

INDUSTRIAL AVE,
SITE 3
AHWAH NJ 07430
PHONE: 201.684.0055
FAX: 201.684.0066



October 8, 2021

Members of the Siting Council
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

RE: Notice of Exempt Modification
Wildcat Hill Road, Harwinton, CT 06791
Latitude: 41° - 45' - 24.9"
Longitude: -73° - 05' - 42.87"
T-Mobile Site#: CT11358A - Hardening

Dear Ms. Bachman:

T-Mobile currently maintains six (6) antennas at the 96-foot level of the existing 100-foot guyed tower at Wildcat Hill Road in Harwinton, CT. The 100-foot guyed tower is owned and operated by Everest Infrastructure Partners. The property is owned by Southern New England Telephone Company. T-Mobile now intends to add a 48Kw generator to a proposed 10'x4' concrete pad within the existing compound.

Planned Modifications:

Ground:

Install New:

- (1) Generac RD048 48 Kw AC Diesel Generator - 240 gallon double walled self-contained tank with fuel sensor. Requires (2) 12-minute run cycles by-weekly.
- (1) 10' x 4' Concrete Pad

This facility was approved by the Siting Council on February 23, 1982 in Petition No. 79. The proposed modification complies with the original approval.

Please accept this letter as notification pursuant to Regulations of Connecticut State Agencies § 16- SOj-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b)(2). In accordance with R.C.S.A. § 16-SOj-73, a copy of this letter is being sent to First Selectman Michael Criss, Elected Official, and Polly Redmond, Land Use Coordinator, as well as the tower and property owner.

The planned modifications to the facility fall squarely within those activities explicitly provided for in R.C.S.A. § 16-50j-72(b)(2).

1. The proposed modifications will not result in an increase in the height of the existing structure.
2. The proposed modifications will not require the extension of the site boundary.
3. The proposed modifications will not increase noise levels at the facility by six decibels or more, or to levels that exceed state and local criteria.
4. The operation of the replacement antennas will not increase radio frequency emissions at the facility to a level at or above the Federal Communications Commission safety standard.
5. The proposed modifications will not cause a change or alteration in the physical or environmental characteristics of the site.
6. The existing structure and its foundation can support the proposed loading.

For the foregoing reasons, T-Mobile respectfully submits that the proposed modifications to the above referenced telecommunications facility constitute an exempt modification under R.C.S.A. § 16-50j-72(b)(2).

Sincerely,

Eric Breun

Transcend Wireless

Cell: 201-658-7728

Email: ebreun@transcendwireless.com

Attachments

cc: Michael Criss - First Selectman of Harwinton

Polly Redmond - Land Use Coordinator

Everest Infrastructure Partners - Tower Owner

Southern New England Telephone Company - Property Owner

ERIC BREUN
2016587728
10 INDUSTRIAL AVE
MAHWAH NJ 07430

1 LBS

1 OF 1

SHIP TO:
MICHAEL CRISS
100 BENTLEY DRIVE
HARWINTON CT 06791

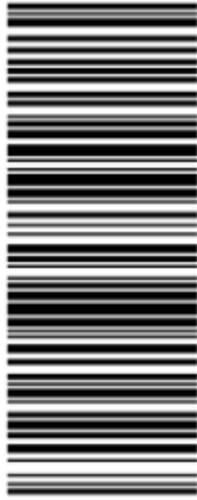


CT 067 9-02



UPS GROUND

TRACKING #: 1Z V25 742 03 9981 5731



BILLING: P/P

Reference #1: CT11358A

XOL 21.09.12 NV45-41.0A 10/2021*



TM

ERIC BREUN
2016587728
10 INDUSTRIAL AVE
MAHWAH NJ 07430

1 LBS

1 OF 1

SHIP TO:
POLLY REDMOND
100 BENTLEY DRIVE
HARWINTON CT 06791



CT 067 9-02



UPS GROUND

TRACKING #: 1Z V25 742 03 9834 5723



BILLING: P/P

Reference #1: CT11358A

XOL 21.09.12 NV45-41.0A 10/2021*



TM

ERIC BREJUN
2016587728
10 INDUSTRIAL AVE
MAHWAH NJ 07430

1 LBS

1 OF 1

SHIP TO:
MARIANNA BROWN
EVEREST INFRASTRUCTURE PARTNERS
#2
108 MYRTLE STREET
SOUTH WALTHAM MA 02453

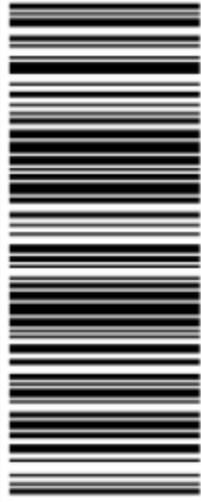


MA 021 9-01



UPS GROUND

TRACKING #: 1Z V25 742 03 9099 2806



BILLING: P/P

Reference #1: CT11358A

XOL 21.09.12 NV45-41.0A 10/2021*



TM

ERIC BREJUN
2016587728
10 INDUSTRIAL AVE
MAHWAH NJ 07430

1 LBS

1 OF 1

SHIP TO:
SOUTHERN NE TELEPHONE CO.
401 MERRITT 7
NORWALK CT 06851

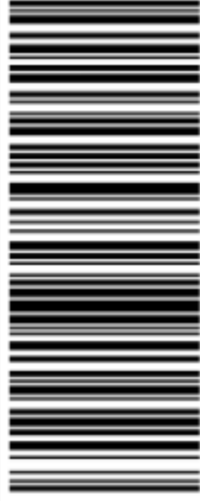


CT 069 9-04



UPS GROUND

TRACKING #: 1Z V25 742 03 9630 5743



BILLING: P/P

Reference #1: CT11358A

XOL 21.09.12 NV45-41.0A 10/2021*



TM

Hello, your package has been delivered.

Delivery Date: Wednesday, 10/06/2021

Delivery Time: 1:21 PM

Left At: FRONT DESK

Signed by: LOCKBOX

TRANSCEND WIRELESS

Tracking Number: [1ZV257420398345723](#)

Ship To: POLLY REDMOND
100 BENTLEY DRIVE
HARWINTON, CT 06791
US

Number of Packages: 1

UPS Service: UPS Ground

Package Weight: 1.0 LBS

Reference Number: [CT11358A](#)

Hello, your package has been delivered.

Delivery Date: Wednesday, 10/06/2021

Delivery Time: 1:21 PM

Left At: FRONT DESK

Signed by: LOCKBOX

TRANSCEND WIRELESS

Tracking Number: [1ZV257420399815731](#)

Ship To: MICHAEL CRISS
100 BENTLEY DRIVE
HARWINTON, CT 06791
US

Number of Packages: 1

UPS Service: UPS Ground

Package Weight: 1.0 LBS

Reference Number: [CT11358A](#)

Hello, your package has been delivered.

Delivery Date: Wednesday, 10/06/2021

Delivery Time: 10:58 AM

Left At: FRONT DOOR

Experience UPS My Choice® Premium Today

Be in total control of how, when and where your packages are delivered.



[Upgrade to Premium Now](#)

[Set Delivery Instructions](#)

[Manage Preferences](#)

[View](#)

TRANSCEND WIRELESS

Tracking Number: [1ZV257420390992806](#)
EVEREST INFRASTRUCTURE PARTNERS
108 MYRTLE STREET
#2
SOUTH WALTHAM, MA 02453
US

Ship To:

Number of Packages: 1

UPS Service: UPS Ground

Package Weight: 1.0 LBS

Reference Number: [CT11358A](#)

Hello, your package has been delivered.

Delivery Date: Wednesday, 10/06/2021

Delivery Time: 11:00 AM

Left At: RECEIVER

Signed by: SOF

TRANSCEND WIRELESS

Tracking Number: [1ZV257420396305743](#)
SOUTHERN NE TELEPHONE CO.
401 MERRITT 7
NORWALK, CT 06851
US

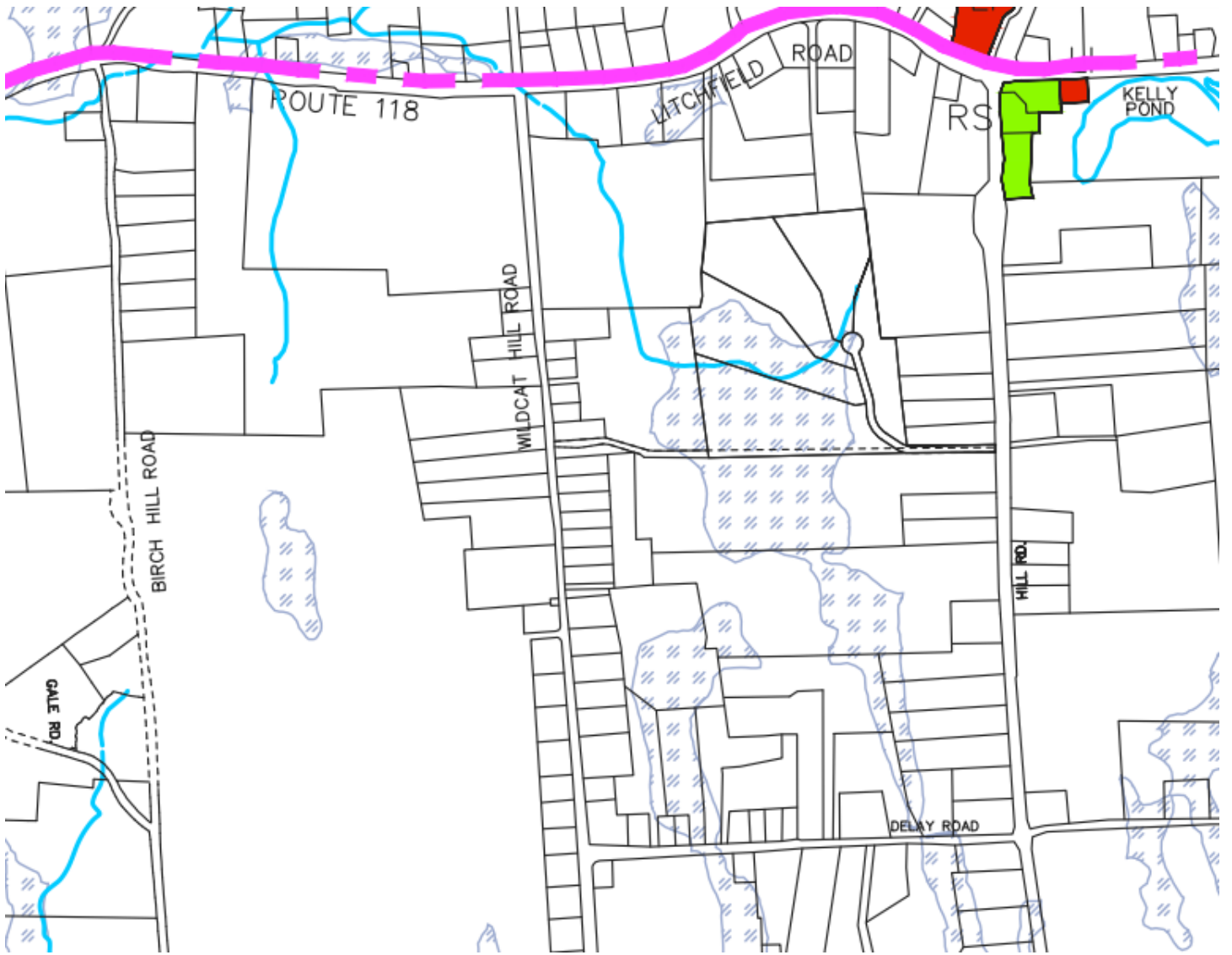
Ship To:

Number of Packages: 1

UPS Service: UPS Ground

Package Weight: 1.0 LBS

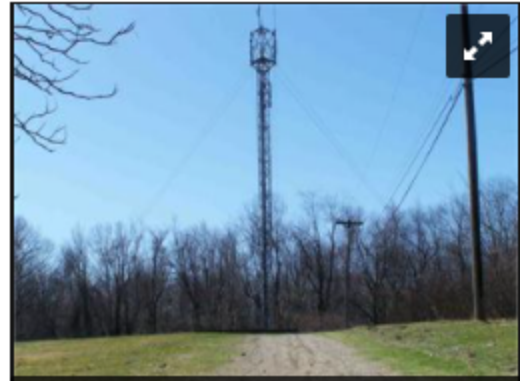
Reference Number: [CT11358A](#)



Summary

ParcelId 2678
 Account Number 2619
 Location Address 125 WILDCAT HILL RD
 Map-Block-Lot B5 /02 /0015

Use Class/Description 2-1 COMM LAND
 Assessing Neighborhood 0001A
 Census Tract 2984
 Acreage 5.3
 Utilities



Owner

SOUTHERN N E TELEPHONE CO
 401 MERRITT 7
 NORWALK, CT 06851

Current Appraised Value

	2019	2018	2017
+ Building Value	\$14,620	\$14,620	\$18,550
+ XF Value	\$0	\$0	\$0
+ OB Value	\$0	\$0	\$0
+ Land Value	\$145,670	\$145,670	\$140,710
+ Special Land Value			
+ Total Appraised Value	\$160,290	\$160,290	\$159,260
+ Net Appraised Value	\$160,290	\$160,290	\$159,260
+ Current Assessment	\$112,200	\$112,200	\$111,490

Assessment History

	2018	2017	2016	2015
+ Building Value	\$10,230	\$12,990	\$12,990	\$12,990
+ OB/Misc	\$0	\$0	\$0	\$0
+ Land	\$101,970	\$98,500	\$98,500	\$98,500
+ Total Assessment	\$112,200	\$111,490	\$111,490	\$111,490

Land

Use	Class	Zoning	Area	Value
2-1 COMM LAND	C	CR2	2 AC	\$133,790
5-2 EX COMM	C		3.3 AC	\$11,880

Commercial Building

Building #	1
Style	Warehouse
Actual Year Built	1988
Effective Year Built	1983
Gross Area	368
Stories	1
Grade	Average
Exterior Wall	Stucco/Masonry
Interior Wall	Drywall/Sheet
Wall Height	9
Units	1
Roof Cover	Rolled Compos
Roof Structure	Flat
Floor Type	Average
Heat Type	Solar Assisted
Heat Fuel	None
AC Type	NONE
Sprinkler	01
Construction	MASONRY
Plumbing	NONE
Comm Walls	0

Building Sub Areas

Code	Description	Living Area	Gross Area	Effective Area
BAS	First Floor	368	368	368
	Totals	368	368	368

Sales History

Columns

Sales Date



Permit Information

Permit ID	Issue Date	Type	Description	Amount	Inspection Date	% Complete	Date Complete	Comments
CO	03-28-2018		CO ISSUED	\$0		0		
	01-25-2018	EL	Electric	\$1,200		100		
185E	01-25-2018		FUSE PANEL	\$1,200		100		
174B	12-22-2016		3 ANTENNAS	\$20,000		100		

March 24, 1982

Ms. Eva Thurman
Attorney
Southern New England
Telephone Company
227 Church Street
New Haven, Connecticut 06506

RE: Petition No. 79 - The Southern New England Telephone Company's 1982 microwave digital plan which consists of changes on the Bristol, Harwinton, Torrington microwave route.

Dear Ms. Thurman:

The Connecticut Siting Council at a meeting held on March 1, 1982 ruled that no Certificate of Environmental Compatibility and Public Need is required, pursuant to section 16-50k(a) of the General Statutes of Connecticut, for the proposed project regarding SNET's 1982 microwave plan which consist of (1) replacing one antenna with another at the Bristol Central Office in Bristol, (2) replacing three reflectors (periscopic antennae) with three antennae on the Harwinton microwave tower in Harwinton, and (3) replacing one antenna on roof at front of building and locating new antenna on roof at the rear of the building at the Torrington Central Office in Torrington.

This construction is to be exactly as specified in the above referenced Petition dated February 9, 1982. Please notify Council upon completion of construction.

This decision applies only to Petition No. 79 and is not applicable to any other tower facility, modification, or construction.

Yours very truly,

Gloria Dibble Pond
Chairperson

GDP:RVC:go



STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

1 CENTRAL PARK PLAZA • NEW BRITAIN, CONN. 06051

PHONE: 827-2604

PETITION NO. 79

Field Review

February 23, 1982

Christopher S. Wood, Sarah M. Bates and Owen L. Clark met Jim Baily and Dick Tischel of Southern New England Telephone (SNET) to review the facilities involved with a petition for declaratory ruling filed by SNET. The petition asserts that the work involved will not have substantial adverse environmental effect, as described in 16-50 k(a), nor does it constitute new facilities or modifications to existing facilities, as defined in 16-50i.

The proposed project involves upgrading equipment on the Bristol, Harwinton, Torrington microwave route, and is similar to the project considered by the Council in Petition No. 67. The actual work, described in detail in the subject petition, essentially entails replacement of existing antenna with new, slightly larger, and more efficient equipment.

At the Bristol office, the existing antenna sits on the SNET office building roof, supported by a welded pipe frame structure. The new antenna dish will be 12 feet in diameter, compared to the 10 foot diameter existing dish. The support structure will be replaced by a new galvanized frame, equivalent in size.

The Bristol site is urban, surrounded by other buildings, both commercial and industrial, with houses and/or apartments in the vicinity.

At the Harwinton site, an existing 100 foot guyed tower now supports three periscopic antenna which reflect signals from antennas on the equipment building roof. These antennas will be removed along with the reflectors, and three new "drum" antennas will be mounted on the existing tower at approximately the same heights. The tower will not be altered, although it may need reinforcement.

The area around the Harwinton site is residential. The tower stands near the middle of a 400' x 500' lot which is surrounded by trees. Five houses have a view of the facility in winter, but likely would be completely screened in summer.

The Torrington site is very similar to that in Bristol, and the proposed work also would be done on the roof of the SNET building. Here an eight foot antenna dish would replace an existing five foot dish, but the facility would be relocated to the rear of the building and supported by a new steel structure. The overall height of the facility will increase perhaps seven feet. The development in the area is such that the facility's visibility from off site will be minimal.

PETITION NO. 79
Field Review
February 23, 1982

-2-

Other than the structure and antenna replacement discussed above, no additional construction or ~~vegetation clearing~~ at any of the sites will be required. The power density levels at all three sites, existing and with the new equipment, are listed in the petition. In all cases the levels at the antenna base fall as a result of the improved antenna technology. Levels at roof edge and the nearest building increase slightly at Bristol and Torrington because of more powerful radio equipment (5 watts instead of 1/2 watt).

