

STATE OF CONNECTICUT *CONNECTICUT SITING COUNCIL* Ten Franklin Square, New Britain, CT 06051 Phone: (860) 827-2935 Fax: (860) 827-2950 E-Mail: siting.council@ct.gov www.ct.gov/csc

February 7, 2019

Hollis M. Redding Site Acquisition Manager Northeast Site Solutions 35 Griffith Road South Bloomfield, CT 06002

RE: **EM-T-MOBILE-011-180321** - T-Mobile Northeast LLC notice of intent to modify an existing telecommunications facility located at 7 Hoskins Road, Bloomfield, Connecticut

Dear Ms. Redding:

The Connecticut Siting Council (Council) is in receipt of your correspondence dated February 5, 2019 regarding the minor project changes to the above-referenced exempt modification that was acknowledged by the Council on April 16, 2018.

The request to change the approved 7.5-kilowatt propane fueled generator to a proposed 15-kilowatt diesel fueled generator with a 54-gallon double walled base tank, to be placed on a new 4-foot by 8-foot concrete pad within the existing equipment compound, is hereby approved.

This approval applies only to the minor project changes dated February 5, 2019. Any significant changes to the project require advance Council notification and approval.

Thank you for your attention and cooperation.

Sincerely,

Melanie Bachman Executive Director

MAB/in

c: The Honorable Suzette DeBeatham-Brown, Mayor, Town of Bloomfield Philip K. Schenck, Jr., Town Manager, Town of Bloomfield Jose Giner, Director of Planning, Town of Bloomfield Eversource, Tower and Property Owner





Northeast Site Solutions Hollis M. Redding 420 Main Street, Unit 2 Sturbridge MA 01566 860-834-6964 hollis@northeastsitesolutions.com

February 5, 2019

Ms. Melanie Bachman **Executive Director Connecticut Siting Council** Ten Franklin Square New Britain, CT 06051

RE: EM-T-MOBILE-011-180321 7 Hoskins Road, Bloomfield, CT 06002 Latitude: 41.89284000 Longitude: -72.76550600 T-Mobile Site Number: CTHA142G-NSD-CMP2

Dear Ms. Bachman:

T-Mobile Northeast LLC ("T-Mobile") received Connecticut Siting Council approval for an exempt modification on April 16, 2018 allowing T-Mobile to install one (1) IBR 1300 Dish at the 140.6' level of the existing 185'6" lattice tower owned by Eversource. The approval also included the addition of an emergency generator and a new 3x3' pad for supporting propane tank.

T-Mobile subsequently determined the propane generator is no longer available for use and proposes to change the fuel type to diesel. The Polar Power 15kW diesel powered generator w/ a double walled 54-gallon fuel tank would be placed on a new 4'x8' concrete pad adjacent to the existing T-Mobile 10'x20' equipment pad. As shown in the attached generator specification sheets, the fuel tank is fully contained within the bottom of the enclosed generator cabinet behind removable doors. The generator is equipped with a special fuel leak sensor to detect any possible leaks. It is equipped with a spill proof design on the top to contain any possible spills during re-fueling. In case of hose leaks, there are two areas where the fuel tank to the fuel tank is the spill spills during re-fueling. top to contain any possible spills during re-fueling. In case of hose leaks, there are two areas where the fuel will be collected: inside the generator compartment -the tray will hold up to 3.7 gallons and above the main tank-the tray will hold up to 5 gallons of fuel.

Also attached is a wetlands delineation map from the Wetland & Vernal Pool Evaluation prepared by All-Points Technology, map dated June 18, 2014, which was included as part of the Cellco Partnership d/b/a Verizon Wireless Petition #1112, which shows the location of the proposed tower (which in now existing) and wetland area.

As shown in the above, the small, 54-gallon fuel tank would not impact the nearest wetland area which is 170 feet to the North from the fenced compound. T-Mobile's generator is approximately 75' towards the rear of the compound. T-Mobile is confident this sensitive environmental area will not be impacted by the change in fuel type. No other changes to the April 16, 2018 approval are proposed and no expansion of the compound is required.

T-Mobile respectfully requests administrative approval by the Connecticut Siting Council to change the generator fuel type from propane to diesel. Attached please find revised plans prepared by All-Points Technology, dated January 29, 2019 detailing the generator schematics.

Please let me know if you have any questions or if you need further information. My contact information is below. Thank you for your time and attention to this matter.

Sincerely,

Halles M. Redding

Hollis M. Redding Site Acquisition Manager Northeast Site Solutions Mobile: 860-834-6964 Fax: 413-521-0558 Office: 35 Griffin Road South, Bloomfield, CT 06002 Email: hollis@northeastsitesolutions.com

Attachments

cc: The Honorable Suzette DeBeatham-Brown, Mayor, Town of Bloomfield Philip K. Schenck, Jr., Town Manager, Town of Bloomfield Jose Giner, Director of Planning, Town of Bloomfield Chris Gelinas, Eversource Real Estate - Tower & Property owner



T · · Mobile

CUTOVER APU/BATTERY REPLACEMENT PROGRAM

All APUs include:

- 16 V Supercapacitor starter
- 54 gal. UL142 rated double walled diesel tank . with fuel level sensor
- Ethernet module with SNMP
- Powder coated steel enclosure
- V-belt driven radiator fan
- Standard 2 Year Warranty

Options available:

- Additional 5 year warranty
- Transitional supercap energy storage bank .
- Electric radiator fans
- All-weather aluminum enclosure
- Level 2 sound enclosure .
- 8-alarm relay board .
- Oil refining kit

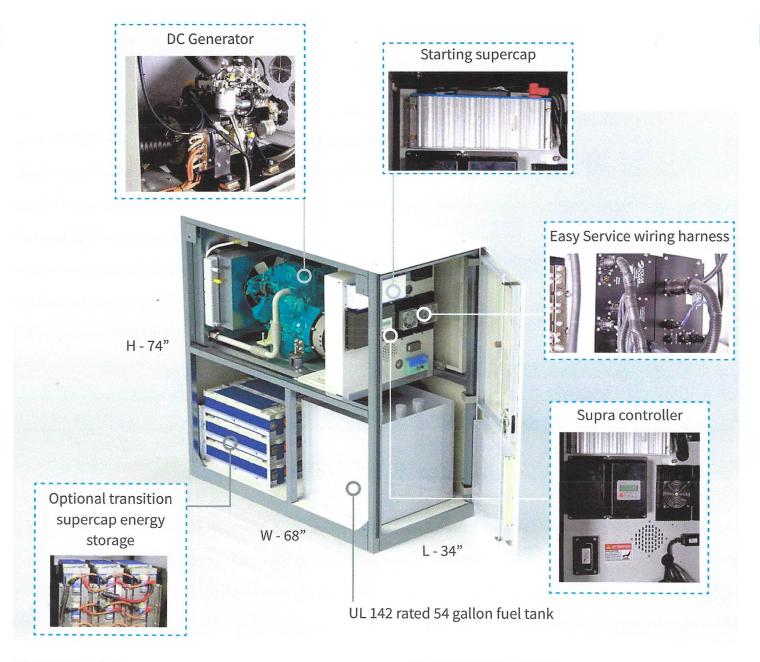




Founded in 1979 Polar Power specialized in solar photovoltaic systems, solar air conditioning and refrigeration. We developed and provided photovoltaic charging controls for telecommunications in the 1980s along with DC generators for the military. In 1994 we were first to provide DC generators with remote control and monitoring to the telecommunications industry.

