

811285

T-Mobile GEN

A2P0304M



CITY OF FORT PIERCE, FLORIDA
BUILDING DEPARTMENT
APPLICATION FOR BUILDING PERMIT
(772) 467-3718 FAX (772) 467-3849
building@city-ftpierce.com

PERMIT # 18-4234
FBC (2017) 6th Edition
PIN # 948339

Building Department Project Manager:

*Property Address 712 Citrus Avenue *Date _____

Parcel ID# 2410-705-0006-000-1 *# of plans submitted _____ * # of CD's submitted _____

(Located on your tax bill)
*Owner Name TMO/Crown Castle *Owner Address 6420 Congress Ave., #2000, Boca Raton, FL 33487

Phone # (____) _____ - _____ Fax # (____) _____ - _____ Cell # (____) _____ - _____

Email Address _____

***Required Information**

Type of permit _____ *Valuation \$ 12000

*Description of Work: Install new 25 KW self-contained diesel generator with 211 gallon tank on existing concrete slab.

Architect: _____

Phone(____) _____ - _____ Fax (____) _____ - _____ Email Address DEC 12 2018

Engineer: _____

Phone(____) _____ - _____ Fax (____) _____ - _____ Email Address Building Department

***CONTRACTOR/APPLICANT INFORMATION:**

City License # _____ State License # CGC1522761

Company Name Glotel, Inc. Qualifier Daniel Ault

Address 3060 Orange Gorge Trl, Naples, FL 34120 City/State _____ Zip _____

Phone # (561) 544 - 4975 Fax # (____) _____ - _____ Cell # (____) _____ - _____

Email Address SFLPermits@crowncastle.com

Occupancy _____ Construction Type _____ # of Units _____ # of Stories _____

Sq. Ft. Conditioned Space _____ Total Sq. Ft. _____

I understand that no building may be occupied until a Certificate of Occupancy/Certificate of Completion has been issued after final inspection by the Building Department and full compliance with the building code, city ordinances, state statutes and other applicable rules and regulations have been satisfied. I am also verifying that all sets of plans submitted are identical.

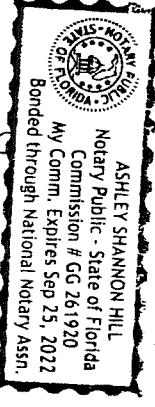
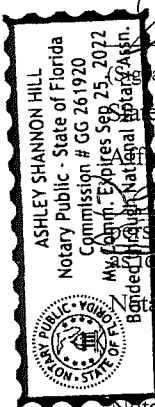
Application is hereby made to obtain a permit to do the work and installations as indicated. I certify that no work or installation has commenced prior to the issuance of a permit and that all work will be performed to meet the standards of all laws regulating construction in this jurisdiction. I understand that a separate permit must be secured for electrical work, plumbing, signs, wells, pools, furnaces, boilers, heaters, tanks, and air conditioners etc.

Owner's Affidavit: I certify that all the foregoing information is accurate and that all work will be done in compliance with all applicable laws regulating construction and zoning.

*Commis. APP
gas sub*

WARNING TO OWNER:
YOUR FAILURE TO RECORD A NOTICE OF COMMENCEMENT MAY RESULT IN YOUR PAYING TWICE FOR IMPROVEMENTS TO YOUR PROPERTY. A NOTICE OF COMMENCEMENT MUST BE RECORDED AND POSTED ON THE JOB SITE BEFORE THE FIRST INSPECTION.
IF YOU INTEND TO OBTAIN FINANCING, CONSULT WITH YOUR LENDER OR AN ATTORNEY BEFORE COMMENCING WORK OR RECORDING YOUR NOTICE OF COMMENCEMENT.

Must be signed by owner/Agent and applicant:



[Signature]
 Signature of contractor
 State of Florida, County of Palm Beach
 Affirmed to and subscribed before me this 11th of Dec
2018, by Derek Smith
 personally known to me or who has produced Daniel Ault
 as identification.
 Notary Signature: [Signature]
 Notary (print name) Ashley S. Hill

[Signature]
 (Signature of Owner or Agent (including contractor))
 State of Florida, County of Palm Beach
 Affirmed to and subscribed before me this 11th of Dec
2018, by Derek Smith
 personally known to me or who has produced
 as identification.
 Notary Signature: [Signature]
 Notary (print name) Ashley S. Hill

Construction documents must accompany this application. The Florida energy code submitted becomes an integral part of this plan and must pass final inspection. "Notice: In addition to the requirements of this permit, there may be additional restrictions applicable to this property that may be found in the public record of this county, and there may be additional permits required from other governmental entities such as waste management district, state agencies, or federal agencies. "SIGNATURE OF THE APPLICANT MUST BE NOTARIZED. If owner builder, applicant must sign in person. BUILDING PERMIT includes: Building, Electrical, Plumbing, Mechanical, and Sewer only. All other trades require separate applications.

Asbestos compliance: It is the owner's or operator's responsibility to comply with section 469.003, Florida Statutes, and to notify the Department of Environmental Protection of his or her intentions to remove asbestos, when applicable, in accordance with state and federal law.

FEE SIMPLE TITLEHOLDER, BONDING COMPANY AND MORTGAGE LENDER INFORMATION IS REQUIRED WHEN THE AGGREGATE VALUE (TOTAL COST OF ALL IMPROVEMENTS AND NOT JUST WORK AUTHORIZED BY THE INDIVIDUAL PERMIT) IS \$2500 OR MORE (EXCEPT HVAC REPAIR/REPLACEMENT < \$7500). PLEASE ADDRESS ALL ITEMS.

Fee Simple Titleholder's Same as Owner
 Name (if other than owner): SO Bell Tel & Tel Co
 Address: PO Box 7207, Bedminster, NJ 07921
 City: _____ State: _____ Zip: _____

Mortgage Lender's Not Applicable
 Name: _____
 Address: _____
 City: _____ State: _____ Zip: _____

Bonding Company Not Applicable
 Name: _____
 Address: _____
 City: _____ State: _____ Zip: _____

OFFICE USE ONLY

Is the property located in a Special Flood Hazard Area (floodplain) per the current Flood Insurance Rate Map (FIRM)

Yes No CR

Flood Zone: _____ Reviewed by: _____ Determination: _____

Permit Fee	\$ _____	Other	\$ _____	Plan Review Fee	\$ _____
State Surcharge	\$ _____	Other	\$ _____	Routing Fee	\$ _____
Subcontractor	\$ _____	Flood Review Fee	\$ _____	Other	\$ _____

Total Amount Due at Issuance \$ _____

Remarks _____

Active Code Violation Yes No
 Case # _____
 Case Type _____

Reviewed by _____ Date _____ Final Check _____ Date _____



Department of Building & Community Response

P.O. Box 1480 • 100 North U.S. 1 • Fort Pierce, FL 34954
Phone: (772) 467-3529 or (772) 467-3724 • Fax: (772) 467-3849

“DEBRIS FORM”
OWNER / BUILDER OR CONTRACTOR AFFIDAVIT

As per City Ordinances 16-22, 16-46, 16-48 and As a condition of obtaining any permit for construction/repair or renovation:

Owner: TMO/Crown Castle

Property Address: 712 Citrus Avenue

Permit # Contractor: Glotel, Inc.

I understand and accept full responsibility for the prompt removal of all debris and construction materials from the property for which I am seeking to obtain a building permit in accordance with the Code of Ordinances of the City.

Initials [Signature]

I agree that no debris or construction materials will be placed on any public property or on any public right-of-way except as may be specifically authorized by the Code of Ordinances.

Initials [Signature]

I further understand that prior to a final inspection for the project completion or issuance of a Certificate of Occupancy (or Certificate of Completion), all debris and construction materials shall be removed from the property or the Inspector will not approve the final inspection. Additional reinspection fees shall apply.

Initials [Signature]

I understand and accept full responsibility for debris removal at my own expense in accordance with the City Code of Ordinances.

Initials [Signature]

I hereby acknowledge that I have read and understand the above statements and I further understand that any violation of the terms of this affidavit shall be reported to the City of Fort Pierce Department of Building and Community Response for action and possible “stop-work” order under the issued permit.

Date Contractor or Owner/Builder’s Signature [Signature]

It is the owner and contractor’s responsibility to verify approval for any work through the Home Owner’s Association and/or Condominium Association, if applicable. The City will not be held responsible for disputes between Home Owner’s Association, Condominium Association, owner and/or contractor.

12/11/2018 Date Contractor or Owner/Builder’s Signature [Signature]

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T-Mobile GEN

City of Fort Pierce Building Department

100 N. US Hwy. 1 - Fort Pierce, FL

PHONE (772) 467-3718

FAX (772) 467-3849

BUILDING PERMIT

[] Sub-Contractor Agreement (\$25-Residential \$50-Commercial) or [] Change of Sub-Contractor Agreement (\$20 per sub-contractor)

City of Fort Pierce License No: EC0000187 Permit Number: _____

East Ocean Electric of Florida, Inc. Has agreed to be the Electrical sub-contractor for (Name company acting as sub-contractor) (Type of Construction Trade)

Glotel, Inc. for the property located at 712 Citrus Avenue (Name of the Primary Contractor) (Address of job site)

Owner of Property: SO Bell Tel & Tel Co Job Cost: \$ 2000

It is understood that if there is any change of status regarding my participation with the above mentioned project, I will immediately advise the City of Fort Pierce Building Department, and have my permit voided.

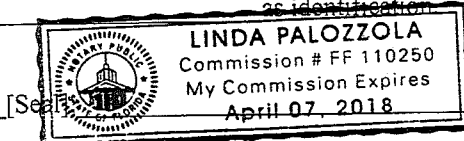
(Company acting as sub-contractor)

I acknowledge that I must carry Longshore Insurance if working on or adjoining navigable waters and that I meet all requirements of the Longshore & Harbor Workers' Compensation Act.

Qualifiers Signature: Robert Mueller Print Name: Robert Hoenekamp

State of Florida, County of Palm Beach The foregoing instrument was acknowledged before me This 17 day of March, 2018, by Robert Hoenekamp who is Personally known to me or who has produced as identification

Notary Signature: Linda Palozzola



Business Name: East Ocean Electric of Florida

Address: 1581 Dagnidge Pl. Wellington, FL 33414

Phone: () 351-482-3391 Fax: ()

To be Signed only when change in sub-contractor (along with all other above areas)

Building Contractor Signature: _____ Print Name: _____

Company Name (to be removed) _____

Sub-Contractor (to be removed) Signature: _____ Print Name: _____

Building Official Signature (if applicable): _____

SD025 | 2.4L | 25 kW
INDUSTRIAL DIESEL GENERATOR SET
 EPA Certified Stationary Emergency

STANDBY POWER RATING

25 kW, 31 kVA, 60 Hz

PRIME POWER RATING*

23 kW, 28 kVA, 60 Hz

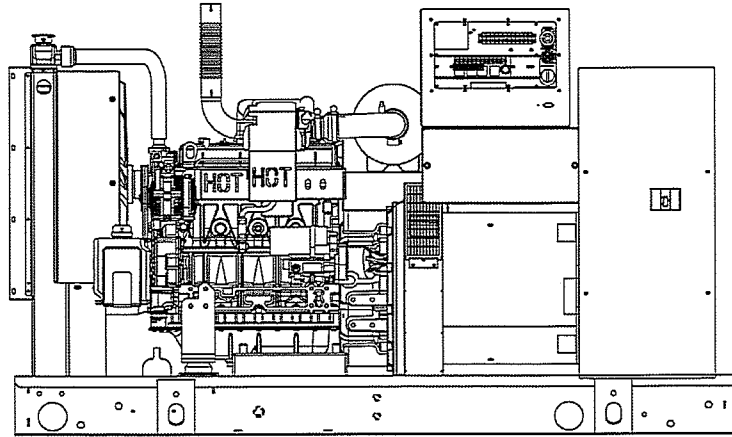


Image used for illustration purposes only



*Built in the USA using domestic and foreign parts


*EPA Certified Prime ratings are not available in the U.S. or its Territories.


**Certain options or customization may not hold certification valid.


CODES AND STANDARDS


Generac products are designed to the following standards:

 UL2200, UL508, UL142, UL498

 NFPA70, 99, 110, 37

 NEC700, 701, 702, 708

 ISO9001, 8528, 3046, 7637,
 Pluses #2b, 4

 NEMA ICS10, MG1, 250, ICS6, AB1

 ANSI C62.41
 American National Standards Institute

POWERING AHEAD

For over 50 years, Generac has led the industry with innovative design and superior manufacturing.

Generac ensures superior quality by designing and manufacturing most of its generator components, including alternators, enclosures and base tanks, control systems and communications software.

Generac's gensets utilize a wide variety of options, configurations and arrangements, allowing us to meet the standby power needs of practically every application.

Generac searched globally to ensure the most reliable engines power our generators. We choose only engines that have already been proven in heavy-duty industrial application under adverse conditions.

Generac is committed to ensuring our customers' service support continues after their generator purchase.

SD025 | 2.4L | 25 kW
INDUSTRIAL DIESEL GENERATOR SET
 EPA Certified Stationary Emergency

STANDARD FEATURES

ENGINE SYSTEM

General

- Oil Drain Extension
- Air Cleaner
- Fan Guard
- Stainless Steel flexible exhaust connection
- Critical Exhaust Silencer (enclosed only)
- Factory Filled Oil
- Radiator Duct Adapter (open set only)

Fuel System

- Fuel lockoff solenoid
- Primary fuel filter

Cooling System

- Closed Coolant Recovery System
- UV/Ozone resistant hoses
- Factory-Installed Radiator
- Radiator Drain Extension
- 50/50 Ethylene glycol antifreeze
- 120 VAC Coolant Heater

Engine Electrical System

- Battery charging alternator
- Battery cables
- Battery tray
- Solenoid activated starter motor
- Rubber-booted engine electrical connections

ALTERNATOR SYSTEM

- UL2200 GENprotect™
- 12 leads (3-phase, non 600 V)
- Class H insulation material
- Vented rotor
- 2/3 pitch
- Skewed stator
- Auxiliary voltage regulator power winding
- Amortisseur winding
- Brushless Excitation
- Sealed Bearings
- Automated manufacturing (winding, insertion, lacing, varnishing)
- Rotor dynamically spin balanced
- Full load capacity alternator
- Protective thermal switch

GENERATOR SET

- Internal Genset Vibration Isolation
- Separation of circuits - high/low voltage
- Separation of circuits - multiple breakers
- Silencer Heat Shield
- Wrapped Exhaust Piping
- Silencer housed in discharge hood (enclosed only)
- Standard Factory Testing
- 2 Year Limited Warranty (Standby rated Units)
- 1 Year Limited Warranty (Prime rated Units)
- Silencer mounted in the discharge hood (enclosed only)

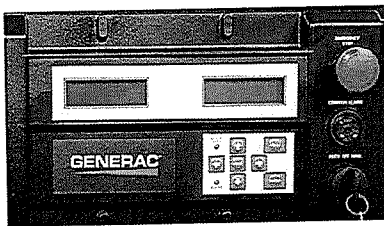
ENCLOSURE (IF SELECTED)

- Rust-proof fasteners with nylon washers to protect finish
- High performance sound-absorbing material
- Gasketed doors
- Stamped air-intake louvers
- Air discharge hoods for radiator-upward pointing
- Stainless steel lift off door hinges
- Stainless steel lockable handles
- Rhino Coat™ - Textured polyester powder coat

