



VERIZON SITE NUMBER: 585456 BUSINESS UNIT #: 809328
VERIZON SITE NAME: LAKE CITY WEST SITE ADDRESS: 555 HACKNEY LANE, LAKE CITY, FL 32055
SITE TYPE: SELF-SUPPORT TOWER COUNTY: COLUMBIA COUNTY
SELF-SUPPORT TOWER HEIGHT: 254'-0" JURISDICTION: COLUMBIA COUNTY

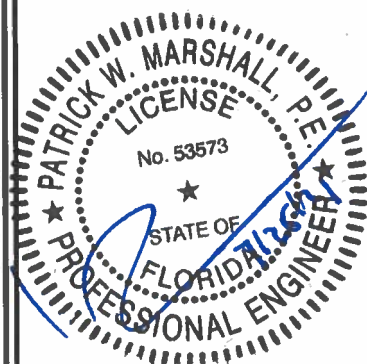
VERIZON: NEW SITE BUILD



VERIZON SITE NUMBER:
585456
BU #: 809328
LAKE CITY W J-FL-012-058
555 HACKNEY LANE
LAKE CITY, FL 32055
EXISTING 254'-0"
SELF-SUPPORT TOWER

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES/QA
A	5/27/2021	CW	LEASE EXHIBIT ISSUE	CW
0	6/10/2021	CW	ISSUED FOR PRELIMS	CW
1	7/23/2021	CW	ISSUED FOR FINALS	CW



IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

SHEET NUMBER: REVISION:

T-1

1

SITE INFORMATION

CROWN CASTLE USA INC.
SITE NAME: LAKE CITY WJ-FL-012-058
SITE ADDRESS: 555 HACKNEY LANE
LAKE CITY, FL 32055
COUNTY: COLUMBIA COUNTY
MAP/PARCEL #: BOOK 882, PAGE 469
AREA OF CONSTRUCTION: EXISTING
LATITUDE: 30° 10' 56.44"
LONGITUDE: -82° 39' 38.01"
LAT/LONG TYPE: NAD83
GROUND ELEVATION: 168 FT
CURRENT ZONING: N/A
JURISDICTION: COLUMBIA COUNTY
OCCUPANCY CLASSIFICATION: U
TYPE OF CONSTRUCTION: IIB
A.D.A. COMPLIANCE: FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION
PROPERTY OWNER: CROWN CASTLE
TOWER OWNER: CROWN CASTLE USA, INC.
2000 CORPORATE DRIVE
CANONSBURG, PA 15317
CARRIER/APPLICANT: VERIZON WIRELESS
7701 E. TELECOM PKWY.
TEMPLE TERRACE, FL 33637
ANTHONY MERCER - VZW PROJECT MANAGER
ANTHONY.MERCER@VERIZONWIRELESS.COM
ELECTRIC PROVIDER: FLORIDA POWER & LIGHT
1-800-226-3545
TELCO PROVIDER: FIBER PROVIDER TBD
TBD

PROJECT TEAM

A&E FIRM: P. MARSHALL & ASSOCIATES, LLC
1000 HOLCOMB WOODS PKWY. - SUITE 210
ROSWELL, GA 30076
SENIOR ENGINEER - PATRICK MARSHALL, P.E.
PROJECT ENGINEER - CHAD WILHOIT, P.E.
678-280-2325
CROWN CASTLE USA INC. DISTRICT CONTACTS:
DEREK SMITH - PROJECT MANAGER
DEREK.SMITH@CROWNCastle.COM
N/A - CONSTRUCTION MANAGER
N/A

DRAWING INDEX

SHEET #	SHEET DESCRIPTION
T-1	TITLE SHEET
-	SURVEY
GN-1	GENERAL NOTES
C-1	COMPOUND SITE PLAN
C-1.1	OVERALL SITE PLAN
C-2	EQUIPMENT SITE PLAN
C-3	TOWER ELEVATION
C-4	EROSION CONTROL PLAN
C-5	EROSION CONTROL NOTES
C-6	EQUIPMENT LAYOUT & CONDUIT PLAN
C-7	EQUIPMENT ELEVATIONS
C-8	FIBER EQUIPMENT SCHEMATIC
C-9	ICE BRIDGE DETAILS
C-10	EQUIPMENT SLAB FOUNDATION DETAILS & NOTES
C-11	GENERATOR PLUMBING NOTES & DETAILS
C-12	EQUIPMENT SPECIFICATIONS
C-13	EQUIPMENT SPECIFICATIONS
G-1	ELECTRICAL & GROUNDING SITE PLAN
G-2	ELECTRICAL RISER & ONE-LINE DIAGRAM
G-3	GROUNDING DETAILS
G-4	GROUNDING DETAILS

ALL DRAWINGS CONTAINED HEREIN ARE FORMATTED FOR 11" X 17". CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

PROJECT SCOPE

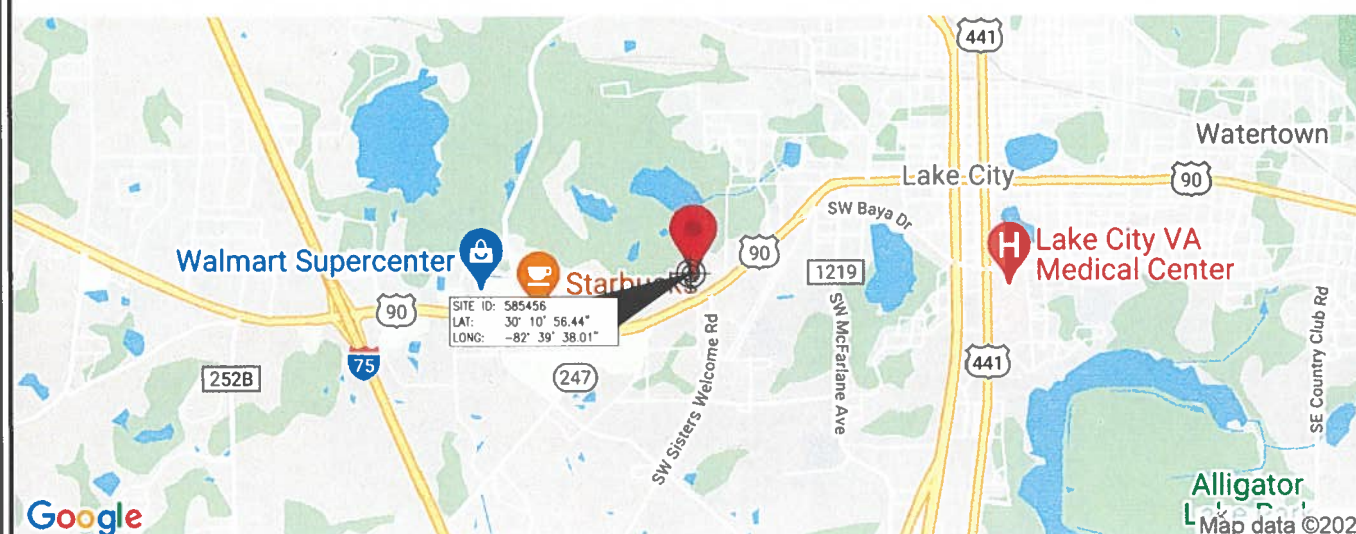
FINAL TOWER CONFIG:
• INSTALL (6) JMA WIRELESS MN060-BC0860 ANTENNAS
• INSTALL (3) ERICSSON AIR6449 ANTENNAS
• INSTALL (3) ERICSSON 1119 RRUS
• INSTALL (3) ERICSSON 8843 RRUS
• INSTALL (3) RAYCAP RYZDC-6627-PF-48 OPTS
• INSTALL (3) EX2410 BR10 DC / FIBER CABLES
• INSTALL (3) SITE PRO 1125-6 HEAVY DUTY V-FRAME ASSEMBLY, MODEL: VFA12 HD

FINAL GROUND CONFIG:
• INSTALL 4'X10' CONCRETE PAD FOR VERIZON EQUIPMENT CABINETS
• INSTALL 4'X10' CONCRETE PAD FOR VERIZON GENERATOR
• INSTALL 4'X10' CONCRETE PAD FOR VERIZON LP GAS TANK
• INSTALL UTILITY FRAME FOR VERIZON UTILITY EQUIPMENT

EMERGENCY NOTE:
NO EQUIPMENT PROPOSED WITHIN THE PROJECT SCOPE SHALL BE USED FOR EMERGENCY RESPONSE.

NOTE:
PRIOR TO ACCESSING/ENTERING THE SITE YOU MUST CONTACT THE CROWN NOC AT (800) 788-7011 & CROWN CONSTRUCTION MANAGER

LOCATION MAP



NO SCALE

APPLICABLE CODES/REFERENCE DOCUMENTS

ALL WORK SHALL BE PERFORMED AND MATERIALS 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:

CODE TYPE
BUILDING
MECHANICAL
ELECTRICAL

CODE
2020 FLORIDA BUILDING CODE, 7TH EDITION
2017 NEC (NFPA 70)

REFERENCE DOCUMENTS:

STRUCTURAL ANALYSIS: BY: N/A; PROJECT #: N/A
DATED: N/A
MOUNT ANALYSIS: N/A
DATED: N/A
ORDER ID: 565094
REVISION: 0



CALL FLORIDA ONE CALL
(800) 432-4770
CALL 3 WORKING DAYS
BEFORE YOU DIG!



BOUNDARY SURVEY

SECTION 36, TOWNSHIP 03 SOUTH, RANGE 16 EAST
COLUMBIA COUNTY, FLORIDA
FOR: CROWN CASTLE

LEGEND

- INDICATES SET 1/2" REBAR WITH GEOLINE LB 7082 CAP
- INDICATES CONCRETE MONUMENT FOUND AS NOTED
- INDICATES IRON PIN FOUND AS NOTED
- INDICATES WOOD UTILITY POLE
- INDICATES OVERHEAD POWER LINE
- INDICATES 6' TALL CHAINLINK FENCE
- INDICATES 4' BARBED WIRE FENCE
- (D) INDICATES RECORD DESCRIPTION DATA
- (S) INDICATES INFORMATION PER PREVIOUS SURVEY PREPARED BY THIS OFFICE, DATED 06/04/2002, PROJECT NUMBER 216-89
- ▨ INDICATES ASPHALT

SURVEYOR'S NOTES

- BEARINGS HEREON ARE REFERENCED TO THE ASSUMED BEARING OF NORTH 00°01'09" WEST ALONG THE WEST LINE OF A TOWER PARCEL, RECORDED IN OFFICIAL RECORD BOOK 882, PAGE 469 OF THE PUBLIC RECORDS OF COLUMBIA COUNTY, FLORIDA.
- UNDERGROUND UTILITIES SHOWN HEREON ARE LIMITED TO AND ARE PER OBSERVED, ABOVEGROUND INDICATIONS SET BY OTHERS. NO SUB-SURFACE INVESTIGATION WAS PERFORMED BY THIS OFFICE.
- THE BOUNDARY SURVEY SHOWN HEREON IS BASED ON ACTUAL FIELD MEASUREMENTS AND OBSERVATIONS DATED MAY 22, 2018.
- UNLESS NOTED OTHERWISE, ALL BEARINGS AND DISTANCES SHOWN HEREON ARE MEASURED (M).
- THE PURPOSE OF THIS SURVEY IS TO ESTABLISH AND DESCRIBE A CROWN TOWER PARCEL. THIS IS NOT A BOUNDARY SURVEY OF THE PARENT PARCEL.
- REPRODUCTIONS OF THIS SKETCH ARE NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER.
- SYMBOLS SHOWN HEREON ARE NOT TO SCALE.
- THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A COMMITMENT FOR TITLE INSURANCE. THIS OFFICE HAS NOT PERFORMED AN INDEPENDENT SEARCH OF THE PUBLIC RECORDS FOR EXISTING EASEMENTS, RIGHTS-OF-WAY, ABANDONMENTS, SETBACKS OR DEED RESTRICTIONS.
- SITE STREET ADDRESS:
555 HACKNEY LANE
LAKE CITY, FL 32055

FLOOD NOTE

ACCORDING TO MY INTERPRETATION OF COMMUNITY PANEL NUMBER 120070 0291 C OF THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) NATIONAL FLOOD INSURANCE PROGRAM (NFIP) FLOOD INSURANCE RATE MAP (FIRM) FOR COLUMBIA COUNTY, FLORIDA, DATED 2/4/2009, THE SUBJECT PROPERTY IS IN FLOOD ZONE "X". "AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN".

SURVEYOR'S NOTE:
THE TOWER AND ALL OF THE VISIBLE ABOVE-GROUND TOWER SITE RELATED IMPROVEMENTS ARE WITHIN THE CROWN TOWER PARCEL.

CERTIFIED TO:
CROWN CASTLE
FIDELITY NATIONAL TITLE INSURANCE COMPANY
GEOLINE SURVEYING, INC., LB 7082



David G. Short 6/28/2018
DAVID G. SHORT
FLORIDA PROFESSIONAL SURVEYOR AND MAPPER
CERTIFICATE OF REGISTRATION NO. 5022

GEOLINE SURVEYING, INC.

Professional Land Surveyors
13450 NW 104th Terrace, Suite A
Alachua, Florida 32615
(386)418-0500 Fax: (386)462-9808
geoline@geolineinc.com

DESIGNED	FLOYD CURTIS	SCALE	AS SHOWN
DRAWN	FLOYD CURTIS	DATE	MAY 22, 2018
CHECKED	DAVE SHORT	PROJECT #	285-9808
CROWN CASTLE SITE BUN #809328			
LAKE CITY SITE, COLUMBIA COUNTY, FLORIDA			
ADDRESS: 555 HACKNEY LANE, LAKE CITY, FL 32055			
DRAWING# 285-9808	SHEET# 1 OF 4		

RICHARD C COLE & JANICE C. BATES
PARCEL NUMBER: 36-3S-16-02611-024

PARENT PARCEL "LESS AND EXCEPT" PARCEL
DOUG AND JUNE EPPERSON FAMILY, LLC
PARCEL NUMBER: 36-3S-16-02590-000
OFFICIAL RECORD BOOK 1332, PAGE 1205, PARCEL THREE

PARENT PARCEL
DOUG AND JUNE EPPERSON
PARCEL NUMBER: 36-3S-16-02590-001
OFFICIAL RECORD BOOK 1332, PAGE 1205, PARCEL TWO

INLAND DIVERSIFIED LAKE CITY
PARCEL NUMBER: 36-3S-16-02611-024
OFFICIAL RECORD BOOK 1198, PAGE 341

INLAND DIVERSIFIED LAKE CITY
PARCEL NUMBER: 36-3S-16-02611-028
OFFICIAL RECORD BOOK 1241, PAGE 207

HALLE PROPERTIES, LLC
PARCEL NUMBER: 36-3S-16-02588-003
OFFICIAL RECORD BOOK 1292, PAGE 2349

M V P AUTO DEALER, INC.
PARCEL NUMBER: 36-3S-16-02589-001
OFFICIAL RECORD BOOK 1279, PAGE 118

FOUND 4" X 4" CONCRETE MONUMENT
(NO IDENTIFICATION)(S)

CURVE INFORMATION
RADIUS = 4533.66'(D)
CHORD = N 63°31'54" E(D)
179.05'(D)

U.S. HIGHWAY NO. 90
(100' WIDE PUBLIC RIGHT-OF-WAY LINE)

GRAPHIC SCALE
15 0 7.5 15 60 120
(IN FEET)

SCALE FOR 24" X 36" SHEET: 1" = 60'
SCALE FOR 11" X 17" SHEET: 1" = 120'

BOUNDARY SURVEY

SECTION 36, TOWNSHIP 03 SOUTH, RANGE 16 EAST
COLUMBIA COUNTY, FLORIDA
FOR: CROWN CASTLE

PARENT PARCEL
DOUG AND JUNE EPPERSON
PARCEL NUMBER: 36-3S-16-02590-001
OFFICIAL RECORD BOOK 1332, PAGE 1205, PARCEL TWO

POINT OF BEGINNING:
EXISTING TOWER PARCEL
CROWN TOWER PARCEL
PROPERTY CORNER IS 15.7' E. OF THE
FENCELINE, NO CORNER WAS FOUND OR
SET DUE TO A TREE BEING AT THE
LOCATION OF THE PROPERTY CORNER

N 89°58'03" E(D)
N 89°59'18" E

220.00'(D)
219.93'

N 89°59'18" E

161.57'

S 00°01'57" W(S)
607.43'(S)

S 89°58'03" W(S)
15.00'(S)

S 00°01'57" E(S)
611.92'(S)

EDGE OF ASPHALT

WEST LINE OF SECTION 31-03S-17E
EAST LINE OF SECTION 36-03S-16E

EDGE OF ASPHALT
FOUND 1/2" IRON ROD AND
CAP (AL8676 / F12488) 3.47 S. & 1.34' E. OF
THE PROPERTY CORNER LOCATION

S 00°01'57" E
S 00°01'57" E



CROWN TOWER PARCEL DETAIL
GRAPHIC SCALE
5 0 2.5 5 10 20
(IN FEET)
SCALE FOR 24" X 36" SHEET: 1" = 10'
SCALE FOR 11" X 17" SHEET: 1" = 20'

CROWN TOWER PARCEL
27,055 SQUARE FEET ±
0.621 ACRES ±

SEE TOWER COMPOUND DETAIL ON SHEET 3 OF 4

GRAVEL DRIVEWAY

HACKNEY LANE
30' WIDE PUBLIC RIGHT OF WAY
(14.5' WIDE ASPHALT ROAD)

PUBLIC RIGHT-OF-WAY LINE

PUBLIC RIGHT-OF-WAY LINE

LEGEND

- INDICATES SET 1/2" REBAR WITH
GEOLINE LB 7082 CAP
- INDICATES IRON PIN FOUND AS NOTED
- INDICATES WOOD UTILITY POLE
- INDICATES OVERHEAD POWER LINE
- INDICATES 6' TALL CHAINLINK FENCE
- INDICATES 4' BARBED WIRE FENCE
- (D) INDICATES RECORD DESCRIPTION DATA
- (S) INDICATES INFORMATION PER PREVIOUS SURVEY
PREPARED BY THIS OFFICE, DATED 06/04/2002,
PROJECT NUMBER 216-89
- ▨ INDICATES ASPHALT

CROWN LEASE PARCEL
OFFICIAL RECORD BOOK 882, PAGE 469

GEOLINE
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geoline@geolineinc.com