At the Harwinton tower site all power levels would decline as a result of improved technology and reduction of scattered signals. The petition notes that all power levels are well below the strictest safety standards.

Christopher S. Wood
Executive Director

CSW:go

T-Mobile

SITE NAME: HARWINTON SNET_1

SITE ID: CT11358A

WILDCAT HILL ROAD

HARWINTON, CT 06791

GENERAL NOTES

- ALL WORK SHALL BE IN ACCORDANCE WITH THE 2015 INTERNATIONAL BUILDING CODE AS MODIFIED BY THE 2018 CONNECTICUT SUPPLEMENT, INCLUDING THE TIA/EIA-222 REVISION "G" "STRUCTURAL STANDARDS FOR STEEL ANTENNA TOWERS AND SUPPORTING STRUCTURES," 2017 CONNECTICUT FIRE SAFETY CODE, NATIONAL ELECTRICAL CODE AND LOCAL CODES.
- CONTRACTOR SHALL REVIEW ALL DRAWINGS AND SPECIFICATIONS IN THE CONTRACT DOCUMENT SET. CONTRACTOR SHALL COORDINATE ALL WORK SHOWN IN THE SET OF DRAWINGS. THE CONTRACTOR SHALL PROVIDE A COMPLETE SET OF DRAWINGS TO ALL SUBCONTRACTORS AND ALL RELATED PARTIES. THE SUBCONTRACTORS SHALL EXAMINE ALL THE DRAWINGS AND SPECIFICATIONS FOR THE INFORMATION THAT AFFECTS THEIR WORK.
- CONTRACTOR SHALL PROVIDE A COMPLETE BUILD-OUT WITH ALL FINISHES, STRUCTURAL, MECHANICAL, AND ELECTRICAL COMPONENTS AND PROVIDE ALL ITEMS AS SHOWN OR INDICATED ON THE DRAWINGS OR IN THE WRITTEN SPECIFICATIONS.
- CONTRACTOR SHALL FURNISH ALL MATERIAL, LABOR AND EQUIPMENT TO COMPLETE THE WORK AND FURNISH A COMPLETED JOB ALL IN ACCORDANCE WITH LOCAL AND STATE GOVERNING AUTHORITIES AND OTHER AUTHORITIES HAVING LAWFUL JURISDICTION OVER THE WORK.
- CONTRACTOR SHALL SECURE AND PAY FOR ALL PERMITS AND ALL INSPECTIONS REQUIRED AND SHALL ALSO PAY FEES REQUIRED FOR THE GENERAL CONSTRUCTION, PLUMBING, ELECTRICAL, AND HVAC. PERMITS SHALL BE PAID FOR BY THE RESPECTIVE SUBCONTRACTORS.
- CONTRACTOR SHALL MAINTAIN A CURRENT SET OF DRAWINGS AND SPECIFICATIONS ON SITE AT ALL TIMES AND INSURE DISTRIBUTION OF NEW DRAWINGS TO SUBCONTRACTORS AND OTHER RELEVANT PARTIES AS SOON AS THEY ARE MADE AVAILABLE. ALL OLD DRAWINGS SHALL BE MARKED VOID AND REMOVED FROM THE CONTRACT AREA. THE CONTRACTOR SHALL FURNISH AN "AS-BUILT" SET OF DRAWINGS TO OWNER UPON COMPLETION OF PROJECT.
- LOCATION OF EQUIPMENT AND WORK SUPPLIED BY OTHERS THAT IS DIAGRAMMATICALLY INDICATED ON THE DRAWINGS, SHALL BE DETERMINED BY THE CONTRACTOR. THE CONTRACTOR SHALL DETERMINE LOCATIONS AND DIMENSIONS SUBJECT TO STRUCTURAL CONDITIONS AND WORK OF THE SUBCONTRACTORS.
- THE CONTRACTOR IS SOLELY RESPONSIBLE TO DETERMINE CONSTRUCTION PROCEDURE AND SEQUENCE AND TO ENSURE THE SAFETY OF THE EXISTING STRUCTURES AND ITS COMPONENT PARTS DURING CONSTRUCTION. THIS INCLUDES THE ADDITION OF WHATEVER SHORING, BRACING, UNDERPINNINGS, ETC. THAT MAY BE NECESSARY.
- DRAWINGS INDICATE THE MINIMUM STANDARDS, BUT IF ANY WORK SHOULD BE INDICATED TO BE SUBSTANDARD TO ANY ORDINANCES, LAWS, CODES, RULES, OR REGULATIONS BEARING ON THE WORK, THE CONTRACTOR SHALL INCLUDE IN HIS WORK AND SHALL EXECUTE THE WORK CORRECTLY IN ACCORDANCE WITH SUCH ORDINANCES, LAWS, CODES, RULES OR REGULATIONS WITH NO INCREASE IN COSTS.
- ALL UTILITY WORK SHALL BE IN ACCORDANCE WITH LOCAL UTILITY COMPANY REQUIREMENTS AND SPECIFICATIONS.
- ALL EQUIPMENT AND PRODUCTS PURCHASED ARE TO BE REVIEWED BY CONTRACTOR AND ALL APPLICABLE SUBCONTRACTORS FOR ANY CONDITION PER MANUFACTURER'S RECOMMENDATIONS. CONTRACTOR TO SUPPLY THESE ITEMS AT NO COST TO OWNER OR CONSTRUCTION MANAGER.
- ANY AND ALL ERRORS, DISCREPANCIES, AND 'MISSED' ITEMS ARE TO BE BROUGHT TO THE ATTENTION OF THE T-MOBILE CONSTRUCTION MANAGER DURING THE BIDDING PROCESS BY THE CONTRACTOR. ALL THESE ITEMS ARE TO BE INCLUDED IN THE BID. NO 'EXTRA' WILL BE ALLOWED FOR MISSED ITEMS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ON-SITE SAFETY FROM THE TIME THE JOB IS AWARDED UNTIL ALL WORK IS COMPLETE AND ACCEPTED BY THE OWNER.
- CONTRACTOR TO REVIEW ALL SHOP DRAWINGS AND SUBMIT COPY TO ENGINEER FOR APPROVAL. DRAWINGS MUST BEAR THE CHECKER'S INITIALS BEFORE SUBMITTING TO THE CONSTRUCTION MANAGER FOR REVIEW.
- THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, ELEVATIONS, ANGLES AND EXISTING CONDITIONS AT THE SITE, PRIOR TO FABRICATION AND/OR INSTALLATION OF ANY WORK IN THE CONTRACT AREA.
- COORDINATION, LAYOUT, FURNISHING AND INSTALLATION OF CONDUITS AND ALL APPURTENANCES REQUIRED FOR PROPER INSTALLATION OF ELECTRICAL AND TELECOMMUNICATION SERVICE SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- ALL DAMAGE CAUSED TO ANY EXISTING STRUCTURE SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR WILL BE HELD LIABLE FOR ALL REPAIRS REQUIRED FOR EXISTING STRUCTURES IF DAMAGED DURING CONSTRUCTION ACTIVITIES.
- THE CONTRACTOR SHALL CONTACT 'CALL BEFORE YOU DIG' AT LEAST 48 HOURS PRIOR TO ANY EXCAVATIONS AT 1-800-922-4455. ALL UTILITIES SHALL BE IDENTIFIED AND CLEARLY MARKED. CONTRACTOR SHALL MAINTAIN AND PROTECT MARKED UTILITIES THROUGHOUT PROJECT COMPLETION.
- CONTRACTOR SHALL COMPLY WITH THE OWNER'S ENVIRONMENTAL ENGINEER ON ALL METHODS AND PROVISIONS FOR ALL EXCAVATION ACTIVITIES INCLUDING SOIL DISPOSAL. ALL BACKFILL MATERIALS TO BE PROVIDED BY THE CONTRACTOR.

SITE DIRECTIONS

FROM: 35 GRIFFIN ROAD SOUTH BLOOMFIELD, CT 06002 TO: WILDCAT HILL ROAD HARWINTON, CT 06791

- TAKE DAY HILL RD TO CT-189 S 1.2 MI.
- HEAD NORTHEAST ON GRIFFIN RD S TOWARD W NEWBERRY RD 0.6 MI.
- TURN LEFT ONTO DAY HILL RD 0.6 MI.
- CONTINUE ON CT-189 S. TAKE CT-185 W TO WILDCAT HILL RD IN HARWINTON 26.5 MI.
- TURN LEFT ONTO CT-189 S 2.5 MI.
- SLIGHT RIGHT ONTO BROWN ST 0.9 MI.
- TURN RIGHT ONTO CT-178 W 1.1 MI.
- TURN RIGHT ONTO CT-185 W 2.8 MI.
- TURN RIGHT ONTO HOPMEADOW ST 0.2 MI.
- TURN LEFT ONTO CANAL ST 0.2 MI.
- CONTINUE ONTO DEER PARK RD 1.3 MI.
- TURN LEFT ONTO CT-167 S/BUSHY HILL RD 0.8 MI.
- TURN RIGHT ONTO CANTON RD 0.1 MI.
- CONTINUE STRAIGHT ONTO WILDWOOD RD 0.6 MI.
- TURN LEFT ONTO NOTCH RD 0.3 MI.
- SLIGHT LEFT ONTO WASHBURN RD 1.0 MI.
- TURN LEFT ONTO LAWTON RD 0.3 MI.
- TURN RIGHT ONTO ALBANY TURNPIKE 0.4 MI.
- TURN LEFT ONTO DOWD AVE 0.9 MI.
- CONTINUE ONTO MAPLE AVE 0.6 MI.
- CONTINUE ONTO BRIDGE ST 0.4 MI.
- TURN LEFT ONTO CT-179 S/BURLINGTON AVE CONTINUE TO FOLLOW CT-179 S 2.0 MI.
- TURN RIGHT ONTO CT-4 8.1 MI.
- CONTINUE ONTO LITCHFIELD RD 1.6 MI.
- TURN LEFT ONTO WILDCAT HILL RD

SITE COORDINATES: LATITUDE: 41°-45'-24.9" N
LONGITUDE: 73°-05'-42.67" W
GROUND ELEVATION: 1000'± AMSL

COORDINATES AND GROUND ELEVATION ARE REFERENCED FROM GOOGLE EARTH



VICINITY MAP



PROJECT SUMMARY

- THE PROPOSED SCOPE OF WORK CONSISTS OF A MODIFICATION TO THE EXISTING UNMANNED TELECOMMUNICATIONS FACILITY INCLUDING THE FOLLOWING:
 - INSTALL (1) NEW 48KW DIESEL FUELED BACK-UP GENERATOR ON A PROPOSED 10' x 4' CONCRETE PAD WITHIN THE EXISTING COMPOUND
 - INSTALL (1) 200A AUTOMATIC TRANSFER SWITCH
 - REMOVE EXISTING ELECTRICAL PANEL
 - INSTALL NEW 200A MINI PPC CABINET

PROJECT INFORMATION

SITE NAME: HARWINTON SNET_1
 SITE ID: CT11358A
 SITE ADDRESS: WILDCAT HILL ROAD HARWINTON, CT 06791
 APPLICANT: T-MOBILE NORTHEAST, LLC 35 GRIFFIN ROAD SOUTH BLOOMFIELD, CT 06002
 CONTACT PERSON: DAN REID (PROJECT MANAGER) TRANSCEND WIRELESS, LLC (203) 592-8291
 ENGINEER OF RECORD: CENTEK ENGINEERING, INC. 63-2 NORTH BRANFORD RD. BRANFORD, CT 06405
 CARLO F. CENTORE, PE (203) 488-0580 EXT. 122
 PROJECT COORDINATES: LATITUDE: 41°-45'-24.9" N
LONGITUDE: 73°-05'-42.67" W
GROUND ELEVATION: 1000'± AMSL
 SITE COORDINATES AND GROUND ELEVATION REFERENCED FROM GOOGLE EARTH.

SHEET INDEX

SHT. NO.	DESCRIPTION	REV.
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C-1	COMPOUND AND EQUIPMENT PLANS	0
C-2	TYPICAL EQUIPMENT DETAILS	0
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E-1	ELECTRICAL RISER DIAGRAM AND CONDUIT ROUTING	0
E-2	ELECTRICAL SPECIFICATIONS	0

PROFESSIONAL ENGINEER SEAL
CONSTRUCTION DRAWINGS - ISSUED FOR CONSTRUCTION

REV.
DATE
10/04/21
RTS
TJR
DRAWN BY/CHK'D BY

(203) 488-0580
(203) 488-8587 Fax
63-2 North Branford Road
Branford, CT 06405
www.CentekEng.com

T-MOBILE NORTHEAST LLC

SITE NAME: HARWINTON SNET_1

SITE ID: CT11358A

WILDCAT HILL ROAD

HARWINTON, CT 06791

DATE: 08/31/21
SCALE: AS NOTED

JOB NO. 21003.27

T-1

Sheet No. 1
of 7

NOTES AND SPECIFICATIONS

DESIGN BASIS:

GOVERNING CODE: 2015 INTERNATIONAL BUILDING (IBC) AS MODIFIED BY THE 2018 CONNECTICUT STATE BUILDING CODE.

1. DESIGN CRITERIA:
- RISK CATEGORY II (BASED ON IBC TABLE 1604.5)
 - NOMINAL/ULTIMATE DESIGN SPEED: 101 MPH (V_{asd}) (EXPOSURE B/ IMPORTANCE FACTOR 1.0 BASED ON ASCE 7-10).

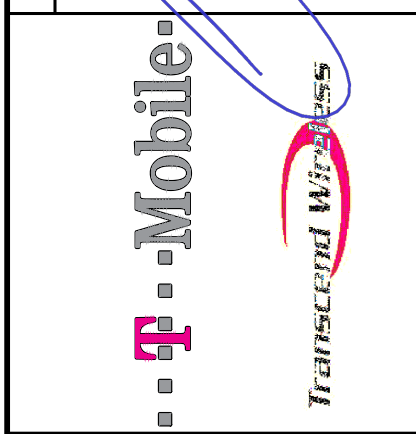
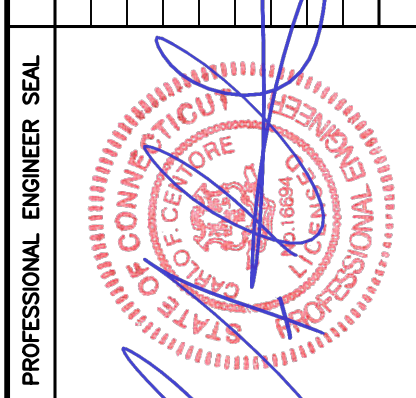
SITE NOTES

- THE CONTRACTOR SHALL CALL UTILITIES PRIOR TO THE START OF CONSTRUCTION.
- ACTIVE EXISTING UTILITIES, WHERE ENCOUNTERED IN THE WORK, SHALL BE PROTECTED AT ALL TIMES. THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY, PRIOR TO PROCEEDING, SHOULD ANY UNCOVERED EXISTING UTILITY PRECLUDE COMPLETION OF THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
- THE AREAS OF THE COMPOUND DISTURBED BY THE WORK SHALL BE RETURNED TO THEIR ORIGINAL CONDITION.
- CONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, SHALL BE IN CONFORMANCE WITH THE LOCAL GUIDELINES FOR EROSION AND SEDIMENT CONTROL.
- IF ANY FIELD CONDITIONS EXIST WHICH PRECLUDE COMPLIANCE WITH THE DRAWINGS, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER AND SHALL PROCEED WITH AFFECTED WORK AFTER CONFLICT IS SATISFACTORILY RESOLVED.

