



July 21, 2021

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

RE: Notice of Exempt Modification
890 Evergreen Avenue, Hamden, CT
Latitude: 41.40667
Longitude: -72.90444
T-Mobile Site#: CT11686I - Hardening

Dear Ms. Bachman:

T-Mobile currently maintains six (6) antennas at the 104-foot level of the existing 108-foot silo tower at 890 Evergreen Avenue in Hamden, CT. The 108-foot silo tower is owned and operated by Crown Castle. The property is owned by Conn Agricultural Expt Station. T-Mobile now intends to add a 25Kw generator to a proposed 10'x4' concrete pad within the existing compound.

Planned Modifications:

Ground:

Install New:

- (1) Generac RD025 25 Kw AC Diesel Generator
- (1) 10' x 4' Concrete Pad (within compound)

This facility was approved by the Town of Hamden Planning and Zoning Commission via Site Plan Application #00-1263. Please see enclosed documentation.

Please accept this letter as notification pursuant to Regulations of Connecticut State Agencies § 16-50j-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. § 16-50j-73, a copy of this letter is being sent to Mayor Curt Leng, Elected Official, and Erik Johnson, Acting Town Planner of the Town of Hamden, as well as the property owner and tower 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,

Kyle Richers

Transcend Wireless

Cell: 908-447-4716

Email: krichers@transcendwireless.com

Attachments

cc: Curt Leng – Mayor of Town of Hamden

Erik Johnson – Acting Town Planner of Town of Hamden

Conn Agricultural Expt Station - Property Owner

Crown Castle – Tower Owner

Kyle Richers

From: UPS <pkginfo@ups.com>
Sent: Thursday, July 22, 2021 11:37 PM
To: krichers@transcendwireless.com
Subject: In Transit Notification, Tracking Number 1ZV257424291341434



This message was sent to you at the request of TRANSCEND WIRELESS to notify you that the following shipment is in transit.

Important Delivery Information

Scheduled Delivery: 07/23/2021
Tracking Number: [1ZV257424291341434](#)

Shipment Details

Ship To: Conn Agricultural Expt Station
890 Evergreen Avenue
HAMDEN
CT
06518
US

Number of Packages: 1

UPS Service: UPS GROUND

Weight: 1.0 LBS

Reference Number 1: CT11686I CSC PO



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Kyle Richers

From: UPS <pkginfo@ups.com>
Sent: Thursday, July 22, 2021 11:37 PM
To: krichers@transcendwireless.com
Subject: In Transit Notification, Tracking Number 1ZV257424294367429



This message was sent to you at the request of TRANSCEND WIRELESS to notify you that the following shipment is in transit.

Important Delivery Information

Scheduled Delivery: 07/23/2021
Tracking Number: [1ZV257424294367429](#)

Shipment Details

Ship To: Curt Leng
Town of Hamden
2750 Dixwell Avenue
HAMDEN
CT
06518
US

Number of Packages: 1

UPS Service: UPS GROUND

Weight: 1.0 LBS

Reference Number 1: CT11686I UPS EO



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Kyle Richers

From: UPS <pkginfo@ups.com>
Sent: Thursday, July 22, 2021 11:37 PM
To: krichers@transcendwireless.com
Subject: In Transit Notification, Tracking Number 1ZV257424298014632



This message was sent to you at the request of TRANSCEND WIRELESS to notify you that the following shipment is in transit.

Important Delivery Information

Scheduled Delivery: 07/23/2021
Tracking Number: [1ZV257424298014632](#)

Shipment Details

Ship To: Erik Johnson
Town of Hamden
2750 Dixwell Avenue
3rd Floor
HAMDEN
CT
06518
US

Number of Packages: 1

UPS Service: UPS GROUND

Weight: 1.0 LBS

Reference Number 1: CT11686I CSC ZO



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Kyle Richers

From: UPS <pkginfo@ups.com>
Sent: Thursday, July 22, 2021 11:37 PM
To: krichers@transcendwireless.com
Subject: In Transit Notification, Tracking Number 1ZV257424291287468



This message was sent to you at the request of TRANSCEND WIRELESS to notify you that the following shipment is in transit.

Important Delivery Information

Scheduled Delivery: 07/26/2021
Tracking Number: [1ZV257424291287468](#)

Shipment Details

Ship To: Crown Castle
2000 Corporate Drive
CANONSBURG
PA
15317
US

Number of Packages: 1

UPS Service: UPS GROUND

Weight: 1.0 LBS

Reference Number 1: CT11686I CSC TO



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890 EVERGREEN AVE

Location 890 EVERGREEN AVE

Mblu 2930/ 081/ 01/ /

Acct#

Owner CONN AGRICULURAL EXPT STATION

Assessment \$201,390

Appraisal \$302,700

PID 123443

Building Count 1

Current Value

Appraisal					
Valuation Year	Building	Extra Features	Outbuildings	Land	Total
2020	\$137,700	\$0	\$0	\$165,000	\$302,700

Assessment					
Valuation Year	Building	Extra Features	Outbuildings	Land	Total
2020	\$96,390	\$0	\$0	\$105,000	\$201,390

Owner of Record

Owner CONN AGRICULURAL EXPT STATION

Sale Price \$0

Co-Owner

Certificate

Address 890 EVERGREEN AVE
HAMDEN, CT 06518

Book & Page 64/ 135

Sale Date 01/04/1911

Ownership History

Ownership History				
Owner	Sale Price	Certificate	Book & Page	Sale Date
CONN AGRICULURAL EXPT STATION	\$0		64/ 135	01/04/1911

Building Information

Building 1 : Section 1

Year Built: 2000

Living Area: 1,473

Building Percent Good: 86

Building Attributes	
Field	Description
STYLE	Telephone Bldg

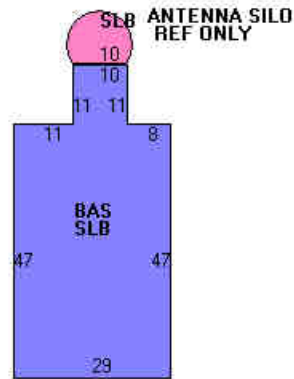
MODEL	Ind/Comm
Grade	C
Stories:	1
Occupancy	1
Exterior Wall 1	Concr/Cinder
Exterior Wall 2	
Roof Structure	Gable/Hip
Roof Cover	Asphalt
Interior Wall 1	Minim/Masonry
Interior Wall 2	
Interior Floor 1	Concr-Finished
Interior Floor 2	
Heating Fuel	Oil
Heating Type	Hot Air-no Duc
AC Type	None
Bldg Use	RAD/TV TR M96
Total Rooms	
Total Bedrms	00
Total Baths	0
1st Floor Use:	4330
Heat/AC	HEAT/AC SPLIT
Frame Type	MASONRY
Baths/Plumbing	NONE
Ceiling/Wall	NONE
Rooms/Prtns	AVERAGE
Wall Height	10
% Comn Wall	

Building Photo



(<http://images.vgsi.com/photos/HamdenCTPhotos//00\02\79\86.jpg>)

Building Layout



(http://images.vgsi.com/photos/HamdenCTPhotos//Sketches/123443_2243)

Building Sub-Areas (sq ft)			<u>Legend</u>
Code	Description	Gross Area	Living Area
BAS	First Floor	1,473	1,473
SLB	Slab	1,527	0
		3,000	1,473

Extra Features

Extra Features	<u>Legend</u>
No Data for Extra Features	

Land

Land Use

Use Code 4310
Description TEL REL TW M96

Land Line Valuation

Size (Acres) 0
Frontage

Zone R4
Neighborhood 110
Alt Land Appr No
Category

Depth
Assessed Value \$105,000
Appraised Value \$165,000

Outbuildings

Outbuildings	<u>Legend</u>
No Data for Outbuildings	

Valuation History

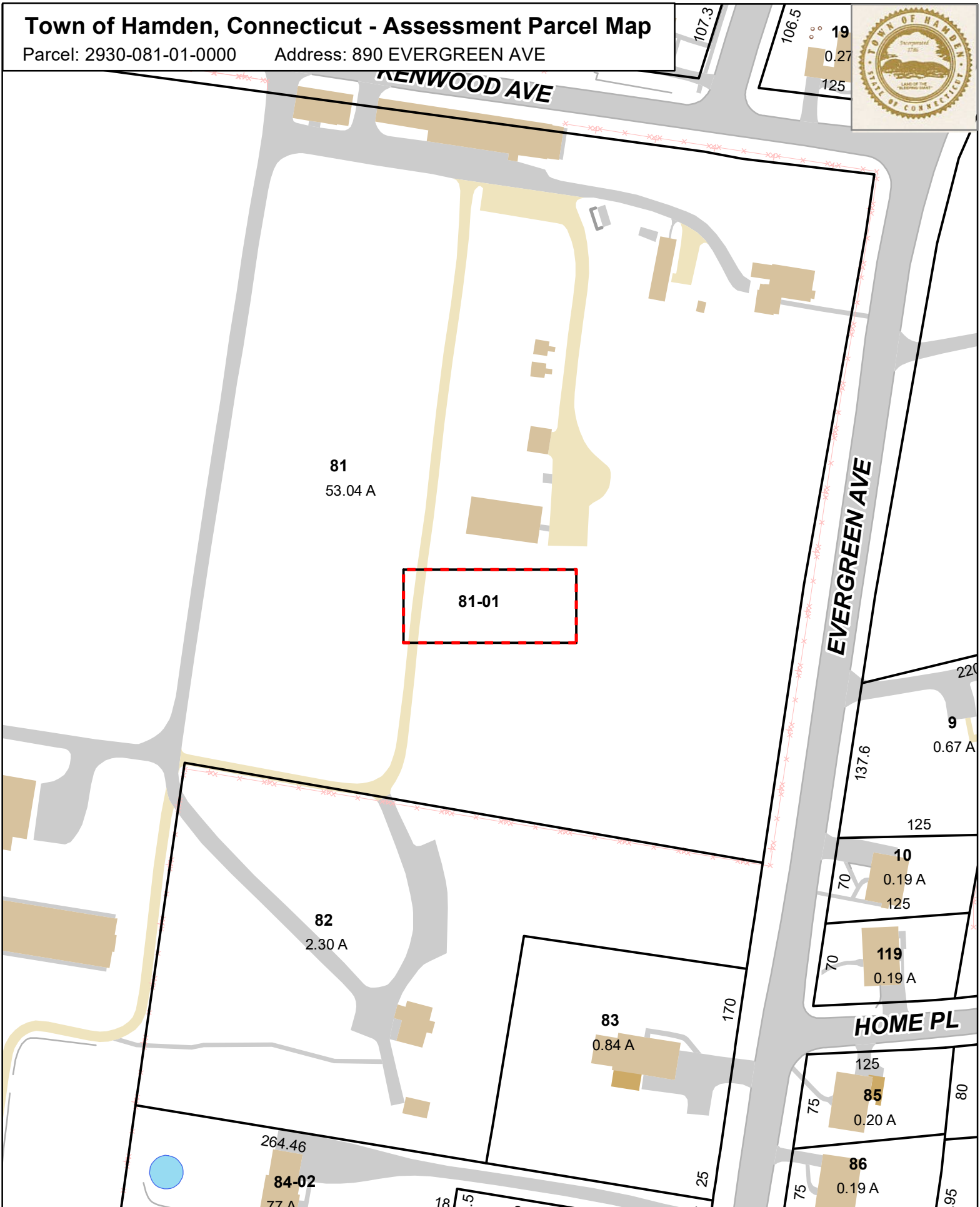
Appraisal					
Valuation Year	Building	Extra Features	Outbuildings	Land	Total
2019	\$125,600	\$0	\$0	\$165,000	\$290,600
2018	\$125,600	\$0	\$0	\$165,000	\$290,600
2017	\$125,600	\$0	\$0	\$165,000	\$290,600

Assessment					
Valuation Year	Building	Extra Features	Outbuildings	Land	Total
2019	\$87,920	\$0	\$0	\$105,000	\$192,920
2018	\$87,920	\$0	\$0	\$105,000	\$192,920
2017	\$87,920	\$0	\$0	\$105,000	\$192,920

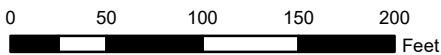
Town of Hamden, Connecticut - Assessment Parcel Map

Parcel: 2930-081-01-0000

Address: 890 EVERGREEN AVE



Approximate Scale: 1 inch = 100 feet



Map Produced: October 2020

Disclaimer: This map is for informational purposes only.
All information is subject to verification by any user.
The Town of Hamden and its mapping contractors assume
no legal responsibility for the information contained herein.

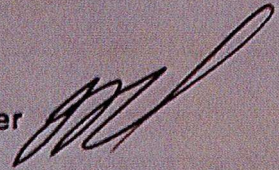


TOWN OF HAMDEN

CONNECTICUT

BOND RELEASE RECOMMENDATION/ACTION

MEMO TO: Planning & Zoning Commission

FROM: Joseph J. Venditto, Zoning Enforcement Officer 

DATE: MARCH 7, 2002

RE: Bond Release

ADDRESS: 890 EVERGREEN AVE

PROJECT: SITE PLAN 00-1263

TOTAL BOND AMOUNT:	Present Amt.	Recommendation Amt. to Retain
Site Work	13,527.	0
Right of Way	0.	0
Subtotal	13,527.	0
Other 10%	1,473.	0
TOTAL	15,000.	0

Bond total covers all items listed or not listed. Categories are for estimation purposes only.