DESIGNED
FLOYD CURTIS

CHECKED
DAVE SHORT

DATE
MAY 22, 2018

PROJECT #
265-9808

SCALE
AS SHOWN

CROWN
CASTLE

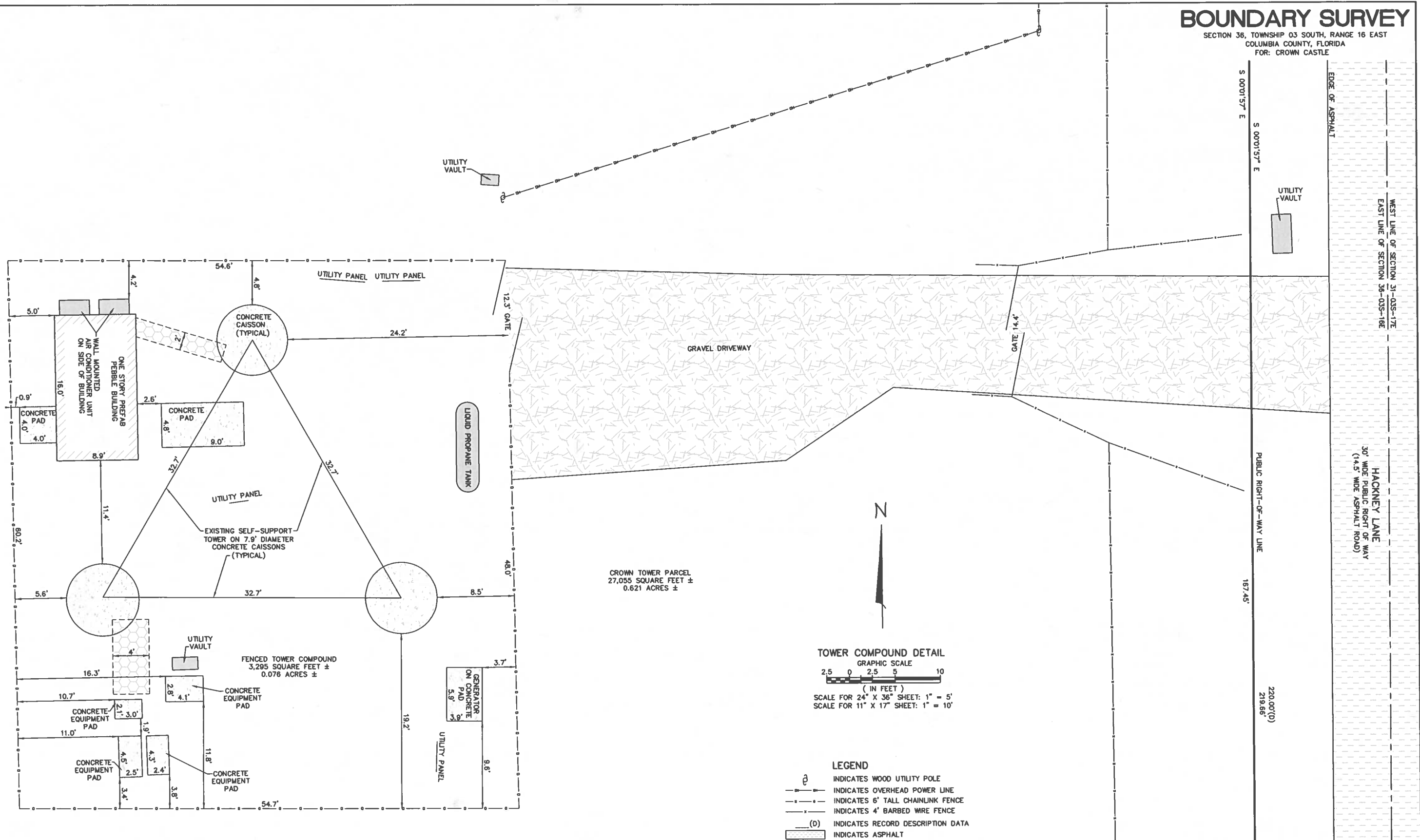
CROWN CASTLE SITE BUN #809328
LAKE CITY SITE, COLUMBIA COUNTY, FLORIDA
ADDRESS: 666 HACKNEY LANE, LAKE CITY, FL 32056

DRAWING# 265-9808

SHEET# 2 OF 4

BOUNDARY SURVEY

SECTION 36, TOWNSHIP 03 SOUTH, RANGE 16 EAST
COLUMBIA COUNTY, FLORIDA
FOR: CROWN CASTLE



GEOLINE SURVEYING, INC.
Professional Land Surveyors
19450 NW 104th Terrace, Suite A
Alachua, Florida 32615
(386)418-0500 Fax (386)462-9988
geoline@geolineinc.com

DESIGNED	FLOYD CURTIS	SCALE	AS SHOWN
DRAWN	FLOYD CURTIS	DATE	MAY 22, 2018
CHECKED	DAVE SHORT	PROJECT #	265-9808

CROWN CASTLE
CROWN CASTLE SITE BUN #809328
LAKE CITY SITE, COLUMBIA COUNTY, FLORIDA
ADDRESS: 666 HACKNEY LANE, LAKE CITY, FL 32055

DRAWING# 265-9808 SHEET# 3 OF 4

BOUNDARY SURVEY

SECTION 36, TOWNSHIP 03 SOUTH, RANGE 16 EAST
COLUMBIA COUNTY, FLORIDA
FOR: CROWN CASTLE



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VICINITY MAP
NOT TO SCALE



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LOCATION MAP
NOT TO SCALE

PROPERTY DESCRIPTIONS

PARENT PARCEL
(OFFICIAL RECORD BOOK 1332, PAGE 1205, PARCEL TWO)

COMMENCE AT THE NORTHEAST CORNER OF THE NE 1/4 OF SE 1/4, SECTION 36, TOWNSHIP 3 SOUTH, RANGE 16 EAST, COLUMBIA COUNTY, FLORIDA, AND RUN THENCE S 0°01'57" E ALONG THE EAST LINE OF SAID SECTION 36, 208.00 FEET, THENCE N 89°06'16" W, 15.00 FEET TO A FENCE CORNER AND THE POINT OF BEGINNING, THENCE CONTINUE N 89°06'16" W ALONG SAID FENCE, 494.88 FEET, THENCE N 88°24'50" W ALONG SAID FENCE, 518.45 FEET, THENCE S 88°50'53" W ALONG SAID FENCE, 179.56 FEET, THENCE S 3°08'50" W, 655.47 FEET, THENCE S 52°43'31" E, 396.47 FEET, THENCE S 3°16'24" W, 400.61 FEET, THENCE N 64°56'00" E, 368.70 FEET, THENCE S 3°14'15" W, 321.56 FEET TO THE NORTH RIGHT-OF-WAY LINE OF STATE ROAD NO. 10 (U.S. HIGHWAY 90), THENCE N 64°53'26" E ALONG SAID NORTH RIGHT-OF-WAY LINE, 508.83 FEET TO A POINT OF CURVE, THENCE N 63°31'54" E ALONG A CHORD OF A CURVE CONCAVE TO THE LEFT HAVING A RADIUS OF 4533.66 FEET, 179.05 FEET TO THE WEST LINE OF A 30-FOOT EASEMENT FOR HACKNEY LANE, THENCE N 0°01'57" W ALONG SAID WEST LINE AND PARALLEL TO THE EAST LINE OF SAID SECTION 36, 1145.72 FEET TO THE POINT OF BEGINNING, LESS AND EXCEPT THE NORTH 500 FEET THEREOF, SAID LANDS BEING A PART OF THE NE 1/4 OF SE 1/4 AND OF THESE 1/4 OF SE 1/4 OF SAID SECTION 36.

PARCEL NUMBER: 36-3S-16-02590-001

CROWN LEASE PARCEL
(OFFICIAL RECORD BOOK 882, PAGE 469)

A PARCEL OF LAND DESCRIBED AS FOLLOWS: COMMENCING AT AN EXISTING 3" GALVANIZED PIPE FOUND BY SURVEY OF W.C. HALE AND ASSOCIATES 1-7083 (SET BY SURVEY OF B.G. MORE 2-11-48) AT THE NORTHEAST CORNER OF THE NE 1/4 OF THE SE 1/4 OF SECTION 36, TOWNSHIP 3 SOUTH, RANGE 16 EAST, COLUMBIA COUNTY, FLORIDA AND RUN S 00-01-57 E ALONG THE EAST LINE OF THE NE 1/4 OF THE SE 1/4, A DISTANCE OF 811.92 FEET; THENCE S 89-58-03 W, A DISTANCE OF 15.00 FEET TO THE WEST SIDE OF HACKNEY LANE TO THE POINT OF BEGINNING; THENCE S 00-01-57 E, ALONG SAID LANE, A DISTANCE OF 220.00 FEET; THENCE S 89-58-03 W, A DISTANCE OF 220.00 FEET; THENCE N 00-01-57 W, A DISTANCE OF 220.00 FEET; THENCE N 89-58-03 E, A DISTANCE OF 220.00 FEET TO THE POINT OF BEGINNING AND CONTAINING 1.11 ACRES, MORE OR LESS.

SAID LAND LYING IN THE NE 1/4 OF THE SE 1/4 OF SECTION 36, TOWNSHIP 3 SOUTH, RANGE 16 EAST, COLUMBIA COUNTY, FLORIDA.

CROWN TOWER PARCEL
(PREPARED BY GEOLINE SURVEYING, INC.)

THAT PART OF THE "DOUG AND JUNE EPPERSON FAMILY, LLC." PARCEL, AS PER DESCRIPTION RECORDED IN OFFICIAL RECORD BOOK 1332, PAGE 1205 OF THE PUBLIC RECORDS OF COLUMBIA COUNTY, FLORIDA, SITUATED IN THE NORTHEAST 1/4 OF THE SOUTHEAST 1/4 OF SECTION 36, TOWNSHIP 3 SOUTH, RANGE 16 EAST, COLUMBIA COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE NORTHEAST CORNER OF THE NORTHEAST 1/4 OF THE SOUTHEAST 1/4 OF SECTION 36, TOWNSHIP 3 SOUTH, RANGE 16 EAST, COLUMBIA COUNTY, FLORIDA; THENCE SOUTH 0°01'57" EAST ALONG THE EAST LINE OF SAID NORTHEAST 1/4 OF THE SOUTHEAST 1/4 FOR 811.92 FEET; THENCE SOUTH 89°58'03" WEST FOR 15.00 FEET TO AN INTERSECTION WITH THE WEST RIGHT-OF-WAY LINE OF HACKNEY LANE (30 FOOT WIDE PUBLIC RIGHT-OF-WAY) AND THE EASTERLY LINE OF THE "DOUG AND JUNE EPPERSON FAMILY, LLC." PARCEL, AS PER DESCRIPTION OF PARCEL TWO RECORDED IN OFFICIAL RECORD BOOK 1332, PAGE 1205 OF THE PUBLIC RECORDS OF SAID COLUMBIA COUNTY AND THE POINT OF BEGINNING, SAID POINT OF BEGINNING BEING SOUTH 0°01'57" EAST, A DISTANCE OF 607.43 FEET FROM THE NORTHEAST CORNER OF THE "DOUG AND JUNE EPPERSON FAMILY, LLC." PARCEL, AS PER DESCRIPTION OF PARCEL THREE RECORDED IN SAID OFFICIAL RECORD BOOK 1332, PAGE 1205; THENCE SOUTH 0°01'57" EAST ALONG SAID WEST RIGHT-OF-WAY LINE AND SAID EASTERLY LINE FOR 167.45 FEET; THENCE SOUTH 89°58'58" WEST FOR 161.61 FEET; THENCE NORTH 0°01'09" WEST FOR 167.41 FEET; THENCE NORTH 89°59'18" EAST FOR 161.57 FEET TO SAID POINT OF BEGINNING.

CONTAINING 27,055 SQUARE FEET (0.621 ACRES), MORE OR LESS.

GEOLINE
SURVEYING, INC.

Professional Land Surveyors
18480 NW 104th Terrace, Suite A
Alachua, Florida 32016
(386)418-0500 Fax (386)462-9988
geoline@geolineinc.com

DESIGNED: FLOYD CURTIS
DRAWN: FLOYD CURTIS
CHECKED: DAVE SHORT

SCALE: AS SHOWN
DATE: MAY 22, 2018
PROJECT #: 265-0808

CROWN
CASTLE

CROWN CASTLE SITE BUN #809328
LAKE CITY SITE, COLUMBIA COUNTY, FLORIDA
ADDRESS: 666 HACKNEY LANE, LAKE CITY, FL 32056

DRAWING# 265-9808

SHEET# 4 OF 4

CROWN CASTLE USA INC. SITE ACTIVITY REQUIREMENTS:

- NOTICE TO PROCEED- NO WORK SHALL COMMENCE PRIOR TO CROWN CASTLE USA INC. WRITTEN NOTICE TO PROCEED (NTP) AND THE ISSUANCE OF A PURCHASE ORDER. PRIOR TO ACCESSING/ENTERING THE SITE YOU MUST CONTACT THE CROWN CASTLE USA INC. NOC AT 800-788-7011 & THE CROWN CASTLE USA INC. CONSTRUCTION MANAGER
- LOOK UP - CROWN CASTLE USA INC. SAFETY CLIMB REQUIREMENT:
THE INTEGRITY OF THE SAFETY CLIMB AND ALL COMPONENTS OF THE CLIMBING FACILITY SHALL BE CONSIDERED DURING ALL STAGES OF DESIGN, INSTALLATION, AND INSPECTION. TOWER MODIFICATION, MOUNT REINFORCEMENTS, AND/OR EQUIPMENT INSTALLATIONS SHALL NOT COMPROMISE THE INTEGRITY OR FUNCTIONAL USE OF THE SAFETY CLIMB OR ANY COMPONENTS OF THE CLIMBING FACILITY ON THE STRUCTURE. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO: PINCHING OF THE WIRE ROPE, BENDING OF THE WIRE ROPE FROM ITS SUPPORTS, DIRECT CONTACT OR CLOSE PROXIMITY TO THE WIRE ROPE WHICH MAY CAUSE FRICTIONAL WEAR, IMPACT TO THE ANCHORAGE POINTS IN ANY WAY, OR TO IMPEDE/BLOCK ITS INTENDED USE. ANY COMPROMISED SAFETY CLIMB, INCLUDING EXISTING CONDITIONS MUST BE TAGGED OUT AND REPORTED TO YOUR CROWN CASTLE USA INC. POC OR CALL THE NOC TO GENERATE A SAFETY CLIMB MAINTENANCE AND CONTRACTOR NOTICE TICKET
- PRIOR TO THE START OF CONSTRUCTION, ALL REQUIRED JURISDICTIONAL PERMITS SHALL BE OBTAINED. THIS INCLUDES, BUT IS NOT LIMITED TO, BUILDING, ELECTRICAL, MECHANICAL, FIRE, FLOOD ZONE, ENVIRONMENTAL, AND ZONING. AFTER ONSITE ACTIVITIES AND CONSTRUCTION ARE COMPLETED, ALL REQUIRED PERMITS SHALL BE SATISFIED AND CLOSED OUT ACCORDING TO LOCAL JURISDICTIONAL REQUIREMENTS.
- ALL CONSTRUCTION MEANS AND METHODS, INCLUDING BUT NOT LIMITED TO, ERECTION PLANS, RIGGING PLANS, CLIMBING PLANS, AND RESCUE PLANS SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR RESPONSIBLE FOR THE EXECUTION OF THE WORK CONTAINED HEREIN, AND SHALL MEET ANSI/ASSE A10.48 (LATEST EDITION); FEDERAL, STATE, AND LOCAL REGULATIONS; AND ANY APPLICABLE INDUSTRY CONSENSUS STANDARDS RELATED TO THE CONSTRUCTION ACTIVITIES BEING PERFORMED. ALL RIGGING PLANS SHALL ADHERE TO ANSI/ASSE A10.48 (LATEST EDITION) AND CROWN CASTLE USA INC. STANDARD CED-STD-10253, INCLUDING THE REQUIRED INVOLVEMENT OF A QUALIFIED ENGINEER FOR CLASS IV CONSTRUCTION, TO CERTIFY THE SUPPORTING STRUCTURE(S) IN ACCORDANCE WITH ANSI/TIA-322 (LATEST EDITION).
- ALL SITE WORK TO COMPLY WITH OAS-STD-10068 "INSTALLATION STANDARDS FOR CONSTRUCTION ACTIVITIES ON CROWN CASTLE USA INC. TOWER SITE" AND LATEST VERSION OF ANSI/TIA-1019-A-2012 "STANDARD FOR INSTALLATION, ALTERATION, AND MAINTENANCE OF ANTENNA SUPPORTING STRUCTURES AND ANTENNAS."
- IF THE SPECIFIED EQUIPMENT CAN NOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY CROWN CASTLE USA INC. PRIOR TO PROCEEDING WITH ANY SUCH CHANGE OF INSTALLATION.
- ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES. CONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
- THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
- THE CONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION.
- ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES WHERE ENCOUNTERED IN THE WORK, SHALL BE PROTECTED AT ALL TIMES AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY CONTRACTOR. EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR WHEN EXCAVATING OR DRILLING PIERS AROUND OR NEAR UTILITIES. CONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS WILL INCLUDE BUT NOT BE LIMITED TO A) FALL PROTECTION B) CONFINED SPACE C) ELECTRICAL SAFETY D) TRENCHING AND EXCAVATION E) CONSTRUCTION SAFETY PROCEDURES
- ALL SITE WORK SHALL BE AS INDICATED ON THE STAMPED CONSTRUCTION DRAWINGS AND PROJECT SPECIFICATIONS, LATEST APPROVED REVISION.
- CONTRACTOR SHALL KEEP THE SITE FREE FROM ACCUMULATING WASTE MATERIAL, DEBRIS, AND TRASH AT THE COMPLETION OF THE WORK. IF NECESSARY, RUBBISH, STUMPS, DEBRIS, STICKS, STONES AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY.
- ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED AND/OR CAPPED, PLUGGED OR OTHERWISE DISCONTINUED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, SUBJECT TO THE APPROVAL OF CONTRACTOR, TOWER OWNER, CROWN CASTLE USA INC., AND/OR LOCAL UTILITIES.
- THE CONTRACTOR SHALL PROVIDE SITE SIGNAGE IN ACCORDANCE WITH THE TECHNICAL SPECIFICATION FOR SITE SIGNAGE REQUIRED BY LOCAL JURISDICTION AND SIGNAGE REQUIRED ON INDIVIDUAL PIECES OF EQUIPMENT, ROOMS, AND SHELTERS.
- THE SITE SHALL BE GRADED TO CAUSE SURFACE WATER TO FLOW AWAY FROM THE CARRIER'S EQUIPMENT AND TOWER AREAS.
- THE SUB GRADE SHALL BE COMPACTED AND BROUGHT TO A SMOOTH UNIFORM GRADE PRIOR TO FINISHED SURFACE APPLICATION.
- THE AREAS OF THE OWNERS PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE TOWER, EQUIPMENT OR DRIVEWAY, SHALL BE GRADED TO A UNIFORM SLOPE, AND STABILIZED TO PREVENT EROSION AS SPECIFIED ON THE CONSTRUCTION DRAWINGS AND/OR PROJECT SPECIFICATIONS.
- CONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE LOCAL GUIDELINES FOR EROSION AND SEDIMENT CONTROL.
- THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF OWNER.
- CONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.
- CONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION. TRASH AND DEBRIS SHOULD BE REMOVED FROM SITE ON A DAILY BASIS.
- NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUND. FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.

