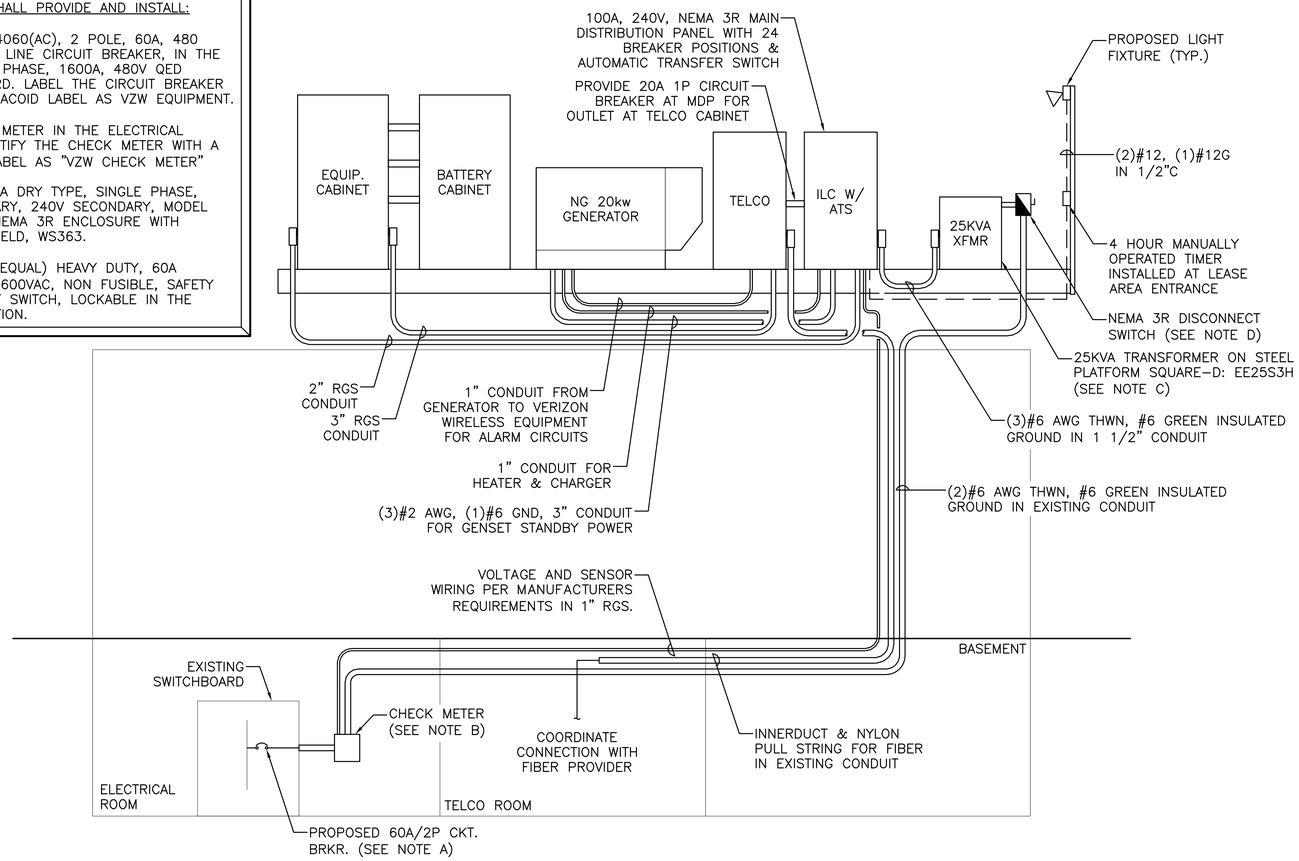
CONTRACTOR SHALL PROVIDE AND INSTALL:

A. SQ-D, FA24060(AC), 2 POLE, 60A, 480 VAC, QED 1 LINE CIRCUIT BREAKER, IN THE EXISTING 3 PHASE, 1600A, 480V QED SWITCHBOARD. LABEL THE CIRCUIT BREAKER WITH A LAMACOID LABEL AS VZW EQUIPMENT.

B. (1) CHECK METER IN THE ELECTRICAL ROOM. IDENTIFY THE CHECK METER WITH A LAMICOID LABEL AS "VZW CHECK METER"

C. SQ-D 25KVA DRY TYPE, SINGLE PHASE, 480V PRIMARY, 240V SECONDARY, MODEL EE25S3H, NEMA 3R ENCLOSURE WITH WEATHERSHIELD, WS363.