TANKS (IF SELECTED)

- UL 142
- Double wall
- Vents
- Sloped top
- Sloped bottom
- Factory pressure tested (2 psi)
- Rupture basin alarm
- Fuel level
- Check valve in supply and return lines
- Rhino Coat™ - Textured polyester powder coat
- Stainless hardware

CONTROL SYSTEM



Control Panel

- Digital H Control Panel - Dual 4x20 Display
- Programmable Crank Limiter
- 7-Day Programmable Exerciser
- Special Applications Programmable PLC
- RS-232/485
- All-Phase Sensing DVR
- Full System Status
- Utility Monitoring
- Low Fuel Pressure Indication
- 2-Wire Start Compatible
- Power Output (kW)

- Power Factor
- kW Hours, Total & Last Run
- Real/Reactive/Apparent Power
- All Phase AC Voltage
- All Phase Currents
- Oil Pressure
- Coolant Temperature
- Coolant Level
- Engine Speed
- Battery Voltage
- Frequency
- Date/Time Fault History (Event Log)
- Isochronous Governor Control
- Waterproof/sealed Connectors
- Audible Alarms and Shutdowns
- Not in Auto (Flashing Light)
- Auto/Off/Manual Switch
- E-Stop (Red Mushroom-Type)
- NFPA110 Level I and II (Programmable)
- Customizable Alarms, Warnings, and Events
- Modbus protocol
- Predictive Maintenance algorithm
- Sealed Boards
- Password parameter adjustment protection

- Single point ground
- 15 channel data logging
- 0.2 msec high speed data logging
- Alarm information automatically comes up on the display

Alarms

- Oil Pressure (Pre-programmable Low Pressure Shutdown)
- Coolant Temperature (Pre-programmed High Temp Shutdown)
- Coolant Level (Pre-programmed Low Level Shutdown)
- Low Fuel Pressure Alarm
- Engine Speed (Pre-programmed Over speed Shutdown)
- Battery Voltage Warning
- Alarms & warnings time and date stamped
- Alarms & warnings for transient and steady state conditions
- Snap shots of key operation parameters during alarms & warnings
- Alarms and warnings spelled out (no alarm codes)

CONFIGURABLE OPTIONS

ENGINE SYSTEM

General

- Oil Heater
- Industrial Exhaust Silencer

Fuel System

- Flexible fuel lines
- Primary fuel filter

Engine Electrical System

- 10A UL battery charger
- 2.5A UL battery charger
- Battery Warmer

ALTERNATOR SYSTEM

- Alternator Upsizing
- Anti-Condensation Heater
- Tropical coating
- Permanent Magnet Excitation

ENGINEERED OPTIONS

ENGINE SYSTEM

- Coolant heater ball valves
- Block Heaters
- Fluid containment pans

ALTERNATOR SYSTEM

- 3rd Breaker Systems

CONTROL SYSTEM

- Spare inputs (x4) / outputs (x4) - H Panel Only
- Battery Disconnect Switch

CIRCUIT BREAKER OPTIONS

- Main Line Circuit Breaker
- 2nd Main Line Circuit Breaker
- Shunt Trip and Auxiliary Contact
- Electronic Trip Breaker

GENERATOR SET

- Gen-Link Communications Software (English Only)
- 8 Position Load Center
- 2 Year Extended Warranty
- 5 Year Warranty
- 5 Year Extended Warranty

ENCLOSURE

- Weather Protected
- Level 1 Sound Attenuation
- Level 2 Sound Attenuation
- Steel Enclosure
- Aluminum Enclosure
- 150 MPH Wind Kit
- 12 VDC Enclosure Lighting Kit
- 120 VAC Enclosure Lighting Kit
- AC/DC Enclosure Lighting Kit
- Door Alarm Switch

GENERATOR SET

- Special Testing
- IBC Seismic Certification

ENCLOSURE

- Motorized Dampers
- Door switched for intrusion alert
- Enclosure ambient heaters

TANKS (Size on last page)

- Electrical Fuel Level
- Mechanical Fuel Level
- 54 Gal (204.4 L) Usable Capacity
- 132 Gal (499.7 L) Usable Capacity
- 211 Gal (798.7 L) Usable Capacity
- 300 Gal (1135.6 L) Usable Capacity
- 8" Fill Extension
- 13" Fill Extension
- 19" Fill Extension

CONTROL SYSTEM

- 21-Light Remote Annunciator
- Remote Relay Panel (8 or 16)
- Oil Temperature Sender with Indication Alarm
- Remote E-Stop (Break Glass-Type, Surface Mount)
- Remote E-Stop (Red Mushroom-Type, Surface Mount)
- Remote E-Stop (Red Mushroom-Type, Flush Mount)
- Remote Communication - Modem
- Remote Communication - Ethernet
- 10A Run Relay
- Ground Fault Indication and Protection Functions

TANKS

- Overfill Protection Valve
- UL2085 Tank
- ULC S-601 Tank
- Stainless Steel Tank
- Special Fuel Tanks (MIDEQ and FL DEP/DERM, etc.)
- Vent Extensions

RATING DEFINITIONS

Standby - Applicable for a varying emergency load for the duration of a utility power outage with no overload capability.

Prime - Applicable for supplying power to a varying load in lieu of utility for an unlimited amount of running time. A 10% overload capacity is available for 1 out of every 12 hours. The Prime Power option is only available on International applications. Power ratings in accordance with ISO 8528-1, Second Edition

SD025 | 2.4L | 25 kW
INDUSTRIAL DIESEL GENERATOR SET
 EPA Certified Stationary Emergency



APPLICATION AND ENGINEERING DATA

ENGINE SPECIFICATIONS

General

Make	Generac
EPA Emissions Compliance	Stationary Emergency
EPA Emissions Reference	See Emissions Data Sheet
Cylinder #	4
Type	In-Line
Displacement - L (cu In)	2.4 (146.46)
Bore - mm (in)	90 (3.54)
Stroke - mm (in)	94 (3.70)
Compression Ratio	21.3:1
Intake Air Method	Turbocharged
Cylinder Head Type	Cast Iron
Piston Type	Aluminium

Engine Governing

Governor	Electronic Isochronous
Frequency Regulation (Steady State)	+/- 0.25%

Lubrication System

Oil Pump Type	Gear
Oil Filter Type	Full Flow
Crankcase Capacity - L (qts)	6.2 (6.52)

Cooling System

Cooling System Type	Closed Recovery
Water Pump	Pre-Lubed, Self Sealing
Fan Type	Pusher
Fan Speed (rpm)	2698
Fan Diameter mm (in)	560 (22)
Coolant Heater Wattage	1500
Coolant Heater Standard Voltage	120 VAC

Fuel System

Fuel Type	Ultra Low Sulfur Diesel Fuel
Fuel Specifications	ASTM
Fuel Filtering (microns)	5
Fuel Injection	Distribution Injection Pump
Fuel Pump Type	Engine Driven Gear
Injector Type	Mechanical
Fuel Supply Line mm (in)	7.94 (0.31)
Fuel Return Line mm (in)	7.94 (0.31)

Engine Electrical System

System Voltage	12 VDC
Battery Charging Alternator	Std
Battery Size	See Battery Index 0161970SBY
Battery Voltage	12 VDC
Ground Polarity	Negative

ALTERNATOR SPECIFICATIONS

Standard Model	390
Poles	4
Field Type	Revolving
Insulation Class - Rotor	H
Insulation Class - Stator	H
Total Harmonic Distortion	<5%
Telephone Interference Factor (TIF)	<50

Standard Excitation	Synchronous
Bearings	Single Sealed Cartridge
Coupling	Direct, Flexible Disc
Load Capacity - Standby	100%
Prototype Short Circuit Test	Yes
Voltage Regulator Type	Digital
Number of Sensed Phases	All
Regulation Accuracy (Steady State)	±0.25%

SD025 | 2.4L | 25 kW
INDUSTRIAL DIESEL GENERATOR SET
 EPA Certified Stationary Emergency



OPERATING DATA

POWER RATINGS

		Standby
Single-Phase 120/240 VAC @1.0pf	25 kW	Amps: 104
Three-Phase 120/208 VAC @0.8pf	25 kW	Amps: 87
Three-Phase 120/240 VAC @0.8pf	25 kW	Amps: 75
Three-Phase 277/480 VAC @0.8pf	25 kW	Amps: 38
Three-Phase 346/600 VAC @0.8pf	25 kW	Amps: 30

STARTING CAPABILITIES (sKVA)

sKVA vs. Voltage Dip

Alternator	kW	480 VAC						208/240 VAC					
		10%	15%	20%	25%	30%	35%	10%	15%	20%	25%	30%	35%
Standard	25	16	25	33	41	49	57	12	19	25	31	37	43
Upsize 1	35	24	36	48	60	72	84	18	27	36	45	54	63
Upsize 2	40	27	41	54	68	81	95	20	31	41	51	61	71

FUEL CONSUMPTION RATES*

Fuel Pump Lift - ft (m)		Diesel - gal/hr (l/hr)	
		Percent Load	Standby
	3 (1)	25%	0.8 (3.0)
		50%	1.33 (5.0)
Total Fuel Pump Flow (Combustion + Return)		75%	1.67 (6.3)
	4.5 gal/hr	100%	2.5 (9.5)

* Fuel supply installation must accommodate fuel consumption rates at 100% load.

COOLING

		Standby
Coolant Flow per Minute	gal/min (l/min)	10 (38)
Coolant System Capacity	gal (L)	2.8 (10.95)
Heat Rejection to Coolant	BTU/hr	103,080
Inlet Air	cfm (m3/hr)	4,500 (7647)
Max. Operating Radiator Air Temp	F° (C°)	122 (50)
Max. Ambient Temperature (before derate)	F° (C°)	110 (43.3)
Maximum Radiator Backpressure	in H ₂ O	0.5

COMBUSTION AIR REQUIREMENTS

	Standby
Flow at Rated Power	cfm (m3/min) 90 (2.55)

ENGINE

		Standby
Rated Engine Speed	rpm	1800
Horsepower at Rated kW**	hp	49
Piston Speed	ft/min (m/min)	1110 (338)
BMEP	psi	117

EXHAUST

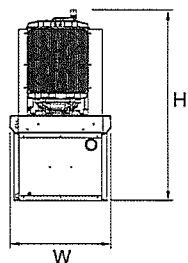
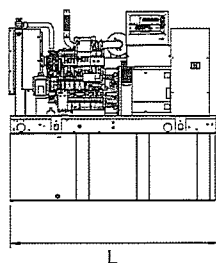
		Standby
Exhaust Flow (Rated Output)	cfm (m ³ /min)	208 (354)
Max. Backpressure (Post Silencer)	inHg (Kpa)	1.5 (5.1)
Exhaust Temp (Rated Output)	°F (°C)	790 (421)
Exhaust Outlet Size (Open Set)	mm (in)	63.5 (2.5)

** Refer to "Emissions Data Sheet" for maximum bHP for EPA and SCAQMD permitting purposes.

Deration – Operational characteristics consider maximum ambient conditions. Derate factors may apply under atypical site conditions. Please consult a Generac Power Systems Industrial Dealer for additional details. All performance ratings in accordance with ISO3046, BS5514, ISO8528 and DIN6271 standards.

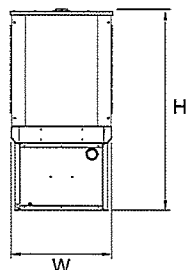
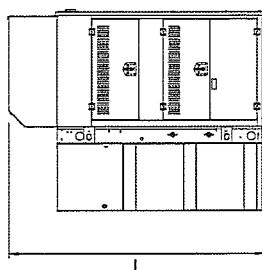
SD025 | 2.4L | 25 kW
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DIMENSIONS AND WEIGHTS*



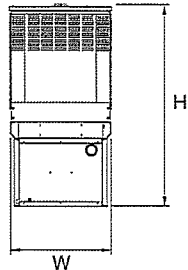
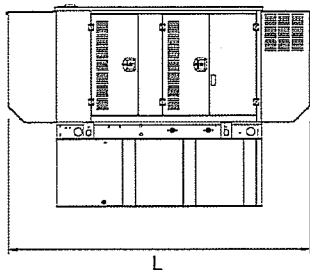
OPEN SET

RUN TIME HOURS	USABLE CAPACITY GAL (L)	L x W x H in (mm)	WT lbs (kg) - Tank & Open Set	
			Steel	Aluminum
NO TANK	-	76 (1930.4) x 37.4 (949.9) x 42.2 (1072.1)	2060 (934)	
21	54 (204.4)	76 (1930.4) x 37.4 (949.9) x 55.2 (1402.1)	2540 (1152)	
52	132 (499.7)	76 (1930.4) x 37.4 (949.9) x 67.2 (1706.9)	2770 (1257)	
84	211 (798.7)	76 (1930.4) x 37.4 (949.9) x 79.2 (2011.7)	2979 (1351)	
120	300 (1135.6)	92.9 (2360) x 37.4 (949.9) x 82.7 (2100.6)	3042 (1380)	



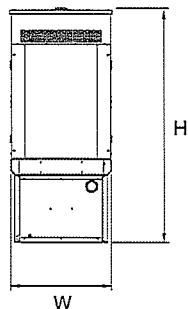
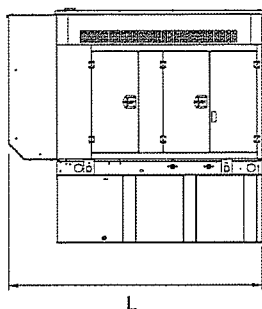
STANDARD ENCLOSURE

RUN TIME HOURS	USABLE CAPACITY GAL (L)	L x W x H in (mm)	WT lbs (kg) - Enclosure Only	
			Steel	Aluminum
NO TANK	-	94.8 (2408.9) x 38 (965.2) x 49.5 (1258.1)	-	
21	54 (204.4)	94.8 (2408.9) x 38 (965.2) x 62.5 (1587.5)	-	
52	132 (499.7)	94.8 (2408.9) x 38 (965.2) x 74.5 (1892.3)	302 (137)	191 (87)
84	211 (798.7)	94.8 (2408.9) x 38 (965.2) x 86.5 (2197.1)		
120	300 (1135.6)	94.8 (2408.9) x 38 (965.2) x 90 (2286)		



LEVEL 1 ACOUSTIC ENCLOSURE

RUN TIME HOURS	USABLE CAPACITY GAL (L)	L x W x H in (mm)	WT lbs (kg) - Enclosure Only	
			Steel	Aluminum
NO TANK	-	112.5 (2857.1) x 38 (965.2) x 49.5 (1258.1)	-	
21	54 (204.4)	112.5 (2857.1) x 38 (965.2) x 62.5 (1587.5)	-	
52	132 (499.7)	112.5 (2857.1) x 38 (965.2) x 74.5 (1892.3)	455 (206)	288 (131)
84	211 (798.7)	112.5 (2857.1) x 38 (965.2) x 86.5 (2197.1)		
120	300 (1135.6)	112.5 (2857.1) x 38 (965.2) x 90 (2286)		



LEVEL 2 ACOUSTIC ENCLOSURE

RUN TIME HOURS	USABLE CAPACITY GAL (L)	L x W x H in (mm)	WT lbs (kg) - Enclosure Only	
			Steel	Aluminum
NO TANK	-	94.8 (2408.9) x 38 (965.2) x 62 (1573.9)	-	
21	54 (204.4)	94.8 (2408.9) x 38 (965.2) x 75 (1905)	-	
52	132 (499.7)	94.8 (2408.9) x 38 (965.2) x 87 (2209.8)	460 (209)	291 (132)
84	211 (798.7)	94.8 (2408.9) x 38 (965.2) x 99 (2514.6)		
120	300 (1135.6)	94.8 (2408.9) x 38 (965.2) x 102.5 (2603.5)		

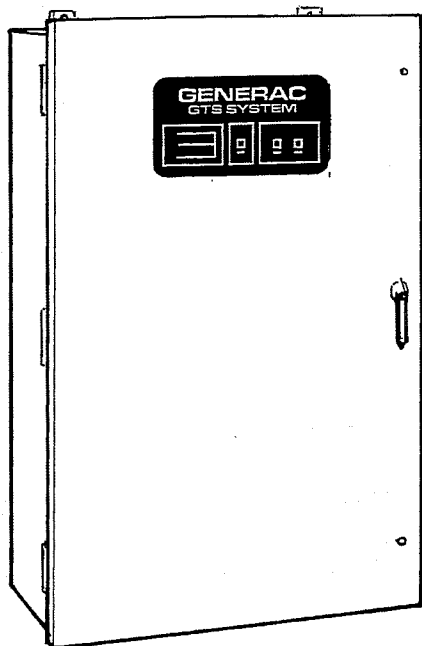
*All measurements are approximate and for estimation purposes only. Sound dBA can be found on the sound data sheet. Enclosure Only weight is added to Tank & Open Set weight to determine total weight.