Polar's success is based on engineering generators to meet the very specific needs of each application. Telecom site optimization is best met with the DC generator technology as the loads and batteries are DC. It makes no sense to install an AC generator and convert the output to DC. The AC generators are designed for a wide range of applications and they are not specifically produced for telecom applications so there are issues with reliability, space, and fuel efficiency.

Polar can save you considerable time and cost in permitting, installing, purchasing, and maintaining a backup generator. We reduce CAPEX and OPEX costs while improving backup reliability.



LOW MAINTENANCE.

LOW ACOUSTIC NOISE. <66 dBA @ 7 meters for diesel, and low vibration so as not to disturb the local residents or building landlords.

CORROSION RESISTANT. All-aluminum enclosure with stainless hardware for low maintenance, and long service life.

FUEL EFFICIENT. Up to 85% fuel savings due to smaller engine displacement, high efficiency alternator, and variable speed operation.

RODENT RESISTANT. Small animals can quickly destroy a generator set by gnawing on wires, fuel lines, radiator hoses, etc. Cooling air inlets and outlets have perforated aluminum screens to keep small rodents and large insects out. Stainless steel wire braid is placed over fuel and radiator lines to prevent damage.

SUPERCAPACITOR STARTER. Failure to start is the number one problem plaguing generator reliability and typically this is caused by a bad starting battery. Polar unique design has replaced the starting battery with a Super Capacitor. Capacitors are more reliable and last longer than batteries (10-15 year life).

LONG LIFE. Controls and wire harnesses are designed to exceed a 20 year life. Higher grade, longer life electrical wire (UL 3173), weather tight connectors, gold plated connector pins on signal circuits. No transfer switches are required.

ADVANCED MONITORING. Remote diagnostics, control, and monitoring. Ethernet and RS232 standard, with optional SNMP.

SPECIFICATIONS

Engine

Engine Model	Perkins 403F-11	
Cylinders	3 In-line	
Displacement (L)	1.1	
Bore (in./mm)	3/77	
Stroke (in./mm)	3.2/81	
Intake Air System	Naturally Aspirated	
Engine HP	18	
Emissions Compliance	EPA and CARB Certified	
Variable RPM	2300 to 2800	

Engine lubrication system

Oil Filter Type	Full flow spin-on canister
Oil Capacity	4.4 L
Oil Pressure Switch	Yes
Oil Pressure Transducer	Optional

Diesel fuel system

Туре	Diesel
Fuel Pump Type	Electrical
Injector Type	Mechanical
Fuel Filtering	Paper element

Engine cooling system

Туре	Pressurized Aluminum Radiator
Water Pump	Belt-driven, Pre-lubed, self-sealing
Fan Type	Belt -driven
Airflow CFM	1300
Fan Mode	Pusher
Temperature Sensor	Yes

Environmental

Operating Temperature (°C/°F)	-23 to 50 / -10 to 122
Operating Humidity %	100
Cold Start Aids	Glow Plugs

Optional: manifold heater available for temperatures < -10F

Power adjustment for conditions

Temperature Deration	1% derate for every 5.6 °C (10 °F) above 25 °C (77 °F)
Altitude Deration	3% derate for every 300 m (1000 ft) above 91 m (300 ft)

Fuel tank

UL Rated Capacity (gal/L)	54/204
Run Time (hrs)	50 to 60
Tank Alarms	Yes
Visual Gages	Yes
Catch Basin (gal/L)	5/19
Listings	UL 142 (double wall)

Engine cooling

System coolant capacity (gal/L)	2.2/8.3
Maximum operation air temperature on radiator (°C/°F)	50/122
Maximum ambient temperature (°C/°F)	50/122

Exhaust

Exhaust flow at rated output (cfm/cmm)	110/3.11
Exhaust temperature at rated output (°C/°F)	400/752

Alternator

Alternator Model	8220
Туре	Permanent Magnets, NdFeB
Weight (lb/kg)	46.5/21
Regulation Type	Variable engine speed
Stator	3 phase/32 poles
Overcurrent Protection (A)	15 kW - 500
Disconnect Means	Pull fuse block or Circuit breaker
Voltage Range (VDC)	44 to 62
Alternator Exhaust Flow (cfm/cmm)	130 to 180 / 3.68 to 5.1
MTBF (hr)	100,000+

Enclosure

88-25-0800
Weather Protective
Powder coated steel
Three Point with Padlock Hasp, and Removable Side Panels
Secure Mounting Tabs
L 34" x W 68" x H 74"

Optional: L2 option Optional: Aluminum build

Starter supercapacitor

Model	20-16-0001
Storage Rating (Farads)	500
Voltage (VDC)	13-14.4
Weight (lb/kg)	12.1/5.5
Operating Temperature (°C/°F)	-40 to 65 / -40 to 149
Service Life (year)	10 to 15

Charger

Model	00-10-0015
Input Voltage (VDC)	28 to 60
Output Voltage (VDC)	14 to 14.4
Recharge time from 0 VDC (min)	10
Recharge time from 8 VDC (min)	2
Weight (lb/kg)	2.2/1

Transition supercapacitor (optional)

Model	20-16-0003
Storage Rating (Farads)	130
Stored Energy (Wh)	57
Voltage (VDC)	56 to 62
Connected in parallel	up to 9
Weight (lb/kg)	39.7/18
Operating Temperature (°C/°F)	-40 to 40 / -40 to 104
Service Life (year)	10 to 15

Controller features

Controller Type	Supra Model 250
4-Line Plain Text OLED Display	Simple user interface for ease of operation
Engine Run Hours Indication	Standard
Engine Run Hours Indication Programmable Start Delay	Standard
Run/Alarm/Maintenance Logs	Standard
Engine Start Sequence	
Starter Supercapacitor Charger	Standard
Automatic Voltage Regulation with Over and Under Voltage Protection	Standard
Automatic Low Oil Pressure/High Oil Temperature Shutdown	Standard
Overcrank/Overspeed	Standard
Automatic High Engine Temperature Shutdown	Standard
Field Upgradeable Firmware Glow Plug Delay Engine Start Delay Return to Utility Delay	Standard
Glow Plug Delay	Automatic With Temperature
Engine Start Delay	Adjustable, Set at 60 sec
Return to Utility Delay	Adjustable, Set at 60 sec
Engine Cool-down	Adjustable, Set at 60 sec
Exerciser	Programmable
	-