GENERAL NOTES

- ALL WORK SHALL BE IN ACCORDANCE WITH THE 2015 INTERNATIONAL BUILDING CODE AS MODIFIED BY THE 2018 CONNECTICUT SUPPLEMENT, INCLUDING THE TIA/EIA-222 REVISION "G" "STRUCTURAL STANDARDS FOR STEEL ANTENNA TOWERS AND SUPPORTING STRUCTURES." 2017 CONNECTICUT FIRE SAFETY CODE, NATIONAL ELECTRICAL CODE AND LOCAL CODES.
- CONTRACTOR SHALL REVIEW ALL DRAWINGS AND SPECIFICATIONS IN THE CONTRACT DOCUMENT SET. CONTRACTOR SHALL COORDINATE ALL WORK SHOWN IN THE SET OF DRAWINGS. THE CONTRACTOR SHALL PROVIDE A COMPLETE SET OF DRAWINGS TO ALL SUBCONTRACTORS AND ALL RELATED PARTIES. THE SUBCONTRACTORS SHALL EXAMINE ALL THE DRAWINGS AND SPECIFICATIONS FOR THE INFORMATION THAT AFFECTS THEIR WORK.
- CONTRACTOR SHALL PROVIDE A COMPLETE BUILD-OUT WITH ALL FINISHES, STRUCTURAL, MECHANICAL, AND ELECTRICAL COMPONENTS AND PROVIDE ALL ITEMS AS SHOWN OR INDICATED ON THE DRAWINGS OR IN THE WRITTEN SPECIFICATIONS.
- CONTRACTOR SHALL FURNISH ALL MATERIAL, LABOR AND EQUIPMENT TO COMPLETE THE WORK AND FURNISH A COMPLETED JOB ALL IN ACCORDANCE WITH LOCAL AND STATE GOVERNING AUTHORITIES AND OTHER AUTHORITIES HAVING LAWFUL JURISDICTION OVER THE WORK.
- CONTRACTOR SHALL SECURE AND PAY FOR ALL PERMITS AND ALL INSPECTIONS REQUIRED AND SHALL ALSO PAY FEES REQUIRED FOR THE GENERAL CONSTRUCTION, PLUMBING, ELECTRICAL AND HVAC. PERMITS SHALL BE PAID FOR BY THE RESPECTIVE SUBCONTRACTORS.
- CONTRACTOR SHALL MAINTAIN A CURRENT SET OF DRAWINGS AND SPECIFICATIONS ON SITE AT ALL TIMES AND INSURE DISTRIBUTION OF NEW DRAWINGS TO SUBCONTRACTORS AND OTHER RELEVANT PARTIES AS SOON AS THEY ARE MADE AVAILABLE. ALL OLD DRAWINGS SHALL BE MARKED VOID AND REMOVED FROM THE CONTRACT AREA. THE CONTRACTOR SHALL FURNISH AN 'AS-BUILT' SET OF DRAWINGS TO OWNER UPON COMPLETION OF PROJECT.
- LOCATION OF EQUIPMENT AND WORK SUPPLIED BY OTHERS THAT IS DIAGRAMMATICALLY INDICATED ON THE DRAWINGS, SHALL BE DETERMINED BY THE CONTRACTOR. THE CONTRACTOR SHALL DETERMINE LOCATIONS AND DIMENSIONS SUBJECT TO STRUCTURAL CONDITIONS AND WORK OF THE SUBCONTRACTORS.
- THE CONTRACTOR IS SOLELY RESPONSIBLE TO DETERMINE CONSTRUCTION PROCEDURE AND SEQUENCE, AND TO ENSURE THE SAFETY OF THE EXISTING STRUCTURES AND ITS COMPONENT PARTS DURING CONSTRUCTION. THIS INCLUDES THE ADDITION OF WHATEVER SHORING, BRACING, UNDERPINNING, ETC. THAT MAY BE NECESSARY.
- DRAWINGS INDICATE THE MINIMUM STANDARDS, BUT IF ANY WORK SHOULD BE INDICATED TO BE SUBSTANDARD TO ANY ORDINANCES, LAWS, CODES, RULES, OR REGULATIONS BEARING ON THE WORK, THE CONTRACTOR SHALL INCLUDE IN HIS WORK AND SHALL EXECUTE THE WORK CORRECTLY IN ACCORDANCE WITH SUCH ORDINANCES, LAWS, CODES, RULES OR REGULATIONS WITH NO INCREASE IN COSTS.
- ALL UTILITY WORK SHALL BE IN ACCORDANCE WITH LOCAL UTILITY COMPANY REQUIREMENTS AND SPECIFICATIONS.
- ALL EQUIPMENT AND PRODUCTS PURCHASED ARE TO BE REVIEWED BY CONTRACTOR AND ALL APPLICABLE SUBCONTRACTORS FOR ANY CONDITION PER MFR.'S RECOMMENDATIONS. CONTRACTOR TO SUPPLY THESE ITEMS AT NO COST TO OWNER OR CONSTRUCTION MANAGER.
- ANY AND ALL ERRORS, DISCREPANCIES, AND "MISSED" ITEMS, ARE TO BE BROUGHT TO THE ATTENTION OF THE SITE OWNER'S CONSTRUCTION MANAGER DURING THE BIDDING PROCESS BY THE CONTRACTOR. ALL THESE ITEMS ARE TO BE INCLUDED IN THE BID. NO 'EXTRA' WILL BE ALLOWED FOR MISSED ITEMS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ON-SITE SAFETY FROM THE TIME THE JOB IS AWARDED UNTIL ALL WORK IS COMPLETE AND ACCEPTED BY THE OWNER.
- CONTRACTOR TO REVIEW ALL SHOP DRAWINGS AND SUBMIT COPY TO ENGINEER FOR APPROVAL. DRAWINGS MUST BEAR THE CHECKER'S INITIALS BEFORE SUBMITTING TO THE CONSTRUCTION MANAGER FOR REVIEW.
- THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, ELEVATIONS, ANGLES, AND EXISTING CONDITIONS AT THE SITE, PRIOR TO FABRICATION AND/OR INSTALLATION OF ANY WORK IN THE CONTRACT AREA.
- COORDINATION, LAYOUT, FURNISHING AND INSTALLATION OF CONDUIT AND ALL APPURTENANCES REQUIRED FOR PROPER INSTALLATION OF ELECTRICAL AND TELECOMMUNICATION SERVICE SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- ALL DAMAGE CAUSED TO ANY EXISTING STRUCTURE SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR WILL BE HELD LIABLE FOR ALL REPAIRS REQUIRED FOR EXISTING STRUCTURES IF DAMAGED DURING CONSTRUCTION ACTIVITIES.
- THE CONTRACTOR SHALL CONTACT 'CALL BEFORE YOU DIG' AT LEAST 48 HOURS PRIOR TO ANY EXCAVATIONS AT 1-800-922-4455. ALL UTILITIES SHALL BE IDENTIFIED AND CLEARLY MARKED. CONTRACTOR SHALL MAINTAIN AND PROTECT MARKED UTILITIES THROUGHOUT PROJECT COMPLETION.
- CONTRACTOR SHALL COMPLY WITH OWNER'S ENVIRONMENTAL ENGINEER ON ALL METHODS AND PROVISIONS FOR ALL EXCAVATION ACTIVITIES INCLUDING SOIL DISPOSAL. ALL BACKFILL MATERIALS TO BE PROVIDED BY THE CONTRACTOR.
- THE COUNTY/CITY/TOWN WILL MAKE PERIODIC FIELD OBSERVATION AND INSPECTIONS TO MONITOR THE INSTALLATION, MATERIALS, WORKMANSHIP AND EQUIPMENT INCORPORATED INTO THE PROJECT TO ENSURE COMPLIANCE WITH THE DESIGN PLANS, SPECIFICATIONS, CONTRACT DOCUMENTS AND APPROVED SHOP DRAWINGS.
- THE COUNTY/CITY/TOWN MUST BE NOTIFIED (2) WORKING DAYS PRIOR TO CONCEALMENT/BURIAL OF ANY SYSTEM OR MATERIAL THAT WILL PREVENT THE DIRECT INSPECTION OF MATERIALS, METHODS OR WORKMANSHIP. EXAMPLES OF THESE PROCESSES ARE BACKFILLING A GROUND RING OR TOWER FOUNDATION, POURING TOWER FOUNDATIONS, BURYING GROUND RODS, PLATES OR GRIDS, ETC. THE CONTRACTOR MAY PROCEED WITH THE SCHEDULED PROCESS (2) WORKING DAYS AFTER PROVIDING NOTICE UNLESS NOTIFIED OTHERWISE BY THE COUNTY/CITY/TOWN.

REV.	DATE	RTS	TJR	DESCRIPTION
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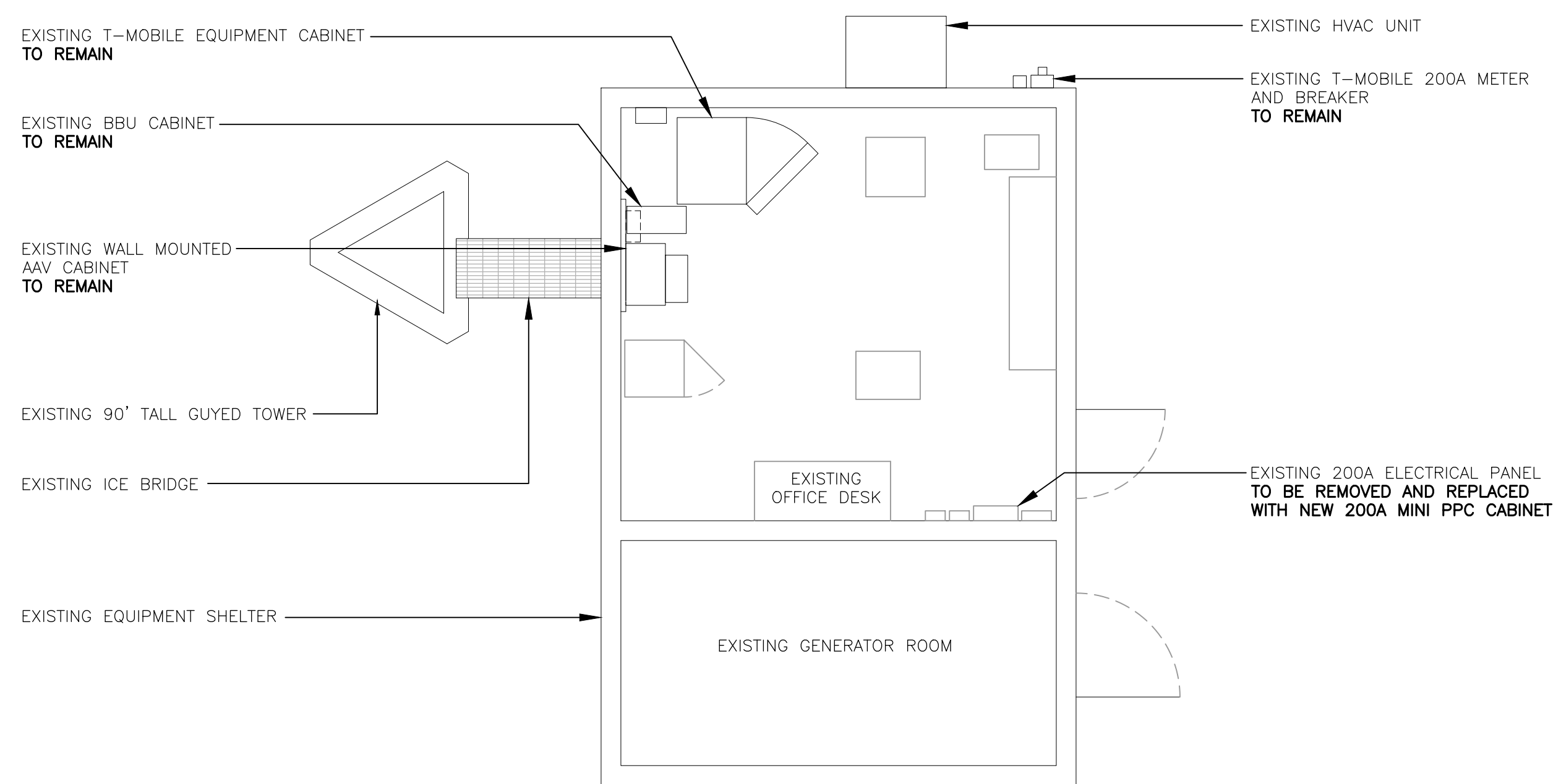
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Centered on Solutions
 (203) 488-0360
 (203) 488-8587 Fax
 63-2 North Branford Road
 Branford, CT 06405
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T-MOBILE NORTHEAST LLC
SITE NAME: HARWINTON SNET_1
SITE ID: CT11358A
WILDCAT HILL ROAD
HARWINTON, CT 06791

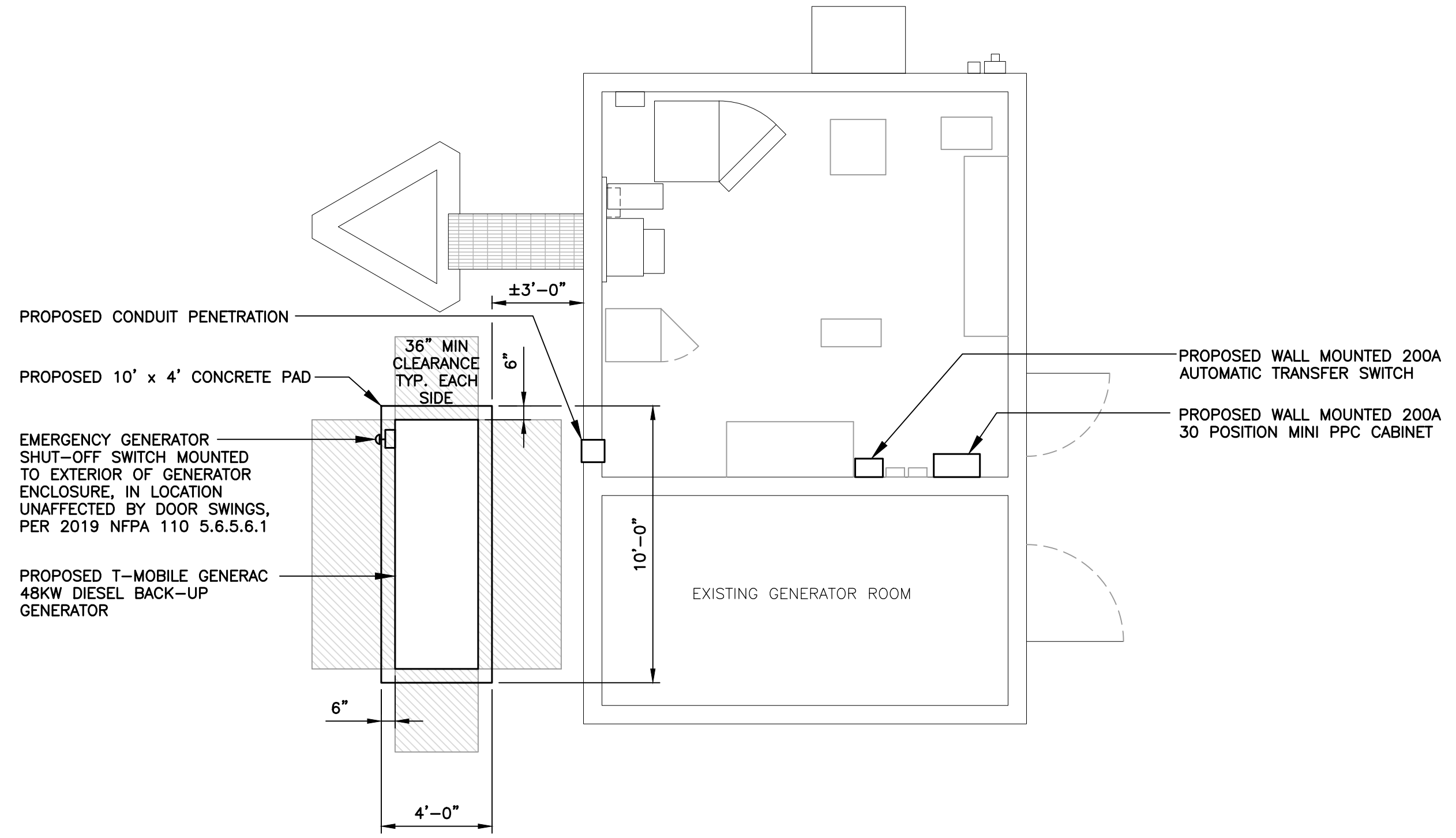
DATE: 08/31/21
 SCALE: AS NOTED
 JOB NO. 21003.27