YOUR FACTORY RECOGNIZED GENERAC INDUSTRIAL DEALER

Specification characteristics may change without notice. Dimensions and weights are for preliminary purposes only. Please consult a Generac Power Systems Industrial Dealer for detailed installation drawings.

**100 - 400 Amps,
600 VAC****Automatic Transfer Switches**

1 of 2



- Standard time delay neutral will reduce switchover problems.
- Logic control with inphase monitor regulates switch functions and allows adjustable switch settings with LED indicators.
- Control switches located on the front of the door for ease of operation.
- All switches are UL 1008 listed and CSA certified.
- Electrically-operated, mechanically-held and interlocked main contacts with break before make design for fast, positive connections.
- Rated for all classes of load, 100% equipment rated, both inductive and resistive with no derations.
- 2, 3, and 4 Pole 600 VAC contactors.
- 160 millisecond transfer time.

Standard Features

- Single coil design, electrically operated and mechanically held
- Programmable exerciser
- Main contacts are silver alloy to resist welding and sticking
- Conformal coating protects all printed circuit boards
- Indicating LED's for switch position—Normal, Emergency, and Standby Operating
- NEMA 1 enclosure with hinged door and key-locking handle
- Three-position switch—Fast Test, Auto, Normal Test
- Arc chutes on main contacts

Optional Accessories

- NEMA 12 enclosure
- NEMA 3R enclosure
- NEMA 4 & 4X enclosure
- Exterior AC meter package
- Controls accessible through door in door design on NEMA type 3R and 4 enclosures – key lock provided on access door
- 4-pole design for neutral isolation
- Single or double sets of auxiliary contacts
- Preferred source selector switch
- Manual 3 position selector switch
- Remote automatic control circuit
- Signal before transfer contacts
- Return to normal timer bypass

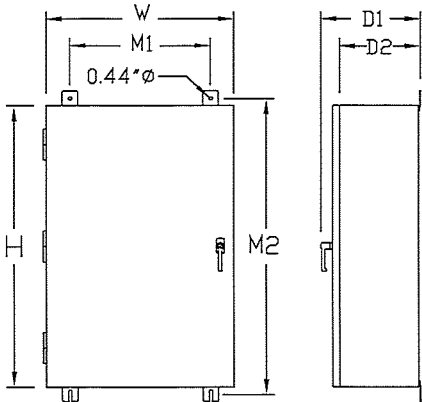
GTS Control Systems

	LOGIC CONTROL w / Inphase Monitor
Utility Voltage	
Dropout	75-95% (Adj.)
Pickup	85-95% (Adj.)
Line Interrupt	0.1-10 Sec. (Adj.)
Engine Minimum Run	5-30 Min. (Adj.)
Engine Warmup	5 Sec.-3 Min. (Adj.)
Return to Utility	1-30 Min. (Adj.)
Engine Cooldown	1-30 Min. (Adj.)
Standby Voltage	85-95% (Adj.)
Standby Frequency	80-90% (Adj.)
Time Delay Neutral	0.1-10 Sec. (Adj.)
Transfer on Exercise	On/Off Switch
Warmup Timer Bypass	On/Off Switch
Time Delay Neutral Bypass	On/Off Switch
Inphase Monitor	On/Off Switch

Withstand Current - 600 Volt GTS Series

GTS Rated Amps	100	150	200	300	400
FUSE PROTECTED					
Maximum RMS Symmetrical Fault Current – Amps	200,000	200,000	200,000	200,000	200,000
Maximum Fuse Size – Amps	200	400	400	600	600
Fuse Class	J,T	J,T	J,T	J,T	J,T
CIRCUIT BREAKER PROTECTED (See separate sheet for specific circuit breakers)					
Maximum RMS Symmetrical Fault Current – Amps	14,000	25,000	25,000	35,000	35,000
Protective Device Continuous Rating (Max) – Amps	150	300	300	600	600

- Tested in accordance with the withstand and closing requirements of UL 1008 and CSA Standards
- Current ratings are listed @ 480 VAC



Unit Dimensions

GTS Rated Amps	Voltage	Enclosure Height	Enclosure Width	Wall Mount Bolt Pattern		Enclosure Depth		Weight (lbs.)
		H	W	M1	M2	D1	D2	
100	All	36	24	18	37.5	12.7	10	180
150-200	120/240	36	24	18	37.5	12.7	10	185
150-200	120/208	36	24	18	37.5	12.7	10	185
150-200	277/480	48*	30*	24	49.5	14.8	12	265
150-200	600	48*	30*	24	49.5	14.8	12	265
300-400	120/240	36	24	18	37.5	12.7	10	245
300-400	120/208	36	24	18	37.5	12.7	10	245
300-400	277/480	48*	30*	24	49.5	14.8	12	325
300-400	600	48*	30*	24	49.5	14.8	12	325

* Note: On NEMA 1 enclosures only, door overlaps enclosure – door dimensions are 48.8 H X 30.8 W. All dimensions in inches.

Terminal Lug Wire Ranges

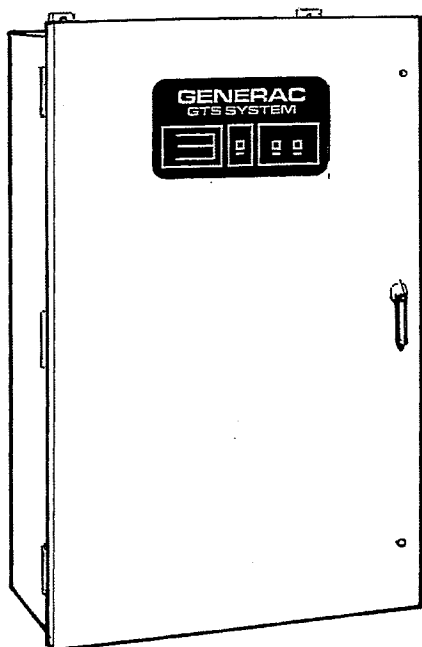
GTS RATED AMPS	CONTACTOR TERMINALS (1 LUG PER POLE) LUG WIRE RANGE	NEUTRAL BAR*		GROUND LUG (1 PROVIDED) LUG WIRE RANGE
		# LUGS	LUG WIRE RANGE	
100	2/0 – 14 AWG	4	2/0 – 14 AWG	2/0 – 14 AWG
150	400MCM – 4 AWG	4	350MCM – 6 AWG	350MCM – 6 AWG
200	400MCM – 4 AWG	4	350MCM – 6 AWG	350MCM – 6 AWG
300	600MCM – 4 AWG	4	600MCM – 4 AWG	350MCM – 6 AWG
	or 2 – [250MCM – 1/0 AWG]		[250MCM – 1/0 AWG]**	350MCM – 6 AWG
400	600MCM – 4 AWG	4	600MCM – 4 AWG	350MCM – 6 AWG
	or 2 – [250MCM – 1/0 AWG]		[250MCM – 1/0 AWG]**	

* Not included in GTS with switched neutral. ** Allowable wire range in brackets is for 2 wires per lug.

**100 - 400 A,
600 VCA**

Interruptores de transferencia automáticos

1 de 2



- El tiempo de retardo en neutro estándar reducirá los problemas de conmutación.
- El control lógico con monitor de en fase regula las funciones del interruptor y permite configuraciones del interruptor ajustables con indicadores LED.
- Interruptores de control ubicados en el frente de la puerta para facilidad de operación.
- Todos los interruptores están listados por UL 1008 y certificados por CSA.
- Contactos principales accionados eléctricamente y retenidos mecánicamente con diseño de cortar antes de cerrar para conexiones rápidas y positivas.
- Clasificados para todas las clases de cargas, clasificados para el 100% de los equipos, tanto inductivos como resistivos sin reducciones.
- Contactores de 600 VCA de 2, 3 y 4 polos.
- 160 ms de tiempo de transferencia.

Características estándar

- Diseño de bobina simple, accionada eléctricamente y retenida mecánicamente
- Ejecitador programable
- Los contactos principales de aleación de plata para evitar soldarse o adherirse
- El revestimiento conformado protege todas las tarjetas de circuito impreso
- Indicadores LED para posición del interruptor: operación normal, de emergencia y de respaldo
- Gabinete NEMA 1 con puerta abisagrada y asa con cerrojo
- Interrupción de tres posiciones: prueba rápida, automática, prueba normal
- Cámaras de corte de arco en los contactos principales

Accesorios opcionales

- Gabinete NEMA 12
- Gabinete NEMA 3R
- Gabinetes NEMA 4 y 4X
- Paquete exterior de medidor de CA
- Controles accesibles a través de la puerta por el diseño de la puerta en los gabinetes NEMA tipo 3R y 4: cerradura con llave provista en la puerta de acceso
- Diseño de 4 polos para aislamiento del neutro
- Juegos de contactos auxiliares simples o dobles
- Conmutador selector de fuente de alimentación preferida
- Conmutador selector manual de 3 posiciones
- Circuito de control automático remoto
- Contactos de señal antes de la transferencia
- Derivación del temporizador para vuelta a alimentación normal

Sistemas de control GTS

CONTROL LÓGICO c/monitor de en fase

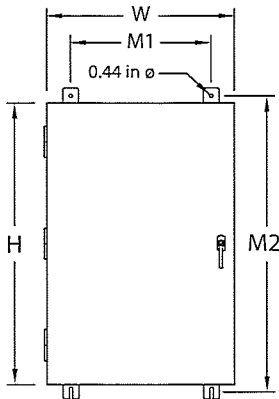
Voltaje del servicio público	
Desenganche	75-95% (ajustable)
Activación	85-95% (ajustable)
Interrupción de línea	0.1-10 s (ajustable)
Funcionamiento mínimo del motor	5-30 min (ajustable)
Calentamiento del motor	5 s-3 min (ajustable)
Vuelta al servicio público	1-30 min (ajustable)
Enfriamiento del motor	1-30 min (ajustable)
Voltaje de respaldo	85-95% (ajustable)
Frecuencia de respaldo	80-90% (ajustable)
Tiempo de retardo a neutro	0.1-10 s (ajustable)
Transferencia en ejercitación	Interruptor On/Off
Derivación del temporizador de calentamiento	Interruptor On/Off
Derivación del temporizador de retardo en neutro	Interruptor On/Off
Monitor de en fase	Interruptor On/Off

Corriente no disruptiva - 600 V Serie GTS

Amperes nominales del GTS	100	150	200	300	400
PROTEGIDO CON FUSIBLE					
RMS simétricos máximos					
Corriente de fallo – A	200 000	200 000	200 000	200 000	200 000
Tamaño máximo del fusible – A	200	400	400	600	600
Clase de fusible	J, T	J, T	J, T	J, T	J, T
PROTEGIDO CON DISYUNTOR (vea en la hoja separada los disyuntores específicos)					
RMS simétricos máximos					
Corriente de fallo – A	14 000	25.000	25.000	35.000	35.000
Valor nominal continuo (máx.) del dispositivo protector – A	150	300	300	600	600

• Probado de conformidad con los requisitos de corriente disruptiva y de cierre de las normas UL 1008 y CSA

• Los valores nominales de corriente se listan para 480 VCA



Dimensiones de la unidad

Amperes nominales del GTS	Voltaje	Alto del gabinete	Ancho del gabinete	Patrón de pernos para montaje en pared		Profundidad del gabinete		Peso (lb)
		H	W	M1	M2	D1	D2	
100	Todas	36	24	18	37.5	12.7	10	180
150-200	120/240	36	24	18	37.5	12.7	10	185
150-200	120/208	36	24	18	37.5	12.7	10	185
150-200	277/480	48*	30*	24	49.5	14.8	12	265
150-200	600	48*	30*	24	49.5	14.8	12	265
300-400	120/240	36	24	18	37.5	12.7	10	245
300-400	120/208	36	24	18	37.5	12.7	10	245
300-400	277/480	48*	30*	24	49.5	14.8	12	325
300-400	600	48*	30*	24	49.5	14.8	12	325

* Nota: Solo en los gabinetes NEMA 1, la puerta se superpone con el gabinete; las dimensiones de la puerta son 48.8 alto x 30.8 ancho. Todas las dimensiones en pulgadas.

Intervalos de tamaño de cable del terminal

AMPERES NOMINALES DEL GTS	TERMINALES DE CONTACTOR (1 TERMINAL POR POLO) INTERVALO DE TAMAÑO DE CABLE DEL TERMINAL	BARRA DE NEUTRO*		TERMINAL DE TIERRA (1 PROVISTO) INTERVALO DE TAMAÑO DE CABLE DEL TERMINAL
		CANT. TERMINALES	INTERVALO DE TAMAÑO DE CABLE DEL TERMINAL	
100	2/0 – AWG 14	4	2/0 – AWG 14	2/0 – AWG 14
150	400MCM – AWG 4	4	350MCM – AWG 6	350MCM – AWG 6
200	400MCM – AWG 4	4	350MCM – AWG 6	350MCM – AWG 6
300	600MCM – AWG 4 o 2 – [250MCM – AWG 1/0]	4	600MCM – AWG 4 [250MCM – AWG 1/0]**	350MCM – AWG 6 350MCM – AWG 6
400	600MCM – AWG 4 o 2 – [250MCM – AWG 1/0]	4	600MCM – AWG 4 [250MCM – AWG 1/0]**	350MCM – AWG 6

* No incluido en el GTS con neutro conmutado. ** El intervalo de tamaño del cable permisible entre corchetes es para 2 cables por terminal.