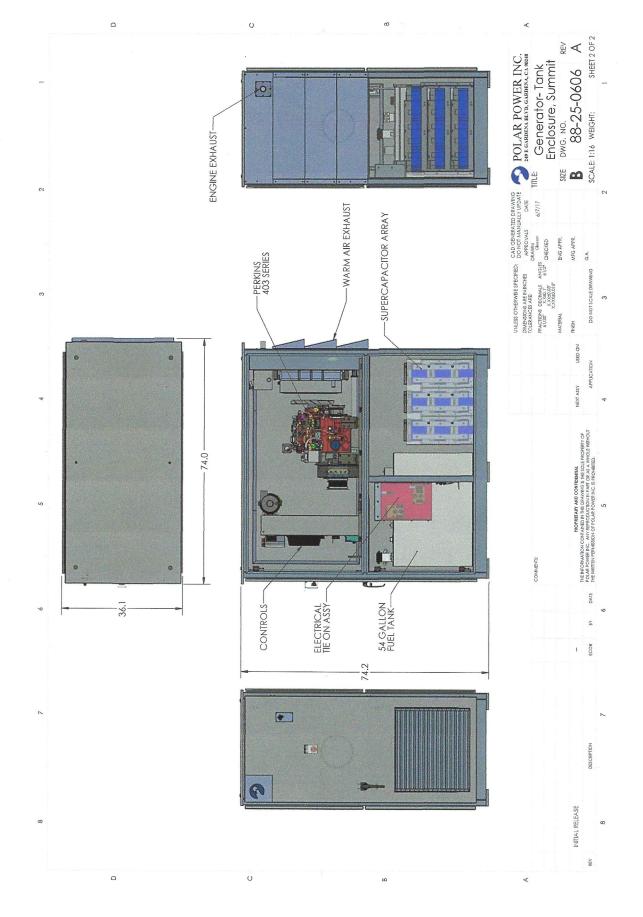
Monitoring

Alarm monitoring and remote control through Ethernet.

Contact closure alarm board (optional)

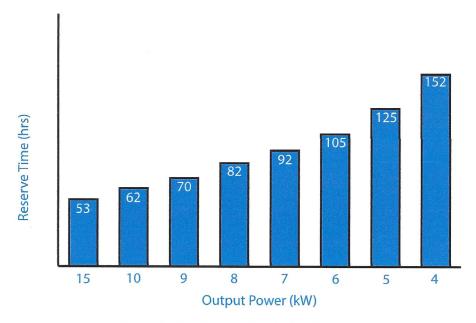
Shutdown Alarm	Optional
Warning Alarm	
Engine Run	
Low Diesel Fuel Level	
Diesel Fuel Leak	
E-Stop Depressed	
Fuel Level Over 90%	

DRAWING



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Diesel Generator Environmental Considerations

1) <u>Double walled</u>, 54 gallon tank to allow for 72 hr. backup time

2) Fuel Tank complies with UL 142

3) <u>Special fuel leak sensor</u> placed between the tank walls in order to detect any possible leaks

4) The tank is equipped with <u>spill proof</u> design on the top of the tank to contain possible spills during re-fueling.

5) <u>Ultra-low permeability rubber hoses</u>, designed specifically to withstand high corrosive fuels.

6) The fuel hoses are inside of <u>Stainless Steel braids</u>, for additional protection

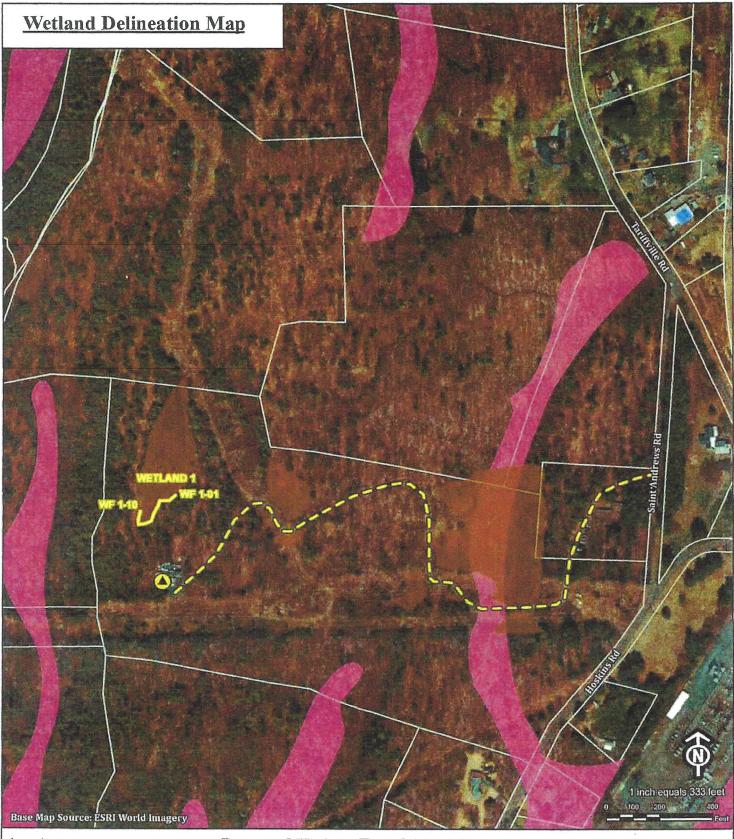
7) In case of possible hose leaks after or before the fuel boost pump, the generator <u>will shut down due to lack of fuel</u> <u>once the fuel</u> in the small fuel filter/separator tank is burned.

8) In the case of hose leaks there are <u>two areas where the</u> <u>fuel will be collected</u>:

 Inside generator compartment- tray will hold up to 3.7 gallons of fuel

 Above the main tank – the tray will hold up to 5 gallons of fuel

Polar Power Inc. 249 E. Gardena Blvd Gardena, CA 90248 USA Tel: (310) 830 - 9153 info@polarpowerinc.com www.polarpower.com



Legend Proposed Tower Location Existing Paved Access APT Delineated Wetland Boundary Approximate Wetland Area CTDEEP Parcel (updated 8/10) CT DEEP Mapped Wetland

Proposed Verizon Tarrifville Relo Facility St. Andrews Road Bloomfield, Connecticut

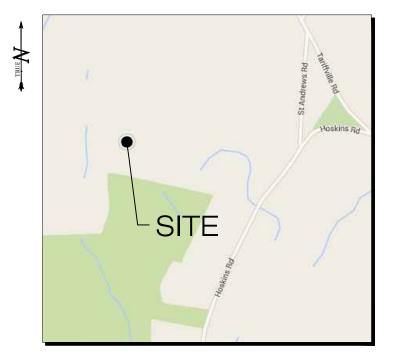


verizonwireless

Wednesday, June 18, 2014

Path: C:\All_Points_Tech\Projects\Client\Venzon\Tarnfville_Relo\GIS\Maps\CT_Wetlands_Delineation_Map.mxd

• **T** • Mobile • NORTHEAST, LLC. **NEW SITE DEVELOPMENT (NSD)** "EVERSOURCE" CTHA142G **7 HOSKINS ROAD BLOOMFIELD, CT 06002**



DRAWING INDEX

T-1 TITLE SHEET & INDEX

SP-1 SITE PLAN

- A-1 COMPOUND PLAN & ELEVATION
- A-2 ANTENNA & EQUIPMENT DETAILS
- E-1 ELECTRICAL/TELCO PLAN & DETAILS

SITE INFORMATION

T-MOBILE SITE NAME: "EVERSOURCE" T-MOBILE SITE NUMBER: CTHA142G SITE ADDRESS: 7 HOSKINS ROAD

BLOOMFIELD, CT 06002

SITE TYPE/DESCRIPTION: INSTALL (1) NEW MICROWAVE ANTENNA & CONCRETE PAD.

