



HISTORIC PRESERVATION COMMISSION

Marc Elrich
County Executive

Robert K. Sutton
Chairman

Date: April 28, 2022

MEMORANDUM

TO: Mitra Pedoeem
Department of Permitting Services

FROM: Michael Kyne
Historic Preservation Section
Maryland-National Capital Park & Planning Commission

SUBJECT: Historic Area Work Permit # 987920: New hardscape, fencing, and generator

The Montgomery County Historic Preservation Commission (HPC) has reviewed the attached application for a Historic Area Work Permit (HAWP). This application was **Approved** at the April 20, 2022 HPC meeting.

The HPC staff has reviewed and stamped the attached construction drawings.

THE BUILDING PERMIT FOR THIS PROJECT SHALL BE ISSUED CONDITIONAL UPON ADHERENCE TO THE ABOVE APPROVED HAWP CONDITIONS AND MAY REQUIRE APPROVAL BY DPS OR ANOTHER LOCAL OFFICE BEFORE WORK CAN BEGIN.

Applicant: T-Mobile/Smartlink Group (Sonya Hemphill, Agent)
Address: 17800 Bowie Mill Road, Derwood

This HAWP approval is subject to the general condition that the applicant will obtain all other applicable Montgomery County or local government agency permits. After the issuance of these permits, the applicant must contact this Historic Preservation Office if any changes to the approved plan are made. Once work is complete the applicant will contact Michael Kyne at 301.563.3403 or michael.kyne@montgomeryplanning.org to schedule a follow-up site visit.



REVIEWED
By Michael Kyne at 9:52 am, Apr 28, 2022

APPROVED
Montgomery County
Historic Preservation Commission

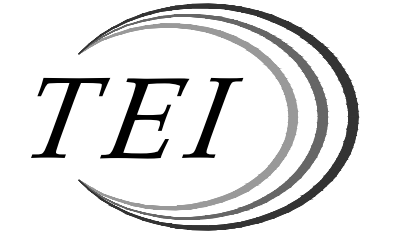
Robert A. ...



T-MOBILE NORTHEAST LLC
SITE ID: 7WAN162B
SITE NAME: FRALEY FAMILY - ROCKVILLE
17800A BOWIE MILL ROAD
ROCKVILLE, MD 28055
MONTGOMERY COUNTY

T-Mobile
T-MOBILE NORTHEAST LLC

12050 BALTIMORE AVENUE
BELTSVILLE, MARYLAND 20705
OFFICE: (240) 264-8600
FAX: (240) 264-8610



TELEAGENT ENGINEERING INC.
2216 COMMERCE ROAD, SUITE 1
FOREST HILL, MD 21050
410-692-5816
www.tel-eng.com

SITE ID:
7WAN162B
SITE NAME:
FRALEY FAMILY - ROCKVILLE
SITE ADDRESS:
17800A BOWIE MILL ROAD
ROCKVILLE, MD 28055
MONTGOMERY COUNTY

REVISION BLOCK

NO.	DESCRIPTION	DATE
2	FINAL DWGS	01/17/2022
1	REVIEW DWGS	01/06/2022



01/17/2022

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, TIMOTHY SMIDT, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21585, EXPIRATION DATE: MAY 8, 2023.

DRAWN BY: FVB
DESIGNED BY: WGJ/FVB
ORIGINAL DATE: 01/06/2022
TEI PROJECT #: 21130U
DESIGN SCALE: AS NOTED



Know what's below. Call before you dig.

PROTECT YOURSELF, GIVE THREE WORKING DAYS NOTICE
THIS DRAWING DOES NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. ALL CONSTRUCTION MUST BE DONE IN COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 AND ALL RULES AND REGULATIONS THERE TO APPURTENANT.

SHEET TITLE

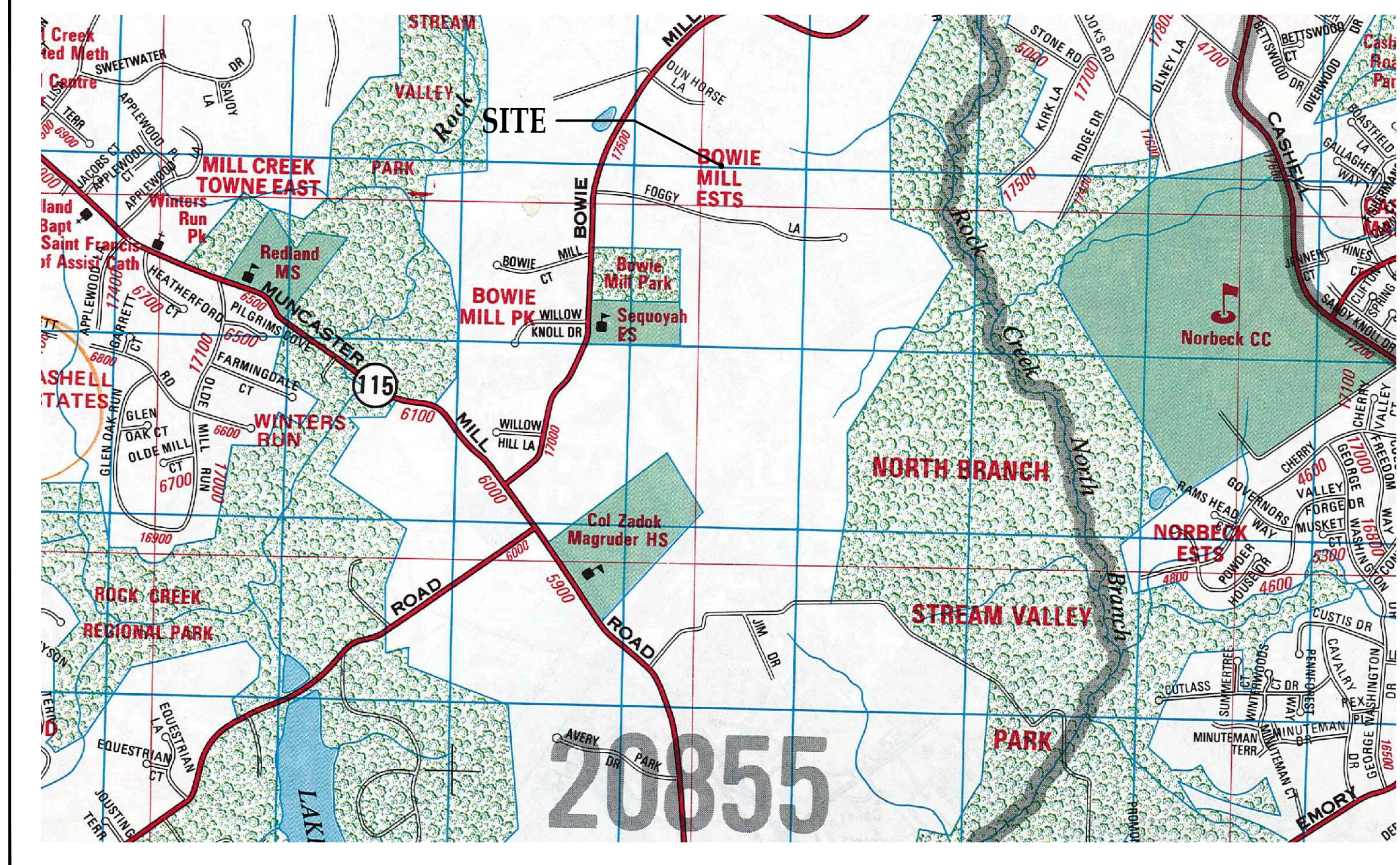
COVER SHEET

SHEET NUMBER

CS-1

COPYRIGHT ADC THE MAP PEOPLE
PERMITTED USE NUMBER 20506142
MONTGOMERY
ADC MAP NO.: 24 GRID: E-1

VICINITY PLAN



SITE INFORMATION

SCOPE OF WORK: (1) PROPOSED GENERAC 48 KW RD048 AC DIESEL GENERATOR
(1) PROPOSED GENERAC GTS SERIES, 240 VOLT RATED, 1Ø, 2 POLE, 200 AMP NEMA 3R AUTOMATIC TRANSFER SWITCH
(1) PROPOSED 5' X 10' CONCRETE GENERATOR PAD

PROJECT DESIGN: HARDENING

SITE ID NUMBER: 7WAN162B

SITE ADDRESS: 17800A BOWIE MILL ROAD
ROCKVILLE, MD 28055

SITE COORDINATES: LAT. = N 39° 09' 00.49" (NAD 83)
LONG. = W 77° 06' 51.55" (NAD 83)

JURISDICTION: MONTGOMERY COUNTY
ZONING: RE-4
EXISTING USE: AGRICULTURE / TELECOMMUNICATIONS

TAX ACCOUNT NUMBER: 00706980
PARCEL AREA: 49.28 AC
PARCEL OWNER: FRALEY, HARRY H ET AL

ADDRESS: 17800 BOWIE MILL ROAD
ROCKVILLE, MD 28055

GROUND ELEVATION: ±496' AMSL (AVG)

STRUCTURE TYPE: SILO

STRUCTURE USE GROUP: UTILITY (U)
PROPOSED WORK USE GROUP: UTILITY (U)

INDEX OF DRAWINGS

CS-1 COVER SHEET
GN-1 GENERAL STRUCTURAL NOTES
GN-2 GENERAL NOTES
C-1 SITE PLAN
C-2 COMPOUND PLAN
S-1 STRUCTURAL DETAILS
E-1 EQUIPMENT POWER PLAN, POWER RISER, AND NOTES
E-2 ELECTRICAL SYMBOLS LIST, DETAILS, AND SCHEDULE
E-3 DETAILS
E-4 SITE SIGNAGE

DO NOT SCALE DRAWINGS

THESE DRAWINGS ARE FORMATTED TO BE FULL-SIZE AT 24"x36". CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE DESIGNER / ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR MATERIAL ORDERS OR BE RESPONSIBLE FOR THE SAME. CONTRACTOR SHALL USE BEST MANAGEMENT PRACTICE TO PREVENT STORM WATER POLLUTION DURING CONSTRUCTION.

APPROVAL BLOCK

	DATE	APPROVED	APPROVED AS NOTED	DISAPPROVED/REVISE
PROPERTY OWNER	DATE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SITE ACQUISITION	DATE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CONSTRUCTION MANAGER	DATE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ZONING	DATE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CODE ANALYSIS

APPLICABLE BUILDING CODE: IBC 2018
APPLICABLE ELECTRIC CODE: NEC 2017
USE GROUP: UTILITY (U)
CONSTRUCTION TYPE: VB

GENERATOR USE

THE PROPOSED T-MOBILE GENERATOR IS AN OPTIONAL STAND-BY UNIT AS DEFINED BY NFPA 70, ARTICLE 703 AND DOES NOT SUPPLY LIFE SAFETY EQUIPMENT. THE GENERATOR IS USED TO BACKUP THE TELEPHONE EXCHANGE EQUIPMENT IN ORDER TO KEEP THE CELL SITE IN FULL OPERATION IN THE EVENT OF NORMAL UTILITY POWER FAIL. THEREFORE, NFPA 110 DOES NOT APPLY.

DIRECTIONS TO SITE

FROM BELTSVILLE:
-TAKE MD-200 WEST TO US-1 NORTH.
-TAKE US-1 NORTH TO MD-200 WEST.
-TAKE MD-200 WEST RAMP TO I-95/I-270.
-TAKE MD-200 WEST TO MD-97/GEORGIA AVENUE.
-TAKE EXIT 8B FROM MD-200 WEST.
-TAKE EXIT 8B TOWARD MD-97/GEORGIA AVE.
-KEEP RIGHT AT THE FORK AND MERGE ONTO MD-97.
-TAKE CASHELL RD TO 17800 BOWIE MILL ROAD.
-DESTINATION IS AHEAD ON THE RIGHT.

PROJECT TEAM

APPLICANT: T-MOBILE NORTHEAST LLC
12050 BALTIMORE AVENUE
BELTSVILLE, MD 20705
OFFICE: (240) 264-8600
FAX: (240) 264-8610

PROJECT MANAGEMENT FIRM: SMARTLINK
1362 MELLON ROAD, SUITE 140
HANOVER, MD 21076
(410) 582-8043

ENGINEERING FIRM: TELEAGENT ENGINEERING INC.
2216 COMMERCE ROAD, SUITE 1
FOREST HILL, MD 21050
(410) 692-5816

MORRIS & RITCHIE ASSOCIATES, INC.
1220-C EAST JOPPA ROAD, SUITE 505
TOWSON, MD 21286
(410) 821-1690

REVIEWED
By Michael Kyne at 9:52 am, Apr 28, 2022

APPROVED
Montgomery County
Historic Preservation Commission
Robert A. ...

STRUCTURAL NOTES

BUILDING CODES

- A. 2018 INTERNATIONAL BUILDING CODE (IBC-2018).
- B. IN ADDITION, ALL CONSTRUCTION SHALL CONFORM WITH ANY GOVERNING LOCAL BUILDING CODES NOT INDICATED.

DESIGN LOAD

- A. THE DESIGN DEAD LOADING FOR ALL FRAMING IS BASED ON THE CONSTRUCTION MATERIALS SHOWN ON THE DRAWINGS AND INDICATED IN THE SPECIFICATIONS.
- B. THE MINIMUM DESIGN LOADING FOR ALL FRAMING IS AS FOLLOWS:
WIND LOAD: BASIC WIND SPEED (ULTIMATE 3-SECOND GUST): 113 MPH
BASIC WIND SPEED (NOMINAL 3-SECOND GUST): 90 MPH
RISK CATEGORY: II
WIND EXPOSURE CATEGORY: C

EARTHQUAKE LOAD DESIGN DATA

- SHORT PERIOD ACCELERATION, S₀: 0.135g
- ONE SECOND PERIOD ACCELERATION, S₁: 0.043g
- SITE CLASS: D
- DAMPED SHORT PERIOD ACCELERATION, SDS: 0.144g
- RESPONSE MODIFICATION FACTOR, R: 1.5
- SEISMIC RESPONSE COEFFICIENT, C_s: 0.072g

PROPOSED GENERATOR LOAD PER MANUFACTURER

- WEIGHT EMPTY (W_{min}): 2915 lbs.
- WEIGHT FULL (W_{max}): 4706 lbs.

- E. THE CONTRACTOR SHALL NOT STORE ANY CONSTRUCTION MATERIALS OR UNDERTAKE ANY CONSTRUCTION OPERATION WHICH WILL EXCEED THE DESIGN LIVE LOADINGS NOTED.
- F. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE DESIGN, INSTALLATION AND REMOVAL OF TEMPORARY BRACING AND CONSTRUCTION SUPPORTS FOR NEW AND EXISTING STRUCTURES, AS REQUIRED TO COMPLETE THE PROJECT. THE CONTRACTOR IS COMPLETELY RESPONSIBLE FOR THE METHOD OF CONSTRUCTION AND SHALL PROVIDE ALL TEMPORARY BRACING AND SHORING REQUIRED TO MAINTAIN THE STABILITY OF THE STRUCTURE AND TO SUPPORT CONSTRUCTION LOADS DURING CONSTRUCTION. CONTRACTOR SHALL RETAIN STRUCTURAL ENGINEER LICENSED IN THE STATE IN WHICH PROJECT IS LOCATED TO DESIGN TEMPORARY BRACING AND CONSTRUCTION SUPPORTS.
- G. DO NOT PLACE ANY STRUCTURES (ELECTRICAL CONDUIT, TELECOMMUNICATIONS OR SIGNAL WIRE, OPERABLE DEVICES, FLUID LINES, ETC) WITHIN NINE (9) INCHES OF THE UNDERSIDE OF THE ROOF AS THESE MAY BE COMPROMISED BY ROOFING SCREWS AT SOME FUTURE DATE FROM ROOF REPLACEMENT. THE APPROVED METHOD OF SUSPENSION IS FROM BUILDING STRUCTURAL STEEL, INCLUDING THOSE MEMBERS SUPPORTING THE ROOF.

