

May 25, 2023

Melanie A. Bachman, Esq.
Executive Director/Staff Attorney
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

Re: **Docket No. 498 – Diamond Powers V, LLC – Certificate of Environmental Compatibility and Public Need for the Construction, Maintenance and Operation of a Telecommunications Facility Located at 185 Academy Road, Cheshire, Connecticut**

D&M Plan Modification – 60 kW Generator

Dear Attorney Bachman:

On January 18, 2022 the Siting Council approved the Docket No. 498 D&M Plan which included details regarding the equipment that Cellco Partnership d/b/a Verizon Wireless (“Cellco”) intends to install at 185 Academy Road tower site, including a 30 kW generator. The purpose of this letter is to notify the Council that Cellco now intends to increase the size of its generator from 30 kW to 60 kW. In addition, Cellco also intends to modify its equipment orientation within the facility compound and install its radio equipment and the 60 kW generator on the same 10-foot by 20-foot concrete pad. Attached is a copy of the Kohler 60 kw generator specification sheet and a set of construction drawing showing the reorientation of Cellco’s equipment pad (Sheets C-2 and M-1).

If you have any questions or need any additional information regarding these revisions, please do not hesitate to contact me.

Melanie A. Bachman, Esq.
May 25, 2023
Page 2

Sincerely,

A handwritten signature in black ink, appearing to read "Kenneth C. Baldwin". The signature is fluid and cursive, with a long horizontal stroke at the end.

Kenneth C. Baldwin

Copy to:

Christopher B. Fischer, Esq.
Kristen Motel, Esq.
Scott Von Rein
Mike Humphreys
Stan Gvinter

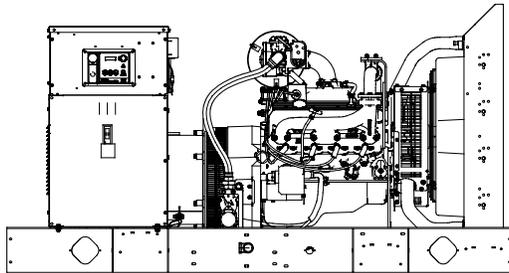


EPA-Certified for 60 Hz Stationary Emergency Applications

EPA certification not applicable at 50 Hz

Ratings Range

Standby:	kW kVA	60 Hz	50 Hz
		44- 63 44- 79	40- 63 40- 66



Standard Features

- Kohler Co. provides one-source responsibility for the generating system and accessories.
- The generator set and its components are prototype-tested, factory-built, and production-tested.
- The 60 Hz generator set offers a UL 2200 listing.
- The generator set accepts rated load in one step.
- The 60 Hz generator set meets NFPA 110, Level 1, when equipped with the necessary accessories and installed per NFPA standards.
- A one-year limited warranty covers all generator set systems and components. Two- and five-year extended limited warranties are also available.
- Alternator features:
 - The unique Fast-Response® X excitation system delivers excellent voltage response and short-circuit capability using a rare-earth, permanent magnet (PM)-excited alternator.
 - The brushless, rotating-field alternator has broadrange reconnectability.

Generator Set Ratings

Alternator	Voltage	Ph	Hz	Natural Gas 130°C Rise Standby Rating		LP Gas 130°C Rise Standby Rating	
				kW/kVA	Amps	kW/kVA	Amps
4P7BX	120/208	3	60	54/68	189	54/68	189
	127/220	3	60	57/71	187	57/71	187
	120/240	3	60	54/68	164	54/68	164
	120/240	1	60	44/44	184	44/44	184
	139/240	3	60	60/75	181	60/75	181
	220/380	3	60	49/61	93	49/61	93
	277/480	3	60	60/75	91	60/75	91
	347/600	3	60	57/71	69	57/71	69
	110/190	3	50	44/55	168	44/55	168
	115/200	3	50	47/59	171	47/59	171
	120/208	3	50	46/58	161	46/58	161
	110/220	3	50	47/59	155	47/59	155
	110/220	1	50	40/40	182	40/40	182
	220/380	3	50	44/55	84	44/55	84
230/400	3	50	47/59	86	47/59	86	
240/415	3	50	46/58	81	46/58	81	
4P8X	120/208	3	60	60/75	209	62/78	217
	127/220	3	60	60/75	197	62/78	205
	120/240	3	60	60/75	181	62/78	188
	120/240	1	60	57/57	238	57/57	238
	139/240	3	60	60/75	181	62/78	188
	220/380	3	60	60/75	114	62/78	119
	277/480	3	60	60/75	91	62/78	94
	347/600	3	60	60/75	73	62/78	76
	110/190	3	50	48/60	183	50/63	192
	115/200	3	50	48/60	174	50/63	182
	120/208	3	50	45/56	156	45/56	156
	110/220	3	50	48/60	158	50/63	166
	110/220	1	50	48/48	219	50/50	228
	220/380	3	50	48/60	92	50/63	96
230/400	3	50	48/60	87	50/63	91	
240/415	3	50	45/56	78	45/56	78	

RATINGS: All three-phase units are rated at 0.8 power factor. All single-phase units are rated at 1.0 power factor. *Standby Ratings:* The standby rating is applicable to varying loads for the duration of a power outage. There is no overload capability for this rating. Ratings are in accordance with ISO-8528-1 and ISO-3046-1. For limited running time and continuous ratings, consult the factory. Obtain technical information bulletin (TIB-101) for ratings guidelines, complete ratings definitions, and site condition derates. The generator set manufacturer reserves the right to change the design or specifications without notice and without any obligation or liability whatsoever. For dual fuel engines, use the natural gas ratings for both the primary and secondary fuels.

Alternator	Voltage	Ph	Hz	Natural Gas 130°C Rise Standby Rating		LP Gas 130°C Rise Standby Rating	
				kW/kVA	Amps	kW/kVA	Amps
4P10X	120/208	3	60	60/75	209	63/79	220
	127/220	3	60	60/75	197	63/79	208
	120/240	3	60	60/75	181	63/79	191
	120/240	1	60	60/60	250	63/63	263
	139/240	3	60	60/75	181	63/79	191
	220/380	3	60	60/75	114	63/79	121
	277/480	3	60	60/75	91	63/79	96
	347/600	3	60	60/75	73	63/79	77
	110/190	3	50	53/66	201	53/66	201
	115/200	3	50	53/66	191	53/66	191
	120/208	3	50	53/66	184	53/66	184
	110/220	3	50	53/66	174	53/66	174
	110/220	1	50	50/50	228	63/63	287
	220/380	3	50	53/66	101	53/66	101
230/400	3	50	53/66	96	53/66	96	
240/415	3	50	53/66	92	53/66	92	
4Q10X	120/240	1	60	60/60	250	60/60	250
	110/220	1	50	53/53	241	53/53	241

Alternator Specifications

Specifications	Alternator
Manufacturer	Kohler
Type	4-Pole, Rotating-Field
Exciter type	Brushless, Rare-Earth Permanent Magnet
Leads: quantity, type	
4P7BX, 4P8X, 4P10X	12, Reconnectable
4Q10X	4, 110- 120/220- 240 V
Voltage regulator	Solid State, Volts/Hz
Insulation:	NEMA MG1
Material	Class H
Temperature rise	130°C, Standby
Bearing: quantity, type	1, Sealed
Coupling	Flexible Disc
Amortisseur windings	Full
Voltage regulation, no-load to full-load	Controller Dependent
One-step load acceptance	100% of Rating
Unbalanced load capability	100% of Rated Standby Current
Peak motor starting kVA:	(35% dip for voltages below)
480 V, 400 V 4P7BX (12 lead)	180 (60 Hz), 136 (50 Hz)
480 V, 400 V 4P8X (12 lead)	261 (60 Hz), 218 (50 Hz)
480 V, 400 V 4P10X (12 lead)	275 (60 Hz), 220 (50 Hz)
240 V, 220 V 4Q10X (4 lead)	144 (60 Hz), 132 (50 Hz)

- The unique Fast-Response® X excitation system delivers excellent voltage response and short-circuit capability using a rare-earth, permanent magnet (PM)-excited alternator.
- The brushless, rotating-field alternator has broadrange reconnectability.
- NEMA MG1, IEEE, and ANSI standards compliance for temperature rise and motor starting.
- Sustained short-circuit current of up to 300% of the rated current for up to 10 seconds.
- Sustained short-circuit current enabling downstream circuit breakers to trip without collapsing the alternator field.
- Self-ventilated and dripproof construction.

Application Data

Engine

Engine Specifications	60 Hz	50 Hz
Manufacturer	Kohler	
Engine: model, type	KG6208 6.2 L Natural Aspiration	
Cylinder arrangement	V-8	
Displacement, L (cu. in.)	6.2 (378)	
Bore and stroke, mm (in.)	101.6 x 95.25 (4.00 x 3.75)	
Compression ratio	10.5:1	
Rated rpm	1800	1500
Max. power at rated rpm, kW (HP)	77.0 (103)	64.3 (86)
Cylinder head material	Cast Aluminum	
Piston type and material	High Silicon Aluminum	
Crankshaft material	Cast Iron	
Valve (exhaust) material	Forged Steel	
Governor type	Electronic	
Frequency regulation, no-load to full-load	Isochronous	
Frequency regulation, steady state	±1.0%	
Frequency	Fixed	
Air cleaner type, all models	Dry	

Application Data

Exhaust

Exhaust System	60 Hz	50 Hz
Exhaust manifold type	Dry	
Exhaust flow at rated kW, m ³ /min. (cfm)	13.5 (478)	11.3 (399)
Exhaust temperature at rated kW, dry exhaust, °C (°F)	690 (1274)	
Maximum allowable back pressure, kPa (in. Hg)	10.2 (3.0)	
Exhaust outlet size at engine hookup, mm (in.)	76 (3.0) OD	

Engine Electrical

Engine Electrical System	60 Hz	50 Hz
Ignition system	Electronic, Distributor	
Ignition system	Electronic	
Battery charging alternator:		
Ground (negative/positive)	Negative	
Volts (DC)	12	
Ampere rating	130	
Starter motor rated voltage (DC)	12	
Battery, recommended cold cranking amps (CCA):		
Qty., rating for -18°C (0°F)	1, 630	
Battery voltage (DC)	12	

Fuel

Fuel System	60 Hz	50 Hz
Fuel type	Natural Gas, LP Gas, or Dual Fuel	
Fuel supply line inlet	1 NPTF	
Natural gas fuel supply pressure, kPa (in. H ₂ O)	1.74-2.74 (7-11)	
LPG vapor withdrawal fuel supply pressure, kPa (in. H ₂ O)	1.24-2.74 (5-11)	
Dual fuel engine, LPG vapor withdrawal fuel supply pressure, kPa (in. H ₂ O)	1.24 (5)	

Fuel Composition Limits *	Nat. Gas	LP Gas
Methane, % by volume	90 min.	—
Ethane, % by volume	4.0 max.	—
Propane, % by volume	1.0 max.	85 min.
Propene, % by volume	0.1 max.	5.0 max.
C ₄ and higher, % by volume	0.3 max.	2.5 max.
Sulfur, ppm mass	25 max.	
Lower heating value, MJ/m ³ (Btu/ft ³), min.	33.2 (890)	84.2 (2260)

* Fuels with other compositions may be acceptable. If your fuel is outside the listed specifications, contact your local distributor for further analysis and advice.

Lubrication

Lubricating System	60 Hz	50 Hz
Type	Full Pressure	
Oil pan capacity, L (qt.) §	5.7 (6.0)	
Oil pan capacity with filter, L (qt.) §	7.1 (7.5)	
Oil filter: quantity, type §	1, Cartridge	

§ Kohler recommends the use of Kohler Genuine oil and filters.

Cooling

Radiator System	60 Hz	50 Hz
Ambient temperature, °C (°F) *	50 (122)	
Engine jacket water capacity, L (gal.)	7.3 (1.93)	
Radiator system capacity, including engine, L (gal.)	20.8 (5.5)	
Engine jacket water flow, Lpm (gpm)	129 (34.1)	108 (28.5)
Heat rejected to cooling water at rated kW, dry exhaust, kW (Btu/min.)	64.0 (3640)	56.0 (3185)
Water pump type	Centrifugal	
Fan diameter, including blades, mm (in.)	533 (21)	
Fan, kWm (HP)	2.2 (2.9)	1.3 (1.7)
Max. restriction of cooling air, intake and discharge side of radiator, kPa (in. H ₂ O)	0.125 (0.5)	

* Enclosure with enclosed silencer reduces ambient temperature capability by 5°C (9°F).

Operation Requirements

Air Requirements	60 Hz	50 Hz
Radiator-cooled cooling air, m ³ /min. (scfm) †	136 (4800)	113 (4000)
Combustion air, m ³ /min. (cfm)	5.2 (185)	4.4 (155)
Heat rejected to ambient air:		
Engine, kW (Btu/min.)	30.9 (1760)	26.5 (1510)
Alternator, kW (Btu/min.)	7.7 (440)	6.9 (390)

† Air density = 1.20 kg/m³ (0.075 lbm/ft³)

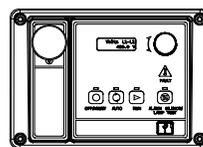
Fuel Consumption ‡	60 Hz	50 Hz
Natural Gas, m³/hr. (cfh) at % load	Standby Ratings	
100%	27.6 (975)	22.9 (810)
75%	21.8 (770)	16.9 (600)
50%	15.1 (533)	11.4 (402)
25%	8.3 (292)	6.3 (221)
LP Gas, m³/hr. (cfh) at % load	Standby Ratings	
100%	11.6 (410)	10.3 (365)
75%	9.3 (330)	6.5 (229)
50%	6.0 (213)	4.8 (168)
25%	3.9 (141)	3.0 (107)

‡ Nominal fuel rating: Natural gas, 37 MJ/m³ (1000 Btu/ft.³)
LP vapor, 93 MJ/m³ (2500 Btu/ft.³)

LP vapor conversion factors:

8.58 ft.³ = 1 lb.
0.535 m³ = 1 kg.
36.39 ft.³ = 1 gal.

Controllers



APM402 Controller

Provides advanced control, system monitoring, and system diagnostics for optimum performance and compatibility.

- Digital display and menu control provide easy local data access
- Measurements are selectable in metric or English units
- Remote communication thru a PC via network or serial configuration
- Controller supports Modbus® protocol
- Integrated hybrid voltage regulator with ±0.5% regulation
- Built-in alternator thermal overload protection
- NFPA 110 Level 1 capability

Refer to G6-161 for additional controller features and accessories.

Standard Features

- Alternator Protection
- Battery Rack and Cables
- Electronic, Isochronous Governor
- Gas Fuel System (includes fuel mixer, electronic secondary gas regulator, gas solenoid valve, and flexible fuel line between the engine and the skid-mounted fuel system components)
- Integral Vibration Isolation
- Local Emergency Stop Switch
- Oil Drain Extension
- Operation and Installation Literature

Available Options

Approvals and Listings

- CSA Approval
- IBC Seismic Certification
- UL 2200 Listing
- Hurricane Rated Enclosure

Enclosed Unit

- Sound Enclosure (with enclosed critical silencer)
- Weather Enclosure (with enclosed critical silencer)

Open Unit

- Exhaust Silencer, Critical (kit: PA-352663)
- Flexible Exhaust Connector, Stainless Steel

Fuel System

- Dual Fuel NG/LPG (automatic changeover)
- Flexible Fuel Line (required when the generator set skid is spring mounted)
- Fuel Filter Kit

Controller

- Common Fault Relay
- Two Input/Five Output Module
- Remote Annunciator Panel
- Remote Emergency Stop
- Run Relay
- Manual Speed Adjust

Cooling System

- Block Heater, 1500 W, 110-120 V
Required for ambient temperatures below 10°C (50°F)
- Radiator Duct Flange

Electrical System

- Alternator Strip Heater
- Battery
- Battery Charger
- Battery Charger Temperature Compensation
- Battery Heater
- Line Circuit Breaker (NEMA1 enclosure)
- Line Circuit Breaker with Shunt Trip (NEMA1 enclosure)

Miscellaneous

- Air Cleaner Restrictor Indicator
- Certified Test Report
- Engine Fluids (oil and coolant) Added
- Rated Power Factor Testing
- Rodent Guards
- Open Unit Accessory Kit (stone guards, radiator duct flange, flexible exhaust)

Literature

- General Maintenance
- NFPA 110
- Overhaul
- Production

Warranty

- 2-Year Basic Limited Warranty
- 5-Year Basic Limited Warranty
- 5-Year Comprehensive Limited Warranty

Other Options

- _____
- _____
- _____
- _____
- _____
- _____
- _____
- _____

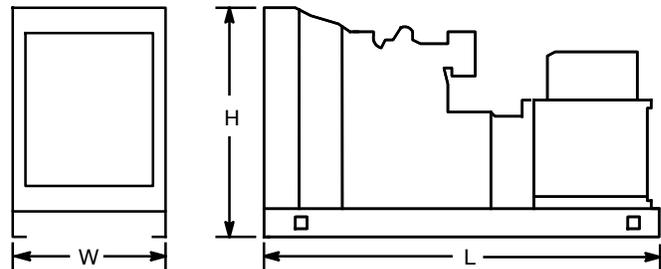
Dimensions and Weights

Overall Size, L x W x H, mm (in.):

Wide Skid 2200 x 1040 x 1172 (86.6 x 40.9 x 46.1)

Narrow Skid 2200 x 864 x 1172 (86.6 x 34.0 x 46.1)

Weight (radiator model), wet, kg (lb.): 755 (1665)



NOTE: This drawing is provided for reference only and should not be used for planning installation. Contact your local distributor for more detailed information.