GENERAL NOTES AND SPECIFICATIONS

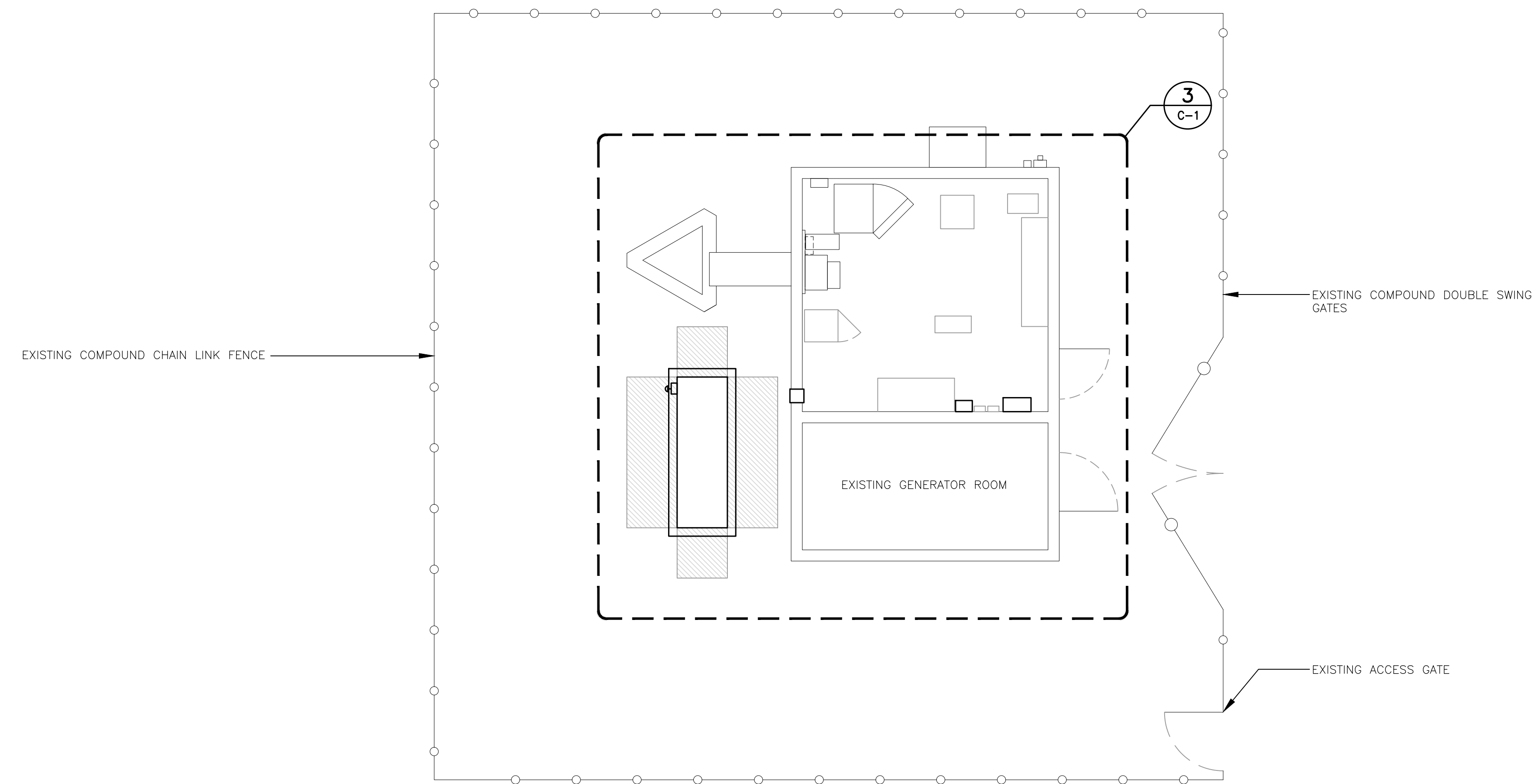
N-1



2
C-1 **EQUIPMENT PLAN - EXISTING**
SCALE: 3/8" = 1'
TRUE NORTH

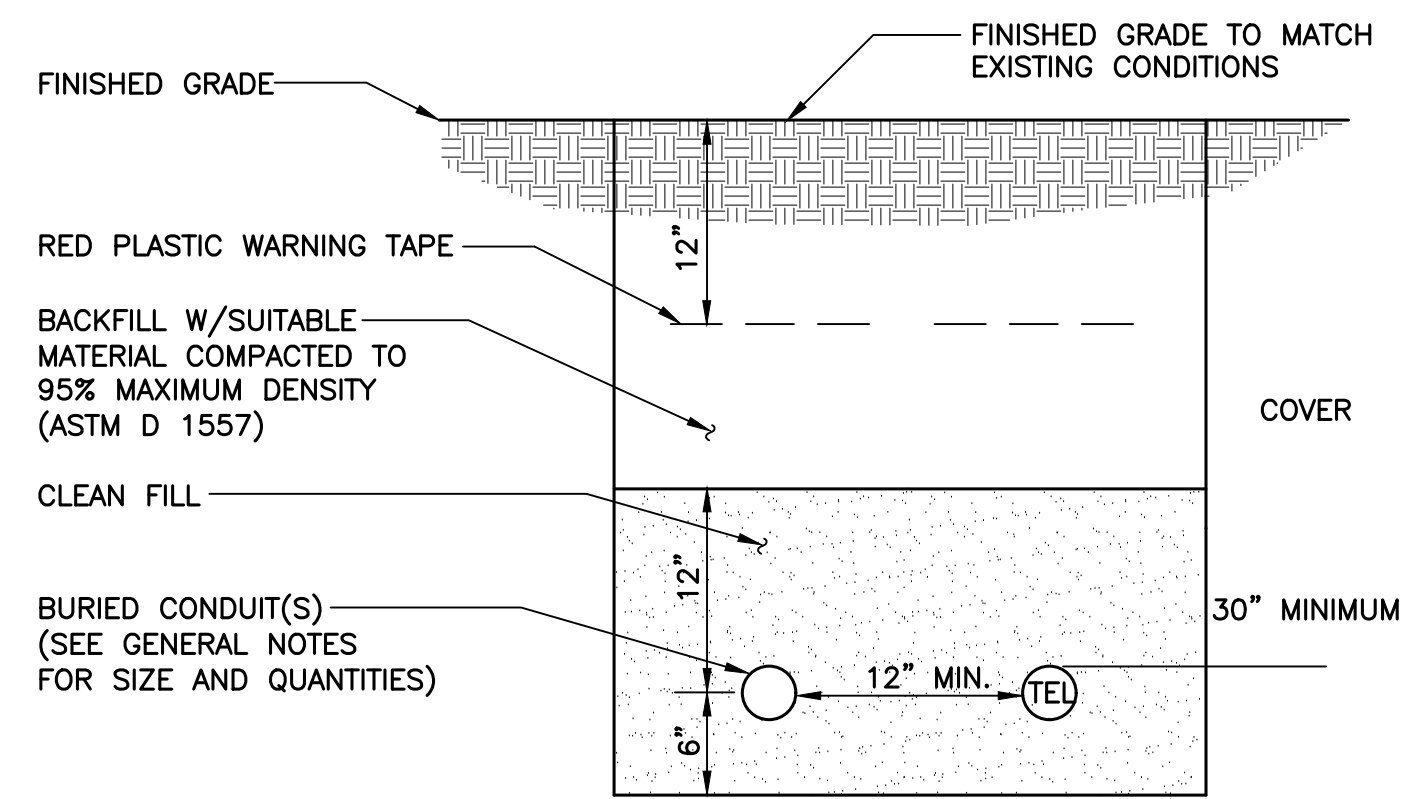


3
C-1 **EQUIPMENT PLAN - PROPOSED**
SCALE: 3/8" = 1'
TRUE NORTH



1
C-1 **COMPOUND PLAN - PROPOSED**
SCALE: 1" = 5'
TRUE NORTH

PROFESSIONAL ENGINEER SEAL				DATE	DRAWN BY	CHECK'D BY	DESCRIPTION
				0	10/04/21	RTS	TJR
				REV.	DATE	DRAWN BY	CHECK'D BY
(203) 488-0580 (203) 488-8587 Fax 63-2 North Branford Road Branford, CT 06405 www.CentekEng.com							
T-MOBILE NORTHEAST LLC SITE NAME: HARWINTON SNET_1 SITE ID: CT11358A WILDCAT HILL ROAD HARWINTON, CT 06791							
DATE:				08/31/21			
SCALE:				AS NOTED			
JOB NO.				21003.27			
COMPOUND AND EQUIPMENT PLANS							
C-1							
Sheet No. <u>3</u> of <u>7</u>							



NOTES:

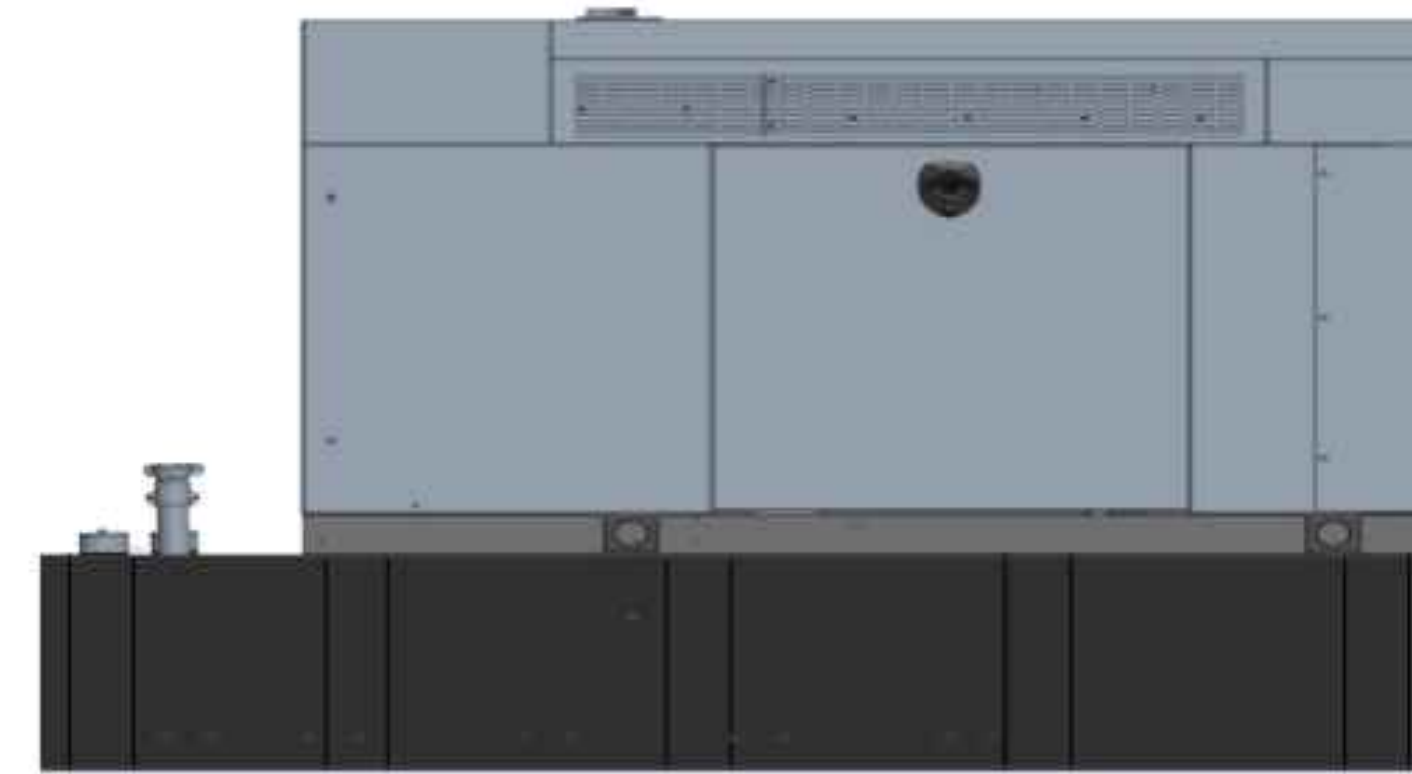
1. THE CLEAN FILL SHALL PASS THROUGH A 3/8" MESH SCREEN AND SHALL NOT CONTAIN SHARP STONES. OTHER BACKFILL SHALL NOT CONTAIN ASHES, CINDERS, SHELLS, FROZEN MATERIAL, LOOSE DEBRIS OR STONES LARGER THAN 2" IN MAXIMUM DIMENSION.
2. WHERE EXISTING UTILITIES ARE LIKELY TO BE ENCOUNTERED, CONTRACTOR SHALL HAND DIG AND PROTECT EXISTING UTILITIES.

1 TYPICAL ELECTRICAL/TEL TRENCH DETAIL
C-2 SCALE: NOT TO SCALE



AUTOMATIC TRANSFER SWITCH					
EQUIPMENT	PHASE	VOLTAGE	ENCLOSURE	AMP	DIMENSIONS
MAKE: GENERAC MODEL: RXSC200A3	1-PHASE	120/240	NEMA-3R	200	17.3"L x 12.5"W

2 AUTOMATIC TRANSFER SWITCH DETAIL
C-2 SCALE: NOT TO SCALE

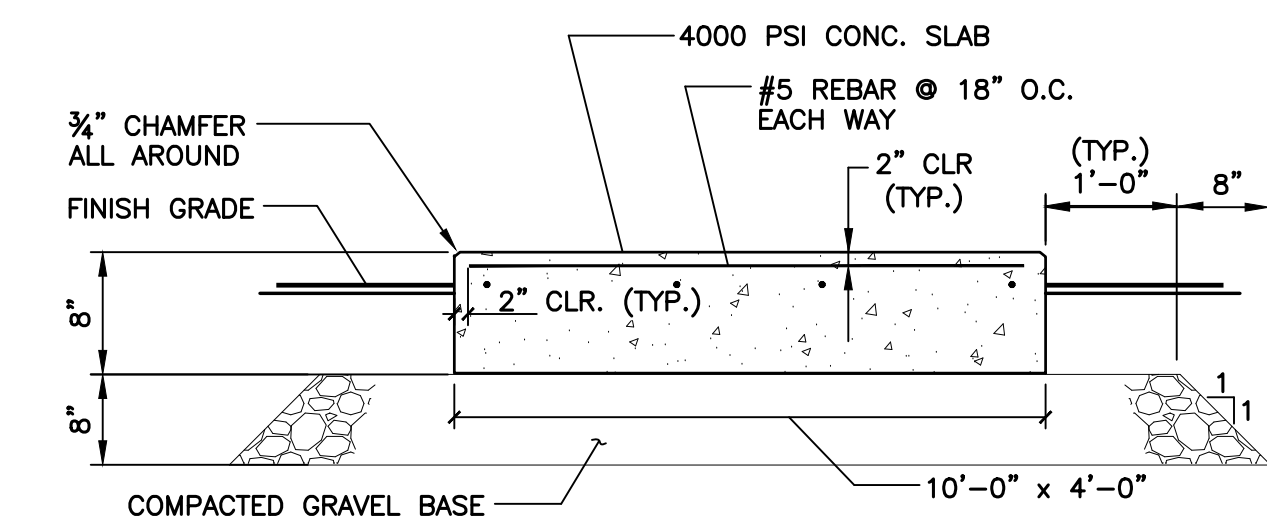


BACKUP POWER GENERATOR						
EQUIPMENT	POWER GENERATED	FUEL	MODEL NUMBER	FUEL TANK SIZE (GAL)	DIMENSIONS	WEIGHT
MAKE: GENERAC MODEL: RD48	48 KW, AC	DIESEL	7194-0	229	103.4"L x 35.0"W x 91.7"H	TBD

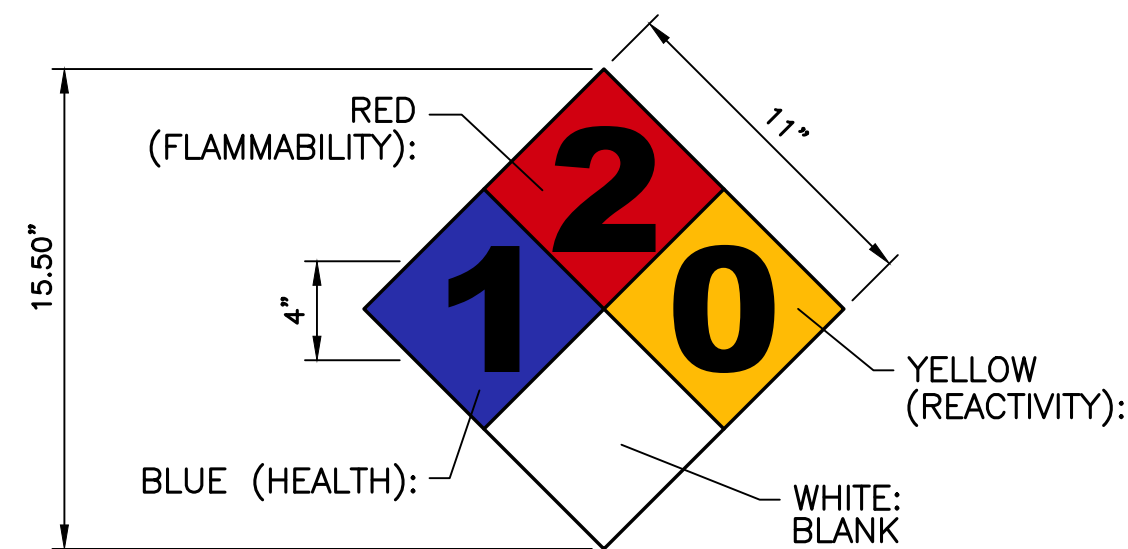
NOTES:

1. FUEL LEVEL/SECONDARY CONTAINMENT SHALL BE ALARMED AND IN COMMUNICATION WITH T-MOBILE'S NOC.
2. CONTRACTOR TO COORDINATE FINAL EQUIPMENT MODEL SELECTION AND ALL OPTIONAL FEATURES WITH T-MOBILE'S CONSTRUCTION MANAGER PRIOR TO ORDERING.

3 PROPOSED GENERATOR DETAIL
C-2 SCALE: NOT TO SCALE



4 TYPICAL CONCRETE PAD DETAIL
C-2 SCALE: NOT TO SCALE



SIGN NAME:	REGULATORY, NFPA 704 HAZARD ID
DESCRIPTION:	MOUNT ON GENERATOR ACCESS DOOR. CONSULT WITH GENERATOR MANUFACTURER MSDS SHEET FOR BLUE AND RES POSITIONS
NOTES:	<ol style="list-style-type: none"> 1) SIGNS EXPOSED TO WEATHER SHOULD BE CHECKED ANNUALLY FOR READABILITY. 2) SIGNS MUST BE UPDATED IF CHEMICAL STORAGE OR HAZARD INFORMATION FOR THE LOCATION CHANGES. 3) THE GC MUST REVIEW WITH LOCAL JURISDICTION WHEN FILLING FOR PERMITS, AS EACH JURISDICTION MAY HAVE DIFFERENT REQUIREMENTS AND COMPLY WITH POSTING REQUIREMENTS OR DIRECTIVES FROM THE LOCAL JURISDICTION.

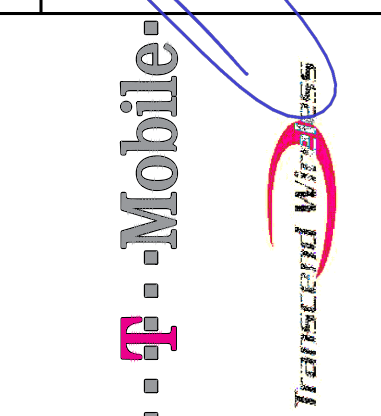
5 NFPA 704 DIAMOND SIGNAGE DETAIL
C-2 SCALE: NOT TO SCALE



VERTIV MINI PPC CABINET					
EQUIPMENT	PHASE	VOLTAGE	LOAD CENTER	AMP	DIMENSIONS
MAKE: VERTIV CATALOG: CACA75214090	1-PHASE	120/240	30 POSITIONS	200	39"H x 20"L x 10"W

6 30 POSITION MINI PPC CABINET
C-2 SCALE: NOT TO SCALE

REV.	DATE	BY	DESCRIPTION
0	10/04/21	RTS	CONSTRUCTION DRAWINGS - ISSUED FOR CONSTRUCTION



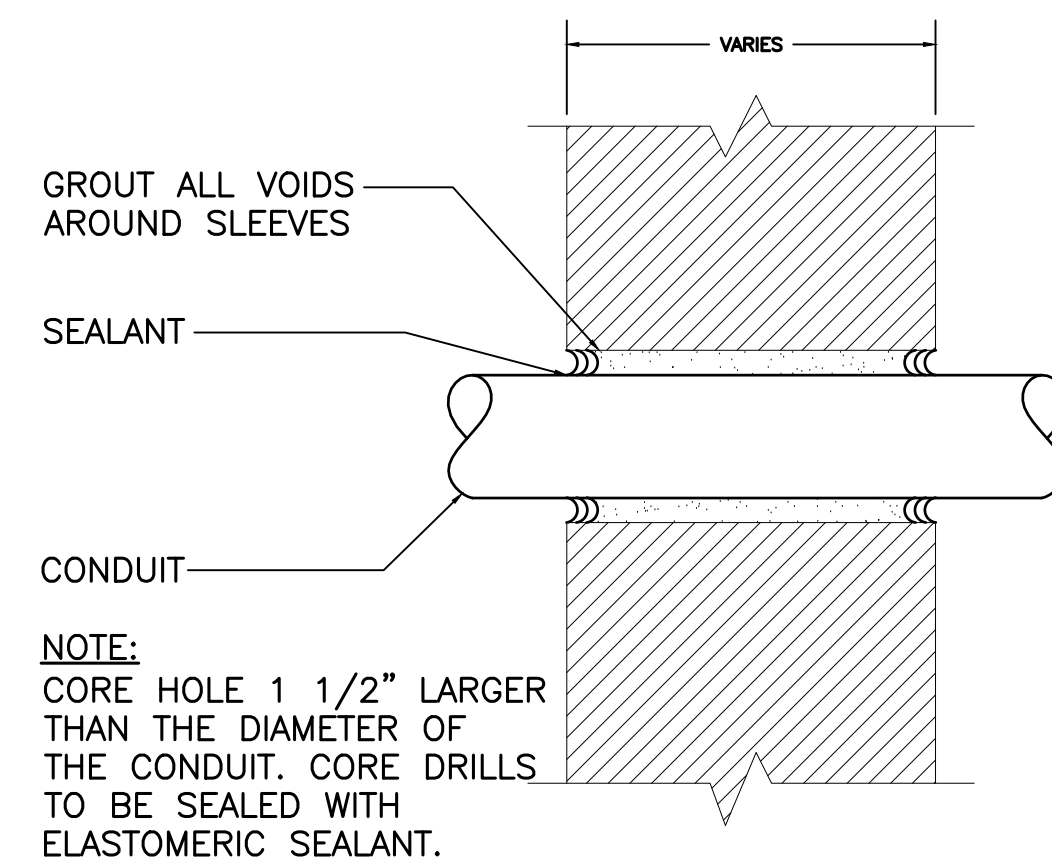
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T-MOBILE NORTHEAST LLC
SITE NAME: HARWINTON SNET_1
SITE ID: CT11358A
WILDCAT HILL ROAD
HARWINTON, CT 06791