MISCELLANEOUS

- A. THE CONTRACTOR SHALL REVIEW THE CIVIL, MECHANICAL, AND ELECTRICAL DRAWINGS FOR LOCATION AND DIMENSION OF CHASES, INSERTS, OPENINGS, SLEEVES, DEPRESSIONS AND OTHER PROJECT REQUIREMENTS WHICH IMPACT THE STRUCTURAL COMPONENTS. THE STRUCTURAL CONSTRUCTION DRAWINGS DO NOT SHOW ALL OPENINGS REQUIRED. ADDITIONAL OPENINGS, BLOCKOUTS AND SLEEVES MAY BE REQUIRED BY OTHER DISCIPLINES AND SHALL BE CONSTRUCTED USING THE TYPICAL DETAILS AND/OR CRITERIA INDICATED THE STRUCTURAL DRAWINGS. OPENINGS REQUIRED BUT NOT SHOWN ON THE STRUCTURAL DRAWINGS MUST BE APPROVED BY THE STRUCTURAL ENGINEER.
- B. IN CASES OF CONFLICT BETWEEN THE DRAWINGS AND/OR SPECIFICATIONS AND OTHER DISCIPLINES OR EXISTING CONDITIONS, CONTRACTOR SHALL NOTIFY THE DESIGN PROFESSIONALS AND OBTAIN CLARIFICATION PRIOR TO BIDDING AND PROCEEDING WITH WORK.
- C. THE CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS SHOWN ON THE CONTRACT DRAWINGS BEFORE PROCEEDING WITH CONSTRUCTION. ALL DISCREPANCIES AND OMISSIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT.
- D. THE CONTRACTOR SHALL NOT SUBMIT REPRODUCTIONS OF THE STRUCTURAL CONTRACT DOCUMENTS AS SHOP DRAWINGS.
- E. SCALES SHOWN ON THE STRUCTURAL CONTRACT DRAWINGS ARE FOR GENERAL INFORMATION ONLY. DIMENSIONAL INFORMATION SHALL NOT BE OBTAINED BY SCALING THE DRAWINGS.
- F. APPLY DETAILS, SECTIONS AND NOTES ON THE DRAWINGS WHERE CONDITIONS ARE SIMILAR TO THOSE INDICATED BY DETAIL, DETAIL TITLE OR NOTE.
- G. ASSUME EQUAL SPACING BETWEEN ESTABLISHED DIMENSIONS, IF NOT INDICATED ON DRAWINGS.
- H. CENTERLINES OF COLUMNS COINCIDE WITH GRID LINE INTERSECTIONS, UNLESS NOTED OTHERWISE.
- I. CENTERLINES OF FRAMING MEMBERS COINCIDE WITH COLUMN CENTERLINES, UNLESS OTHERWISE NOTED.
- J. THE CONTRACTOR SHALL VERIFY THAT CONSTRUCTION LOADS DO NOT EXCEED THE CAPACITY OF THE STRUCTURE AT THE TIME THE LOAD IS APPLIED.
- K. PROVIDE SHORING AND PROTECTION FOR EXCAVATION BANKS AS NECESSARY TO PREVENT CAVING AND COMPLY WITH ALL APPLICABLE OSHA RULES AND REGULATIONS.
- L. SHOP DRAWINGS FOR ALL STRUCTURAL ELEMENTS SHOWN ON THE CONTRACT DOCUMENTS MUST BE SUBMITTED BY THE CONTRACTOR OR OWNER FOR REVIEW BY THE ENGINEER. IF THE CONTRACTOR OR OWNER FAILS TO SUBMIT THE SHOP DRAWINGS, THE ENGINEER WILL NOT BE RESPONSIBLE FOR STRUCTURAL CERTIFICATION AND DESIGN OF THE PROJECT. THE SHOP DRAWINGS SHALL INDICATE ANY DEVIATIONS OR OMISSIONS FROM THE CONTRACT DOCUMENTS. THE GENERAL CONTRACTOR SHALL REVIEW ALL SHOP DRAWINGS PRIOR TO SUBMISSION AND MAKE ALL CORRECTIONS DEEMED NECESSARY.

STRUCTURAL AND MISCELLANEOUS STEEL

- A. ALL STEEL CONSTRUCTION SHALL CONFORM TO THE LATEST EDITION OF THE AISC STEEL CONSTRUCTION MANUAL "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS" (ANSI/AISC 360) AND THE AISC "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES".
- B. ALL STRUCTURAL STEEL WIDE FLANGE SHAPES, AND SHAPES CUT THEREOF, SHALL CONFORM TO ASTM A992 (F_y = 50 KSI).
- C. ALL MISCELLANEOUS STEEL (PLATES) SHALL CONFORM TO ASTM A36 (F_y = 36 KSI).
- D. ALL PIPE SHALL CONFORM TO ASTM A53, GRADE B (F_y = 35 KSI).
- E. ALL NUTS SHALL CONFORM TO ASTM A563. ALL WASHERS SHALL CONFORM TO ASTM F436.
- F. THE CONTRACTOR SHALL NOT SPLICE OR CUT OPENINGS IN STEEL MEMBERS NOT SHOWN ON CONTRACT DRAWINGS WITHOUT THE PERMISSION OF THE STRUCTURAL ENGINEER.
- G. AN INDEPENDENT INSPECTION AGENCY SHALL INSPECT ALL STRUCTURAL STEEL AND VERIFY THAT IT CONFORMS TO THE REQUIREMENTS OF THE CONTRACT DOCUMENTS. FIELD INSPECTION REPORTS SHALL BE SUBMITTED TO THE ENGINEER WITHIN 5 DAYS OF THE INSPECTION. THE CONTRACTOR SHALL NOTIFY THE INSPECTION AGENCY OF ALL PHASES OF STEEL CONSTRUCTION AND WELDING.
- H. STEEL MEMBERS, FABRICATIONS AND ASSEMBLIES EXPOSED TO WEATHER OR INDICATED TO BE GALVANIZED SHALL BE HOT DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A123 AFTER FABRICATION. ALL BOLTS, SCREWS, WASHERS, AND NUTS SHALL BE HOT-DIPPED GALVANIZED IN ACCORDANCE WITH ASTM F2329.
- I. PROVIDE HOLES IN STEEL AS REQUIRED TO PREVENT ANY ACCUMULATION OF WATER. ALL PENETRATIONS THROUGH MAIN MEMBERS SHALL NOT EXCEED 1/2" DIA AND SHALL BE GROUND SMOOTH. THESE DRAINS MUST BE KEPT CLEAN AND OPEN.
- J. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS INDICATING THE SIZES, EXTENT, AND LOCATION OF ALL STRUCTURAL AND MISCELLANEOUS STEEL FRAMING INCLUDING ALL CONNECTIONS, FASTENERS, AND BEARINGS.
- K. SHOW ALL COPIES, HOLES, OPENINGS AND MODIFICATIONS REQUIRED IN STRUCTURAL STEEL MEMBERS FOR ERECTION OR THE WORK OF OTHER TRADES ON THE SHOP DRAWINGS FOR APPROVAL BY THE ARCHITECT AND STRUCTURAL ENGINEER.

CAST IN PLACE CONCRETE

- A. ALL CONCRETE CONSTRUCTION SHALL CONFORM TO THE "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS (ACI 301)"; AND TO THE "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE (ACI 318)".
- B. IN ADDITION TO THE ABOVE, ALL CONCRETE WORK SHALL CONFORM TO THE FOLLOWING:
RECOMMENDED PRACTICE FOR HOT WEATHER CONCRETING (ACI 305)
RECOMMENDED PRACTICE FOR COLD WEATHER CONCRETING (ACI 308)
RECOMMENDED PRACTICE FOR CONCRETE FORMWORK (ACI 347)
STANDARD SPECIFICATION FOR TOLERANCES FOR CONCRETE CONSTRUCTION AND MATERIALS (ACI 117)
CHEMICAL ADMIXTURES FOR CONCRETE (ACI 212.3)
STANDARD SPECIFICATION FOR CURING CONCRETE (ACI 308.1).
- C. ALL CONCRETE EXPOSED TO PUBLIC VIEW SHALL CONFORM TO THE REQUIREMENTS FOR ARCHITECTURAL CONCRETE CONTAINED IN ACI 301.
- D. ALL CONCRETE, UNLESS NOTED OTHERWISE, SHALL BE STONE AGGREGATE CONCRETE HAVING A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 4,500 PSI. ALL CONCRETE EXPOSED TO WEATHER SHALL HAVE AN AIR ENTRAINMENT OF 6% ± 1%. NO ADMIXTURES CONTAINING CALCIUM CHLORIDE SHALL BE PERMITTED. MAXIMUM AGGREGATE SIZE SHALL BE 1", AND MAXIMUM SLUMP SHALL BE 4". ALL CONCRETE, EXCEPT FOOTINGS, SHALL CONTAIN A WATER REDUCING ADMIXTURE. PORTLAND CEMENT SHALL CONFORM TO ASTM C150 AND NORMAL WEIGHT AGGREGATES SHALL CONFORM TO ASTM C33.
- E. ALL CONCRETE MIX DESIGNS, INCLUDING CEMENT CONTENT, WATER CEMENT RATIO, FINE AND COARSE AGGREGATE CONTENT AND ALL ADMIXTURES, SHALL BE REVIEWED BY ENGINEER PRIOR TO PLACING FIRST CONCRETE.
- F. ALL CONCRETE SHALL BE SAMPLED AND TESTED BY THE TESTING AGENCY. THE CONTRACTOR SHALL NOTIFY THE TESTING AGENCY 48 HOURS PRIOR TO THE PLACING OF ANY CONCRETE. TESTING SHALL BE IN ACCORDANCE WITH ASTM C172.
- G. THE CONCRETE STRUCTURE SHALL NOT SUPPORT THE DESIGN LIVE LOAD FOR A MINIMUM OF 28 DAYS AND ALL SHORING AND RE-SHORING REQUIRED TO SUPPORT THE CONCRETE STRUCTURE DURING CONSTRUCTION SHALL BE DESIGNED AND PROVIDED BY THE CONTRACTOR. SHOP DRAWINGS, SIGNED AND SEALED BY A REGISTERED ENGINEER IN THE STATE OF MARYLAND, SHALL BE SUBMITTED FOR REVIEW. SHOP DRAWINGS SHALL INDICATE THE TYPE, EXTENT, SIZE, AND LOCATION OF ALL SHORING AND RE-SHORING AS WELL AS THE SEQUENCE OF CONSTRUCTION.
- H. GROUND BLAST FURNACE SLAG MAY BE USED TO REPLACE UP TO 50 PERCENT OF THE PORTLAND CEMENT IN A CONCRETE MIX, AND FLY ASH OR POZZOLAN MAY BE USED TO REPLACE UP TO 25 PERCENT OF PORTLAND CEMENT, SUBJECT TO THE APPROVAL OF THE STRUCTURAL ENGINEER AND SHALL CONFORM TO ASTM C989.
- I. ALL REINFORCING BARS SHALL BE NEW BILLET STEEL CONFORMING TO ASTM A615 GRADE 60 (F_y = 60 KSI).
- J. LAP ALL REINFORCING BARS A MINIMUM OF 48 BAR DIAMETERS, UNLESS OTHERWISE INDICATED.
- K. ALL REINFORCING SHALL BE DETAILED, FABRICATED AND PLACED IN ACCORDANCE WITH THE CRSI "MANUAL OF STANDARD PRACTICE", ACI 315"
- L. DETAILS AND DETAILING OF CONCRETE REINFORCEMENT, ACI SP 66 "DETAILING MANUAL".
- M. MINIMUM COVER FOR ALL REINFORCING SHALL BE AS FOLLOWS UNLESS OTHERWISE INDICATED:
- N. SLAB-ON-GRADE 3 INCHES (TOP, BOTTOM, & SIDES)
- O. ALL CAST-IN-PLACE CONCRETE WILL EXPERIENCE DIFFERING VARIATIONS OF CRACKING. ANY ELEMENT EXPOSED TO DIRECT WEATHER AND/OR TEMPERATURE VARIATIONS DURING CONSTRUCTION OR IN THE FINAL CONDITION IS TO BE TREATED AND REGULARLY MAINTAINED TO PREVENT PROPAGATION OF CRACKS AND WATER INFILTRATION. THE CONTRACTOR SHALL DEVELOP A REGULAR MAINTENANCE PROGRAM AND SUBMIT IT TO THE OWNER.
- P. ALL CONCRETE CONSTRUCTION SHALL BE INSPECTED IN ACCORDANCE WITH CHAPTER 17 OF THE INTERNATIONAL BUILDING CODE.



T-MOBILE NORTHEAST LLC
12050 BALTIMORE AVENUE
BELTSVILLE, MARYLAND 20705
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FAX: (240) 264-8610



MORRIS & RITCHIE ASSOCIATES, INC.
Civil / Structural Engineers
1220-B East Joppa Road, Suite 400K
Towson, Maryland 21286
Office: (410) 831-1690
Fax: (410) 831-1748

SITE ID:
7WAN162B
SITE NAME:
FRALEY FAMILY - ROCKVILLE

SITE ADDRESS:
17800A BOWIE MILL ROAD
ROCKVILLE, MARYLAND 20855
MONTGOMERY COUNTY

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PROFESSIONAL CERTIFICATION
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. 37729, EXPIRATION DATE: 07/09/2023.

DRAWN BY: PG
DESIGNED BY: JT
ORIGINAL DATE: 01/05/2022
MRA PROJECT #: 20473.167
DESIGN SCALE: AS NOTED



Know what's below. Call before you dig.
PROTECT YOURSELF. GIVE THREE WORKING DAYS NOTICE.
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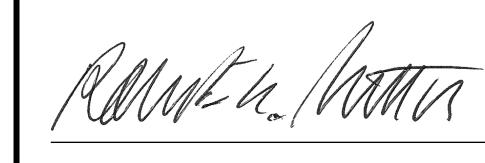
General Structural Notes

SHEET NUMBER

GN-1

REVIEWED
By Michael Kyne at 9:52 am, Apr 28, 2022

APPROVED
Montgomery County
Historic Preservation Commission



GENERAL NOTES

- THE CONTRACTOR SHALL GIVE ALL NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY, MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS, AND LOCAL AND STATE JURISDICTIONAL CODES BEARING ON THE PERFORMANCE OF THE WORK. THE WORK PERFORMED ON THE PROJECT AND THE MATERIALS INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES.
- THE ARCHITECT/ENGINEER HAVE MADE EVERY EFFORT TO SET FORTH IN THE CONSTRUCTION AND CONTRACT DOCUMENTS THE COMPLETE SCOPE OF WORK. THE CONTRACTOR BIDDING THE JOB IS NEVERTHELESS CAUTIONED THAT MINOR OMISSIONS OR ERRORS IN THE DRAWINGS AND OR SPECIFICATIONS SHALL NOT EXCUSE SAID CONTRACTOR FROM COMPLETING THE PROJECT AND IMPROVEMENTS IN ACCORDANCE WITH THE INTENT OF THESE DOCUMENTS.
- THE CONTRACTOR OR BIDDER SHALL BEAR THE RESPONSIBILITY OF NOTIFYING (IN WRITING) THE CARRIER TEAM REPRESENTATIVES OF ANY CONFLICTS, ERRORS OR OMISSIONS PRIOR TO THE SUBMISSION OF CONTRACTOR'S PROPOSAL OR PERFORMANCE OF WORK. IN THE EVENT OF DISCREPANCIES, THE CONTRACTOR SHALL PRICE THE MORE COSTLY OR EXTENSIVE WORK, UNLESS DIRECTED IN WRITING OTHERWISE.
- THE SCOPE OF WORK SHALL INCLUDE FURNISHING ALL MATERIALS, EQUIPMENT, LABOR AND ALL OTHER MATERIALS AND LABOR DEEMED NECESSARY TO COMPLETE THE WORK/PROJECT AS DESCRIBED HEREIN.
- THE CONTRACTOR SHALL VISIT THE JOB SITE PRIOR TO THE SUBMISSION OF BIDS OR PERFORMING WORK TO FAMILIARIZE HIMSELF WITH THE FIELD CONDITIONS AND TO VERIFY THAT THE PROJECT CAN BE CONSTRUCTED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
- THE CONTRACTOR SHALL OBTAIN AUTHORIZATION TO PROCEED WITH CONSTRUCTION PRIOR TO STARTING WORK ON ANY ITEM NOT CLEARLY DEFINED BY THE CONSTRUCTION DRAWINGS/CONTRACT DOCUMENTS.
- THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS ACCORDING TO THE MANUFACTURERS/VENDOR'S SPECIFICATIONS UNLESS OTHERWISE OR WHERE LOCAL CODES OR ORDINANCES TAKE PRECEDENCE.
- THE CONTRACTOR SHALL PROVIDE A FULL SET OF CONSTRUCTION DOCUMENTS AT THE SITE UPDATED WITH THE LATEST REVISIONS AND ADDENDUMS OR CLARIFICATIONS AVAILABLE FOR THE USE BY ALL PERSONNEL INVOLVED WITH THE PROJECT.
- 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.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS WHICH MAY BE REQUIRED FOR THE WORK BY THE ARCHITECT/ENGINEER, THE STATE, COUNTY OR LOCAL GOVERNMENT AUTHORITY.
- THE CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT EXISTING IMPROVEMENTS, EASEMENTS, PAVEMENTS, CURBING, ETC. DURING CONSTRUCTION. UPON COMPLETION OF WORK, THE CONTRACTOR SHALL REPAIR ANY DAMAGE THAT MAY HAVE OCCURRED DUE TO CONSTRUCTION ON OR ABOUT THE PROPERTY.
- THE CONTRACTOR SHALL MAINTAIN THE GENERAL WORK AREA AS CLEAN AND HAZARD FREE DURING CONSTRUCTION AND DISPOSE OF ALL DIRT, DEBRIS, RUBBISH AND REMOVE EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY. PREMISES SHALL BE LEFT IN CLEAN CONDITION AND FREE FROM PAINT SPOTS, DUST, OR SMUDGES OF ANY NATURE.
- THE CONTRACTOR SHALL COMPLY WITH ALL OSHA REQUIREMENTS AS THEY APPLY TO THIS PROJECT.
- THE CONTRACTOR SHALL NOTIFY THE T-MOBILE REPRESENTATIVE WHERE A CONFLICT OCCURS ON ANY OF THE CONTRACT DOCUMENTS. THE CONTRACTOR IS NOT TO ORDER MATERIAL OR CONSTRUCT ANY PORTION OF THE WORK THAT IS IN CONFLICT UNTIL CONFLICT IS RESOLVED BY THE CARRIER TEAM REPRESENTATIVES.
- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS, PROPERTY LINES, ETC. ON THE JOB.
- THE PLAN IS SUBJECT TO ALL EASEMENTS AND RESTRICTIONS OF RECORD.
- THIS FACILITY IS UNMANNED AND NOT INTENDED FOR HUMAN HABITATION (NO HANDICAPPED ACCESS).
- THIS FACILITY IS UNMANNED AND DOES NOT REQUIRE POTABLE WATER OR SANITARY SERVICE. INTERRUPTING RATING (AIC) NOT LESS THAN THE MAXIMUM CURRENT TO WHICH THEY MAY BE SUBJECTED.
- THIS FACILITY IS UNMANNED AND DOES NOT REQUIRE POTABLE WATER OR SANITARY SERVICE.