GREENFIELD GROUNDING NOTES:

- ALL GROUND ELECTRODE SYSTEMS (INCLUDING TELECOMMUNICATION, RADIO, LIGHTNING PROTECTION AND AC POWER GES'S) SHALL BE BONDED TOGETHER AT OR BELOW GRADE, BY TWO OR MORE COPPER BONDING CONDUCTORS IN ACCORDANCE WITH THE NEC.
- THE CONTRACTOR SHALL PERFORM IEEE FALL-OF-POTENTIAL RESISTANCE TO EARTH TESTING (PER IEEE 1100 AND 81) FOR GROUND ELECTRODE SYSTEMS, THE CONTRACTOR SHALL FURNISH AND INSTALL SUPPLEMENTAL GROUND ELECTRODES AS NEEDED TO ACHIEVE A TEST RESULT OF 5 OHMS OR LESS.
- THE CONTRACTOR IS RESPONSIBLE FOR PROPERLY SEQUENCING GROUNDING AND UNDERGROUND CONDUIT INSTALLATION AS TO PREVENT ANY LOSS OF CONTINUITY IN THE GROUNDING SYSTEM OR DAMAGE TO THE CONDUIT AND PROVIDE TESTING RESULTS.
- METAL CONDUIT AND TRAY SHALL BE GROUNDING AND MADE ELECTRICALLY CONTINUOUS WITH LISTED BONDING FITTINGS OR BY BONDING ACROSS THE DISCONTINUITY WITH #6 COPPER WIRE UL APPROVED GROUNDING TYPE CONDUIT CLAMPS.
- METAL RACEWAY SHALL NOT BE USED AS THE NEC REQUIRED EQUIPMENT GROUND CONDUCTOR. STRANDED COPPER CONDUCTORS WITH GREEN INSULATION, SIZED IN ACCORDANCE WITH THE NEC, SHALL BE FURNISHED AND INSTALLED WITH THE POWER CIRCUITS TO BTS EQUIPMENT.
- EACH CABINET FRAME SHALL BE DIRECTLY CONNECTED TO THE MASTER GROUND BAR WITH GREEN INSULATED SUPPLEMENTAL EQUIPMENT GROUND WIRES, #6 STRANDED COPPER OR LARGER FOR INDOOR BTS; #2 BARE SOLID TINNED COPPER FOR OUTDOOR BTS.
- CONNECTIONS TO THE GROUND BUS SHALL NOT BE DOUBLED UP OR STACKED BACK TO BACK CONNECTIONS ON OPPOSITE SIDE OF THE GROUND BUS ARE PERMITTED.
- ALL EXTERIOR GROUND CONNECTIONS BETWEEN EQUIPMENT/GROUND BARS AND THE GROUND RING SHALL BE #2 SOLID TINNED COPPER UNLESS OTHERWISE INDICATED.
- ALUMINUM CONDUCTOR OR COPPER CLAD STEEL CONDUCTOR SHALL NOT BE USED FOR GROUNDING CONNECTIONS.
- USE OF 90° BENDS IN THE PROTECTION GROUNDING CONDUCTORS SHALL BE AVOIDED WHEN 45° BENDS CAN BE ADEQUATELY SUPPORTED.
- EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE.
- ALL GROUND CONNECTIONS ABOVE GRADE (INTERIOR AND EXTERIOR) SHALL BE FORMED USING HIGH PRESS CRIMPS.
- COMPRESSION GROUND CONNECTIONS MAY BE REPLACED BY EXOTHERMIC WELD CONNECTIONS.
- ICE BRIDGE BONDING CONDUCTORS SHALL BE EXOTHERMICALLY BONDED OR BOLTED TO THE BRIDGE AND THE TOWER GROUND BAR.
- APPROVED ANTI-OXIDANT COATINGS (I.E. CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS.
- ALL EXTERIOR GROUND CONNECTIONS SHALL BE COATED WITH A CORROSION RESISTANT MATERIAL.
- MISCELLANEOUS ELECTRICAL AND NON-ELECTRICAL METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE NEC.
- BOND ALL METALLIC OBJECTS WITHIN 6 FT. OF MAIN GROUND RING WITH (1) #2 BARE SOLID TINNED COPPER GROUND CONDUCTOR.
- GROUND CONDUCTORS USED FOR THE FACILITY GROUNDING AND LIGHTNING PROTECTION SYSTEMS SHALL NOT BE ROUTED THROUGH METALLIC OBJECTS THAT FORM A RING AROUND THE CONDUCTOR, SUCH AS METALLIC CONDUITS, METAL SUPPORT CLIPS OR SLEEVES THROUGH WALLS OR FLOORS. WHEN IT IS REQUIRED TO BE HOUSED IN CONDUIT TO MEET CODE REQUIREMENTS OR LOCAL CONDITIONS, NON-METALLIC MATERIAL SUCH AS PVC CONDUIT SHALL BE USED, WHERE USE OF METAL CONDUIT IS UNAVOIDABLE (I.E., NONMETALLIC CONDUIT PROHIBITED BY LOCAL CODE) THE GROUND CONDUCTOR SHALL BE BONDED TO EACH END OF THE METAL CONDUIT.
- ALL GROUNDS THAT TRANSITION FROM BELOW GRADE TO ABOVE GRADE MUST BE #2 BARE SOLID TINNED COPPER IN 3/4" NON-METALLIC, FLEXIBLE CONDUIT FROM 24" BELOW GRADE TO WITHIN 3" TO 6" OF CAD-WELD TERMINATION POINT. THE EXPOSED END OF THE CONDUIT MUST BE SEALED WITH SILICONE CAULK. (ADD TRANSITIONING GROUND STANDARD DETAIL AS WELL).
- BUILDINGS WHERE THE MAIN GROUNDING CONDUCTORS ARE REQUIRED TO BE ROUTED TO GRADE, THE CONTRACTOR SHALL ROUTE TWO GROUNDING CONDUCTORS FROM THE ROOFTOP, TOWERS, AND WATER TOWERS GROUNDING RING, TO THE EXISTING GROUNDING SYSTEM, THE BUILDING STEEL COLUMNS, LIGHTNING PROTECTION SYSTEM, AND BUILDING MAIN WATER LINE (FERROUS OR NONFERROUS METAL PIPING ONLY).

GENERAL NOTES:

- FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY:
CONTRACTOR: GENERAL CONTRACTOR RESPONSIBLE FOR CONSTRUCTION
CARRIER: VERIZON
TOWER OWNER: CROWN CASTLE USA INC.
- THESE DRAWINGS HAVE BEEN PREPARED USING STANDARDS OF PROFESSIONAL CARE AND COMPLETENESS NORMALLY EXERCISED UNDER SIMILAR CIRCUMSTANCES BY REPUTABLE ENGINEERS IN THIS OR SIMILAR LOCALITIES. IT IS ASSUMED THAT THE WORK DEPICTED WILL BE PERFORMED BY AN EXPERIENCED CONTRACTOR AND/OR WORKPEOPLE WHO HAVE A WORKING KNOWLEDGE OF THE APPLICABLE CODE STANDARDS AND REQUIREMENTS AND OF INDUSTRY ACCEPTED STANDARD GOOD PRACTICE. AS NOT EVERY CONDITION OR ELEMENT IS (OR CAN BE) EXPLICITLY SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL USE INDUSTRY ACCEPTED STANDARD GOOD PRACTICE FOR MISCELLANEOUS WORK NOT EXPLICITLY SHOWN.
- THESE DRAWINGS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE MEANS OR METHODS OF CONSTRUCTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY FOR PROTECTION OF LIFE AND PROPERTY DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO, BRACING, FORMWORK, SHORING, ETC. SITE VISITS BY THE ENGINEER OR HIS REPRESENTATIVE WILL NOT INCLUDE INSPECTION OF THESE ITEMS AND IS FOR STRUCTURAL OBSERVATION OF THE FINISHED STRUCTURE ONLY.
- NOTES AND DETAILS IN THE CONSTRUCTION DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS. WHERE NO DETAILS ARE SHOWN, CONSTRUCTION SHALL CONFORM TO SIMILAR WORK ON THE PROJECT, AND/OR AS PROVIDED FOR IN THE CONTRACT DOCUMENTS. WHERE DISCREPANCIES OCCUR BETWEEN PLANS, DETAILS, GENERAL NOTES, AND SPECIFICATIONS, THE GREATER, MORE STRICT REQUIREMENTS, SHALL GOVERN. IF FURTHER CLARIFICATION IS REQUIRED CONTACT THE ENGINEER OF RECORD.
- SUBSTANTIAL EFFORT HAS BEEN MADE TO PROVIDE ACCURATE DIMENSIONS AND MEASUREMENTS ON THE DRAWINGS TO ASSIST IN THE FABRICATION AND/OR PLACEMENT OF CONSTRUCTION ELEMENTS BUT IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY THE DIMENSIONS, MEASUREMENTS, AND/OR CLEARANCES SHOWN IN THE CONSTRUCTION DRAWINGS PRIOR TO FABRICATION OR CUTTING OF ANY NEW OR EXISTING CONSTRUCTION ELEMENTS. IF IT IS DETERMINED THAT THERE ARE DISCREPANCIES AND/OR CONFLICTS WITH THE CONSTRUCTION DRAWINGS THE ENGINEER OF RECORD IS TO BE NOTIFIED AS SOON AS POSSIBLE.
- PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING CONTRACTOR SHALL VISIT THE CELL SITE TO FAMILIARIZE WITH THE EXISTING CONDITIONS AND TO CONFIRM THAT THE WORK CAN BE ACCOMPLISHED AS SHOWN ON THE CONSTRUCTION DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE ATTENTION OF CROWN CASTLE.
- ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES. CONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
- UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
- THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
- IF THE SPECIFIED EQUIPMENT CAN NOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY THE CARRIER AND CROWN CASTLE PRIOR TO PROCEEDING WITH ANY SUCH CHANGE OF INSTALLATION.
- CONTRACTOR IS TO PERFORM A SITE INVESTIGATION AND IS TO DETERMINE THE BEST ROUTING OF ALL CONDUITS FOR POWER, AND TELCO AND FOR GROUNDING CABLES AS SHOWN IN THE POWER, TELCO, AND GROUNDING PLAN DRAWINGS.
- THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF CROWN CASTLE USA INC.
- CONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.
- CONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION. TRASH AND DEBRIS SHOULD BE REMOVED FROM SITE ON A DAILY BASIS.

CONCRETE, FOUNDATIONS, AND REINFORCING STEEL:

- ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 301, ACI 318, ACI 336, ASTM A184, ASTM A185 AND THE DESIGN AND CONSTRUCTION SPECIFICATION FOR CAST-IN-PLACE CONCRETE.
- UNLESS NOTED OTHERWISE, SOIL BEARING PRESSURE USED FOR DESIGN OF SLABS AND FOUNDATIONS IS ASSUMED TO BE 1000 psi.
- ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH (f'c) OF 3000 psi AT 28 DAYS, UNLESS NOTED OTHERWISE. NO MORE THAN 90 MINUTES SHALL ELAPSE FROM BATCH TIME TO TIME OF PLACEMENT UNLESS APPROVED BY THE ENGINEER OF RECORD. TEMPERATURE OF CONCRETE SHALL NOT EXCEED 90°F AT TIME OF PLACEMENT.
- CONCRETE EXPOSED TO FREEZE-THAW CYCLES SHALL CONTAIN AIR ENTRAINING ADMIXTURES. AMOUNT OF AIR ENTRAINMENT TO BE BASED ON SIZE OF AGGREGATE AND F3 CLASS EXPOSURE (VERY SEVERE). CEMENT USED TO BE TYPE II PORTLAND CEMENT WITH A MAXIMUM WATER-TO-CEMENT RATIO (W/C) OF 0.45.
- ALL STEEL REINFORCING SHALL CONFORM TO ASTM A615. ALL WELDED WIRE FABRIC (WWF) SHALL CONFORM TO ASTM A185. ALL SPLICES SHALL BE CLASS "B" TENSION SPLICES, UNLESS NOTED OTHERWISE. ALL HOOKS SHALL BE STANDARD 90 DEGREE HOOKS, UNLESS NOTED OTHERWISE. YIELD STRENGTH (Fy) OF STANDARD DEFORMED BARS ARE AS FOLLOWS:
#4 BARS AND SMALLER 40 ksi
#5 BARS AND LARGER 60 ksi
- THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL UNLESS SHOWN OTHERWISE ON DRAWINGS:
CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH 3"
CONCRETE EXPOSED TO EARTH OR WEATHER:
#6 BARS AND LARGER 2"
#5 BARS AND SMALLER 1-1/2"
CONCRETE NOT EXPOSED TO EARTH OR WEATHER:
SLAB AND WALLS 3/4"
BEAMS AND COLUMNS 1-1/2"
- A TOOL-EDGE OR A 3/4" CHAMFER SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE, UNLESS NOTED OTHERWISE, IN ACCORDANCE WITH ACI 301 SECTION 4.2.4.

ELECTRICAL INSTALLATION NOTES:

- ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, NEC AND ALL APPLICABLE FEDERAL, STATE, AND LOCAL CODES/ORDINANCES.
- CONDUIT ROUTINGS ARE SCHEMATIC. CONTRACTOR SHALL INSTALL CONDUITS SO THAT ACCESS TO EQUIPMENT IS NOT BLOCKED AND TRIP HAZARDS ARE ELIMINATED.
- WIRING, RACEWAY AND SUPPORT METHODS AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE NEC.
- ALL CIRCUITS SHALL BE SEGREGATED AND MAINTAIN MINIMUM CABLE SEPARATION AS REQUIRED BY THE NEC.
4.1. ALL EQUIPMENT SHALL BEAR THE UNDERWRITERS LABORATORIES LABEL OF APPROVAL, AND SHALL CONFORM TO REQUIREMENT OF THE NATIONAL ELECTRICAL CODE.
- ALL OVERCURRENT DEVICES SHALL HAVE AN INTERRUPTING CURRENT RATING THAT SHALL BE GREATER THAN THE SHORT CIRCUIT CURRENT TO WHICH THEY ARE SUBJECTED, 22,000 ACI MINIMUM. VERIFY AVAILABLE SHORT CIRCUIT CURRENT DOES NOT EXCEED THE RATING OF ELECTRICAL EQUIPMENT IN ACCORDANCE WITH ARTICLE 110.24 NEC OR THE MOST CURRENT ADOPTED CODE PRE THE GOVERNING JURISDICTION.
- EACH END OF EVERY POWER PHASE CONDUCTOR, GROUNDING CONDUCTOR, AND TELCO CONDUCTOR OR CABLE SHALL BE LABELED WITH COLOR-CODED INSULATION OR ELECTRICAL TAPE (3M BRAND, 1/2" PLASTIC ELECTRICAL TAPE WITH UV PROTECTION, OR EQUAL). THE IDENTIFICATION METHOD SHALL CONFORM WITH NEC AND OSHA.
- ALL ELECTRICAL COMPONENTS SHALL BE CLEARLY LABELED WITH LAMICOID TAGS SHOWING THEIR RATED VOLTAGE, PHASE CONFIGURATION, WIRE CONFIGURATION, POWER OR AMPACITY RATING AND BRANCH CIRCUIT ID NUMBERS (I.E. PANEL BOARD AND CIRCUIT ID'S).
- PANEL BOARDS (ID NUMBERS) SHALL BE CLEARLY LABELED WITH PLASTIC LABELS.
- ALL THE WRAPS SHALL BE CUT FLUSH WITH APPROVED CUTTING TOOL TO REMOVE SHARP EDGES.
- ALL POWER AND EQUIPMENT GROUND WIRING IN TUBING OR CONDUIT SHALL BE SINGLE COPPER CONDUCTOR (#14 OR LARGER) WITH TYPE THHW, THWN, THWN-2, XHHW, XHHW-2, THW, THW-2, RHW, OR RHW-2 INSULATION UNLESS OTHERWISE SPECIFIED.
- SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED INDOORS SHALL BE SINGLE COPPER CONDUCTOR (#6 OR LARGER) WITH TYPE THHW, THWN, THWN-2, XHHW, XHHW-2, THW, THW-2, RHW, OR RHW-2 INSULATION UNLESS OTHERWISE SPECIFIED.
- POWER AND CONTROL WIRING IN FLEXIBLE CORD SHALL BE MULTI-CONDUCTOR, TYPE SOOW CORD (#14 OR LARGER) UNLESS OTHERWISE SPECIFIED.
- POWER AND CONTROL WIRING FOR USE IN CABLE TRAY SHALL BE MULTI-CONDUCTOR, TYPE TC CABLE (#14 OR LARGER), WITH TYPE THHW, THWN, THWN-2, XHHW, XHHW-2, THW, THW-2, RHW, OR RHW-2 INSULATION UNLESS OTHERWISE SPECIFIED.
- ALL POWER AND GROUNDING CONNECTIONS SHALL BE CRIMP-STYLE, COMPRESSION WIRE LUGS AND WIRE NUTS BY THOMAS AND BETTS (OR EQUAL). LUGS AND WIRE NUTS SHALL BE RATED FOR OPERATION NOT LESS THAN 75° C (90° C IF AVAILABLE).
- RACEWAY AND CABLE TRAY SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND NEC.
- ELECTRICAL METALLIC TUBING (EMT), INTERMEDIATE METAL CONDUIT (IMC), OR RIGID METAL CONDUIT (RMC) SHALL BE USED FOR EXPOSED INDOOR LOCATIONS.
- ELECTRICAL METALLIC TUBING (EMT) OR METAL-CLAD CABLE (MCC) SHALL BE USED FOR CONCEALED INDOOR LOCATIONS.
- SCHEDULE 40 PVC UNDERGROUND ON STRAIGHTS AND SCHEDULE 80 PVC FOR ALL ELBOWS/90s AND ALL APPROVED ABOVE GRADE PVC CONDUIT.
- LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT (LIQUID-TITE FLEX) SHALL BE USED INDOORS AND OUTDOORS, WHERE VIBRATION OCCURS OR FLEXIBILITY IS NEEDED.
- CONDUIT AND TUBING FITTINGS SHALL BE THREADED OR COMPRESSION-TYPE AND APPROVED FOR THE LOCATION USED. SET SCREW FITTINGS ARE NOT ACCEPTABLE.
- CABINETS, BOXES AND WIRE WAYS SHALL BE LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND THE NEC.
- WIREWAYS SHALL BE METAL WITH AN ENAMEL FINISH AND INCLUDE A HINGED COVER, DESIGNED TO SWING OPEN DOWNWARDS (WIREMOLDED SPECIMATE WIREWAY).
- SLOTTED WIRING DUCT SHALL BE PVC AND INCLUDE COVER (PANDUIT TYPE E OR EQUAL).
- CONDUITS SHALL BE FASTENED SECURELY IN PLACE WITH APPROVED NON-PERFORATED STRAPS AND HANGERS. EXPLOSIVE DEVICES (I.E. POWDER-ACTUATED) FOR ATTACHING HANGERS TO STRUCTURE WILL NOT BE PERMITTED. CLOSELY FOLLOW THE LINES OF THE STRUCTURE, MAINTAIN CLOSE PROXIMITY TO THE STRUCTURE AND KEEP CONDUITS IN TIGHT ENVELOPES. CHANGES IN DIRECTION TO ROUTE AROUND OBSTACLES SHALL BE MADE WITH CONDUIT OUTLET BODIES. CONDUIT SHALL BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER, PARALLEL AND PERPENDICULAR TO STRUCTURE WALL AND CEILING LINES. ALL CONDUIT SHALL BE FISHED TO CLEAR OBSTRUCTIONS. ENDS OF CONDUITS SHALL BE TEMPORARILY CAPPED FLUSH TO FINISH GRADE TO PREVENT CONCRETE, PLASTER OR DIRT FROM ENTERING. CONDUITS SHALL BE RIGIDLY CLAMPED TO BOXES BY GALVANIZED MALLEABLE IRON BUSHING ON INSIDE AND GALVANIZED MALLEABLE IRON LOCKNUT ON OUTSIDE AND INSIDE.
- EQUIPMENT CABINETS, TERMINAL BOXES, JUNCTION BOXES AND PULL BOXES SHALL BE GALVANIZED OR EPOXY-COATED SHEET STEEL. SHALL MEET OR EXCEED UL 50 AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND NEMA 3R (OR BETTER) FOR EXTERIOR LOCATIONS.
- METAL RECEPTACLE, SWITCH AND DEVICE BOXES SHALL BE GALVANIZED, EPOXY-COATED OR NON-CORRODING; SHALL MEET OR EXCEED UL 514A AND NEMA OS 1 AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND WEATHER PROTECTED (WP OR BETTER) FOR EXTERIOR LOCATIONS.
- NONMETALLIC RECEPTACLE, SWITCH AND DEVICE BOXES SHALL MEET OR EXCEED NEMA OS 2 (NEWEEST REVISION) AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND WEATHER PROTECTED (WP OR BETTER) FOR EXTERIOR LOCATIONS.
- THE CONTRACTOR SHALL NOTIFY AND OBTAIN NECESSARY AUTHORIZATION FROM THE CARRIER AND/OR CROWN CASTLE USA INC. BEFORE COMMENCING WORK ON THE AC POWER DISTRIBUTION PANELS.
- THE CONTRACTOR SHALL PROVIDE NECESSARY TAPPING ON THE BREAKERS, CABLES AND DISTRIBUTION PANELS IN ACCORDANCE WITH THE APPLICABLE CODES AND STANDARDS TO SAFEGUARD LIFE AND PROPERTY.
- INSTALL LAMICOID LABEL ON THE METER CENTER TO SHOW "VERIZON".
- ALL EMPTY/SPARE CONDUITS THAT ARE INSTALLED ARE TO HAVE A METERED MULE TAPE PULL CORD INSTALLED.