Comments: ALL SITE WORK COMPLETE. BOND RELEASE CAN BE RECOMMENDED.

\$60.00
FEE

TOWN OF HAMDEN
APPLICATION FOR CERTIFICATE OF ZONING COMPLIANCE

Property Address 890 EVERGREEN ^{DRIVE} ~~DRIVE~~ Zoning District R-9
Property Owner CROWN CASTLE ~~PLANNING~~ ^{LLC} Phone # (860) 657-1563 CALL (860) 306-0337
Property Owner Address 703 HARRON AVE, GLOSTONBURY, CT 06033
Type of Zoning Permit: CONDOMINIUM SITING COUNCIL

I certify that the work required has been completed in accordance with approved plans except as noted on attached as-built drawing.

Applicant Signature [Signature] Date 8-26-02
Owner/Agent

PRINTED NAME WILLIAM W WATSON - 7th
ADDRESS 703 HARRON AVE, GLOSTONBURY, CT 06033
TELEPHONE # (860) 657-1567 FAX # (860) 633-7078

Certificate # _____ Certificate of Zoning Compliance

Zoning Enforcement Officer Findings: based upon inspection of MARCH 5, 2002

Unconditional Meets all requirements
Conditional See list below

Following is a list of requirements determined from inspection which while not yet complete do not adversely affect use/occupancy of the premises and for which sufficient security is being held:

Signature [Signature] Date 3/5/02
Zoning Enforcement Officer

This is not a Certificate of Occupancy under the Building Code

Rev 08/16/01

RECEIVED
TOWN OF HAMDEN
3-5-02
PLANNING AND
ZONING DEPT.
171ST TOWN OFFICE



Crown Castle Atlantic LLC
Northeast Region
703 Hebron Avenue, 2nd Floor
Glastonbury, CT 06033

Tel 860 633.9369
Fax 860 633.7078
www.crowncastle.com

February 25, 2002

Mr. Joseph J. Venditto
Town of Hamden
2372 Whitney Avenue
Hamden, CT 06518

Re: Hamden Telecommunications Facility
CT Agricultural Station
Hamden, CT

Dear Mr. Venditto,

Please find enclosed two (2) stamped original as built drawings for the referenced Telecommunications facility.

Also enclosed is a copy of a letter dated January 11, 2002 from Mr. Roberts of URS Corporation the A&E firm of record for this project addressing the Bollard issue.

I am requesting that a Certificate of Zoning Compliance be issued for this project.

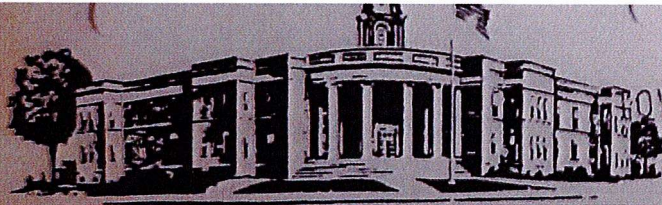
If you have any questions and/or need any additional information please do not hesitate to call. If I'm not in the office you can reach me on my cell phone (860) 306-0337.

Sincerely,
Crown Atlantic Company.LLC

William W. Watson
Project Manager

WWW:www

RECEIVED
TOWN OF HAMDEN
FEB 25 2002
PLANNING AND
ZONING DEPT.



TOWN CLERK
HAMDEN, CT

TOWN OF HAMDEN

CONNECTICUT

2001 OCT -3 P 12:00

REC'D AND FILED BY

Draft Minutes subject to Commission approval

MINUTES: ZONING SECTION, Planning & Zoning Commission, Town of Hamden, held a Public Hearing and Regular Meeting on Tuesday, September 25, 2001 and the following were reviewed:

Commissioners in Attendance:

- Mr. Crocco
- Mr. Del Vecchio
- Mr. Sims
- Mr. Cesare, (for Mr. Vegliante)
- Ms. Woodward, (for Ms. Benevides)

Staff in Attendance:

- Mr. O'Brien, Town Planner
- Mr. Lee, Town Attorney
- Ms. Raccio, Stenographer
- Ms. Gaiolini, Clerk

Mr. Del Vecchio opened the Regular Meeting at 7:10 p.m. He introduced the Commission, and staff and gave an overview of the procedures for the evening.

A. Regular Meeting

1. Site Plan/WS 01-1308
72 Crest Way, Lot #12
Office/Storage
Robert Massaro, Applicant
Deadline: October 18, 2001

Bernard Wright, 71 Charnes Dr., East Haven, CT. Will answer any questions the Commission may have.

Mr. O'Brien stated this had been submitted several months back. There were questions from the Town Engineer, those questions have since been answered & incorporated on the map. Mr. Savarese's letter dated 9/20/01 states the plan is now satisfactory to his department. The comments from December 18th have been addressed. RWA comments dated 9/17/01. The comment on slope stabilization has already been discussed.

Mr. Del Vecchio said item #3 (stabilization) will be taken care of, it has already been discussed with the applicant. Mr. O'Brien noted the parking lot is not paved but crushed stone. Sometimes that is better with respect to drainage. Mr. Del Vecchio read the RWA letter. Mr. Wright said there are 3 dry wells to retain and also take any water coming down the slope. Also provided pipe from dry well to dry well so if 1 fills up it drains into next one. No heavy equipment to speak of. Mr. Crocco questioned location of parking and catch basins. 2 in the crushed stone part and 1 in the black top (the front is black top). Mr. Del Vecchio asked if Mr. Wright had reviewed the Town Planner's recommendations. Mr. Wright answered yes, noting the erosion and sediment control will be in place and iron pins set at a later date. As built site plan to Al Savarese. Will post bond after permit issued. Dumpster to the rear of the building. They don't need it because all they have is office space, but if required by the Town, they will provide. Mr. Crocco questioned the warehouse itself, above the office - you're not asking for storage on top? Mr. Wright answered, not right now. Mr. Crocco also asked Mr. O'Brien for clarification on the placing of corner pins & bond releases.

Mr. Sims motions to approve 01-1308 with the recommendations of the Town Planner:

- Parking location and handicapped parking to be approved by Town Planner
- Dumpster location to be approved by Town Planner
- Submit slope stabilization plan to Town Planner & Town Engineer
- Erosion sediment controls installed prior to beginning of construction
- RWA recommendations of letter dated 9/17/01 to be incorporated
- Iron pins to be set
- No outdoor storage
- Post bond prior to zoning permit

Mr. Cesare seconds. Unanimous. **APPROVED.**

B. Informational

Mr. Del Vecchio noted item B is Informational. There is actually no action being taken on either of these 2 items. These are administrative bond releases. This Commission has voted and given the Town Planner the authority to release up to \$15,000.00. Both released per Roger O'Brien.

1. Site Plan 00-1263
890 Evergreen Ave./Lockwood Farms
Administrative Bond Release \$15,000.00
Requested by Crown Castle
2. Site Plan 01-1307
88 Mulberry Hill Rd.
Single Family Lot
Bond Release \$2,200.00
Requested by Joan Wagner


C. Approval of Minutes

1. Approve Minutes of June 26, 2001 Regular Meeting. (Mr. Sims, Mr. Crocco & Mr. Del Vecchio were present at that meeting and can vote). Mr. Crocco motions to approve as written. Mr. Sims seconds. **APPROVED.**

2. Approve Minutes of July 24, 2001 Regular Meeting. Mr. Sims motions to approve as written. Mr. Crocco seconds. **APPROVED.**

Ms. Woodward motions to adjourn. Mr. Cesare seconds. Closed at 7:30 p.m.

Submitted by:


Deborah Gaiolini, Clerk



WIRELESS COMMUNICATIONS FACILITY

CT HAMDEN NORTH CAC - GENERATOR ADD

SITE ID: CT116861

890 EVERGREEN AVENUE

HAMDEN, CT 06518

GENERAL NOTES

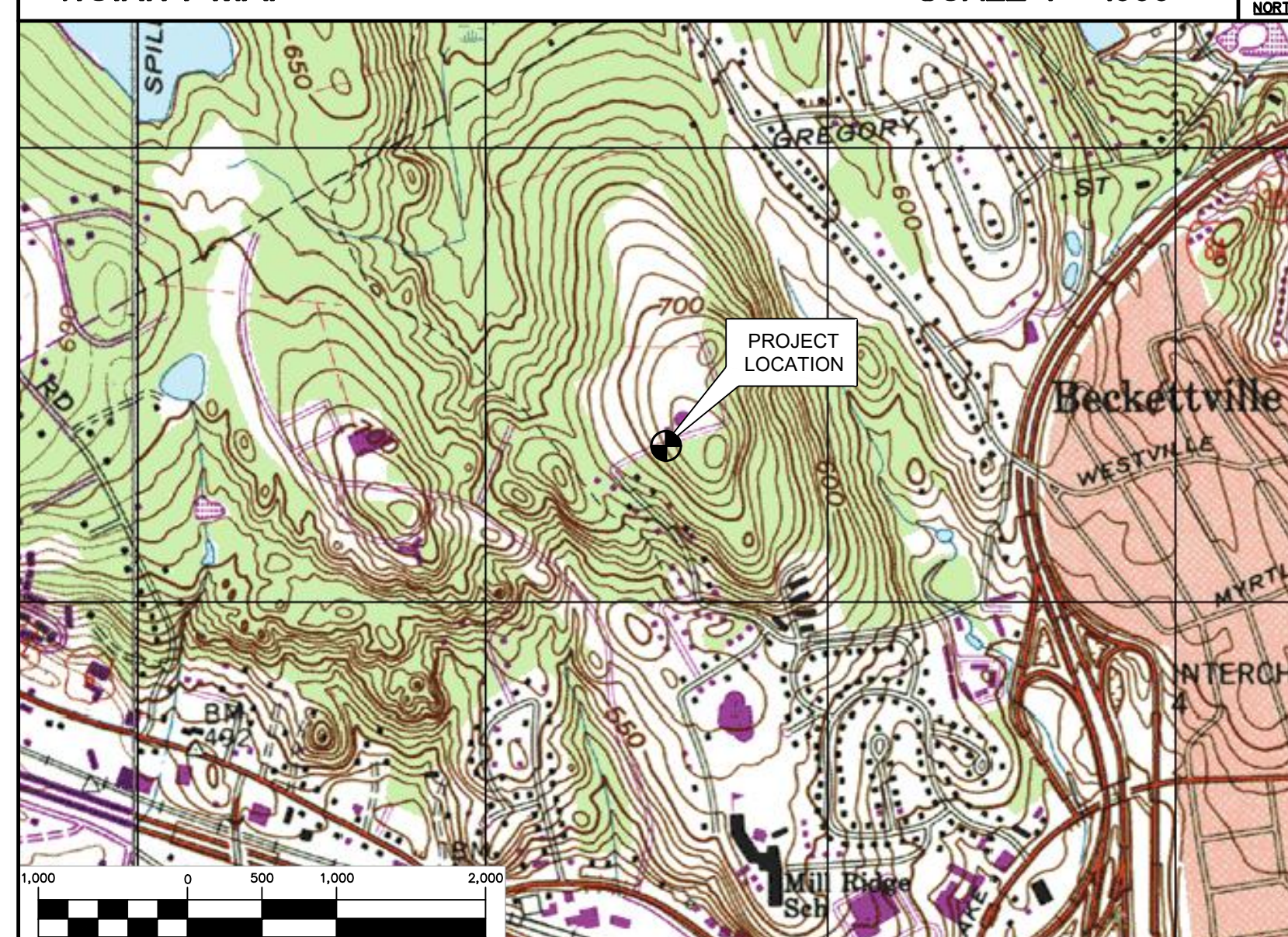
- ALL WORK SHALL BE IN ACCORDANCE WITH THE 2015 INTERNATIONAL BUILDING CODE AS MODIFIED BY THE 2018 CONNECTICUT SUPPLEMENT, INCLUDING THE TIA/EIA-222 REVISION "G" "STRUCTURAL STANDARDS FOR STEEL ANTENNA TOWERS AND SUPPORTING STRUCTURES." 2017 CONNECTICUT FIRE SAFETY CODE, NATIONAL ELECTRICAL CODE AND 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 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 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 OWNERS 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:	TO:
35 GRIFFIN ROAD SOUTH BLOOMFIELD, CT 06002	890 EVERGREEN AVENUE HAMDEN, CT 06518
1. HEAD NORTH ON GRIFFIN ROAD S. TOWARD HARTMAN RD.	0.30 MI.
2. TAKE THE 2ND RIGHT ONTO DAY HILL RD.	3.64 MI.
3. Merge onto I-91 S toward Hartford.	39.33 MI.
4. Merge onto CT-40 N via EXIT 10 toward Mt Carmel/Hamden.	2.69 MI.
5. Merge onto Whitney Ave/CT-10 N toward Mt Carmel/Cheshire.	0.64 MI.
6. Turn left onto Evergreen Ave.	0.26 MI.