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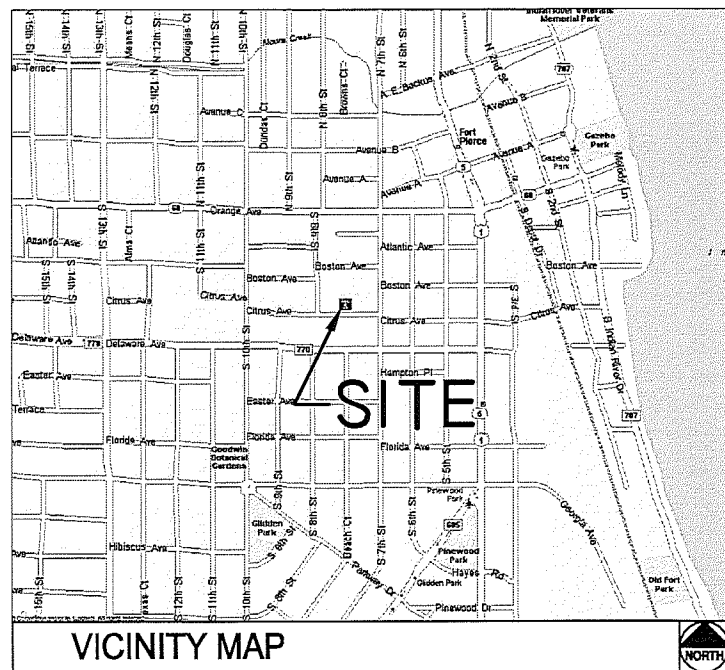
T-Mobile

1300 CONCORD TERRACE, SUITE 200
SUNRISE FL, 33323

A2P0304M-SFL504-3_504-CROWN CITRUS AVE (BU: 811285)

712 CITRUS AVE
FT. PIERCE, FL 34950

LATITUDE 27°26'40.52"N, LONGITUDE 80°19'47.93"W



VICINITY MAP

DRIVING DIRECTIONS

FROM T-MOBILE OFFICE PROCEED NORTHWEST ON CONCORD TERRACE TOWARD SAWGRASS CORPORATE PKWY, TURN LEFT ONTO SAWGRASS CORPORATE PKWY, USE THE 2ND FROM THE RIGHT LANE TO TURN LEFT ONTO W SUNRISE BLVD, USE THE RIGHT 2 LANES TO MERGE ONTO FL-869 N VIA THE RAMP TO W PALM BEACH, MERGE ONTO FL-869 N, USE THE RIGHT 2 LANES TO TAKE EXIT 21A-B FOR FLORIDA'S TURNPIKE N, MERGE ONTO FL-91/FLORIDA'S TURNPIKE, TAKE EXIT 152 FOR FL-70 TOWARD FT PIERCE/OKEECHOBEE, TURN RIGHT ONTO FL-70/OKEECHOBEE RD (SIGNS FOR I-95/FT PIERCE) USE THE LEFT 2 LANES TO TURN SLIGHTLY LEFT ONTO OKEECHOBEE RD, OKEECHOBEE RD TURNS SLIGHTLY RIGHT AND BECOMES DELAWARE AVE, TURN LEFT ONTO S 10TH ST, TURN RIGHT ONTO CITRUS AVE, THE SITE WILL BE ON THE LEFT.

PROJECT DESCRIPTION

THIS IS AN APPLICATION FOR THE UPGRADE OF AN EXISTING WIRELESS FACILITY CONSISTING OF A NEW GENERATOR INSTALLATION.

CODE COMPLIANCE

ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES.

- 6TH EDITION (2017) FLORIDA BUILDING CODE
- NATIONAL ELECTRIC CODE (NEC) WITH LOCAL AMENDMENTS LATEST ED.
- ANSI/ISA APPLICABLE STANDARDS
- LIFE SAFETY CODE NFPA-101-2018
- 6TH EDITION (2017) FLORIDA FIRE PREVENTION CODE
- AMERICAN INSTITUTE OF STEEL CONSTRUCTION SPECIFICATIONS (AISC)
- UNDERWRITERS LABORATORIES (U.L.) APPROVED ELECTRICAL PRODUCTS
- LOCAL BUILDING CODE
- CITY/COUNTY ORDINANCES
- NFPA 55 (2016) AND 70 (2017)

APPLICANT/LESSEE

MDCMC NAME: T-MOBILE
PROJECT MANAGER: DENISE CORREA
PHONE: (954) 604-9031

PROPERTY INFORMATION

OWNER: CROWN CASTLE INTERNATIONAL
6420 CONGRESS AVE.
SUITE 2000
BOCA RATON, FL 33487

CONTACT: DEREK J. SMITH
(717) 856-0045

HANDICAP REQUIREMENTS: FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. HANDICAPPED ACCESS NOT REQUIRED.

JURISDICTION: FT. PIERCE

PROJECT INFORMATION

EQUIPMENT LOCATION: OUTDOOR INDOOR

ANTENNA LOCATION: WATER TOWER
 SELF SUPPORT TOWER
 MONOPOLE
 ROOF TOP
 NEW TOWER
 OTHER

PROJECT SUMMARY

CIVIL ENGINEER:
KIMLEY-HORN AND ASSOCIATES, INC.
1920 WEKIVA WAY, SUITE 200
WEST PALM BEACH, FL 33407
(561) 845-0665

STRUCTURAL ENGINEER:
N/A

ELECTRICAL ENGINEER:
WAYPOINT ENGINEERING AND EQUIPMENT LLC
RUSSELL C. MORRISON
820 W. INDIANTOWN ROAD, SUITE 105
JUPITER, FLORIDA 33458
PH: 561-252-1220

SURVEYOR:
N/A

TOWER ENGINEER:
N/A

PROJECT TEAM

SHEET	DESCRIPTION	REV.
T-1	COVER SHEET	0
G-1	GENERAL NOTES	0
C-1	SITE PLAN & EQUIPMENT LAYOUT PLANS	0
C-2	CONSTRUCTION DETAILS	0
C-3	GENERATOR DETAILS	0
E-1	ELECTRICAL NOTES	0
E-2	ELECTRICAL PLAN	0
E-3	ELECTRICAL DETAILS	0

SHEET INDEX

ISSUED FOR: GENERATOR UPGRADE
DATE: NOVEMBER 2018

T-Mobile
1300 CONCORD TERRACE, SUITE 200
SUNRISE FL, 33323

PROJECT INFORMATION:
SFL504-3_504-CROWN CITRUS AVE
A2P0304M
712 CITRUS AVE
FT PIERCE, FL 34950
ST. LUCIE COUNTY

CURRENT ISSUE DATE:
NOVEMBER 2018

ISSUED FOR:
GENERATOR UPGRADE

REV. DATE DESCRIPTION:

REV.	DATE	DESCRIPTION

SEAL:

PLANS PREPARED BY:
Kimley-Horn
© 2018 KIMLEY-HORN AND ASSOCIATES, INC.
1920 WEKIVA WAY, SUITE 200
WEST PALM BEACH, FLORIDA 33411
(561) 845-0665
FBPE CA00000695

PROVIDER:

DRAWN BY: CHK.: APV.:
GD KKM KKM

LICENSURE:
KEVIN K. MARAJH PE 71455
MARIA VICTORIA MARTIN PE 72397
ARNOLDO A. ARTILES PE 70545

SHEET TITLE:
COVER SHEET

SHEET NUMBER: REVISION:
T-1

KHA Job #:
044290125

This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and effort for which it was prepared. Use of and improper reliance on this document without written authorization and adoption by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

STANDARD PROVISIONS

INTENT

- A. THESE SPECIFICATIONS AND CONSTRUCTION DRAWINGS ACCOMPANYING THEM DESCRIBE THE WORK TO BE PERFORMED AND THE MATERIALS TO BE FURNISHED FOR THE CONSTRUCTION OF THE T-MOBILE SITE.
- B. THE DRAWINGS AND SPECIFICATIONS ARE INTENDED TO BE FULLY EXPLANATORY AND COMPLEMENTARY. HOWEVER, SHOULD ANYTHING BE SHOWN, INDICATED OR SPECIFIED ON ONE AND NOT THE OTHER, IT SHALL BE THE SAME AS IF SHOWN, INDICATED OR SPECIFIED ON BOTH.
- C. THE INTENTION OF THE DOCUMENTS IS TO INCLUDE ALL LABOR AND MATERIALS REASONABLY NECESSARY FOR THE PROPER EXECUTION AND COMPLETION OF THE WORK AS INDICATED IN THE DOCUMENTS.
- D. THE PURPOSE OF THE SPECIFICATIONS IS TO SUPPLEMENT THE INTENT OF THE DRAWINGS AND TO DESIGNATE A PROCEDURE, TYPE OR QUALITY OF MATERIALS REQUIRED TO COMPLETE THE WORK.
- E. MINOR DEVIATIONS FROM THE DESIGN LAYOUT ARE ANTICIPATED AND SHALL BE CONSIDERED AS PART OF THE WORK HOWEVER, NO CHANGES THAT ALTER THE CHARACTER INTENT OF THE DESIGN WILL BE MADE OR PERMITTED BY T-MOBILE, WITHOUT A CHANGE ORDER.

CONFLICTS

- A. THE CONTRACTOR AND EACH SUBCONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL MEASUREMENTS AT THE SITE BEFORE ORDERING ANY MATERIALS OR PERFORMING ANY WORK. NO EXTRA CHARGE OR COMPENSATION SHALL BE ALLOWED DUE TO DIFFERENCE BETWEEN ACTUAL DIMENSIONS AND DIMENSIONS INDICATED ON THE CONSTRUCTION DRAWINGS. ANY SUCH DISCREPANCY IN DIMENSION WHICH MAY INADVERTENTLY OCCUR SHALL BE SUBMITTED TO THE T-MOBILE CONSTRUCTION PROJECT MANAGER (CPM) FOR CONSIDERATION BEFORE THE CONTRACTOR PROCEEDS WITH THE WORK IN THE AFFECTED AREA.
- B. THE CONTRACTOR, IF AWARDED THE CONTRACT, WILL NOT BE ALLOWED ANY EXTRA COMPENSATION BY REASON OF ANY MATTER OR THING ABOUT WHICH THE CONTRACTOR MIGHT NOT HAVE FULLY INFORMED HIMSELF PRIOR TO BIDDING.

CONTRACTS AND WARRANTIES

- A. EACH CONTRACTOR IS RESPONSIBLE FOR HELPING TO OBTAIN THE BUILDING PERMIT AT THE LOCAL JURISDICTION AS THE CONTRACTOR OF RECORD, AND PROVIDE SAID JURISDICTION WITH ALL PROOF REQUIRED TO OPERATE AS A CONTRACTOR IN THAT JURISDICTION.

STORAGE

- A. DO NOT USE THE EXISTING BUILDING SPACE FOR STORAGE OF TOOLS OR MATERIALS WITHOUT THE CONSTRUCTION PROJECT MANAGER AND/OR BUILDING OWNER APPROVAL.
- B. ALL MATERIALS MUST BE STORED IN A LEVEL AND DRY LOCATION AND IN A MANNER THAT WILL NOT OBSTRUCT THE FLOW OF OTHER WORK. ANY EQUIPMENT OR MATERIAL STORAGE METHOD MUST MEET ALL RECOMMENDATIONS OF THE MANUFACTURER.

PROTECTION

- A. PROTECT FINISHED SURFACES, INCLUDING JAMBS AND HEADS OF OPENINGS USED AS PASSAGEWAYS THROUGH WHICH EQUIPMENT AND MATERIALS WILL PASS.
- B. PROVIDE PROTECTION FOR EQUIPMENT ROOM SURFACES PRIOR TO ALLOWING EQUIPMENT OR MATERIALS TO BE MOVED OVER SUCH SURFACES.
- C. MAINTAIN FINISHED SURFACES CLEAN, UNMARRED AND SUITABLY PROTECTED UNTIL JOB SITE IS ACCEPTED BY CPM.

REPAIRS AND REPLACEMENTS

- A. IN EVENT OF DAMAGE, THE CONTRACTOR SHALL PROMPTLY MAKE ALL REPLACEMENTS AND REPAIRS AND AT NO ADDITIONAL COST TO T-MOBILE AND/OR BUILDING OWNER.

TEMPORARY FACILITIES

- A. WATER: WATER IS NOT AVAILABLE TO THE CONTRACTORS ON SITE.
- B. LIGHT AND POWER: LIGHT AND POWER ARE AVAILABLE ON SITE.
- C. TELEPHONE: EACH CONTRACTOR TO PROVIDE HIS OWN TELEPHONE ACCESS IF REQUIRED.
- D. IF PERMANENT POWER IS COMPLETED, ALL CONTRACTORS MAY USE THE SERVICE CONNECTION FOR PRODUCTION WORK ONLY, PROVIDED THAT ELECTRICAL CORDS AND CONNECTIONS ARE FURNISHED BY THE CONTRACTORS AND ARE DISCONNECTED AND PROPERLY STORED DURING NON-WORKING HOURS.

CLEAN UP

- A. THE CONTRACTORS SHALL AT ALL TIMES KEEP THE SITE FREE FROM ACCUMULATION OF WASTE MATERIALS OR RUBBISH CAUSED BY THEIR EMPLOYEES AT WORK, AND AT THE COMPLETION OF THE WORK, THEY SHALL REMOVE ALL RUBBISH FROM AND ABOUT THE BUILDING, INCLUDING ALL TOOLS, SCAFFOLDING AND SURPLUS MATERIALS, AND SHALL LEAVE THE WORK CLEAN AND READY FOR USE.
- B. EXTERIOR: VISUALLY INSPECT EXTERIOR SURFACES AND REMOVE ALL TRACES OF SOIL, WATER MATERIALS, SMUDGES AND OTHER FOREIGN MATTER.
 - 1. REMOVE ALL TRACES OF SPLASHED MATERIALS FROM ADJACENT SURFACES.
- C. INTERIOR: VISUALLY INSPECT INTERIOR SURFACE AND REMOVE ALL TRACES OF SOIL, WASTE MATERIALS, SMUDGES AND OTHER FOREIGN MATTER.
 - 1. REMOVE ALL TRACES OF SPLASHED MATERIAL FROM ADJACENT SURFACES.
 - 2. REMOVE PAINT DROPPINGS, SPOTS, STAINS AND DIRT FROM FINISHED SURFACES.
- D. CONTRACTOR SHALL WASH AND WAX FLOOR PRIOR TO FINAL ACCEPTANCE. FLOOR WAX SHALL BE OF THE ANTI-STATIC TYPE.

CHANGE ORDER PROCEDURE

- A. CHANGE ORDER MAY BE INITIATED BY THE CPM, AND/OR THE CONTRACTOR. THE CONTRACTOR, UPON VERBAL REQUEST FROM THE CPM SHALL PREPARE A WRITTEN PROPOSAL DESCRIBING THE CHANGE IN WORK OR MATERIALS AND ANY CHANGES IN THE CONTRACT AMOUNT AND PRESENT TO THE CPM FOR APPROVAL. SUBMIT REQUESTS FOR SUBSTITUTIONS IN THE FORM AND IN ACCORDANCE WITH PROCEDURES REQUIRED FOR CHANGE ORDER PROPOSALS. ANY CHANGES TO THE SCOPE OF WORK OR MATERIALS WHICH ARE PERFORMED BY THE CONTRACTOR WITHOUT A WRITTEN CHANGE ORDER AS DESCRIBED AND APPROVED BY THE CPM, SHALL BECOME THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

RELATED DOCUMENTS AND COORDINATION

- A. GENERAL CARPENTRY, ELECTRICAL, AND ANTENNA DRAWINGS ARE INTERRELATED. IN PERFORMANCE OF THE WORK, EACH CONTRACTOR MUST REFER TO ALL DRAWINGS. ALL COORDINATION TO BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR.

