

August 3, 2021

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

RE: Notice of Exempt Modification

50 Maple Street, Branford, CT 06405

Latitude: 41.2742440000 Longitude: -72.81365600000

T-Mobile Site#: CT11328F - Hardening

Dear Ms. Bachman:

T-Mobile currently maintains nine (9) antennas at the 96-foot level of the existing 100-foot smokestack at 50 Maple Street, Branford, CT. The 100-foot smokestack and property are owned by Marine Systems Incorporated. T-Mobile now intends to add a 25Kw generator within the existing compound.

#### **Planned Modifications:**

#### **Ground:**

#### Install New:

(1) Generac RG25 25 Kw Natural Gas Generator

The original approval of this facility was by the Town of Branford Planning and Zoning Commission. The Commission approved the facility on January 7, 2010. A copy of this approval is enclosed. T-Mobile was subsequently approved for tower-sharing by the Connecticut Siting Council on March 3, 2017.

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.SA. § 16-SOj-73, a copy of this letter is being sent to First Selectman- James Cosgrove, Elected Official, and Harry Smith, Town Planner, as well as the 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 10 Industrial Ave., Suite 3 Mahwah, NJ 07430

Cell: 908-447-4716

Email: krichers@transcendwireless.com

#### **Attachments**

cc: James Cosgrove – First Selectman – Town of Branford Harry Smith – Town Planner – Town of Branford Marine Systems Incorporated - Owner

# **Kyle Richers**

From: UPS <pkginfo@ups.com>

**Sent:** Wednesday, August 4, 2021 10:09 AM **To:** KRICHERS@TRANSCENDWIRELESS.COM

**Subject:** UPS Delivery Notification, Tracking Number 1ZV257424297944826



# Hello, your package has been delivered.

**Delivery Date:** Wednesday, 08/04/2021

**Delivery Time:** 10:07 AM **Left At:** RECEPTION **Signed by:** TRISTA M

# TRANSCEND WIRELESS

Tracking Number: <u>1ZV257424297944826</u>

TOWN OF BRANFORD 1019 MAIN STREET BRANFORD, CT 06405

US

Number of Packages: 1

UPS Service: UPS Ground
Package Weight: 1.0 LBS

Reference Number: CT11328F CSC EO





**Ship To:** 

Download the UPS mobile app

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Please do not reply directly to this email. UPS will not receive any reply message.

# **Kyle Richers**

From: UPS <pkginfo@ups.com>

**Sent:** Wednesday, August 4, 2021 10:09 AM **To:** KRICHERS@TRANSCENDWIRELESS.COM

**Subject:** UPS Delivery Notification, Tracking Number 1ZV257424297614834



# Hello, your package has been delivered.

**Delivery Date:** Wednesday, 08/04/2021

**Delivery Time:** 10:07 AM **Left At:** RECEPTION **Signed by:** TRISTA M

# TRANSCEND WIRELESS

Tracking Number: <u>1ZV257424297614834</u>

TOWN OF BRANFORD 1019 MAIN STREET BRANFORD, CT 06405

US

Number of Packages: 1

UPS Service: UPS Ground
Package Weight: 1.0 LBS

Reference Number: CT11328F UPS 3





**Ship To:** 

Download the UPS mobile app

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Please do not reply directly to this email. UPS will not receive any reply message.

# **Kyle Richers**

From: UPS <auto-notify@ups.com>
Sent: Tuesday, August 3, 2021 10:02 PM
To: krichers@transcendwireless.com

**Subject:** UPS Exception Notification, Tracking Number 1ZV257424294431582



# The status of your package has changed.

**Exception Reason:**Due to operating conditions, your

delivery may be delayed.

**Exception Resolution:** The package will be forwarded to a

UPS facility in the destination city.

At the request of TRANSCEND WIRELESS, this notice alerts you that the status of the shipment listed below has changed.

**Signature Required:** A signature is required for package delivery

# **Shipment Details**

**Ship To:** 

Tracking Number: <u>1ZV257424294431582</u>

Marine Systems Inc. 50 Maple Street BRANFORD, CT 06405

US

**UPS Service:** UPS GROUND

Package Weight: 1.0 LBS

**Reference Number 1:** CT11328F CSC 1



# **50 MAPLE ST**

Location 50 MAPLE ST Mblu D08/000 012/ 00003/ /

Owner Acct# 000592 MARINE SYSTEMS

**INCORPORATED** 

**Assessment** \$964,500 **Appraisal** \$1,378,100

> PID 801 **Building Count** 2

#### **Current Value**

Appraisal Appraisal					
Valuation Year Improvements Land Total					
2019	\$412,300	\$965,800	\$1,378,100		
	Assessment				
Valuation Year	Improvements	Land	Total		
2019	\$288,400	\$676,10	\$964,500		

#### **Owner of Record**

Sale Price Owner MARINE SYSTEMS INCORPORATED \$0 Certificate Co-Owner

Address PO BOX 447

**Book & Page** 0555/1008 BRANFORD, CT 06405 Sale Date 09/07/1993

# **Ownership History**

Ownership History				
Owner	Sale Price	Certificate	Book & Page	Sale Date
MARINE SYSTEMS INCORPORATED	\$0		0555/1008	09/07/1993

# **Building Information**

# **Building 1 : Section 1**

Year Built: 1900 Living Area: 82,765 Replacement Cost: \$3,139,276

**Building Percent Good:** 

Replacement Cost

Less Depreciation: \$94,200

**Building Attributes** 

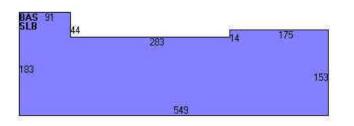
Field	Description
STYLE	Warehouse
MODEL	Ind/Comm
Grade	С
Stories:	1
Occupancy	3
Exterior Wall 1	Brick
Exterior Wall 2	Concr/Cinder
Roof Structure	Flat
Roof Cover	T&G/Rubber
Interior Wall 1	Minim/Masonry
Interior Wall 2	
Interior Floor 1	Concr-Finished
Interior Floor 2	
Heating Fuel	None/Coal/Wd
Heating Type	None
AC Type	None
Bldg Use	BOATYARD MDL96
Total Rooms	
Total Bedrms	00
Total Baths	0
1st Floor Use:	3841
Heat/AC	NONE
Frame Type	MASONRY
Baths/Plumbing	LIGHT
Ceiling/Wall	NONE
Rooms/Prtns	AVERAGE
Wall Height	22
% Comn Wall	

# **Building Photo**



(http://images.vgsi.com/photos/BranfordCTPhotos/\\00\\01\54/82.jpg)

# **Building Layout**



(http://images.vgsi.com/photos/BranfordCTPhotos//Sketches/801\_801.jpg)

Building Sub-Areas (sq ft)			<u>Legend</u>
Code	Description	Description Gross Area	
BAS	First Floor	82,765	82,765
SLB	Slab	82,765	0
		165,530	82,765

# **Building 2 : Section 1**

Year Built: 1920 Living Area: 2,304 Replacement Cost: \$277,502 Building Percent Good: 30

Replacement Cost

Less Depreciation: \$83,300

Building Attributes : Bldg 2 of 2			
Field Description			
STYLE	Restaurant		
MODEL	Comm/Ind		
Grade	С		

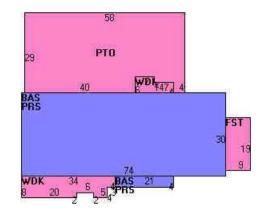
Stories:	1
Occupancy	1
Exterior Wall 1	Wood Shingle
Exterior Wall 2	
Roof Structure	Gable/Hip
Roof Cover	Asphalt
Interior Wall 1	Drywall
Interior Wall 2	
Interior Floor 1	Hardwood
Interior Floor 2	Ceram Clay Til
Heating Fuel	Gas
Heating Type	Forced Air-Duc
AC Type	Central
Bldg Use	REST/CLUBS MDL94
Total Rooms	
Total Bedrms	00
Total Baths	0
1st Floor Use:	3840
Heat/AC	HEAT/AC SPLIT
Frame Type	WOOD FRAME
Baths/Plumbing	AVERAGE
Ceiling/Wall	CEIL & WALLS
Rooms/Prtns	AVERAGE
Wall Height	8
% Comn Wall	

# **Building Photo**



(http://images.vgsi.com/photos/BranfordCTPhotos/\\00\02\16/71.jpg)

# **Building Layout**



 $(http://images.vgsi.com/photos/BranfordCTPhotos//Sketches/801\_14082.jp$ 

Building Sub-Areas (sq ft)			<u>Legend</u>
Code	Description	Gross Area	Living Area
BAS	First Floor	2,304	2,304
FST	Utility, Finished	171	0
PRS	Pier Fndtn	2,304	0
PTO	Patio	1,612	0
WDK	Deck, Wood	318	0
		6,709	2,304

# **Extra Features**

Extra Features <u>Le</u>				
Code	Description	Size	Value	Bldg #
MEZ1	MEZZANINE-UNF	784 S.F.	\$200	1
GIR3	GIRDERS 19"-24	80 L.F.	\$200	1
HT2	ELECTRIC	1248 S.F.	\$200	1