VICINITY MAP

SCALE: 1" = 1000'



PROJECT SUMMARY

- THE PROPOSED SCOPE OF WORK CONSISTS OF A MODIFICATION TO THE EXISTING UNMANNED TELECOMMUNICATIONS FACILITY INCLUDING THE FOLLOWING:
 - INSTALL (1) NEW 25 KW DIESEL FUELED BACK-UP GENERATOR ON A PROPOSED 10'-0" x 4'-0" CONCRETE PAD
 - INSTALL (1) AUTOMATIC TRANSFER SWITCH

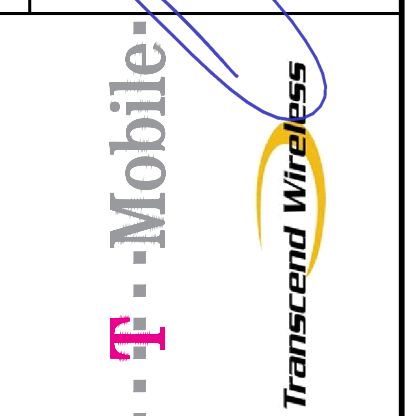
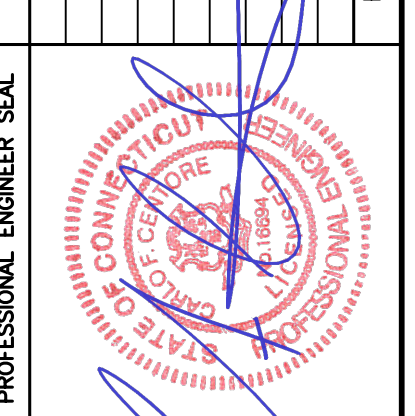
PROJECT INFORMATION

SITE NAME:	CT HAMDEN NORTH CAC
SITE ID:	CT116861
SITE ADDRESS:	890 EVERGREEN AVENUE HAMDEN, CT 06518
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:	CENITEK ENGINEERING, INC. 63-2 NORTH BRANFORD RD. BRANFORD, CT 06405
PROJECT COORDINATES:	LATITUDE: 41°-24'-23.8" N LONGITUDE: 72°-54'-21.6" W GROUND ELEVATION: 204'± AMSL
	SITE COORDINATES AND GROUND ELEVATION REFERENCED FROM GOOGLE EARTH.

SHEET INDEX

SHT. NO.	DESCRIPTION	REV.
T-1	TITLE SHEET	1
N-1	GENERAL NOTES AND SPECIFICATIONS	1
C-1	COMPOUND AND EQUIPMENT PLAN	1
C-2	TYPICAL DETAILS	1
E-1	ELECTRICAL DETAILS	1

REV.	DATE	BY	CHK'D BY	DESCRIPTION
0	06/12/18	KAW/B	CAG	CONSTRUCTION DRAWINGS - ISSUED FOR CONSTRUCTION
				CONSTRUCTION DRAWINGS - REVIEWED PER NEW GENERATOR



CENITEK engineering
 Centitek Solutions
 (203) 488-0380
 (203) 488-8587 Fax
 632 North Branford Road
 Branford, CT 06405
 www.CenitekEng.com

T-MOBILE NORTHEAST LLC
 WIRELESS COMMUNICATIONS FACILITY
CT HAMDEN NORTH CAC
SITE ID: CT116861
890 EVERGREEN AVENUE
HAMDEN, CT 06518

DATE: 06/12/18
 SCALE: AS NOTED
 JOB NO. 18079.37

TITLE SHEET

T-1
 Sheet No. 1 of 5

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 DESIGN SPEED (OTHER STRUCTURE): 125 MPH (Vasd) (EXPOSURE B/ IMPORTANCE FACTOR 1.0 BASED ON ASCE 7-10).

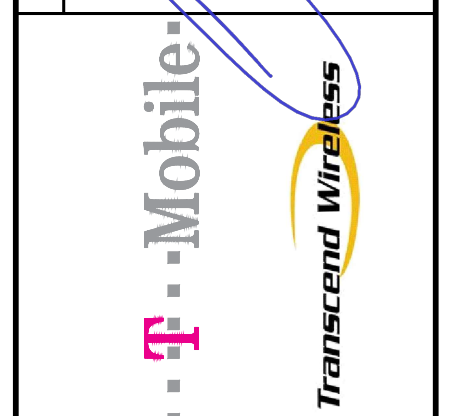
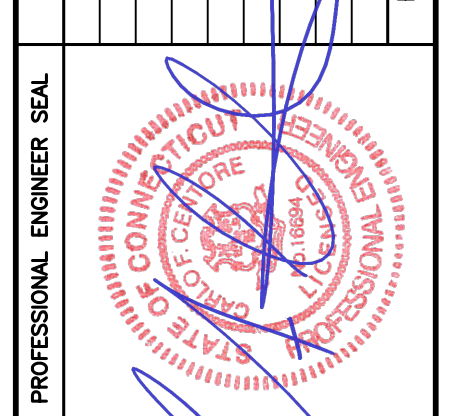
SITE NOTES

1. THE CONTRACTOR SHALL CALL UTILITIES PRIOR TO THE START OF CONSTRUCTION.
2. 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.
3. THE AREAS OF THE COMPOUND DISTURBED BY THE WORK SHALL BE RETURNED TO THEIR ORIGINAL CONDITION.
4. 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.
5. 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

1. ALL WORK SHALL BE IN ACCORDANCE WITH THE 2015 INTERNATIONAL BUILDING CODE AS MODIFIED BY THE 2018 CONNECTICUT SUPPLEMENT, INCLUDING THE 1A/EIA-222 REVISION "G" "STRUCTURAL STANDARDS FOR STEEL ANTENNA TOWERS AND SUPPORTING STRUCTURES," 2017 CONNECTICUT FIRE SAFETY CODE, NATIONAL ELECTRICAL CODE AND LOCAL CODES.
2. 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.
3. 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.
4. 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.
5. 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.
6. 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.
7. 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.
8. THE CONTRACTOR IS SOLELY RESPONSIBLE TO DETERMINE CONSTRUCTION PROCEDURE AND SEQUENCE, AND TO ENSURE THE SAFETY OF THE EXISTING STRUCTURES AND IT'S COMPONENT PARTS DURING CONSTRUCTION. THIS INCLUDES THE ADDITION OF WHATEVER SHORING, BRACING, UNDERPINNING, ETC. THAT MAY BE NECESSARY.
9. 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.
10. ALL UTILITY WORK SHALL BE IN ACCORDANCE WITH LOCAL UTILITY COMPANY REQUIREMENTS AND SPECIFICATIONS.
11. 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.
12. 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.
13. 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.
14. 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.
15. 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.
16. 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.
17. 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.
18. 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.
18. 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.
19. 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.
20. 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.

CONSTRUCTION DRAWINGS - REVISION PER NEW GENERATOR	
CONSTRUCTION DRAWINGS - ISSUED FOR CONSTRUCTION	
TJR	12/09/20
CAG	06/12/18
DATE	06/12/18
REV.	0

