPLICABLE OSHA STANDARDS AND RECOMMENDATIONS AND SHALL PROVIDE ALL NECESSARY SAFETY DEVICES INCLUDING PPE AND PPM AND CONSTRUCTION DEVICES SUCH AS WELDING AND FIRE PREVENTION, TEMPORARY SHORING, SCAFFOLDING, TRENCH BOXES/SLOPING, BARRIERS, ETC.
- THE CONTRACTOR SHALL PROTECT AT HIS OWN EXPENSE, ALL EXISTING FACILITIES AND SUCH OF HIS NEW WORK LIABLE TO INJURY DURING THE CONSTRUCTION PERIOD. ANY DAMAGE CAUSED BY NEGLIGENCE ON THE PART OF THIS CONTRACTOR OR HIS REPRESENTATIVES, OR BY THE ELEMENTS DUE TO NEGLIGENCE ON THE PART OF THIS CONTRACTOR OR HIS

- REPRESENTATIVES, EITHER TO THE EXISTING WORK, OR TO HIS WORK, OR THE WORK OF ANY OTHER CONTRACTOR, SHALL BE REPAIRED AT HIS EXPENSE TO THE OWNER'S SATISFACTION.
- ALL WORK SHALL BE INSTALLED IN A FIRST CLASS, NEAT AND WORKMANLIKE MANNER BY MECHANICS SKILLED IN THE TRADE INVOLVED. THE QUALITY OF WORKMANSHIP SHALL BE SUBJECT TO THE APPROVAL OF THE ATC CM. ANY WORK FOUND BY THE ATC CM TO BE OF INFERIOR QUALITY AND/OR WORKMANSHIP SHALL BE REPLACED AND/OR REWORKED AT CONTRACTOR EXPENSE UNTIL APPROVAL IS OBTAINED.
 - IN ORDER TO ESTABLISH STANDARDS OF QUALITY AND PERFORMANCE, ALL TYPES OF MATERIALS LISTED HEREINAFTER BY MANUFACTURER'S NAMES AND/OR MANUFACTURER'S CATALOG NUMBER SHALL BE PROVIDED BY THESE MANUFACTURERS AS SPECIFIED.

CONCRETE AND REINFORCING STEEL NOTES:

- DESIGN AND CONSTRUCTION OF ALL CONCRETE ELEMENTS SHALL CONFORM TO THE LATEST EDITIONS OF ALL APPLICABLE CODES INCLUDING: ACI 301 "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS", ACI 117 "SPECIFICATIONS FOR TOLERANCES FOR CONCRETE CONSTRUCTION AND MATERIALS", AND ACI 318 "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE."
- MIX DESIGN SHALL BE APPROVED BY ATC CM PRIOR TO PLACING CONCRETE.
- CONCRETE SHALL BE NORMAL WEIGHT, 6% AIR ENTRAINED (+/- 1.5%) WITH A SLUMP RANGE OF 3-5" AND HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 4000 PSI UNLESS OTHERWISE NOTED.
- THE FOLLOWING MATERIALS SHALL BE USED:
 PORTLAND CEMENT: ASTM C150, TYPE 2
 REINFORCEMENT: ASTM A185, PLAIN STEEL WELDED WIRE FABRIC
 REINFORCEMENT BARS: ASTM A615, GRADE 60, DEFORMED
 NORMAL WEIGHT AGGREGATE: ASTM C33
 WATER: ASTM C 94/C 94M
 ADMIXTURES:
 -WATER-REDUCING AGENT: ASTM C 494/C 494M, TYPE A
 -AIR-ENTERING AGENT: ASTM C 260/C 260M
 -SUPERPLASTICIZER: ASTM C494, TYPE F OR TYPE G
 -RETARDING: ASTM C 494/C 494M, TYPE B
- MINIMUM CONCRETE COVER FOR REINFORCING STEEL SHALL BE NO LESS THAN 3".
- A 3/4" CHAMFER SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE IN ACCORDANCE WITH ACI 301 SECTION 4.2.4, UNLESS NOTED OTHERWISE.
- INSTALLATION OF CONCRETE EXPANSION WEDGE ANCHOR SHALL BE PER MANUFACTURER'S WRITTEN RECOMMENDED PROCEDURE. THE ANCHOR BOLT, DOWEL, OR ROD SHALL CONFORM TO MANUFACTURER'S RECOMMENDATION FOR EMBEDMENT DEPTH OR AS SHOWN ON THE DRAWINGS. NO REBAR SHALL BE CUT WITHOUT PRIOR ATC CM APPROVAL WHEN DRILLING HOLES IN CONCRETE.
- ADMIXTURES SHALL CONFORM TO THE APPROPRIATE ASTM STANDARD AS REFERENCED IN "METHOD 1" OF ACI 301.
- DO NOT WELD OR TACK WELD REINFORCING STEEL.
- ALL DOWELS, ANCHOR BOLTS, EMBEDDED STEEL, ELECTRICAL CONDUITS, PIPE SLEEVES, GROUNDS AND ALL OTHER EMBEDDED ITEMS AND FORMED DETAILS SHALL BE IN PLACE BEFORE START OF CONCRETE PLACEMENT.
- REINFORCEMENT SHALL BE COLD BENT WHENEVER BENDING IS REQUIRED.
- DO NOT PLACE CONCRETE IN WATER, ICE, OR ON FROZEN GROUND.
- DO NOT ALLOW REINFORCEMENT, CONCRETE OR SUBBASE TO FREEZE DURING CONCRETE CURING AND SETTING PERIOD, OR FOR A MINIMUM OF 3 DAYS AFTER PLACEMENT.
- FOR COLD-WEATHER(ACI 306) AND HOT-WEATHER(ACI 301M) CONCRETE PLACEMENT, CONFORM TO APPLICABLE ACI CODES AND RECOMMENDATIONS. IN EITHER CASE, MATERIALS CONTAINING CHLORIDE, CALCIUM, SALTS, ETC. SHALL NOT BE USED. PROTECT FRESH CONCRETE FROM WEATHER FOR 7 DAYS, MINIMUM.
- ALL CONCRETE SHALL HAVE A "SMOOTH FORM FINISH."
- UNLESS OTHERWISE NOTED:
 A. ALL REINFORCING STEEL SHALL BE DEFORMED BARS CONFORMING TO ASTM A615/A 615MA-996, GRADE 60.
 B. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185.
- SPLICING OF REINFORCEMENT IS PERMITTED ONLY AT LOCATIONS SHOWN IN THE CONTRACT DRAWINGS OR AS ACCEPTED BY THE ENGINEER. UNLESS OTHERWISE SHOWN OR NOTED REINFORCING STEEL SHALL BE SPLICED TO DEVELOP ITS FULL TENSILE CAPACITY (CLASS A) IN ACCORDANCE WITH ACI 318.
- REINFORCING BAR DEVELOPMENT LENGTHS, AS COMPUTED IN ACCORDANCE WITH ACI 318, FORM THE BASIS FOR BAR EMBEDMENT LENGTHS AND BAR SPLICED LENGTHS SHOWN IN THE

DRAWINGS. APPLY APPROPRIATE MODIFICATION FACTORS FOR TOP STEEL, BAR SPACING, COVER AND THE LIKE.