DATE: 08/31/21
SCALE: AS NOTED
JOB NO. 21003.27

TYPICAL EQUIPMENT DETAILS

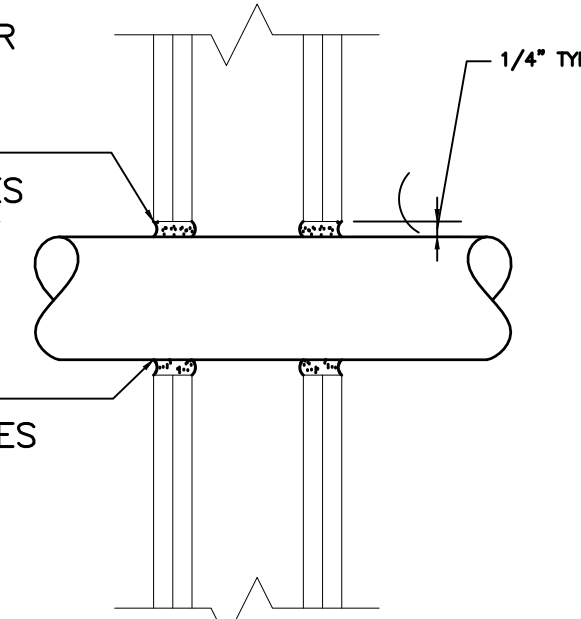
C-2
Sheet No. 4 of 7



1
C-3 **PIPE AND CONDUIT PENETRATION
DETAIL IN NON-RATED PARTITION**
NOT TO SCALE

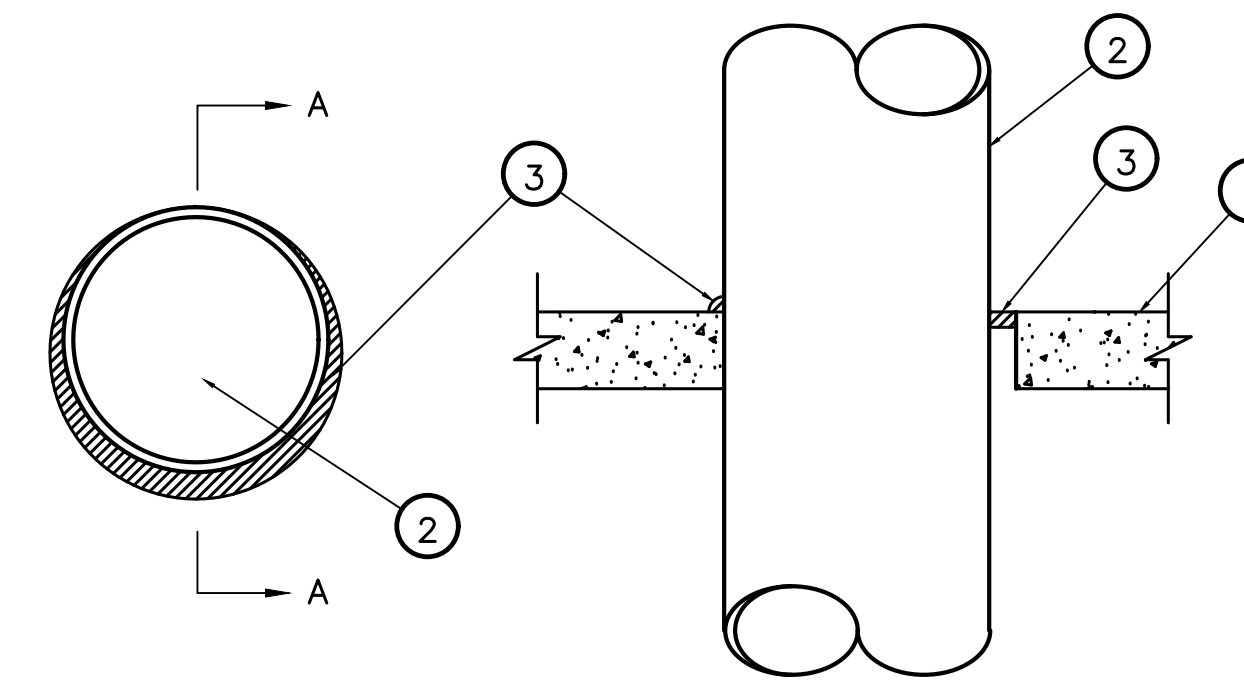
PIPE OR CONDUIT	ANNULAR SPACE IN.	MIN. FILL MATERIAL THICKNESS	F RATING HR
PIPE	3/4"	1 1/4"	2
CONDUIT	3/4"	3/4"	1

ONE 2"Ø METALLIC PIPE OR CONDUIT TO BE CENTERED WITHIN FIRESTOP SYSTEM. PIPE SHALL BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL/FLOOR ASSEMBLY



UL SYSTEM NUMBER: WL1051
F RATING - 1 & 2 HR.

2
C-3 **PIPE AND CONDUIT PENETRATION
DETAIL IN GYPSUM WALLBOARD**
NOT TO SCALE



UL SYSTEM NUMBER: C-AJ-1291
F RATING - 2-HR

3
C-3 **METAL PIPE THROUGH CONCRETE
FLOOR/ WALL OR BLOCK WALL**
NOT TO SCALE

FLOOR OR WALL	MIN. THICK.	MAX. PIPE DIA.	MIN. ANNULAR SPACE	MAX. ANNULAR SPACE	MIN. FILL MAT. THICK.	MIN. FORM. MAT. THICK.	F RATING
F	3 3/4"	1 1/2"	3/8"	2 1/8"	1"	2 3/4"	2
F	3 3/4"	6"	3/8"	3/4"	1"	2 3/4"	2
F	3 3/4"	6"	3/8"	1"	2"	1 3/4"	2
F	4 1/2"	1 1/2"	3/8"	2 1/8"	1"	3 1/2"	3
F	4 1/2"	6"	3/8"	3/4"	1"	3 1/2"	3
F	4 1/2"	6"	3/8"	1"	2"	2 1/2"	3
W	5 1/2"	1 1/2"	3/8"	2 1/8"	1"	3 1/2"	3
W	5 1/2"	6"	3/8"	3/4"	1"	3 1/2"	3
W	6 1/2"	1 1/2"	3/8"	2 1/8"	2"	2 1/2"	3
W	6 1/2"	6"	3/8"	1"	2"	2 1/2"	3

THROUGH PENETRANTS

ONE METALLIC PIPE, CONDUIT OR TUBING TO BE INSTALLED EITHER CONCENTRICALLY OR ECCENTRICALLY WITHIN THE FIRESTOP SYSTEM. PIPE, CONDUIT OR TUBING TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF FLOOR OR WALL.

FORMING MATERIAL SHALL BE A MIN. OF 1 1/2" THICK OF MIN. 4.0 PCF MINERAL WOOL BATT INSULATION FIRMLY PACKED IN OPENING, USG INTERIORS-TYPE SAF

THICKNESS OF SEALANT APPLIED FLUSH W/THE TOP SURFACE OF BOTH SIDES OF FLOOR/WALL (SEE TABLE), USG INTERIORS-TYPE SS

UL SYSTEM NUMBER: CAJ1020

F RATING - 3 HR.

4
C-3 **PIPE AND CONDUIT PENETRATION
DETAIL IN CONCRETE OR MASONRY**
NOT TO SCALE

MAX. DIA. OF THROUGH PENETRANT	NOMINAL ANNULAR SPACE IN.	FILL MATERIAL TYPE
1"	1/2"	FSP 1100 PUTTY
2"	1"	FS 1900 SEALANT

ONE 2"Ø SCHEDULE 40 PVC PIPE TO BE CENTERED WITHIN FIRESTOP SYSTEM. PIPE SHALL BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL/FLOOR ASSEMBLY

SEALANT, MIN. OF 1 1/4" THICK, FLUSH WITH BOTH SURFACES OF WALL FOR 2 HR. ASSEMBLY, 5/8" THICK FOF 1 HR. ASSEMBLY. A 5/8" CROWN AROUND CONDUIT WITH A 1" MIN. LAP AROUND OPENING SEALANT: INTERNAT'L PROTECTIVE COATINGS CORP-FSP 110 PUTTY OR FS1900 SEALANT

UL SYSTEM NUMBER: WL2038
F RATING - 1 & 2 HR.

5
C-3 **PVC CONDUIT PENETRATION
DETAIL IN GYPSUM WALLBOARD**
NOT TO SCALE

NOTES:

- FLOOR OR WALL ASSEMBLY - MIN 2-1/2 IN. THICK REINFORCED LIGHTWEIGHT OR NORMAL WEIGHT (100-150 PCF) CONCRETE. WALL MAY ALSO BE CONSTRUCTED OF ANY UL CLASSIFIED CONCRETE BLOCKS*. MAX DIAM OF OPENING IS 30-7/8 IN. SEE CONCRETE BLOCKS (CAZT) CATEGORY IN THE FIRE RESISTANCE DIRECTORY FOR NAMES OF MANUFACTURERS.
 - A. STEEL FLOOR UNIT/FLOOR ASSEMBLY (NOT SHOWN) - AS AN ALTERNATE TO ITEM 1, THE FLOOR ASSEMBLY MAY CONSIST OF A FLUTED STEEL FLOOR UNIT/ CONCRETE FLOOR ASSEMBLY. THE FLOOR ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER DESCRIBED IN THE INDIVIDUAL FLOOR CEILING DESIGN IN THE FIRE RESISTANCE DIRECTORY AND SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES:
 - B. CONCRETE - MIN 2-1/2 IN. THICK REINFORCED LIGHTWEIGHT ON NORMAL WEIGHT (100-150 PCF) CONCRETE, AS MEASURED FROM THE TOP PLANE OF THE FLOOR UNITS.
 - C. STEEL FLOOR AND FORM UNITS* - COMPOSITE OR NON-COMPOSITE 1-1/2 TO 3 IN. DEEP FLUTED GALV STEEL UNITS AS SPECIFIED IN THE INDIVIDUAL FLOOR-CEILING DESIGN. MAX DIAM OF OPENING IS 30-7/8 IN.
- THROUGH-PENETRANT - ONE METALLIC PIPE OR CONDUIT TO BE INSTALLED EITHER CONCENTRICALLY OR ECCENTRICALLY WITHIN THE FIRESTOP SYSTEM. THE ANNULAR SPACE BETWEEN PIPE OR CONDUIT AND PERIPHERY OF OPENING SHALL BE MIN 0 IN. TO MAX 7/8 IN. PIPE OR CONDUIT TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF FLOOR OR WALL ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF METALLIC PIPES OR CONDUITS MAY BE USED:
 - A. STEEL PIPE NOM 30 IN. DIAM (OR SMALLER) SCHEDULE 10 (OR HEAVIER) STEEL PIPE.
 - B. IRON PIPE NOM 30 IN. DIAM (OR SMALLER) CAST OR DUCTILE IRON PIPE.
 - C. COPPER PIPE NOM 6 IN. DIAM (OR SMALLER) REGULAR (OR HEAVIER) COPPER PIPE.
 - D. COPPER TUBING NOM 6 IN. DIAM (OR SMALLER) TYPE L (OR HEAVIER) COPPER TUBING.
 - E. CONDUIT NOM 6 IN. DIAM (OR SMALLER) STEEL CONDUIT.
 - F. CONDUIT NOM 4 IN. DIAM (OR SMALLER) STEEL ELECTRICAL METALLIC TUBING (EMT).
- FILL, VOID OR CAVITY MATERIAL* - SEALANT - MIN 1/2 IN. THICKNESS OF FILL MATERIAL APPLIED WITHIN THE ANNULUS, FLUSH WITH TOP SURFACE OF FLOOR OR WITH BOTH SURFACES OF WALL. AT THE POINT CONTACT LOCATION BETWEEN PIPE AND CONCRETE, A MIN 1/4 IN. DIAM BEAD OF FILL MATERIAL SHALL BE APPLIED AT THE CONCRETE/PIPE INTERFACE ON THE TOP SURFACE OF FLOOR AND ON BOTH SURFACES OF WALL.

CONSTRUCTION DRAWINGS - ISSUED FOR CONSTRUCTION

DATE: 08/31/21
SCALE: AS NOTED
JOB NO. 21003.27

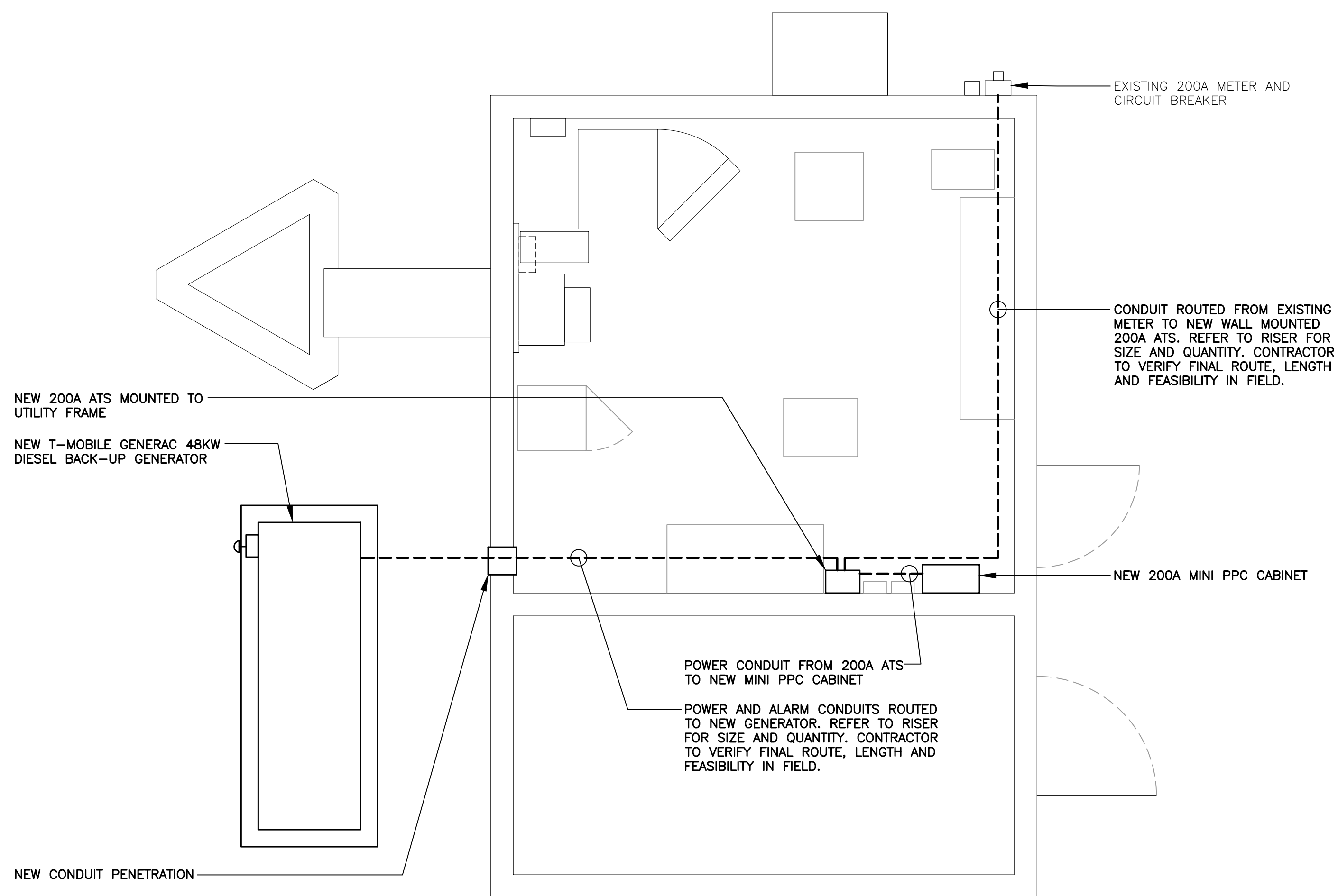
TYPICAL PENETRATION DETAILS

C-3
Sheet No. 5 of 7

T-MOBILE NORTHEAST LLC
SITE NAME: HARWINTON SNET_1
SITE ID: CT11358A
WILDCAT HILL ROAD
HARWINTON, CT 06791

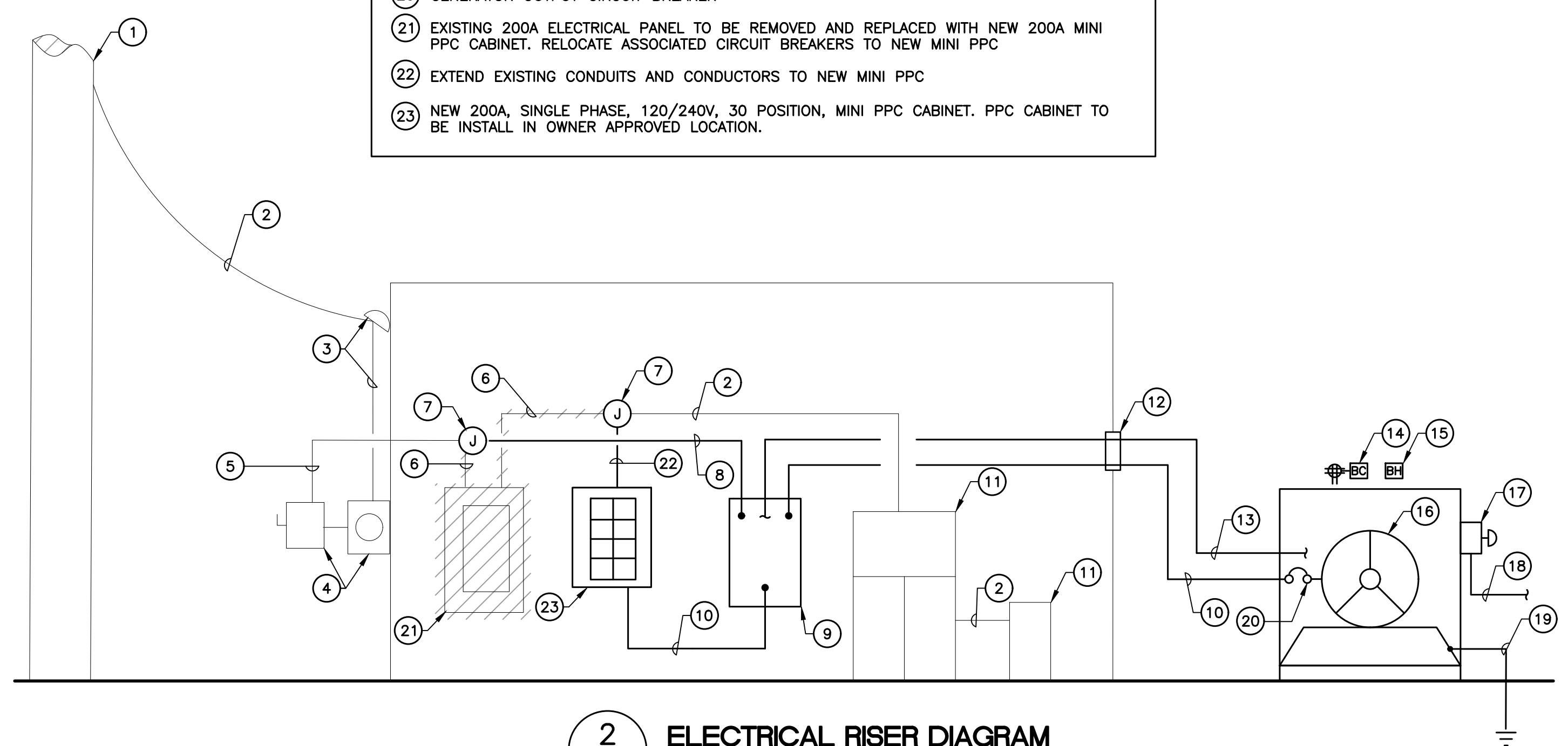
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1 ELECTRICAL CONDUIT ROUTING
E-1 SCALE: 3/8" = 1'