SHOP DRAWINGS

- A. CONTRACTORS TO SUBMIT SHOP DRAWINGS AS REQUIRED AND LISTED IN THESE SPECIFICATIONS THROUGH THE GENERAL CONTRACTOR TO THE CPM, FOR REVIEW.
- B. ALL SHOP DRAWINGS TO BE REVIEWED, CHECKED, CORRECTED, STAMPED AND SIGNED BY GENERAL CONTRACTOR PRIOR TO SUBMITTAL TO THE CPM.

PRODUCTS AND SUBSTITUTIONS

- A. SUBMIT 3 COPIES OF EACH REQUEST FOR SUBSTITUTION. IN EACH REQUEST IDENTIFY THE PRODUCT FABRICATION OR INSTALLATION METHOD TO BE REPLACED BY THE SUBSTITUTION. INCLUDE RELATED SPECIFICATION SECTION AND DRAWING NUMBERS, AND COMPLETE DOCUMENTATION SHOWING COMPLIANCE WITH THE REQUIREMENTS FOR SUBSTITUTIONS.
- B. ALL NECESSARY PRODUCT DATA AND CUT SHEETS SHALL PROPERLY INDICATE AND DESCRIBE THE ITEMS, PRODUCTS, AND MATERIALS BEING INSTALLED. THE CONTRACTOR SHALL, IF DEEMED NECESSARY BY THE CPM, SUBMIT ACTUAL SAMPLES TO THE CPM FOR APPROVAL IN LIEU OF CUT SHEETS.

COMPLIANCE

- A. ALL MATERIALS, DESIGN, AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH ALL APPLICABLE CODES (SOME OF WHICH ARE LISTED BELOW), ORDINANCES, AND AUTHORITIES HAVING JURISDICTION OVER THE WORK. UPON THE COMPLETION OF THE WORK, THE CONTRACTOR SHALL PROVIDE T-MOBILE WITH A CERTIFICATE OF OCCUPANCY (IF REQUIRED) AND OTHER LEGAL DOCUMENTS TO VERIFY SUCH COMPLIANCE. WHERE NO CODES EXIST, THE WORK SHALL CONFORM WITH THE 6TH EDITION (2017) FLORIDA BUILDING CODE, AND/OR THE SPECIFICATIONS HEREIN, WHICHEVER IS MORE STRINGENT, AND A DOCUMENT STATEMENT SHALL BE FURNISHED TO THIS EFFECT.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY COMPLIANCE WITH THE GOVERNING CODES AND TO NOTIFY THE CPM OF ANY DISCREPANCIES PRIOR TO PERFORMING WORK.

REFERENCE TO ANY STANDARD OR CODE OF PRACTICE IN THIS SPECIFICATION SHALL BE DEEMED TO MEAN THE EDITION CURRENT AT THE TIME OF AWARD OF THE CONTRACT. THE CONTRACTOR SHALL COMPLY WITH ALL ZONING AND SITE ACQUISITION SPECIAL STIPULATIONS AS OUTLINED IN THE JOB SPECIFICATIONS, OR AS DIRECTED BY THE CPM.

ANSI/TIA/EIA APPLICABLE STANDARDS
6TH EDITION (2017) FLORIDA BUILDING CODE
BUILDING OFFICIALS & CODE ADMINISTRATORS
NATIONAL ELECTRICAL CODE (NEC) WITH LOCAL AMENDMENTS
UNDERWRITERS LABORATORIES (U.L.) APPROVED ELECTRICAL PRODUCTS
AMERICAN INSTITUTE OF STEEL CONSTRUCTION SPECIFICATIONS (AISC)
LIFE SAFETY CODE NFPA - 101-2018
FEDERAL AVIATION REGULATIONS
NFPA 55 (2016) AND 70 (2017)

PERMITS AND LICENSES

- A. THE SITE ACQUISITION SPECIALIST SHALL OBTAIN, AT HIS OWN EXPENSE, ALL REQUIRED LOCAL, STATE, AND/OR COUNTY CONSTRUCTION PERMITS AND LICENSES. COPIES OF ALL PERMITS SHALL BE SENT TO CPM. APPROVALS FROM RELEVANT PLANNING BOARDS, ENVIRONMENTAL BOARDS, AND/OR OTHER COMMITTEES WILL BE SUPPLIED BY OTHERS, BUT MUST BE CONFIRMED BY THE SITE ACQUISITION SPECIALIST PRIOR TO THE APPLICATION FOR CONSTRUCTION PERMITS.
FAA APPROVAL WILL BE SUPPLIED BY OTHERS, BUT MUST BE CONFIRMED BY THE CONTRACTOR WITH THE CPM PRIOR TO THE COMMENCEMENT OF WORK.
- B. PRIOR TO COMMENCING THE WORK, THE CPM SHALL SCHEDULE AN ON-SITE MEETING WITH ALL MAJOR PARTIES TO THE PROJECT. THIS WOULD INCLUDE (THOUGH NOT LIMITED TO) THE DESIGNATED ELECTRICIAN, LOCAL TELEPHONE COMPANY, CARPENTRY FOREMAN (IF SUBCONTRACTED), A REPRESENTATIVE FROM THE LOCAL SPECIFIED WAREHOUSE AND CPM OR HIS DESIGNATED REPRESENTATIVE.

- C. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITIES BOTH HORIZONTALLY AND VERTICALLY PRIOR TO START OF CONSTRUCTION. ANY DISCREPANCIES OR DOUBTS AS TO THE INTERPRETATION OF PLANS SHOULD BE IMMEDIATELY REPORTED TO THE ENGINEER FOR RESOLUTION AND INSTRUCTION AND NO FURTHER WORK SHALL BE PERFORMED UNTIL DISCREPANCY IS CHECKED AND CORRECTED BY THE ENGINEER. FAILURE TO SECURE SUCH INSTRUCTION MEANS CONTRACTOR WILL HAVE WORKED AT HIS OWN RISK AND EXPENSE.

- D. THE CONTRACTOR SHALL BE EQUIPPED WITH A MEANS OF CONSTANT COMMUNICATIONS, SUCH AS A CELLULAR PHONE OR A PAGER.

- E. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ALL SITE SAFETY INCLUDING BUT NOT LIMITED TO PROTECTION OF ALL SITE PERSONNEL AND THE GENERAL PUBLIC DURING THE ENTIRE SITE CONSTRUCTION PERIOD. HE SHALL TAKE ALL REASONABLE PRECAUTIONS TO PLACE AND MAINTAIN BARRICADES, LAMPS, SIGNS, AND THE LIKE IN ACCORDANCE WITH OSHA SAFETY ACT AND ANSI OCCUPATIONAL GUIDELINES.

- F. PROVIDE DAILY UPDATES ON SITE PROGRESS, EITHER VERBAL OR WRITTEN TO CPM.

- G. COMPLETE INVENTORY OF CONSTRUCTION MATERIALS AND EQUIPMENT IS REQUIRED PRIOR TO START OF CONSTRUCTION.

- H. COORDINATION WITH PUBLIC UTILITY AUTHORITIES
THE CONTRACTOR SHALL COORDINATE WITH RELEVANT AUTHORITIES THE WORKS THEY ARE TO BE CARRIED OUT. HE SHALL CONDUCT HIS OPERATIONS SO AS TO NOT INTERFERE WITH THE OPERATIONS OF PUBLIC AND/OR PRIVATE UTILITY AUTHORITIES, INSTALLING SERVICES ON THE SITE.

THE CONTRACTOR WILL BE RESPONSIBLE FOR THE PROTECTION OF SUCH FACILITIES AND STRUCTURES DURING CONSTRUCTION OF THIS SITE.

I. INSPECTIONS

THE CONTRACTOR SHALL NOTIFY THE CPM AT LEAST 24 HOURS IN ADVANCE OF REQUIRED INSPECTIONS. INSPECTIONS THAT WILL BE REQUIRED BY THE CPM OR OTHER DESIGNATED T-MOBILE REPRESENTATIVE ARE:

- 1. INSPECTION OF GROUNDING SYSTEM
- 2. PRACTICAL COMPLETION

THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ENSURING THAT ALL RELEVANT AUTHORITY INSPECTIONS ARE CARRIED OUT IN A TIMELY MANNER. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION OF ALL INSPECTIONS.

THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH T-MOBILE'S DESIGNATED ENGINEERING FIRM TO OBTAIN ALL REQUIRED INSPECTIONS AND TESTING. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION OF ALL INSPECTIONS.

J. ENVIRONMENTAL PROTECTION

NOISE LEVEL: THE CONTRACTOR SHALL ENSURE THAT STATE AND LOCAL REGULATIONS ARE COMPLIED WITH IN REGARD TO NOISE LEVELS PRODUCED BY HIS OR HIS SUB-CONTRACTOR'S EQUIPMENT OR METHODS OF CONSTRUCTION.

DUST CONTROL: THE CONTRACTOR SHALL TAKE ALL NECESSARY STEPS TO LIMIT THE CREATION OF ANY DUST NUISANCE THAT MIGHT ARISE DURING CONSTRUCTION TO THE SATISFACTION OF THE LOCAL AUTHORITIES AND THE BUILDING OWNER. THE CPM MAY DIRECT THAT WORK CEASE UNTIL SUCH TIME AS ANY PARTICULAR DUST NUISANCE IS CONTROLLED TO THE SATISFACTION OF THE CPM, LOCAL AUTHORITIES, AND BUILDING OWNERS.

K. REINSTATEMENT

ANY PAVEMENT, FOOTPATH, CURB, GUTTERS, WALLS, FLOORS, SERVICES, AND EXISTING FEATURES OR OTHER PROPERTIES, DISTURBED OR DESTROYED DURING CONSTRUCTION SHALL BE REINSTATED TO A CONDITION AT LEAST EQUAL TO THAT EXISTING BEFORE COMMENCEMENT OF OPERATIONS.

L. AS-BUILTS DRAWINGS

THE CONTRACTOR SHALL PREPARE A RED LINED SET OF AS-BUILT DRAWINGS. THE FORM OF MARKED UP CONSTRUCTION PLANS SHALL BE STANDARD ACCEPTABLE TO THE T-MOBILE. SUCH DRAWINGS SHALL BE SUBMITTED TO T-MOBILE WITHIN TWO WEEKS FROM PRACTICAL COMPLETION AND PRIOR TO APPROVAL OF THE CONTRACTOR'S FINAL INVOICE.

M. PRACTICAL COMPLETION

THE FOLLOWING DOCUMENTATION SHALL BE PROVIDED TO T-MOBILE WIRELESS PRIOR TO THE DATE OF PRACTICAL COMPLETION:

- 1. ALL QUALITY ASSURANCE CHECKLISTS AS OUTLINED IN THE PREVIOUS SECTIONS
- 2. WARRANTIES AND MAINTENANCE MANUALS, IF APPLICABLE
- 3. GROUND SYSTEM RESISTANCE TEST
- 4. CERTIFICATE OF OCCUPANCY

INSURANCE AND BONDS

- A. EACH CONTRACTOR SHALL AT HIS OWN EXPENSE CARRY AND MAINTAIN FOR THE DURATION OF THE PROJECT ALL INSURANCE AS REQUIRED AND LISTED AND SHALL NOT COMMENCE WITH HIS WORK UNTIL HE HAS PRESENTED A CERTIFICATE OF INSURANCE STATING ALL COVERAGES TO THE GENERAL CONTRACTOR WHO SHALL, IN TURN, FORWARD A COPY OF ALL CERTIFICATES TO THE CPM.



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SUNRISE FL, 33323

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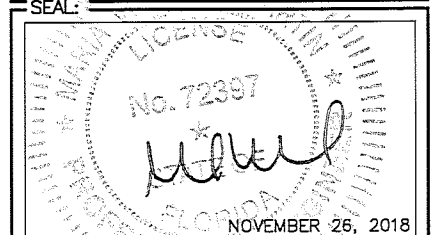
NOVEMBER 2018

ISSUED FOR:

GENERATOR UPGRADE

REV. DATE DESCRIPTION:

REV.	DATE	DESCRIPTION



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ARNOLDO A. ARTILES PE 70645	

SHEET TITLE:
GENERAL NOTES

SHEET NUMBER: G-1 **REVISION:**

KHA Job #:
044290125

Drawing name: K:\WPB_CRM\CELL_SITES\Crown\044290125 - Crown T-Mobile Generator Upgrade - 2018\A2P0304M - 811285\CAD\A2P0304M\Cover-CM.dwg G-1 Nov 26, 2018 1:36pm by: rromerwa