SIGNAGE NOTES

SIGNS MOUNTED ON GENERATOR ENCLOSURE/DOOR (ON ALL 4 SIDES)

- DANGER - DIESEL FUEL - FLAMMABLE - NO MATCHES, SMOKING, OR OPEN FLAMES
- DANGER - THIS EQUIPMENT STARTS AUTOMATICALLY
- WARNING - EYE AND EAR PROTECTION REQUIRED
- SAFETY - FUELING COMPANY: CHECK FUEL LINES PRIOR TO DEPARTURE TO PREVENT SPILLS
- NOTICE - FUELING COMPANY: REFUELING A RUNNING GENERATOR MUST BE DONE AT 50% OF NORMAL FILL RATE
- NFPA DIAMOND FOR "DIESEL" (1,2,0)
- OWNED BY T-MOBILE.
- FUEL TANK CAPACITY 240 GALLONS (MOUNTED TO TANK).
- NOTE: SIGNS CAN BE PURCHASED FROM PREFERRED VENDOR ORR SAFETY VIA T-MOBILE MARKETPLACE SYSTEM

ALTERNATE: [HTTP://WWW.SPEEDYSIGNS.COM/SIGNS/OSHA_READYMADE.ASP](http://www.speedysigns.com/signs/osha_readymade.asp)
ALTERNATE: [HTTPS://WWW.COMPLIANCE SIGNS.COM](https://www.compliancesigns.com)

GROUNDING NOTES

- ALL GROUND CONNECTIONS BELOW GRADE SHALL BE EXOTHERMIC (CADWELD).
- GROUNDING CONNECTIONS TO GROUND RODS, GROUND RING WIRE, TOWER BASE, AND FENCE POSTS SHALL BE EXOTHERMIC (CADWELD) UNLESS NOTED OTHERWISE. CLEAN SURFACES TO SHINY METAL. WHERE GROUND WIRES ARE CADWELDED TO GALVANIZED SURFACES, SPRAY CADWELD WITH GALVANIZING PAINT.
- ALL GROUNDING DEVICES SHALL BE UL APPROVED FOR THEIR INTENDED USE.
- ALL GROUND CONDUCTORS SHALL BE #2 AWG, BARE, TINNED, SOLID COPPER GROUND CONDUCTOR UNLESS NOTED OTHERWISE.
- GROUNDING CONNECTIONS TO THE GROUND BAR ARE TO BE TWO-HOLE BRASS MECHANICAL CONNECTORS WITH STAINLESS STEEL HARDWARE (INCLUDING SCREW SET). CLEAN GROUND BAR TO SHINY METAL. AFTER MECHANICAL CONNECTION, TREAT WITH PROTECTIVE ANTIOXIDANT COATING.
- GROUND COAXIAL CABLE SHIELDS AT BOTH ENDS WITH MANUFACTURER'S GROUNDING KITS.
- ROUTE GROUNDING CONDUCTORS THE SHORTEST AND STRAIGHTEST PATH POSSIBLE. BEND GROUNDING LEADS WITH A MINIMUM 12" RADIUS. 90 DEGREE BENDS ARE PROHIBITED.
- GROUND CONDUCTORS ABOVE GRADE SHALL BE #2 AWG, GREEN INSULATED, STRANDED COPPER CONDUCTOR UNLESS NOTED OTHERWISE.
- REFER TO GROUNDING PLAN FOR GROUND BAR LOCATIONS. GROUNDING CONNECTIONS SHALL BE EXOTHERMIC TYPE (CADWELD) TO ANTENNA MOUNTS AND GROUND RING. REMAINING GROUNDING CONNECTIONS SHALL BE COMPRESSION FITTINGS. CONNECTION TO GROUND BARS SHALL BE MADE WITH TWO-HOLE LUGS.
- THE GROUND ELECTRODE SYSTEM SHALL CONSIST OF DRIVEN GROUND RODS POSITIONED ACCORDING TO GROUNDING PLAN. THE GROUND RODS SHALL BE 5/8" X 10'-0" COPPER CLAD STEEL INTERCONNECTED WITH #2, BARE, TINNED, SOLID COPPER WIRE BURIED 36" BELOW GRADE. GROUND RODS SHALL BE SPACED A MAXIMUM OF 15' APART, AND A MINIMUM OF 8' APART.
- IF ROCK IS ENCOUNTERED GROUND RODS SHALL BE PLACED AT AN OBLIQUE ANGLE NOT TO EXCEED 45 DEGREES.
- EXOTHERMIC WELDS SHALL BE MADE IN ACCORDANCE WITH ERICO PRODUCTS BULLETIN A-AT.
- CONSTRUCTION OF GROUND RING AND CONNECTIONS TO EXISTING GROUND RING SYSTEM SHALL BE DOCUMENTED WITH PHOTOGRAPHS PRIOR TO BACKFILLING THE SITE. PROVIDE PHOTOS TO THE T-MOBILE CONSTRUCTION MANAGER.
- GROUND RING AND CONNECTIONS TO IT SHALL BE #2 AWG, SOLID, BARE, TINNED, COPPER WIRE. EQUIPMENT GROUND CONNECTIONS TO MGB SHALL BE #2 AWG, STRANDED, INSULATED WIRE.
- PRIOR TO INSTALLING LUGS ON GROUND WIRES, APPLY THOMAS & BETTS KOPR-SHIELD (TM OF JET LUBE INC.), PRIOR TO BOLTING GROUND WIRE LUGS TO GROUND BAR, APPLY KOPR-SHIELD OR EQUAL.
- ENGAGE AN INDEPENDENT ELECTRICAL TESTING FIRM TO TEST AND VERIFY THAT IMPEDANCE DOES NOT EXCEED FIVE (5) OHMS TO GROUND BY MEANS OF "FALL OF POTENTIAL TEST". TEST SHALL BE WITNESSED BY A T-MOBILE REPRESENTATIVE AND RECORDED ON THE "GROUND RESISTANCE TEST FORM".
- WHERE BARE COPPER GROUND WIRES ARE ROUTED FROM ANY CONNECTION ABOVE GRADE TO GROUND RING, INSTALL WIRE IN 3/4" PVC SLEEVE FROM 1" BELOW GRADE AND SEAL TOP WITH SILICONE.
- PREPARE ALL BONDING SURFACES FOR GROUNDING CONNECTIONS BY REMOVING ALL PAINT AND CORROSION DOWN TO SHINY METAL. FOLLOWING CONNECTION, APPLY APPROPRIATE ANTI-OXIDIZATION PAINT.
- ANY SITE WHERE THE EQUIPMENT (BTS, CABLE BRIDGE, PPC, GENERATOR, ETC.) IS LOCATED WITH-IN 6'-0" OF METAL FENCING, THE GROUND RING SHALL BE BONDED TO THE NEAREST FENCE POST USING THREE (3) RUNS OF #2, BARE, TINNED, SOLID, COPPER WIRE.
- TOWER BASE BUSS BAR REQUIRES TWO (2) SOLID LEADS CADWELD TO THE BUSS BAR.
- MAIN EQUIPMENT BUSS BAR REQUIRES TWO (2) SOLID LEADS CADWELD TO IT AND THE GROUND RING.
- ALL SOLID LEADS TERMINATED TO EITHER A BUSS BAR OR EQUIPMENT SHALL BE PROTECTED WITH CARFLEX.
- ALL SOLID GROUND LEADS NOT BEING USED SHALL BE COILED UP (PIGTAILS) FOR FUTURE USE AS NEEDED.
- 5 OHMS TO GROUND IS REQUIRED FOR ACCEPTANCE. PHOTOS OF THE TESTS ARE REQUIRED AS WELL AS TEST RESULTS IN FORMAL DOCUMENTATION FORMAT.

ELECTRICAL NOTES

- ALL ELECTRICAL WORK SHALL BE PERFORMED IN A NEAT AND WORKMANLIKE MANNER AND SHALL BE IN STRICT ACCORDANCE WITH THE LATEST NATIONAL ELECTRICAL CODE AND ALL STATE AND LOCAL CODES. ALL WORK IS SUBJECT TO THE APPROVAL OF THE T-MOBILE REPRESENTATIVE.
- THE CONTRACTOR SHALL OBTAIN ALL PERMITS AND SHALL PAY ALL ASSOCIATED CHARGES. CONTRACTOR SHALL ARRANGE FOR ALL INSPECTIONS.
- THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF ALL SPECIFIED MATERIALS AND EQUIPMENT. ALL MATERIALS SHALL BE U.L. LISTED.
- CONTRACTOR SHALL COORDINATE ALL WORK BETWEEN TRADES AND ALL OTHER SCHEDULING AND PROVISIONARY CIRCUMSTANCES SURROUNDING THE PROJECT.
- WIRE, UNLESS OTHERWISE INDICATED, SHALL BE 600 VOLT, TYPE THWN/THHN INSULATION FOR EXTERIOR USE. CONDUCTORS SHALL BE SIZED AND RUN AS INDICATED. CONDUCTORS SHALL BE SOFT DRAWN COPPER OF NOT LESS THAN 98% CONDUCTIVITY. MINIMUM CONDUCTOR SIZE IS #12 UNLESS NOTED OTHERWISE.
- THE ENTIRE SYSTEM SHALL BE SOLIDLY GROUNDED USING DOUBLE LOCKNUTS ON CONDUITS AND PROPERLY BONDED GROUND CONDUCTORS.
- SUBMITTAL OF BIDS INDICATES THAT THE CONTRACTOR IS COGNIZANT OF ALL JOB SITE CONDITIONS AND WORK TO BE PERFORMED UNDER THIS CONTRACT.
- ALL ELECTRICAL EQUIPMENT EXPOSED TO WEATHER SHALL BE PROTECTED IN NEMA 3R ENCLOSURES.
- ALL ELECTRICAL EQUIPMENT SHALL BE LABELED WITH PERMANENT ENGRAVED PHENOLIC PLASTIC NAMEPLATES. PPC, METER, DISCONNECT, RAC35, PBC05, AND HF JUNCTION BOX. BACKGROUND SHALL BE BLACK WITH WHITE LETTERS; EXCEPT AS REQUIRED BY CODE TO FOLLOW A DIFFERENT SCHEME.
- CONTRACTOR SHALL COORDINATE FINAL SERVICE TERMINATION LOCATIONS WITH TELEPHONE AND ELECTRIC UTILITY COMPANIES IN THE FIELD.
- CONTRACTOR SHALL UPDATE PANEL SCHEDULES AND IDENTIFY ALL MISCELLANEOUS CIRCUITS NOT INDICATED ON SCHEDULES.
- CONTRACTOR SHALL PERFORM ALL VERIFICATIONS, OBSERVATION TESTS, AND EXAMINATION WORK PRIOR TO ORDERING OF ANY EQUIPMENT AND THE ACTUAL CONSTRUCTION. CONTRACTOR SHALL ISSUE A WRITTEN NOTICE OF ALL FINDINGS TO THE PROJECT MANAGER LISTING ALL THE MALFUNCTIONS, FAULTY EQUIPMENT AND DISCREPANCIES.
- THESE PLANS ARE DIAGRAMMATIC ONLY. FOLLOW AS CLOSELY AS POSSIBLE.
- CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, INSURANCE, EQUIPMENT, INSTALLATION CONSTRUCTION TOOLS, TRANSPORTATION, ETC. FOR COMPLETE AND CONSTRUCTION. CONTRACTOR SHALL ISSUE A WRITTEN NOTICE OF ALL FINDINGS TO THE FUNCTIONALLY OPERATING SYSTEMS ENERGIZED AND READY TO USE THROUGHOUT AS INDICATED ON DRAWINGS, AS SPECIFIED HEREIN AND/OR AS OTHERWISE REQUIRED.
- ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND IN PERFECT CONDITION WHEN INSTALLED AND SHALL BE OF THE BEST GRADE AND OF THE SAME MANUFACTURER THROUGHOUT FOR EACH CLASS OR GROUP OF EQUIPMENT. ELECTRICAL MATERIALS SHALL BE LISTED AND APPROVED BY UL AND SHALL BEAR THE INSPECTION LABEL "J" WHERE SUBJECT TO SUCH APPROVAL. MATERIALS SHALL MEET THE APPROVAL OF ALL GOVERNING BODIES HAVING JURISDICTION OVER THE CONSTRUCTION. MATERIALS SHALL BE MANUFACTURED IN ACCORDANCE WITH ALL CURRENT APPLICABLE STANDARDS ESTABLISHED BY ANSI, NEMA, AND NBFU. ALL MATERIALS AND EQUIPMENT SHALL BE APPROVED FOR THEIR INTENDED USE AND LOCATION.
- CONDUIT: ALL ABOVE GRADE CONDUITS SHALL BE RIGID & L FMC TO 6' AS STATED BELOW
A. RIGID CONDUIT SHALL BE UL LABELED GALVANIZED ZINC COATED WITH ZINC INTERIOR AND SHALL BE USED WHEN INSTALLED WHEN EXPOSED TO EXTERIOR ELEMENTS. RIGID
B. ELECTRICAL METALLIC TUBING (EMT) SHALL HAVE UL LABEL, FITTINGS SHALL BE GLAND RING COMPRESSION TYPE. EMT SHALL BE USED FOR INTERIOR RUNS ONLY.
C. LIQUID TIGHT FLEXIBLE METAL CONDUIT SHALL BE UL LISTED AND SHALL BE USED AT FINAL CONNECTIONS TO MECHANICAL EQUIPMENT & RECTIFIERS AND WHERE PERMITTED BY CODE. ALL CONDUIT IN EXCESS OF SIX FEET SHALL CONTAIN A FULL SIZE GROUND CONDUCTOR.
D. CONDUIT RUNS SHALL BE SURFACE MOUNTED ON CEILINGS OR WALLS UNLESS NOTED OTHERWISE. ALL CONDUIT SHALL RUN PARALLEL OR PERPENDICULAR TO WALLS, FLOOR, CEILING, OR BEAMS. VERIFY EXACT ROUTING OF ALL EXPOSED CONDUIT WITH THE PROJECT MANAGER PRIOR TO INSTALLATION.
E. PVC CONDUIT MAY BE PROVIDED ONLY WHERE SHOWN, OR IN UNDERGROUND INSTALLATIONS. PROVIDE UV-RESISTANT CONDUIT WHERE EXPOSED TO THE ATMOSPHERE. PROVIDE A GROUND CONDUCTOR IN ALL PVC RUNS, EXCEPT WHERE PERMITTED BY CODE TO OMIT.
- ENTIRE JOB SHALL BE GAURANTEED FOR A PERIOD OF ONE (1) YEAR AFTER THE DATE OF JOB ACCEPTANCE. ALL WORK, MATERIAL, AND EQUIPMENT FOUND TO BE FAULTY DURING THAT PERIOD SHALL BE CORRECTED AT ONCE, UPON WRITTEN NOTIFICATION, AT THE EXPENSE OF THE CONTRACTOR.
- THE ENTIRE ELECTRICAL INSTALLATION SHALL BE GROUNDED IN ACCORDANCE WITH NEC 250 & 810 AND THE UTILITY COMPANY STANDARDS.
- COORDINATE WITH UTILITY COMPANY OR PROPERTY OWNER FOR CONNECTION OF TEMPORARY AND PERMANENT POWER TO THE SITE. THE TEMPORARY POWER AND ALL HOOKUP COSTS SHALL BE PAID BY THE CONTRACTOR.
- ALL CIRCUIT BREAKERS, FUSES, AND ELECTRICAL EQUIPMENT SHALL HAVE AN INTERRUPTING RATING (AIC) NOT LESS THAN THE MAXIMUM CURRENT TO WHICH THEY MAY BE SUBJECTED.
- RED-LINED AS-BUILT PLANS SHALL BE PROVIDED TO THE CONSTRUCTION MANAGER.



T-MOBILE NORTHEAST LLC
12050 BALTIMORE AVENUE
BELTSVILLE, MARYLAND 20705
OFFICE: (240) 264-8600
FAX: (240) 264-8610



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2216 Commerce Road, Suite 1
Forest Hill, MD 21050
410-692-5816
www.tel-eng.com

SITE ID:
7WAN162B
SITE NAME:
FRALEY FAMILY - ROCKVILLE
SITE ADDRESS:
17800A BOWIE MILL ROAD
ROCKVILLE, MD 28055
MONTGOMERY COUNTY

REVISION BLOCK

NO.	DESCRIPTION	DATE
2	FINAL DWGS	01/17/2022
1	REVIEW DWGS	01/06/2022



PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, TIMOTHY SMIDT, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21585, EXPIRATION DATE: MAY 8, 2023.

DRAWN BY:	FVB
DESIGNED BY:	WGF/FVB
ORIGINAL DATE:	01/06/2022
TEI PROJECT #:	21130U
DESIGN SCALE:	AS NOTED



Know what's below.
Call before you dig.