- DETAILING OF REINFORCING STEEL SHALL CONFORM TO "ACI MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES" (ACI 315).
- ALL SLAB CONSTRUCTION SHALL BE CAST MONOLITHICALLY WITHOUT HORIZONTAL CONSTRUCTION JOINTS, UNLESS SHOWN IN THE CONTRACT DRAWINGS.
- LOCATION OF ALL CONSTRUCTION JOINTS ARE SUBJECT TO THE REQUIREMENTS OF THE CONTRACT DOCUMENTS, CONFORMANCE WITH ACI 318, AND ACCEPTANCE OF THE ENGINEER. DRAWINGS SHOWING LOCATION OF DETAILS OF THE PROPOSED CONSTRUCTION JOINTS SHALL BE SUBMITTED WITH REINFORCING STEEL PLACEMENT DRAWINGS.
- SPLICES OF WWF, AT ALL SPLICED EDGES, SHALL BE SUCH THAT THE OVERLAP MEASURED BETWEEN OUTERMOST CROSS WIRES OF EACH FABRIC SHEET IS NOT LESS THAN THE SPACING OF THE CROSS WIRE PLUS 2 INCHES, NOR LESS THAN 6".
- BAR SUPPORTS SHALL BE ALL GALVANIZED METAL WITH PLASTIC TIPS.
- ALL REINFORCEMENT SHALL BE SECURELY TIED IN PLACE TO PREVENT DISPLACEMENT BY CONSTRUCTION TRAFFIC OR CONCRETE. THE WIRE SHALL BE OF SUFFICIENT STRENGTH FOR INTENDED PURPOSE, BUT NOT LESS THAN NO. 10 GAUGE.
- SLAB ON GROUND:
 A. COMPACT SUBGRADE AND ENSURE THERE IS PLACE 6" GRAVEL BENEATH SLAB.
 B. PROVIDE VAPOR BARRIER BENEATH SLAB ON GROUND.

STRUCTURAL STEEL NOTES:

- STRUCTURAL STEEL SHALL CONFORM TO THE LATEST EDITION OF THE AISC "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS."
- STRUCTURAL STEEL ROLLED SHAPES, PLATES AND BARS SHALL CONFORM TO THE FOLLOWING ASTM DESIGNATIONS:
 A. ASTM A-672, GRADE 50 - ALL W SHAPES, UNLESS NOTED OR A992 OTHERWISE
 B. ASTM A-36 - ALL OTHER ROLLED SHAPES, PLATES AND BARS UNLESS NOTED OTHERWISE
 C. ASTM A-500, GRADE B - HSS SECTION (SQUARE, RECTANGULAR, AND ROUND)
 D. ASTM A-325, TYPE SC OR N - ALL BOLTS FOR CONNECTING STRUCTURAL MEMBERS
 E. ASTM F-1554 07 - ALL ANCHOR BOLTS, UNLESS NOTED OTHERWISE
- ALL EXPOSED STRUCTURAL STEEL MEMBERS SHALL BE HOT-DIPPED GALVANIZED AFTER FABRICATION PER ASTM A123. EXPOSED STEEL HARDWARE AND ANCHOR BOLTS SHALL BE GALVANIZED PER ASTM A153 OR B895.
- ALL FIELD CUT SURFACES, FIELD DRILLED HOLES AND GROUND SURFACES WHERE EXISTING PAINT OR GALVANIZATION REMOVAL WAS REQUIRED SHALL BE REPAIRED WITH (2) BRUSHED COATS OF ZRC GALVALITE COLD GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURER'S RECOMMENDATIONS.
- DO NOT DRILL HOLES THROUGH STRUCTURAL STEEL MEMBERS EXCEPT AS SHOWN AND DETAILED ON STRUCTURAL DRAWINGS.
- CONNECTIONS:
 A. ALL WELDING TO BE PERFORMED BY AWS CERTIFIED WELDERS AND CONDUCTED IN ACCORDANCE WITH THE LATEST EDITION OF THE AWS WELDING CODE D1.1.
 B. ALL WELDS SHALL BE INSPECTED VISUALLY. 25% OF WELDS SHALL BE INSPECTED WITH DYE PENETRANT OR MAGNETIC PARTICLE TO MEET THE ACCEPTANCE CRITERIA OF AWS D1.1. REPAIR ALL WELDS AS NECESSARY.
 C. INSPECTION SHALL BE PERFORMED BY AN AWS CERTIFIED WELD INSPECTOR.
 D. IT IS THE CONTRACTORS RESPONSIBILITY TO PROVIDE BURNING/WELDING PERMITS AS REQUIRED BY LOCAL GOVERNING AUTHORITY AND IF REQUIRED SHALL HAVE FIRE DEPARTMENT DETAIL FOR ANY WELDING ACTIVITY.
 E. ALL ELECTRODES TO BE LOW HYDROGEN, MATCHING FILLER METAL, PER AWS D1.1, UNLESS NOTED OTHERWISE.
 F. MINIMUM WELD SIZE TO BE 0.1875 INCH FILLET WELDS, UNLESS NOTED OTHERWISE.
 G. PRIOR TO FIELD WELDING GALVANIZING MATERIAL, CONTRACTOR SHALL GRIND OFF GALVANIZING 1/2" BEYOND ALL FIELD WELD SURFACES. AFTER WELD AND WELD INSPECTION IS COMPLETE, REPAIR ALL GROUND AND WELDED SURFACES WITH ZRC GALVALITE COLD GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURERS RECOMMENDATIONS.



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REV.	DESCRIPTION	BY	DATE
01	FOR CONSTRUCTION	PL	08/27/21

ATC SITE NUMBER:
305284

ATC SITE NAME:
WARFIELD

SITE ADDRESS:
2114 SAND HILL ROAD
MARRIOTTSTOWN, MD 21104



I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the state of Maryland. License No. 53883
 Expiration Date: 02/06/2023

Authorized by "EOR"
 27 Aug 2021 04:44:33
 T-Mobile cosis

DRAWN BY:	PL
DATE DRAWN:	08/27/21
ATC JOB NO:	13702733_M4

GENERAL NOTES	
SHEET NUMBER:	REVISION:
G-002	0

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SITE PLAN NOTES:

- THIS SITE PLAN REPRESENTS THE BEST PRESENT KNOWLEDGE AVAILABLE TO THE ENGINEER AT THE TIME OF THIS DESIGN. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO CONSTRUCTION AND VERIFY ALL EXISTING CONDITIONS RELATED TO THE SCOPE OF WORK FOR THIS PROJECT.
- ICE BRIDGE, CABLE LADDER, COAX PORT, AND COAX CABLE ARE SHOWN FOR REFERENCE ONLY. CONTRACTOR SHALL CONFIRM THE EXACT LOCATION OF ALL PROPOSED AND EXISTING EQUIPMENT AND STRUCTURES DEPICTED ON THIS PLAN. BEFORE UTILIZING EXISTING CABLE SUPPORTS, COAX PORTS, INSTALLING NEW PORTS OR ANY OTHER EQUIPMENT, CONTRACTOR SHALL VERIFY ALL ASPECTS OF THE COMPONENTS MEET THE ATC SPECIFICATIONS.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH THE ATC CONSTRUCTION MANAGER AND LOCAL UTILITY COMPANY FOR THE INSTALLATION OF CONDUITS, CONDUCTORS, BREAKERS, DISCONNECTS, OR ANY OTHER EQUIPMENT REQUIRED FOR ELECTRICAL SERVICE. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH LATEST EDITION OF THE STATE AND NATIONAL CODES, ORDINANCES AND REGULATIONS APPLICABLE TO THIS PROJECT.
- CONTRACTOR SHALL INSURE THAT ALL WORKING SPACE REQUIREMENTS ARE MET PER APPLICABLE CODES AND MANUFACTURER SPECIFICATIONS.
- ABOVE GROUND CONDUITS NEED TO BE SUPPORTED/FASTENED PER NEC 344, NEC 352, AND PER ATC CONSTRUCTION SPECIFICATIONS.
- THE FOLLOWING SIGNS SHALL BE INSTALLED AT TENANT SERVICE MAIN DISCONNECT PER NEC 702.7.
 - "CAUTION: TWO SOURCES OF SUPPLY STANDBY GENERATOR LOCATED OUTDOORS"
 - "WARNING: SHOCK HAZARD EXISTS IF GROUNDING ELECTRODE CONDUCTOR OR BONDING JUMPER CONNECTION IN THIS EQUIPMENT IS REMOVED WHILE ALTERNATE SOURCE IS ENERGIZED"

RODENT CONTROL AROUND GENERATOR ENVELOPE:

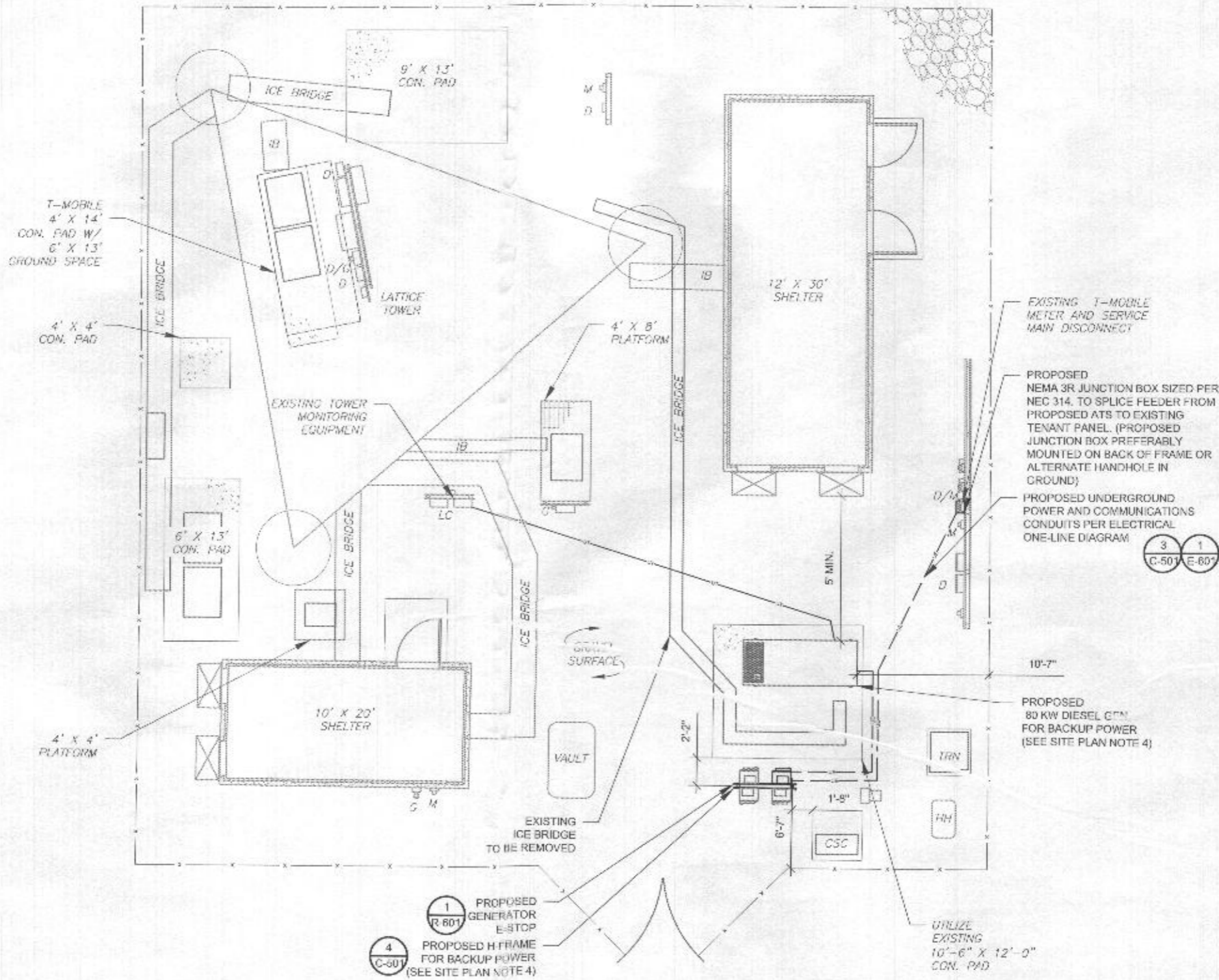
- INSTALL ALL PROVIDED SEALS, PLUGS, COVERS, ETC. IN GENERATOR AND FUEL TANK ENVELOPE. SEAL ALL REMAINING OPENINGS (EXCEPT NORMAL VENTING) WITH RODENT FOAM SEALANT. NO OPENING SHALL BE LARGER THAN 1/4 INCH ANY DIMENSION.
- SEAL ALL CONDUITS INCLUDING CONDUITS ENTERING GENERATOR EQUIPMENT, BOXES, ATTACHMENTS, ETC. WITH RODENT FOAM SEALANT.
- SEAL ALL CONDUIT ACCESS OPENINGS THROUGH CONCRETE PAD WITH CONCRETE.
- SLOPE GRAVEL BASE AT CONCRETE PAD PERIMETER FROM ABOVE PAD BASE TO EXISTING GRADE LEVEL TYPICAL ALL PERIMETER SIDES.