CONDUCTOR COLOR CODE		
SYSTEM	CONDUCTOR	COLOR
120/240V, 1Ø	A PHASE	BLACK
	B PHASE	RED
	NEUTRAL	WHITE
	GROUND	GREEN
	A PHASE	BLACK
120/208V, 3Ø	B PHASE	RED
	C PHASE	BLUE
	NEUTRAL	WHITE
	GROUND	GREEN
	A PHASE	BROWN
277/480V, 3Ø	B PHASE	ORANGE OR PURPLE
	C PHASE	YELLOW
	NEUTRAL	GREY
	GROUND	GREEN
	POS (+)	RED**
DC VOLTAGE	NEG (-)	BLACK**

* SEE NEC 210.5(C)(1) AND (2)
** POLARITY MARKED AT TERMINATION

ABBREVIATIONS:

ANT	ANTENNA
(E)	EXISTING
FI	FACILITY INTERFACE FRAME
GEN	GENERATOR
GPS	GLOBAL POSITIONING SYSTEM
GSN	GLOBAL SYSTEM FOR MOBILE
LTE	LONG TERM EVOLUTION
MGB	MASTER GROUND BAR
WW	WIREWAY
(N)	NEW
NEC	NATIONAL ELECTRIC CODE
(P)	PROPOSED
PP	POWER PLANT
QTY	QUANTITY
RECT	RECTIFIER
RBS	RADIO BASE STATION
RET	REMOTE ELECTRIC TILT
RFDS	RADIO FREQUENCY DATA SHEET
RRH	REMOTE RADIO HEAD
RRU	REMOTE RADIO UNIT
SAD	SMART INTEGRATED DEVICE
TWA	TOWER MOUNTED AMPLIFIER
TYP	TYPICAL
UMTS	UNIVERSAL MOBILE TELECOMMUNICATIONS SYSTEM
W.P.	WORK POINT



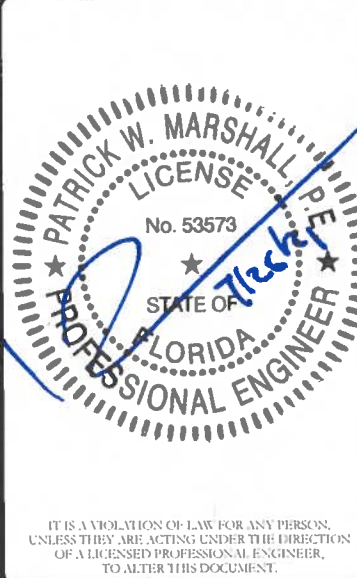
VERIZON SITE NUMBER:
585456

BU #: 809328
LAKE CITY W J-FL-012-058

555 HACKNEY LANE
LAKE CITY, FL 32055

EXISTING 254'-0"
SELF-SUPPORT TOWER

ISSUED FOR:				
REV	DATE	DRWN	DESCRIPTION	DWG/QTY
A	5/27/2021	CW	LEASE EXHIBIT ISSUE	CW
0	6/10/2021	CW	ISSUED FOR PRELIMS	CW
1	7/23/2021	CW	ISSUED FOR FINALS	CW



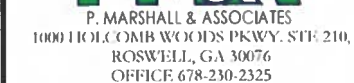
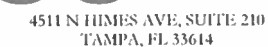
IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

SHEET NUMBER:	REVISION:
GN-1	1

PROPERTY LINES AND STRUCTURES HAVE BEEN DIGITIZED FROM PREVIOUS PLAN SETS OR FROM ASSESSORS MAPS. PM&A HAS NOT COMPLETED A SITE SURVEY AND THEREFORE MAKES NO CLAIMS AS TO THE ACCURACY OF INFORMATION DEPICTED ON THIS SHEET. CONTRACTOR SHALL FIELD VERIFY SITE PLAN & EQUIPMENT SHOWN AGAINST PRESENT FIELD CONDITIONS. IF PLANS DO NOT MATCH UP WITH SITE CONDITION AT TIME OF CONSTRUCTION, CONTACT VERIZON AND THE CROWN CASTLE CM.



7701 E. TELECOM PKWY.
TEMPLE TERRACE, FL 33637



555 HACKNEY LANE
LAKE CITY, FL 32055

EXISTING 254'-0"
SELF-SUPPORT TOWER

REV	DATE	DRWN	DESCRIPTION	DFS/Q
A	5/27/2021	CW	LEASE EXHIBIT ISSUE	CW
0	6/10/2021	CW	ISSUED FOR PRELIMS	CW
1	7/23/2021	CW	ISSUED FOR FINALS	CW

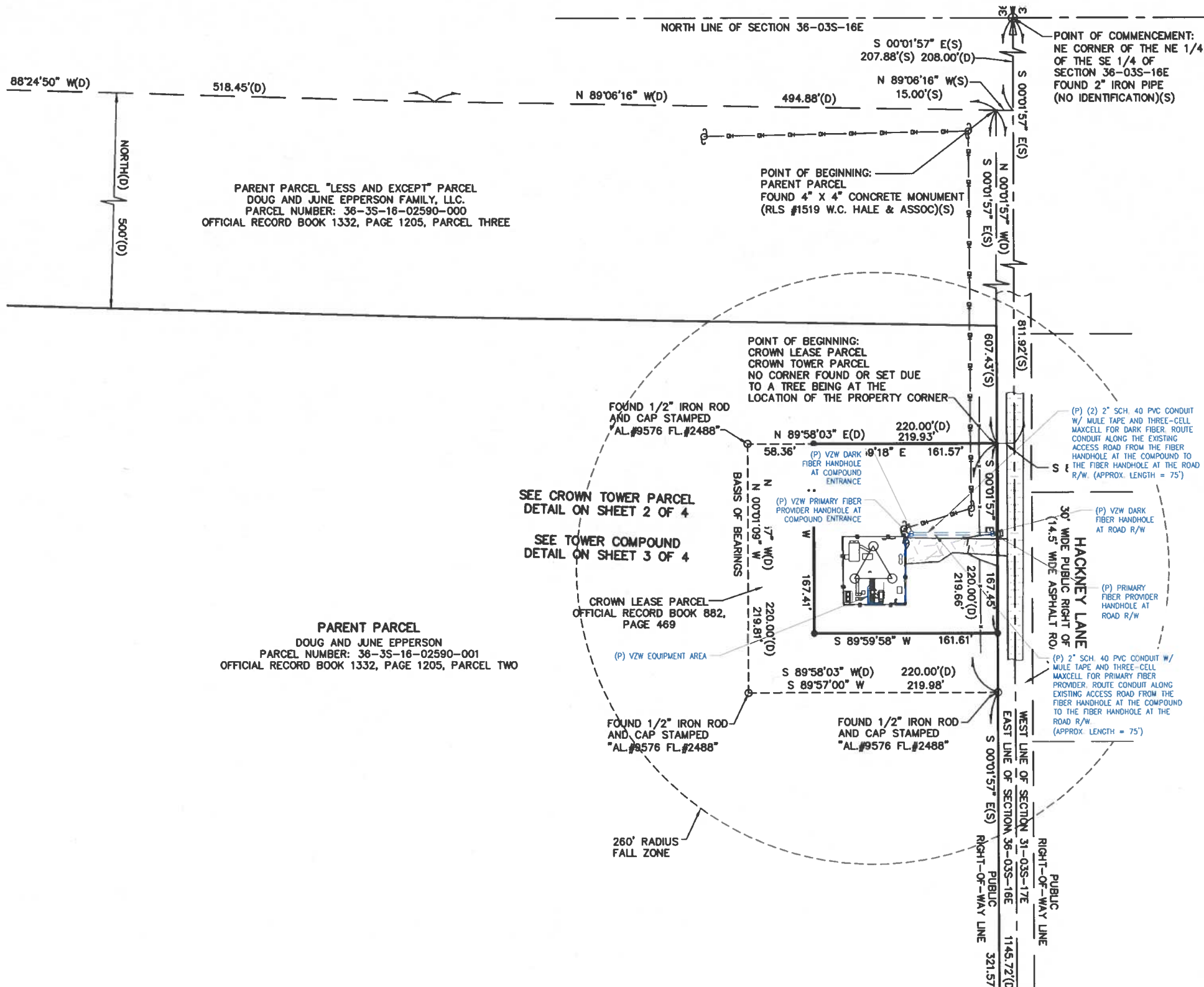


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UNLESS THEY ARE ACTING UNDER THE DIRECTION
OF A LICENSED PROFESSIONAL ENGINEER,
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C-1

1

SITE PLAN DISCLAIMER:
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7701 E. TELECOM PKWY.
TEMPLE TERRACE, FL 33637

CROWN CASTLE
4511 N HIMES AVE, SUITE 210
TAMPA, FL 33614

PM&A
P. MARSHALL & ASSOCIATES
1000 HOLCOMB WOODS PKWY, STE 210,
ROSWELL, GA 30076
OFFICE 678-230-2325

VERIZON SITE NUMBER:
585456

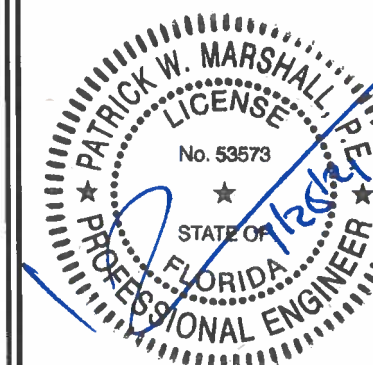
BU #: 809328
LAKE CITY W J-FL-012-058

555 HACKNEY LANE
LAKE CITY, FL 32055

EXISTING 254'-0"
SELF-SUPPORT TOWER

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DPS / QA
A	5/27/2021	CW	LEASE EXHIBIT ISSUE	CW
0	6/10/2021	CW	ISSUED FOR PRELIMS	CW
1	7/23/2021	CW	ISSUED FOR FINALS	CW

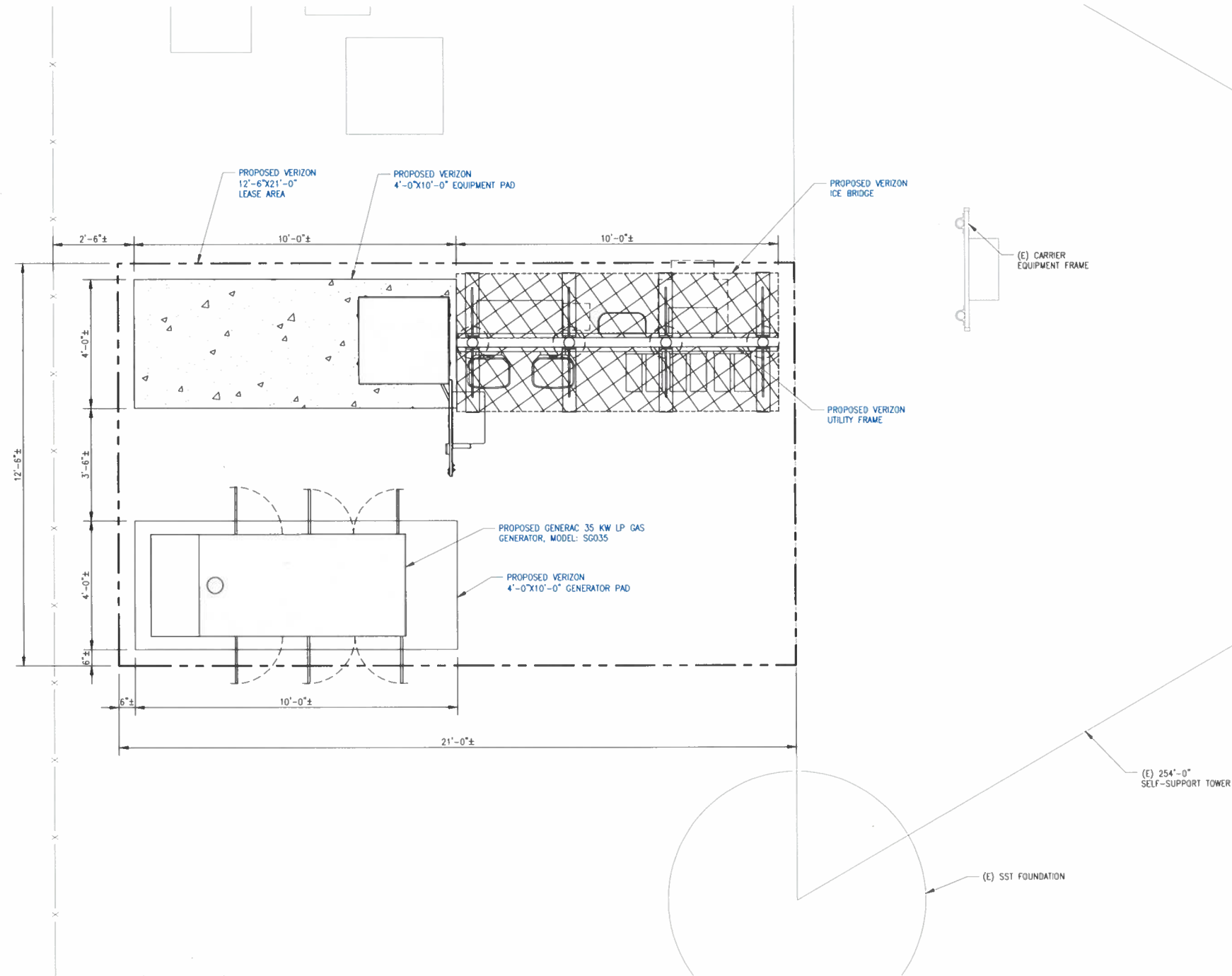


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SHEET NUMBER: REVISION:

C-1.1 1

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1 EQUIPMENT SITE PLAN
SCALE: 1/2"=1'-0" (FULL SIZE)
1/4"=1'-0" (11x17)



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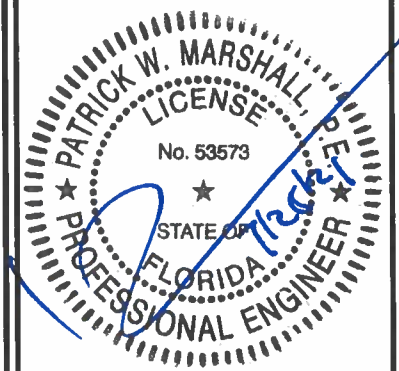
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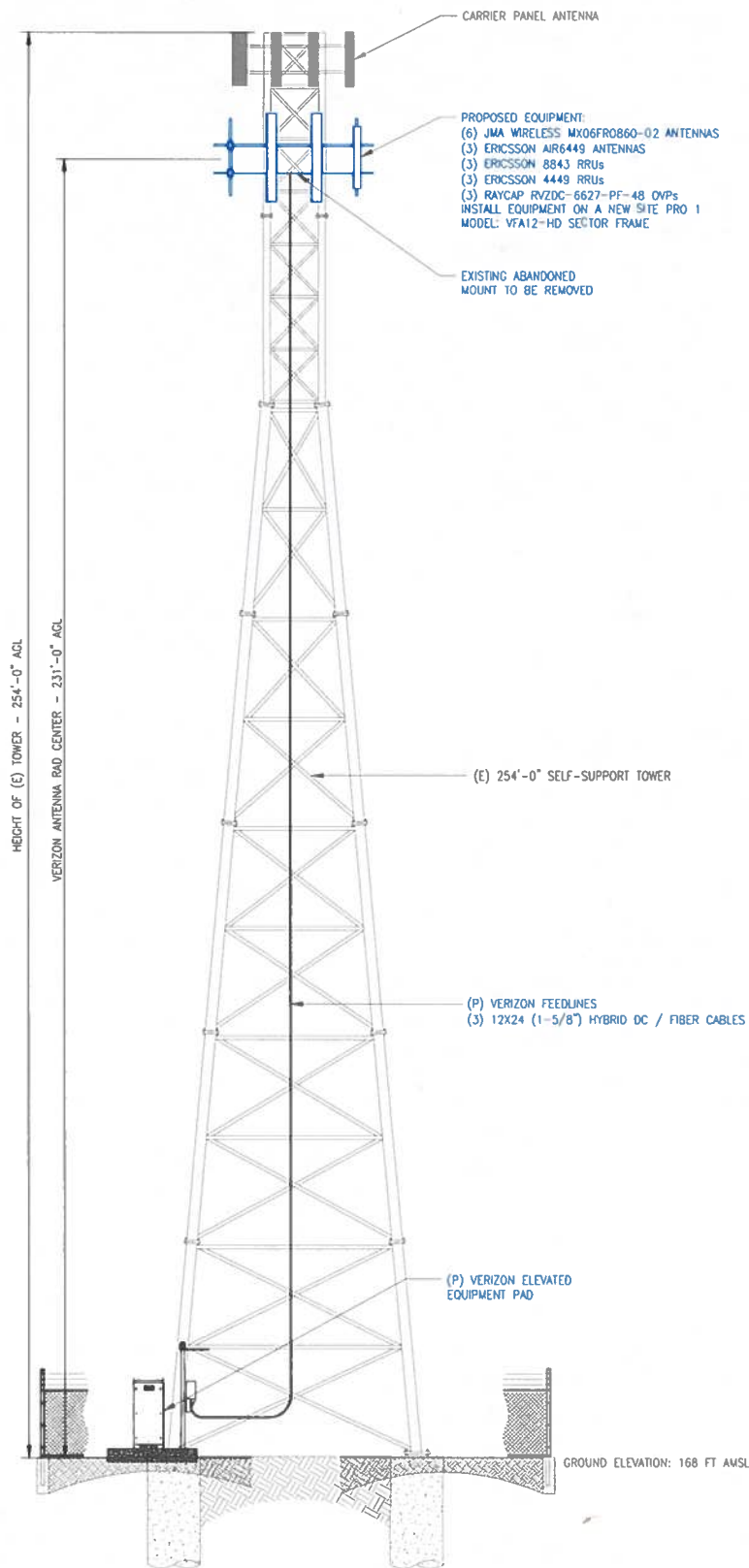
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SHEET NUMBER: **C-2**
REVISION: **1**