НТ3	FORCED AIR	840 S.F.	\$200	1
A/C	AIR CONDITION	0 S.F.	\$0	1

# Land

Land Use Land Line Valuation

**Use Code** 3150 **Size (Acres)** 4.59

DescriptionBOATYARD MDL96FrontageZoneIG-1Depth

Neighborhood350Assessed Value\$676,100Alt Land ApprNoAppraised Value\$965,800

Category

# Outbuildings

Outbuildings						<u>Legend</u>
Code	Description	Sub Code	Sub Description	Size	Value	Bldg#
PAV1	PAVING-ASPHALT			36978 S.F.	\$18,300	1
SHD5	SHED COM WOOD			168 S.F.	\$1,400	2
PAV2	PAVING-CONC			3204 S.F.	\$3,200	1
LT1	LIGHTS-IN W/PL			1 UNITS	\$200	1
LT1	LIGHTS-IN W/PL			1 UNITS	\$200	1
LT2	W/DOUBLE LIGHT			2 UNITS	\$700	1
FN3	FENCE-6' CHAIN			510 L.F.	\$1,500	1
WDK	WOOD DECK			230 S.F.	\$700	1
DCK3	FLOATING			4507 S.F.	\$114,900	1
DCK3	FLOATING			2804 S.F.	\$71,500	1
STK1	CHIMNEY STK BR			100 UNITS	\$20,000	1
SHD5	SHED COM WOOD			160 S.F.	\$1,400	1

# **Valuation History**

Appraisal Appraisal				
Valuation Year	Improvements	Land	Total	
2020	\$412,300	\$965,800	\$1,378,100	
2019	\$412,300	\$965,800	\$1,378,100	
2018	\$401,900	\$937,400	\$1,339,300	

Assessment				
Valuation Year	Improvements	Land	Total	
2020	\$288,400	\$676,100	\$964,500	
2019	\$288,400	\$676,100	\$964,500	
2018	\$281,300	\$656,200	\$937,500	



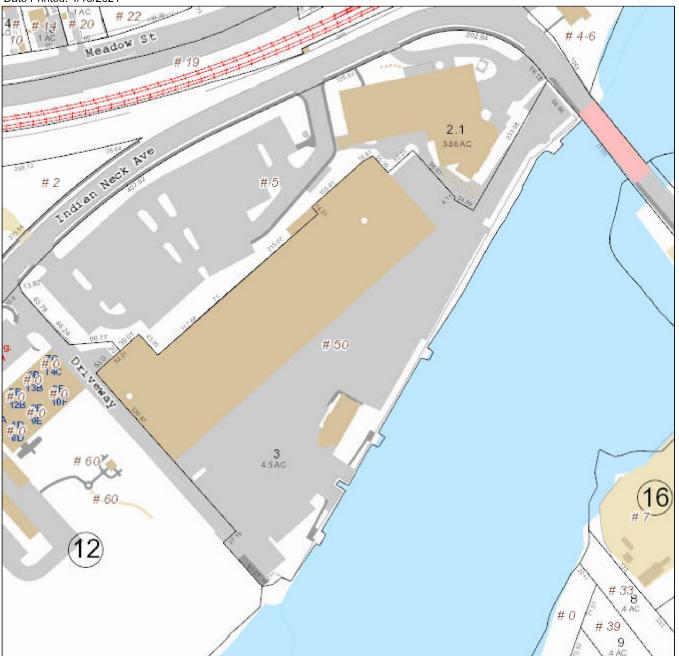
4/16/2021 Print Map

# **Town of Branford**

Geographic Information System (GIS)



Date Printed: 4/16/2021



# **MAP DISCLAIMER - NOTICE OF LIABILITY**

This map is for assessment purposes only. It is not for legal description or conveyances. All information is subject to verification by any user. The Town of Branford and its mapping contractors assume no legal responsibility for the information contained herein.





# PLANNING AND ZONING COMMISSION TOWN OF BRANFORD TOWN HALL DRIVE P.O. BOX 150

Branford, Connecticut 06405

Telephone: (203) 488-1255

Fax: (203) 315-2188

# NOTICE OF DECISION

January 11, 2010

Clearwire by Maxton Technology Attention: Thomas F. Flynn III 1296 Blue Hills Avenue Bloomfield, Connecticut 06002

SUBJECT: Site Plan

APPLICATION: #09-12.4

ADDRESS: 50 Maple Street

APPLICANT: Clearwire Wireless LLC d/b/a Clearwire

OWNER OF RECORD: Marine Systems, Inc.

Dear, Sir:

At a meeting of the Branford Planning & Zoning Commission held on <u>Thursday</u>, <u>January 7, 2010</u> the Commission voted to:

X Approve your above subject application.

Very truly yours,

Shirley Rasmussen

Town Planner

NOTE: Site Plan shall become null and void in the event the applicant fails to obtain a building permit within one (1) year of date of approval.

(Per Section 31.7 of the Branford Zoning Regulations)

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# - T-Mobile-

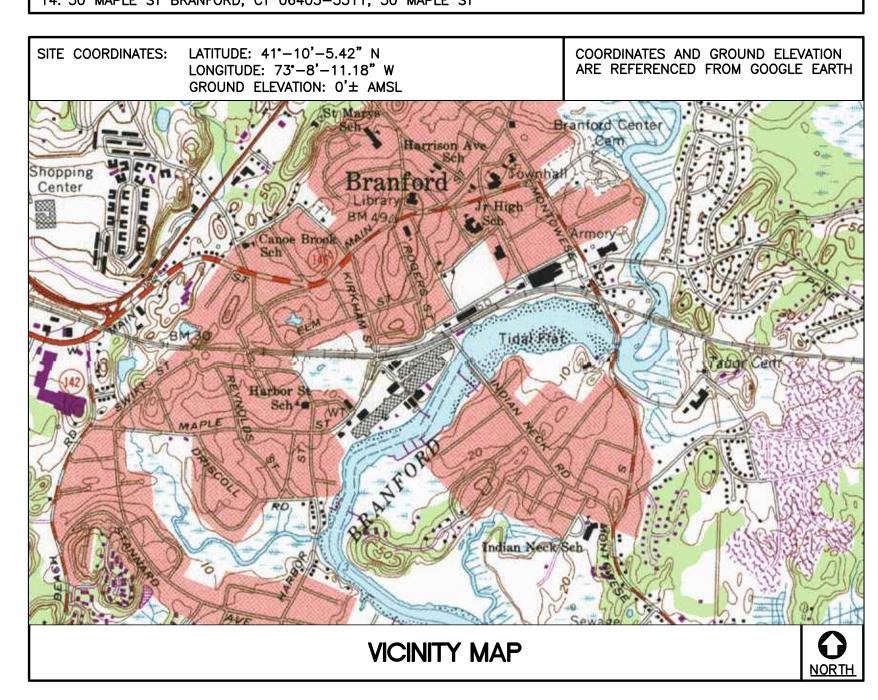
# MARINE SYS. SMOKE STACK SITE ID: CT11328F 50 MAPLE ST BRANFORD, CT 06405

# **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.
- 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.
- F. 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 CONSTRUCTON, 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 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 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.

- 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 MANUFACTURER'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 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.
- 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 CONDUITS 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.
- 19. 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 TO: 50 MAPLE STREET BRANFORD, CT 06405 BLOOMFIELD, CT 06002 HEAD NORTH ON GRIFFIN ROAD S. TOWARD HARTMAN RD. TAKE THE 2ND RIGHT ONTO DAY HILL RD. 3.64 MI. . MERGE ONTO I-91 S TOWARD HARTFORD 14.42 MI 0.28 MI. 4. TAKE CT-99 EXIT, EXIT 24 TOWARD WETHERSFIELD/ROCKY HILL 5. TURN LEFT ONTO SILAS DEANE HWY/CT-99 0.00 MI MERGE ONTO I-91 S via THE RAMP ON THE LEFT TOWARD NEW HAVEN 31.32 MI. MERGE ONTO I-95 N via THE EXIT ON THE LEFT TOWARD NEW LONDON 4.55 MI 3. TAKE THE US-1 EXIT, EXIT 53, TOWARD SHORT BEACH/CT-142/CT-146 0.43 MI 0.62 MI. 9. MERGE ONTO BRANFORD CONN. 0.10 MI 10. TAKE THE 1ST RIGHT ONTO W MAIN ST/US-1 S 11. TAKE THE 1ST LEFT ONTO SHORT BEACH RD/CT-142 0.22 MI. 12. TURN LEFT ONTO MAPLE ST 0.72 MI. 13. TURN RIGHT ONTO INDIAN NECK AVE. 0.17 MI. 14. 50 MAPLE ST BRANFORD, CT 06405-3511, 50 MAPLE ST



# PROJECT SUMMARY

THE PROPOSED SCOPE OF WORK CONSISTS OF A MODIFICATION TO THE EXISTING UNMANNED TELECOMMUNICATIONS FACILITY INCLUDING THE FOLLOWING:

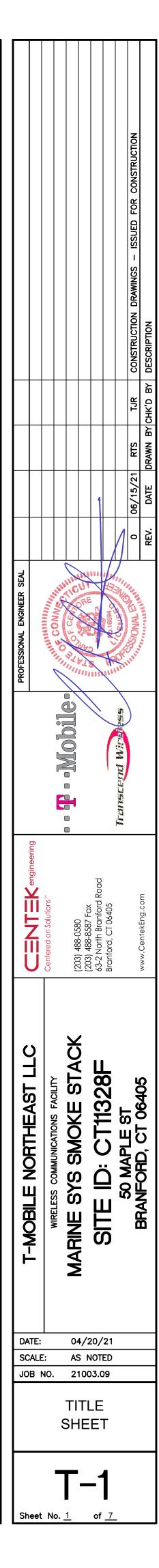
- 1. INSTALL (1) NEW 25 KW NATURAL GAS BACK-UP GENERA
- 2. INSTALL (1) 200A AUTOMATIC TRANSFER SWITCH ON PROPOSED UNISTRUT FRAME
- 3. INSTALL (3) BOLLARDS
- 4. NEW GAS METER TO BE INSTALLED