D. SQ-D (OR EQUAL) HEAVY DUTY, 60A (MINIMUM), 600VAC, NON FUSIBLE, SAFETY DISCONNECT SWITCH, LOCKABLE IN THE OPEN POSITION.



1 POWER RISER DIAGRAM
SCALE: N.T.S.

CONTROL CIRCUITS, BATTERY CHARGING CIRCUIT, AND ALL AC CIRCUITS REQUIRED BY THE GENERATOR MANUFACTURER SHALL BE INSTALLED ACCORDING TO THE MANUFACTURERS INSTRUCTIONS.

ABBREVIATIONS

A	AMPERE
A.I.C.	AVAILABLE INTERRUPTING CURRENT
A.T.S.	AUTOMATIC TRANSFER SWITCH
C	CONDUIT
RGS.	RIGID GALVANIZED STEEL
GND.	GROUND
KWH	KILOWATT HOUR
ϕ	PHASE
P	POLE
PVC	POLYVINYL CHLORIDE
SCA	AVAILABLE SHORT CIRCUIT CURRENT
TBCW	TINNED BARE COPPER WIRE
THHN	THERMOPLASTIC HIGH HEAT RESISTANT NYLON-COATED
THWN	THERMOPLASTIC HEAT & WATER RESISTANT NYLON-COATED
TYP.	TYPICAL
U.O.N.	UNLESS OTHERWISE NOTED
W	WIRE

NOTE:

1. ALL POWER ROUTING SHALL BE COORDINATED WITH THE VERIZON WIRELESS CONSTRUCTION MANAGER AND THE SITE OWNER OR REPRESENTATIVE. ANY DISRUPTION OF ELECTRICAL SERVICE MUST BE APPROVED AND COORDINATED WITH THE SITE REPRESENTATIVE AND THE VERIZON WIRELESS CONSTRUCTION MANAGER.

2. ELECTRICAL CONTRACTOR SHALL PLACE IN ACCORDANCE WITH THE NEC THE FOLLOWING SIGNS AT THIS EQUIPMENT.

SIGN AT PPC:

"WARNING SHOCK HAZARD EXISTS IF GROUNDING ELECTRODE CONDUCTOR OR BONDING JUMPER CONNECTION IN THE EQUIPMENT IS REMOVED WHILE ALTERNATE SOURCE(S) IS ENERGIZED."

SIGN AT SERVICE:

"WARNING A 20kW, 240V SINGLE PHASE NATURAL GAS STANDBY GENERATOR WITH AN AUTOMATIC TRANSFER SWITCH PROVIDES BACK UP POWER TO THE VERIZON WIRELESS EQUIPMENT ON THE ROOF. THE STANDBY GENERATOR IS LOCATED ON THE ROOF AT THE VERIZON WIRELESS EQUIPMENT PLATFORM."

CONTRACTOR SHALL VERIFY WITH THE GAS COMPANY THE PRESSURE SUPPLIED TO THE EQUIPMENT ON THE ROOF SHALL BE 7-11 IN WATER COLUMN.

VERIZON WIRELESS GENERAL ELECTRICAL NOTES:

1. SUBMITTAL OF BID INDICATES CONTRACTOR IS COGNIZANT OF ALL JOB SITE CONDITIONS AND WORK TO BE PERFORMED UNDER THIS CONTRACT. CONTRACTOR IS RESPONSIBLE FOR ALL FIELD VERIFICATION.

2. THESE PLANS ARE DIAGRAMMATIC ONLY AND NOT TO BE SCALED.

3. UTILITY SERVICES SHOWN ARE PROPOSED, THE ELECTRIC CONTRACTOR SHALL COORDINATE EXACT TELEPHONE AND ELECTRIC SERVICE CONNECTION POINTS, PULL BOXES, ROUTING AND ASSOCIATED REQUIREMENTS WITH LOCAL UTILITY COMPANIES.

4. VISIT THE SITE AND EXAMINE CONDITIONS UNDER WHICH WORK MUST BE PERFORMED. REPORT ADVERSE CONDITIONS IN WRITING. COMMENCEMENT OF WORK SHALL BE CONSTRUED AS COMPLETE ACCEPTANCE OF EXISTING CONDITIONS INCLUDING PREPARATORY WORK DONE BY OTHERS.

5. CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, INSURANCE, EQUIPMENT, INSTALLATION, CONSTRUCTION TOOLS, TRANSPORTATION, ETC. FOR A COMPLETE AND PROPERLY OPERATIVE SYSTEM ENERGIZED THROUGHOUT AND AS INDICATED ON DRAWINGS, AS SPECIFIED HEREIN AND/OR AS OTHERWISE REQUIRED.