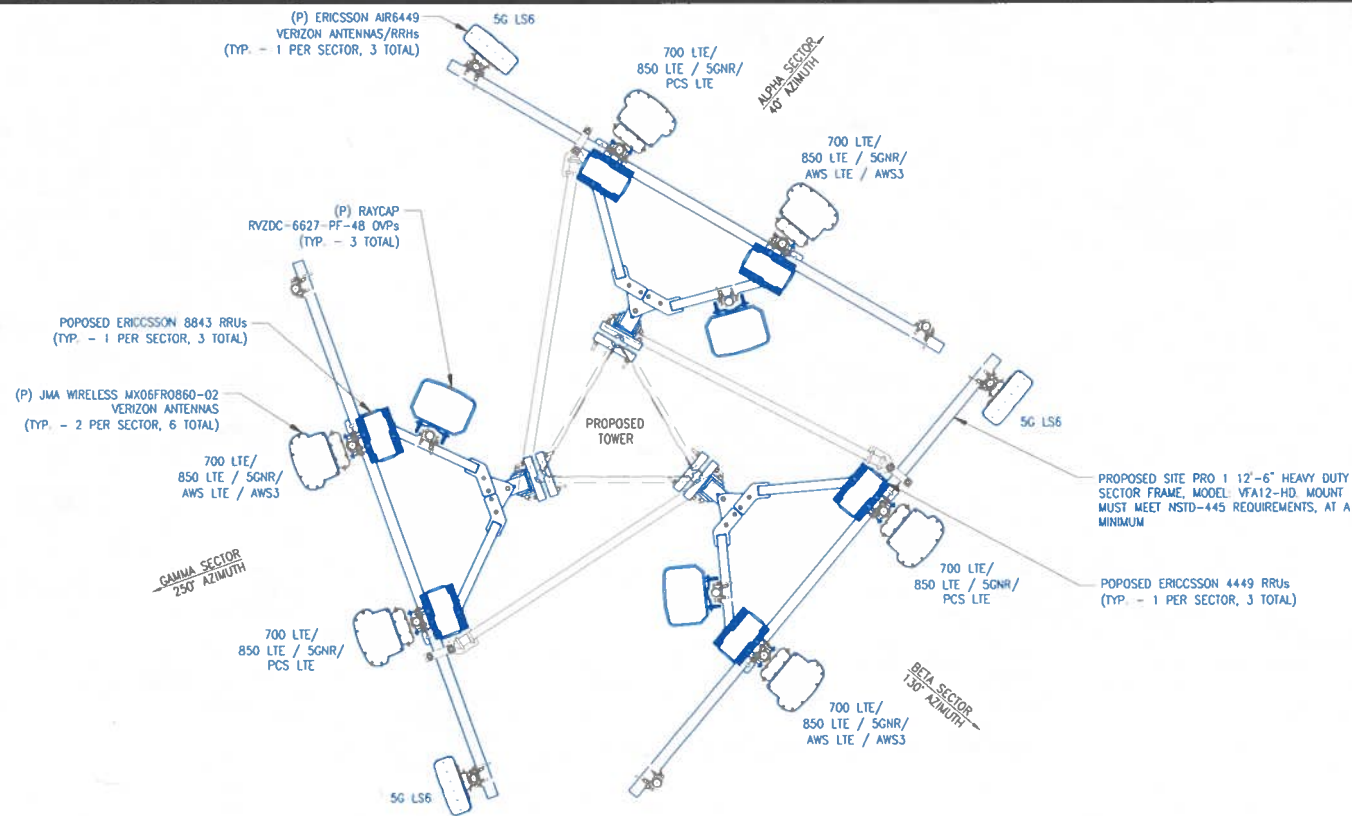
VERIZON EQUIPMENT

ANTENNA CL: 231'-0"
MOUNT CL: 231'-0"

ANY AND ALL TOWER
MOUNTED EQUIPMENT MUST
NOT TRAP OR INTERFERE W/
EXISTING SAFETY CLIMB



1 TOWER ELEVATION
SCALE: NOT TO SCALE



FINAL ANTENNA & CABLE CONFIGURATION

RAD CENTER	SECTOR	AZIMUTH (DEGREES)	QUANTITY	5G LS6 (6 GHz) ANTENNAS	MECH. DOWNTILT	MOUNT	COAX SIZE & QUANTITY	HYBRID CABLE SIZE & QUANT.
231'	1	40°	1	(P) ERICSSON AIR6449 ANTENNA/RRH UNIT	0	(P) SECTOR MOUNT	-	(P) (3) 12X24 HYBRID DC / FIBER CABLES
	2	130°	1	(P) ERICSSON AIR6449 ANTENNA/RRH UNIT	0			
	3	250°	1	(P) ERICSSON AIR6449 ANTENNA/RRH UNIT	0			
RAD CENTER	SECTOR	AZIMUTH (DEGREES)	QUANTITY	AWS LTE / AWS3 (2100 MHZ) ANTENNAS	MECH. DOWNTILT	MOUNT	COAX SIZE & QUANTITY	(P) (3) 12X24 HYBRID DC / FIBER CABLES
231'	1	40°	1	(P) JMA MX06FRO860-02	0	(P) SECTOR MOUNT	-	
	2	130°	1	(P) JMA MX06FRO860-02	0			
	3	250°	1	(P) JMA MX06FRO860-02	0			
RAD CENTER	SECTOR	AZIMUTH (DEGREES)	QUANTITY	850 LTE / 850 5G NR (850 MHZ) ANTENNAS	MECH. DOWNTILT	MOUNT	COAX SIZE & QUANTITY	(P) (3) 1X2 HYBRID DC / FIBER JUMPER FOR 8843 RRHs
231'	1	40°	SHARED	SHARED W/ 700 LTE/ 850 LTE	0	(P) SECTOR MOUNT	-	
	2	130°	SHARED	SHARED W/ 700 LTE/ 850 LTE	0			
	3	250°	SHARED	SHARED W/ 700 LTE/ 850 LTE	0			
RAD CENTER	SECTOR	AZIMUTH (DEGREES)	QUANTITY	700 LTE (700 MHZ) ANTENNAS	MECH. DOWNTILT	MOUNT	COAX SIZE & QUANTITY	(P) (3) 1X2 HYBRID DC / FIBER JUMPER FOR 4449 RRHs
231'	1	40°	1	(P) JMA MX06FRO860-02	0	(P) SECTOR MOUNT	-	
	2	130°	1	(P) JMA MX06FRO860-02	0			
	3	250°	1	(P) JMA MX06FRO860-02	0			
RAD CENTER	SECTOR	AZIMUTH (DEGREES)	QUANTITY	PCS LTE (1900 MHZ) ANTENNAS	MECH. DOWNTILT	MOUNT	COAX SIZE & QUANTITY	(P) (3) 1X4 HYBRID DC / FIBER JUMPER FOR AIR6449 ANTENNA / RRHs
231'	1	40°	SHARED	SHARED W/ 700 LTE/ 850 LTE	0	(P) SECTOR MOUNT	-	
	2	130°	SHARED	SHARED W/ 700 LTE/ 850 LTE	0			
	3	250°	SHARED	SHARED W/ 700 LTE/ 850 LTE	0			
QUANTITY				OVPs				
3				(P) RAYCAP RCWDC-6627-PF-48 OVP (EQUIP. LEVEL)				
3				(P) RAYCAP RCWDC-6627-PF-48 OVP (ANTENNA LEVEL)				
QUANTITY				RRHs				
3				(P) ERICSSON 4449 RRU (ANTENNA LEVEL)				
3				(P) ERICSSON 8843 RRU (ANTENNA LEVEL)				

NOTE:
DIRECT TOWER MOUNTED EQUIPMENT
MUST NOT TRAP OR INTERFERE WITH
CLIMBING PEGS/STEPS AND SAFETY
CLIMB. DO NOT OBSTRUCT BEACON
IF TOWER LIT.

NOTE:
NEW EQUIPMENT CANNOT BE
MOUNTED TO TOWER. RELOCATE
EXISTING TOWER MOUNTED
EQUIPMENT TO CUSTOMER MOUNT.

TOWER & ANTENNA STANDARD NOTES:

- TOWER STRUCTURAL ANALYSIS BY N/A, DATED N/A, PROJECT # N/A, NO NEW ANTENNAS OR EQUIPMENT INSTALLED WITHOUT APPROVAL OF STRUCTURAL ENGINEER AND CROWN CASTLE.
- MOUNT ANALYSIS BY N/A, DATED N/A, PROJECT # N/A, NO NEW MOUNTS OR MOUNT REINFORCEMENT INSTALLED WITHOUT APPROVAL OF STRUCTURAL ENGINEER AND CROWN CASTLE.
- INSTALLED EQUIPMENT MUST HAVE A MATCHING CROWN APPLICATION AND STRUCTURAL ANALYSIS.
- VERIFY AZIMUTHS WITH RFDS.
- 2' ANTENNA SEPARATION REQUIRED. CONTRACTOR TO MOVE (E) ANTENNAS TO ENDS OF MOUNT AS REQUIRED.
- MOUNT COMPLIANCE IS BY OTHERS. NO NEW ANTENNAS OR EQUIPMENT INSTALLED ON MOUNTS WITHOUT THE APPROVAL OF A STRUCTURAL ENGINEER.
- PRIOR TO ATTACHING ANTENNAS AND MOUNTING SECTIONS, (E) TOWER AND TOWER FOUNDATION MUST BE ANALYZED BY A LICENSED STRUCTURAL ENGINEER TO VERIFY TOWER IS CAPABLE OF SUPPORTING THE PROPOSED LOADS. REFER TO STRUCTURAL ANALYSIS BY OTHERS.
- PROPOSED ANTENNA PLACEMENT LOCATION TO BE FIELD VERIFIED BY GENERAL CONTRACTOR PRIOR TO CONSTRUCTION TO AVOID ANY INTERFERENCE OR SHADOWING OF EXISTING ANTENNAS. IF INTERFERENCE OR SHADOWING OF EXISTING ANTENNAS IS DISCOVERED DURING FIELD VERIFICATION, PLEASE CONTACT (A&E VENDOR) FOR DESIGN REVISION PRIOR TO ANY NEW ANTENNA INSTALLATION.
- DURING INSTALLATION, THE RADIOS ARE NOT TO EXCEED 5' FROM THE WORKING SURFACE TO THE TOP OF RADIOS.

APPLIES TO STEALTH/CONCEALMENT CANISTER TOWERS ONLY:
HURRICANE BANDING REQUIRED. 3RD PARTY INSPECTOR REQUIRED. MUST BE SCHEDULED FOR SAME DAY AS PLANNED COMPLETE DATE.
PRE-CONSTRUCTION PHOTOS ARE REQUIRED FOR SHROUDS.

APPLIES TO FLAG POLES ONLY:
LOAD PATH CONSIDERATION SHALL BE MADE AND CRITICAL COMPONENTS ANALYZED WHEN FLAG AND ROPE ARE DIRECTLY ATTACHED TO APPURTENANCES OR ANTENNAS.

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

verizon
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VERIZON SITE NUMBER:
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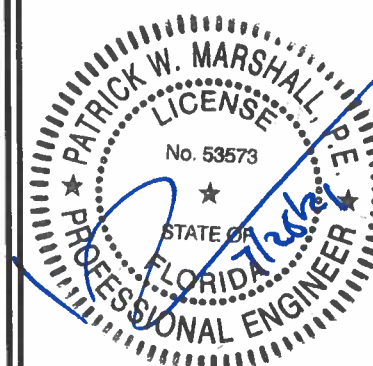
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EXISTING 254'-0"
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SHEET NUMBER: **C-3** REVISION: **1**

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CONSTRUCTION EXIT - TO REDUCE OR ELIMINATE THE TRANSPORT OF MUD FROM THE CONSTRUCTION AREA ONTO PUBLIC RIGHT-OF-WAYS, STREETS, ALLEYS, SIDEWALKS, OR PARKING AREAS.

TYPE C SEDIMENT BARRIER - TO PREVENT ANY SEDIMENT CARRIED BY SHEET FLOW FROM LEAVING THE SITE AND ENTERING NATURAL DRAINAGE WAYS OR STORM DRAINAGE SYSTEMS.

DISTURBED AREA STABILIZATION (TEMPORARY) - TO ESTABLISH A TEMPORARY VEGETATIVE COVER WITH FAST GROWING SEEDLINGS ON DISTURBED AREAS.

DISTURBED AREA STABILIZATION (PERMANENT) - TO ESTABLISH A PERMANENT VEGETATIVE COVER SUCH AS TREES, SHRUBS, VINES, GRASSES, SOD, OR LEGUMES ON DISTURBED AREAS.

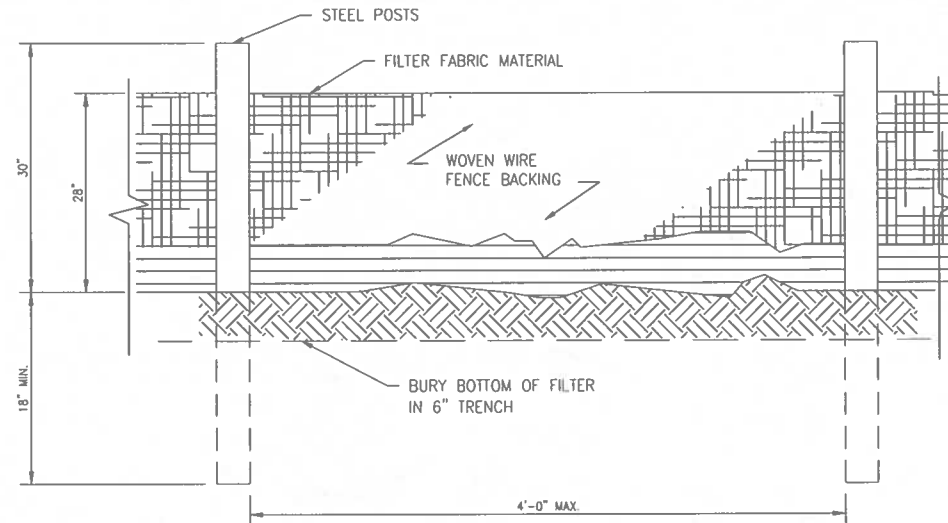
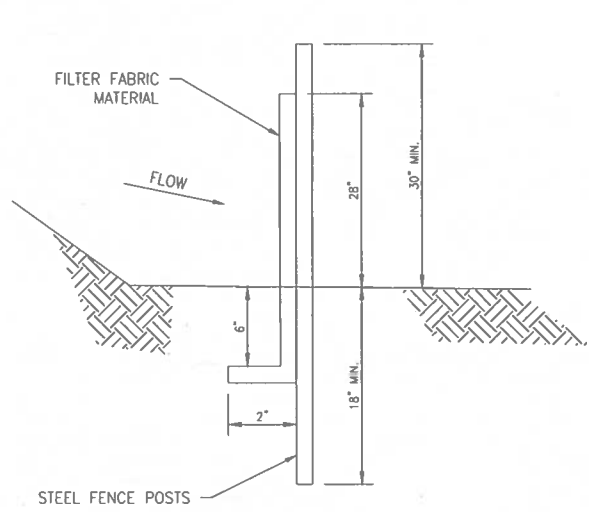
DISTURBED AREA DUST CONTROL - TO CONTROL THE SURFACE AND AIR MOVEMENT OF DUST ON CONSTRUCTION SITES, ROADWAYS, AND SIMILAR SITES.

FLOOD PLAN NOTE:
SITE APPEARS TO LIE WITHIN THE AREA SHOWN AS FLOOD ZONE "X", AREA OF MINIMAL FLOOD HAZARD PER THE FEMA NATIONAL FLOOD INSURANCE PROGRAM FLOOD INSURANCE RATE MAP FOR COMMUNITY PANEL NO. 12023C02910, DATED 11/2/2018.

DISTURBED AREAS LEFT IDLE SHALL BE STABILIZED WITH TEMPORARY VEGETATION AFTER 14 DAYS; AFTER 30 DAYS PERMANENT VEGETATION SHALL BE ESTABLISHED.

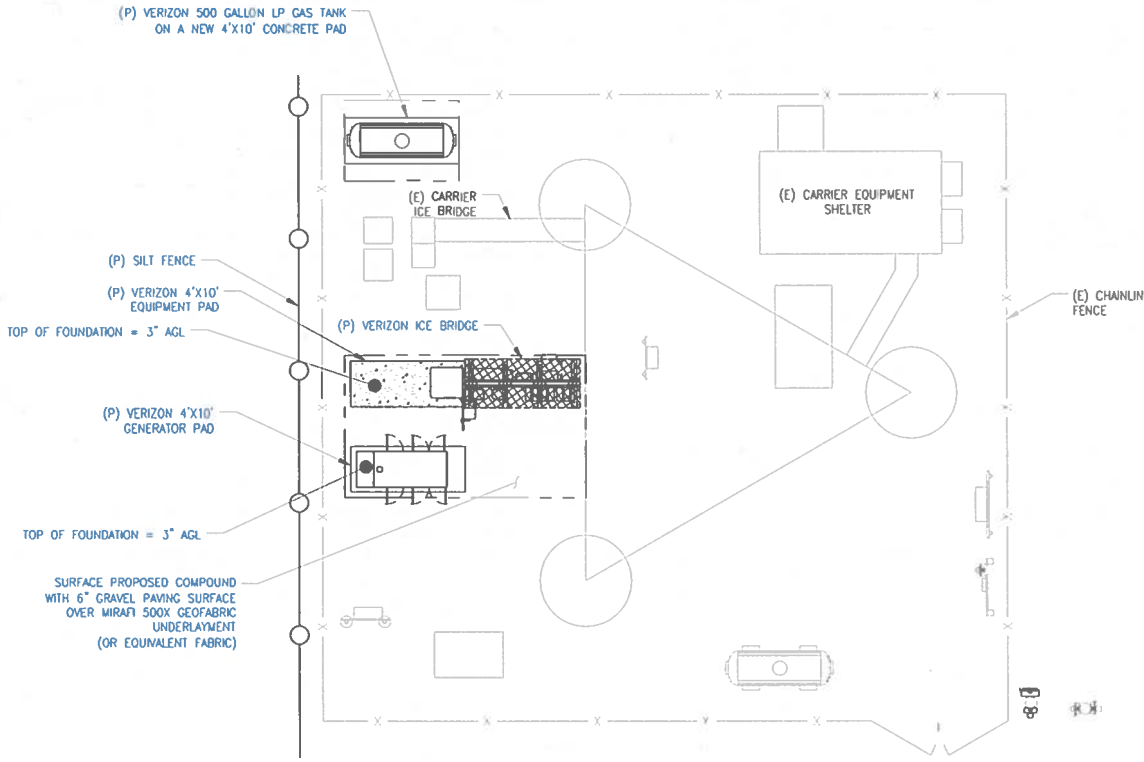
MAINTENANCE STATEMENT
EROSION CONTROL MEASURES WILL BE INSPECTED AT LEAST WEEKLY, AFTER EACH RAIN AND REPAIRED BY THE GENERAL CONTRACTOR.