PROPERTY OWNER: EVERSOURCE P.O. BOX 270

HARTFORD, CT 06141

LEASING CONTACT: MATTHEW BANDLE (508) 642-8801

CONSTRUCTION CONTACT: KEITH BALSEWICZ (860) 733-2880

> ENGINEER CONTACT: ROBERT BURNS (860) 663-1697 x206

LATITUDE: 41°53'33.4795"N LONGITUDE: 72°45'56.5386"W ELEVATION: 408'± AMSL MAP: 637 LOT: 1117 MUNICIPALITY: BLOOMFIELD ZONING DISTRICT: R-80

VICINITY MAP

TELCO PROVIDER:

CALL BEFORE YOU DIG:

CODE COMPLIANCE INFORMATION:

FRONTIER: (800)-921-8102

811

STATE OF CONNECTICUT BUILDING CODE, LATEST EDITION ANSI/TIA-222-G NATIONAL ELECTRIC CODE, LATEST EDITION

EVERSOURCE (800) 286-2000

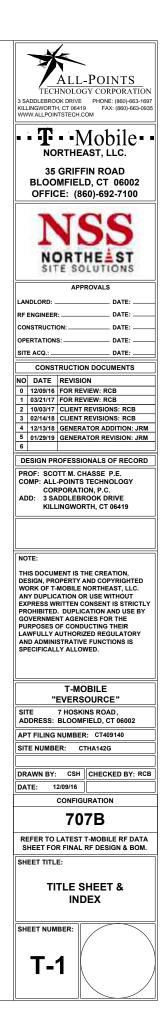
POWER PROVIDER:

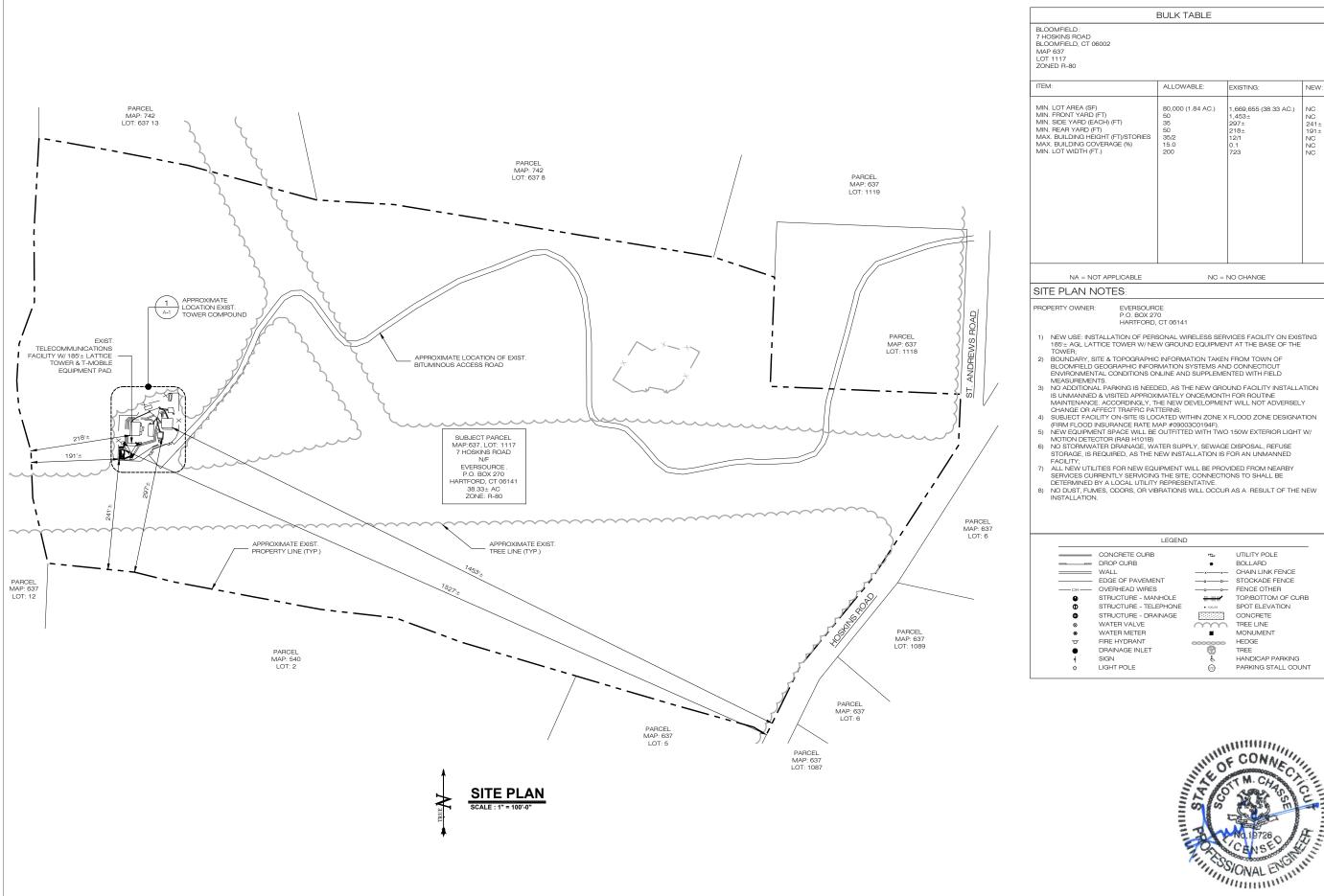
T-MOBILE 35 GRIFFIN ROAD BLOOMFIELD, CT 06002

APPLICANT:

ASSOCIATED CABLING ON EXIST. MOUNT. IN ADDITION, INSTALL NEW GENERATOR ON NEW







BULK	TABLE
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	ALLOWABLE:	EXISTING:	NEW:
(FT) (FT)/STORIES AGE (%)	80,000 (1.84 AC.) 50 35 50 35/2 15.0 200	1,669,655 (38.33 AC.) 1,453± 297± 218± 12/1 0,1 723	NC 241 ± 191 ± NC NC NC

EVERSOURCE P.O. BOX 270

HARTFORD CT 06141

NEW USE: INSTALLATION OF PERSONAL WIRELESS SERVICES FACILITY ON EXISTING 185°± AGL LATTICE TOWER W/ NEW GROUND EQUIPMENT AT THE BASE OF THE TOWER;