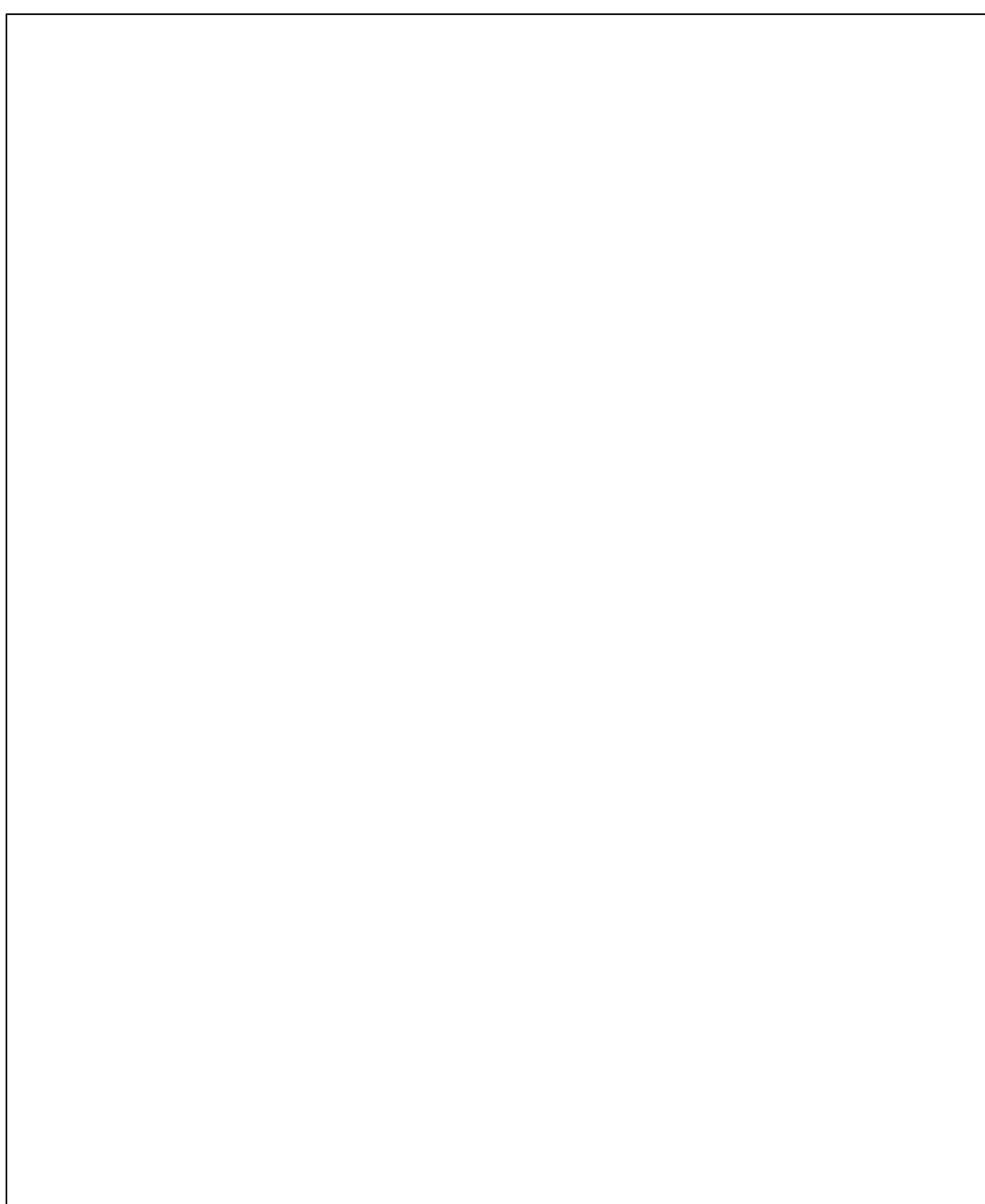
PROJECT INFORMATION				
SITE NAME:	MARINE SYS. SMOKE STACK			
SITE ID:	CT11328F			
SITE ADDRESS:	50 MAPLE STREET BRANFORD, CT 06405			
APPLICANT:	T-MOBILE NORTHEAST, LLC 35 GRIFFIN ROAD SOUTH BLOOMFIELD, CT 06002			
CONTACT PERSON:	DAN REID (PROJECT MANAGER) TRANSCEND WIRELESS, LLC (203) 592-8291			
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°-16'-27.57" N LONGITUDE: 72°-48'-49.06" W GROUND ELEVATION: 13'± AMSL			

SHEET INDEX					
SHT. NO.	DESCRIPTION	RE'			
T-1	TITLE SHEET	0			
N-1	GENERAL NOTES AND SPECIFICATIONS	0			
C-1	COMPOUND AND EQUIPMENT PLANS	0			
C-2	TYPICAL EQUIPMENT DETAILS	0			
C-3	EQUIPMENT LOCATION PLAN	0			
M-1	MECHANICAL COMPOUND PLAN, ROOF PLAN AND ELEVATION	0			
E-1	TYPICAL ELECTRICAL DETAILS	0			

SITE COORDINATES AND GROUND ELEVATION

REFERENCED FROM GOOGLE EARTH.





# 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)
- ULTIMATE DESIGN SPEED (OTHER STRUCTURE): 130 MPH (Vasd) (EXPOSURE B/ IMPORTANCE FACTOR 1.0 BASED ON ASCE 7-10).

# SITE NOTES

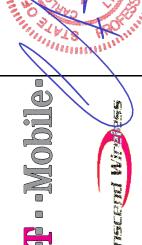
- 1. THE CONTRACTOR SHALL CALL UTILITIES PRIOR TO THE START OF CONSTRUCTION.
- 2. ACTIVE EXISTING UTILITIES, WHERE ENCOUNTERED IN THE WORK, SHALL BE PROTECTED AT ALL TIMES. THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY, PRIOR TO PROCEEDING, SHOULD ANY UNCOVERED EXISTING UTILITY PRECLUDE COMPLETION OF THE 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 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.
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- 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.