- RISER DIAGRAM NOTES**
- 1 EXISTING UTILITY POLE
 - 2 EXISTING CONDUITS AND CONDUCTORS TO REMAIN
 - 3 EXISTING WEATHERHEAD FOR INCOMING OVER HEAD SERVICE CONDUCTORS TO REMAIN
 - 4 EXISTING 200A/240V METER DISCONNECT COMBO TO REMAIN
 - 5 EXISTING POWER CONDUIT AND CONDUCTORS PREVIOUSLY SERVING EXISTING PANEL
 - 6 SECTION OF CONDUITS AND CONDUCTORS TO BE REMOVED
 - 7 JUNCTION BOX SIZED PER NEC
 - 8 EXTEND EXISTING CONDUITS AND CONDUCTORS TO NEW ATS
 - 9 NEW 200A, 2 SOURCE AUTOMATIC TRANSFER SWITCH.
 - 10 (3) #3/0 AWG, (1) #6 AWG GROUND, 2-1/2" CONDUIT.
 - 11 EXISTING EQUIPMENT CABINETS TO REMAIN
 - 12 EXTERIOR WALL PENETRATION. COORDINATE WITH CIVIL DRAWINGS. CONTRACTOR IS RESPONSIBLE FOR ENSURING PENETRATION IS THOROUGHLY WATERPROOF.
 - 13 1" CONDUIT FOR GENERATOR CONTROL AND SIGNAL WIRING.
 - 14 GENERATOR BATTERY CHARGER AND CONVENIENCE GFCI OUTLET WIRED TO EXISTING PANEL. OUTLET TO BE MOUNTED IN WEATHERPROOF ENCLOSURE.
 - 15 GENERATOR BLOCK HEATER WIRED TO EXISTING PANEL.
 - 16 48KW EMERGENCY BACK-UP GENERATOR
 - 17 REMOTE GENERATOR SHUT OFF SWITCH IN BREAK GLASS ENCLOSURE MOUNTED TO EXTERIOR OF GENERATOR ENCLOSURE PER 2019 NFPA 110 5.6.5.6.1.
 - 18 3/4" CONDUIT AND CONDUCTORS REQUIRED FOR PROPER OPERATION OF EMERGENCY GENERATOR SHUT OFF SWITCH.
 - 19 GENERATOR GROUNDING PER NEC AND MANUFACTURER'S REQUIREMENTS. BOND TO EXISTING GROUNDING SYSTEM. (MINIMUM OF (1) #2 AWG GROUND)
 - 20 GENERATOR OUTPUT CIRCUIT BREAKER
 - 21 EXISTING 200A ELECTRICAL PANEL TO BE REMOVED AND REPLACED WITH NEW 200A MINI PPC CABINET. RELOCATE ASSOCIATED CIRCUIT BREAKERS TO NEW MINI PPC
 - 22 EXTEND EXISTING CONDUITS AND CONDUCTORS TO NEW MINI PPC
 - 23 NEW 200A, SINGLE PHASE, 120/240V, 30 POSITION, MINI PPC CABINET. PPC CABINET TO BE INSTALL IN OWNER APPROVED LOCATION.



2 ELECTRICAL RISER DIAGRAM
E-1 SCALE: NOT TO SCALE

PROFESSIONAL ENGINEER SEAL				TJR	RTS	DATE	DESCRIPTION
				0	10/04/21	REV.	DRAWN BY/CHK'D BY
<p>T-MOBILE NORTHEAST LLC</p> <p>SITE NAME: HARWINTON SNET_1</p> <p>SITE ID: CT11358A</p> <p>WILDCAT HILL ROAD</p> <p>HARWINTON, CT 06791</p>							
DATE:		08/31/21					
SCALE:		AS NOTED					
JOB NO.		21003.27					
<p>ELECTRICAL CONDUIT ROUTING AND RISER DIAGRAM</p>							
<p>E-1</p>							
<p>Sheet No. <u>6</u> of <u>7</u></p>							

Protector™ Series

Diesel Generator Set

INCLUDES:

- Two Line LCD Multilingual Digital Evolution™ Controller (English/Spanish/French/Portuguese) with external viewing window for easy indication of generator status and breaker position.
- Isochronous Electronic Governor
- Sound Attenuated Aluminum Enclosure
- Smart Battery Charger
- UV/Ozone Resistant Hoses
- ±1% Voltage Regulation
- Integrated Base Tank Provides Up to 40 Hours of Run Time
- 5 Year Limited Warranty*
- UL 2200 / UL142 / ULC S601 Listed
- Meets code requirements for External Vent and Fill

Standby Power Rating

- Model RD015 - 15 kW 60 Hz
- Model RD020 - 20 kW 60 Hz
- Model RD030 - 30 kW 60 Hz
- Model RD048 - 48 kW 60 Hz (single phase only)
- Model RD050 - 50 kW 60 Hz (three phase only)



QUIET-TEST™



*Built in the USA using domestic and foreign parts

Meets EPA Emission Regulations
CA/MA Emissions Compliant

* 5 year warranty applicable to U.S. and Territories/Canada. International warranty is 3 year limited.

FEATURES

- **INNOVATIVE DESIGN & PROTOTYPE TESTING** are key components of GENERAC'S success in "IMPROVING POWER BY DESIGN." But it doesn't stop there. Total commitment to component testing, reliability testing, environmental testing, destruction and life testing, plus testing to applicable CSA, NEMA, EGSA, and other standards, allows you to choose GENERAC POWER SYSTEMS with the confidence that these systems will provide superior performance.
- **SOLID-STATE, FREQUENCY COMPENSATED VOLTAGE REGULATION.** This state-of-the-art power maximizing regulation system is standard on all Generac models. It provides optimized FAST RESPONSE to changing load conditions and MAXIMUM MOTOR STARTING CAPABILITY by electronically torque-matching the surge loads to the engine. Digital voltage regulation at ±1%.
- **TEST CRITERIA:**
 - ✓ PROTOTYPE TESTED
 - ✓ SYSTEM TORSIONAL TESTED
 - ✓ NEMA MG1-22 EVALUATION
 - ✓ MOTOR STARTING ABILITY
- **SINGLE SOURCE SERVICE RESPONSE** from Generac's extensive dealer network provides parts and service know-how for the entire unit, from the engine to the smallest electronic component.
- **GENERAC TRANSFER SWITCHES.** Long life and reliability are synonymous with GENERAC POWER SYSTEMS. One reason for this confidence is that the GENERAC product line includes its own transfer systems and controls for total system compatibility.

15 • 20 • 30 • 48 • 50 kW**application & engineering data****GENERATOR SPECIFICATIONS**

Type	Synchronous
Rotor Insulation Class	H (15 & 20 kW) or F (30, 48 & 50 kW)
Stator Insulation Class	H
Telephone Interference Factor (TIF)	<50
Alternator Output Leads 1-Phase	3 wire
Alternator Output Leads 3-Phase	6 wire
Bearings	Single Sealed Cartridge
Coupling	Direct, Flexible Disc
Excitation System	Direct

VOLTAGE REGULATION

Type	Electronic
Sensing	Single Phase
Regulation	± 1%
Features	Adjustable Voltage & Gain

GOVERNOR SPECIFICATIONS

Type	Electronic Isochronous
Steady State Regulation	± 0.25%

ELECTRICAL SYSTEM

Battery Charge Alternator	50 Amp (15 & 20 kW) or 70 Amp (30, 48 & 50 kW)
Smart Battery Charger	2 Amp
Recommended Battery (battery not included)	Group 27F, 700 CCA
System Voltage	12 Volts

GENERATOR FEATURES

<p>Revolving field heavy duty generator Directly connected to the engine Operating temperature rise 120°C above a 40°C ambient Class H insulation is NEMA rated Class F insulation is NEMA rated All models fully prototype tested</p>

ENCLOSURE FEATURES

Aluminum weather protective enclosure	Ensures protection against mother nature. Electrostatically applied textured epoxy paint for added durability.
Enclosed critical grade muffler	Quiet, critical grade muffler is mounted inside the unit to prevent injuries and maximize sound dampening.
Small, compact, attractive	Makes for an easy, eye appealing installation.
SAE	Sound attenuated enclosure ensures quiet operation.

(All ratings in accordance with BS5514, ISO3046, ISO8528, SAE J1349 and DIN6271)

15 • 20 • 30 • 48 • 50 kW

application & engineering data

ENGINE SPECIFICATIONS: 15 & 20 kW

Make	Generac
Model	In-line
Cylinders	4
Displacement (Liters)	2.28
Bore (in./mm)	3.46/88
Stroke (in./mm)	3.70/94
Compression Ratio	21.3:1
Intake Air System	Naturally Aspirated
Cylinder Head Type	Cast Iron OHV
Piston Type	Aluminum
EPA Emissions Compliance	Emergency Stationary

ENGINE SPECIFICATIONS: 30 kW

Make	Generac
Model	In-line
Cylinders	4
Displacement (Liters)	2.4
Bore (in./mm)	3.54/90
Stroke (in./mm)	3.70/94
Compression Ratio	21.3:1
Intake Air System	Turbocharged
Cylinder Head Type	Cast Iron OHV
Piston Type	Aluminum
EPA Emissions Compliance	Emergency Stationary

ENGINE SPECIFICATIONS: 48/50 kW

Make	Generac
Model	In-Line
Cylinders	4
Displacement (Liters)	3.4
Bore in/mm	3.86/98
Stroke in/mm	4.45/113
Compression Ratio	18.5:1
Intake Air System	Turbocharged/Aftercooled
Cylinder Head Type	Cast Iron OHV
Piston Type	Aluminum
EPA Emissions Compliance	Emergency Stationary

WEIGHTS AND DIMENSIONS

	15 kW	20 kW	30 kW	48 kW	50 kW
Weight (lb/kg)	1380/626		1927/874	2197/997	
Dimensions (LxWxH) (in/cm)	81 x 31 x 50/205 x 78 x 128		95 x 35 x 57/242 x 89 x 145		

ENGINE LUBRICATION SYSTEM

Oil Pump Type	Gear
Oil Filter Type	Full flow spin-on canister
Crankcase Capacity (quarts/liters)	6.87/6.5 - 15 & 20 kW
	6.8/6.4 - 30 kW
	7.4/7 - 48 & 50 kW

ENGINE COOLING SYSTEM

Type	Pressurized radiator - 15 & 20 kW Closed recovery - 30, 48 & 50 kW
Water Pump	Pre-lubed, self-sealing
Fan Speed (rpm)	1800 - 15 & 20 kW
	2061 - 30 kW
	2029 - 48 & 50 kW
Fan Diameter (in./mm)	18.11/460 (15 & 20 kW) 22/559 (30, 48 & 50 kW)
Fan Mode	Pusher

FUEL SYSTEM

Fuel Type	Ultra Low Sulfur Diesel Fuel
Fuel Pump Type	Mechanical Engine Driven Gear
Injector Type	Mechanical
Fuel Supply Line (mm/in)	7.94/0.31 (ID)
Fuel Return Line (mm/in)	7.94/0.31 (ID)
Fuel Specification	ASTM
Fuel Filtering (microns)	5 - 15, 20 & 30 kW
	10 - 48 & 50 kW

TANK SPECIFICATIONS

Total Size (gallons/liters)	34/128.7 - 15 & 20 kW
	62/234.7 - 30, 48 & 50 kW
Usable Size (gallons/liters)	32/121.1 - 15 & 20 kW
	57/215.8 - 30, 48 & 50 kW
Run Time @ 1/2 Load (hrs)	41 - 15 kW
	31 - 20 kW
	38 - 30 kW
	25 - 48 & 50 kW
Listings	UL142
	ULC-S601

15 • 20 • 30 • 48 • 50 kW

operating data

GENERATOR OUTPUT VOLTAGE/kW - 60 Hz

		kW (Standby)	Amp (Standby)	CB Size
RD015	120/240 V, 1Ø, 1.0 pf	15	62	70
	120/208 V, 3Ø, 0.8 pf	15	52	60
	120/240 V, 3Ø, 0.8 pf	15	45	50
RD020	120/240 V, 1Ø, 1.0 pf	20	83	100
	120/208 V, 3Ø, 0.8 pf	20	69	80
	120/240 V, 3Ø, 0.8 pf	20	60	70
RD030	120/240 V, 1Ø, 1.0 pf	30	125	150
	120/208 V, 3Ø, 0.8 pf	30	104	125
	120/240 V, 3Ø, 0.8 pf	30	90	100
	277/480 V, 3Ø, 0.8 pf	30	45	50
RD048/ RD050	120/240 V, 1Ø, 1.0 pf	48	200	200
	120/208 V, 3Ø, 0.8 pf	50	173	200
	120/240 V, 3Ø, 0.8 pf	50	150	175
	277/480 V, 3Ø, 0.8 pf	50	75	90

SURGE CAPACITY IN AMPS

		Voltage Dip @ < .4 pf	
		15%	30%
RD015	120/240 V, 1Ø	53	129
	120/208 V, 3Ø	37	90
	120/240 V, 3Ø	32	78
RD020	120/240 V, 1Ø	87	211
	120/208 V, 3Ø	59	143
	120/240 V, 3Ø	51	124
RD030	120/240 V, 1Ø	66	168
	120/208 V, 3Ø	59	144
	120/240 V, 3Ø	51	125
	277/480 V, 3Ø	26	64
RD048/ RD050	120/240 V, 1Ø	69	189
	120/208 V, 3Ø	90	218
	120/240 V, 3Ø	78	189
	277/480 V, 3Ø	36	87

ENGINE FUEL CONSUMPTION

		gal/hr	L/hr
RD015	25% of rated load	0.51	1.93
	50% of rated load	0.79	2.99
	75% of rated load	1.14	4.31
	100% of rated load	1.48	5.58
RD020	25% of rated load	0.67	2.6
	50% of rated load	1.05	3.97
	75% of rated load	1.52	5.32
	100% of rated load	1.98	7.48
RD030	25% of rated load	0.92	3.5
	50% of rated load	1.45	5.5
	75% of rated load	1.96	7.4
	100% of rated load	2.74	10.4
RD048/ RD050	25% of rated load	1.35	5.11
	50% of rated load	2.15	8.14
	75% of rated load	3.06	11.58
	100% of rated load	3.98	15.07

STANDBY RATING: Standby ratings apply to installations served by a reliable utility source. 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-3046-1. Design and specifications are subject to change without notice.

15 • 20 • 30 • 48 • 50 kW

operating data

ENGINE COOLING

	15 kW	20 kW	30 kW	48/50 kW
Air flow (inlet air including alternator and combustion air in cfm/cmm)	2824/80	2824/80	3038/86	2824/80
System coolant capacity (gal/liters)	2.8/10.6	2.8/10.6	2.8/10.6	2.8/10.6
Heat rejection to coolant (BTU per hr/MJ per hr)	63,535/67	63,535/67	111,000/117.1	135,900/143.4
Maximum operation air temperature on radiator (°C/°F)	50/122			
Maximum ambient temperature (°C/°F)	50/122			

COMBUSTION REQUIREMENTS

Flow at rated power (cfm/cmm)	84.76/2.4	84.76/2.4	90/2.55	190/5.38
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SOUND EMISSIONS

Sound output in dB(A) at 23 ft (7 m) with generator in exercise mode*	65
Sound output in dB(A) at 23 ft (7 m) with generator operating at normal load*	70

*Sound levels are taken from the front of the generator. Sound levels taken from other sides of the generator may be higher depending on installation parameters.