ADDITIONAL EROSION CONTROL MEASURES WILL BE INSTALLED IF DEEMED NECESSARY BY ON-SITE INSPECTION.



NOTE: USE 36" DOT APPROVED FABRIC
USE STEEL POSTS

② SILT FENCE, TYPE-C
SCALE: NOT TO SCALE



① EROSION CONTROL PLAN
SCALE: 1/8"=1'-0" (FULL SIZE)
1/16"=1'-0" (11x17)

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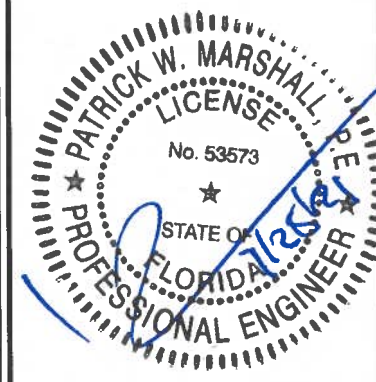
VERIZON SITE NUMBER:
585456

BU #: 809328
LAKE CITY W J-FL-012-058

555 HACKNEY LANE
LAKE CITY, FL 32055

EXISTING 254'-0"
SELF-SUPPORT TOWER

ISSUED FOR:				
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SHEET NUMBER: **C-4** REVISION: **1**

PIEDMONT VEGETATIVE COVERS

CALENDAR MONTH	TEMPORARY SEED	APPLICATION RATE/ACRE	PERMANENT SEED	APPLICATION RATE/ACRE
1. JANUARY	RYE GRASS	40-50 LB.	UNHULLED BERMUDA SERICEA LESPEDEZA	8-10 LB. 30-40 LB. ¹
2. FEBRUARY			UNHULLED BERMUDA SERICEA LESPEDEZA FESCUE	8-10 LB. 30-40 LB. 30-50 LB. ²
3. MARCH	RYE ANNUAL LESPEDEZA WEEPING LOVE GRASS	2-3 BU. 20-25 LB. 4-6 LB.	UNHULLED BERMUDA SERICEA LESPEDEZA FESCUE	8-10 LB. 30-40 LB. 30-50 LB.
4. APRIL	RYE BROWN TOP MILLET ANNUAL LESPEDEZA SUDAN ANNUAL	2-3 BU. 30-40 LB. 20-25 LB. 35 LB.	WEEPING LOVE GRASS HULLED BERMUDA BAHIA	4-6 LB. 5-6 LB. 40-60 LB.
5. MAY	WEEPING LOVE GRASS SUDAN GRASS BROWN TOP MILLET	4-6 LB. 35 LB. 30-40 LB.	WEEPING LOVE GRASS HULLED BERMUDA BAHIA	4-6 LB. 5-6 LB. 40-60 LB.
6. JUNE	WEEPING LOVE GRASS SUDAN GRASS BROWN TOP MILLET	4-6 LB. 35 LB. 30-40 LB.	WEEPING LOVE GRASS HULLED BERMUDA BAHIA	4-6 LB. 5-6 LB. 40-60 LB.
7. JULY	WEEPING LOVE GRASS SUDAN GRASS BROWN TOP MILLET	4-6 LB. 35 LB. 30-40 LB.		
8. AUGUST	RYE GRASS WEEPING LOVE GRASS	40-50 LB. 4-6 LB.		
9. SEPTEMBER			TALL FESCUE	30-50 LB.
10. OCTOBER	WHEAT	2-3 BU.	UNHULLED BERMUDA SERICEA LESPEDEZA FESCUE	8-10 LB. 30-40 LB. 30-50 LB. ²
11. NOVEMBER	WHEAT	2-3 BU.	UNHULLED BERMUDA SERICEA LESPEDEZA FESCUE	8-10 LB. 30-40 LB. 30-50 LB.
12. DECEMBER	RYE RYE GRASS WHEAT	2-3 BU. 40-50 LB. 2-3 BU.	UNHULLED BERMUDA SERICEA LESPEDEZA FESCUE	8-10 LB. 30-40 LB. 30-50 LB.

¹ USE A MINIMUM OF 40 LBS. SCARIFIED SEED. THE REMAINDER MAY BE UNSCARIFIED, CLEAN HULLED SEED.

² USE EITHER COMMON SERALA OR INTERSTATE SERICEA LESPEDEZA.

DISTURBED AREA STABILIZATION
(WITH TEMPORARY SEEDING)

DISTURBED AREA STABILIZATION
(WITH PERMANENT VEGETATION)

GENERAL

THIS VEGETATIVE PLAN WILL BE CARRIED OUT ON ROAD CUT AND FILL SLOPES, SHOULDERS, AND OTHER CRITICAL AREAS CREATED BY CONSTRUCTION. SEEDING WILL BE DONE AS SOON AS CONSTRUCTION IN AN AREA IS COMPLETED. PLANTINGS WILL BE MADE TO CONTROL EROSION, TO REDUCE DAMAGE FROM SEDIMENT AND RUNOFF TO DOWNSTREAM AREAS AND TO IMPROVE THE SAFETY AND BEAUTY OF THE DEVELOPMENT AREA.

SOIL CONDITIONS

DUE TO GRADING AND CONSTRUCTION, THE AREAS TO BE TREATED ARE MAINLY SUBSOIL AND SUBSTRATES. FERTILITY IS LOW AND THE PHYSICAL CHARACTERISTICS OF THE EXPOSED MATERIAL ARE UNFAVORABLE TO ALL BUT THE MOST HARDY PLANTS.

TREATMENT SPECIFICATIONS

HYDRAULIC SEEDING EQUIPMENT: WHEN HYDRAULIC SEEDING AND FERTILIZING EQUIPMENT IS USED, NO GRADING AND SHAPING OR SEEDBED PREPARATION WILL BE REQUIRED. THE FERTILIZER, SEED AND WOOD CELLULOSE FIBER MULCH WILL BE MIXED WITH WATER AND APPLIED IN A SLURRY. ALL SLURRY INGREDIENTS MUST BE COMBINED TO FORM A HOMOGENOUS MIXTURE, AND SPREAD UNIFORMLY OVER THE AREA WITHIN ONE HOUR AFTER MIXTURE IS MADE. STRAW OR HAY MULCH AND ASPHALT EMULSION WILL BE APPLIED WITH BLOWER-TYPE MULCH SPREADING EQUIPMENT WITHIN 24 HOURS AFTER SEEDING. THE MULCH WILL BE SPREAD UNIFORMLY OVER THE AREA, LEAVING ABOUT 25 PERCENT OF THE GROUND SURFACE EXPOSED. THE PER ACRE APPLICATION RATES ARE AS FOLLOWS:

A. SEEDING WITH MULCH: (HYDRAULIC SEEDING EQUIPMENT ON SLOPES 3:1 AND STEEPER)

AGRICULTURAL LIMESTONE #75 FERTILIZER, 5-10-15 MULCH (STRAW OR HAY) OR WOOD CELLULOSE FIBER MULCH	4000 LBS./ACRE 1500 LBS./ACRE 5000 LBS./ACRE 1000 LBS./ACRE	
SEED SPECIES	APPLICATION RATE/ACRE	PLANTING DATES
SERICEA LESPEDEZA, SCARIFIED WEEPING LOVE GRASS, OR COMMON BERMUDA, HULLED	60 LBS. 4 LBS. 6 LBS.	3/1 - 6/15
FESCUE SERICEA LESPEDEZA, UNSCARIFIED	40 LBS. 60 LBS.	9/1 - 10/31
FESCUE SERICEA LESPEDEZA, UNSCARIFIED RYE	40 LBS. 75 LBS. 50 LBS.	11/1 - 2/28
HAY MULCH FOR TEMPORARY COVER	5000 LBS.	6/15 - 8/31

B. TOP DRESSING: APPLY WHEN PLANTS ARE 2 TO 4 INCHES TALL

FERTILIZER (AMMONIUM NITRATE 33.5%) 300 LBS./ACRE

C. SECOND-YEAR TREATMENT:

FERTILIZER (0-20-20 OR EQUIVALENT) 500 LBS./ACRE

DISTURBED AREA STABILIZATION
(WITH TEMPORARY SEEDING)

DISTURBED AREA STABILIZATION
(WITH PERMANENT VEGETATION)

GENERAL

THIS VEGETATIVE PLAN WILL BE CARRIED OUT ON ROAD CUT AND FILL SLOPES, SHOULDERS, AND OTHER CRITICAL AREAS CREATED BY CONSTRUCTION. SEEDING WILL BE DONE AS SOON AS CONSTRUCTION IN AN AREA IS COMPLETED. PLANTINGS WILL BE MADE TO CONTROL EROSION, TO REDUCE DAMAGE FROM SEDIMENT AND RUNOFF TO DOWNSTREAM AREAS AND TO IMPROVE THE SAFETY AND BEAUTY OF THE DEVELOPMENT AREA.

SOIL CONDITIONS

DUE TO GRADING AND CONSTRUCTION, THE AREAS TO BE TREATED ARE MAINLY SUBSOIL AND SUBSTRATES. FERTILITY IS LOW AND THE PHYSICAL CHARACTERISTICS OF THE EXPOSED MATERIAL ARE UNFAVORABLE TO ALL BUT THE MOST HARDY PLANTS.

TREATMENT SPECIFICATIONS

CONVENTIONAL SEEDING EQUIPMENT: GRADE, SHAPE, AND SMOOTH WHERE NEEDED TO PROVIDE FOR SAFE EQUIPMENT OPERATION AT SEEDING TIME AND FOR MAINTENANCE PURPOSES. THE LIME AND FERTILIZER IN DRY FORM WILL BE SPREAD UNIFORMLY OVER THE AREA IMMEDIATELY BEFORE SEEDBED PREPARATION. A SEEDBED WILL BE PREPARED BY SCARIFYING TO A DEPTH OF 1 TO 4 INCHES AS DETERMINED ON SITE. THE SEEDBED MUST BE WELL PULVERIZED, SMOOTHED, AND FIRMED. SEEDING WILL BE DONE WITH A CULTIPACKER-SEEDER, DRILL, ROTARY SEEDER, OR OTHER MECHANICAL OR HAND SEEDER. SEED WILL BE DISTRIBUTED UNIFORMLY OVER A FRESHLY PREPARED SEEDBED AND COVERED LIGHTLY. WITHIN 24 HOURS AFTER SEEDING, STRAW OR HAY MULCH WILL BE SPREAD UNIFORMLY OVER THE AREA, LEAVING ABOUT 25 PERCENT OF THE GROUND SURFACE EXPOSED. MULCH WILL BE SPREAD WITH BLOWER-TYPE MULCH EQUIPMENT OR BY HAND AND ANCHORED IMMEDIATELY AFTER IT IS SPREAD. A DISK HARROW WITH THE DISK SET STRAIGHT OR A SPECIAL PACKER DISK MAY BE USED TO PRESS THE MULCH INTO THE SOIL. THE PER ACRE APPLICATION RATES ARE AS FOLLOWS:

A. SEEDING WITH MULCH: (CONVENTIONAL SEEDING EQUIPMENT ON SLOPES LESS THAN 3:1)

AGRICULTURAL LIMESTONE #75 FERTILIZER, 5-10-15 MULCH (STRAW OR HAY)	4000 LBS./ACRE 1500 LBS./ACRE 5000 LBS./ACRE	
SEED SPECIES	APPLICATION RATE/ACRE	PLANTING DATES
HULLED COMMON BERMUDA GRASS	10 LBS.	3/1 - 6/15
FESCUE	50 LBS.	9/1 - 10/31
FESCUE RYE GRASS	50 LBS. 50 LBS.	11/1 - 2/28
HAY MULCH FOR TEMPORARY COVER	5000 LBS.	6/15 - 8/31

B. TOP DRESSING: APPLY WHEN PLANTS ARE 2 TO 4 INCHES TALL

FERTILIZER (AMMONIUM NITRATE 33.5%) 300 LBS./ACRE

C. SECOND-YEAR TREATMENT:

FERTILIZER (5-10-15 OR EQUIVALENT) 800 LBS./ACRE



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REVISION: 1

verizon
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CASTLE**
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VERIZON SITE NUMBER:
585456

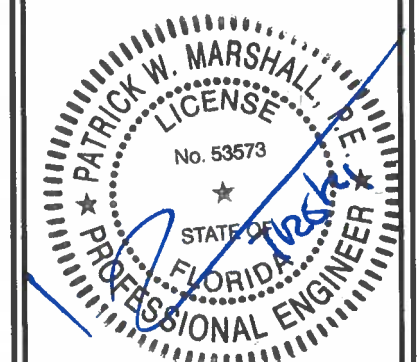
BU #: 809328
LAKE CITY W J-FL-012-058

555 HACKNEY LANE
LAKE CITY, FL 32055

EXISTING 254'-0"
SELF-SUPPORT TOWER

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES/QA
A	5/27/2021	CW	LEASE EXHIBIT ISSUE	CW
0	6/10/2021	CW	ISSUED FOR PRELIMS	CW
1	7/23/2021	CW	ISSUED FOR FINALS	CW



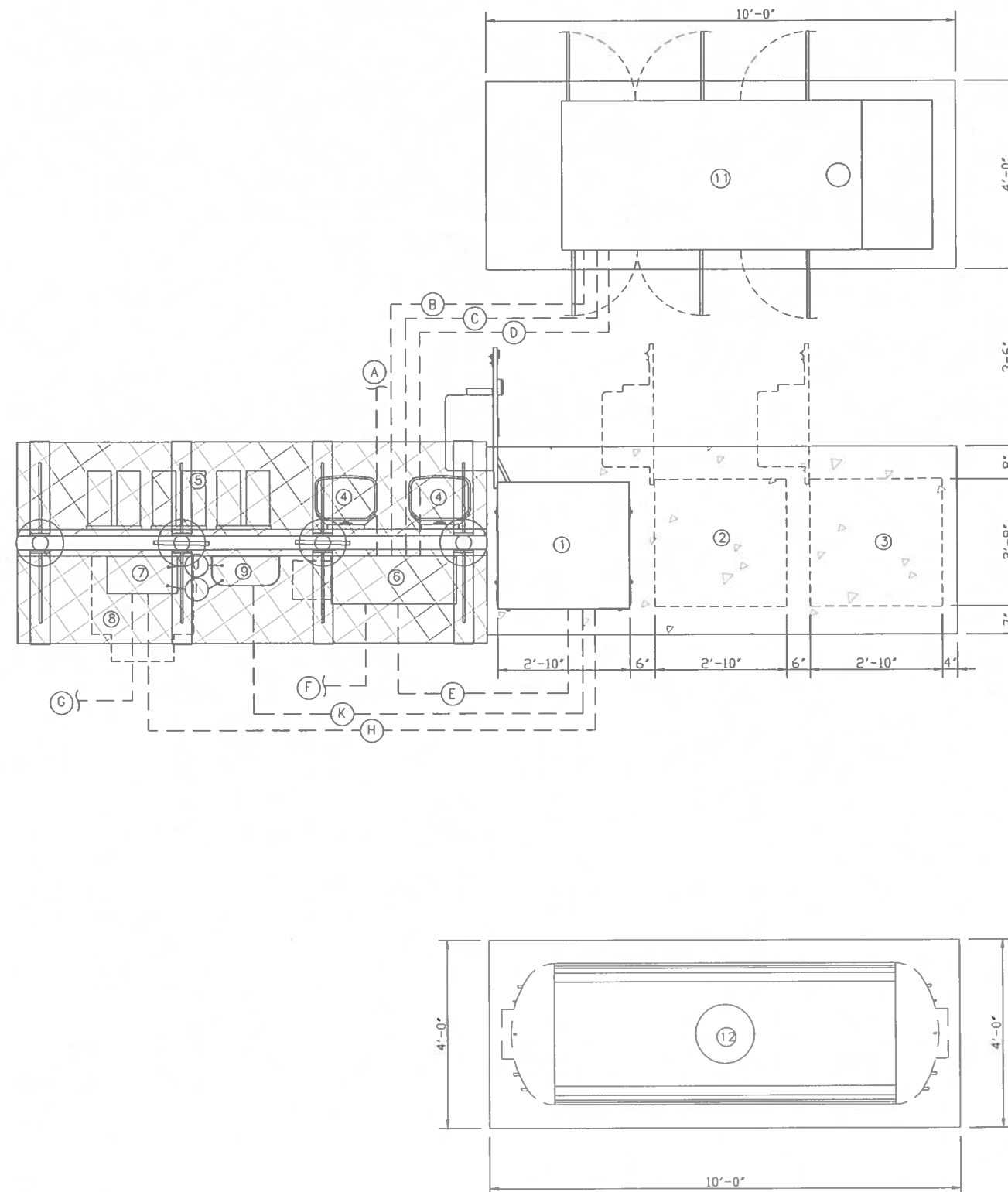
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SHEET NUMBER:

C-6

REVISION:

1



LEGEND

- ① PRIMARY CABINET
- ② BATTERY CABINET
- ③ GROWTH CABINET
- ④ OVP (PROPOSED)
- ⑤ (RESERVE SPACE FOR FUTURE GROUND RADIOS)
- ⑥ ILC CABINET
- ⑦ DARK FIBER JUNCTION BOX (RESERVE SPACE FOR CHARLES TELCO CABINET IF NECESSARY)
- ⑧ RESERVE PLACE FOR CHARLES TELCO
- ⑨ FIBER DEMARC FOR TELCO (AS REQUIRED)
- ⑩ METER & DISCONNECT SWITCH (AS REQUIRED)
- ⑪ GENERATOR
- ⑫ LP GAS TANK