ı						
					TION DRAWINGS - ISSUED FOR CONSTRUCTION	
					FOR	
					ISSUED	
					1	
					DRAWINGS	
					TION	

0 06/15/21 RTS



203) 488-0580 203) 488-8587 Fax 3-2 North Branford Road ranford, CT 06405

NORTHE/

ELESS COMMUNICATIONS FACILITY

SYS SMOKE STACK

E ID: CT11328F

50 MAPLE ST

ANFORD, CT 06405

DATE: 04/20/21
SCALE: AS NOTED

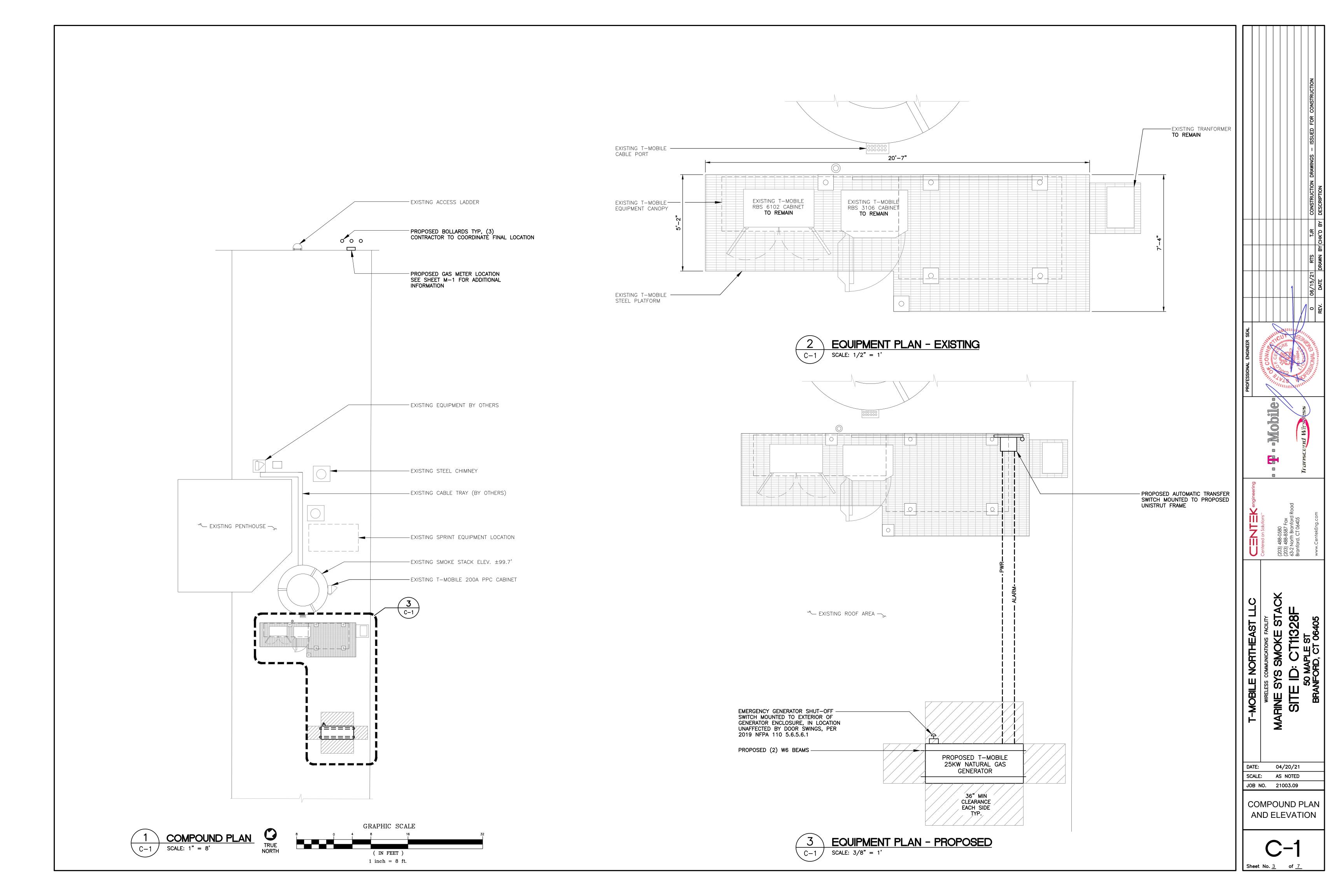
GENERAL NOTES AND

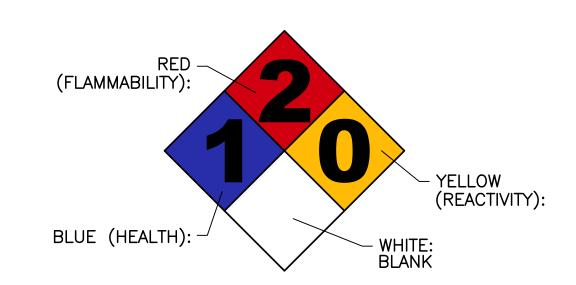
JOB NO. 21003.09



**SPECIFICATIONS** 

Sheet No. 2





SIGN NAME: REGULATORY, NFPA 704 HAZARD ID

DESCRIPTION: MOUNT ON GENERATOR ACCESS DOOR.
CONSULT WITH GENERATOR MANUFACTURER MSDS SHEET FOR BLUE AND RES POSITIONS

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.

NFPA 704 DIAMOND SIGNAGE DETAIL

SCALE: NOT TO SCALE



		BA	CKUP POWER GENERATO	R	
EQUIPMENT	POWER GENERATED	FUEL	ENCLOSURE	FUEL TANK SIZE (GAL)	DIMENSIONS
MAKE: GENERAC MODEL: RG25	25 KW, AC	GAS	LEVEL 2 SOUND ATTUNEMENT	-	84.2"L x 35.0"W x 53.5"H

NOTES:

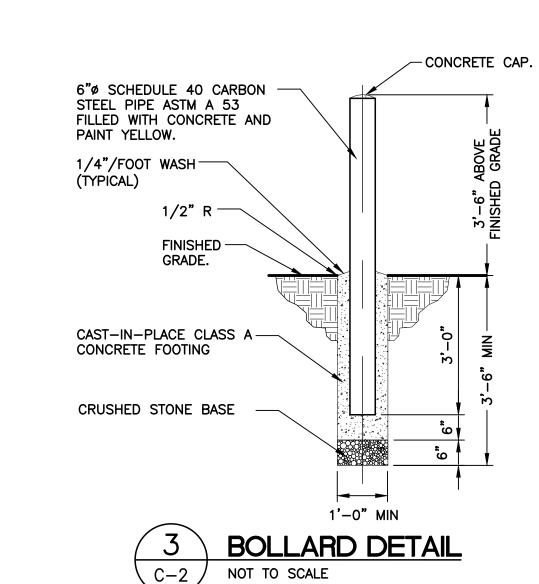
1. FUEL LEVEL/SECONDARY CONTAINMENT SHALL BE ALARMED AND IN COMMUNICATION WITH T-MOBILE'S NOC.

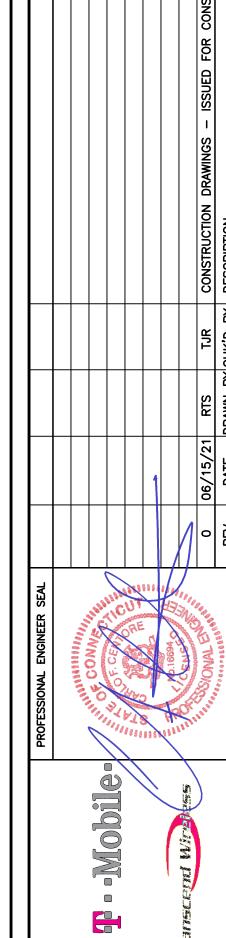
2. CONTRACTOR TO COORDINATE FINAL EQUIPMENT MODEL SELECTION AND ALL OPTIONAL FEATURES WITH T-MOBILE'S CONTRUCTION MANAGER PRIOR TO ORDERING