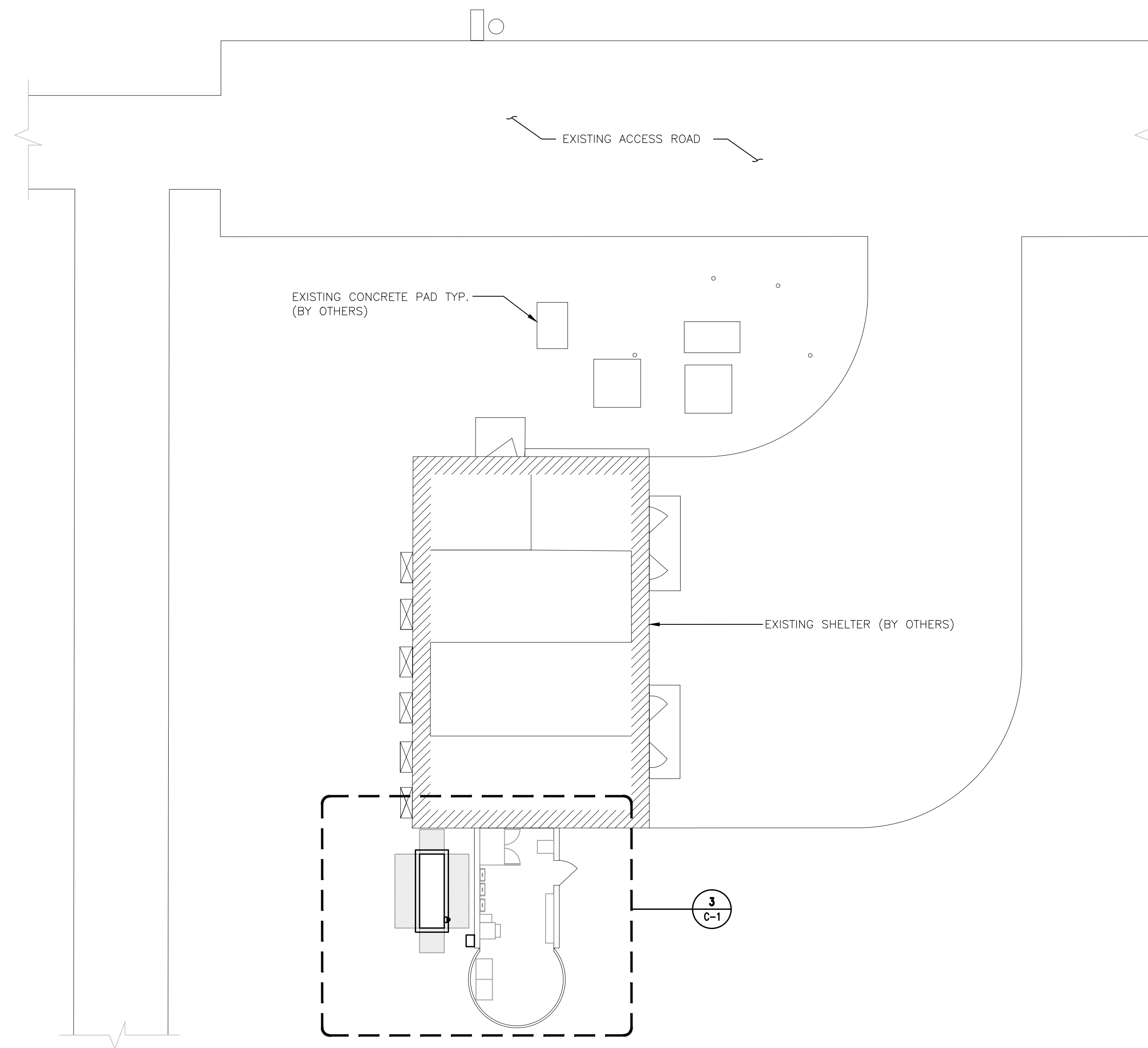


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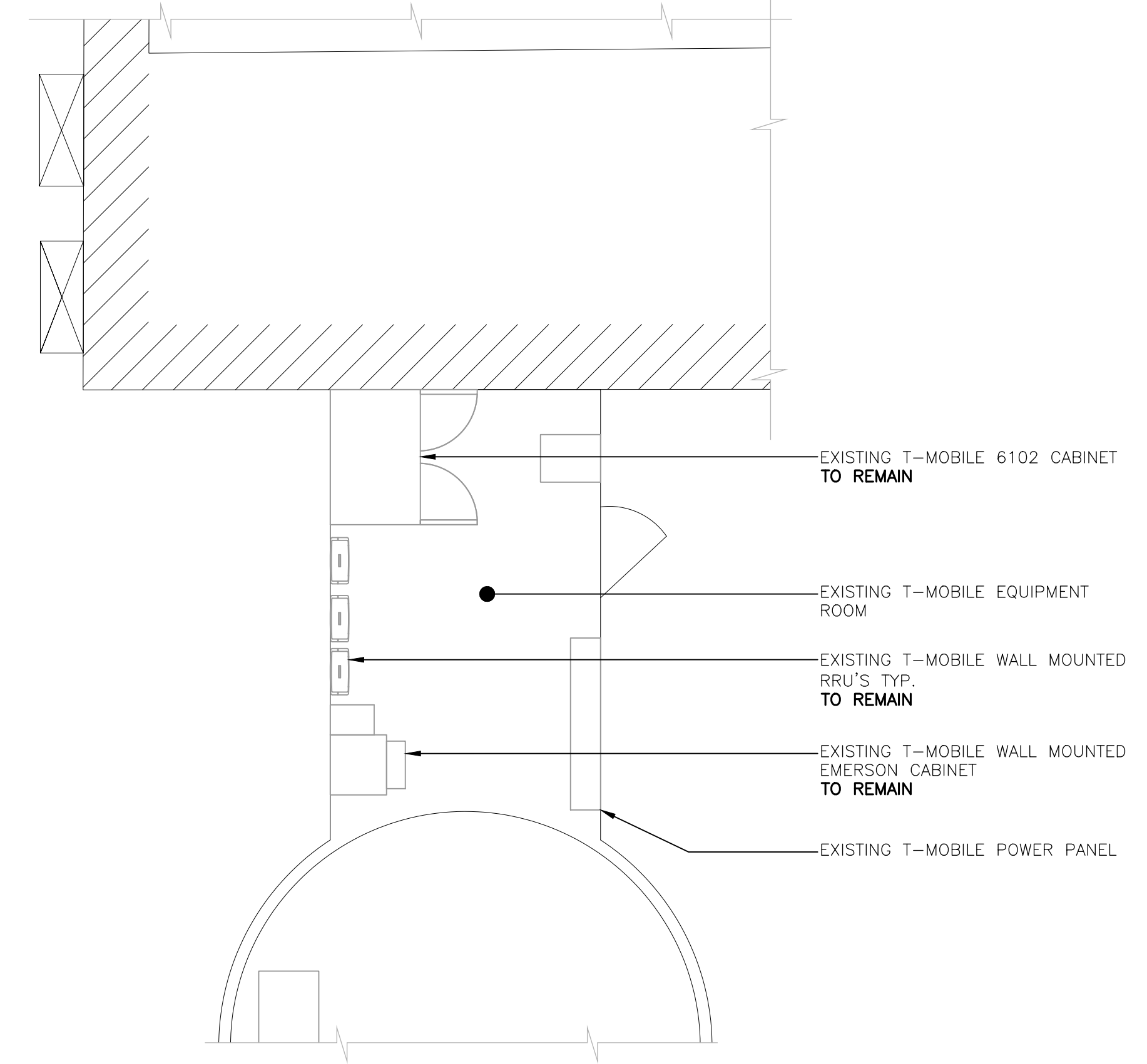
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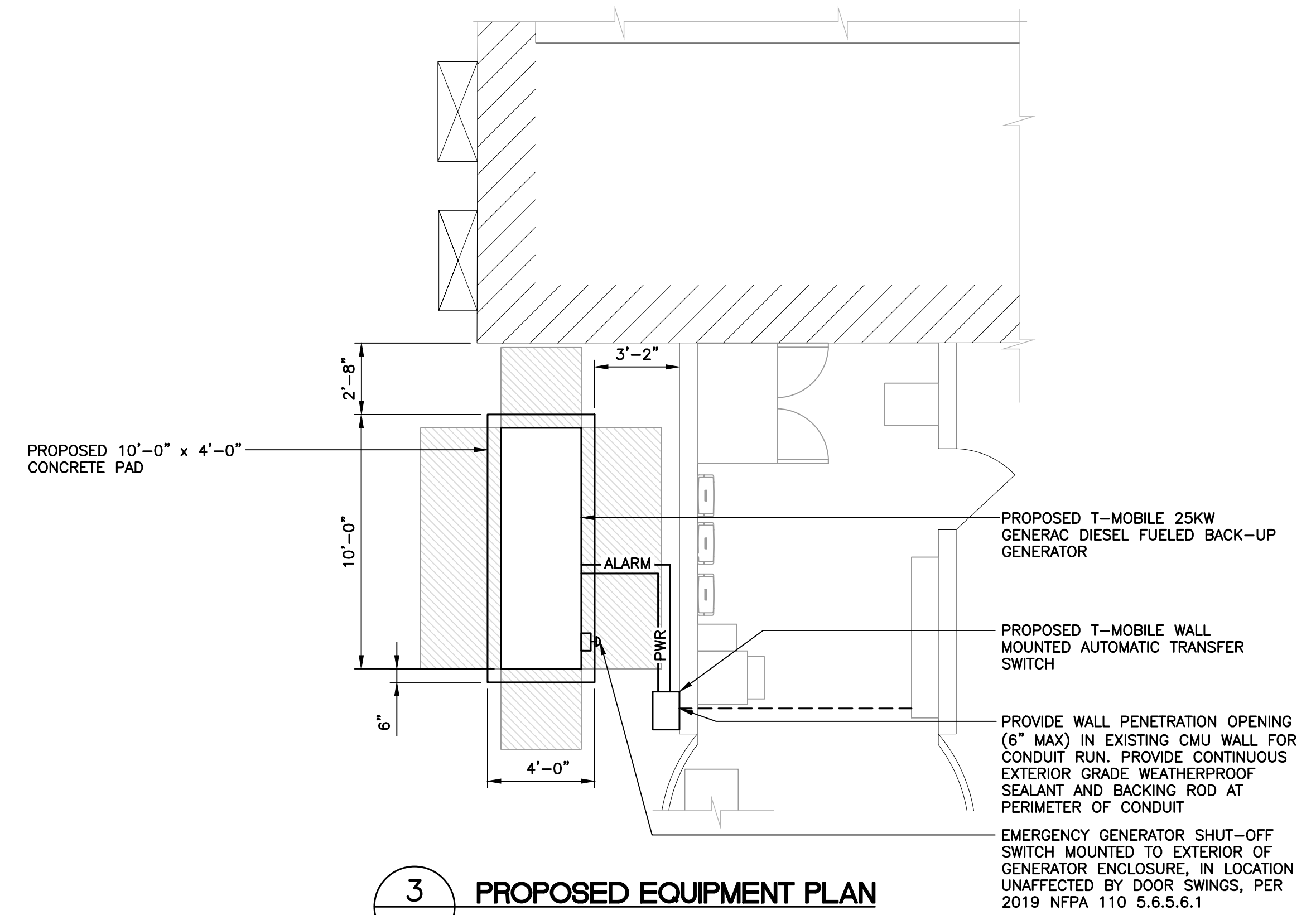
DESIGN BASIS
 AND SITE NOTES



1 PROPOSED COMPOUND PLAN
C-1 NOT TO SCALE

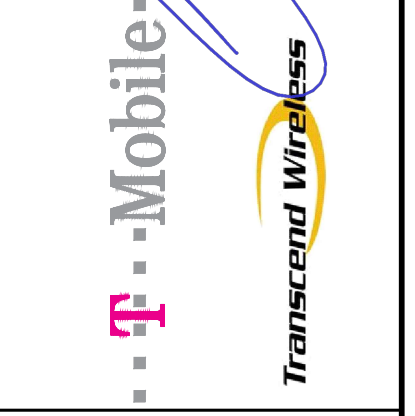
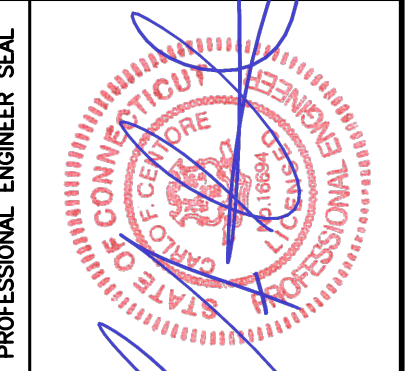


2 EXISTING EQUIPMENT PLAN
C-1 NOT TO SCALE



3 PROPOSED EQUIPMENT PLAN
C-1 NOT TO SCALE

REV.	DATE	BY	CHK'D BY	DESCRIPTION
0	06/12/18	KAW/B		CONSTRUCTION DRAWINGS - REVISED PER NEW GENERATOR
1	06/12/18	KAW/B		CONSTRUCTION DRAWINGS - ISSUED FOR CONSTRUCTION

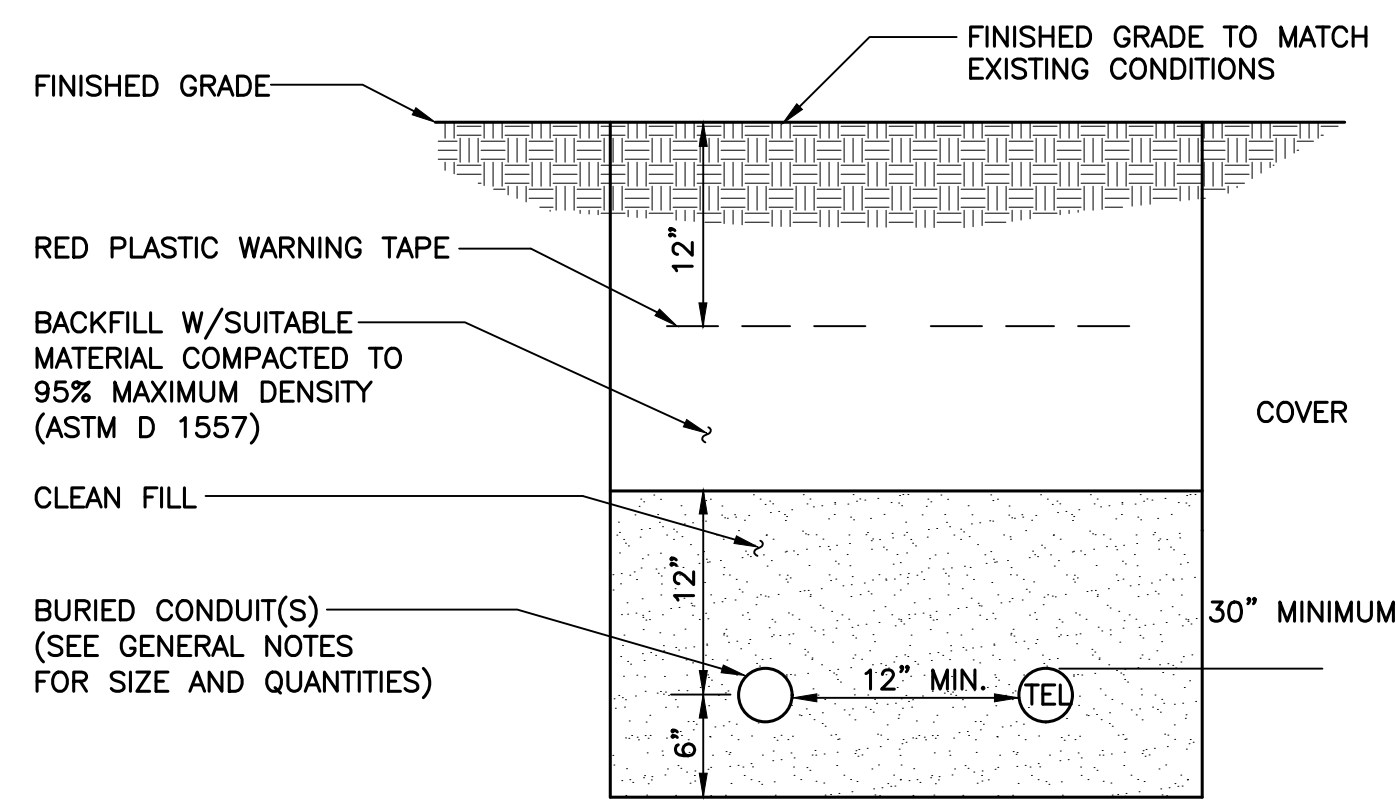


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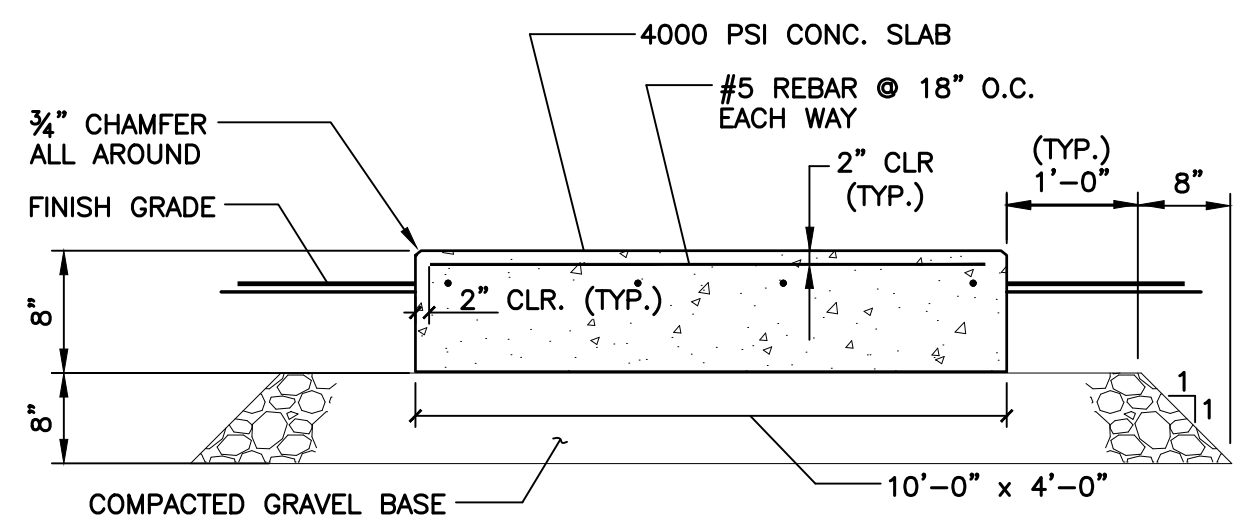
COMPOUND AND EQUIPMENT PLAN