EXHAUST

Exhaust flow at rated output (cfm/cmm)	98.88/2.8	98.88/2.8	230/6.51	448/12.7
Exhaust temperature at rated output (°C/°F)	604.4/1120	604.4/1120	454.4/850	604.4/1120

ENGINE PARAMETERS

Rated Synchronous RPM	1800			
HP at rated kW	26.4	33.5	49	85

POWER ADJUSTMENT FOR AMBIENT CONDITIONS

Temperature Deration	3% for every 5 °C above 25 °C or 1.7% for every 5 °F above 77 °F
Altitude Deration (15, 30, 48 & 50 kW)	1% for every 100 m above 915 m or 3% for every 1000 ft above 3000 ft
Altitude Deration (20 kW)	1% for every 100 m above 305 m or 3% for every 1000 ft above 1000 ft

CONTROLLER FEATURES

2-Line Plain Text Multilingual LCD Display	Simple user interface for ease of operation.
Mode Buttons: Auto	Automatic Start on Utility failure. Programmable 7 day exerciser.
Manual	Start with starter control, unit stays on. If utility fails, transfer to load takes place.
Off	Stops unit. Power is removed. Control and charger still operate.
Ready to Run/Maintenance Messages	Standard
Engine Run Hours Indication	Standard
Programmable start delay between 2-1500 seconds	Standard (programmable by dealer only)
Utility Voltage Loss/Return to Utility Adjustable	From 140-171 V/190-216 V
Future Set Capable Exerciser/Exercise Set Error Warning	Standard
Run/Alarm/Maintenance Logs	50 Events Each
Engine Start Sequence	Cyclic cranking: 16 sec on, 7 rest (90 sec maximum duration).
Starter Lock-out	Starter cannot re-engage until 5 sec after engine has stopped.
Smart Battery Charger	Standard
Charger Fault/Missing AC Warning	Standard
Low Battery/Battery Problem Protection and Battery Condition Indication	Standard
Automatic Voltage Regulation with Over and Under Voltage Protection	Standard
Under-Frequency/Overload/Stepper Overcurrent Protection	Standard
Safety Fused/Fuse Problem Protection	Standard
Automatic Low Oil Pressure/High Oil Temperature Shutdown	Standard
Overcrank/Overspeed (@ 72 Hz)/RPM Sense Loss Shutdown	Standard
High Engine Temperature Shutdown	Standard
Internal Fault/Incorrect Wiring Protection	Standard
Common External Fault Capability	Standard
Field Upgradable Firmware	Standard

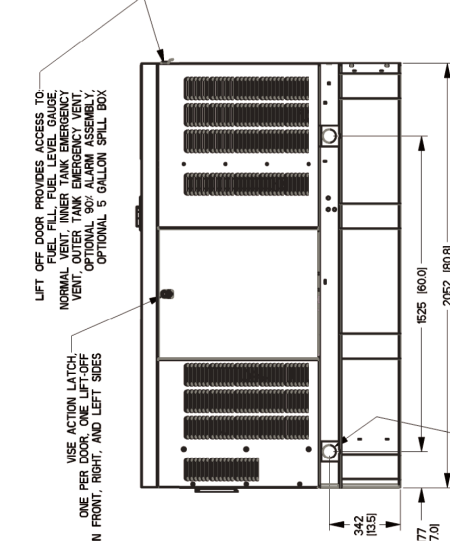
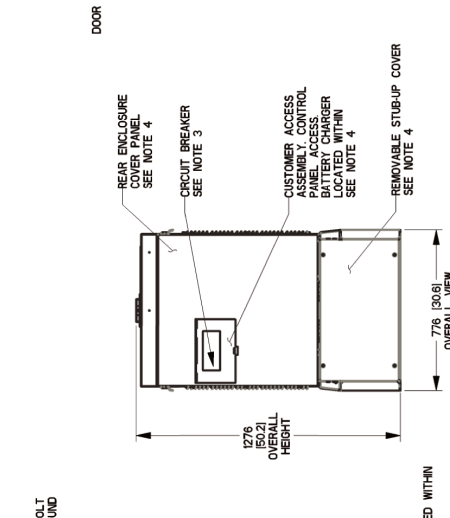
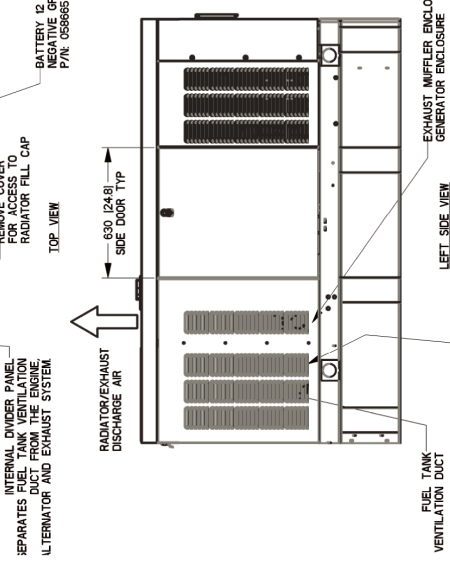
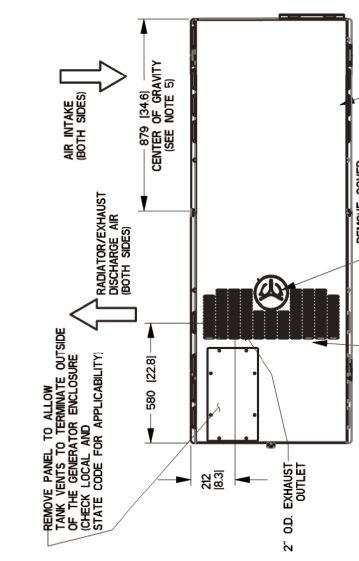
15 & 20 kW

Drawing #0K7025-C (1 of 2)

- NOTES:**
- MINIMUM RECOMMENDED CONCRETE PAD SIZE: 1082 (457) WIDE X .2865 (837) LONG. REFERENCE INSTALLATION GUIDE SUPPLIED WITH UNIT FOR CONCRETE PAD GUIDELINES.
 - ALLOW SUFFICIENT ROOM ON ALL SIDES OF THE GENERATOR FOR MAINTENANCE AND SERVICING. THIS UNIT MUST BE INSTALLED IN ACCORDANCE WITH CURRENT STATE AND LOCAL CODES.
 - CONTROL PANEL / CIRCUIT BREAKER INFORMATION:
 - SEE SPECIFICATION SHEET OR OWNERS MANUAL.
 - SEE SPECIFICATION SHEET OR OWNERS MANUAL FOR ACCESS TO REAR ENCLOSURE COVER PANEL TO ACCESS THE STUBUP AREAS AS FOLLOWS:
 - HIGH VOLTAGE CONNECTION INCLUDING AC LOAD LEAD CONDUIT CONNECTION, NEUTRAL CONNECTION, AND BATTERY CHARGER 120 VOLT AC (105 AMP MAX) CONNECTION.
 - REMOVE THE REAR STUBUP AND REAR ENCLOSURE COVER PANEL TO ACCESS THE STUBUP AREAS AS FOLLOWS:
 - TRIP AND TEST SWITCH CONTROL WIRES AND ACCESSORY RELAY CONNECTION (RTY 4).
 - TRIP AND TEST SWITCH CONTROL WIRES AND ACCESSORY RELAY CONNECTION (RTY 4).
 - BOTTOM OF GENERATOR SET MUST BE ENCLOSED TO PREVENT PEST INTRUSION AND EXHAUST SYSTEM MANUFACTURER'S PRESSURE ZONE WARNINGS (PZ).
 - REFERENCE OWNERS MANUAL FOR LIFTING WARNINGS.
 - MOUNTING BOLTS OR STUDS TO MOUNTING SURFACE SHALL BE 5/8-11 GRADE 5 (USE STANDARD SAE TORQUE SPECS).
 - FOR FRESH AIR INTAKE, AIR DISCHARGE, AIR AND EXHAUST. SEE SPEC SHEET FOR MINIMUM AIR FLOW RESTRICTION REQUIREMENTS.
 - GENERATOR MUST BE INSTALLED SUCH THAT FRESH COOLING AIR IS AVAILABLE AND THAT DISCHARGE AIR FROM RADATOR IS NOT RECIRCULATED.

SERVICE ITEM	23L	WEIGHT DATA WITH EMPTY BASETANK (SEE NOTE 5)
OIL FILL CAP	RIGHT SIDE	GENERATOR AS SHOWN 626 (1360)
OIL DIP STICK	RIGHT SIDE	WITH WOODEN SHIPPING SKID 666 (1468)
OIL FILTER	RIGHT SIDE	
OIL DRAIN HOSE	RIGHT SIDE	
RADIATOR DRAIN HOSE	LEFT SIDE	WEIGHT: KG (LBS)
COOLANT RECOVERY BOTTLE	LEFT SIDE	DIMENSIONS: MM (INCH)
RADIATOR FILL CAP ACCESS	ROOF TOP	
AIR CLEANER ELEMENT	EITHER SIDE	
MUFFLER	FRONT	
FAN BELT	EITHER SIDE	
BATTERY	LEFT SIDE	

REFERENCE OWNERS MANUAL FOR PERIODIC REPLACEMENT PART LISTINGS.



REMOVE PANEL TO ALLOW FRESH AIR INTAKE FROM OUTSIDE OF THE GENERATOR ENCLOSURE (CHECK LOCAL AND STATE CODE FOR APPLICABILITY)

INTERNAL DIVIDER PANEL SEPARATES FUEL TANK VENTILATION FROM EXHAUST SYSTEM

REMOVE COVER FOR ACCESS TO RADIATOR FILL CAP

BATTERY 12 VOLT (12V) 65 AMP (65A) P/N: US6665

AIR INTAKE (BOTH SIDES)

676 (134.6) CENTER OF GRAVITY (SEE NOTE 5)

RADIATOR/EXHAUST DISCHARGE AIR (BOTH SIDES)

2' O.D. EXHAUST OUTLET

INTERNAL DIVIDER PANEL SEPARATES FUEL TANK VENTILATION FROM EXHAUST SYSTEM

REMOVE COVER FOR ACCESS TO RADIATOR FILL CAP

REAR ENCLOSURE COVER PANEL SEE NOTE 4

CIRCUIT BREAKER SEE NOTE 3

CUSTOMER ACCESS PANEL ACCESS BATTERY CHARGER DUCT WITHIN SEE NOTE 4

REMOVABLE STUB-UP COVER SEE NOTE 4

676 (134.6) OVERALL HEIGHT

776 (194.6) OVERALL WIDTH

RADIATOR/EXHAUST DISCHARGE AIR

FUEL TANK VENTILATION DUCT

EXHAUST MUFFLER ENCLOSED WITHIN GENERATOR ENCLOSURE

OPEN PUNCHED LOUVERS TYPICAL ON BOTH SIDES OF FUEL TANK VENTILATION DUCT TO PROVIDE ADEQUATE CROSS-FLOW OF AIR VENTILATION

DOOR ON FRONT, RIGHT, AND LEFT SIDES

ONE PER SIDE ON EACH OF THE LEFT SIDES

442 (18.5)

177 (7.0)

1525 (60.0)

2052 (80.8) OVERALL LENGTH

LIFT OFF DOOR PROVIDES ACCESS TO REAR ENCLOSURE COVER PANEL TO ACCESS NORMAL VENT, INNER TANK EMERGENCY VENT, OUTER TANK EMERGENCY VENT, OPTIONAL 90° ALARM ASSEMBLY, OPTIONAL 5 GALLON SPILL BOX

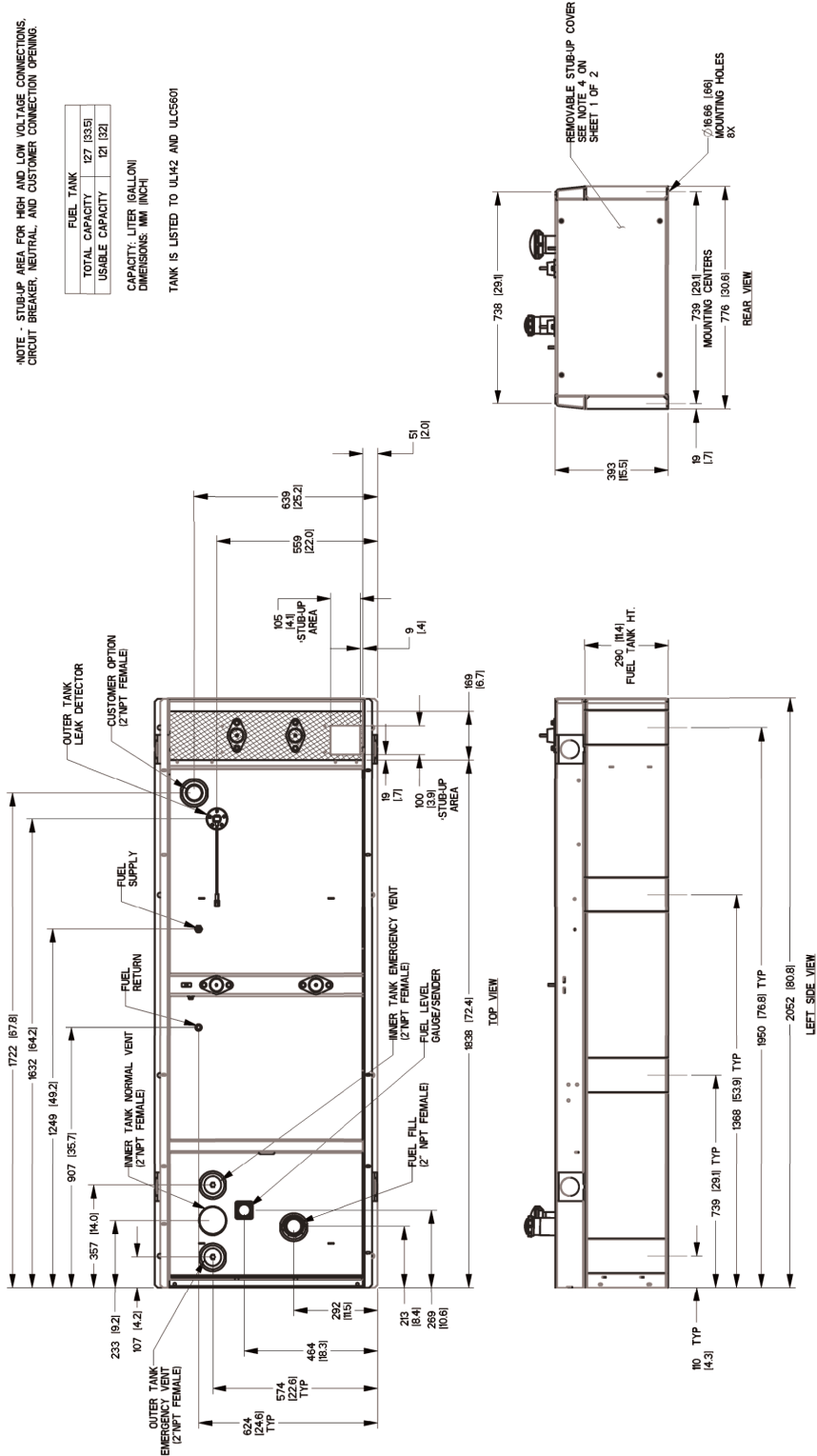
SEE NOTE 4 PLACES CENTER OF GRAVITY DIMENSIONS

NOTE - STUBUP AREA FOR HIGH AND LOW VOLTAGE CONNECTIONS, CIRCUIT BREAKER, NEUTRAL, AND CUSTOMER CONNECTION OPENING.

FUEL TANK	
TOTAL CAPACITY	127 [33.5]
USABLE CAPACITY	121 [32]

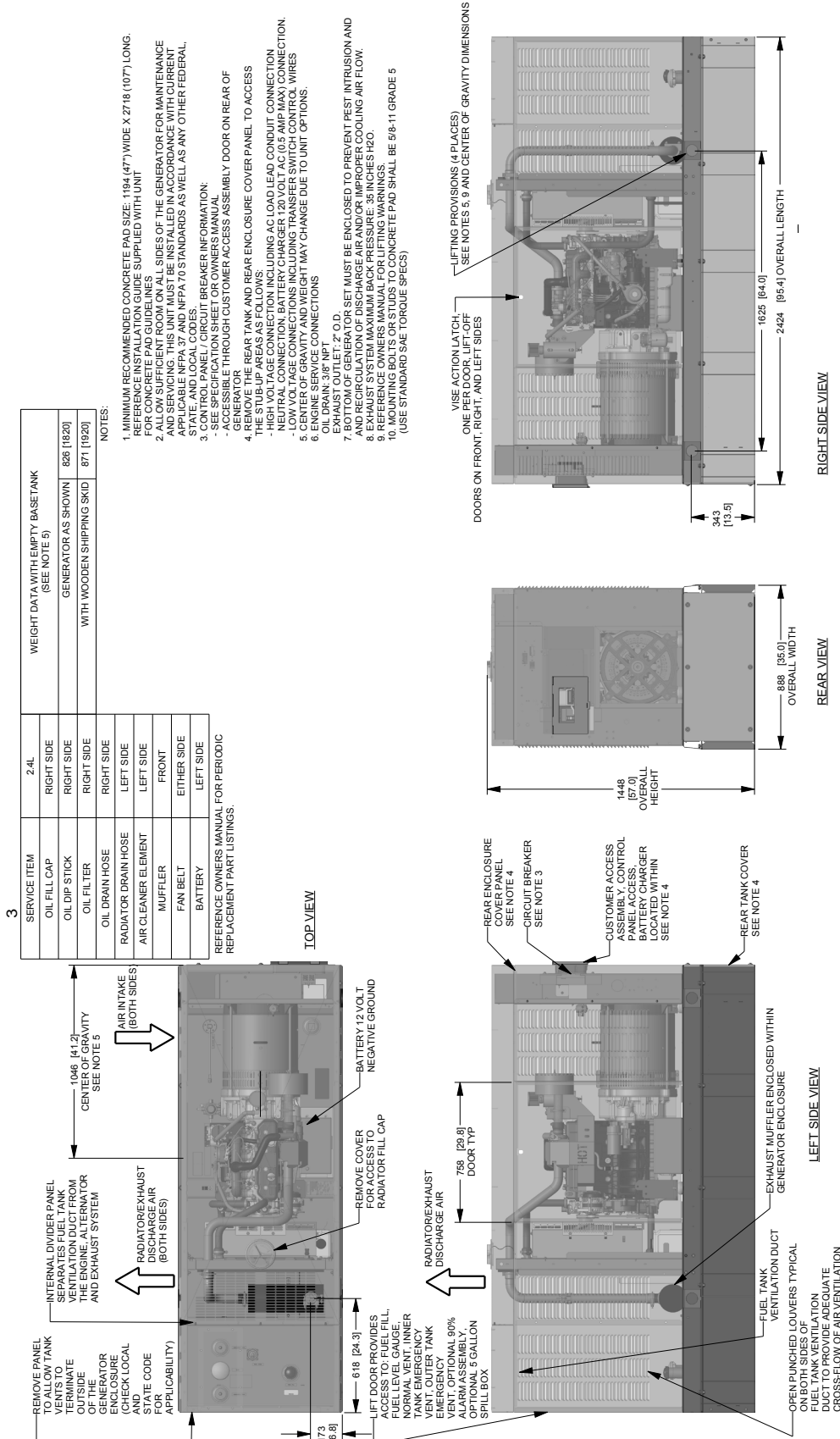
CAPACITY: LITER (GALLON)
DIMENSIONS: MM (INCH)