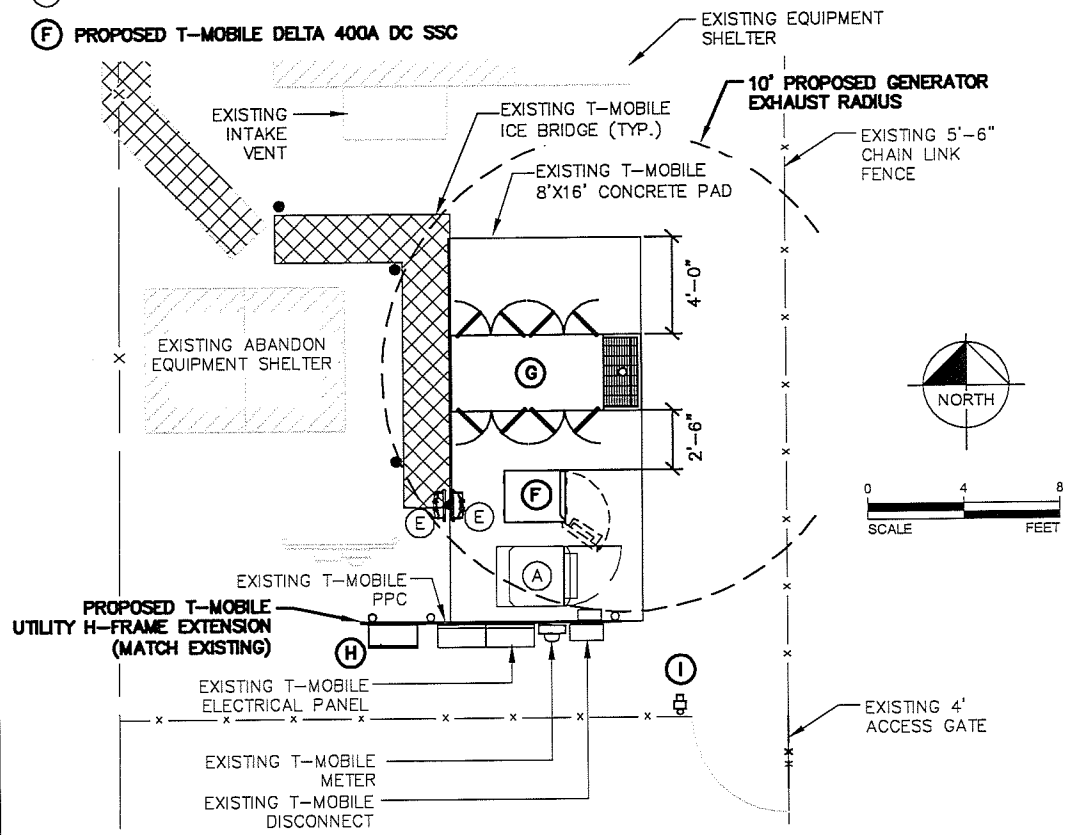
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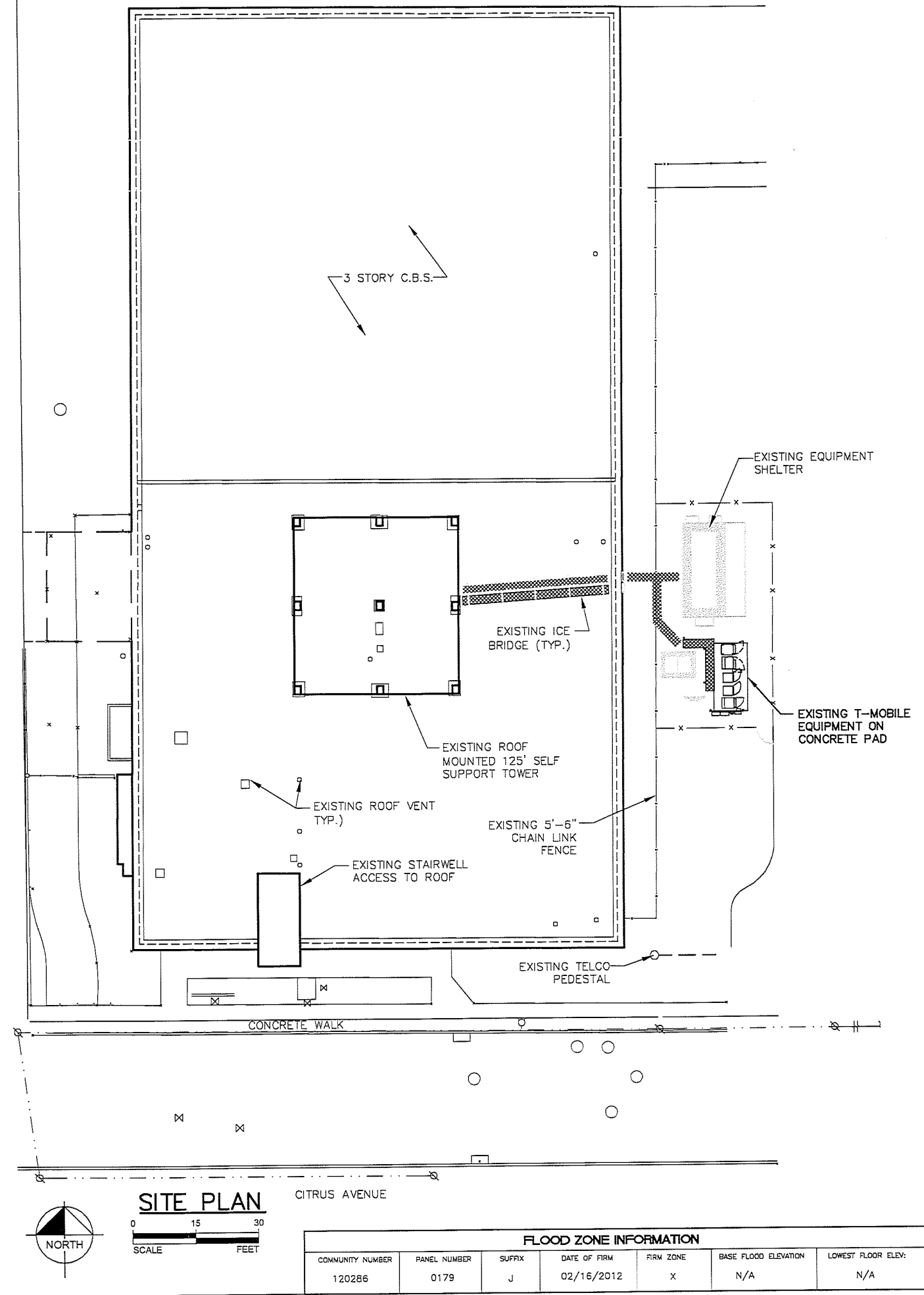
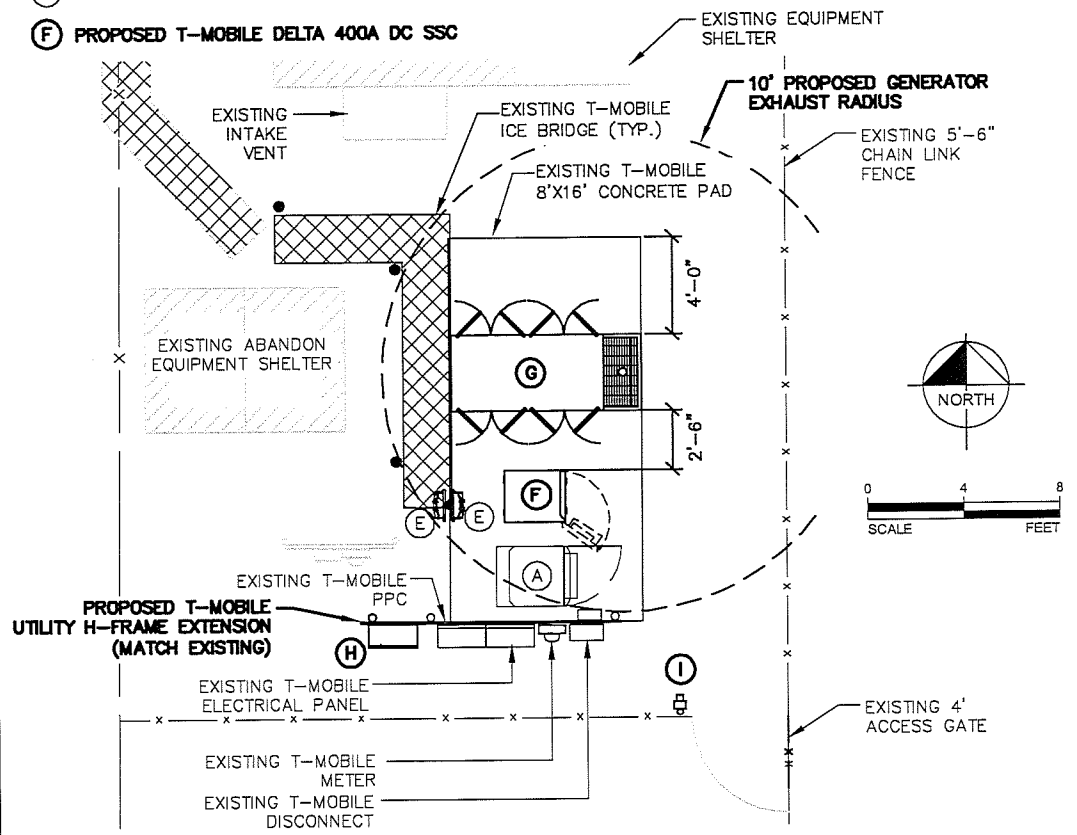
EXISTING T-MOBILE EQUIPMENT LAYOUT PLAN

LEGEND

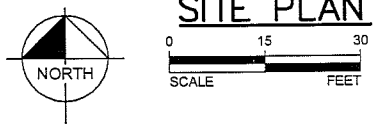
- (A) EXISTING T-MOBILE FCOA CABINET
- (B) EXISTING T-MOBILE SSC (SMALL) TO BE REMOVED
- (C) EXISTING T-MOBILE RADIO CABINET TO BE REMOVED
- (D) EXISTING T-MOBILE RBA 72 BATTERY CABINET TO BE REMOVED
- (E) EXISTING T-MOBILE COVP
- (F) PROPOSED T-MOBILE DELTA 400A DC SSC
- (G) PROPOSED T-MOBILE 25KW DIESEL GENERATOR W/ 211 GAL TANK ON A EXISTING 8'X16' CONCRETE PAD
- (H) PROPOSED T-MOBILE GENERATOR ATS
- (I) PROPOSED T-MOBILE GENERATOR SHUT OFF SWITCH ON POST



PROPOSED T-MOBILE EQUIPMENT LAYOUT PLAN



SITE PLAN



FLOOD ZONE INFORMATION							
COMMUNITY NUMBER	PANEL NUMBER	SUFFIX	DATE OF FIRM	FIRM ZONE	BASE FLOOD ELEVATION	LOWEST FLOOR ELEV:	
120286	0179	J	02/16/2012	X	N/A	N/A	



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ST. LUCIE COUNTY

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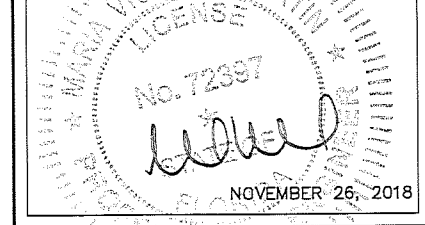
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SHEET TITLE:

SITE PLAN & T-MOBILE
EQUIPMENT LAYOUT

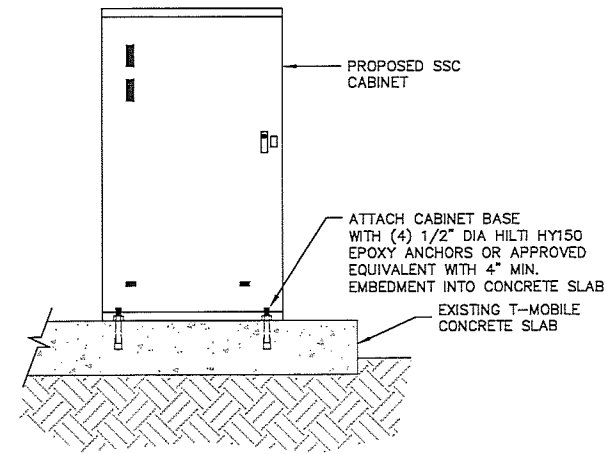
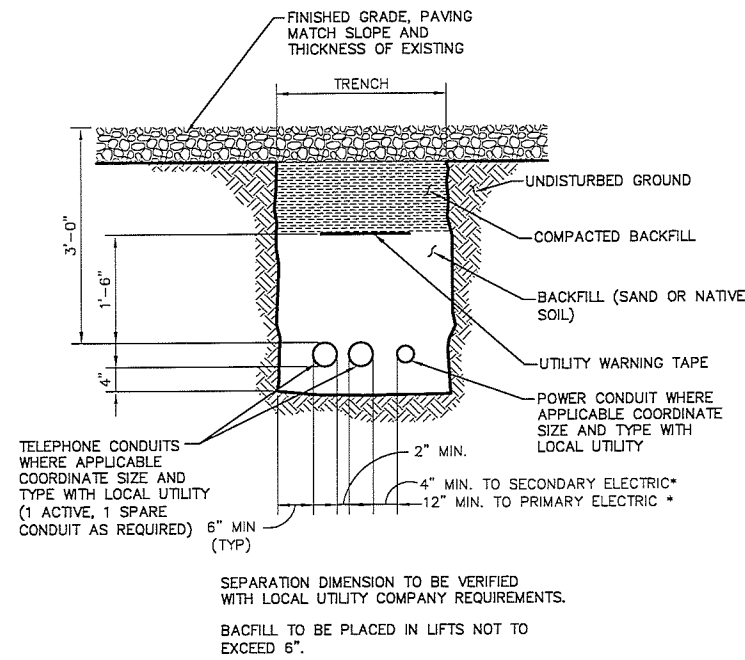
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C-1

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CABINET ANCHOR BOLTS DETAIL
NOT TO SCALE

JOINT SERVICE TRENCH BURIED CONDUIT ELEC/TELE
NOT TO SCALE

Drawing name: K:\WPB_CMA\CELL_SITES\Crown\Crown T-Mobile Generator Upgrade - 2018\2P0304M - 811285\CAD\2P0304M - Cover-CHK.dwg C-2 Nov 27, 2018 1:40pm by: Larry Flowers

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T-Mobile

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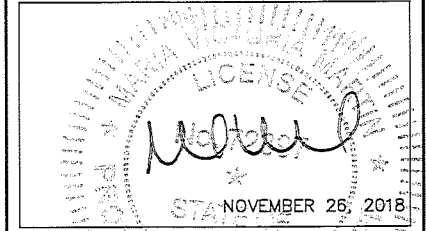
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SHEET TITLE:

CONSTRUCTION DETAILS

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KHA Job #:

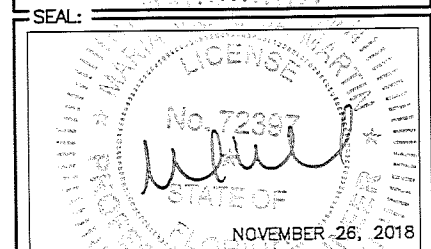
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SHEET TITLE:
GENERATOR DETAILS

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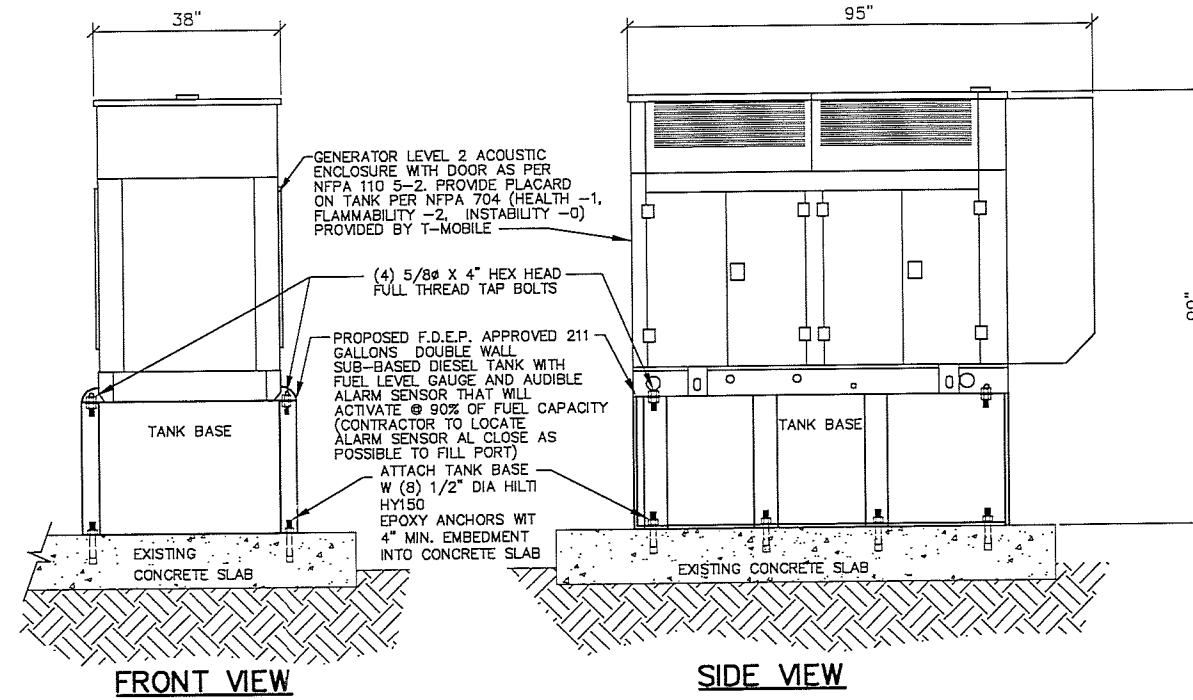
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EMERGENCY PUSH BUTTON NOTE

1. PROPOSED EMERGENCY STOP BUTTON MAINTAINED 50MM RED MUSHROOM PUSH BUTTON, EMERGENCY STOP ENGRAVED, BLACK BEZEL, WITH ONE N.C. CONTACT MODEL E22JLB2N88 BY EATON OR APPROVED EQUAL IN NEMA 3R HOUSING W/P600 CONTACT RATING DESIGNATION TO BREAK IGNITION POWER OF EMERGENCY GENERATOR (VERIFY CONTACT RATING AND EXACT WIRING WITH GEN. MANUF.) SUPPLY AND INSTALL ENGRAVED PLAQUE STATING "T-MOBILE EMERGENCY STOP"
2. CONSTRUCTION INSTALLATION MAINTENANCE AND OPERATIONAL TESTING OF EPSS SHALL COMPLY THE LATEST ADOPTED EDITION OF NFPA 110.
3. ALL ELECTRICAL WORK SHALL COMPLY WITH THE LATEST ADOPTED EDITION OF NFPA 70 NATIONAL ELECTRICAL CODE

NOTE

1. CONTRACTOR SHALL EQUIPPED TANK WITH A 5 GAL. SPILL CONTAINMENT AT FILL PORT TO PREVENT SPILL OF FUEL DURING FILLING OPERATIONS
2. FUEL TANK SHALL BE PROVIDED WITH LEAK GAUGE FOR LEAK DETECTION IN THE INTERSTITIAL SPACE OF THE DOUBLE WALL FUEL TANK, GAUGE TO BE AN AT-A-GLANCE LEAK GAUGE BY "KRUEGER SENTRY GAUGE" OR APPROVED EQUAL
3. ALL FUEL STORAGE EQUIPMENT AND ACCESSORIES TO BE F.D.E.P. PRODUCT APPROVED
4. ABOVE GROUND DOUBLE-WALLED FUEL STORAGE WITH ABOVE GROUND PIPING INSTALLATION APPLICATION FOR EMERGENCY GENERATOR ONLY
5. CONTRACTOR SHALL PROVIDE A NON-SMOKING SIGN ON GENERATOR METAL ENCLOSURE.
6. THIS UNIT IS NOT SUBJECT TO VEHICULAR TRAFFIC.
7. GENERATOR IS CLASS 36, LEVEL 2, TYPE 60 PER THE REQUIREMENTS OF NFPA 110.
8. TANK TO BE LABELED IN 4" LETTERS WITH THE FUEL TYPE AND QUANTITY.