UNDERGROUND CONDUIT SCHEDULE

NO.	SIZE	FROM	TO	FOR
A	2"	METER	200A DISCONNECT SWITCH	POWER
B	2"	200A DISCONNECT SWITCH	200A ILC PANEL	POWER
B	1 1/2"	ILC	GENERATOR ATS	POWER
C	1"	ILC	GENERATOR	POWER, HEATER & BATT
D	1"	ILC	GENERATOR	CONTROL / ALARMS
E	1"	ILC	PRIMARY CABINET	GEN. ILC ALARMS
F	1"	ILC	GFCI / LIGHT	POWER
G	2"	TELCO BOX	VZW DARK FIBER H.H.	TELCO
H	2"	TELCO BOX	EQUIPMENT CABINETS	TELCO
I	1-1/4"	TELCO BOX	FIBER (N.I.U)	TELCO
J	1-1/4"	TELCO BOX	FIBER (N.I.U)	TELCO
K	1-1/4"	EQUIPMENT CABINET	FIBER (N.I.U)	POWER

① EQUIPMENT LAYOUT & CONDUIT PLAN
SCALE:

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7701 E. TELECOM PKWY.
TEMPLE TERRACE, FL 33637

CROWN CASTLE
4511 N HIMES AVE, SUITE 210
TAMPA, FL 33614

PM&A
P. MARSHALL & ASSOCIATES
1000 HOLCOMB WOODS PKWY, STE 210,
ROSWELL, GA 30076
OFFICE 678-230-2325

VERIZON SITE NUMBER:
585456

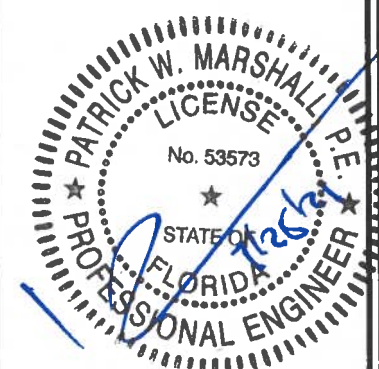
BU #: 809328
LAKE CITY W J-FL-012-058

555 HACKNEY LANE
LAKE CITY, FL 32055

EXISTING 254'-0"
SELF-SUPPORT TOWER

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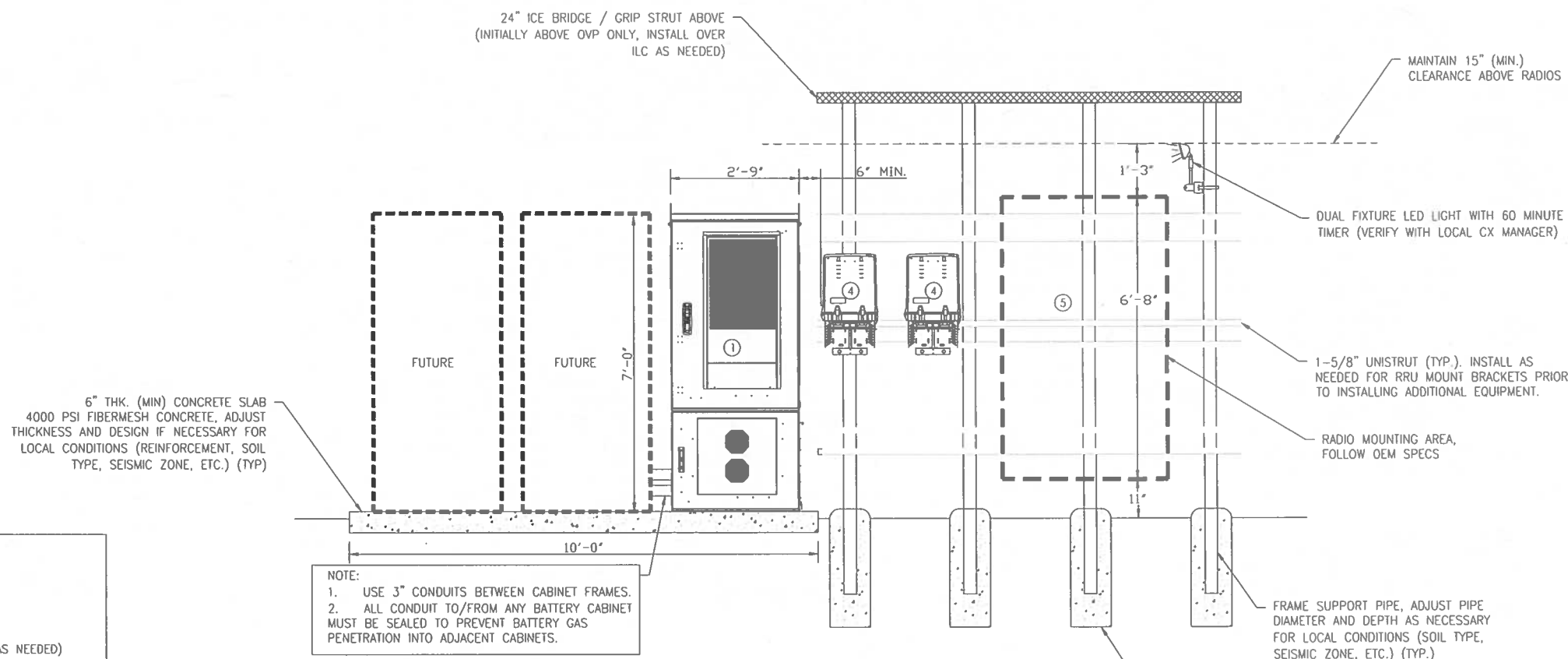
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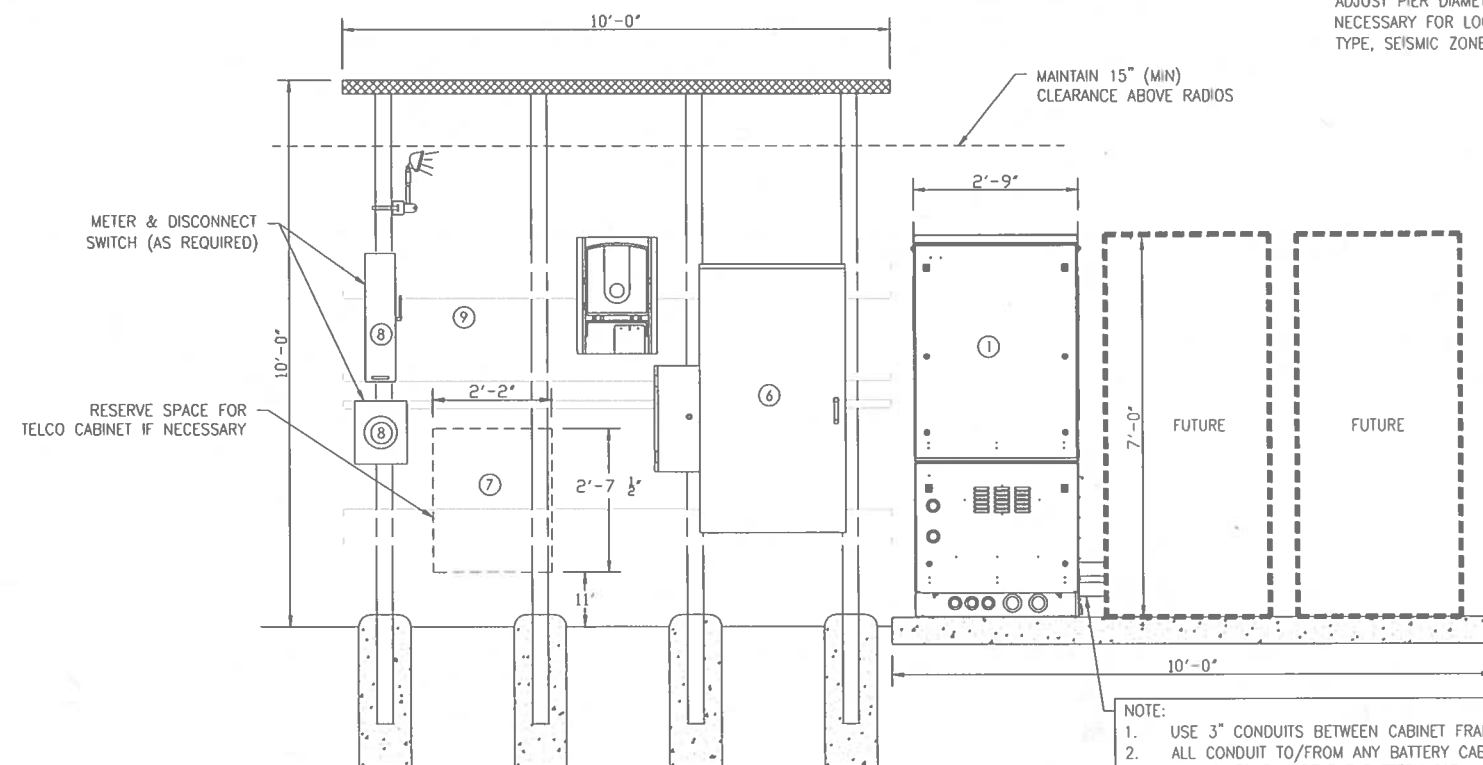
C-7

REVISION:

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ELEVATION VIEW - FRONT



ELEVATION VIEW - REAR

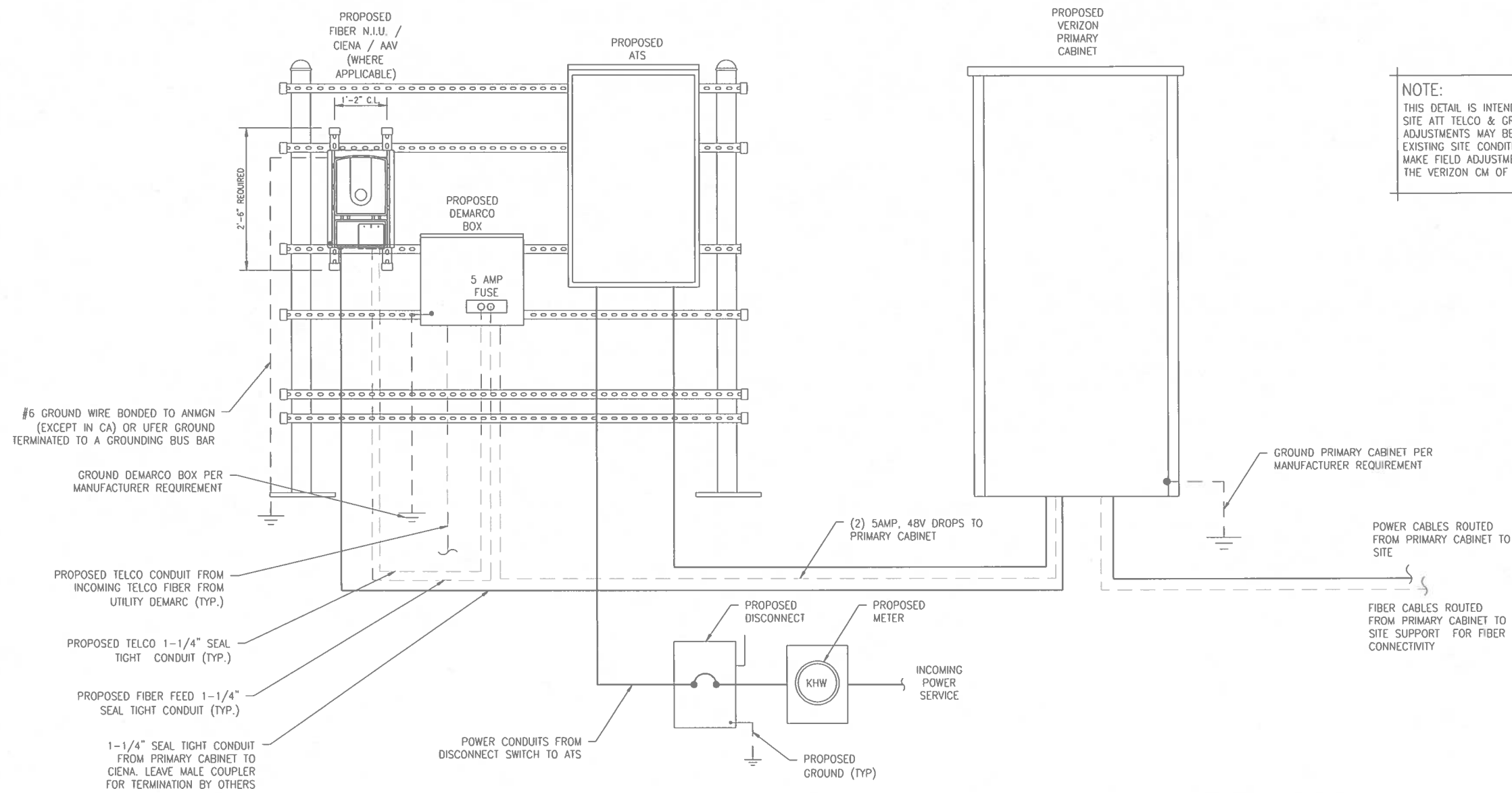
EQUIPMENT ELEVATIONS

NOT TO SCALE

LEGEND

- ① PRIMARY CABINET
- ② (NOT USED)
- ③ (NOT USED)
- ④ OVP-12 (PROPOSED AND FUTURE AS NEEDED)
- ⑤ RADIO MOUNTING AREA. FOLLOW OEM SPECS.
- ⑥ ILC CABINET (WITH CAMLOCK IF NEEDED)
- ⑦ DARK FIBER JUNCTION BOX (RESERVE SPACE FOR
TELCO CABINET IF NECESSARY)
- ⑧ METER & DISCONNECT (UNLESS METER IS LOCATED
AT A CENTRAL METER BANK/RACK)
- ⑨ RESERVED SPACE FOR CHARLES TELCO CABINET

NOTE:
EACH CABINET SIZE ON THE DRAWINGS HAVING RANGES OF
30"- 36"W X 72"- 84"H X 39"- 46"D (WITH COOLING
SYSTEM)



NOTE:
THIS DETAIL IS INTENDED TO SHOW THE GENERAL SITE ATT TELCO & GROUNDING REQUIREMENTS. ADJUSTMENTS MAY BE REQUIRED BASED ON EXISTING SITE CONDITIONS. THE CONTRACTOR SHALL MAKE FIELD ADJUSTMENTS AS NEEDED AND INFORM THE VERIZON CM OF ANY CONFLICTS.

EQUIPMENT POWER, TELCO & GROUNDING SCHEMATIC
NOT TO SCALE

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1000 HOLCOMB WOODS PKWY. STE 210,
ROSWELL, GA 30076
OFFICE 678 230-2325

VERIZON SITE NUMBER:
585456

BU #: **809328**
LAKE CITY W J-FL-012-058

555 HACKNEY LANE
LAKE CITY, FL 32055

EXISTING 254'-0"
SELF-SUPPORT TOWER

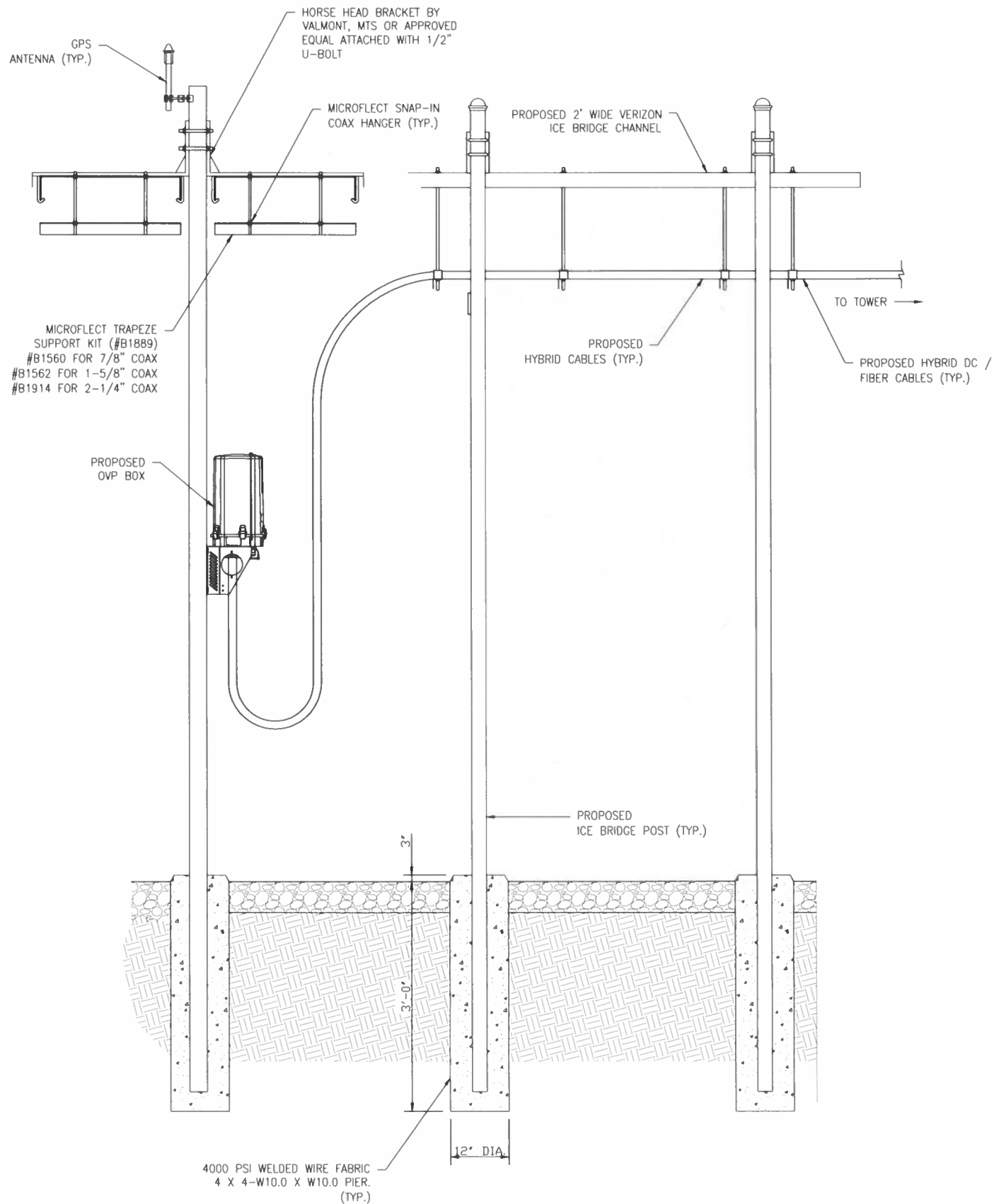
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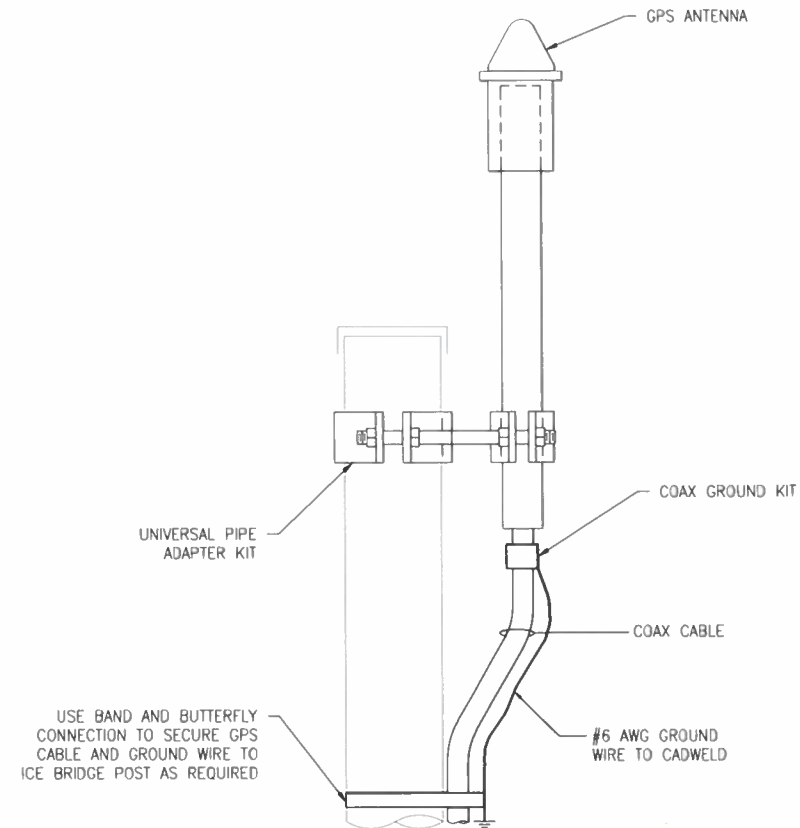
PATRICK W. MARSHALL
LICENSE
No. 53573
STATE OF FLORIDA
PROFESSIONAL ENGINEER