NC = NO CHANGE

2) BOUNDARY, SITE & TOPOGRAPHIC INFORMATION TAKEN FROM TOWN OF

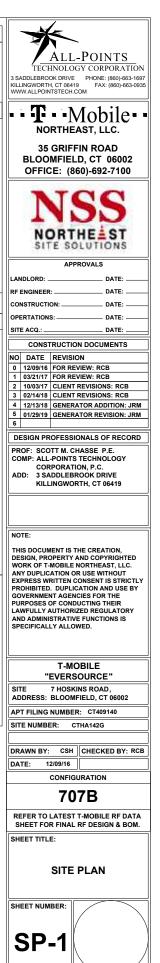
MOTION DETECTOR (RAB H101B) 6) NO STORMWATER DRAINAGE, WATER SUPPLY, SEWAGE DISPOSAL, REFUSE STORAGE, IS REQUIRED, AS THE NEW INSTALLATION IS FOR AN UNMANNED

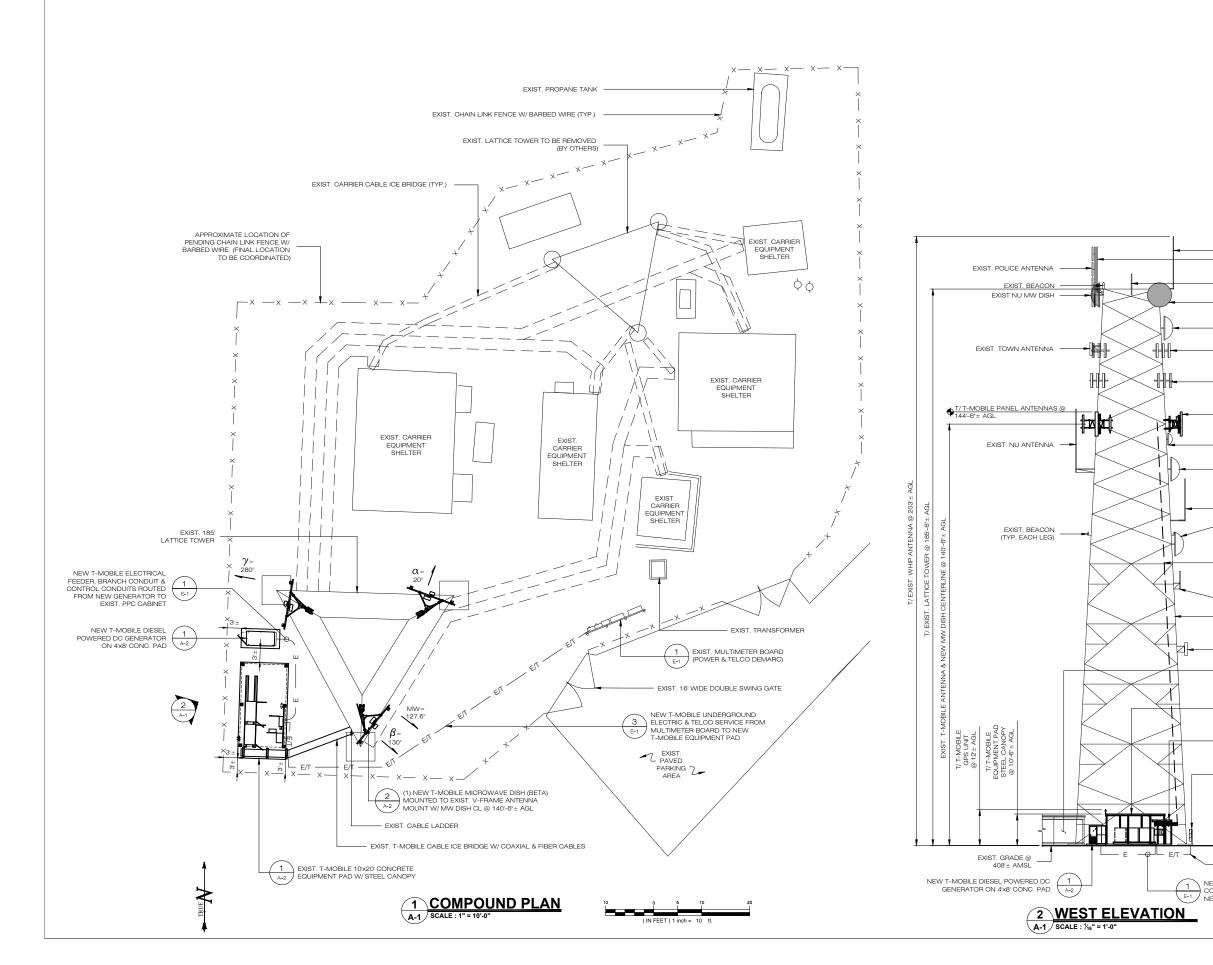
PACILITY;
ALL NEW UTILITIES FOR NEW EQUIPMENT WILL BE PROVIDED FROM NEARBY SERVICES CURRENTLY SERVICING THE SITE; CONNECTIONS TO SHALL BE DETERMINED BY A LOCAL UTILITY REPRESENTATIVE.
NO DUST, FUMES, ODORS, OR VIBRATIONS WILL OCCUR AS A RESULT OF THE NEW

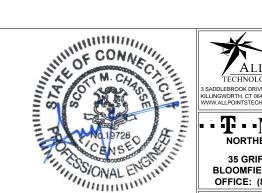
LEGEND ъ . EDGE OF PAVEMENT ____p___ OVERHEAD WIRES STRUCTURE - MANHOLE TC 100.50 •**** STRUCTURE - TELEPHONE STRUCTURE - DRAINAGE WATER VALVE \sim WATER METER . FIRE HYDRANT 00 DRAINAGE INLET 8 20

UTILITY POLE BOLLARD CHAIN LINK FENCE STOCKADE FENCE FENCE OTHER TOP/BOTTOM OF CURB SPOT ELEVATION CONCRETE TREE LINE MONUMENT HEDGE TREE HANDICAP PARKING PARKING STALL COUNT