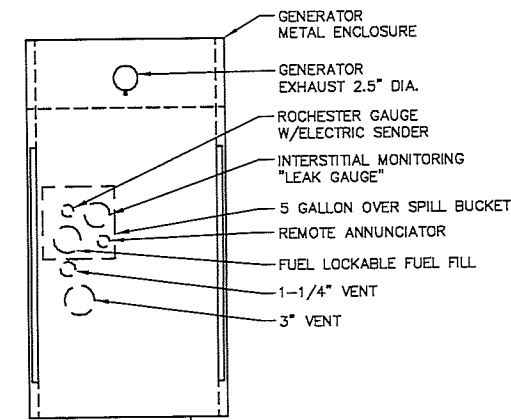


GENERATOR DETAIL
N.T.S.

STORAGE TANK INFORMATION

TANK NO.	TANK CAPACITY (GALLONS)	MANUFACTURER FDEP EQ#	PRODUCT STORED	OVERFILL EQUIPED	TYPE OF OVERFILL	TYPE OF INTERSTICE	PIPING CONSTRUCTION	STEEL VENT RISER HT.
1	211 GAL.	GENERAC 25KW GEN. W/ 211 GAL UL#142 DOUBLE WALL TANK	DIESEL FUEL	YES	LOCKABLE 5 GAL. FUEL CONTAINMENT	VISUAL	STEEL	3"

NOTE: THERE ARE NO DOORS OR WINDOWS WITHIN THE 10' EXHAUST BUFFER.



STORAGE TANK PIPING LAYOUT
N.T.S.

Drawing name: K:\WPB_CIV\CELL STES\Crown\044290125 - Crown T-Mobile Generator Upgrade - 2018\WPB_CIV\CELL STES\Crown\044290125 - Crown T-Mobile Generator Upgrade - 2018\WPB_CIV\044290125 - 011285\CAD\044290125.dwg Cover-CHK.dwg C-3 Nov 26, 2018 11:49pm by: rmcawena

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ELECTRICAL SYSTEM NOTES

1. GENERAL
 - A. THE CONTRACTOR SHALL PROVIDE ALL MATERIAL AND LABOR FOR A COMPLETE ELECTRICAL SYSTEM AS INDICATED ON THE DRAWINGS. ITEMS NOT SHOWN BUT OBVIOUSLY NECESSARY FOR A COMPLETE SYSTEM SHALL BE INCLUDED.
 - B. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS, INSPECTIONS AND APPROVALS.
 - C. ALL WORK SHALL CONFORM TO THE NATIONAL ELECTRICAL CODE AND THE LOCAL BUILDING CODES. ALL COMPONENTS SHALL BE U.L. APPROVED.
 - D. THE CONTRACTOR SHALL BEFORE SUBMITTING HIS BID, VISIT THE SITE OF THE PROJECT AND BECOME FAMILIAR WITH THE CONDITIONS. NO ALLOWANCE WILL BE MADE FOR EXISTING CONDITIONS OR FAILURE OF THE CONTRACTOR TO OBSERVE THEM.
 - E. EXACT LOCATION OF ALL EQUIPMENT SHALL BE COORDINATED WITH WIRELESS CARRIER, THE BUILDING OWNER AND OTHER TRADES.
 - F. WHERE EQUIPMENT IS SPECIFIED BY MANUFACTURER AND TYPE, SUBSTITUTION SHALL ONLY BE MADE WITH THE APPROVAL OF THE ENGINEER. THE CONTRACTOR SHALL SUBMIT DETAILS OF PROPOSED MATERIALS, REASON FOR CHANGE AND CHANGE IN CONTRACT AMOUNT.
2. SCOPE OF WORK
 - A. THE CONTRACTOR SHALL PROVIDE ALL ELECTRICAL WIRING AND EQUIPMENT UNLESS OTHERWISE INDICATED. MAIN COMPONENTS ARE AS FOLLOWS:
 1. PROVIDE ELECTRICAL SERVICE AS INDICATED ON THE DRAWINGS.
 2. PROVIDE SERVICE EQUIPMENT MOUNTED AS DIRECTED BY CARRIER AND AS INDICATED ON THE DRAWINGS.

3. PROVIDE TELEPHONE CONDUIT WITH PULL WIRE AND CABLE AS INDICATED ON DRAWINGS.
 4. COORDINATE ELECTRICAL SERVICE WITH POWER CO. CONTACT REPRESENTATIVE & OBTAIN FAULT CURRENT LETTER PRIOR TO CONSTRUCTION. CONTRACTOR SHALL MAKE ADJUSTMENTS TO CIRCUIT BREAKERS TO MEET FAULT CURRENT WHEN NOT USING CURRENT LIMITING FUSES.
 5. COORDINATE TELEPHONE SERVICE WITH THE TELEPHONE CO. CONTACT REPRESENTATIVE PRIOR TO CONSTRUCTION.
 6. INSTALL WIRE AND CONDUIT AS INDICATED. PROVIDE CABLE SUPPORTS AS INDICATED.
 7. PROVIDE GROUNDING AND LIGHTNING PROTECTION SYSTEM AS INDICATED.
 8. RESTORE ALL AREAS TO ORIGINAL CONDITION AFTER INSTALLATION OF CONDUIT.
 9. CONTRACTOR SHALL CLEARLY LABEL DISCONNECTS AND OTHER RELATED GEAR.
 10. AT TIME OF PLAN PERMITTING, CONTRACTOR SHALL APPLY FOR A THIRTY (30) DAY TEMPORARY POWER PERMIT FOR TESTING PURPOSES.
3. CONDUIT
 - A. CONDUIT SIZES AS SHOWN ON THE DRAWINGS ARE A MINIMUM. THE CONTRACTOR MAY INCREASE AS REQUIRED FOR EASE OF PULLING.
 - B. CONDUIT TYPES SHALL BE AS FOLLOWS UNLESS OTHERWISE INDICATED:
 1. ALL ABOVE GRADE CONDUIT SHALL BE RIGID GALVANIZED STEEL.
 2. ALL CONDUIT BELOW GRADE SHALL BE SCHEDULE 40 PVC.
 3. CONCEALED CONDUIT IN WALLS OR ABOVE CEILING SHALL BE EMT.
 - C. ALL EXPOSED CONDUIT SHALL BE NEATLY INSTALLED AND RUN PARALLEL OR PERPENDICULAR TO STRUCTURAL ELEMENTS. SUPPORTS AND MOUNTING HARDWARE SHALL BE HOT DIPPED GALVANIZED STEEL. NYLON INSULATED BUSHINGS SHALL BE USED ON ALL CONDUIT TERMINATIONS.
 4. CONDUCTORS
 - A. CONDUCTORS SHALL BE STRANDED COPPER TYPE THWN WITH 75 DEGREE C RISE INSULATION.
 - B. ALL RACEWAYS REQUIRE GROUNDING CONDUCTORS. BONDING CONDUCTORS THROUGH THE RACEWAY SYSTEM SHALL BE CONTINUOUS FROM MAIN SWITCH GROUND BUSES TO PANEL GROUND BARS, AND FROM PANEL GROUNDING BARS TO BRANCH CIRCUIT OUTLETS, MOTORS, LIGHTS, ETC. THESE GROUND CONDUCTORS ARE REQUIRED THROUGHOUT THE PROJECT REGARDLESS OF WHETHER CONDUIT RUNS SHOW GROUND CONDUCTORS ON THE DRAWINGS.
 - C. COORDINATE WITH ENCLOSURE SUPPLIER TO INSTALL TELCO GROUND BARS BELOW THE TELCO BOARD. CONNECT TO MAIN GROUNDING SYSTEM.
 5. CONDUIT TYPES
 - A. INTERIOR ENCL. SHALL BE NEMA 1. EXTERIOR ENCL. SHALL BE NEMA 3R.
 6. GROUNDING
 - A. PROVIDE GROUND SYSTEM AS INDICATED ON THE DRAWINGS AND AS REQUIRED BY THE NATIONAL ELECTRIC CODE AND RADIO EQUIPMENT MANUFACTURER.
 - B. ALL RACEWAYS REQUIRE GROUNDING CONDUCTORS. BONDING CONDUCTORS THROUGH THE RACEWAY SYSTEM SHALL BE CONTINUOUS FROM MAIN SWITCH GROUND BUSES TO PANEL GROUND BARS, AND FROM PANEL GROUNDING BARS TO BRANCH CIRCUIT OUTLETS, MOTORS, LIGHTS, ETC. THESE GROUND CONDUCTORS ARE REQUIRED THROUGHOUT THE PROJECT REGARDLESS OF WHETHER CONDUIT RUNS SHOW GROUND CONDUCTORS ON THE DRAWINGS.
 - C. COORDINATE WITH ENCLOSURE SUPPLIER TO INSTALL TELCO GROUND BARS BELOW THE TELCO BOARD. CONNECT TO MAIN GROUNDING SYSTEM.

GROUNDING PROTECTION SYSTEM NOTES

1. PROVIDE "CABLE ENTRANCE GROUND BAR" (CEGB), 3" H X 6" L X 1/4" D. MOUNT AT TELCO CABINET. COORD. INSTALLATION WITH CPM.
2. PROVIDE A GROUND RING BURIED A MINIMUM OF 18" BELOW GRADE. THE GROUND RING SHALL BE INSTALLED A MINIMUM OF 2'-0" AWAY FROM THE FOUNDATION UNLESS SHOWN ON DRAWING.
3. BOND FENCE POST TO GROUND RING USING AN EXOTHERMIC WELD. BOND FENCE GATE TO POST WITH A FLEXIBLE COPPER JUMPER STRAP MECHANICALLY OR EXOTHERMICALLY. TYPICAL FOR ALL FENCE PLANES WITHIN 12 FEET OF TOWER FOUNDATION. FOR FENCE PLANES BEYOND 12', EXTEND 1/2" TO EACH FENCE PLANE TO ANY PLANES WITHIN 50'.
4. BOND DISCONNECT SWITCH, METER, TELEPHONE CABINET AND SERVICE CONDUITS TO BURIED GROUND RING AS THEY CROSS.
5. EACH LEG OF THE WAVEGUIDE STRUCTURE SHALL BE INDIVIDUALLY BONDED TO THE BURIED GND RING. EXOTHERMICALLY WELD CONNECTIONS AT POST FOR WAVEGUIDE STRUCTURE AND BURIED GND RING. PLACE 5/8"x10" COPPERCLAD GND ROD AT 10' INTERVALS ALONG WAVEGUIDE PATH.
6. BOND REBAR IN CONCRETE FOR COMMUNICATION STRUCTURE AND EQUIPMENT PAD TO BURIED GROUND RING. EXOTHERMICALLY WELD A #2 TINNED SOLID COPPER CONDUCTOR TO THE REBAR AND CONNECT TO THE BURIED GROUND RING.
7. PROVIDE INSPECTION SLEEVE AT MAIN SERVICE GROUNDS. EXOTHERMIC CONNECTIONS.
8. PROVIDE BONDING CONDUCTOR(S) FROM THE BURIED GROUND RING TO THE ANTENNA CABLE BUS BAR AT POINT JUST INSIDE OF THE COMMUNICATION STRUCTURE EXIT. VERIFY EXACT LOCATION OF COPPER BUS BAR FOR PROPER CONDUCTOR LENGTH. FINAL EXOTHERMIC WELDS TO COPPER BUS BAR BY THE ANTENNA CABLE INSTALLER.
9. EXOTHERMICALLY WELD BONDING CONDUCTOR TO COMMUNICATION STRUCTURE LEG AT 1'-0" ABOVE PAD AND BOND TO BURIED GROUND RING. PROVIDE A 3/4" PVC SLEEVE WITH A GRADUAL BEND IN THE CONCRETE FOUNDATION.
10. 5/8"x10'-0" LONG COPPER CLAD GND ROD AS SHOWN ON PLAN (NON-LINEAR). TYPICAL FOR ALL GROUND RODS SHOWN. USE STAINLESS STEEL HARDWARE WHERE APPLICABLE.
11. ELECTRICAL CONTRACTOR SHALL TAKE MEGGER READINGS OF GROUND. THE RESULTS SHALL NOT BE GREATER THAN 5 OHMS.
12. ALL CONNECTIONS TO GROUND SYSTEM SHALL BE MADE IN LINE WITH BENDS NOMINAL 12" RADIUS IN THE DIRECTION OF CURRENT FLOW. T-CONNECTIONS WILL NOT BE ALLOWED.
13. ALL BENDS IN GROUND WIRES SHALL BE NOMINAL 12" RADIUS.
14. ANTENNA CABLES SHALL BE BONDED AT EACH END. RUNS GREATER THAN 150' SHALL BE BONDED TOWARDS MIDDLE OF LENGTH. COORDINATE LOCATION WITH WIRELESS CARRIER'S PROJECT MANAGER.
15. WHEN APPLICABLE, CONTRACTOR SHALL BOND FRAMES TO EACH OTHER AND TO GND RING VIA TWO PATHS. COORDINATE WITH WIRELESS CARRIER PROJECT MANAGER.
16. CONTRACTOR CAN PROVIDE ONE OF THE FOLLOWING AS DIRECTED BY THE PROJECT MANAGER. THE SECOND OPTION IS PREFERRED.
 - A. CADWELD EACH CABINET GROUND WIRE TO GROUND RING AS SHOWN IN EQUIPMENT GROUND DETAIL.
 - B. CADWELD EACH WIRE TO A 1/4"x4"x24" MIN. COPPER BUS BAR LOCATED BEHIND RADIO CABINET. EXTEND A #2 WIRE FROM EACH END OF COPPER BUS BAR TO GROUND RING.
17. PROVIDED BRAIDED BONDING JUMPERS BETWEEN EACH GATE AND POST (OPTIONAL).
19. CONTRACTOR SHALL PROVIDE EXOTHERMIC BONDING AT ALL BURIED GROUND RING CONNECTIONS, STRUCTURAL EQUIPMENT FRAME, SERVICE RACK(S), EXISTING TOWER GROUND RINGS, AND AS INSTRUCTED BY METROPCS CPM.
20. CONTRACTOR SHALL PROVIDE MECHANICAL BONDING AT ALL ANTENNA SECTOR GROUND BARS, ALL ELECTRICAL EQUIPMENT DISCONNECTS, TRANSFORMERS, J-BOXES, PANEL-BOARDS, CABINETS, AND MAIN GROUND BAR AS DIRECTED BY METROPCS CPM. ALL MECHANICAL CONNECTIONS SHALL BE PROPERLY TERMINATED W/ LUGS, NUTS & BOLTS.
21. CONTRACTOR SHALL COAT WITH NOX-OX ALL POINTS OF CONTACT BETWEEN DISSIMILAR METALS.