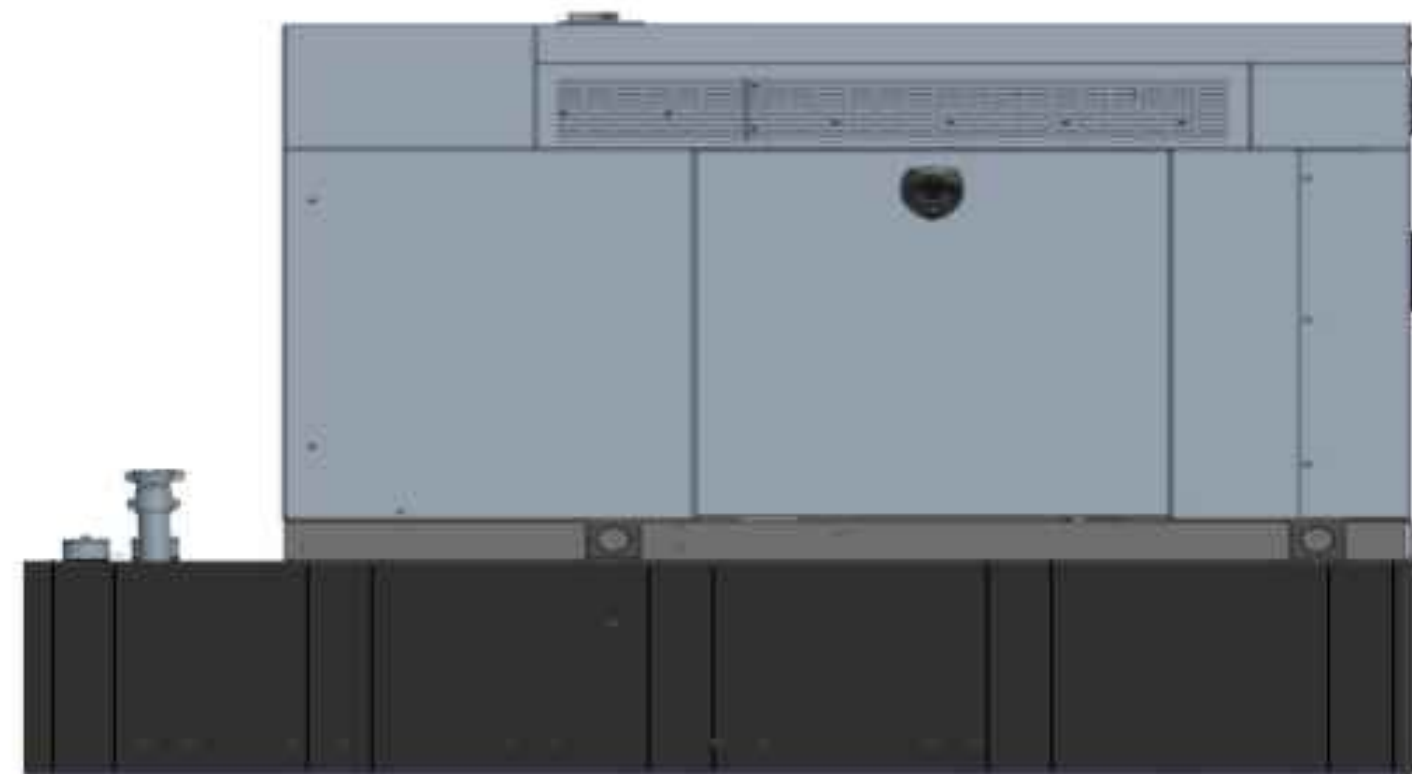
NOTES:

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 NOT TO SCALE



2 TYPICAL CONCRETE PAD DETAIL
C-2 NOT TO SCALE



BACKUP POWER GENERATOR						
EQUIPMENT	POWER GENERATED	FUEL	MODEL NUMBER	FUEL TANK SIZE (GAL)	DIMENSIONS	WEIGHT
MAKE: GENERAC MODEL: RD025	25 KW, AC	DIESEL	7192-0	240	103.4"L x 35.0"W x 91.7"H	2123 LBS.

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

FLOOR OR WALL	MIN. THICK.	MAX. PIPE DIA.	MIN. ANNULAR SPACE	MAX. ANNULAR SPACE	MIN. FILL THICK.	MIN. FORM. 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 SIDERS 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

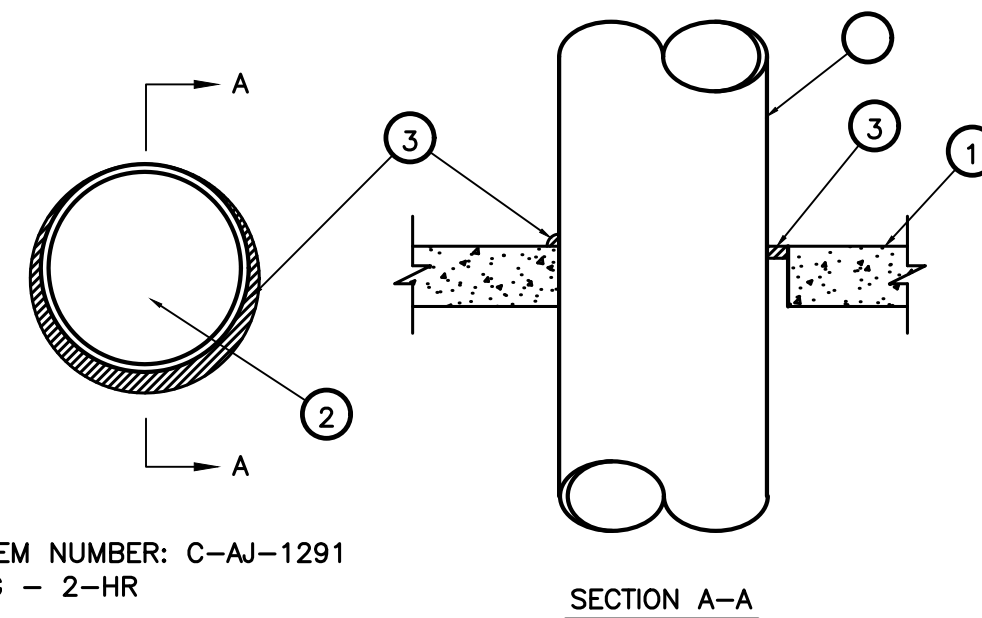
THICKNESS OF SEALANT APPLIED FLUSH W/THE TOP SURFACE OF BOTH SIDERS OF FLOOR/WALL (SEE TABLE), USG INTERIORS-TYPE SS

UL SYSTEM NUMBER: CAJ1020

F RATING - 3 HR.

4 PIPE AND CONDUIT PENETRATION DETAIL IN CONCRETE OR MASONRY

4
C-2 N.T.S.



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

5 METAL PIPE THROUGH CONCRETE FLOOR/ WALL OR BLOCK WALL

5
C-2 N.T.S.

NOTES:

1. 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 OR 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.

2. 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 SIDERS 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).

3. 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.

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

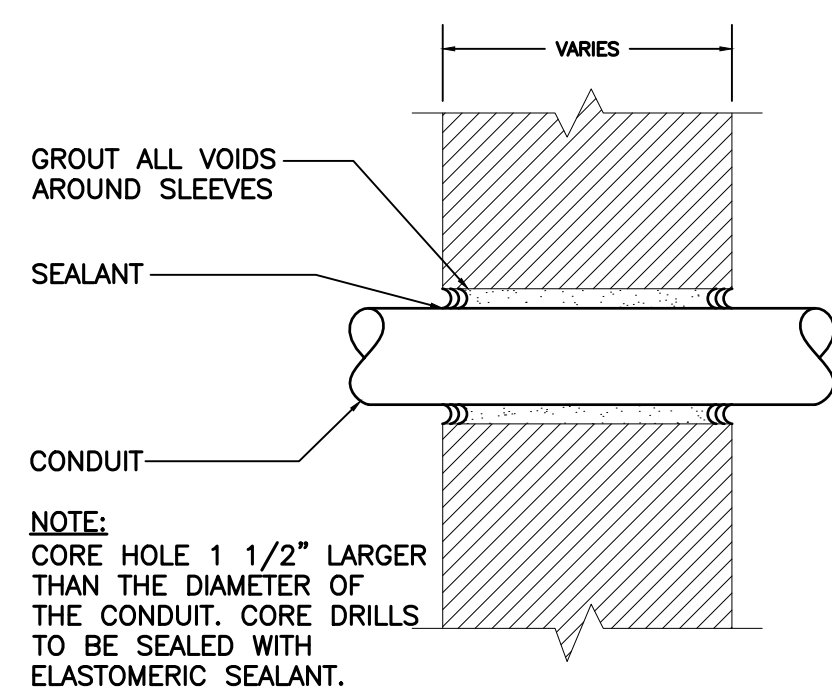
ONE 2" SCHEDULE 40 PVC PIPE TO BE CENTERED WITHIN FIRESTOP SYSTEM. PIPE SHALL BE RIGIDLY SUPPORTED ON BOTH SIDERS OF WALL/FLOOR ASSEMBLY

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.

6 PVC CONDUIT PENETRATION DETAIL IN GYPSUM WALLBOARD

6
C-2 N.T.S.



7 PIPE AND CONDUIT PENETRATION DETAIL IN NON-RATED PARTITION

7
C-2 N.T.S.

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

FILL VOID WITH CAULK, FLUSH WITH BOTH SURFACES OF WALL (SEE TABLE) SEALANT: TREMCO INC, TREMSTOP-WBM

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

8 PIPE AND CONDUIT PENETRATION DETAIL IN GYPSUM WALLBOARD

8
C-2 N.T.S.

CONSTRUCTION DRAWINGS - REVIEWED PER NEW GENERATOR
CONSTRUCTION DRAWINGS - ISSUED FOR CONSTRUCTION

TUR CAG
DATE 12/09/20
RIS 06/12/18
KAWR
DRAWN BY CHK'D BY

PROFESSIONAL ENGINEER SEAL

STATE OF CONNECTICUT
REGISTERED PROFESSIONAL ENGINEER
No. 10000
JAMES J. CENTEK

T-Mobile
Transcend Wireless

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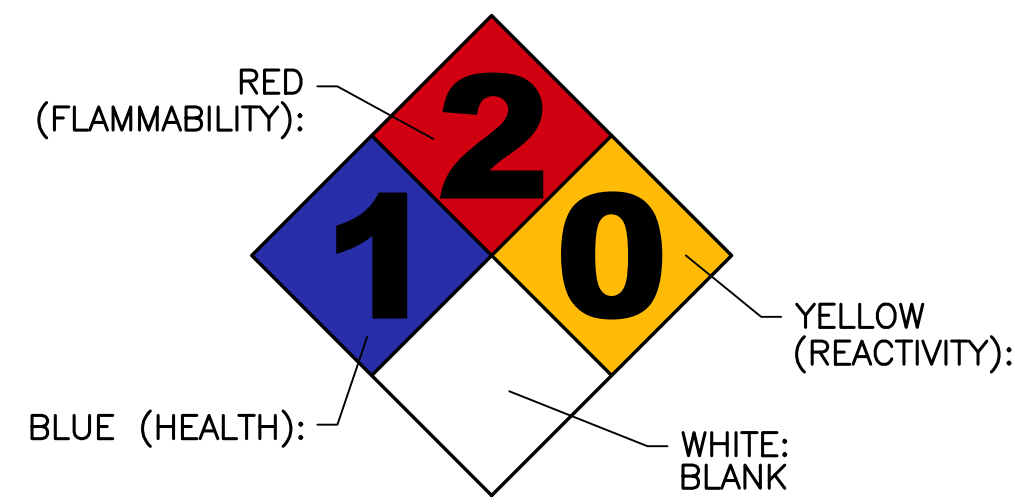
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TYPICAL DETAILS

C-2

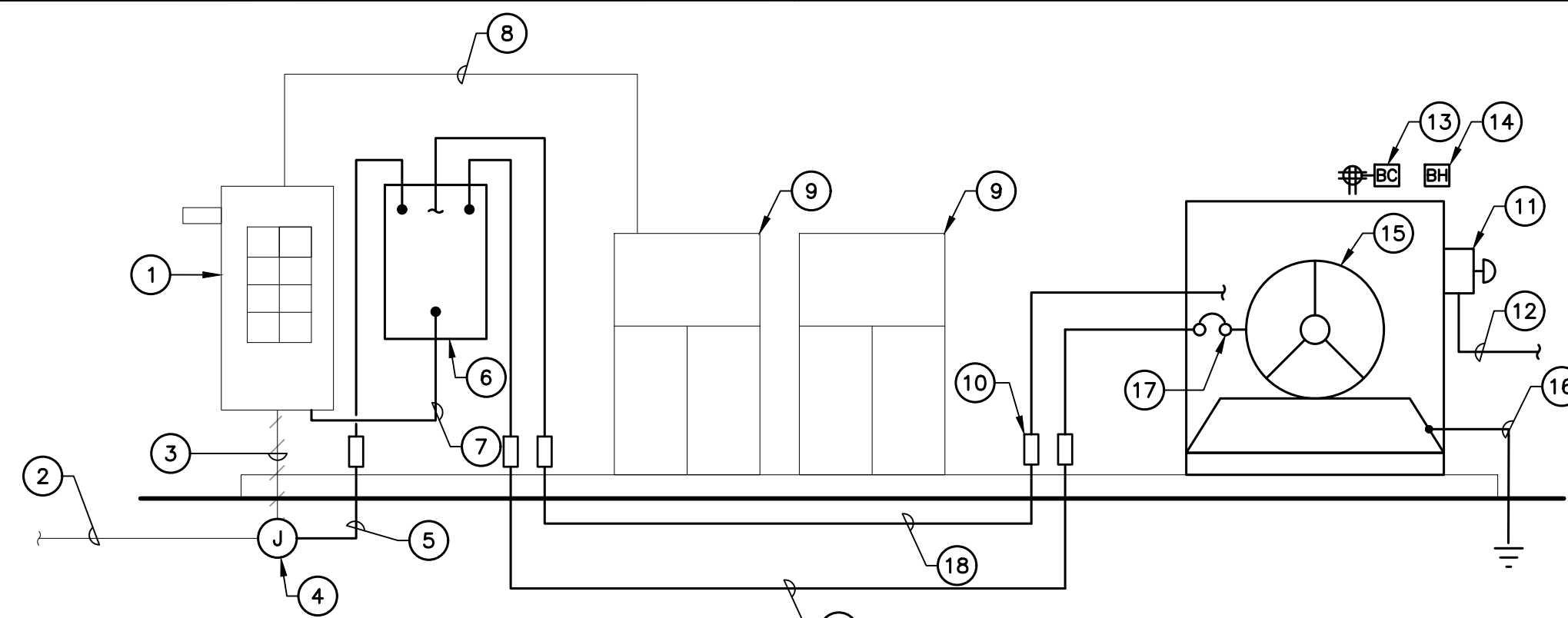
Sheet No. 4 of 5



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:
 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.