LEGEND

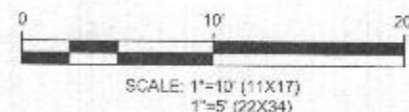
⊗	GROUNDING TEST WELL
ATS	AUTOMATIC TRANSFER SWITCH
B	BOLLARD
CSC	CELL SITE CABINET
D	DISCONNECT
E	ELECTRICAL
F	FIBER
GEN	GENERATOR
G	GENERATOR RECEPTACAL
HH, V	HAND HOLE, VAULT
IB	ICE BRIDGE
K	KENTROX BOX
LC	LIGHTING CONTROL
M	METER
PB	PULL BOX
PP	POWER POLE
T	TELCO
TRN	TRANSFORMER
---	CHAINLINK FENCE

APPROXIMATE TRENCH DISTANCES

15'	POWER CONDUIT TRENCH
46'	ADDITIONAL TRENCHING REQUIRED FOR COMMUNICATIONS EQUIPMENT



1 DETAILED SITE PLAN



AMERICAN TOWER[®]
A.T. ENGINEERING SERVICE, PLLC
 3500 REGENCY PARKWAY
 SUITE 100
 CARY, NC 27518
 PHONE: (919) 468-0112
 COA: P-1177

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REV.	DESCRIPTION	BY	DATE
1	FOR CONSTRUCTION	PL	08/27/21

ATC SITE NUMBER:
305284

ATC SITE NAME:
WARFIELD

SITE ADDRESS:
2114 SAND HILL ROAD
MARRIOTTVILLE, MD 21104



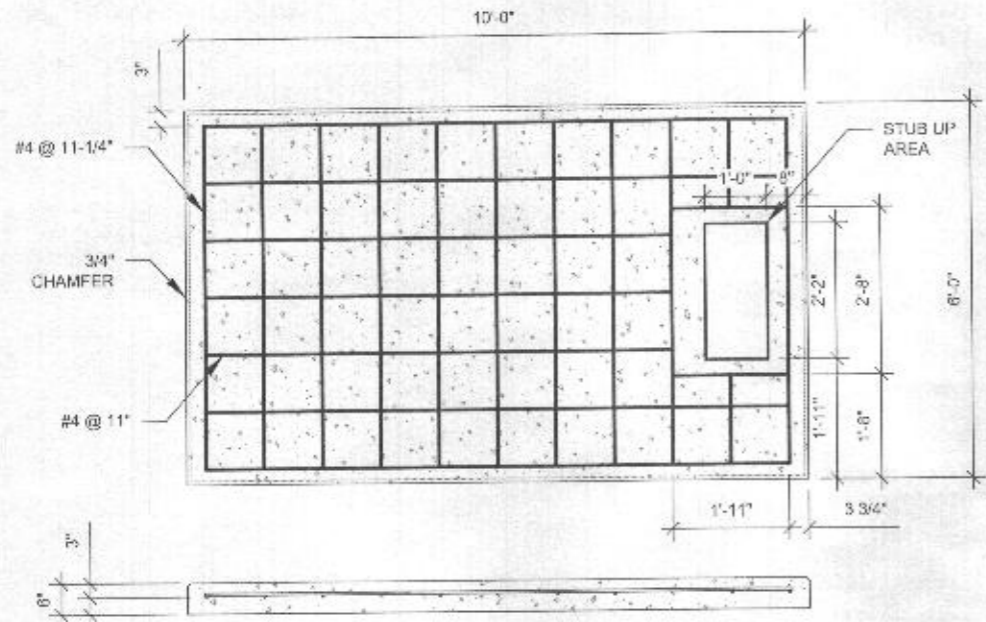
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 Expiration Date: 02/06/2023

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DRAWN BY:	PL
DATE DRAWN:	08/27/21
ATC JOB NO:	13702733_M4

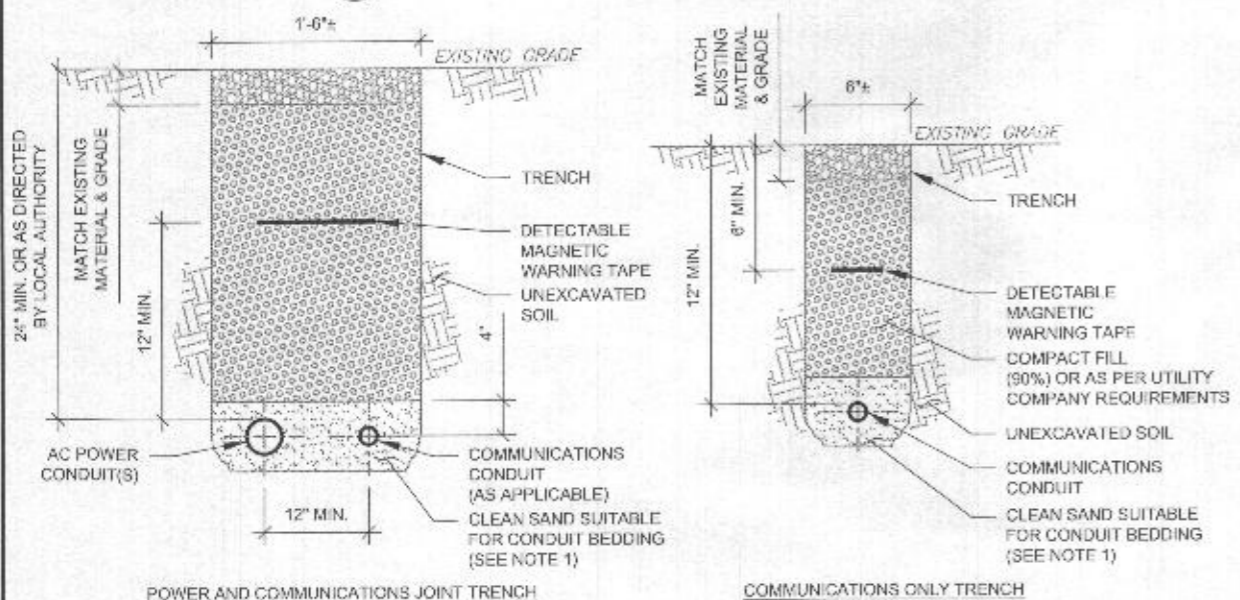
SITE PLAN	
SHEET NUMBER:	REVISION:
C-101	0

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- PAD NOTES:**
- PADS SHALL BE PRE-CAST MATCHING THIS DESIGN WHERE ALLOWED BY LOCAL JURISDICTION.
 - PADS SHALL HAVE A MIN 28 DAY COMPRESSIVE STRENGTH AS SPECIFIED ON G-002, CONCRETE AND REINFORCING STEEL NOTES #3
 - REFER TO CONCRETE & REINFORCED STEEL NOTES ON SHEET G-002 & ATC CONSTRUCTION SPECIFICATION 033200 FOR CAST-IN-PLACE PADS.
 - STUB UP AREA SHALL BE FILLED WITH QUIKRETE, OR APPROVED EQUAL, PRIOR TO FINAL SET OF GENERATOR ON PAD.
 - AFTER FINAL SET OF GENERATOR ON PAD, GROUT ALL EXTERIOR OPENINGS AT PAD INTERFACE SO THAT FINISHED MAXIMUM OPENING SHALL BE 1/4 INCH.
 - GROUT SHALL BE PER ATC CONSTRUCTION SPECIFICATION DIVISION 03, CONCRETE.

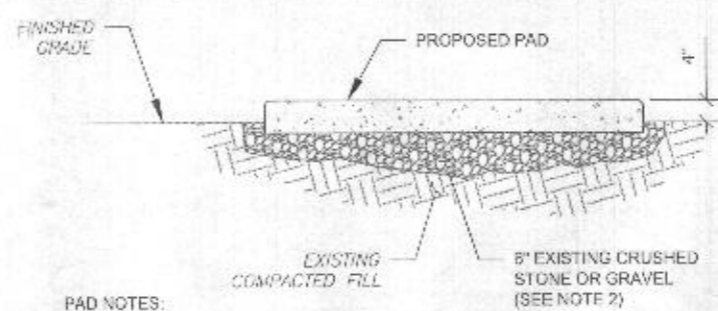
1 REINFORCED PAD LAYOUT
SCALE: N.T.S.