BACK-UP GENERATOR DETAIL

SCALE: NOT TO SCALE



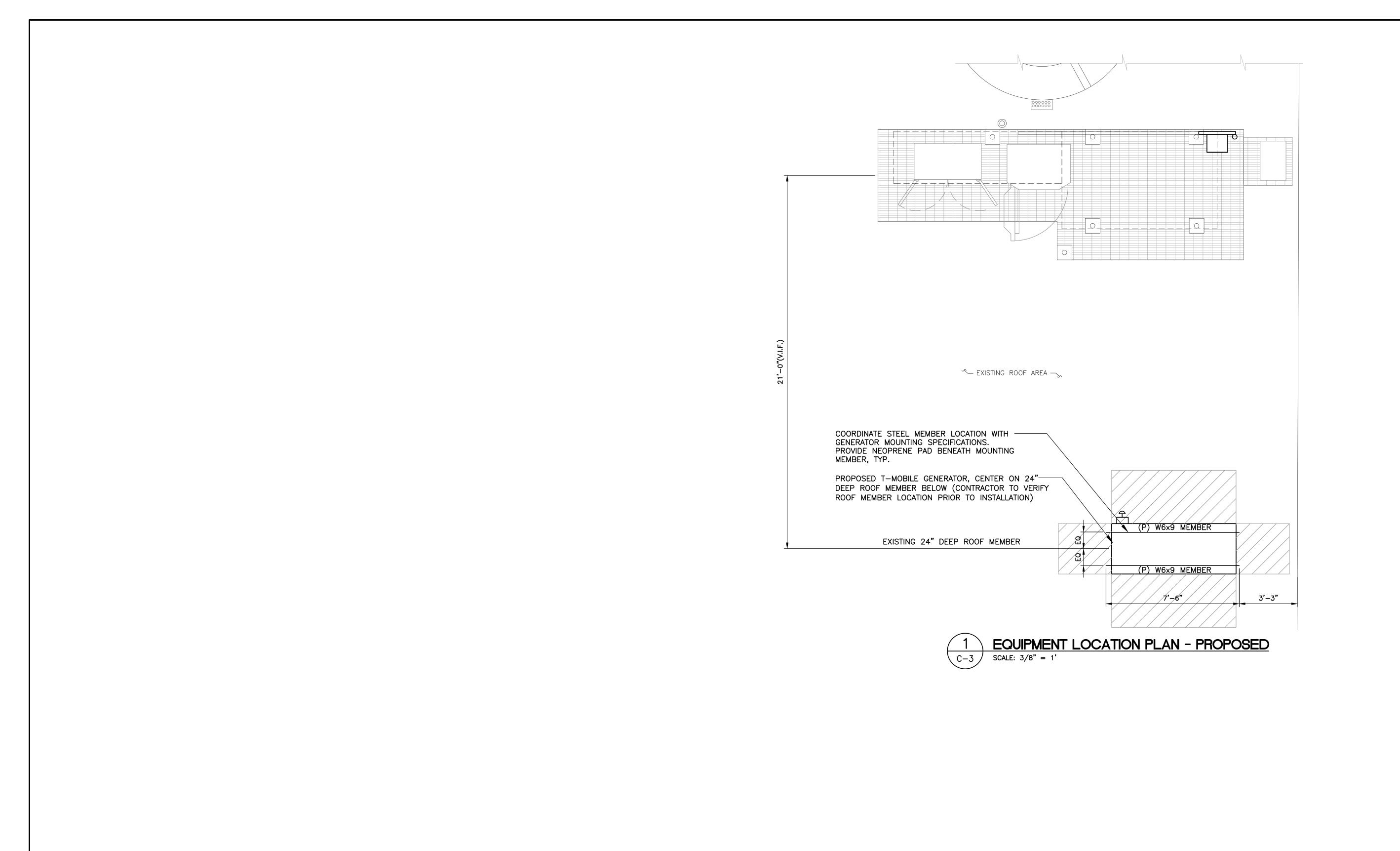


Centered on Solutions \*\*

MARINE SYS SMOKE STACK
SITE ID: CT11328F
50 MAPLE ST
BRANFORD, CT 06405 T-MOBILE NORTHEAST LLC

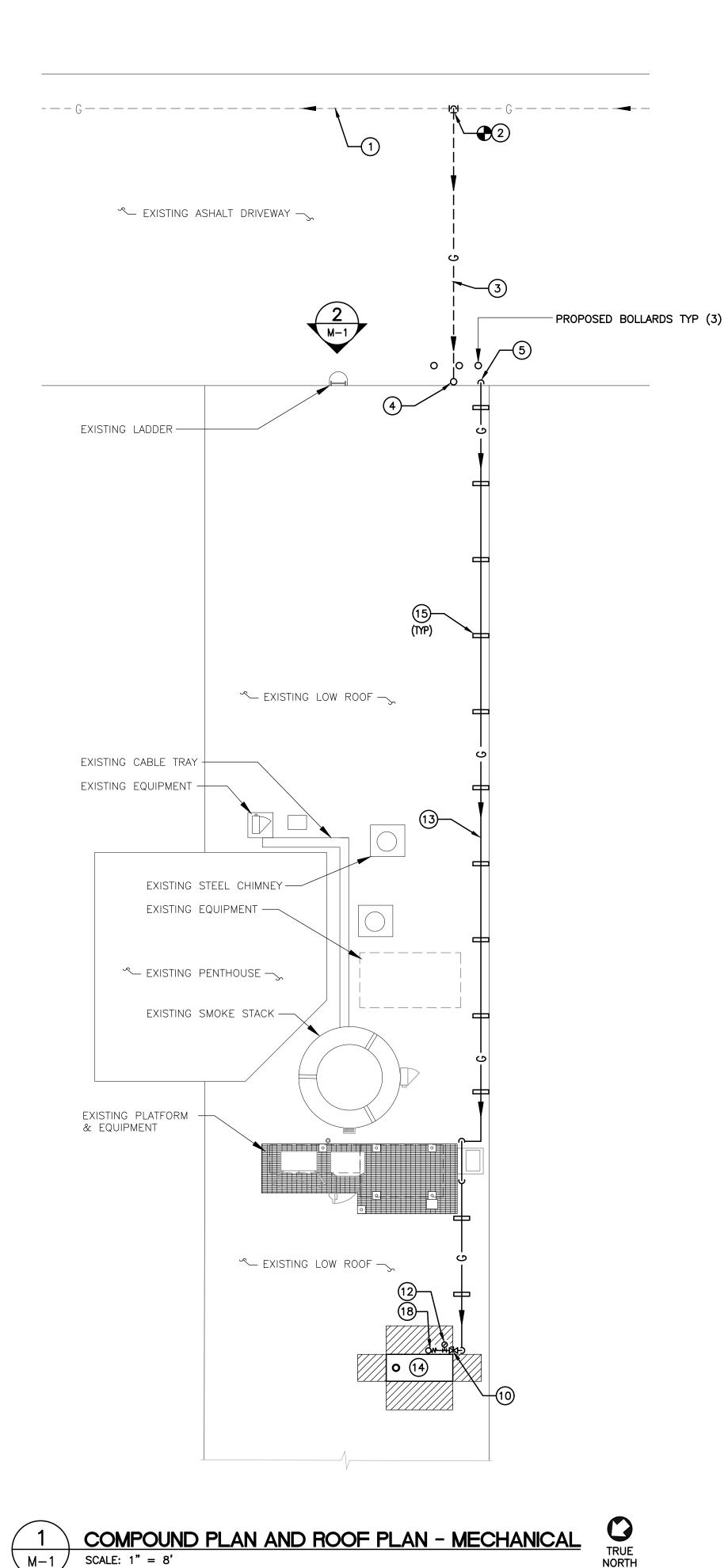
04/20/21

EQUIPMENT PLAN



-Mobile Centered on Solutions\*\* 04/20/21 SCALE: AS NOTED JOB NO. 21003.09 **EQUIPMENT** 

LOCATION PLAN



( IN FEET ) 1 inch = 8 ft.

# MECHANICAL WORK NOTES

- 1) APPROX. LOCATION OF EXISTING 2" PL HP GAS SERVICE (CONFIRM WITH LOCAL GAS CO.) LOCATED BELOW EXISTING ASPHALT DRIVEWAY. (VERIFY IN FIELD)
- 2 APPROX. LOCATION OF NEW GAS PIPING CONNECTION TO EXISTING SERVICE BY LOCAL GAS CO (SCGC) (T-MOBILE GAS LOAD 360 CFH) COORDINATE EXACT LOCATION WITH GAS CO., BUILDING OWNER & CONSTRUCTION MANAGER PRIOR TO CONSTRUCTION.
- (3) NEW HP GAS SERVICE PER LOCAL GAS CO. (SCGC)
- 4 GAS PIPING UP TO GRADE. REFER TO 2/M-1 PARTIAL ELEVATION PLAN FOR CONTINUATION.
- 5 1-1/2" GAS PIPING DOWN FACE OF BUILDING. REFER TO 2/M-1 FOR CONTINUATION.
- (6) NEW GAS METER ASSEMBLY BY LOCAL GAS CO. (SCGC) COORDINATE EXACT LOCATION WITH BUILDING OWNER, GAS CO. & CONSTRUCTION MANAGER PRIOR TO INSTALLATION. REFER TO STRUCTURAL DRAWINGS FOR QUANTITY & LOCATIONS OF PROTECTIVE BOLLARDS.
- 7 SCHEDULE 40 BLACK STEEL PIPING SHALL BE USED FOR ALL EXPOSED
- 8 GAS PIPE ROUTING SHALL BE APPROVED BY BUILDING OWNER PRIOR TO INSTALLATION.
- (9) PROVIDE EXTERIOR WALL MOUNTED PIPE SUPPORT FOR NEW PIPING.
- (10) GAS SHUT-OFF VALVE. LABEL "T-MOBILE GENERATOR SHUT-OFF"
- (11) GAS PRESSURE REGULATOR BY GAS CO.
- (12) EXTERIOR PRESSURE GAUGE.

- 13 1-1/2" GAS SUPPLY PIPING. CONTRACTOR SHALL CONFIRM GAS SIZE FROM GRADE (NEW GAS METER) TO EMERGENCY GENERATOR LOCATED ON ROOF BASED ON ACTUAL FIELD INSTALLATION. ROUTING MAY DIFFER. NOTIFY T-MOBILE CONSTRUCTION MANAGER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
- 14) T-MOBILE 25KW NATURAL GAS EMERGENCY GENERATOR. GENERAC INDUSTRIAL POWER. (360 CFH @ 100% LOAD). OPERATING PRESSURE 5"-14" W.C.
- 15) ROOF MOUNTED PIPE SUPPORT.
- 16 PROPOSED GAS PIPE ROUTING FOR EMERGENCY GENERATOR TO RUN UP FACE OF BUILDING, PIPING SHALL BE SECURED, PAINTED TO MATCH BUILDING FACILITY REQUIREMENTS & RECOMMENDATIONS. ROUTING, LOCATION, PAINTING ETC. SHALL BE APPROVED BY BUILDING OWNER & T-MOBILE CONSTRUCTION MANAGER PRIOR TO ANY CONSTRUCTION.
- 17 CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS INVOLVING PROVIDING & INSTALLING ALL REQUIRED COMPONENTS FOR A COMPLETE & OPERATIONAL SYSTEM. CONTRACTOR SHALL COORDINATE ALL GAS METERING, & PIPING, PROVIDING NEW METER WITH THE LOCAL GAS CO (SCGC) PRIOR TO ANY CONSTRUCTION. NOTIFY T-MOBILE CONSTRUCTION MANAGER & BUILDING OWNER OF ANY ISSUES.
- (18) FLEXIBLE GAS PIPE CONNECTOR TO EMERGENCY GENERATOR.
- 19 GAS PIPING ROUTED ONTO LOW ROOF. REFER TO 1/M-1 FOR CONTINUATION.

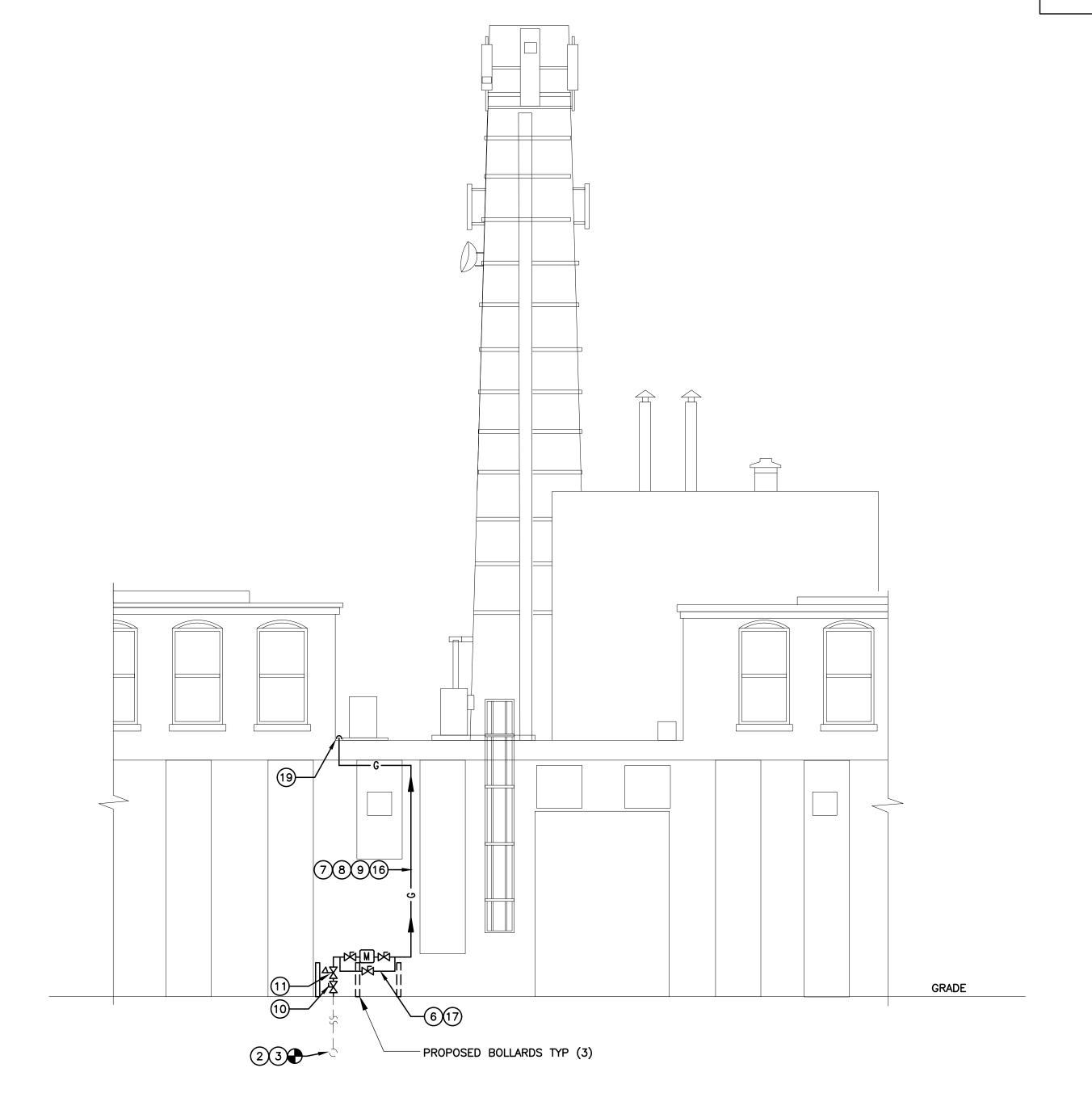
MEC	MECHANICAL LEGEND					
0	PIPE RISER					
<del></del> 5	PIPE DROP					
— G — —	EXISTING BURIED GAS PIPING					
	EXISTING GAS PIPING					
G	NEW BURIED GAS PIPING					
G	GAS PIPING					
<b>────</b>	GAS SHUT-OFF VALVE					
<b>─</b> ─₩	PRESSURE REDUCING VALVE					
<del></del>	STRAINER					
<b>P</b>	PRESSURE GAUGE					
•	CONNECT NEW TO EXISTING					
1	l .					