1 NFPA 704 DIAMOND SIGNAGE DETAIL
 E-1 SCALE: NOT TO SCALE

RISER DIAGRAM NOTES	RISER DIAGRAM NOTES
① EXISTING PPC CABINET TO REMAIN. ② EXISTING POWER CONDUIT AND CONDUCTORS PREVIOUSLY SERVING EXISTING PANEL. ③ SECTION OF CONDUIT AND CONDUCTORS TO BE REMOVED. ④ JUNCTION BOX SIZED PER NEC. ⑤ EXTEND EXISTING CONDUITS AND CONDUCTORS TO NEW ATS. ⑥ NEW 200A, 2 SOURCE AUTOMATIC TRANSFER SWITCH. ⑦ (3) #3/0 AWG, (1) #6 AWG GROUND, 2-1/2" CONDUIT. ⑧ EXISTING CONDUITS AND CONDUCTORS TO REMAIN ⑨ EXISTING EQUIPMENT CABINETS TO REMAIN. ⑩ EXPANSION COUPLING TYPICAL.	⑪ REMOTE GENERATOR SHUT OFF SWITCH IN BREAK GLASS ENCLOSURE MOUNTED TO EXTERIOR OF GENERATOR ENCLOSURE PER 2019 NFPA 110 5.6.5.6.1. ⑫ 3/4" CONDUIT AND CONDUCTORS REQUIRED FOR PROPER OPERATION OF EMERGENCY GENERATOR SHUT OFF SWITCH. ⑬ GENERATOR BATTERY CHARGER AND CONVENIENCE GFCI OUTLET WIRED TO EXISTING PANEL. OUTLET TO BE MOUNTED IN WEATHERPROOF ENCLOSURE. ⑭ GENERATOR BLOCK HEATER WIRED TO EXISTING PANEL SERVING. ⑮ EMERGENCY BACK UP GENERATOR. ⑯ GENERATOR GROUNDING PER NEC AND MANUFACTURER'S REQUIREMENTS. BOND TO EXISTING GROUNDING SYSTEM. (MINIMUM OF (1) #2 AWG GROUND) ⑰ GENERATOR OUTPUT CIRCUIT BREAKER. ⑱ 1" CONDUIT FOR GENERATOR CONTROL AND SIGNAL WIRING.



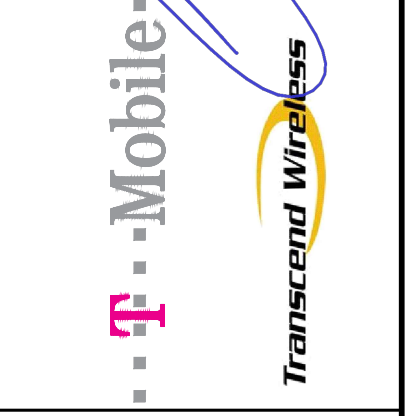
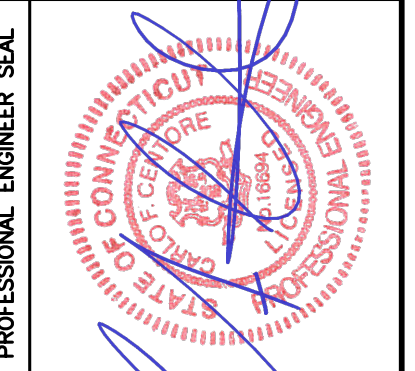
2 ELECTRICAL RISER DIAGRAM
 E-1 NOT TO SCALE



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

3 AUTOMATIC TRANSFER SWITCH DETAIL
 E-1 NOT TO SCALE

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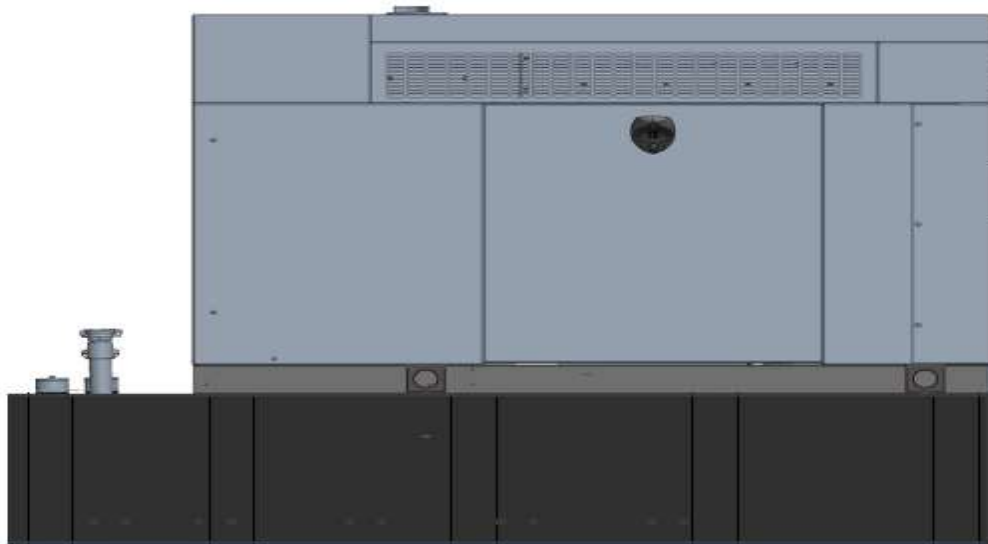
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 JOB NO. 18079.37

ELECTRICAL
 DETAILS

E-1
 Sheet No. 5 of 5

Generac RD025 Design Document

Diesel, AC, 25kW External Fill Tank Model#7192-0 SKU#33651



The following are responsible for this project document:

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Project Design Spec Revision	1.0	Last Date:08/23/2018	5/14/2018
Final doc URL (~Dnnnnn):			
Location	Use the InfoRouter Search (Advanced) putting the Document ID (nnnnn without the D) to find the location of the master document.		
Template URL:	http://docs.eng.t-mobile.com/InfoRouter/docs/~D423750	Slightly updated 1/2011	

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1 Introduction / Project Summary

1.1 Purpose of Project

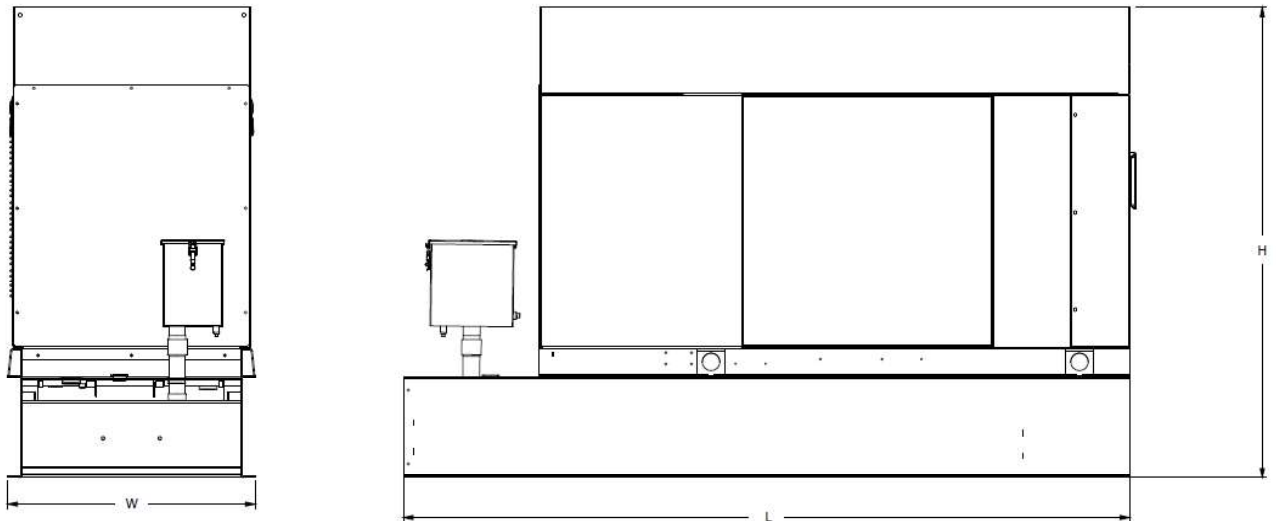
T-Mobile’s nationwide cell site hardening plan is providing a refuellable backup power system capable of powering a site for a minimum of 48 hours before refueling is required. The purpose of this project is to give T-Mobile customers reliable service during power outages and provide a sufficient layer of coverage. This design document is for Generac’s RD025 model#7192-0, which is a Diesel AC generator with a capacity of 25kW.

1.2 Feature Description

The Generac RD025 is a 25kW AC, diesel generator is one of the generators selected as part of the T-Mobile RFP in support of the nationwide cell site hardening plan. The RD025 has a Level 2 acoustic enclosure, 3 phase sensing, and +/-0.25% digital voltage regulation. It is equipped with RS232, RS485 and canbus remote ports and Evolution control panel. It is also equipped with a automatic transfer switch, the RXSC200A3 (Automatic Transfer Switch) Controls the process of transferring commercial AC power and generator power. The RXSC200A3 is a 200Amp, switch that is programmed to perform engine test runs and also has adjustable engine run time capabilities. For RXSC200A3 Owners Manual and full feature descriptions [LINK](#)

1.3 Dimensions

The dimensions of a level 2 Acoustic Enclosure L x W x H in inches 103.4 x 35 x 91.7. T-Mobile requires a 36-inch radius around the generator that will cover the 18” door swing on the generator.

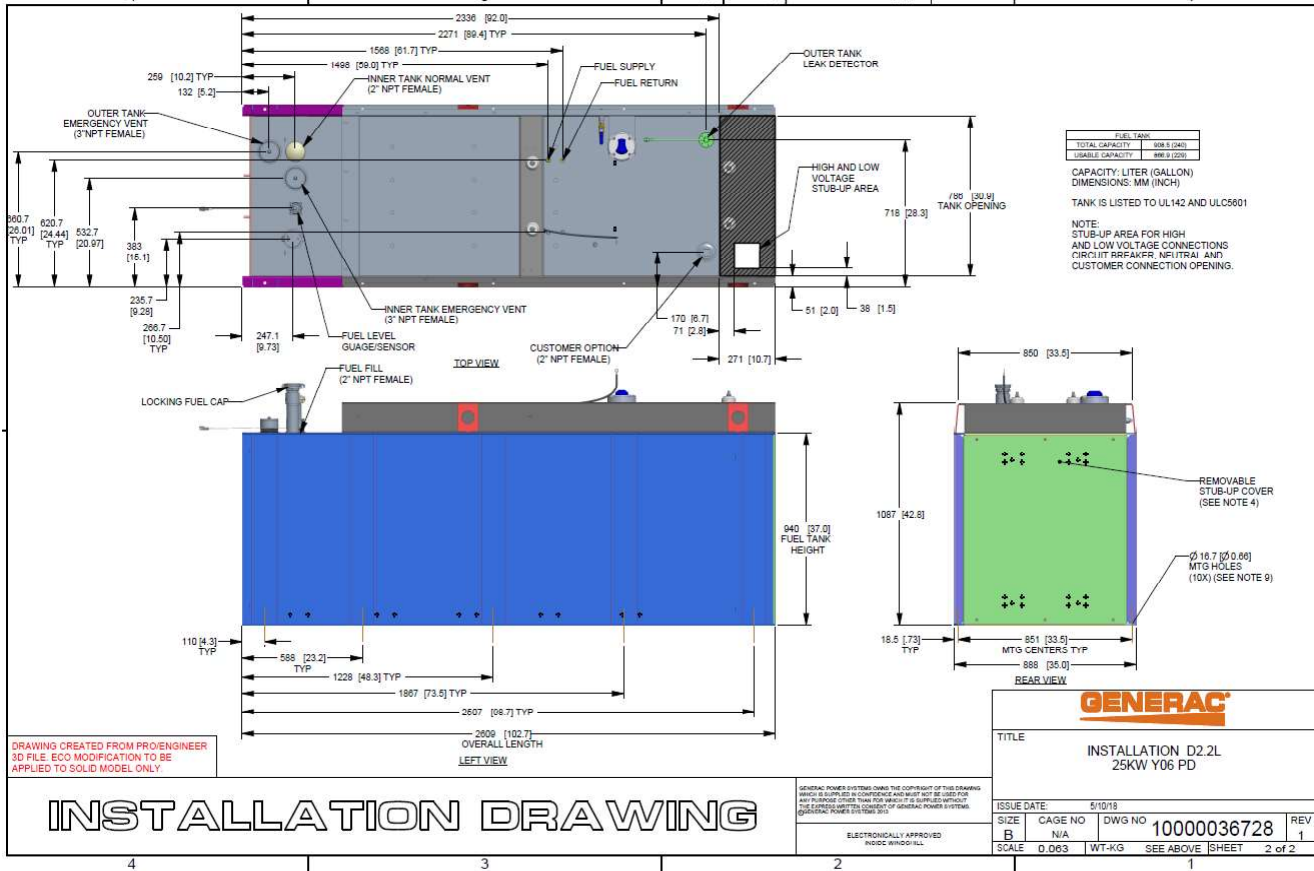


Weights and Dimensions

Unit Weight - lbs	Unit Weight with Skid - lbs	Dimensions (L x W x H) - in
2,123	2,161	103.4 x 35.0 x 73.8

2 Fuel Tanks

The RD025 has a 102.7" 240 Gallon Double-Wall UL142 Base tank to provide 98 hours of backup power at full load deployed on site. Below is the Install drawing for the 240-gallon tank for the RD025kW.