NUMBER OF CONNECTION Lunny, SIONAL ENGLISH





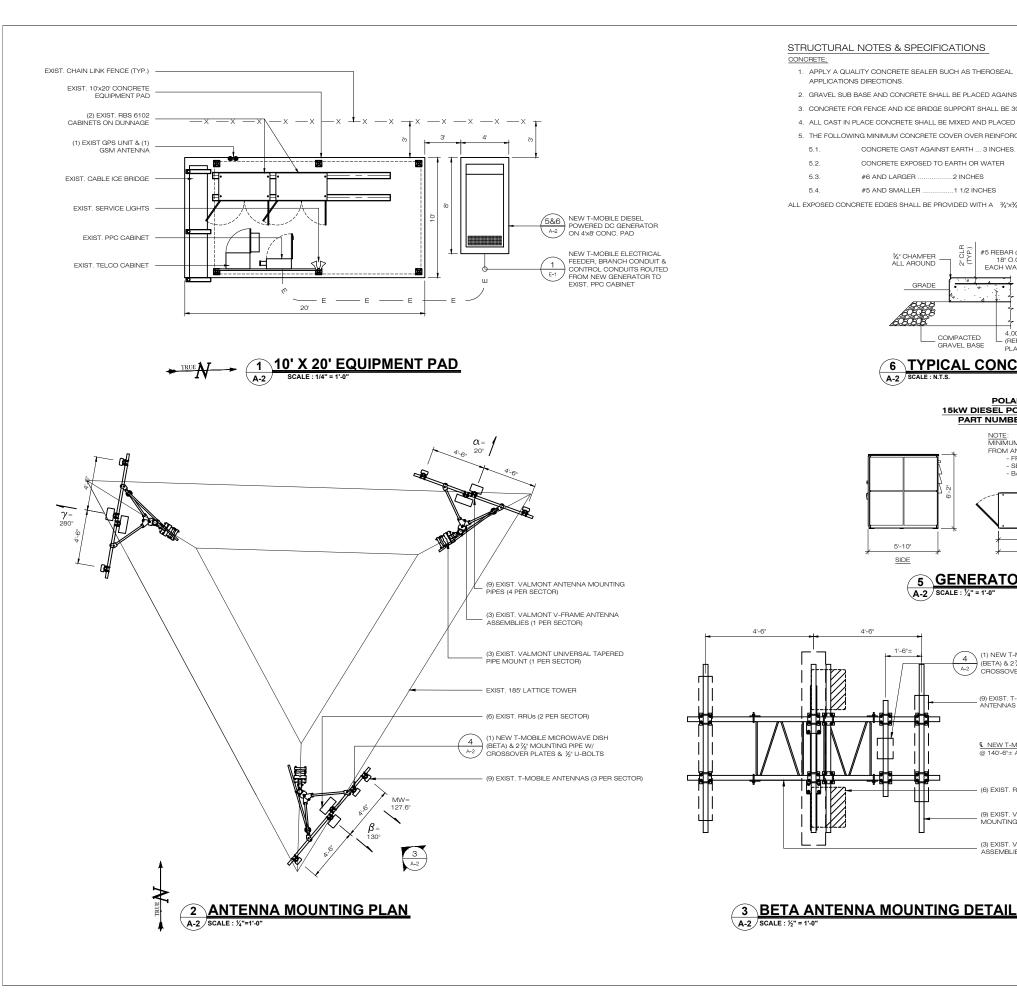


ALL-POINTS TECHNOLOGY CORPORATION SADDLEBROCK DRIVE LINGWORTH, CT 06419 WALLPOINTSTECH.COM

•**T**••Mobile••

35 GRIEFIN ROAD

	BLOOMFIELD, CT 06002 OFFICE: (860)-692-7100
CONAL ENGINE	NORTHE ST SITE SOLUTIONS
	APPROVALS
	LANDLORD: DATE:
EXIST. NU ANTENNA 	RF ENGINEER: DATE:
	CONSTRUCTION: DATE:
EXIST. BEACON (TYP.)	OPERTATIONS: DATE:
. ,	SITE ACQ.: DATE:
EXIST.NU MW DISH	CONSTRUCTION DOCUMENTS
	NO DATE REVISION
EXIST NU MW DISH	0 12/09/16 FOR REVIEW: RCB
	1 03/21/17 FOR REVIEW: RCB 2 10/03/17 CLIENT REVISIONS: RCB
EXIST. AT&T ANTENNAS (TYP. EACH LEG)	3 02/14/18 CLIENT REVISIONS: RCB
	4 12/13/18 GENERATOR ADDITION: JRM
EXIST. VERIZON ANTENNAS (TYP. EACH LEG)	5 01/29/19 GENERATOR REVISION: JRM
	6
(1) NEW T-MOBILE MICROWAVE DISH (BETA)	DESIGN PROFESSIONALS OF RECORD
(2) MOUNTED TO EXIST. V-FRAME ANTENNA	PROF: SCOTT M. CHASSE P.E.
A-2 MOUNT W/ MW DISH CL @ 140'-6"± AGL	COMP: ALL-POINTS TECHNOLOGY CORPORATION, P.C.
	ADD: 3 SADDLEBROOK DRIVE
EXIST. NU MW DISH	KILLINGWORTH, CT 06419
EXIST. NU MW DISH	
	NOTE:
EXIST. NU ANTENNA	THIS DOCUMENT IS THE CREATION,
EXIST. NU MW DISH	DESIGN, PROPERTY AND COPYRIGHTED
EXIST. NO WW DISH	WORK OF T-MOBILE NORTHEAST, LLC. ANY DUPLICATION OR USE WITHOUT
(2) NEW T-MOBILE CAT6 CABLES & (1) FIBER	EXPRESS WRITTEN CONSENT IS STRICTLY
CABLE MOUNTED ON EXISTING CABLE	PROHIBITED. DUPLICATION AND USE BY GOVERNMENT AGENCIES FOR THE
LADDER. HORIZONTAL CABLE RUN TO BETA SECTOR UTILIZING EXIST. CLUSTER BOX WITH	PURPOSES OF CONDUCTING THEIR
SNAP ON HANGERS AND UNIVERSAL CLAMP	LAWFULLY AUTHORIZED REGULATORY AND ADMINISTRATIVE FUNCTIONS IS
	SPECIFICALLY ALLOWED.
EXIST. NU ANTENNA	
EXIST. NU ANTENNA EXIST. 185± LATTICE TOWER	
	T-MOBILE
	T-MOBILE "EVERSOURCE"
	"EVERSOURCE" SITE 7 HOSKINS ROAD,
EXIST. 185'± LATTICE TOWER EXIST. TOWN ANTENNA	"EVERSOURCE"
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STRUCTURAL NOTES & SPECIFICATIONS CONCRETE;

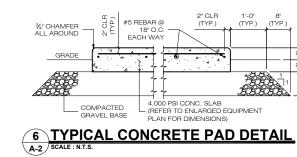
- 1. APPLY A QUALITY CONCRETE SEALER SUCH AS THEROSEAL ® TO EXPOSED CONCRETE IN ACCORDANCE WITH MANUFACTURERS APPLICATIONS DIRECTIONS.
- 2. GRAVEL SUB BASE AND CONCRETE SHALL BE PLACED AGAINST UNDISTURBED SOIL.
- 3. CONCRETE FOR FENCE AND ICE BRIDGE SUPPORT SHALL BE 3000 PSI AIR ENTRAINED (4%-6%) NORMAL WEIGHT CONCRETE.
- 4. ALL CAST IN PLACE CONCRETE SHALL BE MIXED AND PLACED IN ACCORDANCE WITH THE REQUIREMENTS OF ACI 318 AND ACI 301.
- 5. THE FOLLOWING MINIMUM CONCRETE COVER OVER REINFORCING STEEL SHALL BE AS FOLLOWS UNLESS NOTED OTHERWISE:
- 5.1. CONCRETE CAST AGAINST EARTH ... 3 INCHES.
- 5.2. CONCRETE EXPOSED TO EARTH OR WATER
- 5.3. #6 AND LARGER2 INCHES
- 5.4. #5 AND SMALLER1 1/2 INCHES

5'-10

1'-6"±

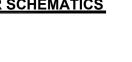
4'-6"

ALL EXPOSED CONCRETE EDGES SHALL BE PROVIDED WITH A $\frac{3}{4}$ "x $\frac{3}{4}$ " CHAMFER UNLESS NOTED OTHERWISE.