6. 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. ALL CONDUCTORS SHALL BE COPPER. ALL WIRING DEVICES AND EQUIPMENT SHALL BE SPECIFICATION GRADE AND UL LISTED AND SHALL BEAR THE INSPECTION LABEL "J" WHERE SUBJECT TO SUCH APPROVAL. MATERIALS SHALL MEET WITH APPROVAL OF THE DIVISION OF INDUSTRIAL SAFETY AND ALL GOVERNING BODIES HAVING JURISDICTION. MATERIALS SHALL BE MANUFACTURED IN ACCORDANCE WITH APPLICABLE STANDARDS ESTABLISHED BY ANSI, NEMA, AND NBFU.

7. ALL CONDUIT INSTALLED SHALL BE SURFACE MOUNTED UNLESS OTHERWISE NOTED. ALL METALLIC CONDUITS SHALL BE PROVIDED WITH BONDING BUSHINGS. THE ENTIRE SYSTEM SHALL BE SOLIDLY GROUNDED USING COMPRESSION-TYPE CONDUIT FITTINGS ON CONDUITS AND PROPERLY BONDED GROUND CONDUCTORS. CRIMP-TYPE AND SET SCREW-TYPE CONDUIT FITTINGS ARE NOT ALLOWED.

8. CONTRACTOR SHALL CARRY OUT THE WORK IN ACCORDANCE WITH ALL GOVERNING STATE, COUNTY, LOCAL CODES, AND BY O.S.H.A. THE ENTIRE ELECTRICAL INSTALLATION SHALL BE GROUNDED AS REQUIRED BY ALL APPLICABLE CODES AND SHALL COMPLY WITH THE LATEST EDITION OF THE NATIONAL ELECTRIC CODE.

9. ELECTRICAL CONTRACTOR SHALL GIVE NOTICES, FILE PLANS, OBTAIN ELECTRICAL PERMITS AND LICENSES, PAY REQUIRED FEES AND BACK CHARGES AND OBTAIN NECESSARY APPROVALS FROM AUTHORITIES THAT HAVE JURISDICTION.

10. THE CONTRACTOR IS TO COORDINATE WITH UTILITY COMPANY FOR CONNECTION OF TEMPORARY AND PERMANENT POWER TO THE SITE. THE TEMPORARY POWER AND ALL HOOK-UP COSTS SHALL BE PAID BY THE CONTRACTOR.

11. THE ELECTRICAL CONTRACTOR SHALL COORDINATE ALL CONDUIT ROUTING WITH LOCAL UTILITY COMPANY AND FIELD CONSTRUCTION MANAGER. THE CONTRACTOR IS TO PROVIDE ALL NECESSARY SUPPORTS FOR CONDUIT RUNS ALONG WALL AND CEILING IN ACCORDANCE WITH SPECIFICATIONS. CONDUITS INDICATED SHALL RUN PARALLEL OR AT RIGHT ANGLES TO CEILING, FLOOR OR BEAMS.

12. LOCATION OF TENDONS AND RE-BARS ARE NOT DEFINITELY KNOWN AND THEREFORE MUST BE SEARCHED FOR BY APPROPRIATE METHODS AND EQUIPMENT VIA X-RAY, OR OTHER DEVICES THAT CAN ACCURATELY LOCATE THE REINFORCING STEEL TENDONS.

13. UPON DRILLING HOLES INTO CONCRETE, WHETHER FOR FASTENING OR ANCHORING PURPOSES, OR PENETRATIONS THROUGH THE FLOOR FOR CONDUIT RUNS, PIPE RUNS, ETC. IT MUST BE CLEARLY UNDERSTOOD THAT TENDONS AND REBARS WILL NOT BE DRILLED INTO, CUT, OR DAMAGED UNDER ANY CIRCUMSTANCES.

14. PENETRATIONS IN FIRE RATED WALLS SHALL BE FIRE STOPPED IN ACCORDANCE WITH APPLICABLE LOCAL BUILDING CODES. USING U.L. RATED MATERIALS

15. PROVIDE "FIRE FLANGE" RATED PENETRATIONS FOR PIPES AND CONDUITS THROUGH RATED WALL CONSTRUCTION. CAULK AS REQUIRED WITH 3M BRAND FIRE BARRIER CAULK OR APPROVED EQUAL.

16. All WALL PENETRATIONS FOR TELCO, POWER, AND GROUNDING SHALL REQUIRE RIGID STEEL SLEEVES. ALL EXTERIOR WALL PENETRATIONS SHALL BE SILICONE SEALED.