TRENCH NOTES:

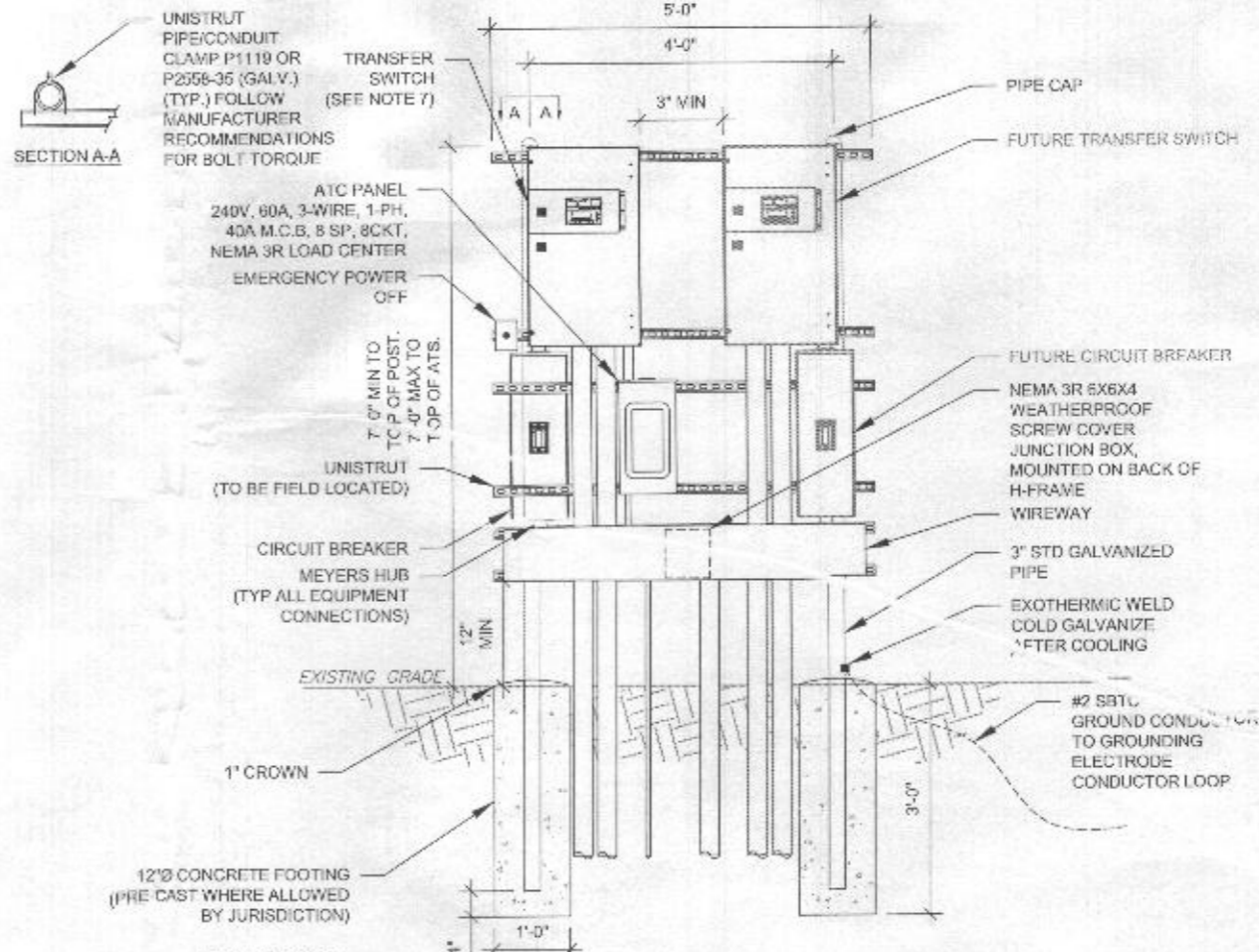
- IF FREE OF ORGANIC OR OTHER DELETERIOUS MATERIAL, EXCAVATED MATERIAL MAY BE USED FOR BACKFILL. IF NOT, PROVIDE CLEAN, COMPACTIBLE MATERIAL.
- COMPACT IN 6" LIFTS USING A MECHANICAL PLATE TAMPER, MIN 3 PASSES. REMOVE ANY LARGE ROCKS PRIOR TO BACKFILLING. CONTRACTOR TO VERIFY LOCATION OF EXISTING U/G UTILITIES PRIOR TO DIGGING. SEE ATC CONSTRUCTION SPECIFICATION 312000 SECTION 3.15.
- IF CURRENT AS-BUILT DRAWINGS ARE NOT AVAILABLE CONTRACTOR SHALL HAND DIG U/G TRENCHING.
- CONFIRM SPACING AND DEPTH WITH NEC OR LOCAL CODE REQUIREMENTS

3 CONDUIT TRENCH DETAILS
SCALE: N.T.S.



- PAD NOTES:**
- SUBGRADE AND FILL SHALL CONSIST OF CLEAN SOIL. DELETERIOUS MATERIAL AND ORGANICS SHALL BE REMOVED.
 - MECHANICALLY COMPACT FOOTPRINT OF PAD PLUS 2' PERIMETER USING A MECHANICAL PLATE TAMPER, MIN 3 PASSES. SEE ATC CONSTRUCTION SPECIFICATION 312000 ACCESS ROAD AND EARTH WORK.
 - USE GALVANIZED HILTI EXPANSION ANCHORS OR, APPROVED EQUAL, FOR EQUIPMENT ANCHORAGE.
 - FOR SIZE AND LOCATION OF ANCHORS AND OTHER REQUIREMENT, SEE EQUIPMENT VENDOR DRAWINGS.

2 GRAVEL PREPARATION
SCALE: N.T.S.



H-FRAME NOTES:

- IF IT IS NECESSARY TO EXTEND THE H-FRAME, AN ADDITIONAL POST SHALL BE REQUIRED.
- PROPOSED UNISTRUTS TO BE FIELD CUT AND SHALL NOT EXTEND MORE THAN 6 INCHES BEYOND THE LAST POST.
- SPRAY ENDS OF UNISTRUT WITH COLD GALVANIZING SPRAY PAINT, ALLOW TO DRY, THEN COVER WITH RUBBER PROTECTIVE CAPS FOR SAFETY.
- UNISTRUT TO BE CUT FLUSH WITH NO SHARP OR JAGGED EDGES.
- ALL PROPOSED HARDWARE TO BE MOUNTED AND GROUNDED PER MANUFACTURERS SPECS
- ALL ITEMS ARE PROPOSED UNLESS OTHERWISE NOTED.
- LAYOUT H-FRAME & PROPOSED EQUIPMENT EXACTLY AS SHOWN TO ALLOW FOR FUTURE EQUIPMENT. ANY DEVIATIONS MUST BE APPROVED BY ATC CM, IN WRITING, NO EXCEPTIONS.
- FOOTINGS SHALL BE ONE OF THE FOLLOWING: USS POLECRETE STABILIZER SYSTEM, PRECAST CONCRETE (WHERE ALLOWED BY JURISDICTION) OR CAST IN PLACE. FOR PRECAST FOOTINGS, CONTRACTORS SHALL THOROUGHLY COMPACT THE PERIMETER (2' MIN) OF FOOTING WITH MECHANICAL PLATE TAMPER.