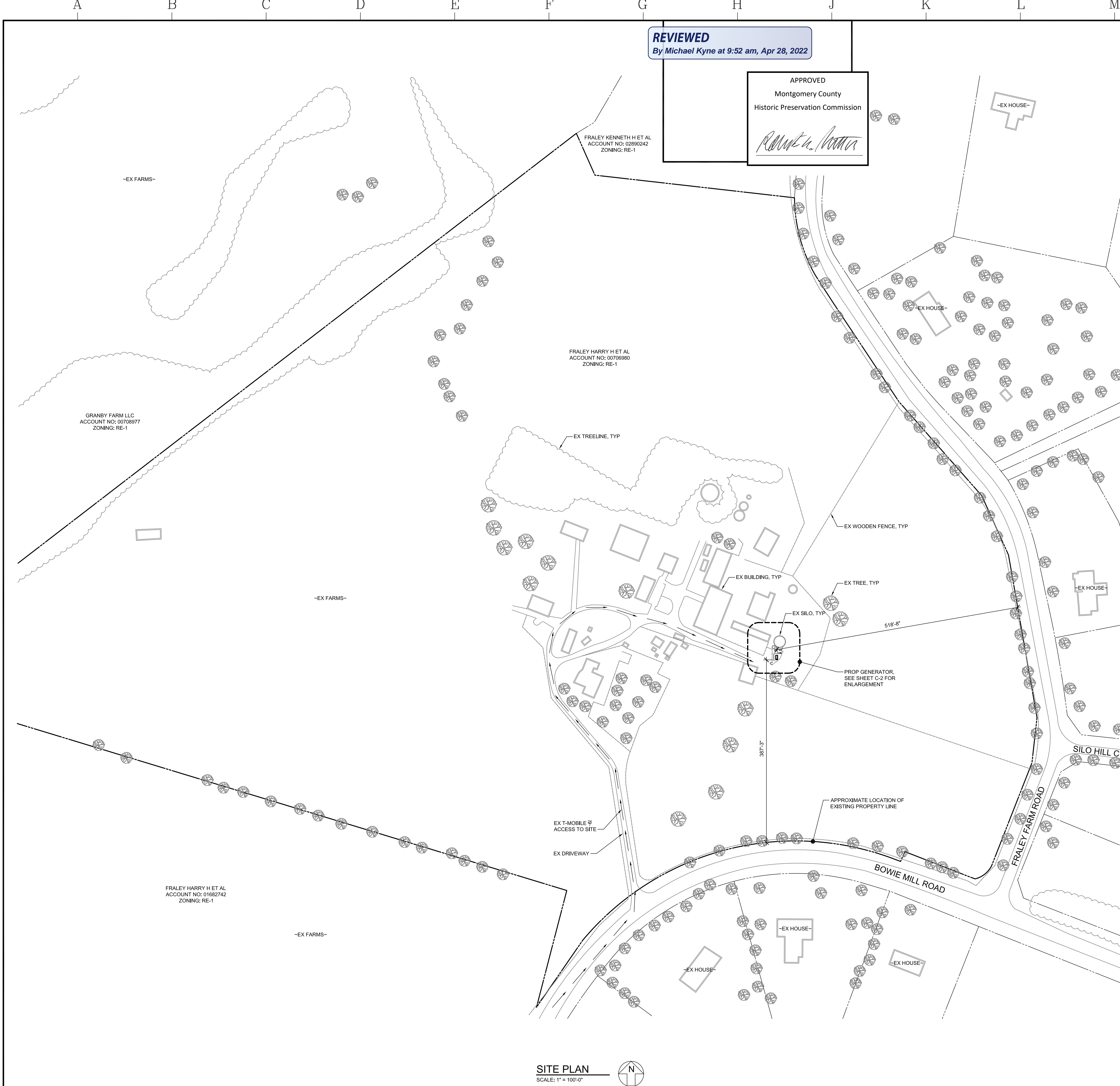
PROTECT YOURSELF, ONE THREE
DIGGING DAYS NOTICE
THIS DRAWING DOES NOT INCLUDE NECESSARY
COMPONENTS FOR CONSTRUCTION SAFETY. ALL
CONSTRUCTION MUST BE DONE IN COMPLIANCE
WITH THE OCCUPATIONAL SAFETY AND HEALTH
ACT OF 1970 AND ALL RULES AND REGULATIONS
THERE TO APPURTENANT.

SHEET TITLE

GENERAL
NOTES

SHEET NUMBER

GN-2



REVIEWED
By Michael Kyne at 9:52 am, Apr 28, 2022

APPROVED
Montgomery County
Historic Preservation Commission
Robert A. Norton



VICINITY MAP
SCALE: 1" = 1000'

SITE NOTES:

1. APPLICANT: T-MOBILE NORTHEAST LLC
12050 BALTIMORE AVENUE
BELTSVILLE, MD 20705
TEL: (240) 264-8600
FAX: (240) 264-8610
2. PROPERTY OWNER: FRALEY HARRY H ET AL
17800 BOWIE MILL ROAD
ROCKVILLE, MD 20855
3. SITE DATA: DEED BOOK 08586 PAGE 00033
PARCEL ID: 00709880
TRACT AREA: 49.28 ACRES
ADDRESS: 17800 BOWIE MILL ROAD
ROCKVILLE, MD 20855
EXISTING USE: AGRICULTURE / TELECOMMUNICATIONS
4. ZONING: RE-1
HORIZONTAL AND VERTICAL CONTROL SHOWN HEREON IS BASED ON INFORMATION PROVIDED BY T-MOBILE AND OBTAINED THROUGH THE ASC 7 ONLINE HAZARD TOOL.
LATITUDE: N39° 09' 04.9" (39.15014) GROUND ELEVATION: 496' AMSL (AVG.)
LONGITUDE: W77° 06' 51.55" (-77.11432)
5. TOTAL DISTURBED AREA = 50 SF
6. THIS PROJECT INVOLVES IN INSTALLING ONE (1) PROPOSED GENERATOR ON NEW 10' x 5' CONCRETE PAD AND ONE (1) PROPOSED AUTOMATIC TRANSFER SWITCH ON EXISTING H-FRAME.
7. NO WATER OR SANITARY UTILITIES ARE REQUIRED FOR THE OPERATION OF THIS FACILITY.
8. STORMWATER MANAGEMENT NOTE: NO STORMWATER MANAGEMENT IS REQUIRED FOR THIS SITE.
9. BOUNDARY SHOWN PER COUNTY RECORDS.
10. THIS PLAN PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT. PLAN IS SUBJECT TO EASEMENTS AND RESTRICTIONS OF RECORD.
11. ALL DETAILS SHOWN ARE "STANDARD" OR "TYPICAL" FOR REFERENCE ONLY. FOR ACTUAL DETAILS, SEE ARCHITECTURAL, STRUCTURAL, OR CONSTRUCTION PLANS BY OTHERS.
12. THE COMMUNICATION EQUIPMENT SHALL BE UNMANNED, WITH INFREQUENT VISITS (FOUR OR FEWER PER YEAR) BY MAINTENANCE PERSONNEL AND WITH ACCESS AND PARKING FOR NO MORE THAN ONE VEHICLE. THE PROPOSED FACILITY IS NOT FOR HUMAN HABITATION AND THEREFORE HANDICAP ACCESS IS NOT REQUIRED.
13. THE PROPOSED COMMUNICATIONS EQUIPMENT, ANTENNAS AND RELATED MOUNTING DEVICES DO NOT EXCEED TWELVE (12) FEET IN TOTAL HEIGHT.

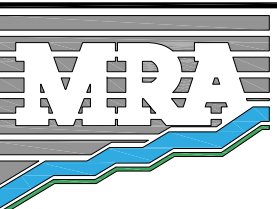
GENERAL NOTES

1. CONTRACTOR SHALL NOTIFY "MISS UTILITY" (811) 48 HOURS PRIOR TO DOING ANY EXCAVATION IN THIS AREA. CONTRACTOR SHALL CONTACT A SUBSURFACE UTILITY LOCATOR FOR LOCATION OF EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES. CONTRACTOR SHALL VERIFY EXISTING UTILITY LOCATIONS BY TEST PIT AS NECESSARY. LOCATION OF UTILITIES SHOWN ON THIS PLAN ARE APPROXIMATE AND FOR PLANNING PURPOSES ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES. DAMAGE TO UTILITIES OR PROPERTY OF OTHER BY THE CONTRACTOR DURING CONSTRUCTION SHALL BE REPAIRED TO PRECONSTRUCTION CONDITIONS BY THE CONTRACTOR.
2. ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH ALL STATE AND LOCAL CODES AND ORDINANCES, THE LATEST EDITION THEREOF.
3. ANY PERMITS WHICH MUST BE OBTAINED SHALL BE THE CONTRACTOR'S RESPONSIBILITY. CONTRACTOR SHALL SECURE ALL NECESSARY PERMITS FOR THIS PROJECT FROM ALL APPLICABLE GOVERNMENTAL AGENCIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ABIDING BY ALL CONDITIONS AND REQUIREMENTS OF THE PERMITS.
4. CONTRACTOR SHALL COORDINATE ALL UTILITY CONNECTIONS WITH APPROPRIATE UTILITY OWNERS.
5. THESE PLANS ARE NOT FOR RECORDATION OR CONVEYANCE.
6. EXISTING PAVEMENT AND OTHER SURFACES DISTURBED BY CONTRACTOR (WHICH ARE NOT TO BE REMOVED) SHALL BE REPAIRED TO PRECONSTRUCTION CONDITIONS BY THE CONTRACTOR.

SITE PLAN
SCALE: 1" = 100'-0"



T-MOBILE NORTHEAST LLC
12050 BALTIMORE AVENUE
BELTSVILLE, MARYLAND 20705
OFFICE: (240) 264-8600
FAX: (240) 264-8610

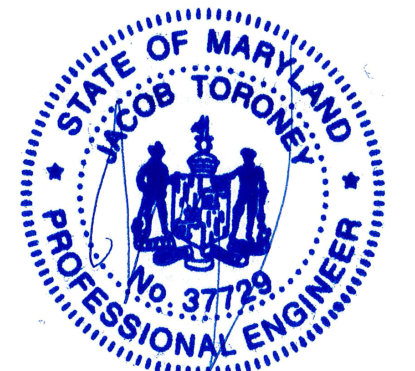


MORRIS & RITCHIE ASSOCIATES, INC.
Civil / Structural Engineers
1220-B East Joyce Road, Suite 400K
Towson, Maryland 21286
Office: (410) 831-1690
Fax: (410) 821-1748

SITE ID:
7WAN162B
SITE NAME:
FRALEY FAMILY - ROCKVILLE
SITE ADDRESS:
17800A BOWIE MILL ROAD
ROCKVILLE, MARYLAND 20855
MONTGOMERY COUNTY

REVISION BLOCK

NO.	DESCRIPTION	DATE
2	FINAL DWGS	01/17/22
1	REVIEW DWGS	01/06/22



01/17/22

PROFESSIONAL CERTIFICATION

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. 37729, EXPIRATION DATE: 07/09/2023.

DRAWN BY: PG
DESIGNED BY: JT
ORIGINAL DATE: 01/05/2022
MRA PROJECT #: 20473.167
DESIGN SCALE: AS NOTED



Know what's below. Call before you dig.

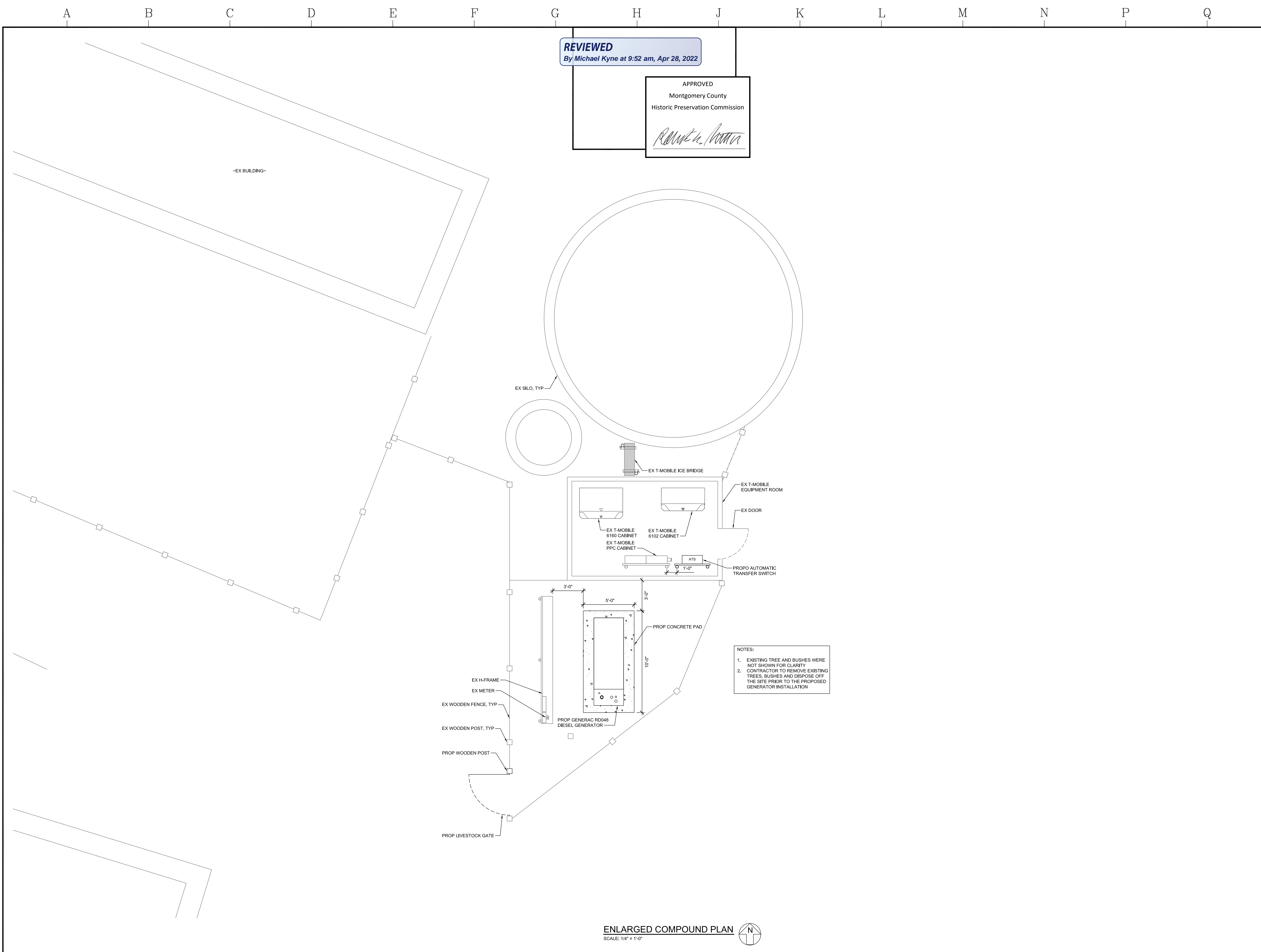
PROTECT YOURSELF. GIVE THREE WORKING DAYS NOTICE.
THIS DRAWING DOES NOT INCLUDE NECESSARY COMMENTS FOR CONSTRUCTION SAFETY. ALL CONSTRUCTION MUST BE DONE IN COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 AND ALL RULES AND REGULATIONS THERE TO APPURTENANT.

SHEET TITLE

Site Plan

SHEET NUMBER

C-1



REVIEWED
By Michael Kyne at 9:52 am, Apr 28, 2022

APPROVED
Montgomery County
Historic Preservation Commission
Robert A. ...

NOTES:
1. EXISTING TREE AND BUSHES WERE NOT SHOWN FOR CLARITY
2. CONTRACTOR TO REMOVE EXISTING TREES, BUSHES AND DISPOSE OFF THE SITE PRIOR TO THE PROPOSED GENERATOR INSTALLATION

ENLARGED COMPOUND PLAN
SCALE: 1/4" = 1'-0"

T-Mobile
T-MOBILE NORTHEAST LLC
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BELTSVILLE, MARYLAND 20705
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MRA
MORRIS & RITCHIE ASSOCIATES, INC.
Civil / Structural Engineers
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Towson, Maryland 21286
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ROCKVILLE, MARYLAND 20855
MONTGOMERY COUNTY

REVISION BLOCK

NO.	DESCRIPTION	DATE
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1	REVIEW DWGS	01/06/22



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DRAWN BY: PG
DESIGNED BY: JT
ORIGINAL DATE: 01/05/2022
MRA PROJECT #: 20473.167
DESIGN SCALE: AS NOTED

811
Know what's below.
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SHEET TITLE
Enlarged Plan
SHEET NUMBER

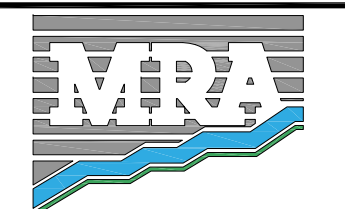
C-2

REVIEWED
By Michael Kyne at 9:52 am, Apr 28, 2022

APPROVED
Montgomery County
Historic Preservation Commission
Robert A. ...