17. PATCH, REPAIR, AND PAINT ANY AREA THAT HAS BEEN DAMAGED IN THE COURSE OF THE ELECTRICAL WORK.

18. ALL EXISTING UNDERGROUND LINES ON SITE SHALL BE LOCATED PRIOR TO CONSTRUCTION.

19. ALL EMPTY CONDUITS SHALL HAVE A PULL WIRE OR ROPE INSTALLATION.

20. ALL CIRCUIT BREAKERS, FUSES, AND ELECTRICAL EQUIPMENT SHALL HAVE AN INTERRUPTING RATING NOT LESS THAN THE MAXIMUM SHORT CIRCUIT CURRENT TO WHICH THEY MAY BE SUBJECTED AND A MINIMUM OF 10,000 AIC.

21. MATERIAL AND EQUIPMENT SHALL BE UL, NEMA, ANSI, IEEE, ADA AND CBM APPROVED FOR INTENDED SERVICE. INSTALLATION SHALL MEET REQUIREMENTS OF NATIONAL AND STATE ELECTRICAL CODES.

22. ALL WIRING SHALL BE TYPE THWN RATED 75°C, 600V, WET OR DRY LOCATIONS, U.O.N. MINIMUM BRANCH CIRCUIT WIRING SHALL BE #12 AWG SOLID COPPER.

23. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE LOCAL TELEPHONE COMPANY AS MAY BE REQUIRED TOR THE INSTALLATION OF TELEPHONE SERVICE TO THE PROPOSED SITE

24. CLEAN PREMISES OF ALL DEBRIS RESULTING FROM WORK AND LEAVE WORK IN A COMPLETED AND UNDAMAGED CONDITION.

25. PROVIDE THE OWNER WITH ONE SET OF COMPLETE ELECTRICAL "AS BUILT" DRAWINGS AT THE COMPLETION OF THE JOB, SHOWING ACTUAL DIMENSIONS AND CIRCUITS, WITHIN 10 WORKING DAYS OF PROJECT COMPLETION.

26. ALL BROCHURES, OPERATING MANUALS, CATALOGS, SHOP DRAWINGS, ETC. FOR SPECIFIED AND UNSPECIFIED ORIGINAL MATERIALS AND EQUIPMENT SHALL BE TURNED OVER TO PROJECT MANAGER AT JOB COMPLETION.

27. * COMPLETE JOB SHALL BE GUARANTEED FOR A PERIOD OF NO LESS THAN ONE YEAR AFTER THE DATE OF JOB ACCEPTANCE BY OWNER. ANY WORK MATERIAL, OR EQUIPMENT FOUND TO BE FAULTY DURING THAT PERIOD SHALL BE CORRECTED AT ONCE, UPON WRITTEN NOTIFICATION AT THE EXPENSE OF THE CONTRACTOR.

28. UPON COMPLETION OF WORK, CONDUCT CONTINUITY SHORT CIRCUIT, AND FALL-OF-POTENTIAL GROUNDING TEST WITH WRITTEN REPORT SUBMITTED TO THE PROJECT MANAGER FOR REVIEW AND APPROVAL.

* INDICATES BY NOTICE OF COMPLETION: SIGNED OFF BY CONSTRUCTION ENGINEER AND INCLUDES DATES ON ALL WARRANTY FORMS.

PREPARED BY:

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TRANSFORM YOUR BUSINESS...THROUGH WIRELESS

A&E OFFICE:
7A LYBERTY WAY
WESTFORD, MA 01886
1 (972) 755-1882

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Portland, Maine
Date: 08/16/17

CLIENT:

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CELLCO PARTNERSHIP d/b/a
VERIZON WIRELESS
118 FLANDERS ROAD, 3RD FLOOR
WESTBOROUGH, MA 01581

STATE OF MAINE
RONALD J. JACKSON
3773
LICENSED
PROFESSIONAL ENGINEER

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SUBMITTALS

REV	DATE	DESCRIPTION	BY
0	03/01/17	FOR REVIEW	JM
1	03/13/17	REVISED PER COMMENTS	JM
2	04/07/17	REVISED FOR CONSTRUCTION	JM

SITE INFO:

SITE NAME:
PORTLAND_8_ME

LOCATION CODE:
380405

SITE ADDRESS:
44 BEDFORD STREET
PORTLAND, ME 04101
CUMBERLAND COUNTY

SHEET TITLE:
ELECTRICAL NOTES & POWER RISER DIAGRAM

NEXIUS PROJ. NO: VZ11509

CHECKED BY: MS

CHECKED BY DATE: 03/01/17

SHEET NUMBER: E-1