4 H-FRAME
SCALE: N.T.S.

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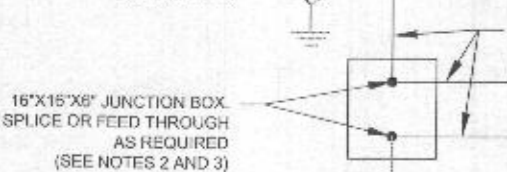
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DATE DRAWN:	08/27/21
ATC JOB NO:	13702733_M4

CONCRETE PAD DETAILS	
SHEET NUMBER:	REVISION:
C-501	0

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THIS DESIGN ONLY APPLICABLE TO 240V 1 ϕ UTILITY SERVICE. FIELD VERIFY UTILITY SERVICE AND IF NOT 240V 1 ϕ , HALT CONSTRUCTION AND RE-PROCESS FOR RE-DESIGN

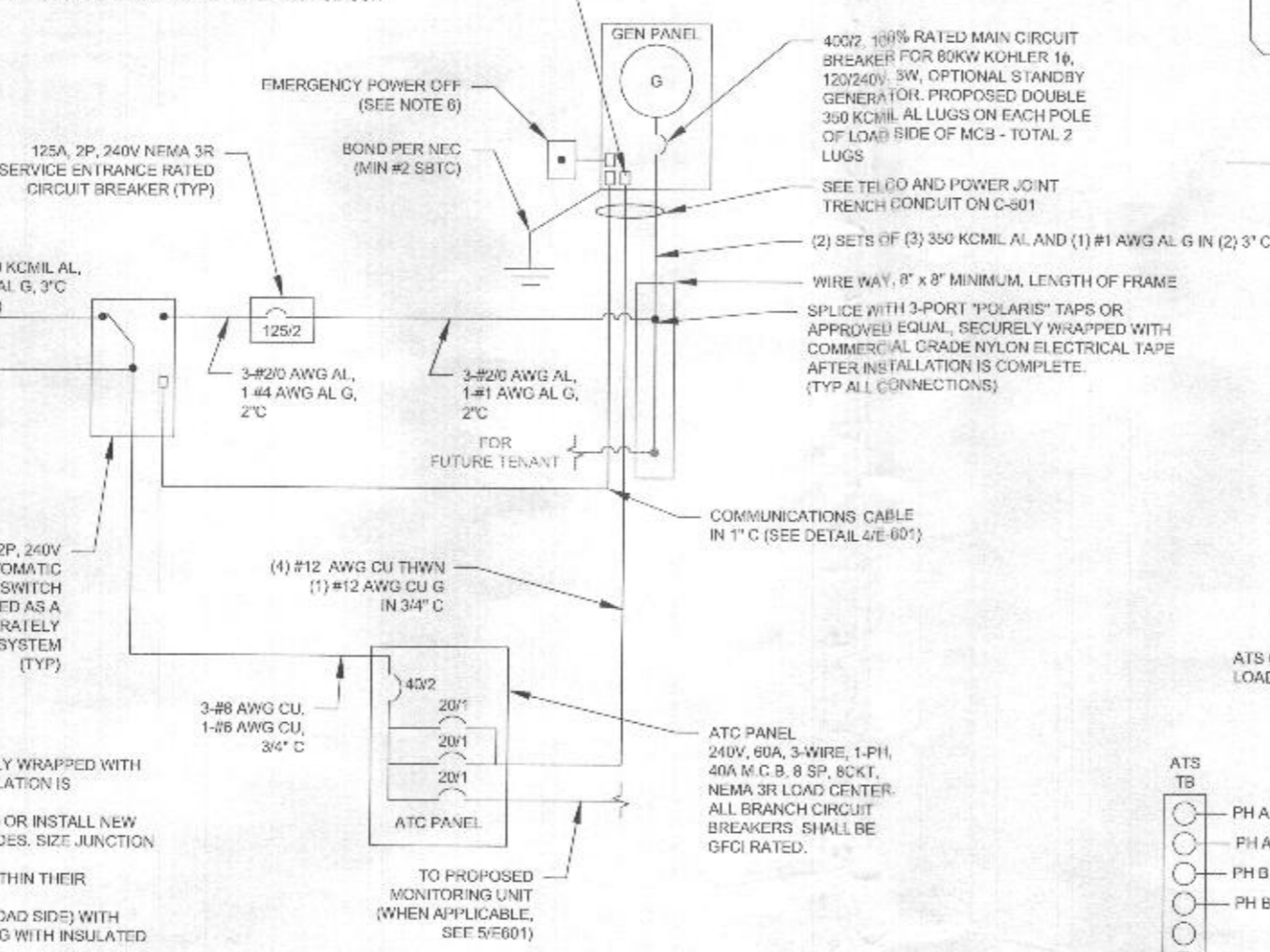


UN-TERMINATE EXISTING AT TENANT SERVICE MAIN, PULL BACK INTO PROPOSED JUNCTION BOX AND SPLICE AS SPECIFIED.

ONE-LINE NOTES:

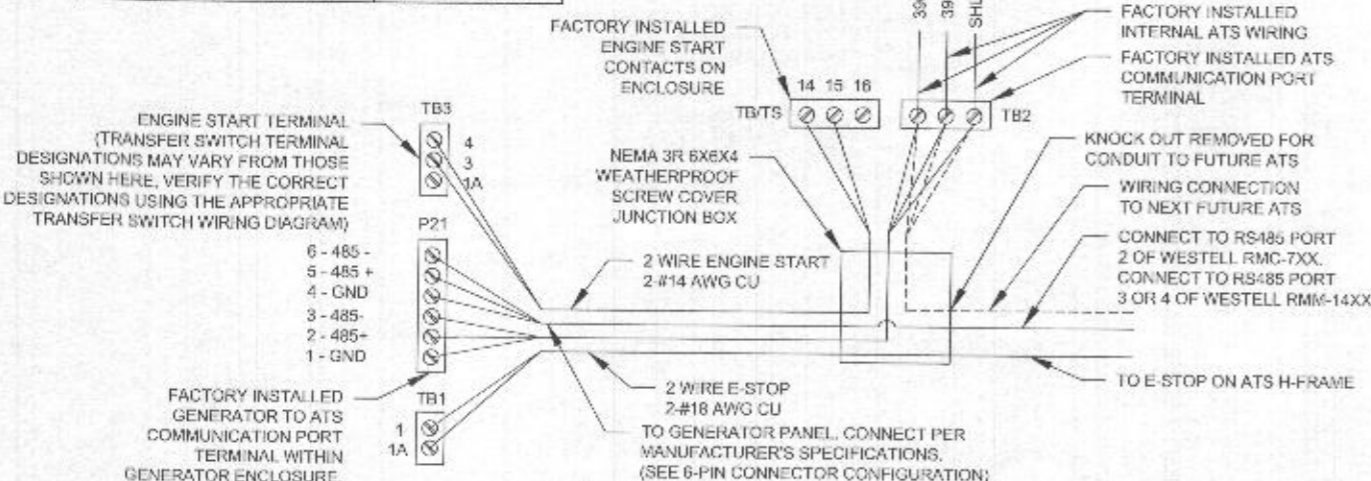
- CONNECT CT'S PER OWNERS MANUAL.
- SPLICE WITH "POLARIS" TAPS OR APPROVED EQUAL, SECURELY WRAPPED WITH COMMERCIAL GRADE NYLON ELECTRICAL TAPE AFTER INSTALLATION IS COMPLETE.
- UTILIZE EXISTING ENCLOSURES FOR SPLICING (PER NEC 312.8) OR INSTALL NEW JUNCTION BOX AS APPLICABLE PER SITE CONDITIONS AND CODES. SIZE JUNCTION BOX AS PER NEC 314.28.
- IF TAPPING AT TENANT EQUIPMENT, NO TAPS MAY BE MADE WITHIN THEIR EXISTING EQUIPMENT, INCLUDING PPC.
- TAP GENERATOR PANEL CIRCUIT TO LUGS ON T-TERMINALS (LOAD SIDE) WITH AUXILIARY TAP SCREW. TERMINATE CONDUCTOR ON EACH LUG WITH INSULATED RING TERMINAL PROPERLY SIZED.
- EMERGENCY POWER OFF PUSHBUTTON IN WEATHERPROOF ENCLOSURE FOR REMOTE SHUTDOWN OF GENERATOR ENCLOSURE. FURNISHED BY GENERATOR MANUFACTURER AND INSTALLED BY CONTRACTOR. CONNECT TO TB1 TERMINALS 1 AND 1A VIA 2#18 AWG WIRES IN 1/2" LFMC.