DISTRIBUTED BY:

verizon

WIRELESS SERVICES FACILITY

**CHESHIRE EAST CT
185 ACADEMY ROAD
CHESHIRE, CT 06410**

DRAWING INDEX

- T-1 TITLE SHEET
- SP-1 SITE PLAN
- C-1 COMPOUND PLAN & WEST ELEVATION
- C-2 EQUIPMENT AREA PLAN & DETAILS
- C-3 EQUIPMENT DETAILS
- M-1 MECHANICAL PLAN, DETAILS & NOTES
- S-1 STRUCTURAL PLANS & DETAILS
- E-1 ELECTRICAL PLAN, SCHEDULES & NOTES
- E-2 SCHEMATIC ONE-LINE RISER DIAGRAM, DETAILS & NOTES
- E-3 EQUIPMENT GROUNDING PLANS & NOTES
- E-4 GROUNDING DETAILS
- B-1 RF BILL OF MATERIALS & EQUIPMENT SPECIFICATIONS
- N-1 NOTES & SPECIFICATIONS

SITE DIRECTIONS

**START: 20 ALEXANDER DRIVE
WALLINGFORD, CONNECTICUT 06492**

**END: 185 ACADEMY ROAD
CHESHIRE, CT 06410**

1. TAKE ALEXANDER DR. AND BARNES INDUSTRIAL PARK RD. TO CT-68W 0.6 MI
2. HEAD SOUTH TOWARD ALEXANDER DR 371 FT
3. TURN RIGHT 0.1 MI
4. TURN RIGHT TOWARD ALEXANDER DRIVE 72 FT
4. TURN RIGHT TOWARD ALEXANDER DRIVE 167 FT
5. TURN RIGHT ONTO ALEXANDER DRIVE 0.3 MI
6. TURN RIGHT ONTO BARNES INDUSTRIAL PARK RD 0.1 MI
7. TURN LEFT AT 1ST CROSS STREET ONTO CT-68 W 4.4 MI
8. TURN LEFT ONTO CT-68W/CT-70 W (DESTINATION ON THE LEFT) 0.8 MI

SITE INFORMATION

VZ SITE NAME: CHESHIRE EAST CT
VZ PROJ. FUZE I.D.: 15372347
VZ LOCATION CODE: 470656
VZ PROJECT CODE: 20171649710

LOCATION: 185 ACADEMY ROAD
CHESHIRE, CT 06410

PROJECT SCOPE: INSTALLATION CONSISTS OF SIX (6) PANEL ANTENNAS, THREE (3) SAMSUNG MT6407-77A ANTENNAS w/ INTEGRATED RRHs, SIX (6) DUAL-BAND ORAN REMOTE RADIO HEADS (RRHs) & ONE (1) 120VP MOUNTED TO AN EXIST. 95± AGL MONOPINE TOWER IN ADDITION TO BASE EQUIPMENT CABINETS, 50KW PROPANE EMERGENCY STANDBY POWER GENERATOR & A 500 GAL. PROPANE TANK w/ PROTECTIVE ICE CANOPY LOCATED AT GRADE WITHIN EXIST. (2,116± SF) FENCED COMPOUND AREA.

MAP/LOT: 58-27

LATITUDE: 41° 29' 53.7872"N (41.49827422°N)

LONGITUDE: 72° 53' 39.3902"W (72.89427505°W)

GROUND ELEVATION: 242.7± AMSL

PROPERTY OWNER: CHESHIRE UNITED METHODIST CHURCH
185 ACADEMY ROAD
CHESHIRE, CT 06410

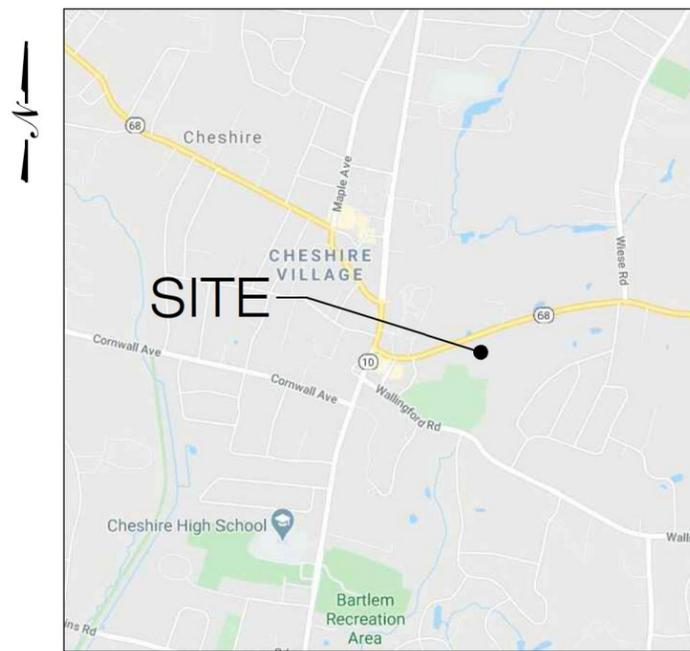
TOWER OWNER: DIAMOND COMMUNICATIONS LLC.
210 MOUNTAIN AVENUE
UNIT 619
SPRINGFIELD, NJ 07081

APPLICANT: CELCO PARTNERSHIP
d/b/a VERIZON WIRELESS
20 ALEXANDER DRIVE
WALLINGFORD, CT 06492

LEGAL/REGULATORY COUNSEL: ROBINSON & COLE, LLP
KENNETH C. BALDWIN, ESQ.
280 TRUMBULL STREET
HARTFORD, CT 06103

ENGINEER CONTACT: ALL-POINTS TECHNOLOGY CORPORATION, P.C.
567 VAUXHALL STREET EXTENSION - SUITE 311
WATERFORD, CT 06385
860 663-1697

COORDINATES & GROUND ELEVATION INDICATED HEREIN WERE ESTABLISHED FROM A TOPOGRAPHIC LAND SURVEY, AS PREPARED BY MARTIN SURVEYING ASSOCIATES, LLC, INC. DATED MAY 05, 2020.



LOCATION MAP
SCALE: 1" = 1000'-0"

Cellco Partnership d/b/a

verizon

20 ALEXANDER DRIVE
WALLINGFORD, CT 06492

**ALL-POINTS
TECHNOLOGY CORPORATION**

567 VAUXHALL STREET EXTENSION - SUITE 311
WATERFORD, CT 06385 PHONE: (860)-663-1697
WWW.ALLPOINTSTECH.COM FAX: (860)-663-0935

CONSTRUCTION DOCUMENTS

NO	DATE	REVISION
0	10/05/22	FOR REVIEW: JRM
1	10/31/22	REVISED: JRM
2	02/06/23	REVISED LAYOUT: JRM
3	03/22/23	REVISED RRHs: JRM
4		
5		
6		



DESIGN PROFESSIONALS OF RECORD

PROF: MICHAEL S. TRODDEN P.E.
COMP: ALL-POINTS TECHNOLOGY CORPORATION, P.C.
ADD: 567 VAUXHALL STREET EXT. SUITE 311 WATERFORD, CT 06385

OWNER: CHESHIRE UNITED METHODIST CHURCH
ADDRESS: 185 ACADEMY ROAD CHESHIRE, CT 06410

CHESHIRE EAST CT

SITE: 185 ACADEMY ROAD
ADDRESS: CHESHIRE, CT 06410

APT FILING NUMBER: CT141NB9650

DATE: 10/05/22 DRAWN BY: DRA
CHECKED BY: JRM

VZW PROJECT CODE: 20171649710

VZW LOCATION CODE: 470656

VZW FUZE ID: 15372347

SHEET TITLE:

TITLE SHEET

SHEET NUMBER:

T-1

CONSTRUCTION DOCUMENTS

NO	DATE	REVISION
0	10/05/22	FOR REVIEW: JRM
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4		
5		
6		



DESIGN PROFESSIONALS OF RECORD

PROF: MICHAEL S. TRODDEN P.E.
COMP: ALL-POINTS TECHNOLOGY CORPORATION, P.C.
ADD: 567 VAUXHALL STREET EXT. SUITE 311 WATERFORD, CT 06385

OWNER: CHESHIRE UNITED METHODIST CHURCH
ADDRESS: 185 ACADEMY ROAD CHESHIRE, CT 06410

CHESHIRE EAST CT

SITE: 185 ACADEMY ROAD
ADDRESS: CHESHIRE, CT 06410

APT FILING NUMBER: CT141NB9650

DRAWN BY: DRA

DATE: 10/05/22 CHECKED BY: JRM

VZW PROJECT CODE: 20171649710

VZW LOCATION CODE: 470656

VZW FUZE ID: 15372347

SHEET TITLE:

COMPOUND PLAN & WEST ELEVATION

SHEET NUMBER:

C-1

SITE PLAN REFERENCES:

1. "TOPOGRAPHIC SURVEY, LAND OF CHESHIRE UNITED METHODIST CHURCH, 185 ACADEMY ROAD, CHESHIRE, CT, SHEET 1 OF 2 & SHEET 2 OF 2; PREPARED BY MARTIN SURVEYING ASSOCIATES, LLC, 201 CHRISTIAN LANE, BERLIN, CT 06037. DATED 05/08/2020.
2. BASE MAPPING SUPPLEMENTED W/ FIELD MEASUREMENTS TAKEN BY ALL-POINTS TECHNOLOGY CORPORATION, P.C., ON 12-14-2022.

EXCAVATION & TRENCHING NOTES:

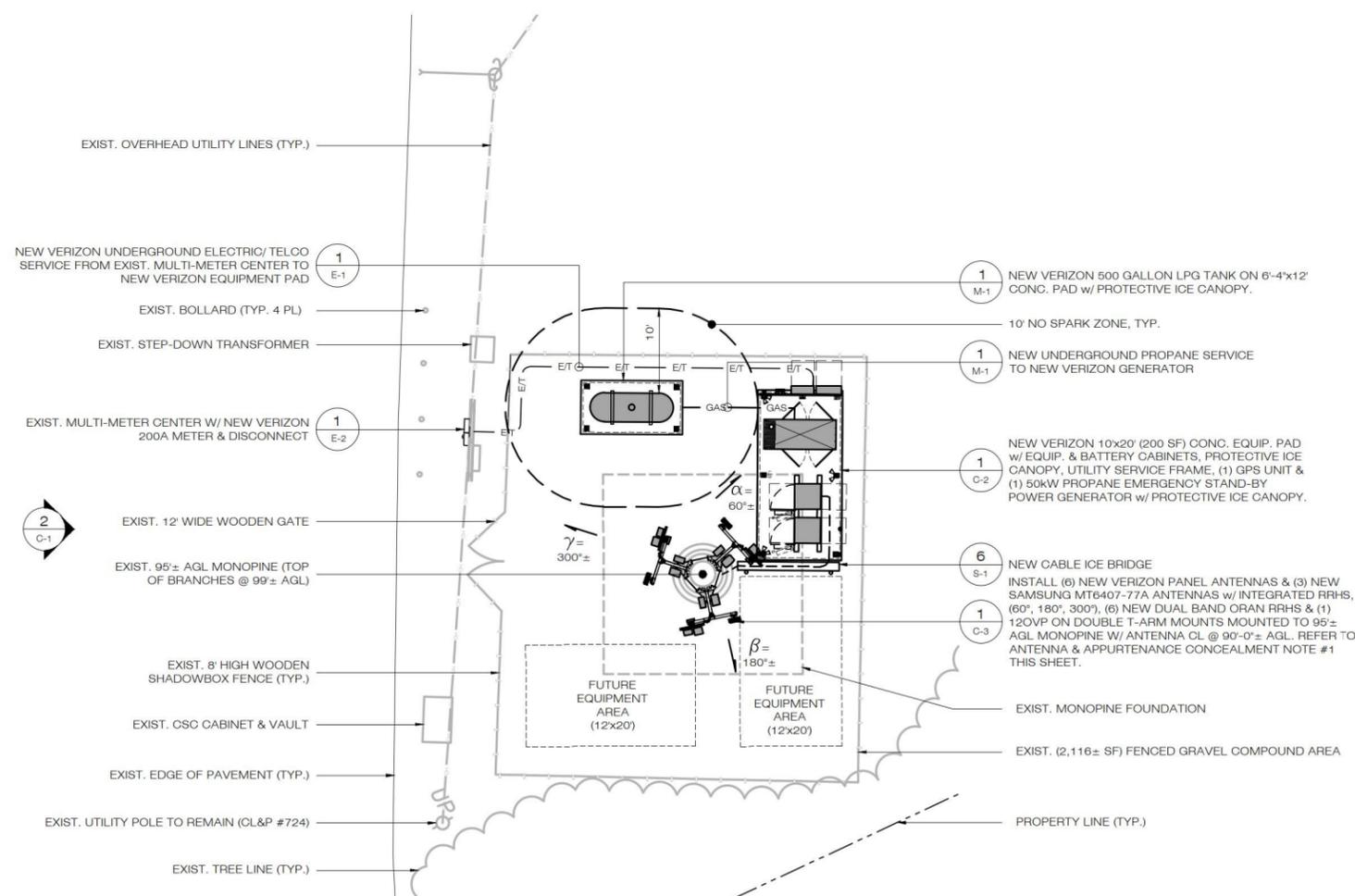
1. CONTRACTOR SHALL ENGAGE THE SERVICES OF AN UNDERGROUND UTILITY LOCATING COMPANY TO LOCATE ALL UNDERGROUND UTILITIES, GROUNDING & EQUIPMENT IN THE TRENCHING AREA TO AVOID ANY DAMAGE.
2. HAND EXCAVATE WITHIN 5' OF EXIST. UNDERGROUND UTILITIES (V.I.F.) MAINTAIN 18" MIN. CLEARANCE.
3. CONTRACTOR TO COORDINATE TRENCHING OPERATIONS W/ OWNER AND/OR MANAGEMENT COMPANY SO AS TO MINIMIZE DISRUPTIONS TO THE EXIST. PROPERTY OPERATIONS.

ANTENNA & APPURTENANCE CONCEALMENT NOTE:

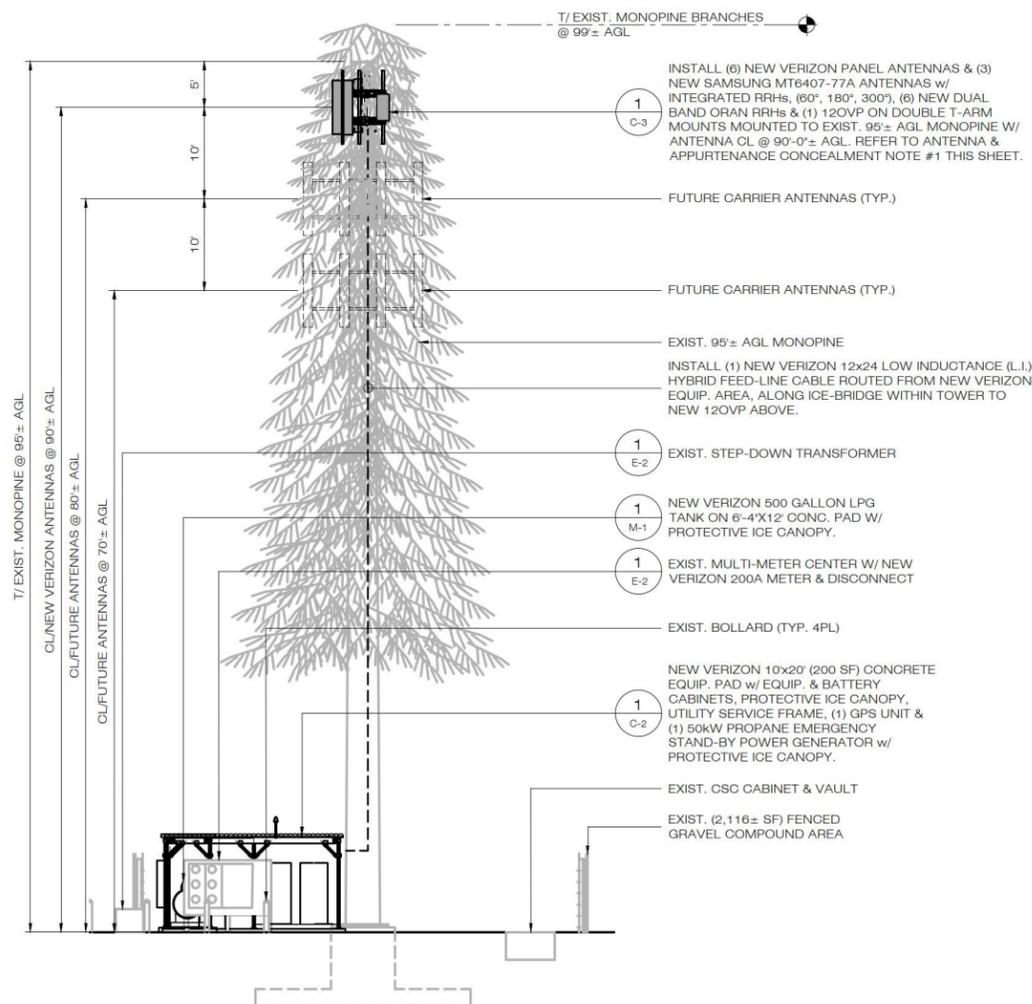
1. PAINT ANTENNAS, MOUNTS, CABLING & APPURTENANCES TO MATCH MONOPINE. INSTALL VALMONT SOCKS ON ALL NON LS6 ANTENNAS. PAINT LS6 ANTENNAS TO MATCH MONOPINE IN ACCORDANCE W/ LS6 MANUFACTURER INSTALLATION MANUAL REQUIREMENTS. COORDINATE W/ VERIZON CONSTRUCTION MANAGER & OWNER.