3 RXSC200A3 ATS/ Controller

3.1 Hardware

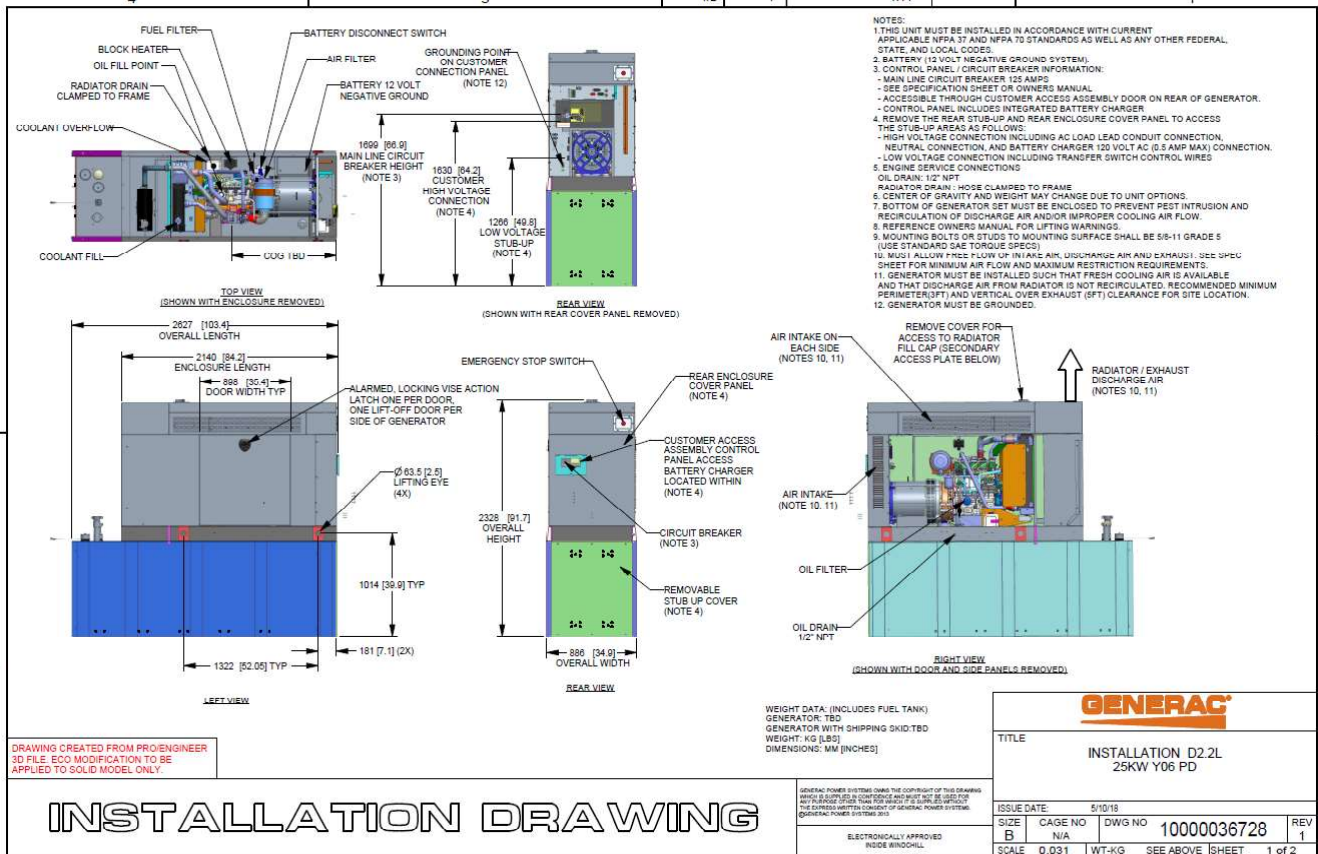
The RD025 will come with a RXSC200A3 and an Evollution controller. The sites considered for the RD025 should not have a DC power consumption above 20kW

RXSC200A3 [Link](#)

RXSC200A3 install drawing [Link](#)

Evolution controller spec sheet [Link](#)

RD025 installation drawings and supporting documentation [Link](#)

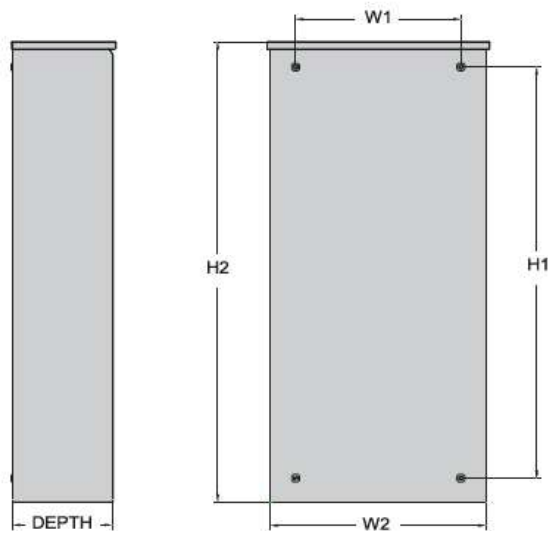


3.2 RXSC200A3 Automatic Transfer Switch

The RXSC200A3 (Automatic Transfer Switch) is equipped with the following functions. Utility voltage drop-out <65%. Timer to Generator start: 10 second factory set, adjustable between 2-1500 seconds. Engine Warm up delay: 5 seconds. Standby Voltage Sensor: 65% for 5 seconds. Utility Voltage Pickup >80%. Re-Transfer Time Delay: 15 seconds. Engine Cool-Down Timer: 60 seconds. Exerciser: 5 or 12 minute adjustable weekly/by-weekly/monthly. The transfer switch can also be operated manually without power applied

RXSC200A3 Dimensions

Model		RXSC200A3
Height (in./mm)	H1	17.24/437.9
	H2	20/508
Width (in./mm)	W1	12.5/317.5
	W2	14.6/370.8
Depth (in./mm)		7.09/180.1
Weight (lbs./kilos)		20/9.07



4 Architecture/Alarms

4.1 Interfaces and Alarming

The generator will be monitored by external alarms, conduit and cat five cables have to be installed from the Evolution Controllers Low Voltage Box located in the Generac generator to the appropriate cell site equipment. Nokia FSEB or FSEE and in Ericsson the SAU.

At a Nokia site, this connection is at the FSEB or an FSEE module. For the wiring diagram and instructions for the FSEB click the [Link](#) (The FSEE is the Nokia module that will be replacing the FSEB. For details on the FSEE contact: HQNokiaCellsiteDesigns@T-Mobile.com)

Ericsson sites will connect to the SAU module via OVP Expansion Kit for 8 External Alarms. Product number: UTOVP-ALM8EXP. For the wiring diagram and instructions for this click the [link](#)

The RXSC200A3 has auxiliary contacts that will facilitate the *ATS in Emergency position* alarm and will be a Normally Closed contact. Below is the wiring schematic for this contact and it can be found in the RXSC200A3 owners manual.

Auxiliary Contact

See [Figure 3-4](#). If desired, there is one normally-closed Auxiliary Contact (A) on the transfer switch to operate customer accessories, remote advisory lights, or remote annunciator devices. A suitable power source must be connected to the common terminal. If needed, an extra auxiliary contact can be added.

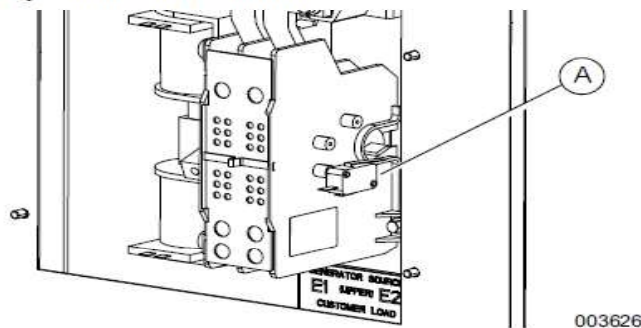


Figure 3-4. Auxiliary Contact

The auxiliary contact is normally closed when the transfer switch is in utility mode. The contacts will open when the transfer switch is in the standby power mode.

NOTE: Auxiliary Contact is rated 10 amps at 125 or 250 volts AC, and 0.6 amps at 125 volts DC.

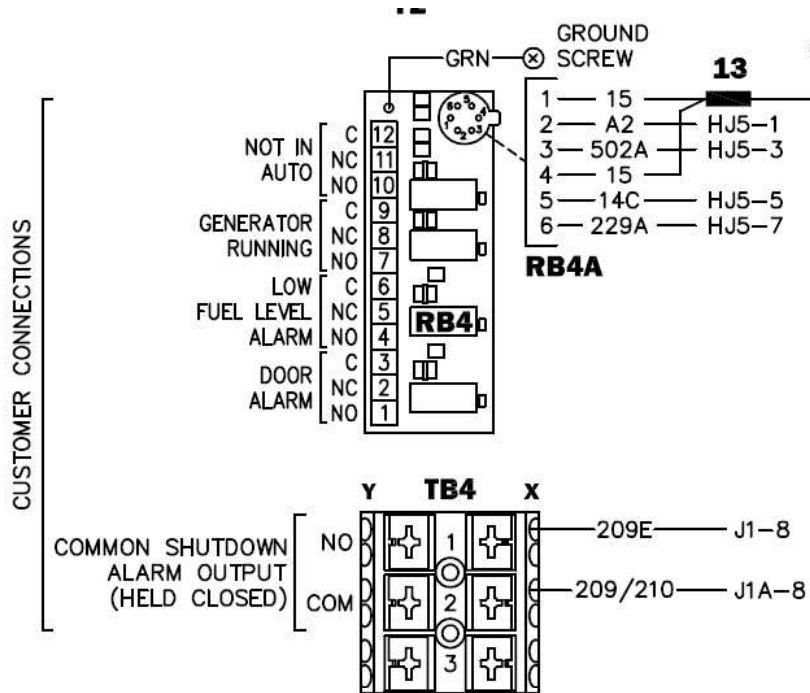
CAUTION

Equipment damage. Exceeding rated voltage and current will damage the auxiliary contacts. Verify that voltage and current are within specification before energizing this equipment.

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T-Mobile has four relays available from the Generac controller that are user-defined. T-Mobile can have four-alarm categories and a limitless number of subcategories. T-Mobile will utilize Normally Closed (NC) dry contacts for alarms in Low Voltage Connection box in the spare outputs section. Ericsson cabinets need to be equipped with the alarm expansion kit (UTOVP-ALM8EXP) to handle external alarms.