3' PLAN

FRONT SIDE 5 GENERATOR SCHEMATICS A-2 SCALE: ¼" = 1'-0"

NEW T-MOBILE MW DISH
 0

(6) EXIST. RRUs (2 PER SECTOR)

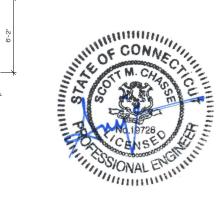
(9) EXIST. VALMONT ANTENNA MOUNTING PIPES (4 PER SECTOR)

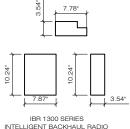
ASSEMBLIES (1 PER SECTOR)

(3) EXIST. VALMONT V-FRAME ANTENNA

(1) NEW T-MOBILE MICROWAVE DISH (BETA) & 2% MOUNTING PIPE W/ CROSSOVER PLATES & ½ U-BOLTS (9) EXIST. T-MOBILE ANTENNAS (3 PER SECTOR)





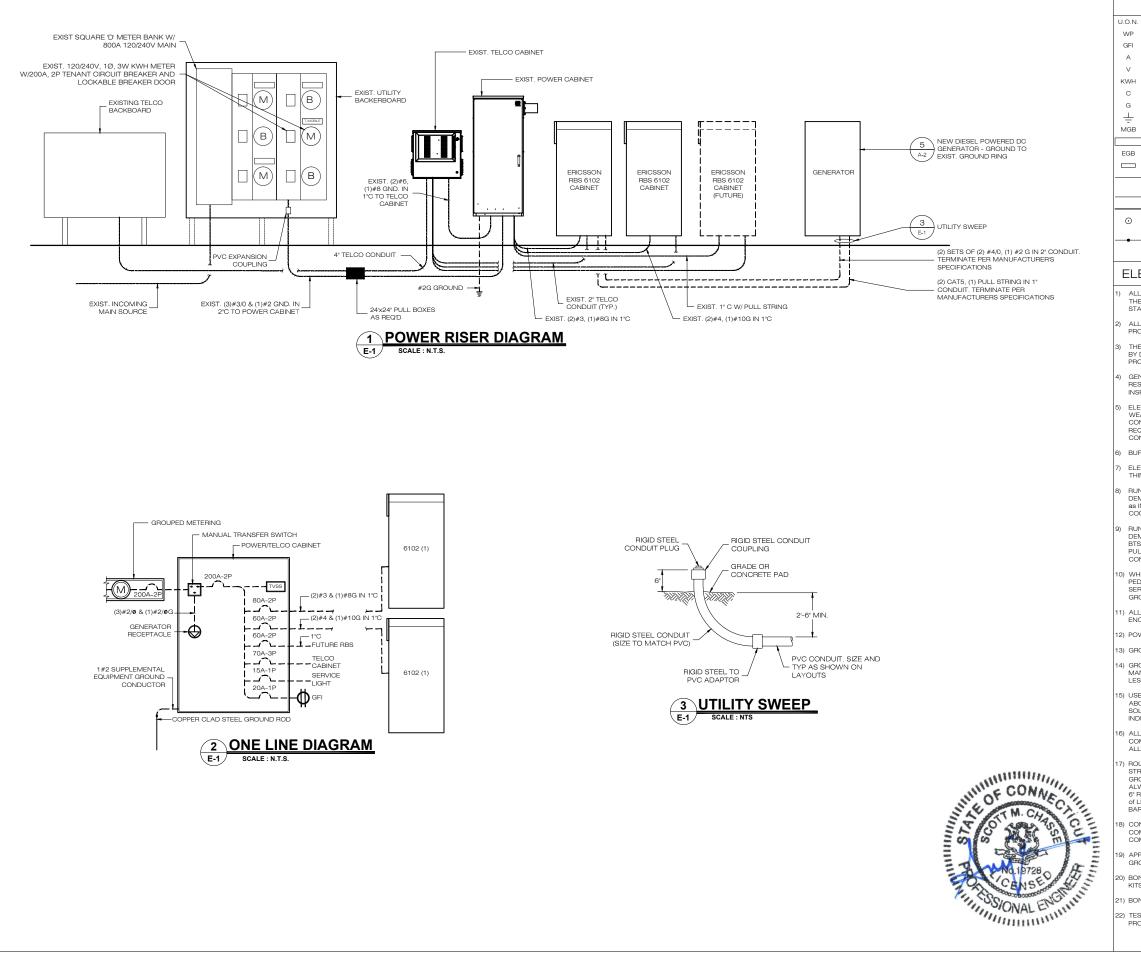


8.82 lbs 0.56 SF

MW ANTENNA



ALL-POINTS TECHNOLOGY CORPORAT 3 SADDLEBROOK DRIVE VWWWALLPOINTSTECH.COM FAX: (860)-862 VWWWALLPOINTSTECH.COM FAX: (860)-6692 NORTHEAST, LLC. 35 GRIFFIN ROAD BLOOMFIELD, CT 06602 OFFICE: (860)-692-7100	-1697 -0935	
NORTHE ST SITE SOLUTIONS		
APPROVALS		
LANDLORD: DATE:		
RF ENGINEER: DATE:	[
CONSTRUCTION: DATE:		
OPERTATIONS: DATE:		
SITE ACQ.: DATE:		
CONSTRUCTION DOCUMENTS		
NO DATE REVISION		
0 12/09/16 FOR REVIEW: RCB		
1 03/21/17 FOR REVIEW: RCB		
2 10/03/17 CLIENT REVISIONS: RCB 3 02/14/18 CLIENT REVISIONS: RCB		
4 12/13/18 GENERATOR ADDITION: J	RM	
5 01/29/19 GENERATOR REVISION: J	RM	
6		
DESIGN PROFESSIONALS OF RECO	RD	
PROF: SCOTT M. CHASSE P.E.		
COMP: ALL-POINTS TECHNOLOGY CORPORATION, P.C. ADD: 3 SADDLEBROOK DRIVE KILLINGWORTH, CT 06419		
NOTE: THIS DOCUMENT IS THE CREATION, DESIGN, PROPERTY AND COPYRGHTED WORK OF T-MOBILE NORTHEAST, LLC. ANY DUPLICATION OR USE WITHOUT EXPRESS WRITTEN CONSENT IS STRICTLY PROHIBITED. DUPLICATION AND USE BY GOVERNMENT AGENCIES FOR THE PURPOSES OF CONDUCTING THEIR LAWFULLY AUTHORIZED REGULATORY AND ADMINISTRATIVE FUNCTIONS IS SPECIFICALLY ALLOWED.		
T-MOBILE		
"EVERSOURCE"		
SITE 7 HOSKINS ROAD, ADDRESS: BLOOMFIELD, CT 06002		
APT FILING NUMBER: CT409140	=	
SITE NUMBER: CTHA142G		
DRAWN BY: CSH CHECKED BY: RCB DATE: 12/09/16		
CONFIGURATION		
707B		
REFER TO LATEST T-MOBILE RF DATA SHEET FOR FINAL RF DESIGN & BOM.		
ANTENNA & EQUIPMENT DETAILS		
SHEET NUMBER:		
A-2		
	/ II	