TOWER STRUCTURAL & MOUNT ANALYSIS NOTES:

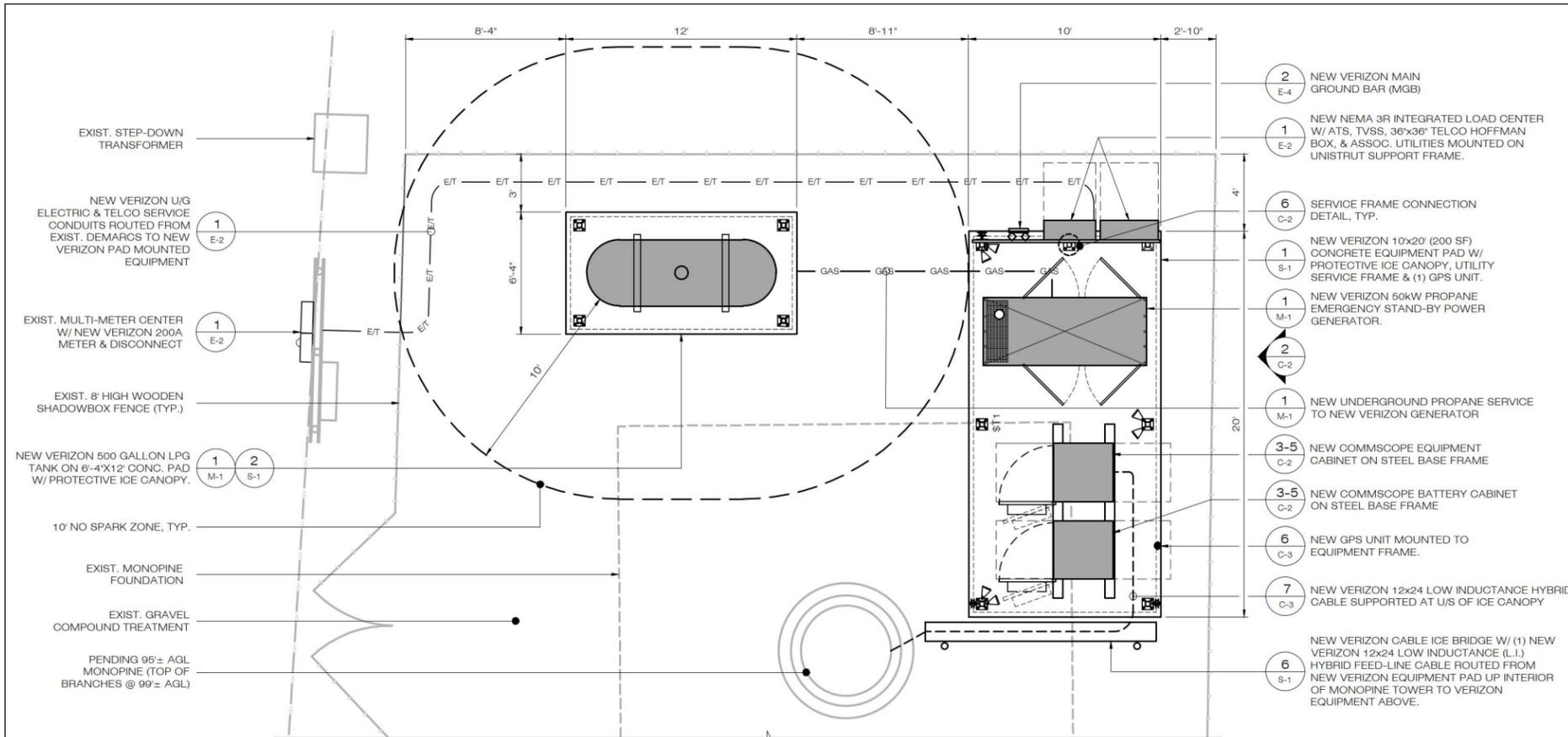
1. REFER TO STRUCTURAL ANALYSIS REPORT PREPARED BY ALL-POINTS TECHNOLOGY CORPORATION P.C., MARKED REV1, DATED MARCH 22, 2023, AVAILABLE UNDER SEPARATE COVER.
2. REFER TO MOUNT ANALYSIS PREPARED BY ALL-POINTS TECHNOLOGY CORPORATION P.C., MARKED REV2, DATED MARCH 22, 2023, AVAILABLE UNDER SEPARATE COVER.



1 COMPOUND PLAN
SCALE: 1" = 10'-0"
(IN FEET) 1 inch = 10 ft.



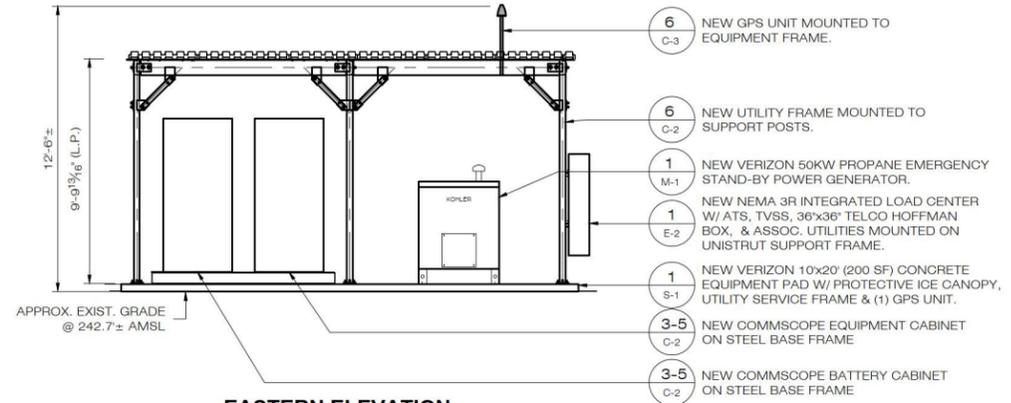
2 WEST ELEVATION
SCALE: 1" = 10'-0"
(IN FEET) 1 inch = 10 ft.



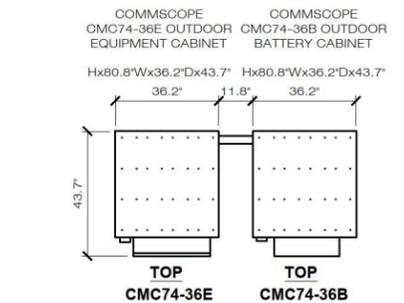
1 EQUIPMENT AREA PLAN
 C-2 SCALE: 1/4" = 1'-0"

EXCAVATION & TRENCHING NOTES:

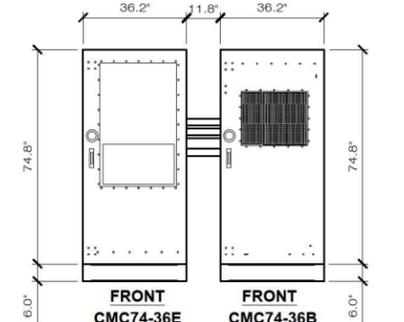
- CONTRACTOR SHALL ENGAGE THE SERVICES OF AN UNDERGROUND UTILITY LOCATING COMPANY TO LOCATE ALL UNDERGROUND UTILITIES, GROUNDING & EQUIPMENT IN THE TRENCHING AREA TO AVOID ANY DAMAGE.
- HAND EXCAVATE WITHIN 5' OF EXIST. UNDERGROUND UTILITIES (V.I.F.) MAINTAIN 18" MIN. CLEARANCE.
- CONTRACTOR TO COORDINATE TRENCHING OPERATIONS W/ OWNER AND/OR MANAGEMENT COMPANY SO AS TO MINIMIZE DISRUPTIONS TO THE EXIST. PROPERTY OPERATIONS.



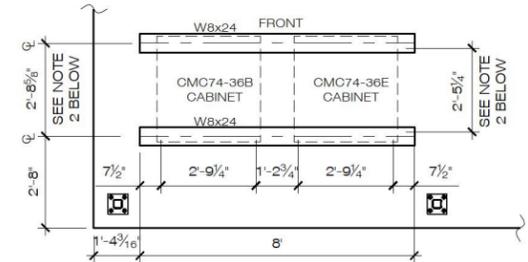
2 EASTERN ELEVATION EQUIPMENT AREA
 C-2 SCALE: 1/4" = 1'-0"



3 OUTDOOR CABINET CMC74-36E & CMC74-36B PLAN VIEW
 C-2 SCALE: 3/8" = 1'-0"



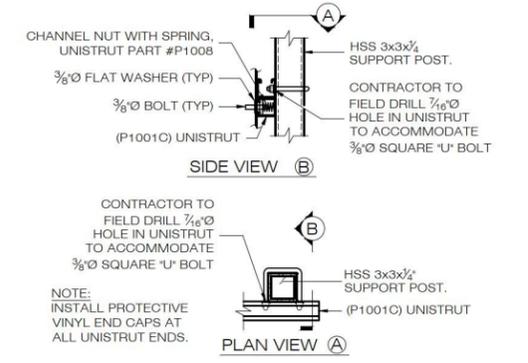
4 OUTDOOR CABINET CMC74-36E & CMC74-36B ELEVATION VIEW
 C-2 SCALE: 3/8" = 1'-0"



NOTES:

- FASTEN W BEAMS TO CONCRETE PAD W/ 1/2"Ø HDG HLTI KWIK BOLT 3 w/ 2" EMBEDMENT @ 24" O.C. MAX, STAGGERED). MIN. 2" FROM W BEAM ENDS
- COORDINATE W BEAM FLANGE SPACING W/ EQUIPMENT CABINET BOLTING PATTERN. MOUNT EQUIPMENT CABINETS TO DUNNAGE FRAME PER MANUFACTURER'S RECOMMENDATIONS.

5 EQUIPMENT BOLTING PATTERN
 C-2 SCALE: 1/2" = 1'-0"



6 SERVICE FRAME CONN. DETAIL
 C-2 SCALE: 1 1/2" = 1'-0"

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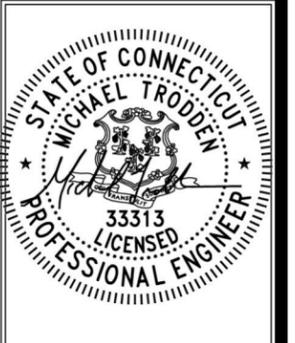
20 ALEXANDER DRIVE
 WALLINGFORD, CT 06492

ALL-POINTS TECHNOLOGY CORPORATION

567 VAUXHALL STREET EXTENSION - SUITE 311
 WATERFORD, CT 06385 PHONE: (860)-663-1697
 WWW.ALLPOINTSTECH.COM FAX: (860)-663-0935

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DESIGN PROFESSIONALS OF RECORD

PROF: MICHAEL S. TRODDEN P.E.
 COMP: ALL-POINTS TECHNOLOGY CORPORATION, P.C.
 ADD: 567 VAUXHALL STREET EXT. SUITE 311 WATERFORD, CT 06385

OWNER: CHESHIRE UNITED METHODIST CHURCH
 ADDRESS: 185 ACADEMY ROAD CHESHIRE, CT 06410

CHESHIRE EAST CT

SITE 185 ACADEMY ROAD
 ADDRESS: CHESHIRE, CT 06410

APT FILING NUMBER: CT141NB9650

DATE: 10/05/22 DRAWN BY: DRA
 CHECKED BY: JRM

VZW PROJECT CODE: 20171649710
 VZW LOCATION CODE: 470656
 VZW FUZE ID: 15372347

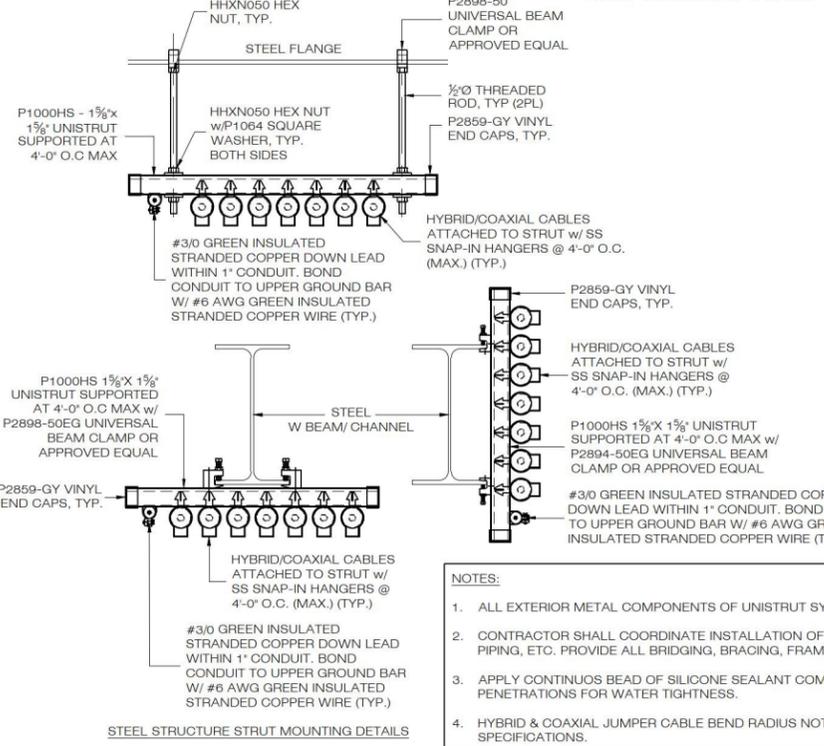
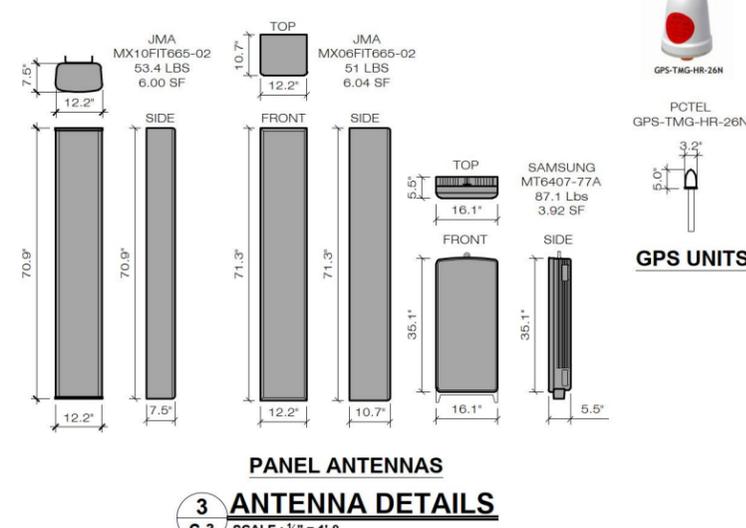
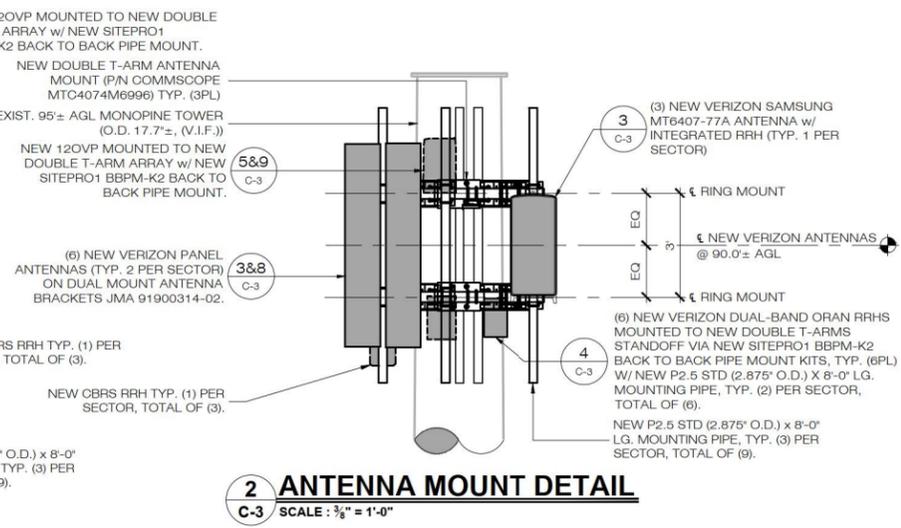
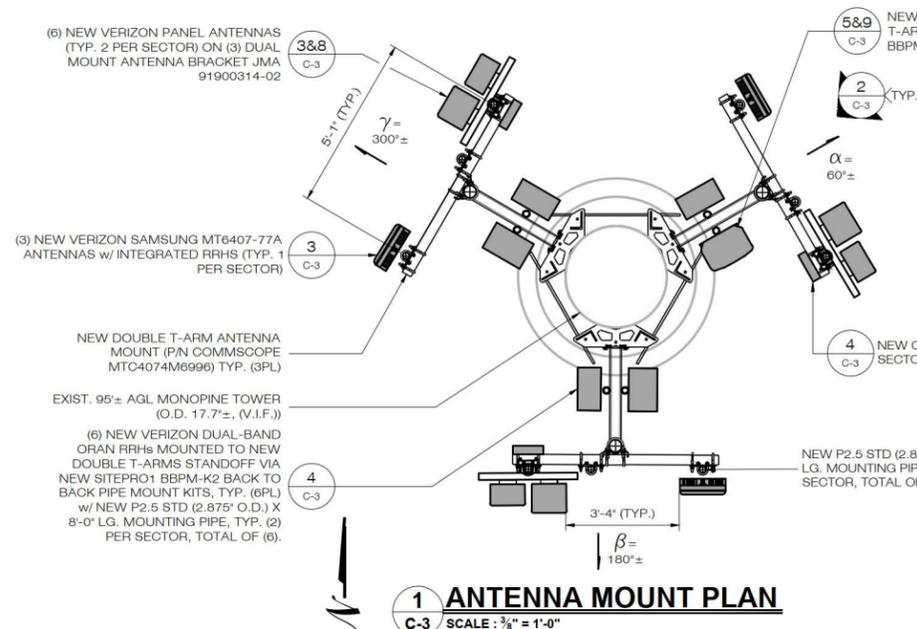
SHEET TITLE:

EQUIPMENT AREA PLAN & DETAILS

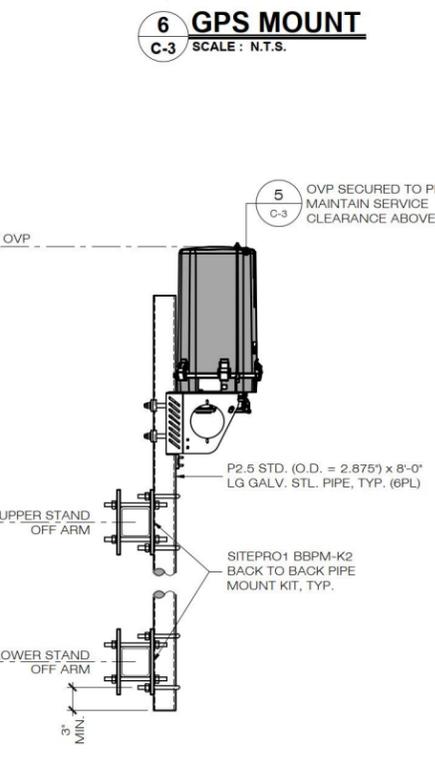
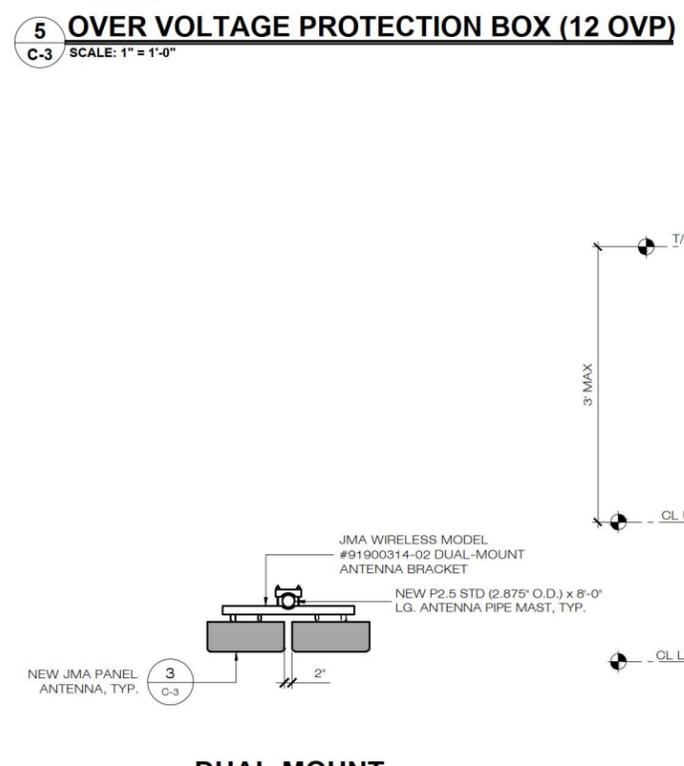
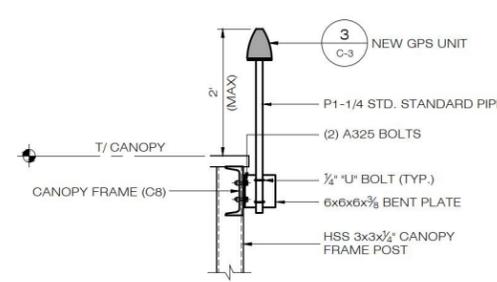
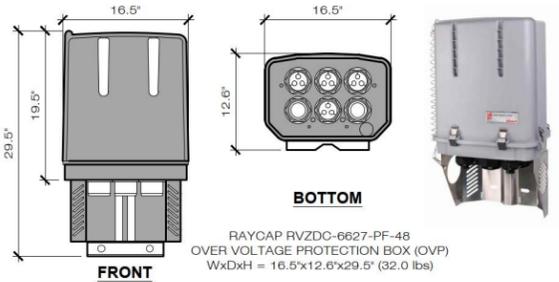
SHEET NUMBER:

C-2

ANTENNA & APPURTENANCE CONCEALMENT NOTE:
 1. PAINT ANTENNAS, MOUNTS, CABLING & APPURTENANCES TO MATCH MONOPINE. INSTALL VALMONT SOCKS ON ALL NON L56 ANTENNAS. PAINT L56 ANTENNAS TO MATCH MONOPINE IN ACCORDANCE W/ L56 MANUFACTURER INSTALLATION MANUAL REQUIREMENTS. COORDINATE W/ VERIZON CONSTRUCTION MANAGER & OWNER.



- NOTES:**
- ALL EXTERIOR METAL COMPONENTS OF UNISTRUT SYSTEM SHALL BE HOT DIP GALVANIZED (HG).
 - CONTRACTOR SHALL COORDINATE INSTALLATION OF TRAPEZE SYSTEM W/ EXIST. DUCTWORK, PIPING, ETC. PROVIDE ALL BRIDGING, BRACING, FRAMING, ETC. AS REQUIRED.
 - APPLY CONTINUOUS BEAD OF SILICONE SEALANT COMPATIBLE W/ SURFACE AT ALL EXTERIOR PENETRATIONS FOR WATER TIGHTNESS.
 - HYBRID & COAXIAL JUMPER CABLE BEND RADIUS NOT TO EXCEED CABLE MANUFACTURERS SPECIFICATIONS.



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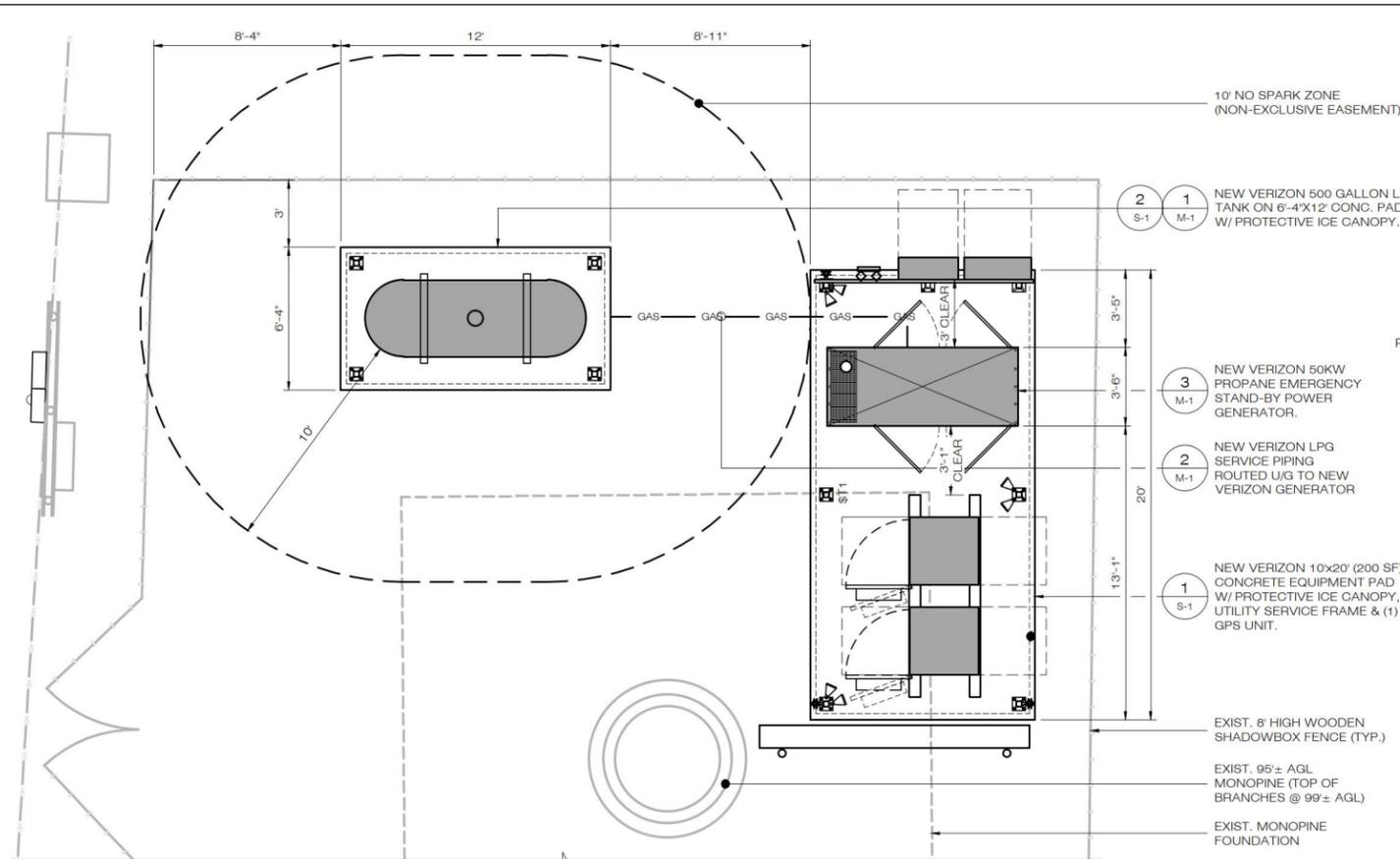


DESIGN PROFESSIONALS OF RECORD
 PROF: MICHAEL S. TRODDEN P.E.
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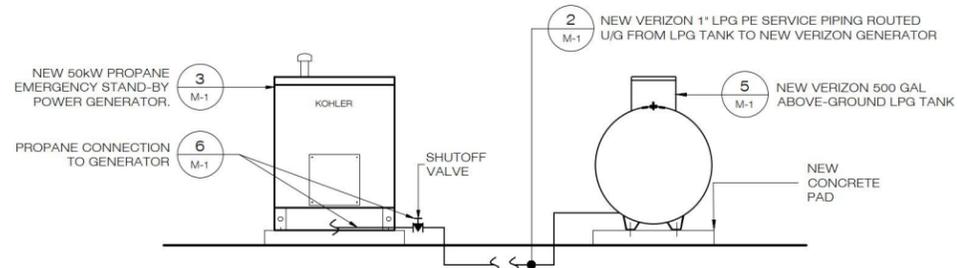
OWNER: CHESHIRE UNITED METHODIST CHURCH
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CHESHIRE EAST CT
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 ADDRESS: CHESHIRE, CT 06410
 APT FILING NUMBER: CT141NB9650
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 VZW PROJECT CODE: 20171649710
 VZW LOCATION CODE: 470656
 VZW FUZE ID: 15372347

SHEET TITLE:
 EQUIPMENT DETAILS
SHEET NUMBER:
 C-3

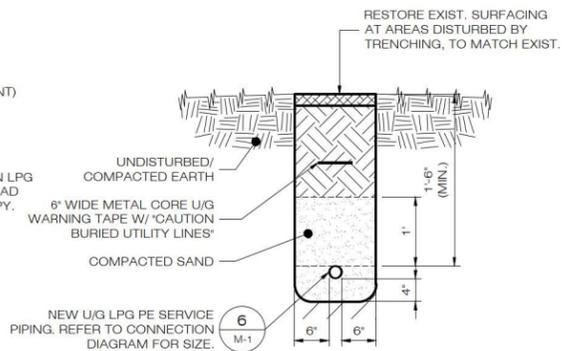


1 MECHANICAL PLAN
M-1 SCALE: 1/4" = 1'-0"

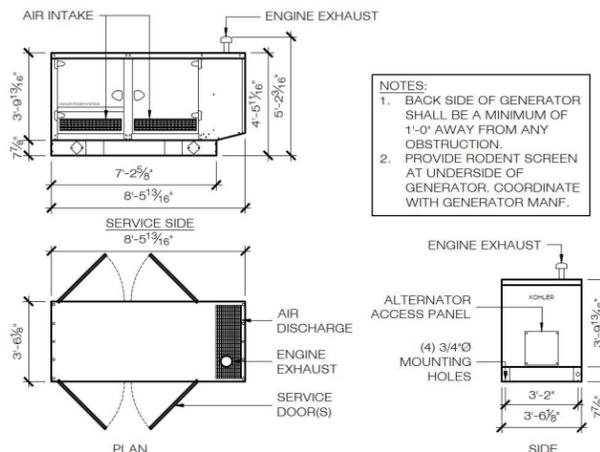


NOTE: ALL VALVES USED IN METALLIC PIPING SYSTEMS MUST HAVE PRESSURE CONTAINING PARTS OF STEEL, DUCTILE (NODULAR) IRON, MALLEABLE IRON OR BRASS. ALL MATERIALS USED, INCLUDING VALVE SEAT DISCS, PACKING, SEALS AND DIAPHRAGMS MUST BE RESISTANT TO THE ACTION OF LP GAS UNDER SERVICE CONDITIONS. MANY VALVES ARE LISTED BY INDEPENDENT TESTING LABORATORIES FOR USE IN LP GAS SERVICE. THESE CAN BE USED AS RECOMMENDED BY THE MANUFACTURER. OTHER VALVES CAN BE USED, BUT MUST COMPLY WITH THE REQUIREMENTS OF NFPA 58 AND SHOULD BE RECOMMENDED BY THE MANUFACTURER FOR LP GAS SERVICE TO BE SURE THAT ALL THE COMPONENT PARTS OF THE VALVE ARE APPROVED FOR LP GAS SERVICE. VALVES USED WITH POLYETHYLENE PIPE AND TUBING MUST MEET THE REQUIREMENTS OF ASTM D2513 AND BE SO MARKED.

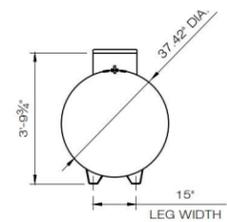
4 PROPANE CONNECTION DIAGRAM
M-1 SCALE: N.T.S.



2 PROPANE GAS TRENCH
M-1 SCALE: N.T.S.

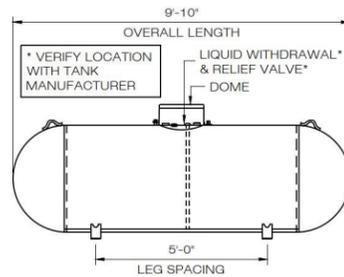


3 GENERATOR SCHEMATICS
M-1 SCALE: 1/4" = 1'-0"



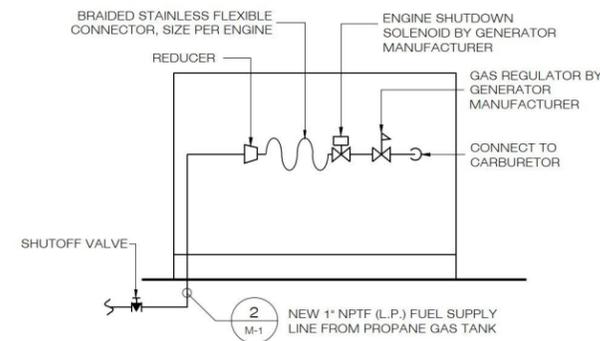
- 500 USWG AMSE VIII, DIV. 1 ABOVE GROUND LPG TANK
- WEIGHT (EMPTY) = 871 LBS

NOTE: PROVIDE TANK MANUFACTURER SHOP DRAWING FOR REVIEW BY ENGINEER OF RECORD PRIOR TO PURCHASE



- NOTES:
- PROPANE TANKS SHALL BE REFILLED FROM HOSE PULLED FROM A REFILLING VEHICLE PARKED OUTSIDE THE COMPOUND.
 - PER NFPA 58 TABLE 5.9.4.1(B) FILLER VALVE REQUIRED ON ALL TANKS BUT MAY BE MANUAL OR BACKFLOW CHECK VALVE, NFPA 58 5.9.4.1(C)(7).
 - ALL ABOVE-GROUND GAS SERVICE LINES MUST MEET LOCAL CODE REGULATIONS.

5 ABOVE GROUND PROPANE TANK DETAIL
M-1 SCALE: N.T.S.



NOTE: INSTALL COMPONENTS IN ACCORDANCE WITH GENERATOR MANUFACTURERS INSTRUCTIONS.