# **ABBREVIATIONS**

AFF ABOVE FINISHED FLOOR HP HORSEPOWER KW KILOWATTS MIN. MINIMUM PHASE

CFH CUBIC FEET PER HOUR O.C. ON CENTER

MBH BTU PER HOUR (THOUSAND)
TYP TYPICAL
CP CONTROL PANEL FC FLEX CONNECTION GALV. GALVANIZED N.T.S. NOT TO SCALE MAX MAXIMUM HR HOUR





04/20/21 SCALE: AS NOTED JOB NO. 21003.09 MECHANICAL COMPOUND PLAN, **ROOF PLAN &** PARTIAL ELEVATIOI

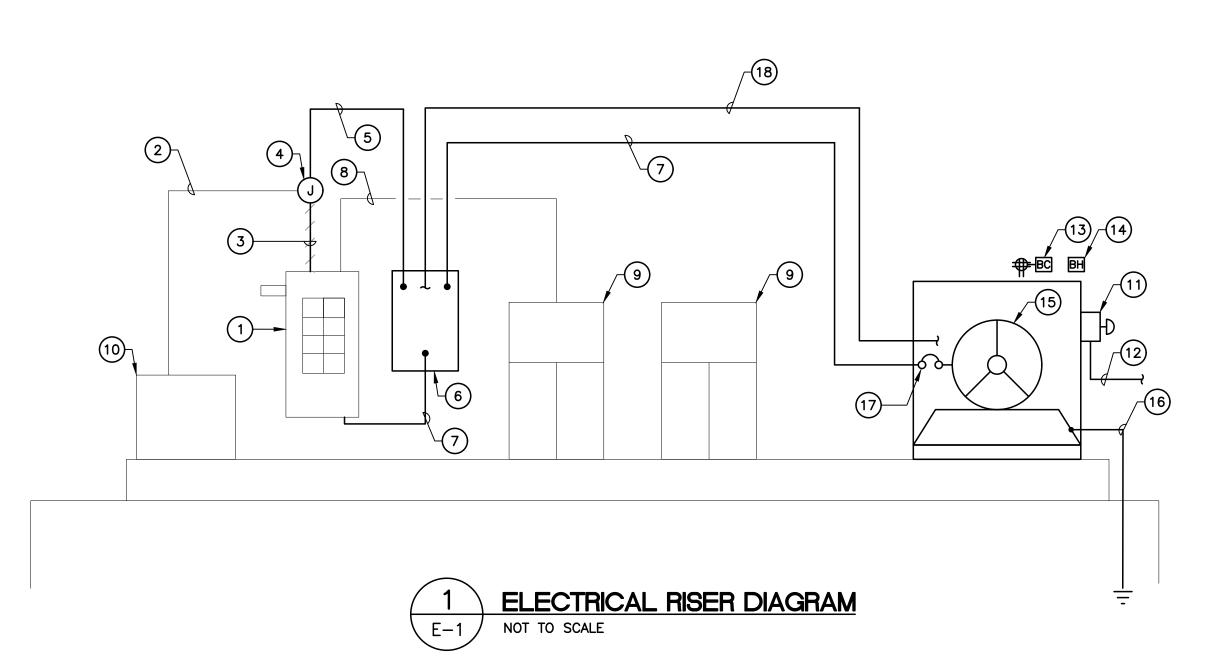
-Mobile

# RISER DIAGRAM NOTES

- 1) EXISTING PPC CABINET TO REMAIN.
- 2 EXISTING POWER CONDUIT AND CONDUCTORS TO REMAIN.
- 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) EXISTING 75KVA TRANSFORMER TO REMAIN

# RISER DIAGRAM NOTES

- 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.
- 3/4" CONDUIT AND CONDUCTORS REQUIRED FOR PROPER OPERATION OF EMERGENCY GENERATOR SHUT OFF SWITCH.
- 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.
- GENERATOR GROUNDING PER NEC AND MANUFACTURER'S REQUIREMENTS. BOND TO EXISTING GROUNDING SYSTEM. (MINIMUM OF (1) #2 AWG GROUND)
- 17 GENERATOR OUTPUT CIRCUIT BREAKER.
- 1" CONDUIT FOR GENERATOR CONTROL AND SIGNAL WIRING.





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

NOT TO SCALE

						-		
PROFESSIONAL ENGINEER SEAL		William William	THE CONVENTION OF THE PARTY OF	THE CENT OF THE	NO RESERVE		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	The state of the s
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Centered on Solutions (203) 488-0580

INE SYS SMOKE STACK
SITE ID: CT11328F

DATE: 04/20/21
SCALE: AS NOTED
JOB NO. 21003.09

TYPICAL ELECTRICAL DETAILS

E-1

Shart No. 7

# **Protector® Series**

# GENERAC

# PROTECTOR® SERIES **Standby Generators**

**Liquid-Cooled Gaseous Engine** 

# **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.
- Capability to be installed with 18" (457mm) of a building\*
- True Power<sup>™</sup> Electrical Technology
- Isochronous Electronic Governor
- Sound Attenuated Enclosure
- Closed Coolant Recovery System
- Smart Battery Charger
- UV/Ozone Resistant Hoses
- ±1% Voltage Regulation
- Natural Gas or LP Operation
- 5 Year Limited Warranty
- UL 2200 Listed

Note: 25-45 kW units are field convertible between natural gas or liquid propane. 60 kW units are built per fuel requirement and are not convertible.

Standby Power Rating

Model RG025 (Aluminum - Bisque) - 25 kW 60 Hz Model RG030 (Aluminum - Bisque) - 30 kW 60 Hz Model RG036 (Aluminum - Bisque) - 36 kW 60 Hz Model RG045 (Aluminum - Bisque) - 45 kW 60 Hz Model RG060 (Aluminum - Bisque) - 60 kW 60 Hz









\*Only if located away from doors, windows, and fresh air intakes, and unless otherwise directed by local codes. Applicable for 25kW and 30kW units only.

Meets EPA Emission Regulations 25, 30 & 45 kW CA/MA emissions compliant 36 & 60 kW not for sale in CA / MA

# **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.
- **TEST CRITERIA:** 
  - **✓ PROTOTYPE TESTED**
- MOTOR STARTING ABILITY
- SYSTEM TORSIONAL TESTED
- NEMA MG1-22 EVALUATION

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  $\pm 1\%$ .

- 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.





2 of 11

# **GENERAC**

# 25 • 30 • 36 • 45 • 60 kW

# application & engineering data

#### **GENERATOR SPECIFICATIONS**

Туре	Synchronous
Rotor Insulation Class	Н
Stator Insulation Class	Н
Telephone Interference Factor (TIF)	< 50
Alternator Output Leads 1-Phase	4 wire
Alternator Output Leads 3-Phase	6 wire
Bearings	Sealed Ball
Coupling	Flexible Disc
Excitation System	Direct

#### **VOLTAGE REGULATION**

Туре	Electronic
Sensing	Single Phase
Regulation	± 1%

# **GOVERNOR SPECIFICATIONS**

Туре	Electronic
Frequency Regulation	Isochronous
Steady State Regulation	± 0.25%

# **ELECTRICAL SYSTEM**

Battery Charge Alternator	12 Volt 15 Amp - 25 & 30 kW 12 Volt 30 Amp - 36, 45 & 60 kW
Static Battery Charger	2 Amp
Recommended Battery (battery not included)	Group 26, 525CCA
System Voltage	12 Volts

# **GENERATOR FEATURES**

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 All models fully prototyped tested

# **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.		
Small, compact, attractive	Makes for an easy, eye appealing installation.		
SAE	Sound attenuated enclosure ensures quiet operation.		