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12050 BALTIMORE AVENUE
BELTSVILLE, MARYLAND 20705
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ROCKVILLE, MARYLAND 20855
MONTGOMERY COUNTY

REVISION HISTORY

NO.	DESCRIPTION	DATE
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1	REVIEW DWGS	01/06/22



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DRAWN BY: PG
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MRA PROJECT #: 20473.167
DESIGN SCALE: AS NOTED



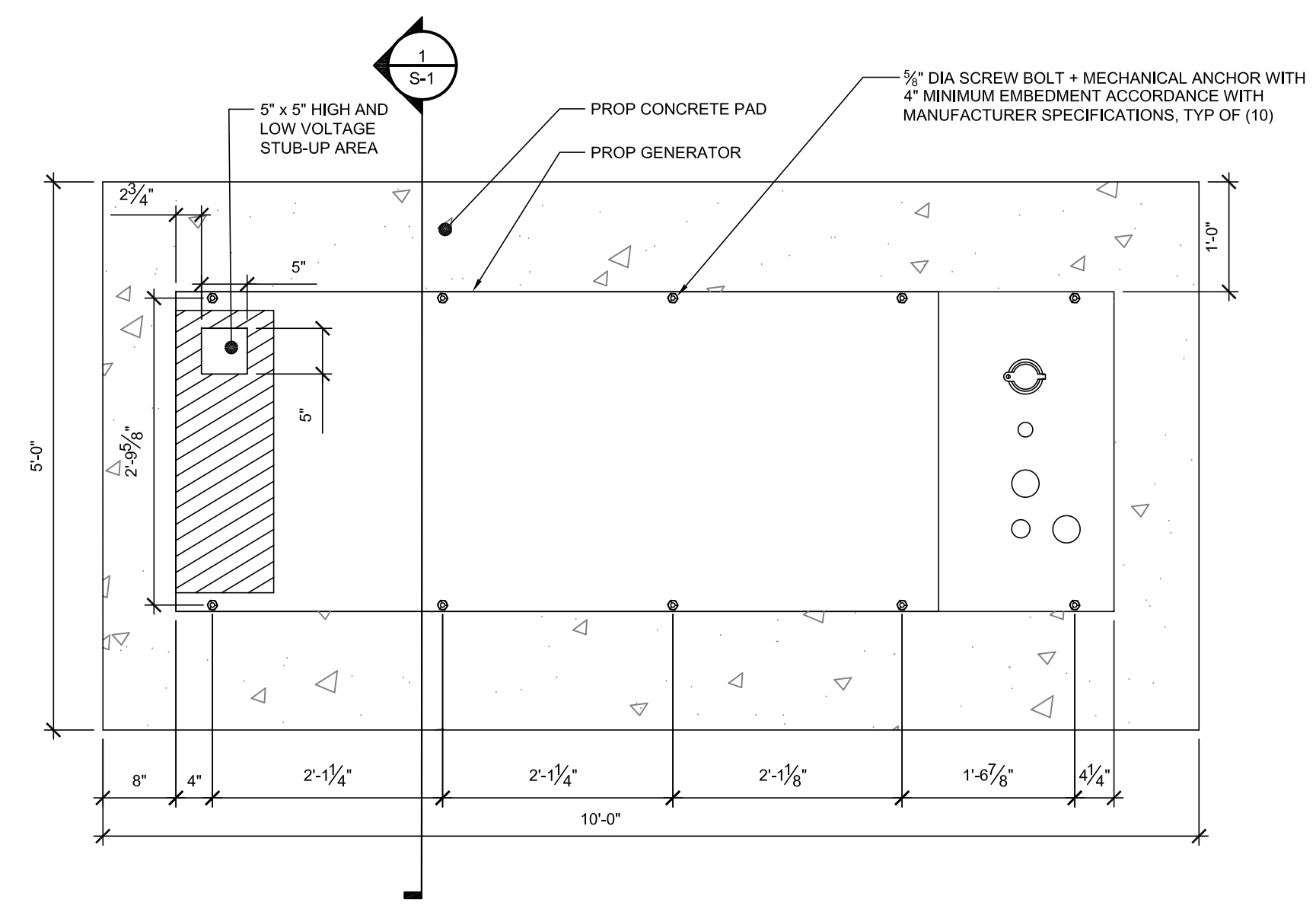
Know what's below. Call before you dig.
PROTECT YOURSELF, GIVE THREE WORKING DAYS NOTICE
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SHEET TITLE
Structural Details

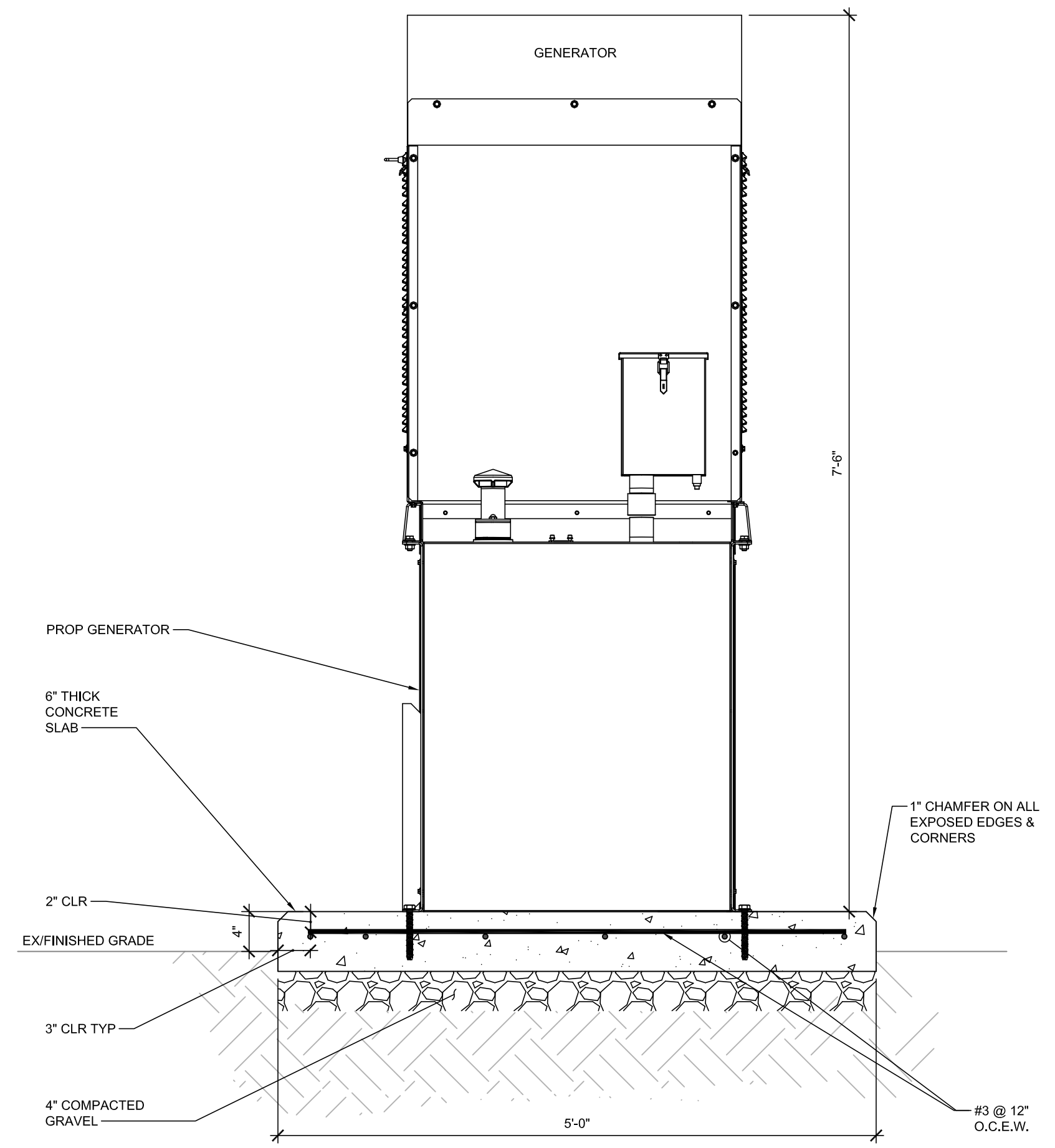
SHEET NUMBER

S-1

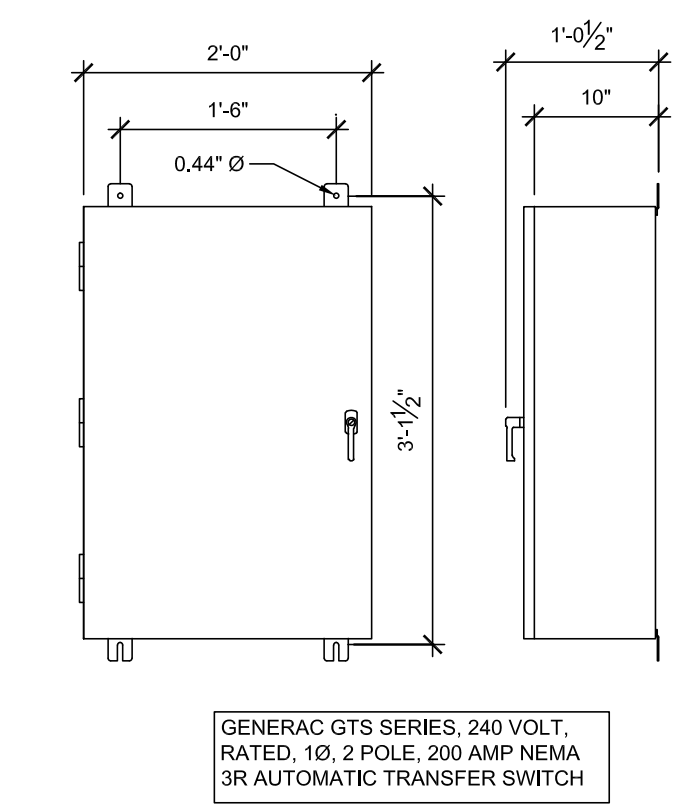
NOTES:
1. DIMENSIONS AND STUB-UP AREAS SHOWN HEREIN ARE BASED ON INFORMATION PROVIDED TO MRA. CONTRACTOR TO VERIFY GENERATOR MANUFACTURER AND ALL RELEVANT DIMENSIONS AND OPENING IN CONCRETE PAD WITH T-MOBILE CONSTRUCTION MANAGER PRIOR TO POURING GENERATOR PAD ON GRADE. GENERATOR IS TO BE ANCHORED TO CONCRETE PAD IN STRICT ACCORDANCE WITH MANUFACTURER SPECIFICATIONS.
2. GENERATOR ANCHOR BOLT LOCATIONS, CONFIRM W/ MANUFACTURER SPECIFICATIONS.



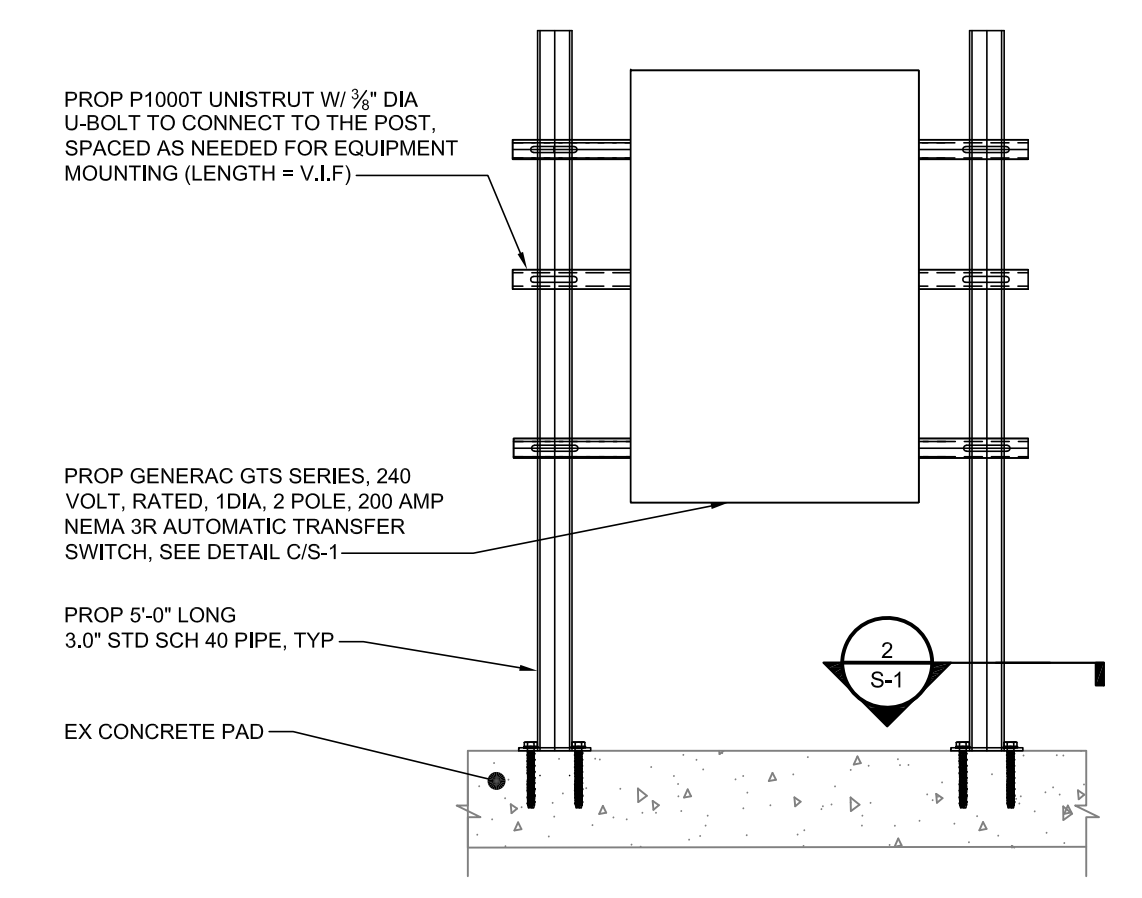
A GENERAC RD048 DIESEL GENERATOR PLAN
SCALE: 3/4" = 1'-0"



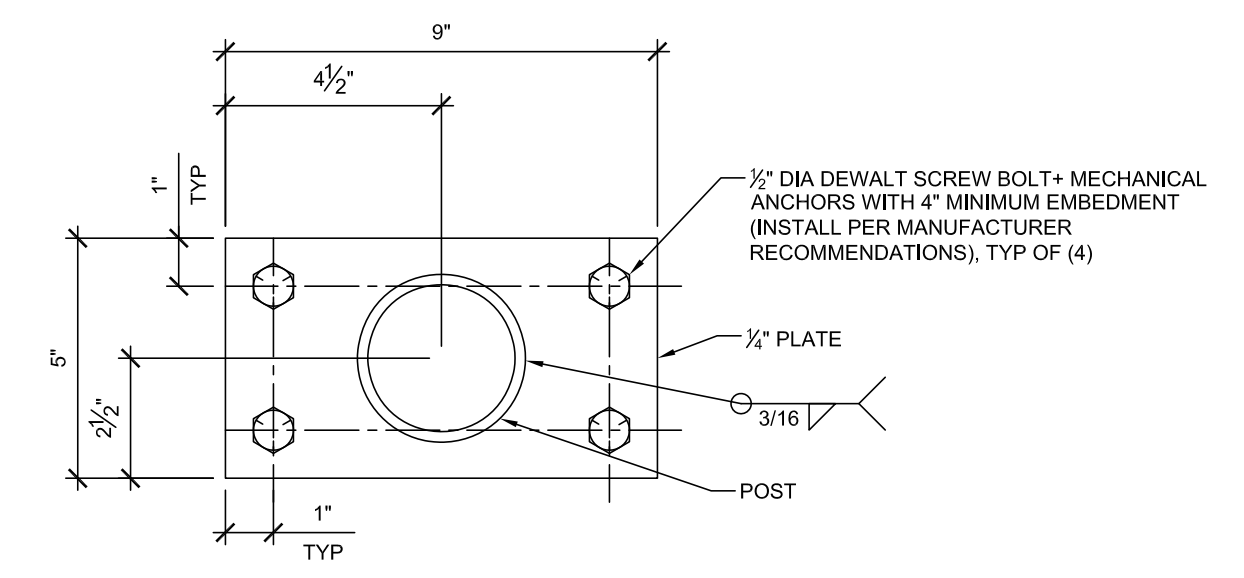
1 CONCRETE PAD DETAIL
SCALE: 1" = 1'-0"



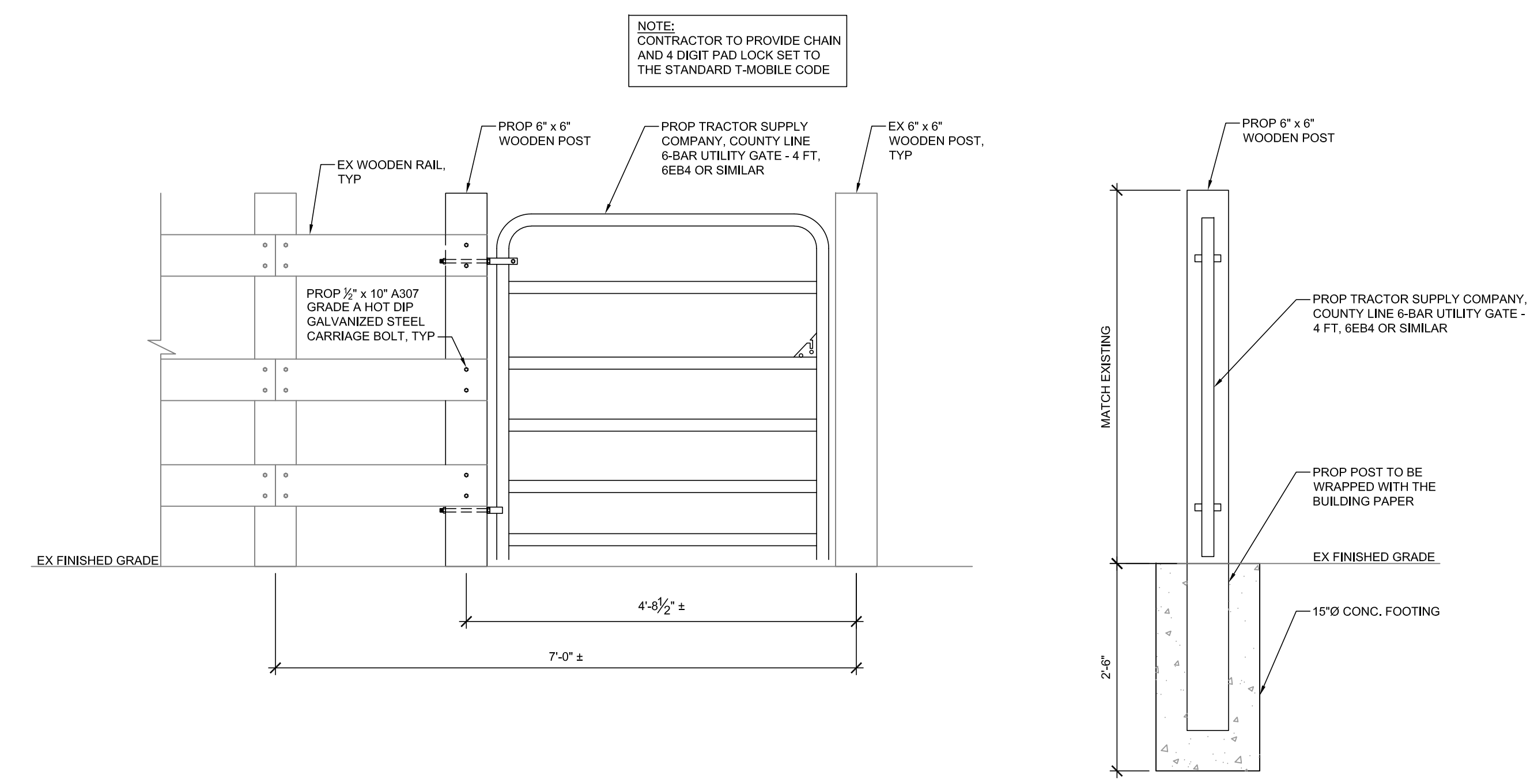
C PROPOSED AUTOMATIC TRANSFER SWITCH
SCALE: 3/4" = 1'-0"