TERMINATE 120/208V OR 120/240V 3-WIRE CIRCUIT ON GENERATOR WIRING TERMINAL STRIP. VERIFY OR INSTALL AS FOLLOWS:
 1. BATTERY CHARGER - PRE-WIRED ON ONE 120V CIRCUIT.
 2. BLOCK HEATER - HARD WIRED 120V CIRCUIT

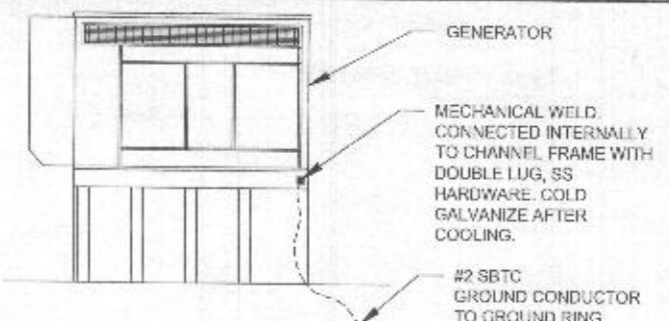


1 ELECTRICAL ONE-LINE DIAGRAM
SCALE: NOT TO SCALE

P21 6-PIN CONNECTOR RS-485 (RSA II)			
TERMINAL	DESCRIPTION	CONNECTION	INPUT/OUTPUT
P21-1	GND	BLUE	INPUT FROM KBOX
P21-2	(+)	ORANGE/WHITE	INPUT FROM KBOX
P21-3	(-)	GREEN	INPUT FROM KBOX
P21-4	GND	BLUE	OUTPUT TO ATS
P21-5	(+)	ORANGE/WHITE	OUTPUT TO ATS
P21-6	(-)	GREEN	OUTPUT TO ATS



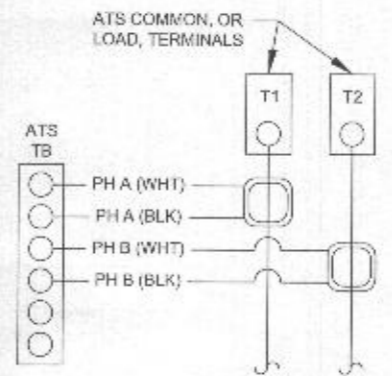
4 COMMUNICATIONS CABLE DETAIL
SCALE: NOT TO SCALE



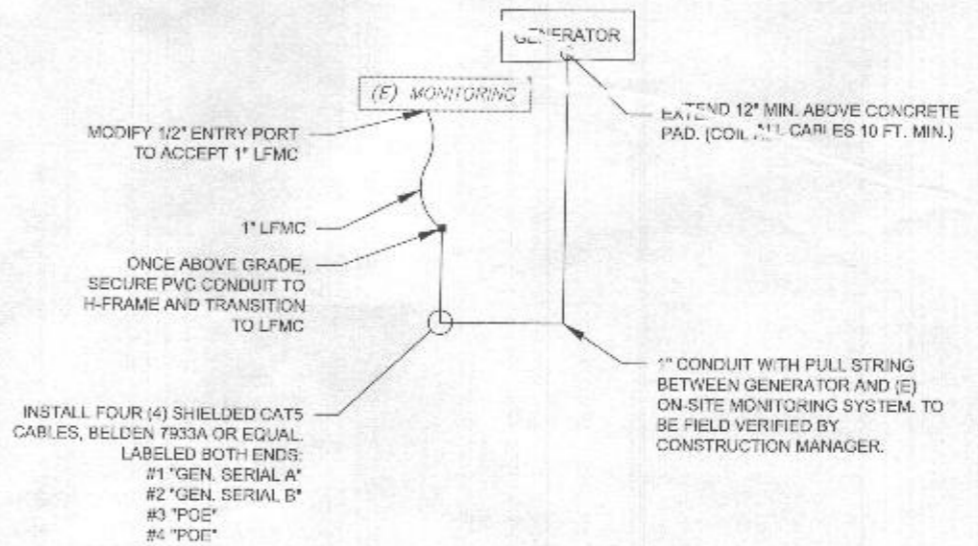
GENERATOR INSTALLATION NOTE:
 INSTALL GENERATOR AND TRANSFER SWITCH WITH ALL SUPPLIED ACCESSORIES PER MANUFACTURER'S INSTALLATION INSTRUCTIONS AND SPECIFICATIONS. THIS INCLUDES, BUT IS NOT LIMITED TO, ACCESSORIES FOR THE EXHAUST SYSTEM, FUEL SYSTEM, ENCLOSURE INTEGRITY (CAPS, PLUGS, COVERS, ETC.), ELECTRICAL CONNECTIONS, AND GROUNDING CONNECTIONS.

2 GENERATOR GROUNDING

DEMAND LOAD CALCULATION	
GENERATOR LOADS	2.5 KW
TENANT PANEL DEMAND LOADS	25.0 KW
TOTAL DEMAND LOADS (KW)	27.5 KW
TOTAL DEMAND CURRENT (A)	114.5 A
AT 120/240V, 1PH, 3W	



3 CT WIRING DIAGRAM
SCALE: NOT TO SCALE



5 CONNECTING TO EXISTING MONITORING
SCALE: NOT TO SCALE

NOTE:
 TERMINATE BOTH ENDS OF ALL CABLES WITH SHIELDED RJ-45 CONNECTORS, BELDEN 0986 EMC-600 OR EQUAL USING INDUSTRY STANDARD 568-A WIRELESS SCHEME. TEST ALL CABLES AFTER INSTALLATION AND CORRECT AS NECESSARY. LEAVE CABLES UN-CONNECTED FOR COMMISSIONING TEAM. COIL ALL CABLES 3 FT. MINIMUM IN BOX.