ABBREVIATIONS

ANT	ANTENNA
AWG	AMERICAN WIRE GAUGE
BCW	BARE COPPER WIRE
RWY	RACEWAY
TYP.	TYPICAL
RGS	RIGID GALVANIZED STEEL
EMT	ELECTRICAL METALLIC TUBING
DWG	DRAWING
LPS.	LIGHTNING PROTECTION SYSTEM
S.S.	STAINLESS STEEL
PNL.	PANEL
CLF.	CURRENT LIMITING FUSE
CPM	CONST. PROJ. MANAGER

SYMBOLS

▼	CADWELD TYPE CONNECTION
⊙	5/8" X10'-0" COPPERCLAD GRND. ROD W/INSP. SLEEVE
⊙	5/8" X10'-0" COPPERCLAD GRND. ROD
■	MECHANICAL TYPE CONNECTION
---	#2 TINNED SOLID BARE CU WIRE
---	UNDER GROUND TELCO CONDUIT
---	UNDER GROUND ELECTRIC CONDUIT
⊕	CONDUIT TAG 1; REFER TO RISER
M-1.3	CONDUIT TAG 1; PANEL SCHEDULE
⊕	GENERATOR RECEPTACLE



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PROJECT INFORMATION:

SFL504-3_504-CROWN CITRUS AVE
A2P0304M
712 CITRUS AVE
FT PIERCE, FL 34950
ST. LUCIE COUNTY

CURRENT ISSUE DATE:

OCTOBER 2018

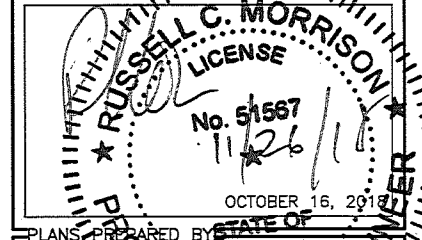
ISSUED FOR:

GENERATOR UPGRADE

REV. DATE DESCRIPTION:

REV.	DATE	DESCRIPTION

SEAL:



PLANS PREPARED BY:

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SHEET TITLE:

ELECTRICAL NOTES

SHEET NUMBER: REVISION:

E-1

KHA Job #:

044290125

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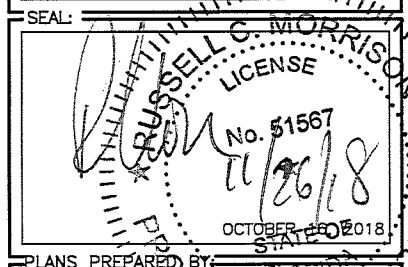
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SHEET TITLE:
ELECTRICAL PLAN

SHEET NUMBER: REVISION:
E-2

KHA Job #: 044290125

EXISTING T-MOBILE PANEL

WIRE SIZE	COND SIZE	BUS AMPS		LOAD	POLES	AMPS	BUS		AMPS	POLES	LOAD	BUS AMPS		WIRE SIZE	COND SIZE
		L1	L2				L1	L2				L1	L2		
		0	0	SURGE ARRESTOR	2	30	1	2	15	1	POWER GF	1			
							3	4	20	1	TELCO GF		1		
5#12	3/4"	1		GENERATOR BLOCK HEATER	1	20	5	6	15	2	SPARE	0	0		
				GENERATOR BATT. CHARGER	1	20	7	8							
2#3/0	2"	150	150	PROPOSED SSC SUB FEED LUG/BREAKER (*)	4	200	11	12	20	1	RACK LIGHT	1			
							13	14	15	1	TELCO FAN		1		
							15	16							
							17	18							
							19	20							
							21	22							
							23	24							

RATED VOLTAGE: 120/240 1 PHASE, 3 WIRE BRANCH POLES: 12 24 30 42 APPROVED MFR'S.

RATED AMPS: 125 200 400 CABINET: SURFACE FLUSH NEMA 1 3R 4X

MAIN LUGS ONLY MAIN 200 AMPS BREAKER FUSED SWITCH HINGED DOOR KEYPED DOOR LATCH

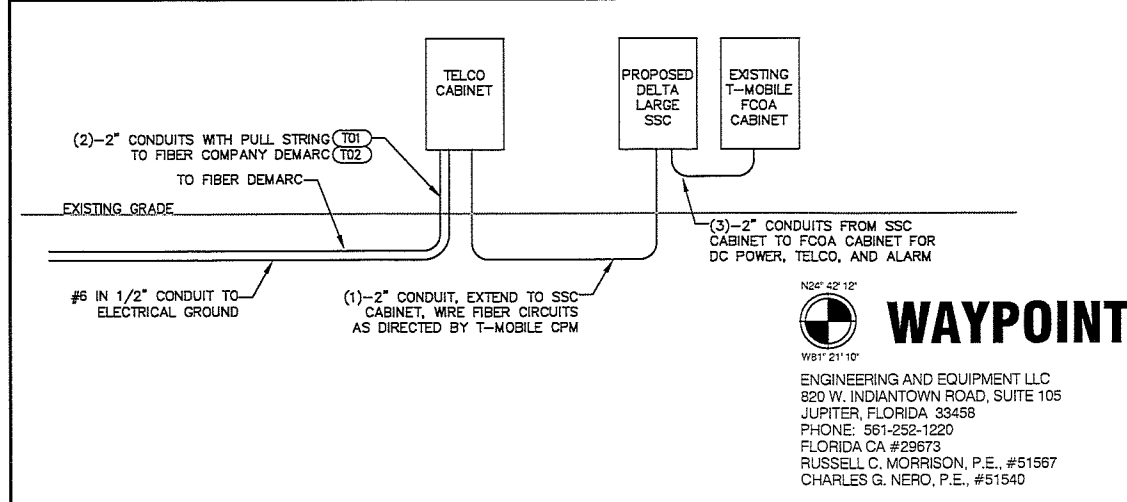
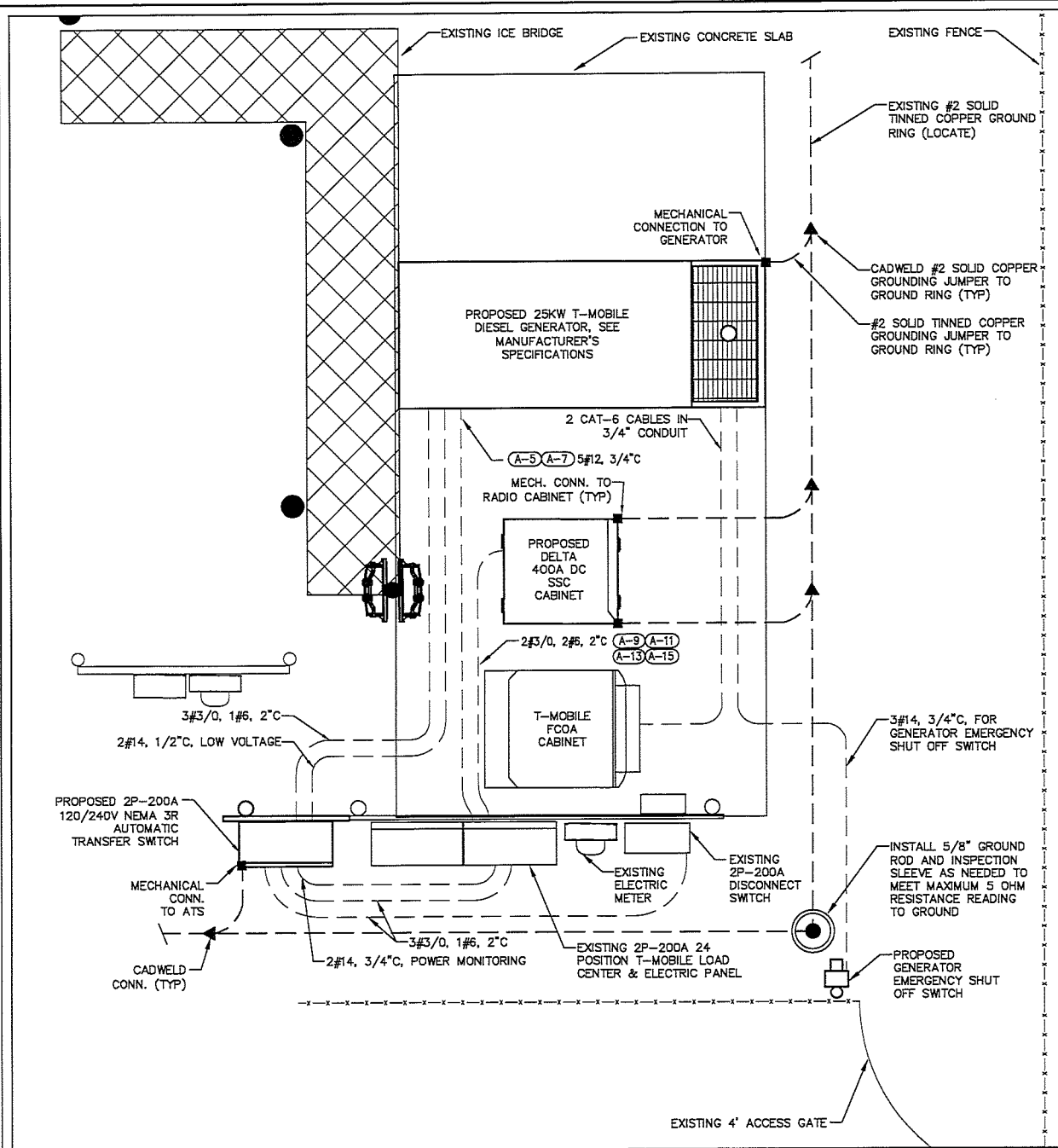
FUSED CIRCUIT BREAKER BRANCH DEVICES TO BE GFCI BREAKERS FULL NEUTRAL BUS GROUND BUS

ALL BREAKERS MUST BE RATED TO INTERRUPT A SHORT CIRCUIT ISC OF 10,000 AMPS SYMMETRICAL.

(*) SQUARE D #00 150-200A CIRCUIT BREAKER OR #00 225A SUB FEED LUG, SEE MANUFACTURER'S SPECIFICATIONS

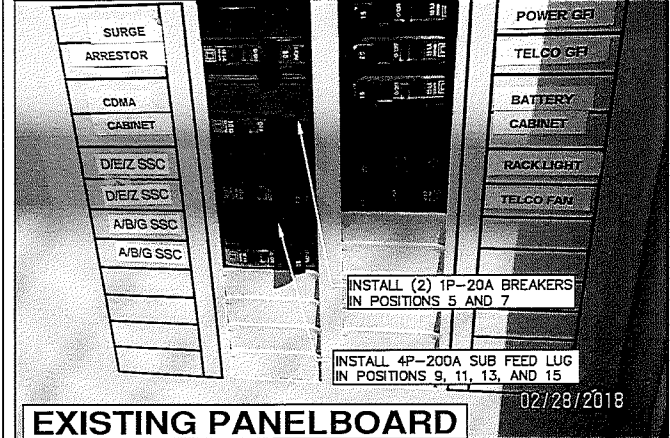
NOTE: LOAD CALC TABLE IS BASED ON NORMAL UTILITY POWER COMPANY FEED. WHENEVER THE LOAD IS UNDER GENERATOR POWER THE WIRELESS CABINETS OUTPUT (LOAD) IS CONTROLLED BY MONITORING SOFTWARE. SOFTWARE HAS LOAD SHEDDING CAPABILITIES AND IS AWARE WHEN CABINETS ARE ON EMERGENCY POWER AT WHICH TIME ALL WIRELESS CABINETS WILL OPERATE AT A MAXIMUM OF 100A

PANELBOARD SCHEDULE

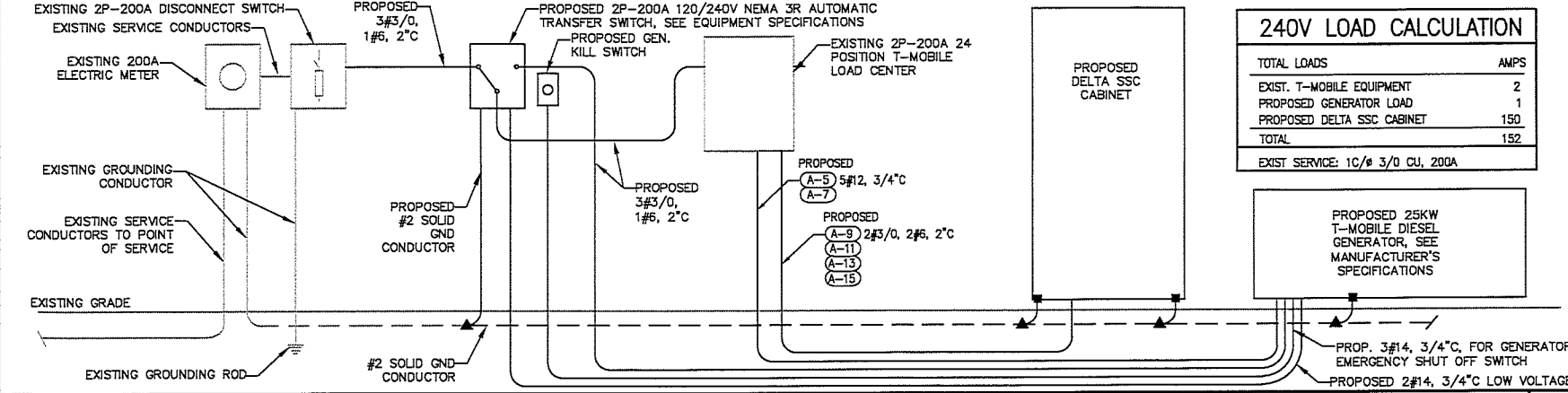



ELECTRICAL SITE PLAN

1 TELCO RISER DIAGRAM



EXISTING PANELBOARD 02/28/2018



240V LOAD CALCULATION

TOTAL LOADS	AMPS
EXIST. T-MOBILE EQUIPMENT	2
PROPOSED GENERATOR LOAD	1
PROPOSED DELTA SSC CABINET	150
TOTAL	152

EXIST SERVICE: 1C/Ø 3/0 CU, 200A

ELECTRICAL RISER DIAGRAM

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