# **ENGINE SPECIFICATIONS: 25 & 30 kW**

Make	Generac
Model	In-line
Cylinders	4
Displacement (Liters)	1.5
Bore (in/mm)	3.05/77.4
Stroke (in/mm)	3.13/79.5
Compression Ratio	11:1
Intake Air System	Naturally Aspirated
Lifter Type	Hydraulic

# **ENGINE SPECIFICATIONS: 36, 45 & 60 kW**

Make	Generac
Model	In-line
Cylinders	4
Displacement (Liters)	2.4
Bore (in/mm)	3.41/86.5
Stroke (in/mm)	3.94/100
Compression Ratio	9.5:1
Intake Air System	Naturally Aspirated (36 & 45 kW) or
IIIIake Ali Systelli	Turbocharged/Aftercooled (60 kW)
Lifter Type	Hydraulic

#### **ENGINE LUBRICATION SYSTEM**

Oil Pump Type	Gear
Oil Filter Type	Full flow spin-on cartridge
Crankona Canacity (at/l)	4/3.8 - 25, 30, 36 & 45 kW
Crankcase Capacity (qt/l)	5.25/4.96 - 60 kW

# **ENGINE COOLING SYSTEM**

Туре	Closed			
Water Pump	Belt driven			
	2484 - 25 & 30 kW			
Fan Speed (rpm)	1865 - 36 & 45 kW			
	2100 - 60 kW			
Fan Diameter (in/mm)	17.7/449.6 (25 & 30 kW) or			
Fan Diameter (in/mm)	22/558.8 (36, 45 & 60 kW)			
	Pusher (25 & 30 kW) or			
Fan Mode	Puller (36, 45 & 60 kW)			

# **FUEL SYSTEM**

Fuel Type	Natural gas, propane vapor
Carburetor	Down Draft
Secondary Fuel Regulator	Standard
Fuel Shut Off Solenoid	Standard
Operating Fuel Pressure	5-14" water column/9-26 mm HG
LP Fuel Pressure	11 - 14" Water Column
NG Fuel Pressure	5 - 14" Water Column

3 of 11

# **GENERAC®**

Amer Net Occ

# 25 • 30 • 36 • 45 • 60 kW

# operating data

OD 0:-- (D-4b)

Propane

#### GENERATOR OUTPUT VOLTAGE/kW - 60 Hz

		kW LPG	Amp LPG	kW Nat. Gas	Amp Nat. Gas	CB Size (Both)
	120/240 V, 1Ø, 1.0 pf	25	104	25	104	125
RG025	120/208 V, 3Ø, 0.8 pf	25	87	25	87	100
	120/240 V, 3Ø, 0.8 pf	25	75	25	75	90
	120/240 V, 1Ø, 1.0 pf	30	125	30	125	150
RG030	120/208 V, 3Ø, 0.8 pf	30	104	30	104	125
	120/240 V, 3Ø, 0.8 pf	30	90	30	90	100
	120/240 V, 1Ø, 1.0 pf	36	150	36	150	175
RG036	120/208 V, 3Ø, 0.8 pf	36	125	36	125	150
nguso	120/240 V, 3Ø, 0.8 pf	36	108	36	108	125
	277/480 V, 3Ø, 0.8 pf	36	54	36	54	60
	120/240 V, 1Ø, 1.0 pf	45	188	45	188	200
RG045	120/208 V, 3Ø, 0.8 pf	45	156	45	156	175
NG043	120/240 V, 3Ø, 0.8 pf	45	135	45	135	150
	277/480 V, 3Ø, 0.8 pf	45	68	45	68	80
	120/240 V, 1Ø, 1.0 pf	60	250	60	250	300
RG060	120/208 V, 3Ø, 0.8 pf	60	208	60	208	250
ndu00	120/240 V, 3Ø, 0.8 pf	60	180	60	180	200
	277/480 V, 3Ø, 0.8 pf	60	90	60	90	100

# **SURGE CAPACITY IN AMPS**

		Voltage Dip @ < .4 pf		
		15%	30%	
	120/240 V, 1Ø	65	170	
RG025	120/208 V, 3Ø	80	130	
	120/240 V, 3Ø	69	112	
	120/240 V, 1Ø	75	180	
RG030	120/208 V, 3Ø	96	155	
	120/240 V, 3Ø	83	134	
	120/240 V, 1Ø	105	240	
DCO26	120/208 V, 3Ø	44	130	
RG036	120/240 V, 3Ø	38	115	
	277/480 V, 3Ø	20	60	
	120/240 V, 1Ø	105	240	
RG045	120/208 V, 3Ø	44	130	
NGU43	120/240 V, 3Ø	38	115	
	277/480 V, 3Ø	20	60	
	120/240 V, 1Ø	140	320	
DOOGO	120/208 V, 3Ø	70	210	
RG060	120/240 V, 3Ø	61	182	
	277/480 V, 3Ø	30	91	

#### Note: Fuel pipe must be sized for full load.

For Btu content, multiply ft<sup>3</sup>/hr x 2520 (LP) or ft<sup>3</sup>/hr x 1000 (NG)

For megajoule content, multiply m<sup>3</sup>/hr x 93.15 (LP) or m<sup>3</sup>/hr x 37.26 (NG)

Refer to "Emissions Data Sheets" for maximum fuel flow for EPA and SCAQMD permitting purposes.

#### **ENGINE FUEL CONSUMPTION**

IAM Not Occ

		Matur	ai Gas	Propane		ie	
		(ft³/hr)	$(m^3/hr)$	(gal/hr)	(l/hr)	(ft³/hr)	
	Exercise cycle	60	1.7	0.7	2.5	24	
	25% of rated load	220	6.3	2.9	9.1	88	
RG025	50% of rated load	297	8.4	3.3	12.3	119	
	75% of rated load	362	10.3	4	15	145	
	100% of rated load	430	12.2	4.7	17.8	172	
	Exercise cycle	60	1.7	0.7	2.5	24	
	25% of rated load	240	6.8	2.6	10	96	
RG030	50% of rated load	320	9.1	3.5	13.3	128	
	75% of rated load	400	11.4	4.4	16.6	160	
	100% of rated load	492	14	5.4	20.4	197	
	Exercise cycle	65	1.8	0.7	2.6	25	
	25% of rated load	210	6	2.3	8.6	83	
RG036	50% of rated load	380	10.8	4.2	15.7	151	
	75% of rated load	545	15.5	5.9	22.4	216	
	100% of rated load	730	20.7	8	30.1	290	
	Exercise cycle	65	1.8	0.7	2.6	25	
	25% of rated load	210	6	2.3	8.6	83	
RG045	50% of rated load	380	10.8	4.2	15.7	151	
	75% of rated load	545	15.5	5.9	22.4	216	
	100% of rated load	730	20.7	8	30.1	290	
	Exercise cycle	123	3.5	1.34	5.1	49.3	
	25% of rated load	267	7.6	2.7	10.5	101	
RG060	50% of rated load	483	13.7	5	19	183	
	75% of rated load	672	19.1	7	26.5	255	
	100% of rated load	862	24.5	9	33.9	327	

Natural Gas

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.

# operating data

# **ENGINE COOLING**

	25 kW	30 kW	36 kW	45 kW	60 kW
Air flow (inlet air including alternator and combustion air in cfm/cmm)	2490/70.5	2490/70.5	2725/77.2	2725/77.2	3280/92.9
System coolant capacity (gal/liters)	2/7.6	2/7.6	2.5/9.5	2.5/9.5	2.5/9.5
Heat rejection to coolant (BTU per hr/MJ per hr)	112,000/118.2	135,000/142.4	193,000/203.6	193,000/203.6	270,000/284.9
Maximum operation air temperature on radiator (°C/°F)	60/140				
Maximum ambient temperature (°C/°F)	50/122				

# **COMBUSTION REQUIREMENTS**

Flow at rated power (cfm/cmm)	62/1.8	72/2	144/4.1	144/4.1	180/5.1
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# **SOUND EMISSIONS**

Sound output in dB(A) at 23 ft (7 m) with generator in exercise mode*	59	59	61	61	65
Sound output in dB(A) at 23 ft (7 m) with generator operating at normal load*	72	73	70	73	72

<sup>\*</sup>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)	203/5.7	237/6.7	300/8.5	420/11.9	494/14
Exhaust temperature at muffler outlet (°C/°F)	593/1100	610/1130	579/1075	593/1100	566/1050

#### **ENGINE PARAMETERS**

Rated Synchronous rpm	3600
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# POWER ADJUSTMENT FOR AMBIENT CONDITIONS

Temperature Deration	3% for every 10 °C above 25 °C or 1.65% for every 10 °F above 77 °F
Altitude Deration (25, 30, 36 & 45 kW)	1% for every 100 m above 183 m or 3% for every 1000 ft above 600 ft
Altitude Deration (60 kW)	1% for every 100 m above 915 m or 3% for every 1000 ft above 3000 ft

#### **CONTROLLER FEATURES**

Two-Line Plain Text LCD Display	Simple user interface for ease of operation.  Automatic Start on Utility failure. 7 day exerciser
Off	Stops unit. Power is removed. Control and charger still operate.
Manual	Start with starter control, unit stays on. If utility fails, transfer to load takes place.
Programmable start delay between 10-30 seconds	
Engine Start Sequence	
Fnoine Warm-up	5 sec
Engine Cool-Down	
	Starter cannot re-engage until 5 sec after engine has stopped.
	Standard
Automatic Voltage Regulation with Over and Under Voltage Protection	Standard
Automatic Low Oil Pressure Shutdown	Standard
Overspeed Shutdown	Standard, 72 Hz
	Standard
Overcrank Protection	Standard
Safety Fused	Standard
Failure to Transfer Protection	Standard
Low Battery Protection	Standard
50 Event Run Log	Standard
Future Set Capable Exerciser	
	Standard
Governor Failure Protection	Standard