B H-FRAME SECTION
SCALE: 3/4" = 1'-0"



2 TYP H-FRAME POST BASE PLATE
SCALE: 3" = 1'-0"



D PROPOSED GATE DETAILS
SCALE: 3/4" = 1'-0"

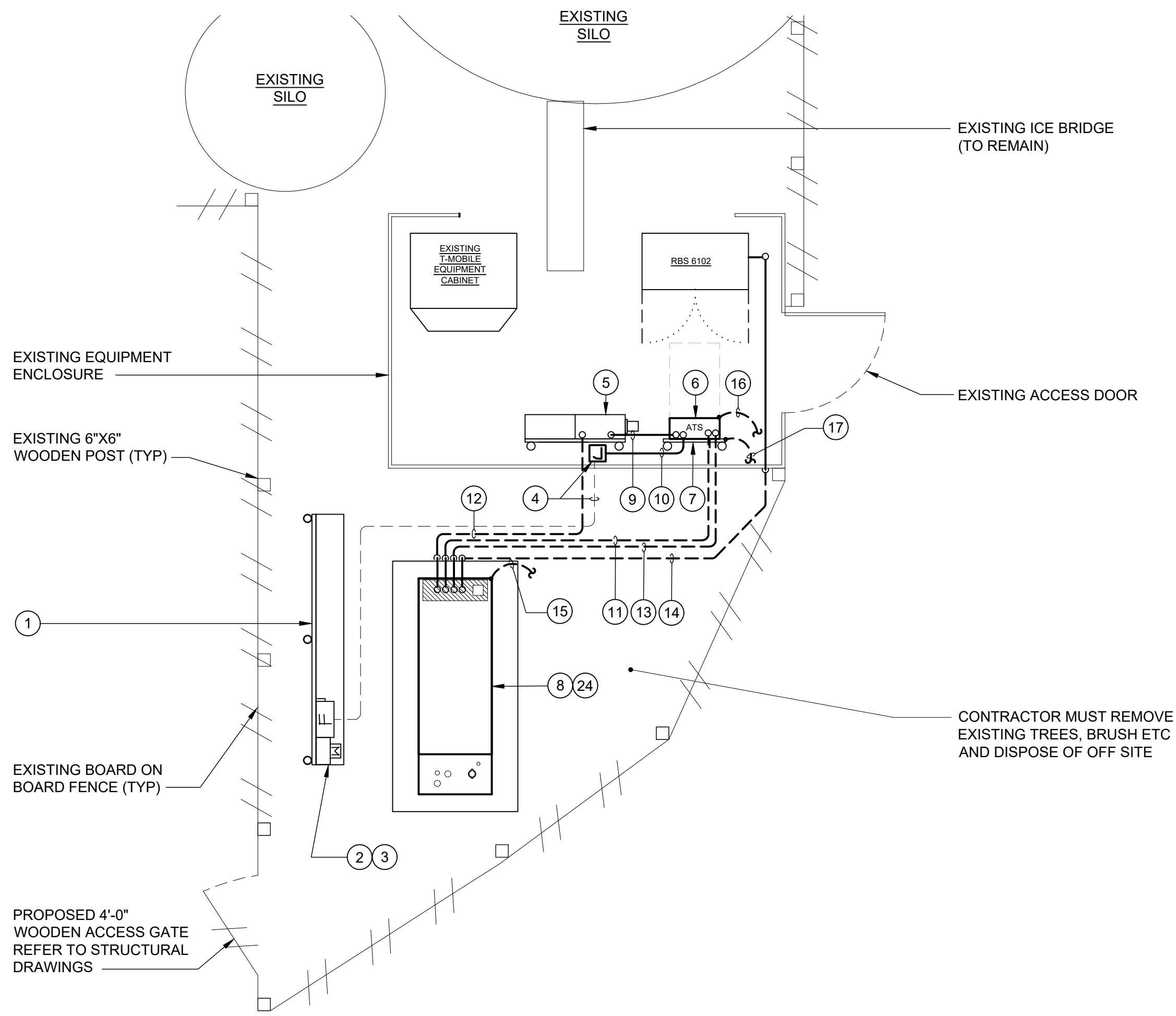
A B C D E F G H J K L M N P Q

REVIEWED
By Michael Kyne at 9:52 am, Apr 28, 2022

APPROVED
Montgomery County
Historic Preservation Commission
Robert H. ...

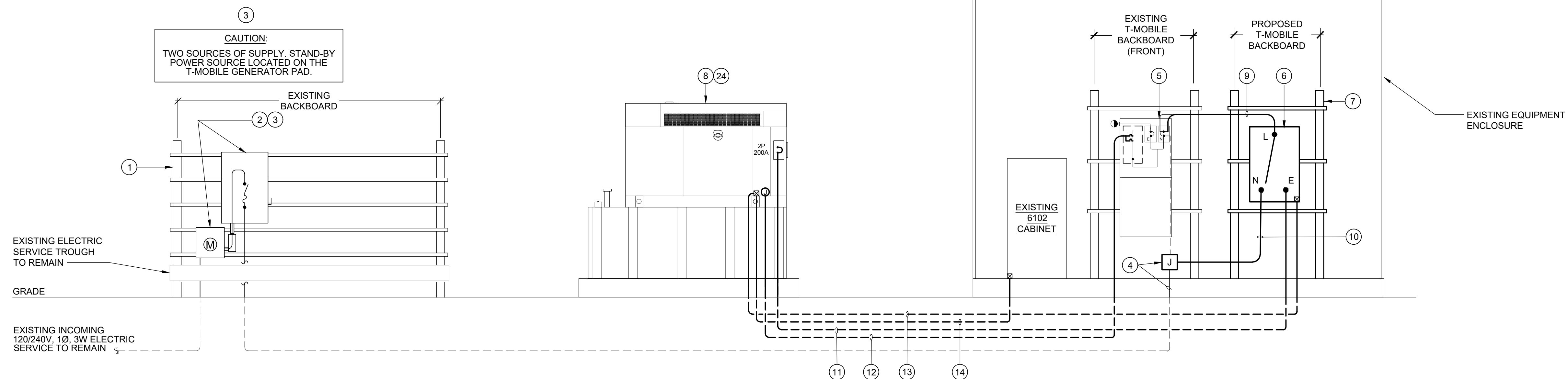
DRAWING NOTES

- 1 EXISTING ELECTRIC SERVICE BACKBOARD TO REMAIN.
- 2 EXISTING T-MOBILE UTILITY METER AND 240V SERVICE ENTRANCE RATED 2P200A FUSED SERVICE DISCONNECT SWITCH (FUSED AT 200A) MOUNTED ON EXISTING ELECTRIC SERVICE BACKBOARD TO REMAIN.
- 3 PROVIDE CAUTION TWO SOURCES OF SUPPLY STICKER ON SERVICE DISCONNECT SWITCH. BACKGROUND SHALL BE YELLOW WITH BLACK BLOCK STYLE LETTERING. REFER TO DETAIL, THIS SHEET
- 4 EXISTING 3#3/0 + #6 GRD - 2" CONDUIT BELOW GRADE FROM EXISTING SERVICE DISCONNECT SWITCH TO EXISTING T-MOBILE POWER CABINET. CONTRACTOR SHALL PROVIDE WEATHER PROOF JUNCTION BOX (SIZED PER NEC) TO INTERCEPT EXISTING FEEDER AND EXTEND TO "NORMAL" LUGS IN ATS. THIS WILL BECOME THE "NORMAL" POWER FEED. COORDINATE EXACT ROUTING OF EXISTING FEEDER WITH T-MOBILE REPRESENTATIVE IN THE FIELD. REMOVE PORTIONS OF EXISTING FEEDER NOT USED AS REQUIRED.
- 5 EXISTING T-MOBILE 120/240V, 1Ø, 3W, 200A MCB POWER CABINET MOUNTED ON EXISTING T-MOBILE BACKBOARD REFER TO PANEL SCHEDULE, SHEET E-2 FOR ADDITIONAL INFORMATION.
- 6 PROVIDE AND INSTALL GENERAC GTS SERIES, 240 VOLT, RATED, 1Ø, 2 POLE, 200 AMP NEMA 3R AUTOMATIC TRANSFER SWITCH MOUNTED ON PROPOSED BACKBOARD. WHEN DRILLING INTO ATS, CONTACTS SHALL BE COVERED TO AVOID METALLIC SHAVINGS DROPPING INTO ATS CONTACTS. AFTER DRILLING, CONTRACTOR SHALL VACUUM INSIDE OF ATS. COORDINATE FINAL MOUNTING LOCATION WITH T-MOBILE REPRESENTATIVE.
- 7 MOUNT PROPOSED T-MOBILE AUTOMATIC TRANSFER SWITCH TO FRONT OF PROPOSED BACKBOARD. PROVIDE HORIZONTAL KINDORF STRUT TO SUPPORT PROPOSED AUTOMATIC TRANSFER SWITCH. REFER TO STRUCTURAL DRAWINGS FOR DETAILS.
- 8 PROPOSED T-MOBILE 120/240V, 1Ø, 3W, 48 KW DIESEL GENERATOR MOUNTED ON PROPOSED CONCRETE EQUIPMENT PAD. COORDINATE ALL GENERATOR REQUIREMENTS WITH EQUIPMENT MANUFACTURER AND T-MOBILE REPRESENTATIVE PRIOR TO START OF WORK. REFER TO STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION ON GENERATOR PAD.
- 9 EXTEND 3#3/0 + #6 GRD - 2" CONDUIT (LOAD FEEDER). COORDINATE EXACT ROUTING WITH T-MOBILE REPRESENTATIVE IN THE FIELD.
- 10 EXTEND 3#3/0 + #6 GRD - 2" CONDUIT (NORMAL FEEDER). COORDINATE EXACT ROUTING WITH T-MOBILE REPRESENTATIVE IN THE FIELD.
- 11 EXTEND 3#3/0 + #6 GRD - 2" CONDUIT BELOW GRADE (EMERGENCY FEEDER). COORDINATE EXACT ROUTING WITH T-MOBILE REPRESENTATIVE IN THE FIELD.
- 12 EXTEND 2#12 AWG + #12 GRD (BATTERY CHARGER) AND 2#12 AWG + #12 GRD (BLOCK HEATER) IN 3/4" CONDUIT BELOW GRADE TO TWO (2), 1 POLE, 20 AMP BREAKERS IN T-MOBILE PANEL.
- 13 EXTEND CAT 5 ALARM CABLES IN ONE (1) - 1" CONDUIT BELOW GRADE FROM AUTOMATIC TRANSFER SWITCH TO GENERATOR FOR GENERATOR CONTROLS AND ALARMING (GENERATOR FAULT/TROUBLE, GENERATOR LOW FUEL AND GENERATOR RUN). COORDINATE ALL REQUIREMENTS WITH GENERATOR MANUFACTURER AND T-MOBILE REPRESENTATIVE PRIOR TO START OF WORK.
- 14 EXTEND CAT 5 ALARM CABLES IN ONE (1) - 1" CONDUIT BELOW GRADE FROM GENERATOR TO EXISTING T-MOBILE 6102 EQUIPMENT CABINET FOR GENERATOR CONTROLS AND ALARMING (GENERATOR FAULT/TROUBLE, GENERATOR LOW FUEL AND GENERATOR RUN). COORDINATE ALL REQUIREMENTS WITH GENERATOR MANUFACTURER AND T-MOBILE REPRESENTATIVE PRIOR TO START OF WORK. TURN CONDUIT UP AT EXISTING T-MOBILE EQUIPMENT ENCLOSURE, AND CONTINUE ACROSS CEILING TO EXISTING T-MOBILE 6102 EQUIPMENT CABINET.
- 15 EXTEND 1#2 AWG, BARE, TINNED, SOLID COPPER GROUND CONDUCTOR FROM T-MOBILE BURIED GROUND ROD AND BOND TO INTERIOR FRAME OF GENERATOR PER MANUFACTURER'S RECOMMENDATIONS. COORDINATE ALL GENERATOR GROUNDING REQUIREMENTS WITH EQUIPMENT MANUFACTURER AND T-MOBILE REPRESENTATIVE PRIOR TO START OF WORK.
- 16 EXTEND 1#2 AWG, BARE, TINNED, SOLID COPPER GROUND CONDUCTOR FROM NEAREST EXISTING BURIED GROUND ROD AND BOND TO AUTOMATIC TRANSFER SWITCH.
- 17 EXTEND 1#2 AWG, BARE TINNED, SOLID COPPER GROUND CONDUCTOR FROM NEAREST EXISTING BURIED GROUND ROD AND BOND NEW ATS BACKBOARD.
- 18 ALL CONDUITS BELOW GRADE SHALL BE SCHEDULE 40 PVC. ALL CONDUITS ABOVE GRADE AND/OR EXPOSED TO WEATHER SHALL BE SEAL TIGHT / RIGID GALVANIZED STEEL.
- 19 ALL UNISTRUT SHALL BE STAINLESS STEEL. HARDWARE SHALL BE HOT DIPPED GALVANIZED.
- 20 CONDUIT ROUTING IS DIAGRAMMATIC, EXACT CONDUIT ROUTE SHALL BE COORDINATED WITH T-MOBILE REPRESENTATIVE IN THE FIELD.
- 21 COORDINATE ALL UNDERGROUND SERVICES WITH MISS UTILITY 48 HOURS PRIOR TO DIGGING. CONTRACTOR SHALL HAND-DIG WITHIN 5'-0" OF ALL UNDERGROUND SERVICES.
- 22 REFER TO DRAWING PREPARED BY MRA FOR SITE PLAN.
- 23 THE SPECIFIED STAND-BY USE GENERATOR IS NOT A SEPARATELY DERIVED SYSTEM. THE CONTRACTOR SHALL VERIFY THAT THE AUTOMATIC TRANSFER SWITCH DOES NOT SWITCH THE NEUTRAL CONDUCTOR. IF THE MANUFACTURER INSTALLED A MAIN BONDING JUMPER IN THE GENERATOR, THE CONTRACTOR SHALL DISCONNECT AND REMOVE THE JUMPER TO PREVENT VIOLATING NEC ARTICLE 250.6, OBJECTIONABLE CURRENT OVER GROUNDING CONDUCTORS.
- 24 CONTRACTOR SHALL BOX OUT PORTION OF PROPOSED CONCRETE SLAB BELOW GENERATOR STUB UP AREA FOR EXTENSION OF CONDUITS UP THROUGH BOTTOM OF GENERATOR. ALL CONDUIT STUB-UP LOCATIONS SHALL BE WITHIN DESIGNATED CONDUIT STUB-UP AREA AND TURN UP THROUGH BOX OUT IN SLAB. COORDINATE FINAL CONDUIT BOX OUT LOCATION IN THE FIELD WITH SITE CONDITIONS (GENERATOR FUEL TYPE, BOLT PATTERN, ETC.). REFER TO STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION.

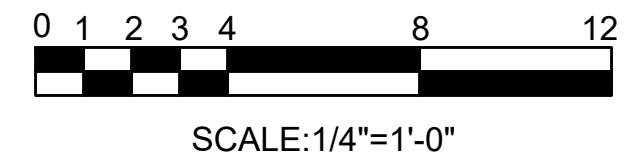


18 19 20 21 22 23 **EQUIPMENT POWER PLAN**
SCALE: 1/4" = 1'-0"

NOTE:
THE SITE PLAN IS SHOWN FOR INFORMATIONAL PURPOSES ONLY, AND THE EXACT LOCATION OF THE T-MOBILE EQUIPMENT PAD SHALL BE COORDINATED WITH FINAL CIVIL DRAWINGS PRIOR TO START OF WORK.



17 18 19 20 21 22 **POWER RISER**
NO SCALE



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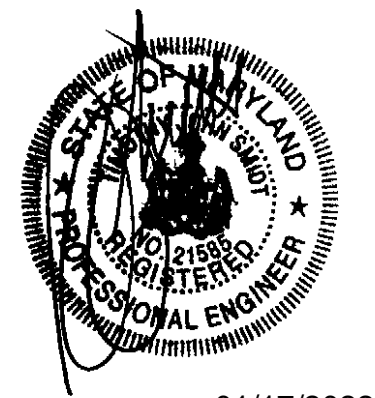


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REVISION BLOCK

NO.	DESCRIPTION	DATE
2	FINAL DWGS	01/17/2022
1	REVIEW DWGS	01/06/2022



01/17/2022

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, TIMOTHY SMIDT, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21585, EXPIRATION DATE: MAY 8, 2023.

DRAWN BY: FVB
DESIGNED BY: WGJ/FVB
ORIGINAL DATE: 01/06/2022
TEI PROJECT #: 21130U
DESIGN SCALE: AS NOTED



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PROTECT YOURSELF, ONE THREE DIGGING DAYS NOTICE
THIS DRAWING DOES NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. ALL CONSTRUCTION MUST BE DONE IN COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 AND ALL RULES AND REGULATIONS THERE TO APPURTENANT.