6 GENERATOR CONNECTION DETAIL
M-1 N.T.S.

GENERATOR MECHANICAL NOTES:

- THE MECHANICAL SUBCONTRACTOR SHALL COORDINATE ALL WORK TO BE PERFORMED WITH THE GENERAL AND ELECTRICAL CONTRACTORS. ANY WORK DONE BY THIS CONTRACTOR WHICH INTERFERES WITH WORK BY OTHERS AND WHICH WAS NOT FIRST COORDINATED SHALL BE REMOVED AND RELOCATED AT CONTRACTORS EXPENSE.
- THIS CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL UTILITIES AND THE PLACEMENT OF ALL EQUIPMENT PRIOR TO THE START OF HIS WORK. NO EXTRAS WILL BE ALLOWED DUE TO EQUIPMENT LOCATION CHANGE FROM THAT ON THE DRAWING.
- IT IS THE INTENT THAT THE WORK SHALL BE COMPLETE IN EVERY RESPECT AND THAT ANY MATERIAL OR WORK NOT SPECIFICALLY MENTIONED OR SHOWN ON THE DRAWINGS, BUT NECESSARY TO FULLY COMPLETE THE WORK, SHALL BE PROVIDED.
- THE LOCATION OF SOME ITEMS SHOWN ON THE DRAWINGS MAY BE APPROXIMATE AND THE OWNER SHALL HAVE THE RIGHT TO MAKE MINOR REVISIONS BEFORE THE WORK IS INSTALLED WITHOUT ADDITIONAL COST.
- THIS CONTRACTOR SHALL FURNISH AND INSTALL ALL NECESSARY VALVES, AND ALL CONTROL DEVICES REQUIRED FOR PROPER COMPLETION OF UTILITY PIPING.
- ALL WORK SHALL BE IN ACCORDANCE WITH 2021 INTERNATIONAL MECHANICAL CODE AND PLUMBING CODE, AS AMENDED BY THE 2022 CONNECTICUT STATE BUILDING CODE, NFPA 54, NATIONAL FUEL GAS CODE & NFPA 58, LIQUEFIED PETROLEUM GAS CODE (WHERE APPLICABLE), AS INCORPORATED INTO THE 2022 CONNECTICUT STATE FIRE SAFETY AND FIRE PREVENTION CODES.
- GAS DEMAND IS 337 CFH AT 5 TO 11 INCHES W.C.
- ALL BELOW GROUND GAS PIPING SHALL BE POLYETHYLENE (PE) PLASTIC PIPE OR TUBING PE 2406 (MEDIUM DENSITY YELLOW) OR PE 3408 (HIGH DENSITY BLACK) CONFORMING TO ASTM D2513. SPECIFICATIONS FOR THERMOPLASTIC GAS PRESSURE PIPE SYSTEMS SHALL BE USED.
- PE PLASTIC PIPING MAY NOT BE USED FOR GAS PIPING INSIDE OR BENEATH BUILDINGS, OR FOR VENTING GAS PRESSURE REGULATORS.
- THE FOLLOWING SPECIFICATIONS SHALL BE USED FOR PE FITTINGS (WHERE APPLICABLE):
 - ASTM D2683 SPECIFICATION FOR SOCKET TYPE POLYETHYLENE FITTINGS FOR OUTSIDE DIAMETER CONTROLLED PE PIPE AND TUBING.
 - ASTM D3261 SPECIFICATION FOR BUTT FUSION POLYETHYLENE (PE) PLASTIC FITTINGS FOR POLYETHYLENE (PE) PIPE AND TUBING.
 - ASTM F1055 STANDARD SPECIFICATION FOR ELECTROFUSION TYPE PE FITTINGS FOR OUTSIDE DIAMETER CONTROLLED PE PIPE AND TUBING.
- PROVIDE ESCUTCHEONS WHERE PIPES PENETRATE FLOORS, WALLS OR CEILINGS.
- ALL GAS PIPING OTHER THAN THAT NOTED ABOVE SHALL BE SCHEDULE 40 BLACK IRON PIPE, WITH THREADED FITTINGS.
- FIELD PAINT EXPOSED VERTICAL GAS PIPE RISER AT BUILDING EXTERIOR TO MATCH EXISTING BUILDING FACADE. ALL OTHER PIPE TO BE PAINTED YELLOW.
- FOR OTHER THAN BLACK IRON PIPE, LABEL ALL EXPOSED PIPING PER CODE AND UTILITY COMPANY REQUIREMENTS.
- ALL VALVES USED IN METALLIC PIPING SYSTEMS MUST HAVE PRESSURE CONTAINING PARTS OF STEEL, DUCTILE (NODULAR) IRON, MALLEABLE IRON OR BRASS.
- ALL MATERIALS USED, INCLUDING VALVE SEAT DISCS, PACKING, SEALS AND DIAPHRAGMS MUST BE RESISTANT TO THE ACTION OF LP GAS UNDER SERVICE CONDITIONS. MANY VALVES ARE LISTED BY INDEPENDENT TESTING LABORATORIES FOR USE IN LP GAS SERVICE. THESE CAN BE USED AS RECOMMENDED BY THE MANUFACTURER. OTHER VALVES CAN BE USED, BUT MUST COMPLY WITH THE REQUIREMENTS OF NFPA 58 AND SHOULD BE RECOMMENDED BY THE MANUFACTURER FOR LP GAS SERVICE TO BE SURE THAT ALL THE COMPONENT PARTS OF THE VALVE ARE APPROVED FOR LP GAS SERVICE.
- VALVES USED WITH POLYETHYLENE PIPE AND TUBING MUST MEET THE REQUIREMENTS OF ASTM D2513 AND BE SO MARKED.

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CHESHIRE EAST CT

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ADDRESS: CHESHIRE, CT 06410

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DRAWN BY: DRA

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VZW PROJECT CODE: 20171649710

VZW LOCATION CODE: 470656

VZW FUZE ID: 15372347

SHEET TITLE:

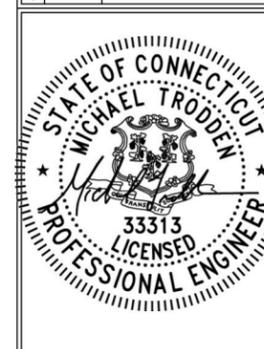
**MECHANICAL PLAN
DETAILS & NOTES**

SHEET NUMBER:

M-1

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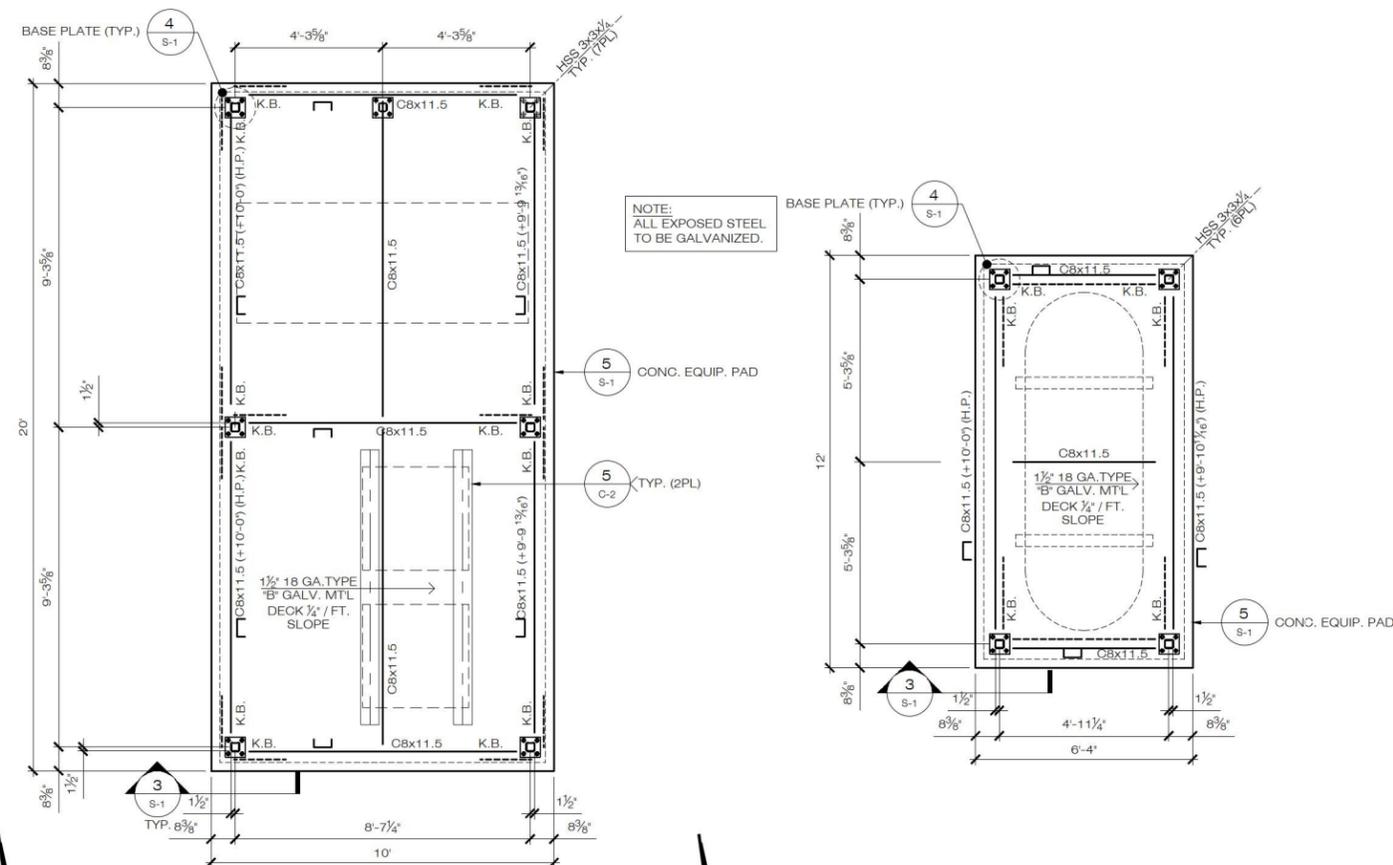
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SHEET TITLE:

STRUCTURAL PLANS & DETAILS

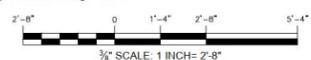
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S-1



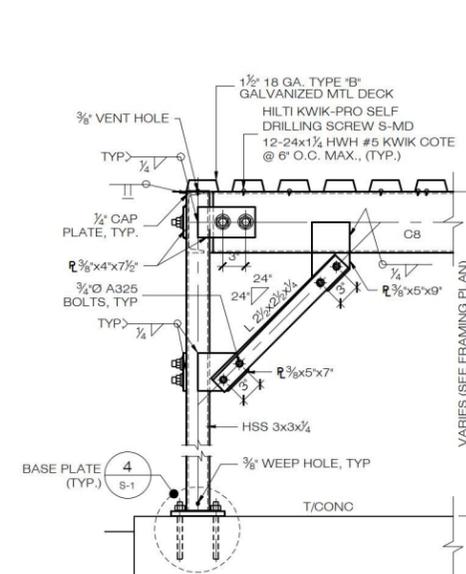
1 CANOPY FRAMING PLAN

S-1 SCALE: 3/8" = 1'-0"



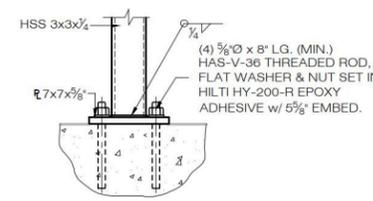
2 PROPANE TANK CANOPY FRAMING PLAN

S-1 SCALE: 3/8" = 1'-0"



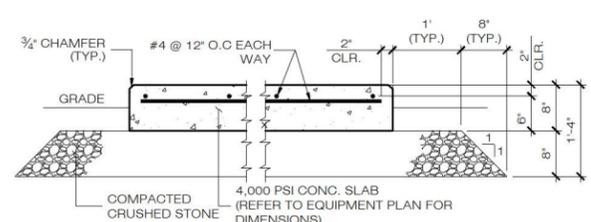
3 CANOPY SUPPORT

S-1 SCALE: 1" = 1'-0"



4 POST BASE DETAIL

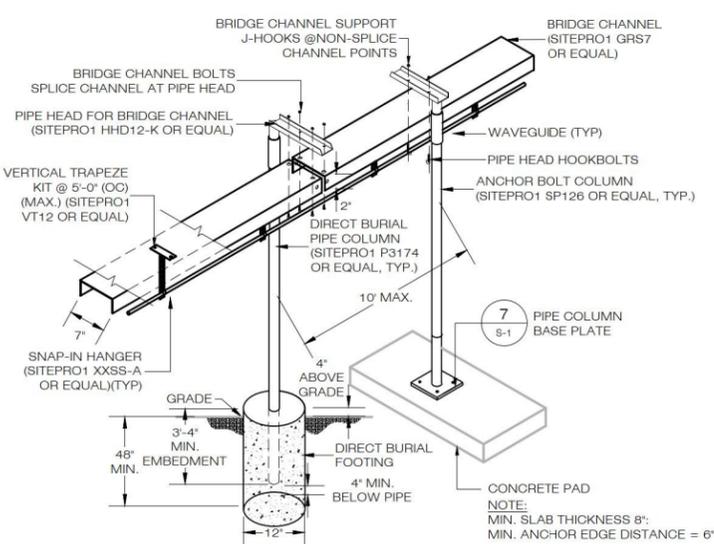
S-1 SCALE: 1/2" = 1'-0"



5 TYPICAL CONCRETE PAD DETAIL

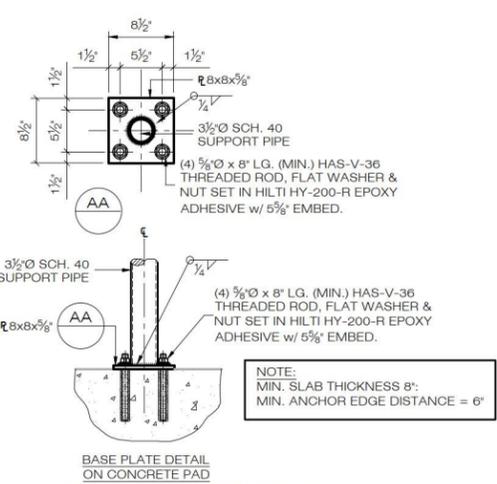
S-1 SCALE: N.T.S.

- NOTES:
- CONTRACTOR SHALL COORDINATE ALL SLAB DIMENSIONS, CONDUIT STUB-UP LOCATIONS & HOLD DOWN REQUIREMENTS W/ EQUIPMENT MANUFACTURER.
 - CONCRETE SLAB DESIGN IS BASED ON A MINIMUM ALLOWABLE SOIL BEARING PRESSURE (q_a) OF 3,000 PSF



6 CABLE BRIDGE & COAX HANGER DETAIL

S-1 SCALE: N.T.S.



7 PIPE BASE PLATE

S-1 SCALE: N.T.S.

ELECTRICAL SYMBOL & ABBREVIATION LIST			
SYMBOL	DESCRIPTION	ABBREV.	DESCRIPTION
	FUSED DISCONNECT SWITCH (VOLTAGE AS REQUIRED)	AFF	ABOVE FINISHED FLOOR
	ELECTRICAL CONDUIT & CABLES	AFG	ABOVE FINISHED GRADE
	TELCO/FIBER CONDUIT & DRAG LINE	AGB	ANTENNA GROUND BAR
	GROUND CONDUIT & WIRE	AWG	AMERICAN WIRE GAGE
	DUPLEX RECEPTACLE WITH PANEL DP1 CIRCUIT INDICATED. (MOUNTED 42" AFF)	BCW	BARE COPPER WIRE
	ELECTRIC METER AND BASE. COORDINATE WITH UTILITY COMPANY	C	CONDUIT
	TRANSFORMER	DP	DISTRIBUTION PANEL
	NON-FUSED DISCONNECT SWITCH (VOLTAGE AS REQUIRED)	ECB	ENCLOSED CIRCUIT BREAKER
	GROUND BAR	EGB	EQUIPMENT GROUND BAR
	SPECIAL PURPOSE OUTLET	FACP	FIRE ALARM CONTROL PANEL
	GROUND ROD	GFCI	GROUND FAULT CIRCUIT INTERRUPTER
	GROUND CONNECTION	GRC	GALVANIZED RIGID CONDUIT
	INTEGRATED LOAD CENTER w/ XFER SWITCH	KWH	KILO-WATT-HOUR
	12 HR. TIMER SWITCH (MOUNTED 48" AFG.)	LFMC	LIQUID TIGHT FLEXIBLE METALLIC CONDUIT
	DUPLEX RECEPTACLE WITH GFCI AND WEATHERPROOF COVER 'WHILE IN-USE'	MGB	MASTER GROUND BAR
	GROUND BAR	MTS	MANUAL TRANSFER SWITCH
	LIGHT FIXTURE	NF	NON-FUSED
		N.O.	NORMALLY OPEN
		RGS	RIGID STEEL CONDUIT
		SA	SURGE ARRESTOR
		TL	TWIST-LOCK
		UNO	UNLESS NOTED OTHERWISE
		WP	WEATHERPROOF

LIGHTING FIXTURE SCHEDULE					
TYPE	MANUFACTURER CATALOG/MODEL No.	GENERAL DESCRIPTION	LAMP	MOUNTING	NOTES
A	RAB LIGHTING INC. LED MODEL # BULLET2X12W.	BULLET FLOOD 2X12W	LED (2480lm)	SURFACE	1,2
-	-	-	-	-	-

NOTES:

- ALUMINUM ROUND WEATHERPROOF BOX MCMMASTER-CARR MODEL# 7219K71.
- ALUMINUM WEATHERPROOF COVER MCMMASTER-CARR MODEL# 7219K13.

EQUIPMENT LEGEND	
DESIGNATION	DESCRIPTION
ILC	INTEGRATED LOAD CENTER (ILC) - 200A-2P, 120/240VAC, 1 PH, 3W, W/ 200A SERVICE DISCONNECT SWITCH, AUTOMATIC TRANSFER SWITCH AND DOUBLE TVSS (NORMAL POWER AND GENERATOR), NEMA 3R ENCLOSURE. MIN. TWO YEAR MANF. WARRANTY, FURNISH BOLT-ON CIRCUIT BREAKERS - TOTAL 42 POLES, 25KAIC.
\$T1	<ol style="list-style-type: none"> 20A @ 125V, 12 HOUR TIMER SWITCH - MCMMASTER-CARR MODEL# 7014K49. (SEE NOTE 2 BELOW). DOUBLE GANG WEATHER PROOF OUTLET BOX - MCMMASTER-CARR MODEL# 7219K26. DOUBLE GANG WEATHER PROOF COVER - INTERMATIC MODEL# WP1230C.

SITE UTILITY NOTES:

- CONTRACTOR SHALL ENGAGE THE SERVICES OF AN UNDERGROUND UTILITY LOCATING COMPANY TO LOCATE ALL UNDERGROUND EQUIPMENT IN THE TRENCHING AREA TO AVOID ANY DAMAGE.
- HAND EXCAVATE WITHIN 5' OF EXIST. UNDERGROUND UTILITIES (V.I.F.) MAINTAIN 18" MIN. CLEARANCE.
- CONTRACTOR TO COORDINATE TRENCHING OPERATIONS w/ OWNER AND/OR MANAGEMENT COMPANY SO AS TO MINIMIZE DISRUPTIONS TO THE EXIST. PROPERTY OPERATIONS. REINSTATE FINISHED GRADE TO PRE-CONSTRUCTION CONDITIONS & STANDARDS.