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ATC JOB NO:	13702733_M4

ELECTRICAL ONE-LINE AND WIRING DETAILS

SHEET NUMBER:	REVISION:
E-601	0

KOHLER

KOHLER CO., Kohler, Wisconsin 53044 USA
 Phone 920-457-4441, Fax 920-459-1616
 For the nearest sales and service outlet in the US and Canada, phone 1-800-544-2444
 KOHLERPower.com

3. Connect the emergency stop switch.

Note: Installation and wiring must comply with NEC requirements and applicable codes.

- 3.1 Cut two lengths of #18-22 AWG wire (or a length of multiconductor cable) long enough to connect the controller and switch(es). Strip the ends of the wires and attach the fork terminals GM103743-5 provided.
- 3.2 Route the switch leads through either the cable entry fitting or the threaded conduit entry knockout provided on the E-stop assembly, as required for the application. See Figure 1.
- 3.3 Connect the fork terminals to the stop switch contacts 1 and 2. See Figure 2.

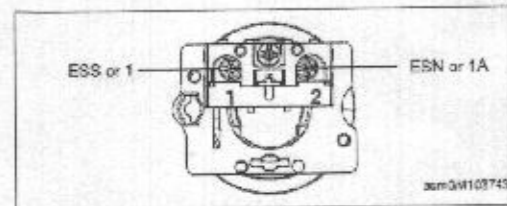


Figure 2 E-Stop Switch Connections 1 and 2

- 3.4 Use the four screws that were removed in step 2.1 to reassemble the E-stop switch.
- 3.5 If cable is routed through the cable entry fitting, use a wrench to tighten the fitting to seal around the cable.
- 3.6 At the generator set, remove enclosure panels and covers as needed to access the E-stop connections at the controller. Refer to the generator set wiring diagram to identify the E-stop connections.
- 3.7 Check for a jumper between terminals TB1-1 and 1A and remove it, or disconnect leads ESS and ESN as applicable. See Figure 3.
- 3.8 Route the E-stop switch leads to the terminal block or the ESS/ESN leads in the generator set junction box. Cut leads to length and strip the ends.

- 3.8.1 For Industrial or commercial (model RCL) generator sets, connect the

E-stop switch leads to controller terminals TB1-1 and 1A. See Figure 3.

- 3.8.2 For residential air-cooled generator sets equipped with the RDC2 controller, attach fast-on terminals GM103743-3 and GM103743-4, provided with the kit. Connect the E-stop switch leads to ESS and ESN. See Figure 3.
- 3.9 If the generator set is equipped with a local (controller-mounted) emergency stop switch, proceed as follows:
 - 3.9.1 Remove local emergency stop leads from terminals TB1-1 and 1A.
 - 3.9.2 Connect remote emergency stop leads to terminals TB1 and 1A.
 - 3.9.3 Splice local emergency stop leads in series with remote switch lead connected to terminal TB1-1 as shown in Figure 4.

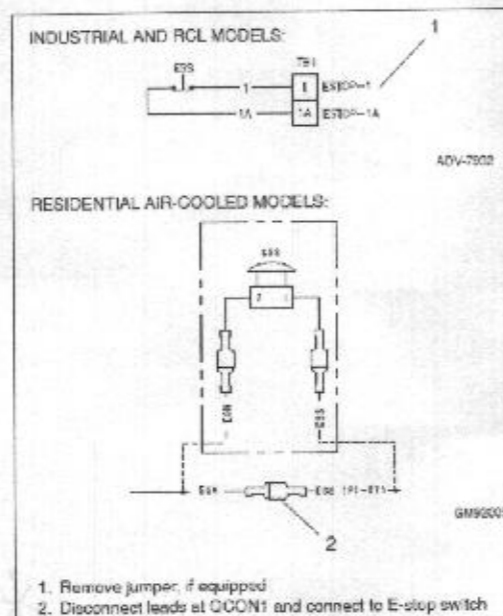


Figure 3 E-Stop Switch Connections to Controllers

- 3.10 If multiple remote E-stop switches are used, connect the switches in series so that activating any one of the switches will stop the engine. See Figure 4.
- 3.11 Replace controller covers and hardware.

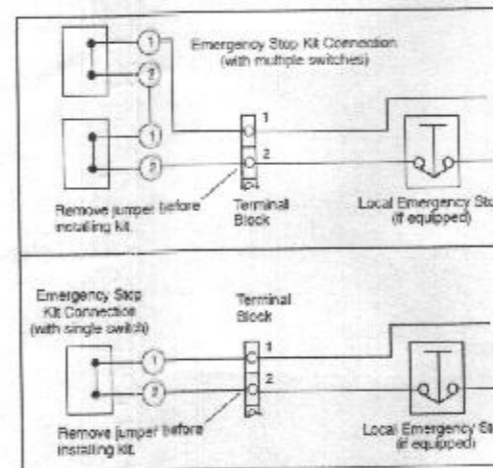


Figure 4 Multiple E-Stop Connections in Series

4. Return the generator set to service

- 4.1 Check that the generator set master switch is in the OFF position.
- 4.2 Reconnect the generator set engine starting battery, negative (-) lead last.
- 4.3 Reconnect power to the battery charger, if equipped.
- 4.4 Replace all enclosure panels.
- 4.5 Test the E-Stop switch operation.
- 4.6 Return the generator set to normal operation.

Operation

Press the red STOP button to shut down the generator set in an emergency.

Using the emergency stop button bypasses the engine cooldown cycle, stopping the engine immediately. The controller emergency stop lamp lights (if equipped) and the unit shuts down. The generator set cannot be restarted until the emergency stop switch(es) is/are reset.

Lockout/Tagout

The emergency stop button can be locked in the STOP position. Insert a lock through two openings in the yellow shroud to prevent the stop button from being pulled out. See Figure 1. Remove the lock for normal operation.

A lock is not required in order to keep the switch activated. The switch button will stay depressed until it is pulled out by the operator.

Resetting the Emergency Stop Switch

To reset the E-stop switch, remove the locking device and pull the button out. Reset the controller by placing the generator set master switch in the OFF/RESET position or pressing the OFF/RESET button.

Parts List

E-Stop, NEC Remote

Kit: GM103279-KP1 and GM103279-KP1-QS		
Qty.	Description	Part Number
1	E-Stop, NEC Remote	GM103743
1	E-Stop W/ Yellow Shroud, LOTO	GM103743-1*
4	#10 X 1.25" Sheet Metal Screw	GM103743-2*
1	Terminal, Fast-On, Male, 18-22 AWG	GM103743-3*
1	Terminal, Fast-On, Female, 18-22 AWG	GM103743-4*
2	Terminal, Fork, 22-16 AWG	GM103743-5*
1	Installation Instructions, TT-1736	GM103743-6*

* Components Included in GM103743

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TT-1736 2/19

TT-1736 2/19

8

1

1 E-STOP SWITCH

SUPPLEMENTAL

SHEET NUMBER:

R-601

REVISION:

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