SHEET TITLE
EQUIPMENT
POWER PLAN,
POWER RISER,
AND NOTES

SHEET NUMBER

E-1



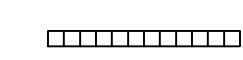
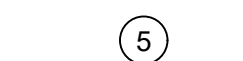
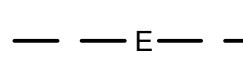
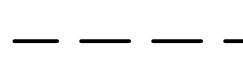



REVIEWED
By Michael Kyne at 9:52 am, Apr 28, 2022

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Historic Preservation Commission



ELECTRICAL SYMBOLS LIST

NOTE: ALL MOUNTING HEIGHTS ARE TO CENTER LINE OF THE OUTLET BOX UNLESS OTHERWISE INDICATED.

-  DISCONNECT SWITCH - FUSED/NON FUSED
-  120/240V PANELBOARD
-  EQUIPMENT MOUNTING BACKBOARD
-  DRAWING NOTE
-  BURIED ELECTRIC FEEDERS
-  BURIED BRANCH CIRCUIT
-  METER
-  GROUND CONDUCTOR BELOW GRADE
-  BURIED GROUND ROD

ABBREVIATIONS

- AFF - ABOVE FINISHED FLOOR
- ATS - AUTOMATIC TRANSFER SWITCH
- C, CDT - CONDUIT
- DN - DOWN
- GRD - GROUND
- MH - MOUNTING HEIGHT
- MTD - MOUNTED
- UG - UNDERGROUND
- V - VOLTS
- W/ - WITH
- WP - WEATHERPROOF

DESCRIPTION		B K T		C K T		DESCRIPTION	
BTS	40	1	2	60	60	SURGE SUPPRESSOR	
LIGHT	20	5	6	6	6	UTMS	
GENERATOR BATTERY CHARGER	20	7	8	8	8	SPACE	
GENERATOR BLOCK HEATER	20	9	10	10	10	SPACE	
FAN	10	11	12	15	15	GFI	

LOAD CALCULATION:
EXISTING LOAD = 4.8 KVA x 125% = 6.0 KVA
PROPOSED EQUIPMENT LOAD = 1.7 KVA
TOTAL: 7.7 KVA

TOTAL LOAD: 7.7 KVA = 32.08 AMPS @ 120/240V, 1Ø

* PANELBOARD FEEDERS ARE SIZED FOR MAIN OVERCURRENT DEVICE PER N.E.C. ARTICLE 215-2
** ALL LOADS ARE BASED UPON N.E.C. ARTICLE 220

- NOTES:
- 1 CONTRACTOR SHALL PROVIDE UPDATED, TYPED PANEL DIRECTORY WITH RESPECTIVE CIRCUIT NAMES AFTER PROJECT COMPLETION, PER N.E.C. ARTICLE 408.4.
 - 2 CONTRACTOR SHALL PROVIDE NEW CIRCUIT BREAKERS AS SHOWN IN AVAILABLE SPACE IN EXISTING PANEL. NEW CIRCUIT BREAKERS SHALL MATCH EXISTING IN STYLE, TYPE, AND A.I.C. RATING.

NOISE ORDINANCE NOTES:

PER MANUFACTURER'S CUT SHEET DATA, THE RATED LOAD SOUND OUTPUT @23' IS 65 DB. PER MONTGOMERY COUNTY NOISE ORDINANCE: RESIDENTIAL AREA - DAYTIME 65 DB MAX RESIDENTIAL AREA - NIGHTTIME 55 DB MAX.

THE NEAREST ADJACENT PROPERTY LINE TO THE PROPOSED GENERATOR IS 387'-3". THE INSTALLATION OF THE GENERATOR CONFORMS WITH MONTGOMERY COUNTY NOISE ORDINANCE AND DOES NOT REQUIRE ACOUSTICAL SOUND DAMPENING MATERIALS.

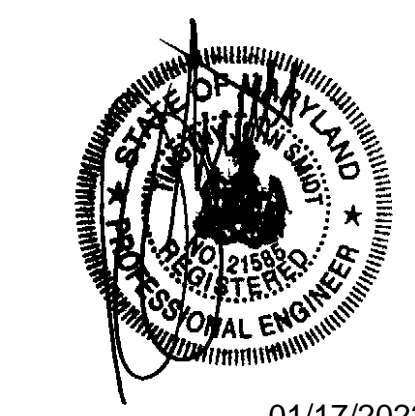
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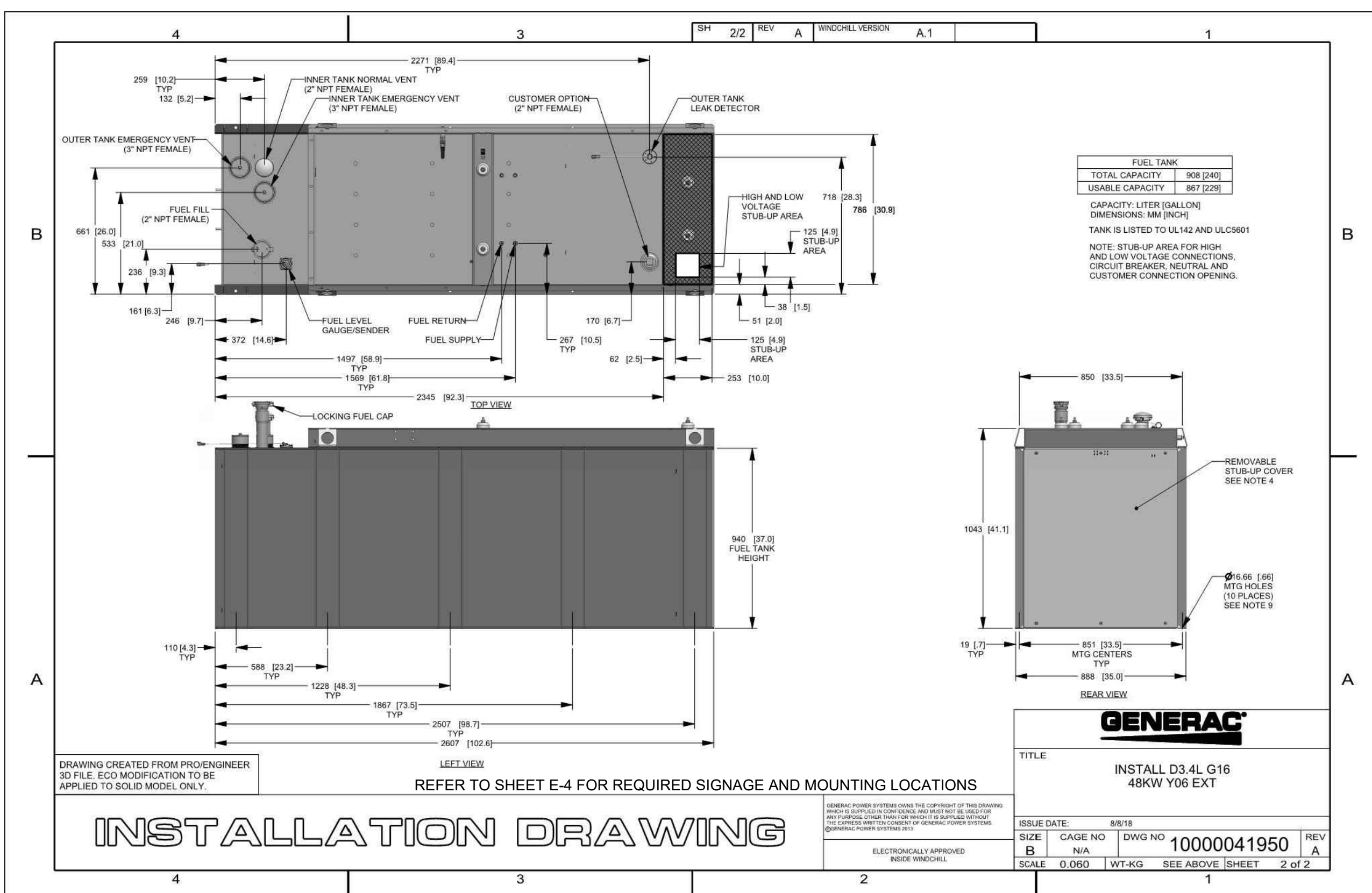
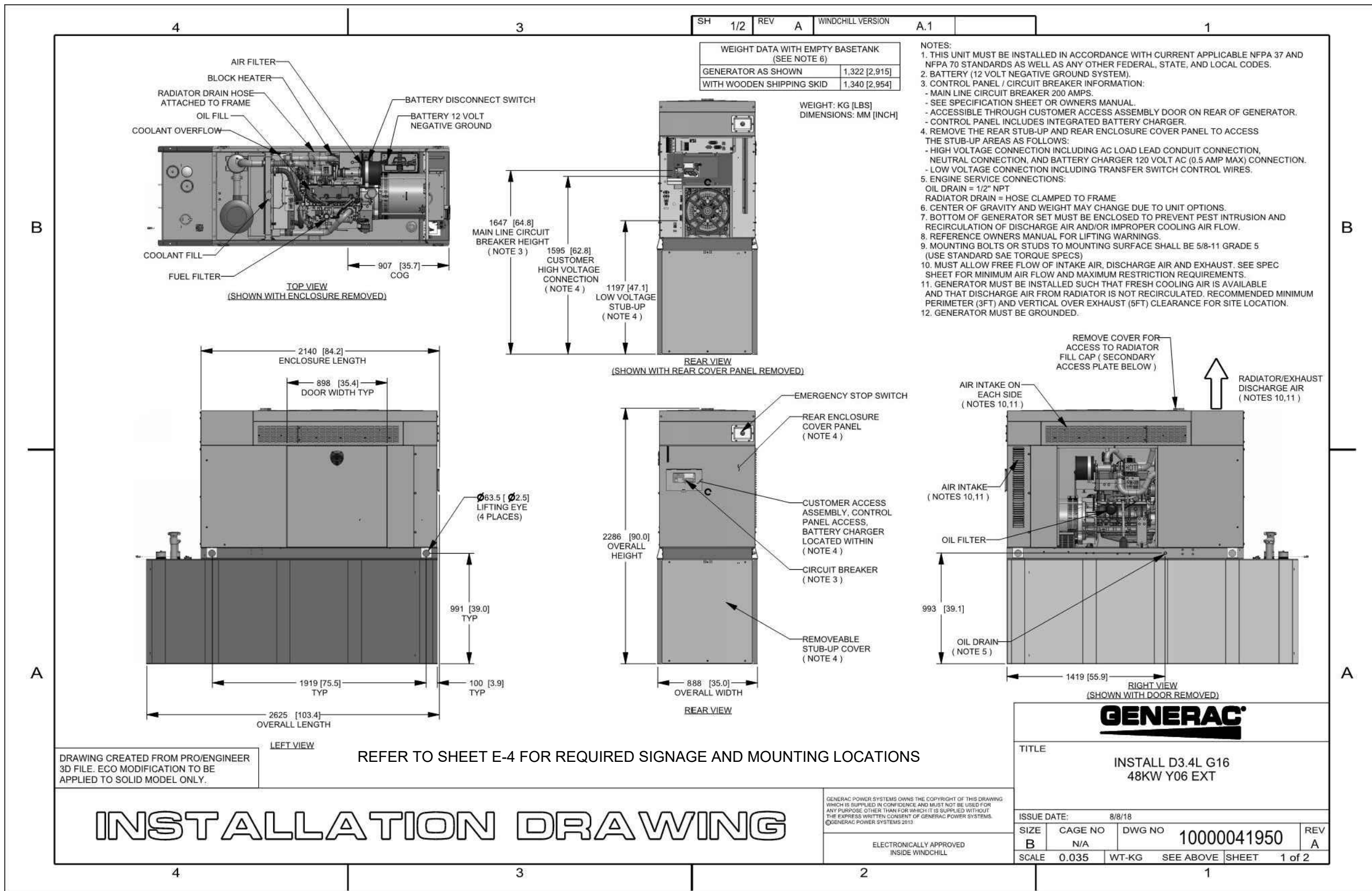


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SHEET TITLE
ELECTRICAL SYMBOLS LIST, DETAILS, AND SCHEDULE

SHEET NUMBER

E-2



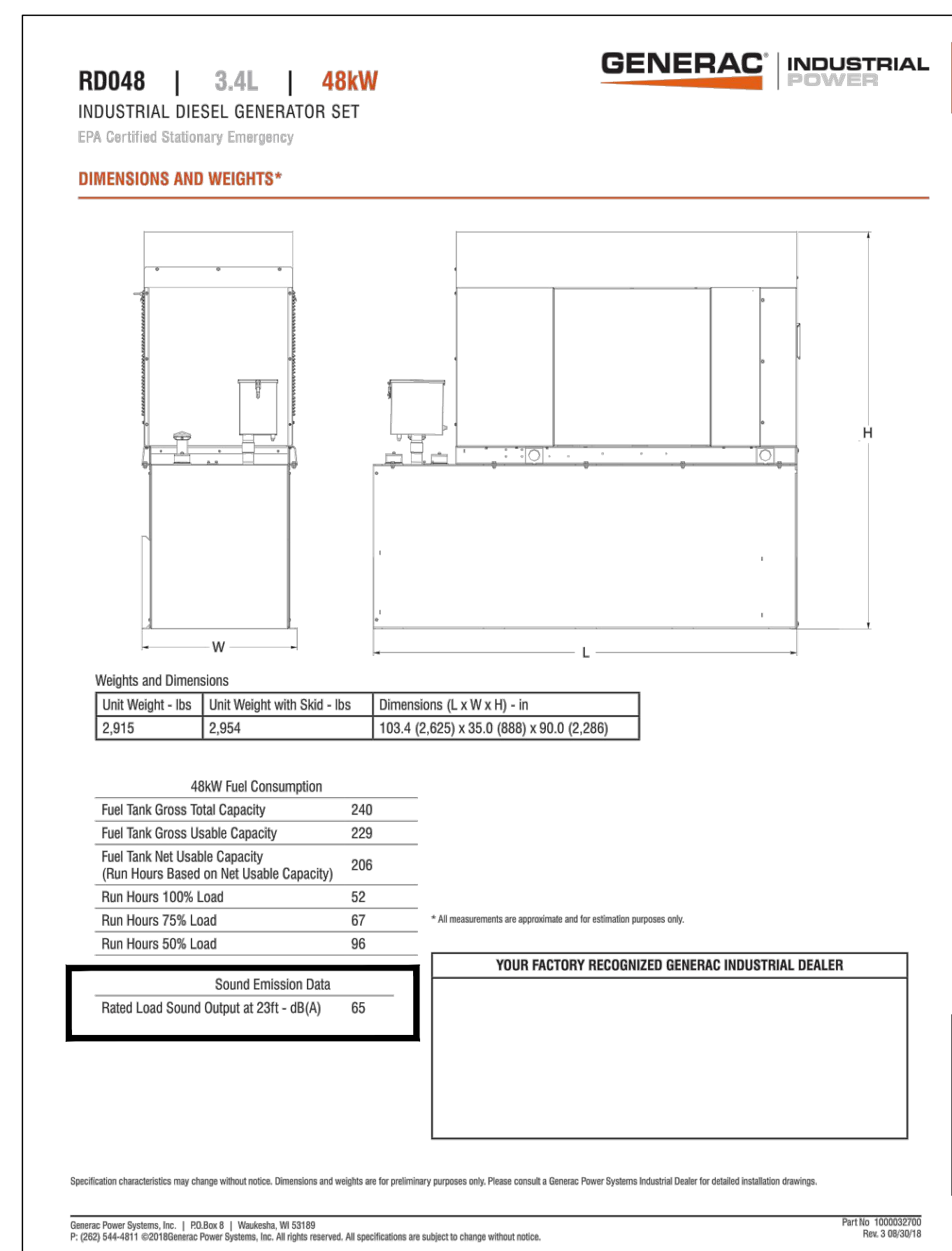
DETAIL - GENERAC 48 KW DIESEL GENERATOR
NO SCALE

DETAIL - GENERATOR ALARMS
NO SCALE

Evolution Controller Customer Connections	Nokia FSEB Alarm Connections 13-24	T-Mobile Standard Alarms
NC#8-Gen Running	NC 4110 grd 4111 pin 13	Generator Running
NC#11-Not In Auto	NC 4110 grd 4111 pin 14	Generator Alarm Critical
NC#2-Door Alarm	NC 4110 grd 4111 pin 15	Generator Alarm NSI
NC#5-Low Fuel	NC 4110 grd 4111 pin 16	Low Fuel
RXSC200A3-Auxiliary Contacts	NC 4110 grd 4111 pin 17	ATS in Emergency Position

Evolution Controller Customer Connections	Ericsson Alarm BexpConnections	T-Mobile Standard Alarms
NC#8- Gen. Running	NC - A5	Generator Running
NC#11-Not In Auto	NC - A6	Generator Alarm Critical
NC#2-Door Alarm	NC - A7	Generator Alarm NSI
NC#5-Low Fuel	NC - A8	Low Fuel
RXSC200A3-Auxiliary Contacts	NC - A9	ATS in Emergency Position

- NOTE:
- 1 CONTRACTOR SHALL EXTEND PAIR OF ALARM CONDUCTORS FROM OUTER TANK LEAK DETECTOR TO DOMINANT MACRO CABINET ON SITE (6201 OR 6160). CONDUCTORS SHALL TERMINATE ON ALARMS TERMINALS TO ALERT NOC IN THE EVENT OF A FUEL TANK LEAK.