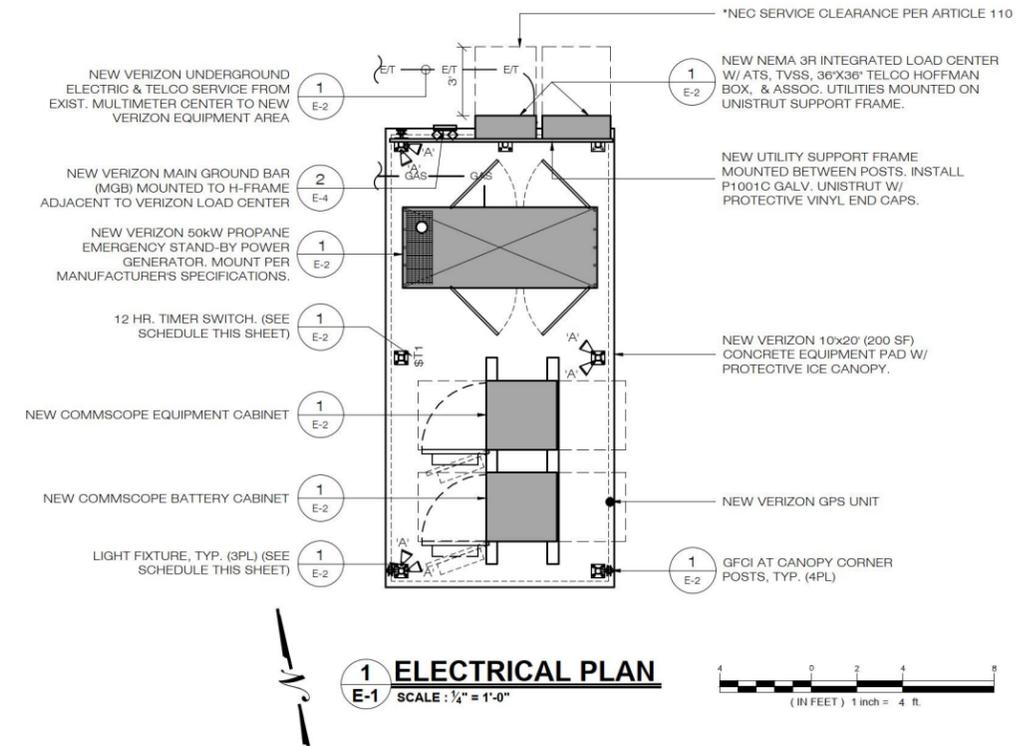
PANEL SCHEDULE												
PANEL NAME/LOCATION: ILC/VERIZON EQUIPMENT AREA						MOUNTING: SURFACE						
MAIN: 200A, 1P MCB						MANUFACTURER: ASCO OR EQUAL						
VOLTAGE/PHASE: 120/240V, 1Ø, 3W INTEGRATED LOAD CENTER (ILC)						BREAKER TYPE: BOLT ON						
PANEL RATING: 200A, 240 VAC						AIC RATING: 42K MIN.						
CKT NO.	LOAD DESCRIPTION	TRIP (AMPS)	P	DEMAND LOAD (AMPS)	A (kVA)	B (kVA)	DEMAND LOAD (AMPS)	P	TRIP (AMPS)	LOAD DESCRIPTION	CKT NO.	
1	RECTIFIER #1	30	2	5.83	1.4		5.83	2	30	RECTIFIER #5	2	
3				5.83		1.4	5.83				4	
5	RECTIFIER # 2	30	2	5.83	1.4		5.83	2	30	RECTIFIER #6	6	
7				5.83		1.4	5.83				8	
9	RECTIFIER #3	30	2	5.83	1.4		5.83	2	30	RECTIFIER #7	10	
11				5.83		1.4	5.83				12	
13	RECTIFIER # 4	30	2	5.83	1.4		5.83	2	30	RECTIFIER #8	14	
15				5.83		1.4	5.83				16	
17	QUADRUPLEX RECEPTACLE	20	1	0.36	0.54		0.18	1	20	GFCI (EQUIPMENT CABINET)	18	
19	GFCI (CORNER OF EQUIP. CANOPY)	20	1	0.18		0.36	0.18	1	20	GFCI (TELCO BOX)	20	
21	GFCI (CORNER OF EQUIP. CANOPY)	20	1	0.18	1.62		1.44	1	15	GEN BATTERY CHARGER	22	
23	GFCI (CORNER OF EQUIP. CANOPY)	20	1	0.18		1.68	1.50	1	15	GEN BLOCK HEATER	24	
25	GFCI (CORNER OF EQUIP. CANOPY)	20	1	0.18	0.36		0.18	1	15	GEN GFCI RECEPTACLE	26	
27							0.12	0.12	1	CANOPY LIGHTING	28	
29					0.01		0.01				30	
31							0.01	0.01	2	60	TVSS	32
33											34	
35	SPARE	-	-						-	-	36	
37	SPARE	-	-						-	-	38	
39	SPARE	-	-						-	-	40	
41	SPARE	-	-						-	-	42	
				A	B	TOTAL						
				8.13	7.77	16.1	TOTAL PANEL LOAD (kW)					
						38.4	TOTAL RATED CAPACITY (kW)					
						22.3	TOTAL PANEL RATED SPARE CAPACITY (kW)					
						67.8	PANEL AMPS (A)					

NOTES:

- DOOR DIRECTORY TO BE COMPLETED WITH RESPECT TO THE ACTUAL CIRCUIT DESCRIPTION.
- BRANCH CB AND CONDUCTOR SIZE AND QUANTITY BASED ON SPECIFIED EQUIPMENT. CONFIRM ELECTRICAL REQUIREMENTS PRIOR TO INSTALLATION.
- BRANCH CONDUCTOR SPECIFIED SHALL BE TYPE THWN 600V 75 DEG. C RATED COPPER U.N.O.

STANDARD ACCESSORIES

- COPPER BUSSING ONLY
- COPPER EQUIPMENT GROUND KIT
- INSULATED COPPER SOLID NEUTRAL BAR
- BOLT-ON BRANCH CIRCUIT BREAKERS
- DIRECTORY FRAME WITH GLASS/PLASTIC
- LAMINATED ENGRAVED BAKELITE NAMEPLATE
- FRONT DOOR (DOOR-IN-DOOR CONSTRUCTION)
- NEMA 3R



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DESIGN PROFESSIONALS OF RECORD
PROF. MICHAEL S. TRODDEN P.E.
 COMP: ALL-POINTS TECHNOLOGY CORPORATION, P.C.
 ADD: 567 VAUXHALL STREET EXT. SUITE 311 WATERFORD, CT 06385

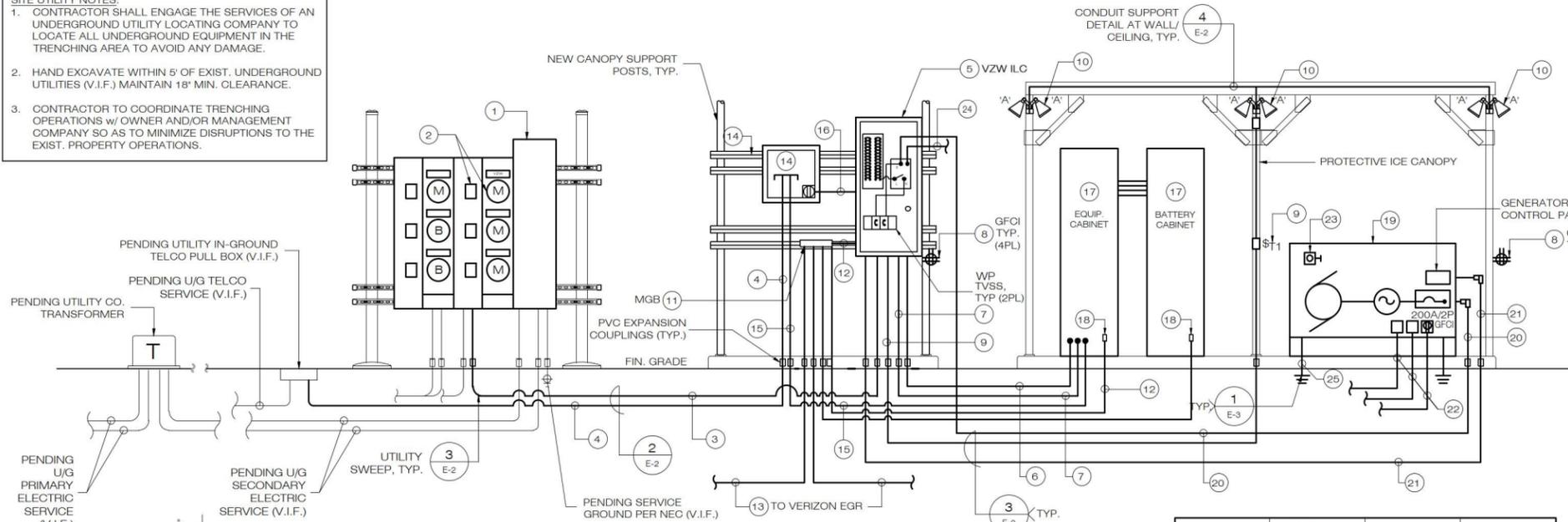
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CHESHIRE EAST CT
 SITE 185 ACADEMY ROAD
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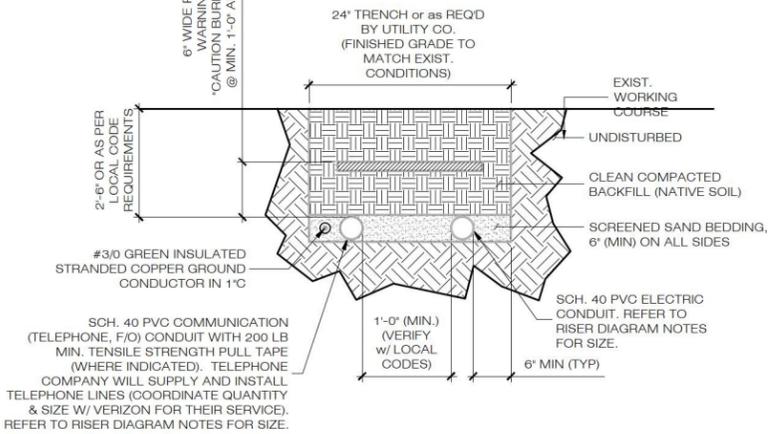
SHEET TITLE:
ELECTRICAL PLAN SCHEDULES & NOTES

SHEET NUMBER:
E-1

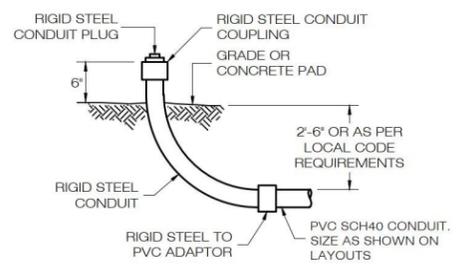
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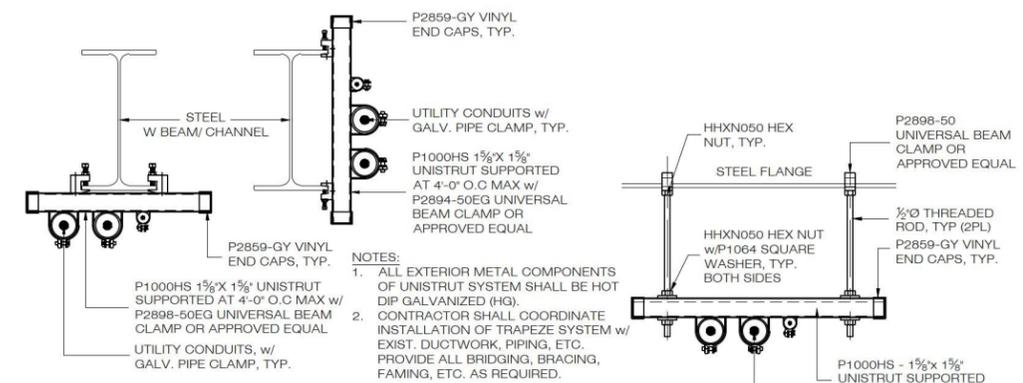
1 SCHEMATIC ONE-LINE RISER DIAGRAM
E-2 SCALE: N.T.S.



2 UTILITY TRENCH DETAIL
E-2 SCALE: N.T.S.



3 UTILITY SWEEP
E-2 SCALE: N.T.S.



4 UTILITY CONDUIT SUPPORT DETAILS
E-2

- STRUT ATTACHMENT NOTES:**
- EXIST. CMU WALL (HOLLOW & GROUT-FILLED)**
FASTEN TO CMU w/ 3/8" DIA. SS HILTI HLC-HX 3/8"x1-7/8" HLC SLEEVE ANCHORS (MIN. 2 PER UNI-STRUT)
- MIN. EMBED: 1 1/2"
- MIN. SPACING: 8"
- MIN. EDGE DISTANCE: 12"
 - CONCRETE WALL/CEILING**
UNI-STRUT ANCHORED TO WALL/CEILING w/ 1/2" DIA. SS HAS-E ROD (MIN. 2 UNI-STRUT) w/ HILTI HY200 EPOXY ADHESIVE
- MIN. EMBED: 2 3/4"
- MIN. SPACING: 6"
- MIN. EDGE DISTANCE: 8"
 - BRICK MASONRY WALL/CEILING**
UNI-STRUT ANCHORED TO WALL w/ 1/2" Ø SS HAS-E THREADED ROD w/ HILTI HY270 EPOXY ADHESIVE (MIN. 2 PER BRACKET) w/ LOCK WASHERS AND NUTS.
- MIN. 3/8" EMBED.
- MIN. SPACING: 16" (VERT & HORZ.)
- MIN. EDGE DISTANCE: 16"
 - WD. JOIST CEILING**
UNI-STRUT ANCHORED TO U/S OF EXIST. WD. JOIST @ 8'-0" O.C. MAX w/ #10X 1 1/2" L.G. SIMPSON SD CONNECTOR SCREWS w/ FLAT WASHERS (MODEL NO. SD10112), TYP. 2 PER STRUT.
1. USE STAINLESS STEEL ANCHORS INTO CONCRETE.
2. USE CARBON STEEL ANCHORS INTO BRICK OR MASONRY.
3. INSTALL ALL ANCHORS PER MANUFACTURERS RECOMMENDATIONS.

GENERATOR ALARM #	GENERATOR ALARM DESCR	VERIZON ALARM DESCR	VERIZON ALARM #
1	FAULT	GENERATOR FAILURE	USERALARM5
3	LOW FUEL	GENERATOR LOW FUEL	USERALARM6
4	GENERATOR RUNNING	GENERATOR RUNNING	USERALARM7
N/A	N/A	AC POWER FAILURE	USERALARM27

5 ALARM SCHEDULE
E-2 SCALE: N.T.S.

ELECTRICAL ONE-LINE RISER KEY NOTES:

- PENDING 1Ø, 3W, 120/240V, 2P-800A, 65,000 AIC MAIN CIRCUIT BREAKER & (2) 1Ø, 3W, 120/240V, 1200A RATED METER CENTER BRANCH UNITS w/ LEVER BYPASS SOCKETS (V.I.F.).
NEW 120/240V, 1Ø, 3W KWH MANUAL BY-PASS METER SCHNEIDER ELECTRIC (OR EQUAL) W/200A, 2P TENANT CIRCUIT BREAKER COORDINATE INSTALLATION AND ACTIVATION OF METER WITH UTILITY COMPANY. REFER TO 1/E-1 FOR LOCATION. VERIFY LOCATION OF METER WITH UTILITY COMPANY AND LOCAL ELECTRICAL INSPECTOR. METER SOCKET SHALL BE CLEARLY LABELED "CARRIER NAME" SERVICE ENTRANCE, 200A, 120/240V, 1Ø, 3W."
 - (3)#3/0 & (1)#6 G IN 2" C TO SUPPORT 200A, 120/240V, 1Ø, 3W NORMAL POWER SERVICE FROM LOAD SIDE OF VERIZON COMBINATION METER SOCKET TO NORMAL TERMINAL OF VERIZON ILC.
 - NEW VERIZON 24 PAIR SINGLE MODE FIBER SERVICE IN 3" C WITH PULL ROPE ROUTED UNDERGROUND FROM TELCO DEMARC TO NEW HOFFMAN BOX AND FIBER TERMINATION PANEL (FTP) LOCATED AT VERIZON EQUIPMENT AREA. PROVIDE JUNCTION BOXES) AND EXPANSION COUPLINGS AS REQUIRED. FINAL TERMINATION BY OTHERS. COORDINATE INSTALLATION WITH LOCAL UTILITY COMPANY AND AUTHORITY HAVING JURISDICTION (AHJ).
 - NEW VERIZON 120/240V, 1 PH, 3W, NEMA 3R INTEGRATED LOAD CENTER W/ 200A-2P MAIN CIRCUIT BREAKER (MCB), AUTOMATIC TRANSFER SWITCH AND DOUBLE TVSS. REFER TO E-1 FOR SPECIFICATIONS. CONTRACTOR SHALL PROVIDE TYPE WRITTEN CARD WITH AS-BUILT BRANCH CIRCUITING AND PROVIDE ONE COPY FOR VERIZON CONSTRUCTION MANAGER AND FURNISH SECOND COPY WITH ILC. PROVIDE LABEL ON FRONT OF PANEL WITH BLACK LETTERS ON WHITE BACKGROUND MARKED "VERIZON". MOUNT VERIZON LOAD CENTER BETWEEN EQUIPMENT SUPPORT POSTS ON P1001C GALV. UNISTRUT AND INSTALL PROTECTIVE VINYL END CAPS.
 - (16) #6 AWG, (1) #8G IN 2" C TO FEED NEW EQUIPMENT CABINET. INSTALL ALL WIRING PER MANUFACTURERS SPECIFICATIONS.
 - (2) #12 & (1) #12G IN 3/4" C TO FEED NEW EQUIPMENT CABINET 20A/120V GFCI OUTLET.
 - (2) #12 & (1) #12G IN 3/4" C TO FEED NEW 20A/120V GFCI OUTLET (NEMA 5-20R) IN NEMA 3R ENCLOSURE LOCATED AT VERIZON CORNER CANOPY POSTS. INSTALL APPROX. 48" A.F.G. REFER TO EQUIPMENT LEGEND ON DRAWING E-1 FOR SPECIFICATIONS AND 2/E-1 FOR LOCATION.
 - (2) #12 & (1) #12G IN 3/4" C TO FEED NEW 20A/120V 12 HR TIMER SWITCH IN NEMA 3R ENCLOSURE LOCATED. INSTALL APPROX. 48" A.F.G. REFER TO EQUIPMENT LEGEND ON DRAWING E-1 FOR SPECIFICATIONS AND E-1 FOR LOCATION.
 - NEW SERVICE LIGHT FIXTURE. SECURE LIGHT FIXTURE TO J-BOX. REFER TO LIGHTING FIXTURE SCHEDULE ON DRAWING E-1 FOR SPECIFICATIONS AND E-1 FOR LOCATION. WIRE SWITCH TO CONTROL ALL LIGHTS SIMULTANEOUSLY (TYP.)
 - MAIN GROUND BAR (MGB). REFER TO E-3 FOR LOCATION AND E-4 FOR DETAILS.
 - PROVIDE #6 AWG GREEN INSULATED STRANDED COPPER WIRE IN 1" C AND GROUND VERIZON LOAD CENTER TO MAIN GROUND BAR (MGB). REFER TO DRAWING E-3 FOR LOCATION AND GROUNDING NOTES.
 - PROVIDE #3/0 AWG GREEN INSULATED STRANDED COPPER WIRE (EGR) IN 1" C TO EGR (TYP. 2PL). BOND METALLIC CONDUIT WITH #6 AWG GREEN INSULATED STRANDED COPPER WIRE AT BOTH ENDS. REFER TO 2/E-1 LOCATION.
 - 3' x 3' x 1' NEMA-3R HOFFMAN BOX W/ HINGED COVER, LOCKABLE CLASP. 3/4" MARINE GRADE PLYWOOD BACKBOARD PAINTED WITH BLACK FIRE RETARDANT INTUMESCENT PAINT MOUNTED INSIDE AND (1) DUPLEX GFCI LOCATED INSIDE ON BOTTOM RIGHT HAND CORNER. MOUNT HOFFMAN BOX BETWEEN EQUIPMENT CANOPY POSTS ON P1001C GALV. UNISTRUT AND INSTALL PROTECTIVE VINYL END CAPS.
 - FIBER TELCO SERVICE ROUTED WITHIN 2" FROM TELCO HOFFMAN BOX TO EQUIPMENT CABINET. FINAL TERMINATION BY OTHERS. PROVIDE JUNCTION BOX(ES) WHERE REQUIRED.
 - (2)#12 & (1) #12G IN 3/4" C TO FEED NEW 20A/120V GFCI OUTLET (NEMA 5-20R) IN NEMA 3R ENCLOSURE LOCATED WITHIN VERIZON HOFFMAN BOX. INSTALL APPROX. 48" A.F.G. REFER TO E-1 FOR LOCATION.
 - VERIZON WIRELESS COMMSCOPE EQUIPMENT & BATTERY CABINETS. COORDINATE INSTALLATION WITH VERIZON CONSTRUCTION MANAGER
 - BOND EQUIPMENT & BATTERY CABINET TO MAIN GROUND BAR (MGB) PER EQUIPMENT CABINET MANUFACTURER SPECIFICATIONS. MIN #2 AWG GREEN INSULATED STRANDED COPPER WIRE. INSTALL CABINET INTERNAL GROUNDING PER MANUFACTURERS SPECIFICATIONS.
 - NEW VERIZON KOHLER CO. 50kW PROPANE EMERGENCY STANDBY POWER GENERATOR KOHLER MODEL#ADV-8967, 120/240V, 1Ø, 3W, 60 HZ. REFER TO GENERATOR MANUFACTURER FOR INSTALLATION REQUIREMENTS. PROVIDE RODENT SCREEN AT UNDERSIDE OF GENERATOR. COORDINATE WITH GENERATOR MANF.
 - (3) #3/0 & (1) #6G IN 2" C TO SUPPORT 200A, 120/240V, 1Ø, 3W SERVICE FROM VERIZON GENERATOR TO EMERGENCY TERMINAL LUGS OF ATS
 - (2) #12AWG (FOR GENERATOR START SIGNAL) IN 1" C BETWEEN GENERATOR CONTROL PANEL AND ATS CONTROL. REFER TO MANUFACTURERS INSTRUCTION MANUAL FOR ENGINE CONTROL AND MONITORING CIRCUITS WIRING AND TERMINATION REQUIREMENTS.
 - PROVIDE (3) BRANCH CIRCUIT FEEDS FOR: BLOCK HEATER, WEATHER RESISTANT DUPLEX GFCI OUTLET (NEMA 5-20R) & ENCLOSURE (NEMA 3R) & BATTERY CHARGER. PROVIDE (6) #12 & (1) #12G IN 1" C TO ILC. SUPPLY FROM (3) 20A/1P CIRCUIT BREAKERS COMPATIBLE WITH ILC.
 - PROVIDE 3/2" C AND CONDUCTORS TO SUPPORT REMOTE GENERATOR SHUT-OFF SWITCH WITH BREAK GLASS ENCLOSURE IN PROXIMITY TO GENERATOR. COORDINATE FINAL LOCATION WITH LOCAL FIRE MARSHALL. INSTALL ALL REQUIRED SIGNAGE.
 - PROVIDE 3/4" C FOR ALARM WIRES ROUTED TO TELCO BOARD ALARM TERMINAL BLOCK.
 - GROUND GENERATOR PER NEC REQUIREMENTS.
- (GENERAL) USE GRC FOR ALL EXTERIOR APPLICATIONS, INCLUDING SWEEPS.
(GENERAL) COORDINATE ALL OUTAGES WITH OWNER AND PROVIDE TEMPORARY POWER AS REQUIRED.
(GENERAL) PAINT ALL EXPOSED EXTERIOR CONDUITS TO MATCH EXTERIOR OF EXIST. BUILDING (WHERE APPLICABLE).
(GENERAL) CONTRACTOR SHALL VERIFY THAT ALL BUILDING/ STRUCTURE GROUNDING ELECTRODES ARE BONDED WITH APPROPRIATELY SIZED CONDUCTORS PER NEC.
(GENERAL) ALL ENTRY HOLE(S) TO BE SEALED WATER TIGHT (WHERE APPLICABLE).

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STATE OF CONNECTICUT
MICHAEL TRODDEN
33313
LICENSED PROFESSIONAL ENGINEER

DESIGN PROFESSIONALS OF RECORD
PROF: MICHAEL S. TRODDEN P.E.
COMP: ALL-POINTS TECHNOLOGY CORPORATION, P.C.
ADD: 567 VAUXHALL STREET EXT. SUITE 311 WATERFORD, CT 06385

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DATE: 10/05/22 **CHECKED BY:** JRM
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VZW LOCATION CODE: 470656
VZW FUZE ID: 15372347

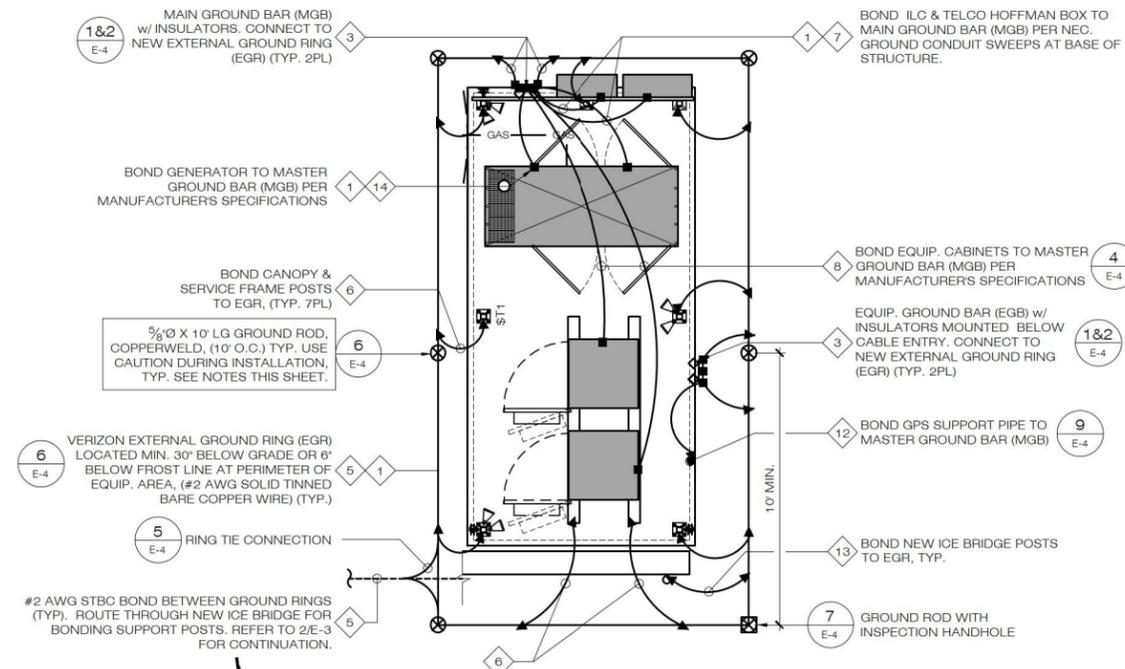
SHEET TITLE:
SCHEMATIC ONE-LINE RISER DIAGRAM, DETAILS & NOTES
SHEET NUMBER:
E-2

TYPICAL GROUNDING NOTES

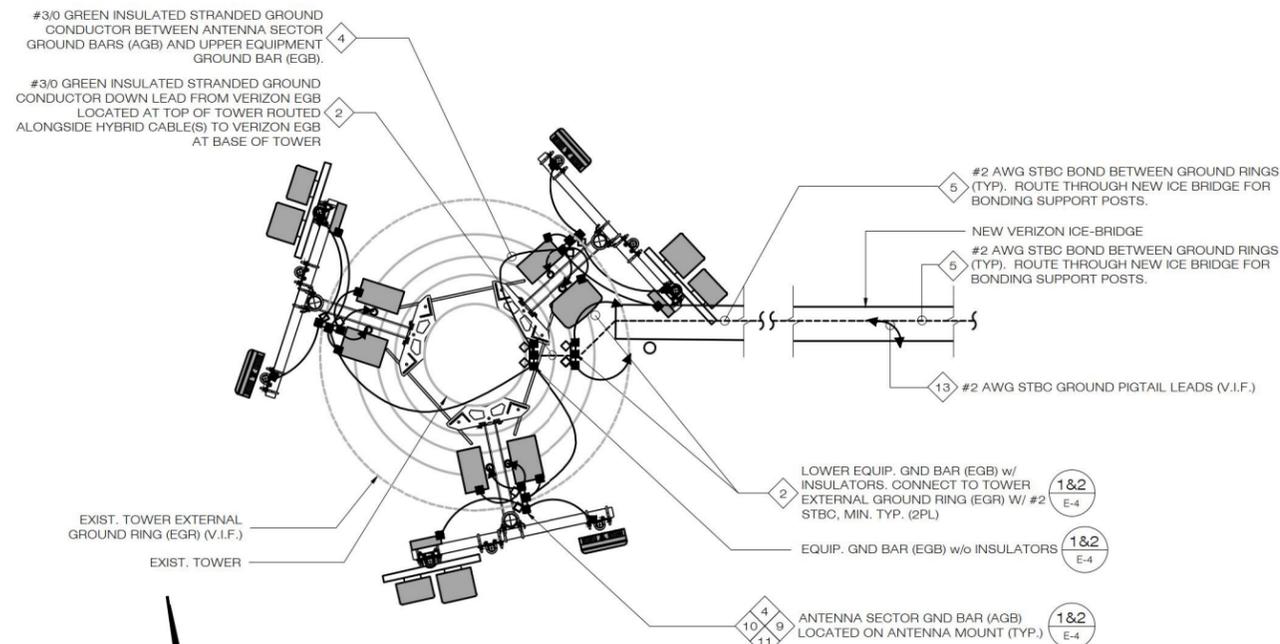
- 1 GROUND PER NEC (NFPA-70), NESC AND MANUFACTURERS SPECIFICATIONS
- 2 #3/0 GREEN INSULATED STRANDED COPPER DOWN LEAD BETWEEN UPPER EQUIPMENT GROUND BAR AND LOWER EQUIPMENT GROUND BAR (EGB) AT BASE OF STRUCTURE. ROUTE GROUND ALONGSIDE HYBRID CABLES. COORDINATE W/ VERIZON CONSTRUCTION MANAGER AND OWNER.
- 3 BOND VERIZON MAIN GROUND BAR (MGB) TO NEW EXTERIOR GROUND RING (EGR) W/ #3/0 AWG GREEN INSULATED STRANDED COPPER WIRE (EGR) IN 1" LTFC., TYP (2PL). REFER TO E-4 FOR DETAILS.
- 4 #3/0 GREEN INSULATED STRANDED COPPER DOWN LEAD WITHIN 1'0" BETWEEN ANTENNA SECTOR GROUND BAR & UPPER EQUIPMENT GROUND BAR (EGB). REFER TO E-4 FOR DETAILS.
- 5 #2 AWG SOLID TINNED BARE COPPER WIRE (STBC) EXTERNAL GROUND RING (EGR) AT PERIMETER OF EQUIP. AREA & BETWEEN GROUND RINGS LOCATED MIN. 30" BELOW GRADE OR 6" BELOW FROST LINE, TYP.
- 6 BOND CANOPY POSTS, STEEL SERVICE FRAME POSTS & STEEL DUNNAGE FRAME (WHERE APPLICABLE) TO VERIZON EXTERIOR GROUND RING (EGR) W/ #2 AWG SOLID TINNED BARE COPPER WIRE (STBC) IN 1" LTFC.
- 7 BOND VERIZON INTEGRATED LOAD CENTER & TELCO HOFFMAN BOX TO EQUIPMENT GROUND BAR (EGB) W/ #6 AWG GREEN INSULATED STRANDED COPPER WIRE.
- 8 BOND VERIZON WIRELESS EQUIPMENT & BATTERY CABINETS TO VERIZON EQUIPMENT BAR (EGB) WITH #2 AWG GREEN INSULATED STRANDED COPPER WIRE PER MANUFACTURERS SPECIFICATIONS.
- 9 BOND HYBRID/COAXIAL CABLES TO ANTENNA SECTOR GROUND BARS & EQUIPMENT GROUND BAR (EGB) AT CANOPY W/ #6 AWG GREEN INSULATED STRANDED COPPER WIRE.
- 10 GROUND RRHS, QUAD DIPLEXERS & OVP TO ANTENNA GROUND BAR W/ #6 AWG GREEN INSULATED STRANDED COPPER WIRE PER MANUFACTURERS RECOMMENDATIONS.
- 11 BOND ANTENNA MOUNTING PIPE, ANTENNA MOUNTING BRACKETS & FRAMES TO ANTENNA GROUND BAR W/ #2 AWG GREEN INSULATED COPPER WIRE.
- 12 BOND GPS ANTENNA MOUNTING MAST (AS APPLICABLE) TO MAIN GROUND BAR W/ #2 AWG GREEN INSULATED COPPER WIRE.
- 13 BOND ALL ICE-BRIDGE POSTS TO EXTERNAL GROUND RING (EGR) WITH #2 SOLID TINNED WIRE.
- 14 BOND NEW GENERATOR PER MFR AND NEC REQUIREMENTS, TYP.

GROUNDING GENERAL NOTES:

1. ALL SURGE SUPPRESSION DEVICES (WHERE APPLICABLE) SHALL BE BONDED TO EQUIPMENT GROUND BAR (EGB) PER MANUFACTURERS SPECIFICATIONS.
2. ALL IN-GROUND RINGS, RADIALS, AND BONDING CONDUCTORS SHALL BE #2 AWG SOLID BARE TINNED COPPER (SBTC) ALL AT SAME 30 IN. DEPTH OR 6 IN. BELOW FROST LINE WHICHEVER IS GREATER.
3. ALL GROUND RINGS SHALL BE MIN 2 FT FROM FOUNDATION BEING ENCIRCLED.
4. COMBINE IN-GROUND RINGS, RADIALS, AND BONDING CONDUCTORS INTO SINGLE CONDUCTOR FOR ALL PORTIONS PARALLEL 2 FT APART OR CLOSER.
5. UNLESS NOTED OTHERWISE, ALL ABOVE GROUND CONDUCTORS SHALL BE MIN #6 AWG INSULATED STRANDED COPPER.
6. CONDUCTORS BONDING ABOVE-GROUND CONNECTIONS TO IN-GROUND CONNECTIONS SHALL BE MIN #2 AWG SBTC UNLESS NOTED OTHERWISE AND SHALL BE PROTECTED BY LIQUIDTIGHT FLEXIBLE NONMETALLIC CONDUIT FOR ALL PORTIONS ABOVE GROUND.
7. REFER TO GROUNDING NOTES & SPECIFICATIONS ON SHEET N-1 FOR MORE INFORMATION.