TANK IS LISTED TO UL142 AND ULCS601



30 kW

Drawing #0K7002-C (1 of 2)



30 kW

GENERAC®

installation layout

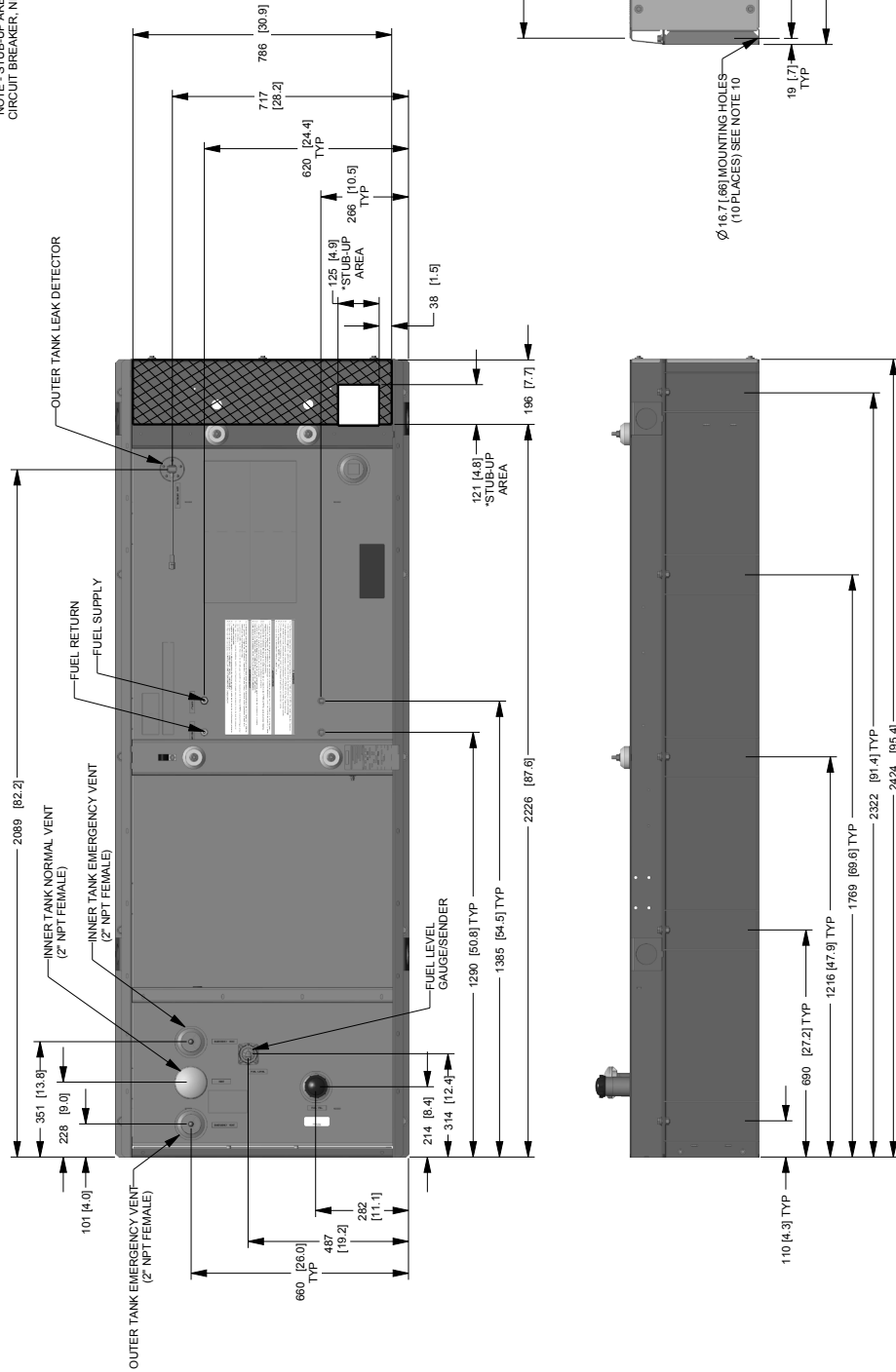
Drawing #0K7002-B (2 of 2)

Protector™ Series

9 of 12

*NOTE - STUB-UP AREA FOR HIGH AND LOW VOLTAGE CONNECTIONS, CIRCUIT BREAKER, NEUTRAL AND CUSTOMER CONNECTION OPENING.

FUEL TANK	
TOTAL CAPACITY	233 [6.1]
USABLE CAPACITY	203 [5.5]
CAPACITY, LITER (GALLON)	
DIMENSIONS: MM (INCH)	
TANK IS LISTED TO UL142 AND UL300 C142.18	



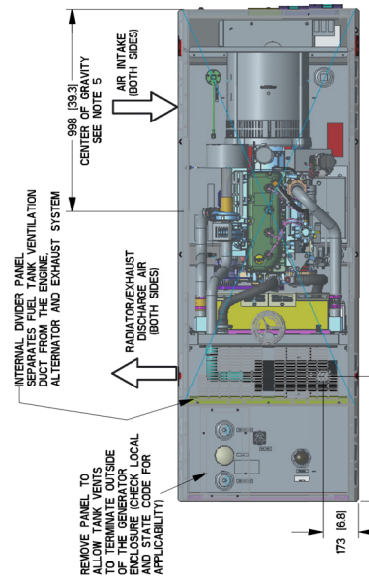
48 & 50 kW

Drawing #0K6968-C (1 of 2)

34L	WEIGHT DATA WITH EMPTY BASETANK (SEE NOTE 5)
GENERATOR AS SHOWN (STEEL ENCL)	997 (2197)
WITH WOODEN SHIPPING SKID	1042 (2297)

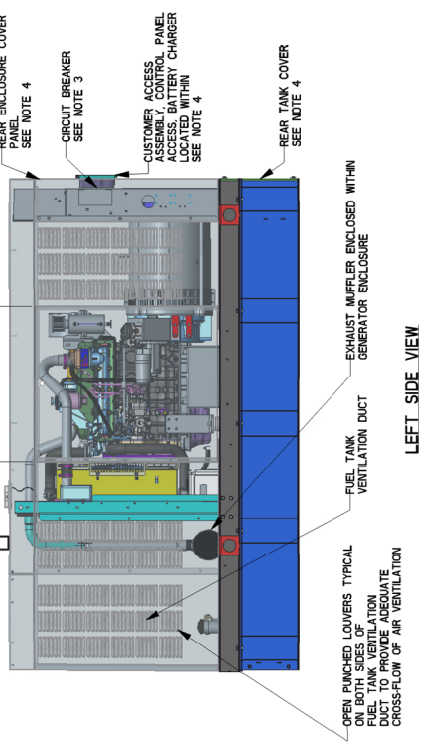
NOTES:

1. MINIMUM RECOMMENDED CONCRETE PAD SIZE: 164" (4177) WIDE X 278" (7062) DEEP. SEE LIFTING AND INSTALLATION GUIDE SUPPLIED WITH UNIT FOR CONCRETE PAD GUIDELINES.
2. ALLOW SUFFICIENT ROOM ON ALL SIDES OF THE GENERATOR FOR MAINTENANCE AND SERVICE. THIS UNIT MUST BE INSTALLED IN ACCORDANCE WITH CURRENT STATE AND LOCAL CODES.
3. CONTROL PANEL / CIRCUIT BREAKER INFORMATION:
 - SEE SPECIFICATION SHEET OR OWNERS MANUAL
 - ACCESSIBLE THROUGH CUSTOMER ACCESS ASSEMBLY DOOR ON REAR OF ENCLOSURE
4. REMOVE THE REAR TANK AND REAR ENCLOSURE COVER PANEL TO ACCESS THE STUB-UP AREAS AS FOLLOWS:
 - HIGH VOLTAGE CONNECTION INCLUDING AC LOAD LEAD CIRCUIT CONNECTION (SEE OWNERS MANUAL FOR WIRING DIAGRAMS)
 - LOW VOLTAGE CONNECTIONS INCLUDING TRANSFER SWITCH CONTROL WIRES
5. ENGINE SERVICE CONNECTIONS
6. EXHAUST OUTLET: 2" OD
7. BOTTOM OF GENERATOR SET MUST BE ENCLOSED TO PREVENT INTRUSION AND REDUCULATION OF DISCHARGE AIR AND/OR IMPROPER COOLING AIR FLOW.
8. REFRIGERATION SYSTEMS MUST BE INSTALLED IN ACCORDANCE WITH CODES.
9. REFER TO OWNERS MANUAL FOR LIFTING WARNINGS.
10. MOUNTING BOLTS OR STUDS TO CONCRETE PAD SHALL BE 5/8" I.I. GRADE 5 (USE STANDARD SAE TORQUE SPECS)

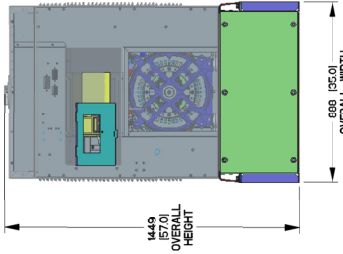


TOP VIEW

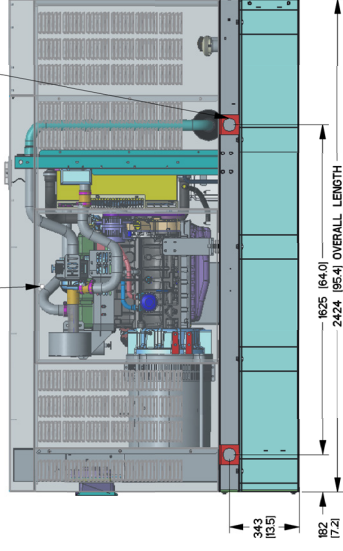
LIFT-OFF DOOR PROVIDES ACCESS TO:
 - FUEL TANK VENTILATION
 - NORMAL VENT (INNER TANK)
 - EMERGENCY VENT (OUTER TANK)
 - ALARM (ASSEMBLY)
 - OPTIONAL 5 GALLON SPILL BOX



LEFT SIDE VIEW



REAR VIEW



RIGHT SIDE VIEW

SERVICE ITEM	RIGHT SIDE	LEFT SIDE
OIL FILL CAP	RIGHT SIDE	RIGHT SIDE
OIL DIP STICK	RIGHT SIDE	RIGHT SIDE
OIL FILTER	RIGHT SIDE	RIGHT SIDE
OIL DRAIN HOSE	RIGHT SIDE	RIGHT SIDE
RADIATOR DRAIN HOSE	RIGHT SIDE	RIGHT SIDE
AIR CLEANER ELEMENT	FRONT	FRONT
FAN BELT	FRONT	FRONT
BATTERY	FRONT	FRONT

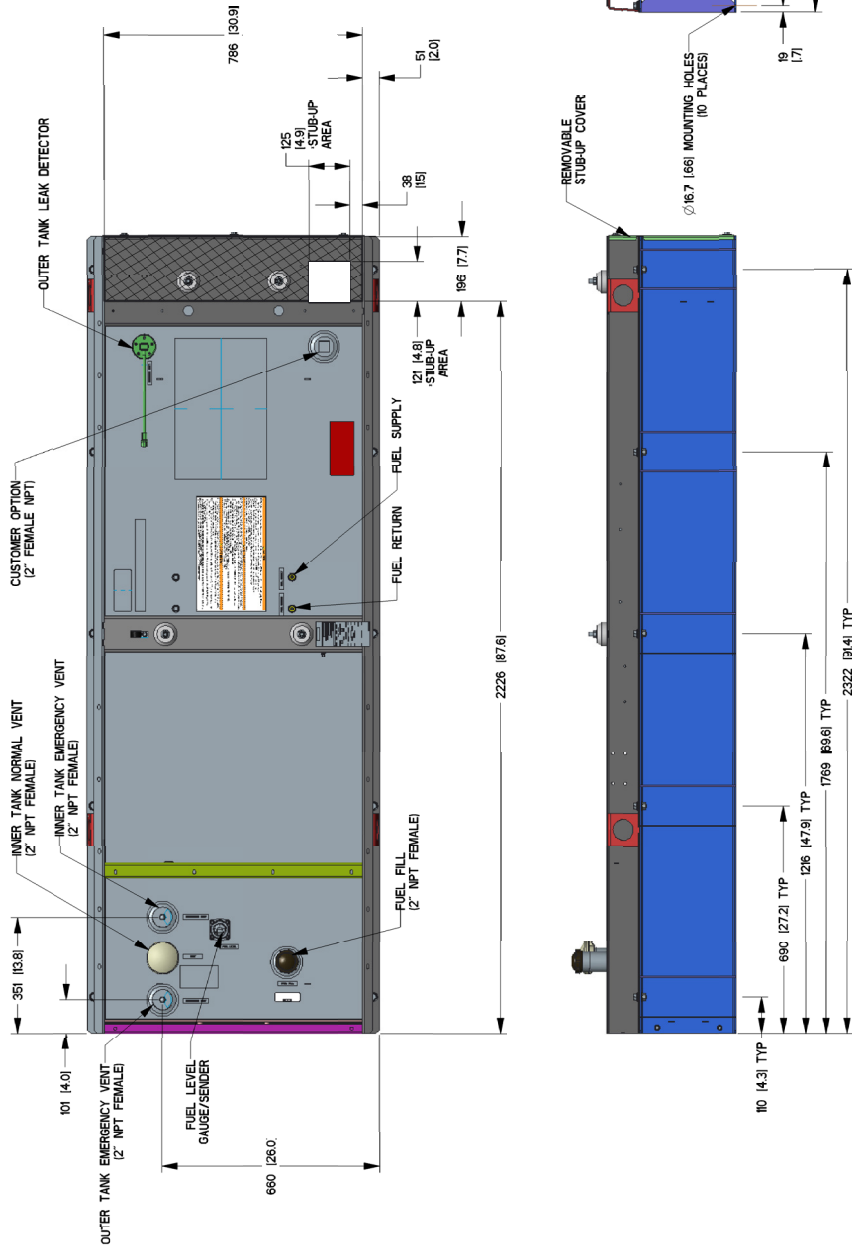
REFERENCE OWNERS MANUAL FOR PERIODIC MAINTENANCE AND REPLACEMENT PART LISTING.

48 & 50 kW

FUEL TANK	
TOTAL CAPACITY	233 [61]
USABLE CAPACITY	209 [55]
CAPACITY: LITER (GALLONS)	
DIMENSIONS: MM (INCH)	

THIS TANK IS LISTED TO UL142 AND ULCS901

NOTE - STUBUP AREA FOR HIGH AND LOW VOLTAGE CONNECTIONS, CIRCUIT BREAKER, NEUTRAL AND CUSTOMER CONNECTION OPENING.



15 • 20 • 30 • 48 • 50 kW**available accessories**

Model #	Product	Description
G006463-4	Mobile Link™	Generac's Mobile Link allows you to check the status of your generator from anywhere that you have access to an Internet connection from a PC or with any smart device. You will even be notified when a change in the generator's status occurs via e-mail or text message. Note: Harness Adapter Kit required. Available in the U.S. only.
G006478-0	Harness Adapter Kit	The Harness Adapter Kit is required to make liquid-cooled units compatible with Mobile Link™.
G006502-0	Spill Box	The 5-gallon spill box screws into the existing fuel fill port of the base tank. It captures and contains fuel if over fueling or spilling occurs during the fill process.
G006504-0	90% Fuel Level Alarm	The 90% fuel level alarm alerts the fuel fill operator when the tank reaches a 90% fill level by sounding an audible alarm and triggering an LED warning light.
G006505-0 - 15 & 20 kW G006506-0 - 30, 48 & 50 kW	Tank Risers	Tank risers are required in some municipalities to help avoid potential base tank corrosion caused by mounting on rough surfaces.
G006507-0	Fuel Fill Drop Tube	A powder coat painted, steel fuel fill drop tube is required in some municipalities to prevent sparking due to static electricity buildup, which can be caused by the fuel dropping into the tank from the fill area. Using a drop tube also results in submerged filling, which increases the fuel delivery flow rate and reduces vapors, foam and potential tank evaporation.
G006513-0 - 15 & 20 kW G006517-0 - 30 kW G006516-0 - 48 & 50 kW	Stainless Steel Fuel Lines	Some municipalities require the use of stainless steel fuel lines instead of the standard hoses provided with the diesel generator products. These stainless steel lines are fire resistant for additional safety.
G006510-0	E-Stop	E-stop allows for immediate fuel shutoff and generator shutdown in the event of an emergency.
006511-0	Spill Box Drainback Kit	The spill box drainback kit allows fuel that was captured in the 5-gallon spill box to be drained directly back into the fuel tank to avoid vapors.
G006588-1	Vent Extension Support Kit	The vent extension support kit consists of two aluminum plates with the appropriate pipe cutouts to secure the vent extension pipes coming through the top of the generator enclosure. It helps to minimize stress on the NPT fittings integrated on the tank and also helps protect against pests.
G006512-0	Lockable Fuel Cap	The cast iron, lockable fuel cap provides the ability to lock the fuel system to prevent unwanted fuel tampering or fuel siphoning.
G006572-0 - 15 & 20 kW G006571-0 - 30 kW G006570-0 - 48 & 50 kW	Maintenance Kits	The Protector Maintenance Kits offer all the hardware necessary to perform complete maintenance on Generac Protector generators.
G006560-0 - 15 & 20 kW G006559-0 - 30 kW G006558-0 - 48 & 50 kW	Cold Weather Kits	Recommended for generators installed in regions where the temperature regularly falls below 32 °F (0 °C). The Cold Weather Kits consist of a block heater with all necessary mounting hardware and a battery warmer with a thermostat built into the battery wrap.
G005704-0	Paint Kit	If the generator enclosure is scratched or damaged, it is important to touch-up the paint to protect from future corrosion. The paint kit includes the necessary paint to properly maintain or touch-up a generator enclosure.
G006664-0	Local Wireless Remote	Completely wireless and battery powered, Generac's wireless remote monitor provides you with instant status information without ever leaving the house.
G006665-0	Wireless Remote Extension Harness	Recommended for use with the Wireless Remote on units up to 60 kW, required for use on units 70 kW or greater.
G006873-0	Smart Management Module (50 Amps)	Manage large loads by utilizing up to 8 individual Smart Management modules. These devices are installed directly in line with existing appliance wiring for easy installation.