REVIEWED
By Michael Kyne at 9:52 am, Apr 28, 2022

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SHEET TITLE

DETAILS

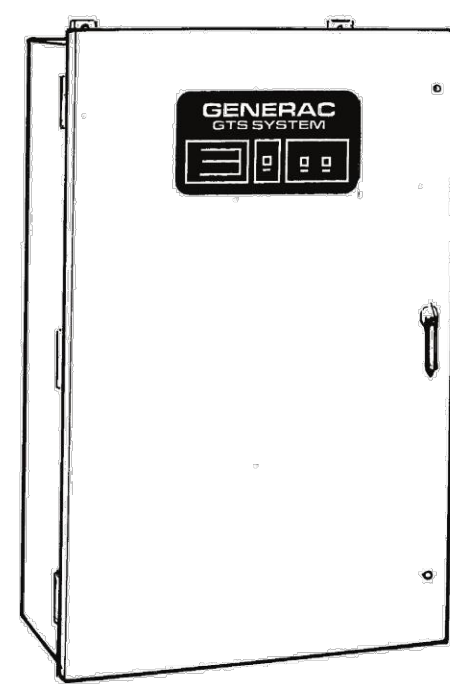
SHEET NUMBER

E-3

GENERAC INDUSTRIAL POWER

100 - 400 Amps,
600 VAC

Automatic Transfer Switches



- Standard time delay neutral will reduce switchover problems.
- Logic control with inphase monitor regulates switch functions and allows adjustable switch settings with LED indicators.
- Control switches located on the front of the door for ease of operation.
- All switches are UL 1008 listed and CSA certified.
- Electrically-operated, mechanically-held and interlocked main contacts with break before make design for fast, positive connections.
- Rated for all classes of load, 100% equipment rated, both inductive and resistive with no derations.
- 2, 3, and 4 Pole 600 VAC contactors.
- 160 millisecond transfer time.

Standard Features

- Single coil design, electrically operated and mechanically held
- Programmable exciter
- SPDT auxiliary contacts
- Main contacts are silver alloy to resist welding and sticking
- Conformal coating protects all printed circuit boards
- Indicating LEDs for switch position—Normal, Emergency, and Standby Operating
- NEMA 1 enclosure with hinged door and key-locking handle
- Three-position switch—Fast Test, Auto, Normal Test
- Arc chutes on main contacts

Optional Accessories

- NEMA 12 enclosure
- NEMA 3R enclosure
- NEMA 4 & 4X enclosure
- Exterior AC meter package
- Controls accessible through door in door design on NEMA type 3R and 4 enclosures – key lock provided on access door
- 4-pole design for neutral isolation
- Two (2) sets of auxiliary contacts
- Preferred source selector switch
- Manual 3 position selector switch
- Remote automatic control circuit
- Signal before transfer contacts
- Return to normal timer bypass

GENERAC INDUSTRIAL POWER

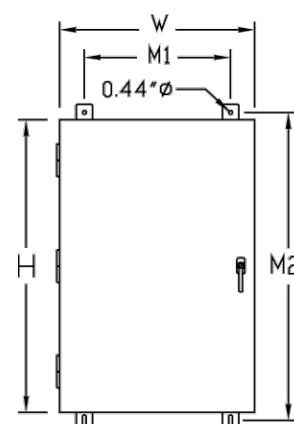
GTS Control Systems

LOGIC CONTROL w / Inphase Monitor	
Utility Voltage	75-95% (Adj.)
Dropout	85-95% (Adj.)
Pickup	0.1-10 Sec. (Adj.)
Line Interrupt	5-30 Min. (Adj.)
Engine Minimum Run	5 Sec-3 Min. (Adj.)
Engine Warmup	1-30 Min. (Adj.)
Return to Utility	1-30 Min. (Adj.)
Engine Cooldown	1-30 Min. (Adj.)
Standby Voltage	85-95% (Adj.)
Standby Frequency	80-90% (Adj.)
Time Delay Neutral	0.1-10 Sec. (Adj.)
Transfer on Exercise	On/Off Switch
Warmup Timer Bypass	On/Off Switch
Time Delay Neutral Bypass	On/Off Switch
Inphase Monitor	On/Off Switch

Withstand Current - 600 Volt GTS Series

GTS Rated Amps	100	150	200	300	400
FUSE PROTECTED					
Maximum RMS Symmetrical Fault Current - Amps	200,000	200,000	200,000	200,000	200,000
Maximum Fuse Size - Amps	200	400	400	600	600
Fuse Class	J,T	J,T	J,T	J,T	J,T
CIRCUIT BREAKER PROTECTED (See separate sheet for specific circuit breakers)					
Maximum RMS Symmetrical Fault Current - Amps	14,000	25,000	25,000	35,000	35,000
Protective Device Continuous Rating (Max) - Amps	150	300	300	600	600

* Tested in accordance with the Withstand and closing requirements of UL 1008 and CSA Standards
* Current ratings are listed @ 480 VAC



Unit Dimensions

GTS Rated Amps	Voltage	Enclosure		Enclosure		Wall Mount Bolt Pattern		Enclosure Depth		Weight (lbs.)
		H	W	M1	M2	D1	D2			
100	All	36	24	18	37.5	12.7	10	180		
150-200	120/240	36	24	18	37.5	12.7	10	185		
150-200	277/480	48*	30*	24	49.5	14.8	12	265		
150-200	600	48*	30*	24	49.5	14.8	12	265		
300-400	120/240	36	24	18	37.5	12.7	10	245		
300-400	277/480	48*	30*	24	49.5	14.8	12	325		
300-400	600	48*	30*	24	49.5	14.8	12	325		

* Note: On NEMA 1 enclosures only, door overlaps enclosure - door dimensions are 48.8 H X 30.8 W. All dimensions in inches.

Terminal Lug Wire Ranges

GTS RATED AMPS	CONTACTOR TERMINALS (1 LUG PER POLE)		NEUTRAL BAR*		GROUND LUG (1 PROVIDED)	
	LUG WIRE RANGE	# LUGS	LUG WIRE RANGE	# LUGS	LUG WIRE RANGE	# LUGS
100	2/0 - 14 AWG	4	2/0 - 14 AWG	4	2/0 - 14 AWG	4
150	400MCM - 4 AWG	4	350MCM - 6 AWG	4	350MCM - 6 AWG	4
200	400MCM - 4 AWG	4	350MCM - 6 AWG	4	350MCM - 6 AWG	4
300	600MCM - 4 AWG or 2 - (250MCM - 1/0 AWG)	4	600MCM - 4 AWG (250MCM - 1/0 AWG)**	4	350MCM - 6 AWG 350MCM - 6 AWG	4
400	600MCM - 4 AWG or 2 - (250MCM - 1/0 AWG)	4	600MCM - 4 AWG (250MCM - 1/0 AWG)**	4	350MCM - 6 AWG 350MCM - 6 AWG	4

* Not included in GTS with switched neutral. ** Allowable wire range in brackets is for 2 wires per lug.

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DETAIL - GENERAC GTS AUTOMATIC TRANSFER SWITCH
NO SCALE

REVIEWED
By Michael Kyne at 9:52 am, Apr 28, 2022

APPROVED
Montgomery County
Historic Preservation Commission
[Signature]

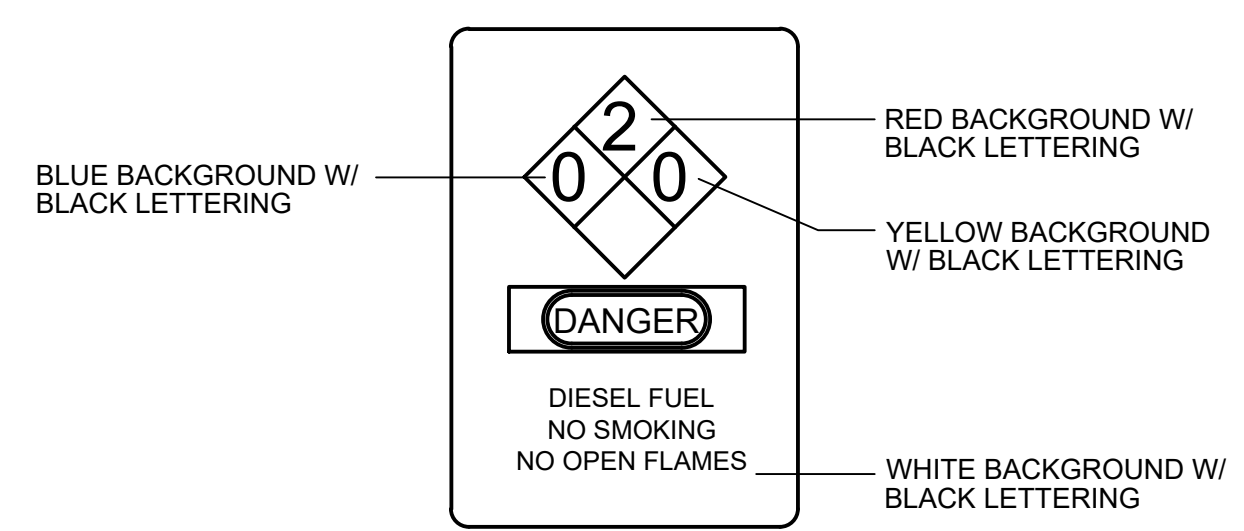
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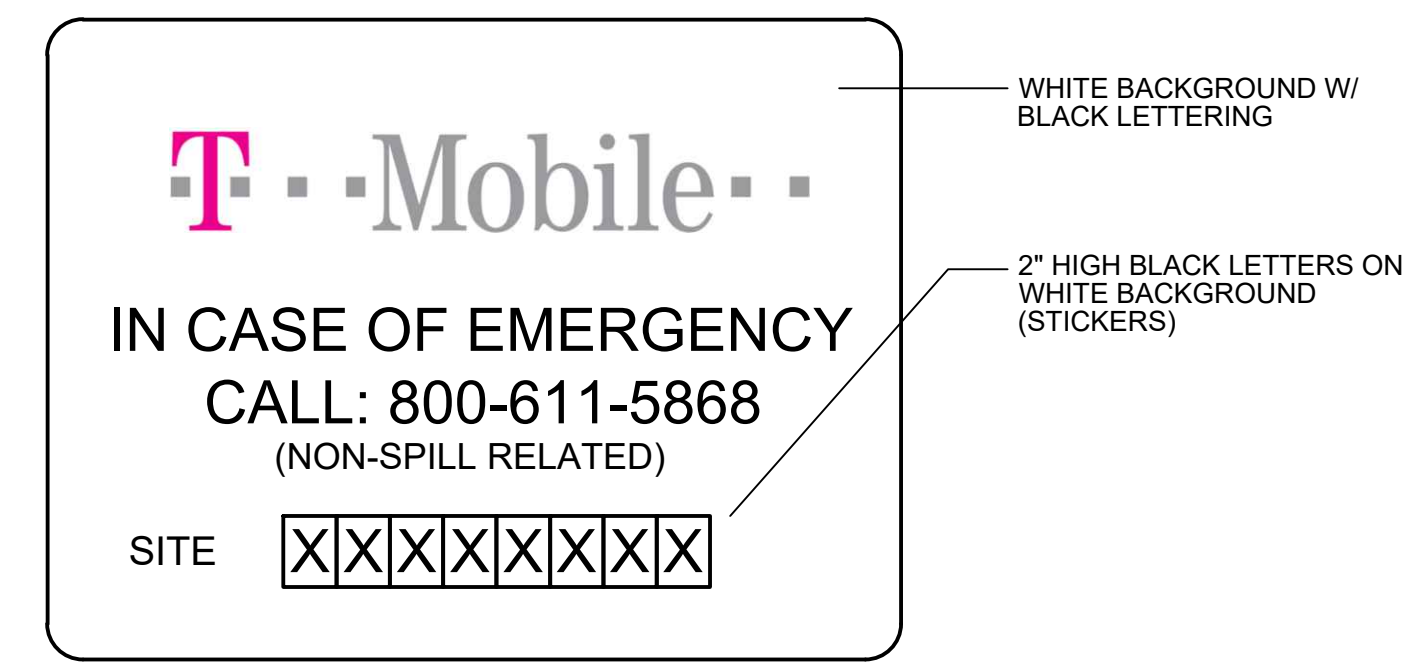
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SITE NAME:
FRALEY FAMILY - ROCKVILLE
SITE ADDRESS:
17800A BOWIE MILL ROAD
ROCKVILLE, MD 28055
MONTGOMERY COUNTY

REVISION BLOCK

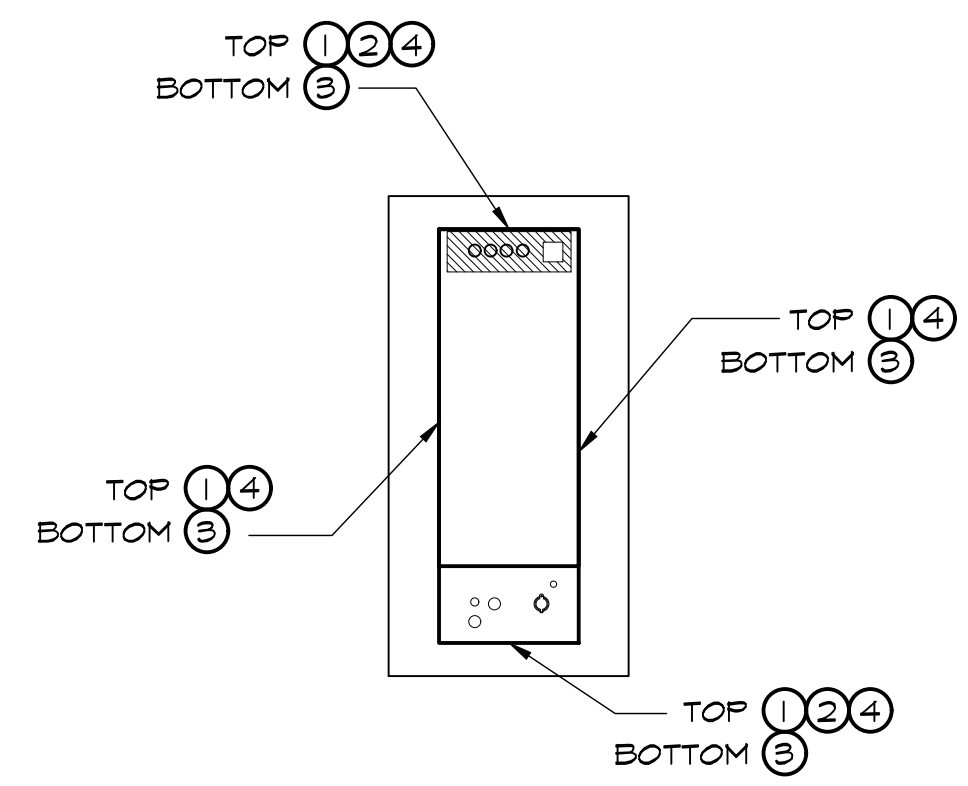
NO.	DESCRIPTION	DATE
2	FINAL DWGS	01/17/2022
1	REVIEW DWGS	01/06/2022



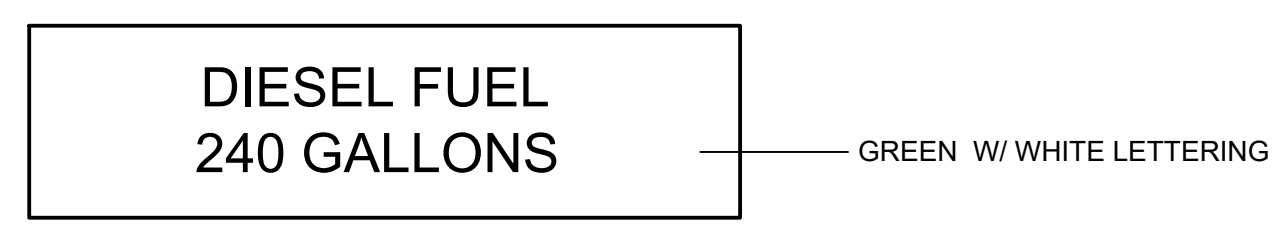
① **DANGER - DIESEL FUEL**
9 3/4" WIDE X 14" HIGH



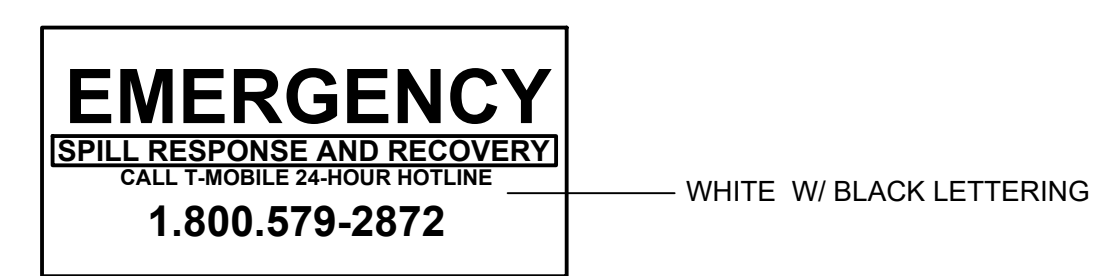
② **T-MOBILE-SITE ID SIGN**
20" HIGH X 14" WIDE



SIGN KEY PLAN
SCALE: 1/4" = 1'-0"



③ **FUEL TANK SIGN**
30" WIDE X 12" HIGH



④ **EMERGENCY RESPONSE SIGN**
8" WIDE X 4" HIGH



PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, TIMOTHY SMIDT, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21585, EXPIRATION DATE: MAY 8, 2023.

DRAWN BY: FVB
DESIGNED BY: WGJ/FVB
ORIGINAL DATE: 01/06/2022
TEI PROJECT #: 21130U
DESIGN SCALE: AS NOTED



Know what's below. Call before you dig.
PROTECT YOURSELF, GIVE THREE WORKING DAYS NOTICE
THIS DRAWING DOES NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. ALL CONSTRUCTION MUST BE DONE IN COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 AND ALL RULES AND REGULATIONS THERE TO APPURTENANT.

SHEET TITLE
SITE SIGNAGE

SHEET NUMBER
E-4