1 EQUIPMENT GROUNDING PLAN
E-3 SCALE: N.T.S.



2 ANTENNA GROUNDING PLAN
E-3 SCALE: N.T.S.

GROUNDING LEGEND	
SYMBOL	DESCRIPTION
▶	EXOTHERMIC WELD
■	MECHANICAL CONNECTION
⊗	GROUND ROD
---	GROUND CONDUCTOR
---⊗---	GROUND ROD w/ INSPECTION HAND HOLE

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DRAWN BY: DRA

DATE: 10/05/22 CHECKED BY: JRM

VZW PROJECT CODE: 20171649710

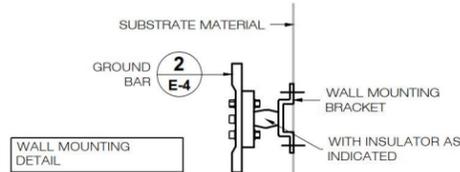
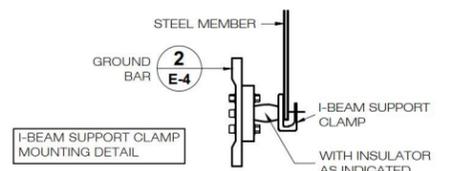
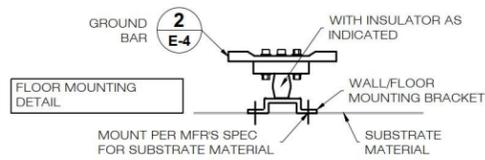
VZW LOCATION CODE: 470656

VZW FUZE ID: 15372347

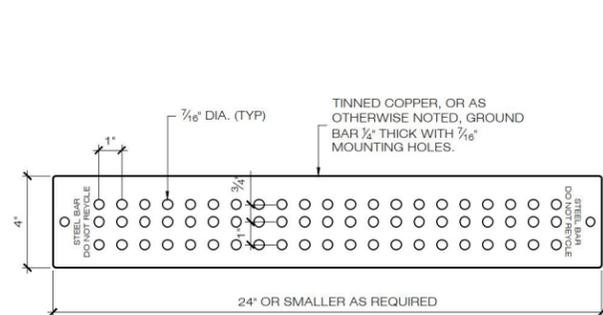
SHEET TITLE:
EQUIPMENT GROUNDING PLANS & NOTES

SHEET NUMBER:

E-3

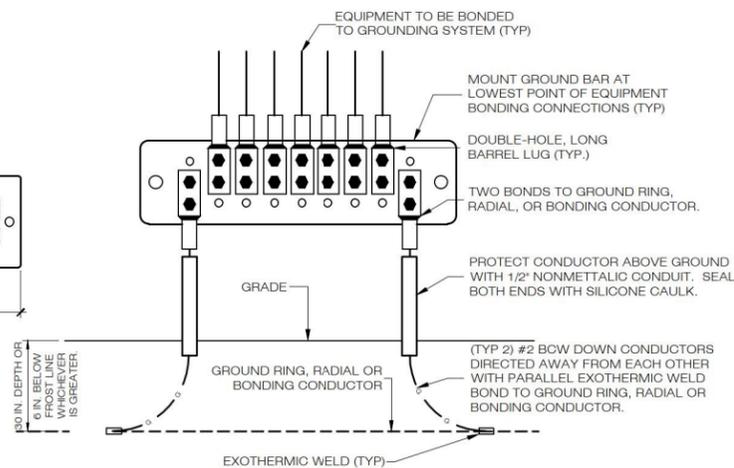


1 GROUND BAR MOUNTING DETAILS
E-4 SCALE: NTS

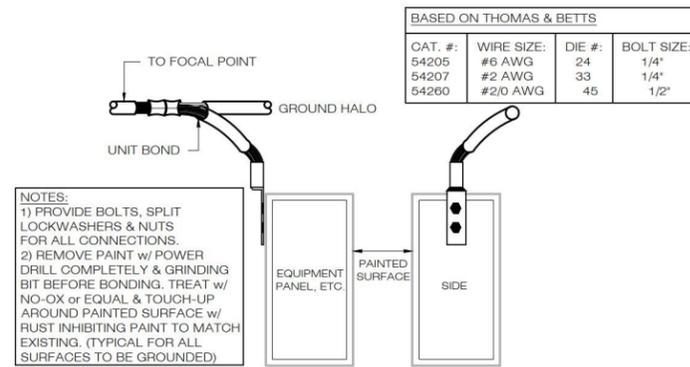


2 GROUND BARS
E-4 SCALE: N.T.S.

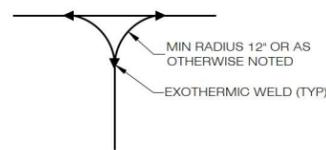
- NOTES:
1. NO EXOTHERMIC WELDS TO GROUND BAR. ATTACH CONDUCTORS WITH (2) HOLE COPPER COMPRESSION TERMINATIONS AND ALL STAINLESS STEEL HARDWARE
 2. DOUBLE UP CONNECTIONS ON BACKSIDE OF GROUND BAR ONLY AS NECESSARY.
 3. OXIDE INHIBITING COMPOUND TO BE USED AT ALL LOCATIONS.
 4. ALL STAINLESS STEEL MOUNTING HARDWARE.



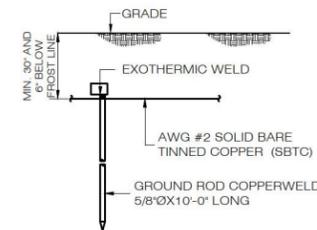
3 GROUND BAR CONNECTION DETAIL
E-4 SCALE: NTS



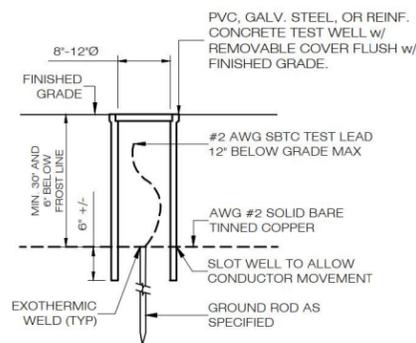
4 (2) HOLE LUG BONDS
E-4 SCALE: N.T.S.



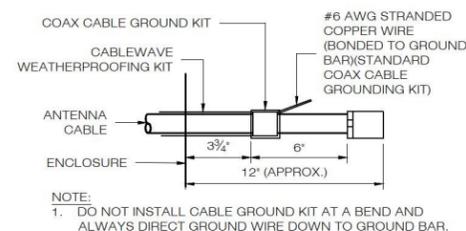
5 TIE CONNECTION DETAIL
E-4 SCALE: NTS



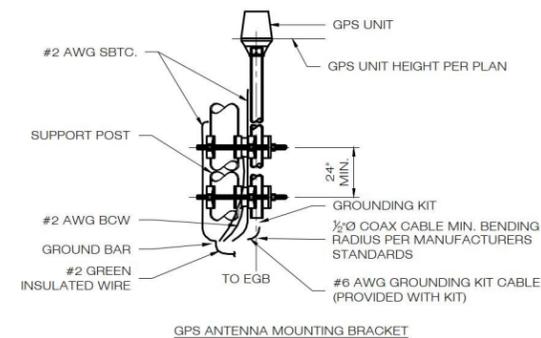
6 GROUND ROD DETAIL
E-4 SCALE: N.T.S.



7 TEST WELL DETAIL
E-4 SCALE: NTS



8 ANTENNA CABLE GROUNDING DETAIL
E-4 SCALE: N.T.S.



9 GPS AND MOUNTING BRACKET GROUNDING DETAIL
E-4 SCALE: N.T.S.

Cellco Partnership d/b/a

verizon

20 ALEXANDER DRIVE
WALLINGFORD, CT 06492

ALL-POINTS TECHNOLOGY CORPORATION

567 VAUXHALL STREET EXTENSION - SUITE 311
WATERFORD, CT 06385 PHONE: (860)-663-1697
WWW.ALLPOINTS TECH.COM FAX: (860)-663-0935

CONSTRUCTION DOCUMENTS

NO	DATE	REVISION
0	10/05/22	FOR REVIEW: JRM
1	10/31/22	REVISED: JRM
2	02/06/23	REVISED LAYOUT: JRM
3	03/22/23	REVISED RRHS: JRM
4		
5		
6		



DESIGN PROFESSIONALS OF RECORD

PROF: MICHAEL S. TRODDEN P.E.
COMP: ALL-POINTS TECHNOLOGY CORPORATION, P.C.
ADD: 567 VAUXHALL STREET EXT. SUITE 311 WATERFORD, CT 06385

OWNER: CHESHIRE UNITED METHODIST CHURCH
ADDRESS: 185 ACADEMY ROAD CHESHIRE, CT 06410

CHESHIRE EAST CT

SITE: 185 ACADEMY ROAD
ADDRESS: CHESHIRE, CT 06410

APT FILING NUMBER: CT141NB9650

DRAWN BY: DRA

DATE: 10/05/22 CHECKED BY: JRM

VZW PROJECT CODE: 20171649710

VZW LOCATION CODE: 470656

VZW FUZE ID: 15372347

SHEET TITLE:

GROUNDING DETAILS

SHEET NUMBER:

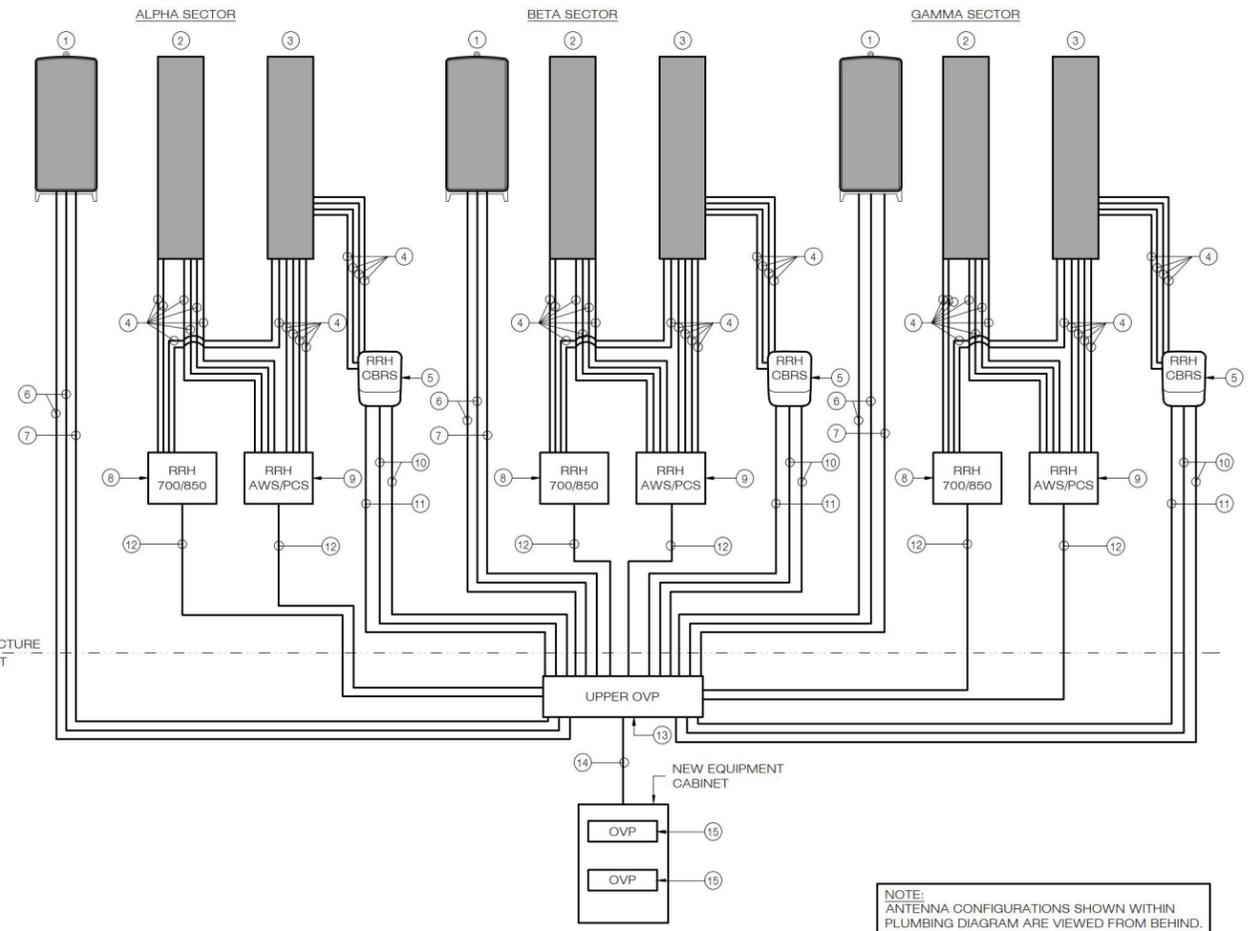
E-4

EQUIPMENT DATA								
EQUIPMENT SPECIFICATIONS								
SECTOR	ANTENNA MAKE/MODEL	QTY	AZIMUTH	EQUIPMENT STATUS	HEIGHT (IN)	WIDTH (IN)	DEPTH (IN)	WEIGHT (LBS)
ALPHA	SAMSUNG MT6407-77A	1	60°	NEW	35.1 ⁽¹⁾	16.1 ⁽²⁾	5.5 ⁽²⁾	87.1 ⁽²⁾⁽³⁾
	700/850/2100: JMA MX06FIT665-02	1	60°	NEW	71.3	12.2	10.7	51.0 ⁽²⁾
	700/850/1900/2100: JMA MX10FIT665-02	1	60°	NEW	70.9	12.2	7.5	53.4 ⁽²⁾
BETA	SAMSUNG MT6407-77A	1	180°	NEW	35.1 ⁽¹⁾	16.1 ⁽²⁾	5.5 ⁽²⁾	87.1 ⁽²⁾⁽³⁾
	700/850/2100: JMA MX06FIT665-02	1	180°	NEW	71.3	12.2	10.7	51.0 ⁽²⁾
	700/850/1900/2100: JMA MX10FIT665-02	1	180°	NEW	70.9	12.2	7.5	53.4 ⁽²⁾
GAMMA	SAMSUNG MT6407-77A	1	300°	NEW	35.1 ⁽¹⁾	16.1 ⁽²⁾	5.5 ⁽²⁾	87.1 ⁽²⁾⁽³⁾
	700/850/2100: JMA MX06FIT665-02	1	300°	NEW	71.3	12.2	10.7	51.0 ⁽²⁾
	700/850/1900/2100: JMA MX10FIT665-02	1	300°	NEW	70.9	12.2	7.5	53.4 ⁽²⁾
APPURTENANCE MAKE/MODEL								
	SAMSUNG B2/B66A ORAN RRH (RF4439d-25A)	3	-	NEW	15.0	15.0	10.1	74.7
	SAMSUNG B5/B13 ORAN RRH (RF4440d-13A)	3	-	NEW	15.0	15.0	9.1	70.3
	SAMSUNG CBRS RT4401-48 RRH	3	-	NEW	10.6	8.9	3.0	11.0
	RAYCAP RVZDC-6627-PF-48	1	-	NEW	29.5	16.5	12.6	32.0

(1) WEIGHT WITHOUT MOUNTING BRACKET.
(2) ANTENNA DATA BASED ON LATEST VERIZON RFDS.
(3) EQUIPMENT CONFIGURATION AS VIEWED FROM BEHIND.

BILL OF MATERIALS				
	EQUIPMENT DESCRIPTION	QUANTITY	LENGTH	COMMENTS
①	LS6 ANTENNA w/ INTEGRATED RRH	3		(SAMSUNG MT6407-77A)
②	700/850/2100	3		(JMA MX06FIT665-02)
③	700/850/1900/CBRS	3		(JMA MX10FIT665-02)
④	1/2" JUMPER CABLE	48	15 FT	ROUTED FROM RRHS TO ANTENNAS
⑤	CBRS RRH	3		SAMSUNG CBRS RT4401-48A MOUNTED TO NEW ANTENNA MOUNT
⑥	ANTENNA LINK CABLES	6	15 M	ROUTE FROM UPPER OVP TO LS6 ANTENNA
⑦	ANTENNA POWER CABLES	3	15 M	PROPRIETARY POWER CABLE FROM EXIST. OVP TO LS6 ANTENNA
⑧	850/700 DUAL BAND RRH	3		SAMSUNG B5/B13 RRH (RF4440d-13A) MOUNTED TO NEW ANTENNA MOUNT
⑨	PCS/AWS DUAL BAND RRH	3		SAMSUNG B2/B66 RRH (RF4439d-25A) MOUNTED TO NEW ANTENNA MOUNT
⑩	CPRI CABLES	6	25 FT	ROUTE FROM UPPER OVP TO RRH
⑪	10 AWG x2 DC POWER CABLE	3	25 FT	PROPRIETARY POWER CABLE FROM UPPER OVP TO RRH
⑫	RRH CABLES	6	15M	PROPRIETARY POWER & FIBER CABLES
⑬	UPPER 12OVP	1		(RVZDC-6627-PF-48) MOUNTED TO NEW ANTENNA MOUNT
⑭	HYBRID CABLE	1	130± FT	12x24 LOW INDUCTANCE (L.I.) HYBRID FEED-LINE CABLE ROUTED FROM LOWER OVP(S) TO UPPER OVP
⑮	LOWER 6OVP	2		(6 OVP) RACK MOUNTED IN NEW EQUIPMENT CABINET

NOTES: 1. INFORMATION SHOWN HEREON IS FOR USE BY VERIZON EQUIPMENT OPERATIONS.
2. INFORMATION IS BASED ON LATEST VERIZON RFDS.
3. * DENOTES EQUIPMENT DESIGNATED "FOR LEASING ONLY" (WHERE APPLICABLE)
4. INSTALL ALARM BOARDS AT ALL OVPs WHERE REQUIRED. COORDINATE w/ VERIZON EQUIPMENT ENGINEERING.
5. INSTALL UP-CONVERTER(S) LOCATED AT BASE OVPs WHERE REQUIRED. COORDINATE w/ VERIZON EQUIPMENT ENGINEERING AS NECESSARY.
6. COORDINATE ANTENNA CABLING REQUIREMENTS WITH VERIZON ENGINEERING.
7. CONTRACTOR SHALL INSTALL NEW SIDE-BY-SIDE & DUAL-MOUNT BRACKETS PER ANTENNA MOUNT MANUFACTURER RECOMMENDATIONS, INCLUDING VERIFICATION OF MINIMUM PIPE MAST DIAMETER REQUIRED TO INSTALL NEW MOUNT BRACKETS. CONTRACTOR SHALL NOTIFY ENGINEER OF RECORD SHOULD EXIST. PIPE MAST REQUIRE REPLACEMENT TO SUPPORT THE NEW MOUNT BRACKETS.



UPPER SUPPORTING STRUCTURE
VERIZON BASE EQUIPMENT

NOTE:
ANTENNA CONFIGURATIONS SHOWN WITHIN
PLUMBING DIAGRAM ARE VIEWED FROM BEHIND.

1 PLUMBING DIAGRAM
SCALE: N.T.S.

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VZW LOCATION CODE: 470656
VZW FUZE ID: 15372347

SHEET TITLE:
RF BILL OF MATERIALS & EQUIPMENT SPECIFICATIONS

SHEET NUMBER:
B-1