Customer Connections Inside the RD025



Ericsson UTOVP- ALM8EXP



UTOVP-ALM8EXP	OVP Expansion Kit for 8 External Alarms	Qty
Product no	Denomination	
UTOVP-ALM8EXP	OVP Expansion Kit for 8 External Alarms	1
NFD30234/08	OVERVOLTAGE ARRESTER/OVP-ALM 8	1
RPM777143/01200	CABLE WITH CONNECTOR/SIGNAL CABLE	2

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

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

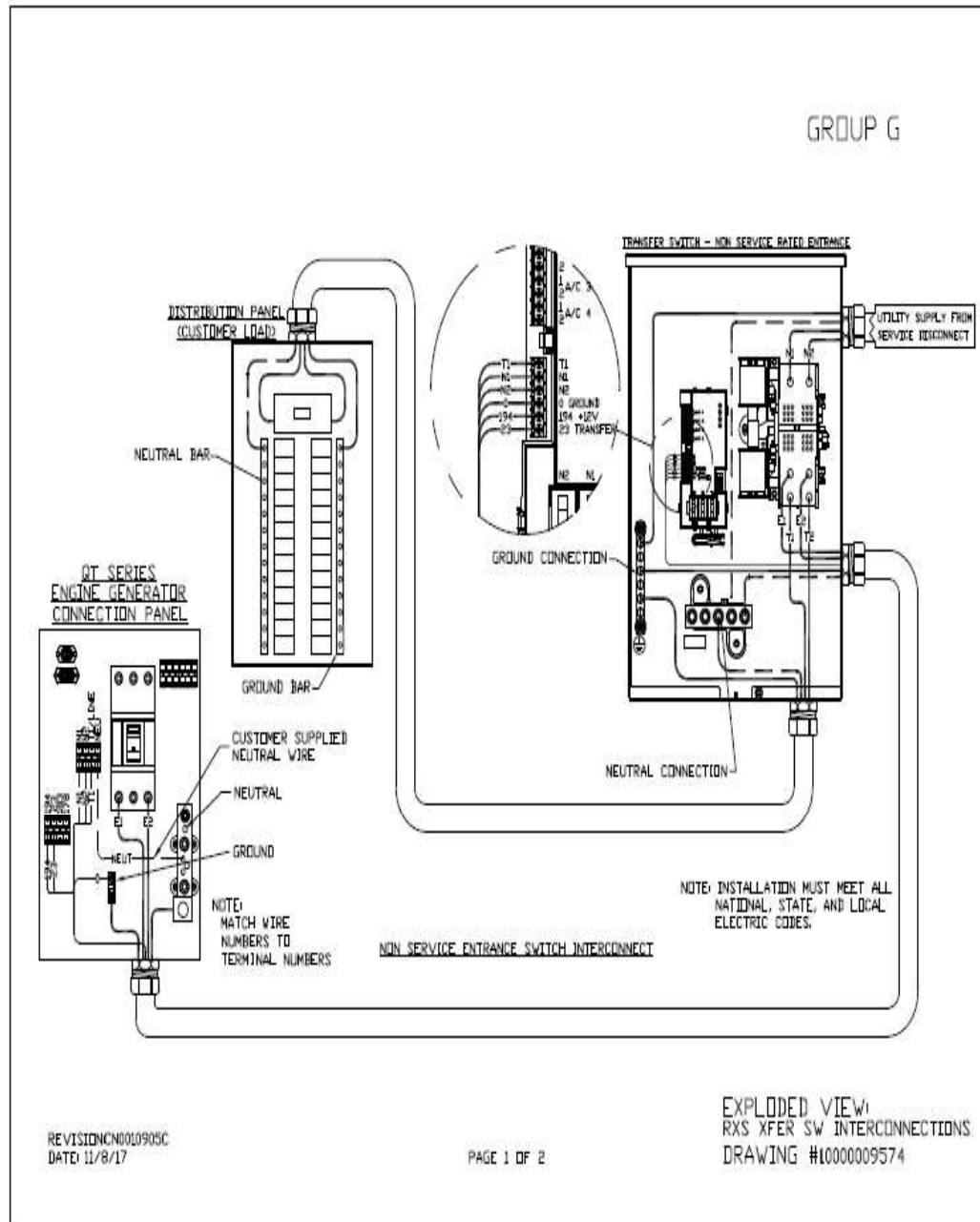
5 Regulatory Requirements

Level 2 Acoustic Enclosure provides a noise level of 67.5dBA. It is EPA certified and meets NFPA 99 and 110 requirements(NFPA National Fire Protection Association). The RD025 generator engines is a tier 4 engine and meets the EPA final standards.

6 Configuration/Diagrams

The physical configuration of the Generator and the RXSC200A3 is, ATS before the PPC to ensure overcurrent protection when commercial power is restored. The RD025 and the RXSC200A3 has to be wired to Commercial AC power.

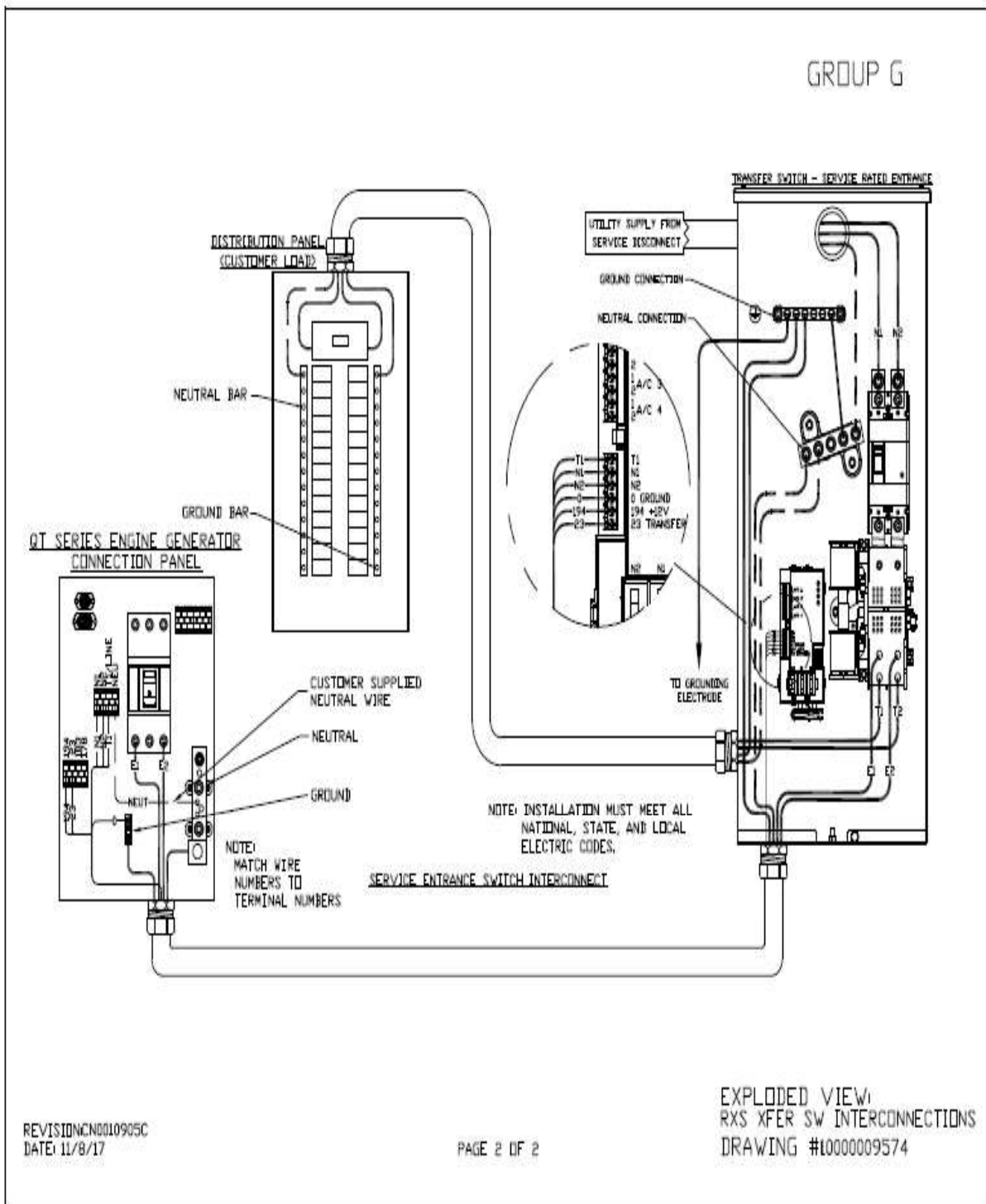
Commercial Power Connection Points
On The RXSC200A3



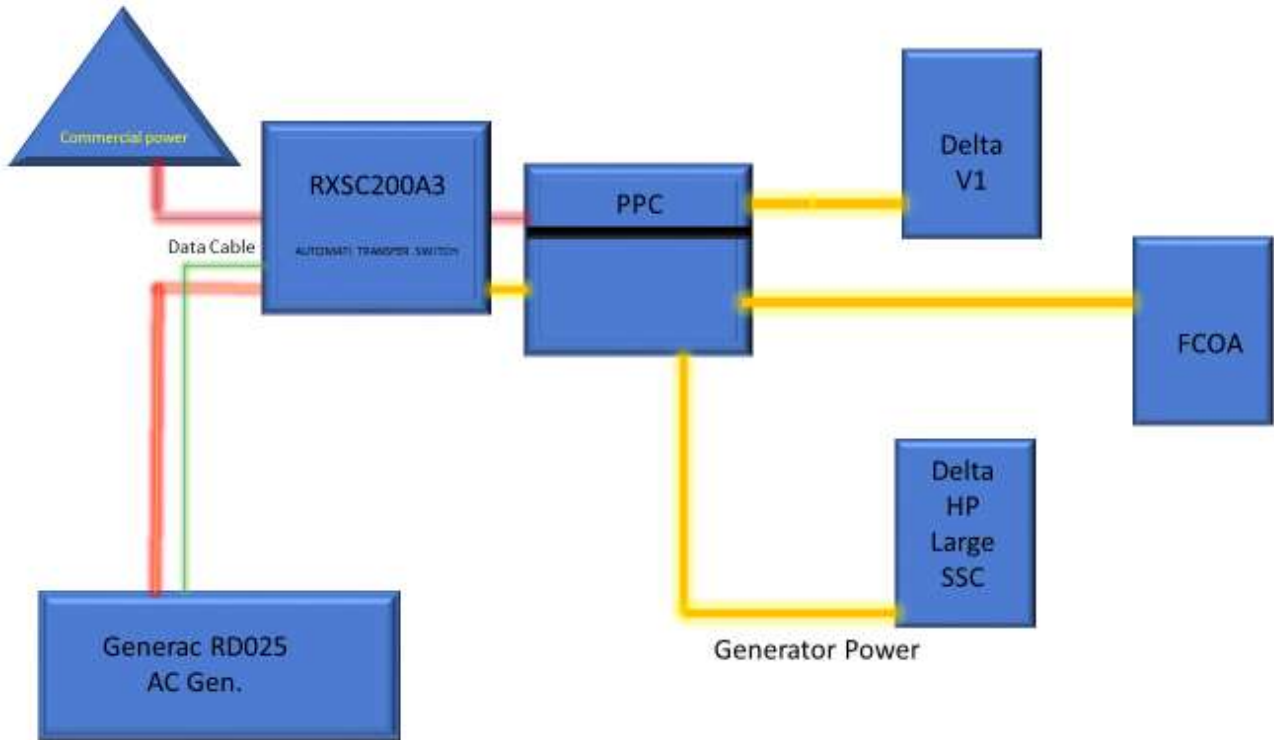
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EXPLODED VIEW
 RXS XFER SW INTERCONNECTIONS
 DRAWING #10000009574



Compound Diagram:



7 Maintenance

T-Mobile is recommending preventive maintenance to be performed every 250 hours of run-time or every 12 months, whichever comes first.

T-Mobile requires this minimum service checklist for the generator engine:

- Check engine mounts and support. Tighten fasteners.
- Check all the engine hoses and clamps for proper fit, and any signs of cracking and fatigue from wear.
- Inspect all belts for signs of cracking and fatigue from wear and adjust for proper tension.
- Inspect the exhaust system for leaks, burns and wet stacking. Drain exhaust line and tighten any clamps and flange bolts.
- Inspect silencer and plumbing for leaks, cracks or any other signs of wear.
- Inspect the system for fuel, oil and coolant leaks and signs of corrosion.
- Replace water separator.
- Replace water filter/ conditioner.
- Check Anti-Freeze (Spector-Analysis).
- Check coolant level and add, if needed.
- Inspect radiator mounting for signs or wear and cracking.
- Inspect/ clean air filter and change per manufacturer specifications.
- Inspect air intakes and outlets and tighten clamps and brackets, if applicable.
- Replace fuel filter.
- Inspect the carburetor fuel injection system, fuel injection pump and choke, if equipped. Adjust to manufacturers specifications.
- Change engine oil, oil filter and record the date on the filter casing.
- Check engine heater operation, if equipped.
- Check and adjust the battery charger operations, and charge rate within the manufacturer's recommended operating specifications.

- Inspect the battery housing, hardware connections, and cables for corrosion and wear.
- Check the battery electrolyte levels and specific gravity levels.
- Load test generator battery.
- Check, adjust and record generator output voltage, as necessary.
- Check and record the alternator charge rate.
- During inspection run the generator for 30 minutes under load. During this time, and after the engine is at full operational speed and has reached engine operating temperature; determine and record the condition of all inspection points: oil pressure, water/ coolant temperature, Fuel pressure, generator gauge, indicator operations, generator battery.
- Check the engine timing and adjust to manufacturers specifications, if necessary.
- Inspect, adjust and record governor and frequency, if necessary.
- Verify that the low fuel alarm is operational and configured correctly to trigger when the fuel tank reaches 50% of fuel tank capacity.

Check fuel level and refuel the generator during the preventive/ corrective maintenance visit.