ELECTRICAL LEGEND

	UNLESS OTHERWISE NOTED		NEW PANEL BOARD,
	WEATHERPROOF		SURFACE MOUNTED
	GROUND FAULT INTERRUPTER		EXISTING PANEL BOARD,
	AMPERE		SURFACE MOUNTED
	VOLT	Т	DRY TYPE TRANSFORMER
	KILOWATT - HOUR	\mathbb{M}	METER
	CONDUIT	\sim	CIRCUIT BREAKER
	GROUND		NON-FUSIBLE DISCONNECT
	GROUND		SWITCH, MOUNTED 54" A.F.F.
	MASTER GROUND BAR	E	FUSIBLE DISCONNECT SWITCH, MOUNTED 54" A.F.F.
	1/4"x8"x24" COPPER	TVSS	TRANSIENT VOLTAGE SURGE
	EQUIPMENT GROUND BAR		SUPPRESSER w/ BUILT-IN FUSES, SURFACE MOUNTED
	¼"x4"x12" OR ¼"x4"x18" COPPER	\square	DUPLEX OUTLET. SURFACE
-	GROUND COPPER WIRE, SIZE AS NOTED	Ŵ	MOUNTED, 20 AMPS, 125 VOLTS, SINGLE PHASE
-	EXPOSED WIRING	J	JUNCTION BOX, SURFACE
-	COAXIAL CABLE	_	MOUNTED 18" A.F.F.
	5/8"x8' COPPER CLAD STEEL		EXPOSED WIRING
	GROUND ROD	-	HOME RUNS, MINIMUM 2#10 - 1#10G IN 3/4" CONDUIT U.O.N.
-	EXOTHERMIC (CADWELD) OR MECHANICAL (COMPRESSION TYPE) CONNECTION	A.F.F.	

ELECTRICAL AND GROUNDING NOTES

ALL ELECTRICAL WORK SHALL CONFORM TO THE REQUIREMENTS of THE NATIONAL ELECTRICAL CODE (NEC) as WELL as APPLICABLE STATE & LOCAL CODES

ALL ELECTRICAL ITEMS SHALL BE U.L. APPROVED OR LISTED & PROCURED PER SPECIFICATION REQUIREMENTS.

THE ELECTRICAL WORK INCLUDES ALL LABOR & MATERIAL DESCRIBED BY DRAWINGS & SPECIFICATION INCLUDING INCIDENTAL WORK TO PROVIDE COMPLETE OPERATING & APPROVED ELECTRICAL SYSTEM.

GENERAL CONTRACTOR SHALL PAY FEES FOR PERMITS, & IS RESPONSIBLE FOR OBTAINING SAID PERMITS & COORDINATION OF INSPECTIONS.

ELECTRICAL & TELCO WIRING OUTSIDE A BUILDING & EXPOSED TO WEATHER SHALL BE IN WATER TIGHT GALVANIZED RIGID STEEL CONDUITS or SCHEDULE 80 PVC (as PERMITTED BY CODE) & WHERE REQUIRED IN LIQUID TIGHT FLEXIBLE METAL or NONMETALLIC CONDUITS.

BURIED CONDUIT SHALL BE SCHEDULE 80 PVC, UON.

ELECTRICAL WIRING SHALL BE COPPER w/ TYPE XHHW, THWN, or THINSULATION.

RUN ELECTRICAL CONDUIT or CABLE BETWEEN ELECTRICAL UTILITY DEMARCATION POINT & LESSEE/LICENSEE CELL SITE POWER PEDESTAL as INDICATED ON THIS DRAWING, PROVIDE FULL LENGTH PULL ROPE. COORDINATE INSTALLATION W/ UTILITY COMPANY.

RUN TELCO CONDUIT or CABLE BETWEEN TELEPHONE UTILITY DEMARGATION POINT & LESSEFLICENSEE CELL SITE TELCO CABINET & BTS CABINET as INDICATED ON THIS DRAWING PROVIDE FULL LENGTH PULL ROPE IN INSTALLED TELCO CONDUIT. PROVIDE GREENLEE CONDUIT MEASURING TAPE @ EACH END.

WHERE CONDUIT BETWEEN BTS & LESSEE/LICENSEE CELL SITE POWER PEDESTAL & BETWEEN BTS & LESSEE/LICENSEE CELL SITE TELCO SERVICE CABINET ARE U/G USE PVC, SCH 40 CONDUIT. ABOVE THE GROUND PORTION of THESE CONDUITS SHALL BE PVC CONDUIT.

) ALL EQUIPMENT LOCATED OUTSIDE SHALL HAVE NEMA 3R ENCLOSURE.

12) POWER PEDESTAL SUPPLIED BY LESSE/LICENSEE.

B) GROUNDING SHALL COMPLY W/ NEC ART. 250.

4) GROUND COAXIAL CABLE SHIELDS MINIMUM @ BOTH ENDS USING MANUFACTURERS COAX CABLE GROUNDING KITS SUPPLIED BY LESSEE/LICENSEE.

5) USE #6 COPPER STRANDED WIRE w/ GREEN COLOR INSULATION FOR ABOVE GRADE GROUNDING (UNLESS OTHERWISE SPECIFIED) & #2 SOLID TINNED BARE COPPER WIRE FOR BELOW GRADE GROUNDING as INDICATED ON THE DRAWING.

b) ALL GROUND CONNECTIONS TO BE BURNEY HYGROUND COMPRESSION TYPE CONNECTORS or EXOTHERMIC WELD. DO NOT ALLOW BARE COPPER WIRE TO BE IN CONTACT W/ GALVANIZED STEEL.

7) ROUTE GROUNDING CONDUCTORS ALONG THE SHORTEST & STRAIGHTEST PATH POSSIBLE, EXCEPT as OTHERWISE INDICATED. GROUNDING LEADS SHOULD NEVER BE BENT @ RIGHT ANGLE. ALWAYS MAKE AT LEAST 12' RADIUS BENDS. #6 WIRE CAN BE BENT @ 6' RADIUS WHEN NECESSARY. BOND ANY METAL OBJECTS WIN 7 FEET of LESSEE/LICENSEE EQUIPMENT or CABINET TO MASTER GROUND BAR.

) CONNECTIONS TO GROUND BARS SHALL BE MADE W/ TWO HOLE COMPRESSION TYPE COPPER LUGS. APPLY OXIDE INHIBITING COMPOUND TO ALL LOCATIONS.

APPLY OXIDE INHIBITING COMPOUND TO ALL COMPRESSION TYPE GROUND CONNECTIONS.

D) BOND ANTENNA MOUNTING BRACKETS, COAXIAL CABLE GROUND KITS, & ALNA TO EGB PLACED NEAR THE ANTENNA LOCATION.

21) BOND ANTENNA EGB'S & MGB TO GROUND RING.

22) TEST COMPLETED GROUND SYSTEM & RECORD RESULTS FOR PROJECT CLOSE-OUT DOCUMENTATION.