# **GENERAC**°

#### 25 • 30 • 36 • 45 • 60 kW available accessories

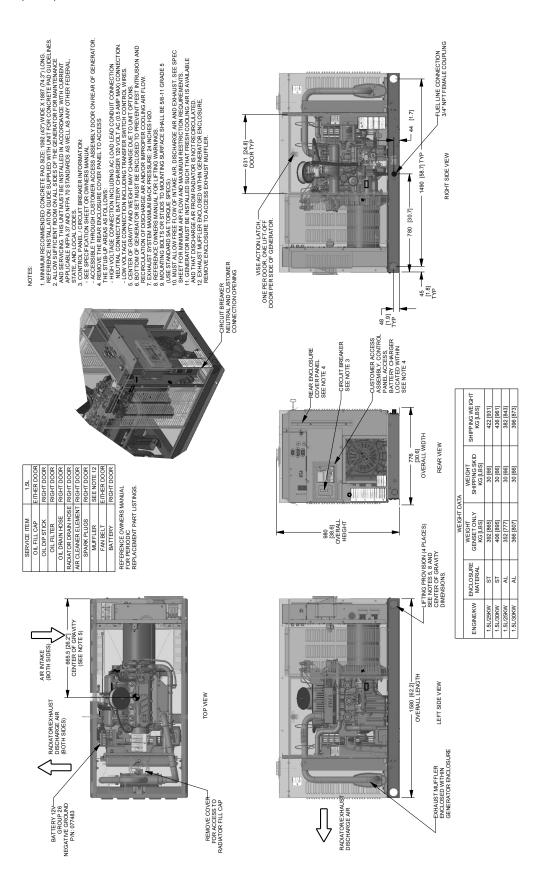
Model #	Product	Description
G006463-4	Mobile Link™	Generac's Mobile Link allows you to check the status of your generator from anywhere that you have access to an Internet connection from a PC or with any smart device. You will even be notified when a change in the generator's status occurs via e-mail 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™.
G006175-0 - 25 & 30 kW G005630-1 - 36, 45 & 60 kW	Cold Weather Kit	If the temperature regularly falls below 32 °F (0 °C), install a cold weather kit to maintain optimal battery temperature. Kit consists of battery warmer with thermostat built into the wrap.
G006174-0 - 25 & 30 kW G005616-0 - 36, 45 & 60 kW	Extreme Cold Weather Kit	Recommended where the temperature regularly falls below 32 °F (0 °C) for extended periods of time. For liquid cooled units only.
G005651-0	Base Plug Kit	Add base plugs to the base of the generator to keep out debris.
G005703-0 - Bisque	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.
G006176-0 - 25 & 30 kW G006172-0 - 36 & 45 kW G006171-0 - 60 kW	Scheduled Maintenance Kit	The Liquid-Cooled Scheduled Maintenance Kits offer all the hardware necessary to perform complete maintenance on Generac liquid-cooled generators.
G006664-0	Local Wireless Monitor	Completely wireless and battery powered, Generac's wireless remote monitor provides you with instant status information without ever going outside.
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)	Smart Management Modules are used in conjunction with the Automatic Transfer Switch to increase its power management capabilities. It provides additional power management flexibility not found in any other power management system.
G006510-0	E-Stop	E-stop allows for immediate fuel shutoff and generator shutdown in the event of an emergency.
G007005-0	Wi-Fi LP Fuel Level Monitor	The Wi-Fi enabled LP fuel level monitor provides constant monitoring of the connected LP fuel tank. Monitoring the LP tank's fuel level is an important step in making sure your generator is ready to run during an unexpected power failure. Status alerts are available through a free application to notify when your LP tank is in need of a refill.

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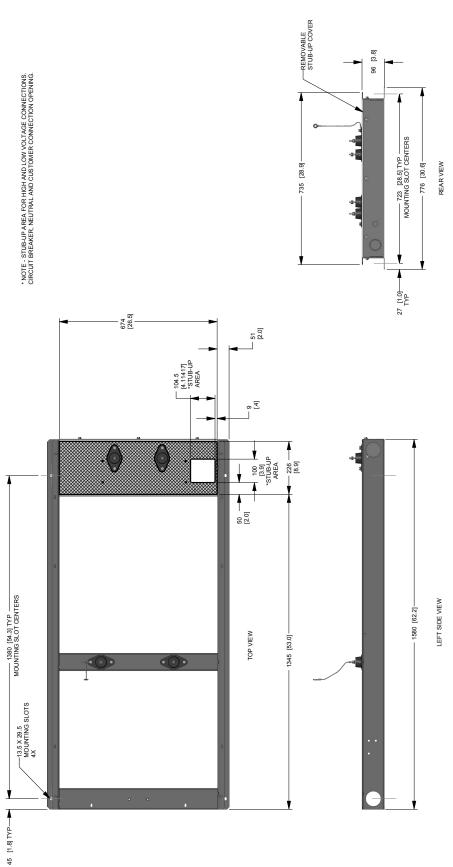
# installation layout

**GENERAC** 

Drawing #0K8420-B (1 of 2)



Drawing #0K8420-B (2 of 2)

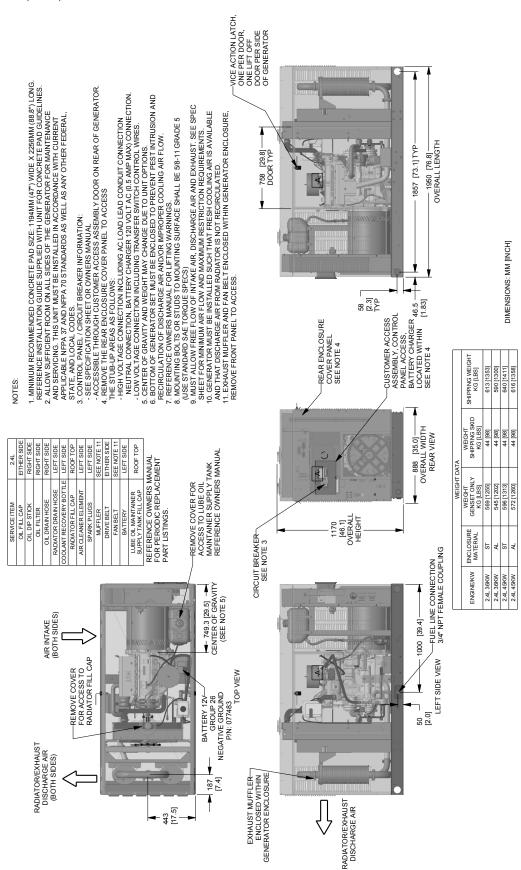


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**GENERAC** 

Drawing #0K8636-B (1 of 2)



Drawing #0K8636-B (2 of 2)

116 [4.6] "NOTE - STUB-UP AREA FOR HIGH AND LOW VOLTAGE CONNECTIONS. CIRCUIT BREAKER, NEUTRAL AND CUSTOMER CONNECTION OPENINGS. -REMOVABLE STUB-UP COVER 838 [33.0] TYP MOUNTING SLOT CENTERS 888 [35.0] REAR VIEW 850 [33.5] 51 [2.0] 786 [30.9] - 162 [6.4] \*STUB-UP AREA DIMENSIONS: MM [INCH] - 162 [6.4] \*STUB-UP AREA 217 [8.5] 12 [.5] —— 1750 [68.9] TYP —— MOUNTING SLOT CENTERS 0 - 1950 [76.8]-LEFT SIDE VIEW TOP VIEW 1733 [68.2]-—13.5 X 29.5 MOUNTING SLOTS 4X 50 [2.0]— TYP

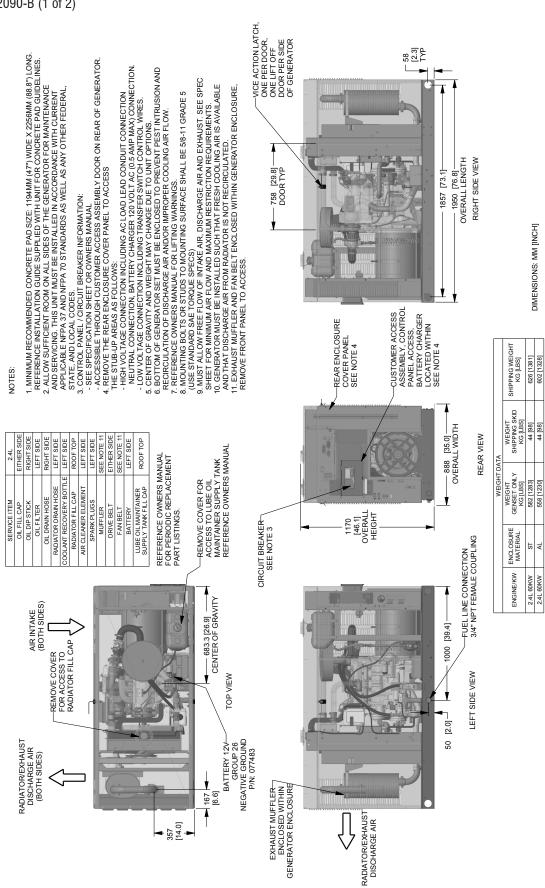
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**GENERAC** 

Drawing #0L2090-B (1 of 2)

**60 kW** 



# installation layout

Drawing #0L2090-B (2 of 2)