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ICE BRIDGE DETAILS
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GPS ANTENNA MOUNTING DETAIL
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OFFICE: 678-230-2325

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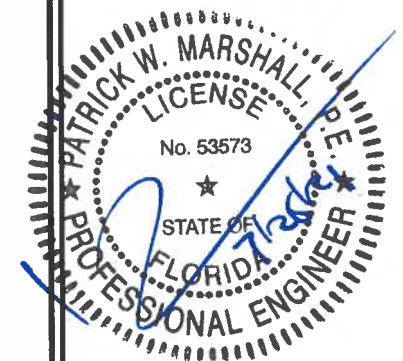
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LAKE CITY W J-FL-012-058

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LAKE CITY, FL 32055

EXISTING 254'-0"
SELF-SUPPORT TOWER

ISSUED FOR:

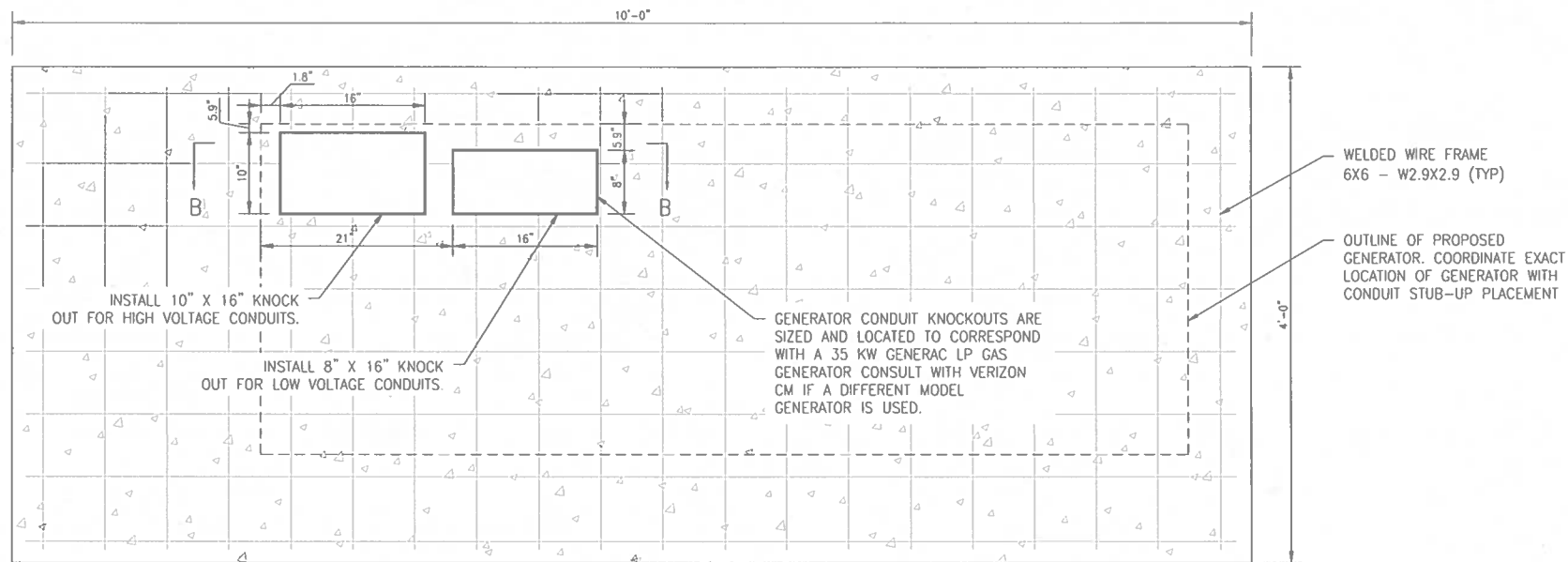
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C-9

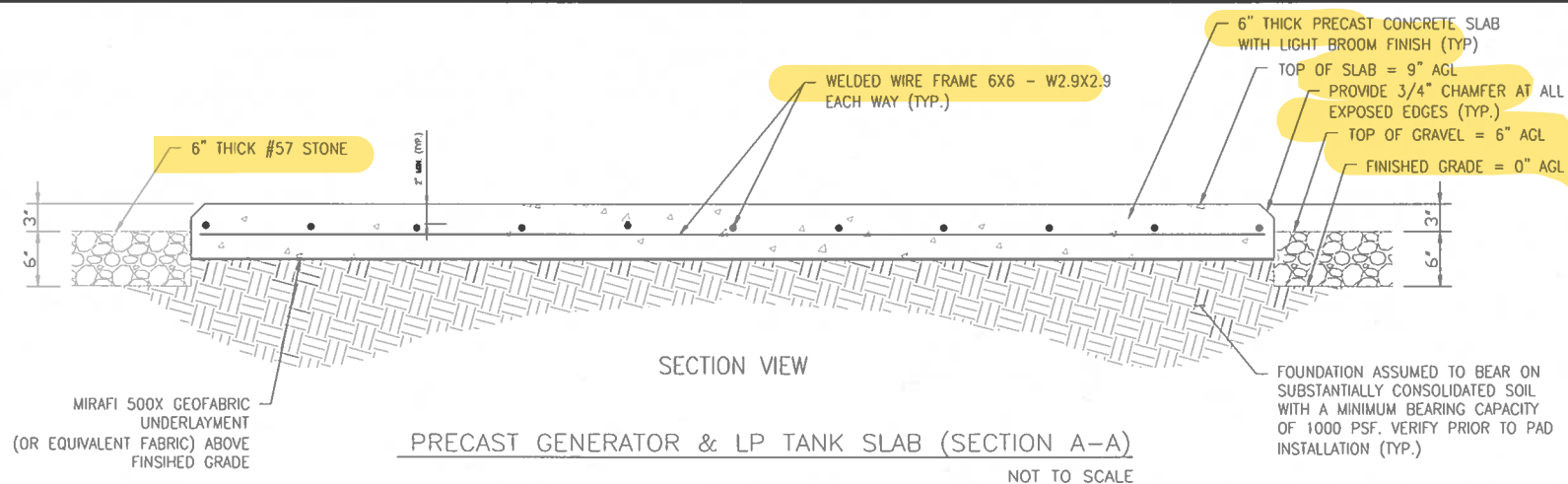
REVISION:
1



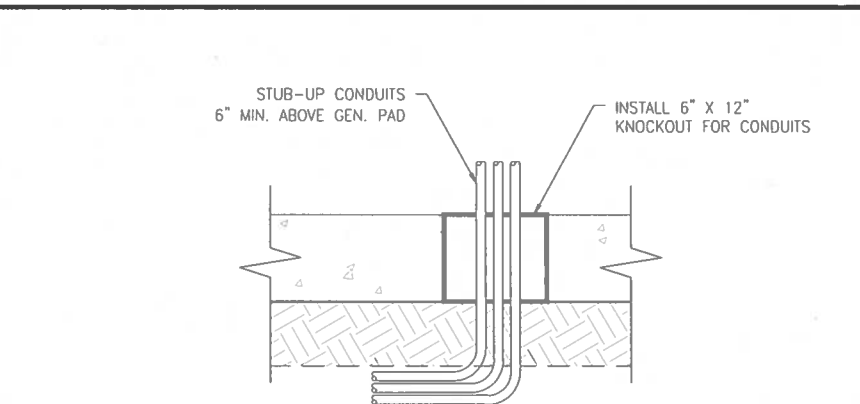
4" MIN. DISTANCE NEEDED FROM CONCRETE EDGES BEFORE DRILLING ANCHORS TO SUPPORT CABINETS OR ICE PROTECTION

PRECAST GENERATOR & LP TANK SLAB DETAIL
NOT TO SCALE

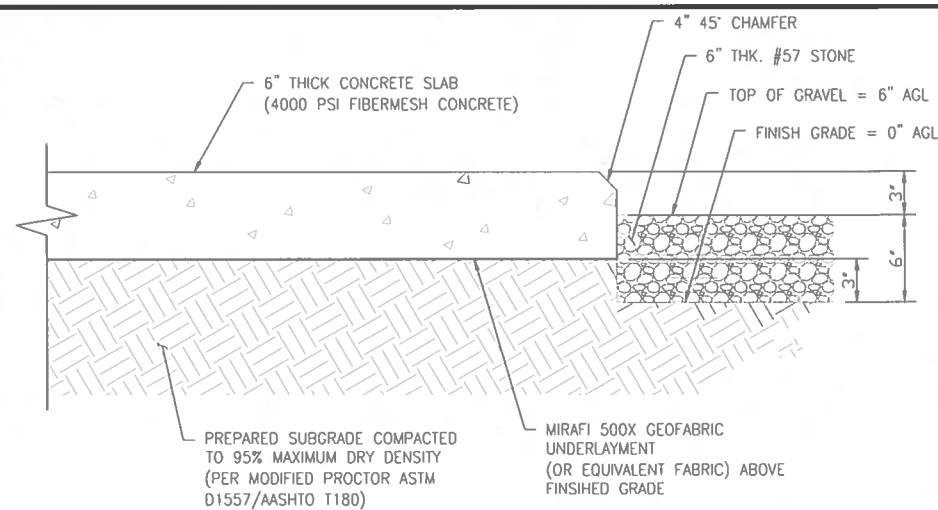
LIFTING NOTE:
THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF EMBEDDED HOISTING HOOKS OR REBAR AS REQUIRED PRIOR TO FABRICATION.



PRECAST GENERATOR & LP TANK SLAB (SECTION A-A)
NOT TO SCALE



CONDUIT STUB-UP FOR GENERATOR SLAB (SECTION B-B)
NOT TO SCALE



EQUIPMENT CONCRETE SLAB SECTION
NOT TO SCALE

REINFORCED CONCRETE NOTES:

- ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 301, ACI 318, ACI 336, ASTM A184, ASTM A185, IBC 2006.
- PRECAST CONCRETE FOR SLABS SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS. CONCRETE TESTING IS NOT REQUIRED UNLESS NOTED OTHERWISE OR REQUIRED BY THE JURISDICTION HAVING AUTHORITY.

SLUMP - 4" MIN. / 6" MAX.
AIR ENTRAINMENT - 2% TO 3% BY VOLUME

CLASSES OF CONCRETE

CLASS	28 DAY STRENGTH (PSI)	MAX WATER/CEMENT RATIO	PLACEMENT LOCATION	NOTES
TYPE I	3000	0.55	PRECAST SLABS	NORMAL WEIGHT
TYPE III *	5000	0.45	SITE CAST SLABS & POST FOOTINGS	HIGH EARLY STRENGTH

* IF REQUIRED BY THE CONSTRUCTION SCHEDULE THE CONTRACTOR MAY SUBSTITUTE TYPE III HIGH EARLY STRENGTH CONCRETE WITH THE APPROVAL OF THE CONSTRUCTION MANAGER.

- REINFORCING STEEL SHALL CONFORM TO ASTM A 615, GRADE 60, DEFORMED UNLESS NOTED OTHERWISE. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185 WELDED STEEL WIRE FABRIC UNLESS NOTED OTHERWISE. SPLICES FOR REBAR SHALL BE CLASS "B" AND ALL HOOKS SHALL BE STANDARD, UNO. LAPS FOR WELDED WIRE FABRIC SHALL BE AT LEAST 8 INCHES, UNO.
- THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL UNLESS SHOWN OTHERWISE ON DRAWINGS:

CONCRETE CAST AGAINST EARTH.....	3"
CONCRETE EXPOSED TO EARTH OR WEATHER	
#6 AND LARGER.....	2"
#5 AND SMALLER & W.W.F.....	1-1/2"

- MAXIMUM COARSE AGGREGATE SIZE SHALL BE 3/4".
- MAINTAIN THE TEMPERATURE OF CAST IN PLACE CONCRETE AT BETWEEN 50 AND 90 DEGREES FAHRENHEIT. IF COLDER OR HOTTER CONDITIONS EXIST, THE CONCRETE MIX DESIGN SHALL BE ADJUSTED ACCORDINGLY.
- DO NOT USE RETEMPERED CONCRETE.
- INSTALLATION OF CONCRETE ANCHORS SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN SPECIFICATIONS. THE ANCHOR BOLT, DOWEL, OR ROD SHALL CONFORM TO THE ANCHOR MANUFACTURER'S SPECIFICATIONS FOR MATERIAL STRENGTH, EMBEDMENT DEPTH, SPACING, AND EDGE DISTANCE OR AS DETAILED ON THE DRAWINGS. NO REBAR SHALL BE CUT WITHOUT PRIOR ENGINEERING APPROVAL WHEN DRILLING HOLES IN CONCRETE. EXPANSION BOLTS SHALL BE PROVIDED BY RAMSET/REDHEAD, HILTI, OR APPROVED EQUAL. IF THE MANUFACTURER'S SPECIFICATIONS AND DETAILS ARE FOUND TO CONFLICT WITH THAT SHOWN HEREIN, THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY.
- THE CONTRACTOR SHALL VERIFY FROST LINE AND FOOTING DEPTH REQUIREMENTS WITH THE JURISDICTION HAVING AUTHORITY PRIOR TO CONSTRUCTION.

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1000 HOLCOMB WOODS PKWY, STE 210,
ROSWELL, GA 30076
OFFICE: 678-230-2325

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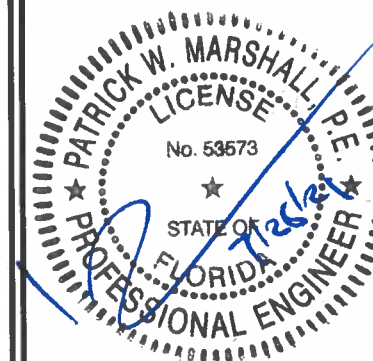
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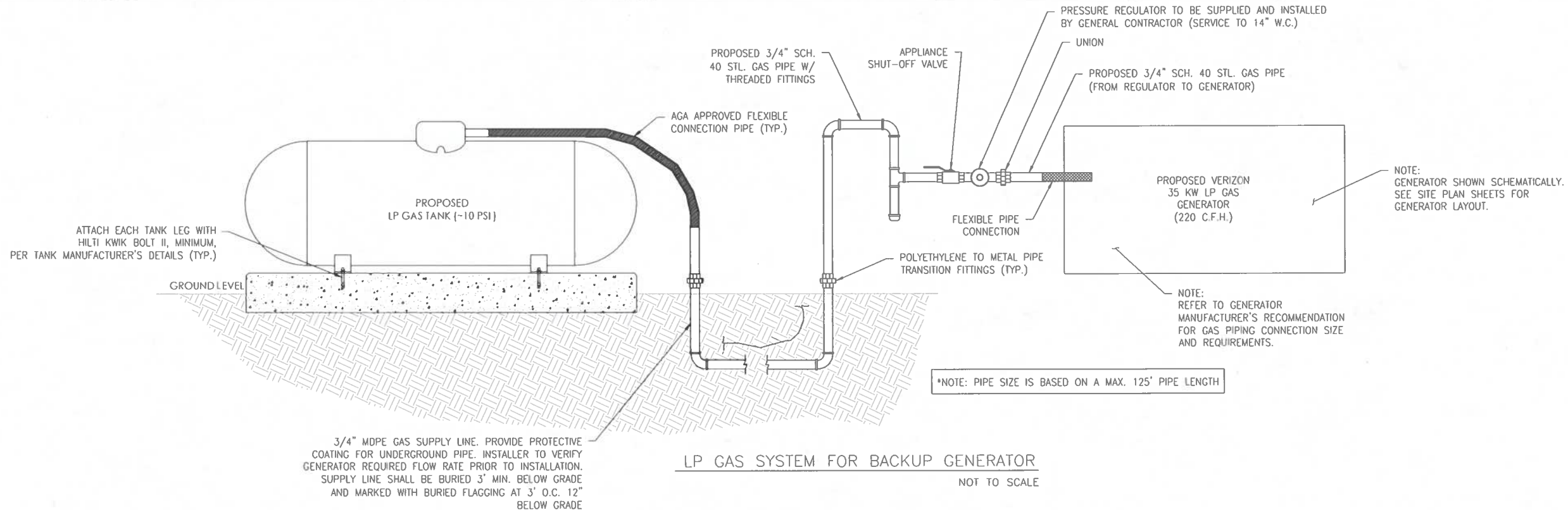
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SHEET NUMBER: **C-10** REVISION: **1**



GENERAL NOTES:

1. MAINTAIN MINIMUM 1'-0" VERTICAL AND 1'-0" HORIZONTAL SEPARATION OF GAS LINE FROM OTHER UTILITIES.
2. CONNECTION POINT MAY VARY WITH GENERATOR MANUFACTURER.
3. MAINTAIN 3' SERVICE CLEARANCE ON ALL SIDES OF GENERATOR.
4. GENERAL CONTRACTOR SHALL ANCHOR GENERATOR BASE4 TO SLAB OR PLATFORM WITH HOLES PROVIDED.
5. CONTRACTOR SHALL VERIFY LOCATION OF ALL EQUIPMENT PRIOR TO INSTALLATION.
6. CONTRACTOR SHALL COORDINATE INSTALLATION WITH GAS COMPANY & OTHER DISCIPLINES.
7. CONTRACTOR SHALL ADHERE TO APPLICABLE STATE & LOCAL CODES.
8. COORDINATE LOCATION OF GAS PIPE WITH OTHER UTILITIES.
9. FLEXIBLE CONNECTION TO BE SAME SIZE AS PIPING TIE-IN THAT IS PROVIDED BY THE GENERATOR SUPPLIER.
10. CONTRACTOR TO VERIFY GAS PRESSURE PER NOTE ON "GAS PIPE SIZING SCHEDULE".
11. GENERATOR TO BE LOCATED A SUITABLE DISTANCE FROM ANY ROOF PENETRATIONS IN ACCORDANCE WITH NFPA.
12. CONTRACTOR TO PROVIDE LOW POINT DRAINS AND HIGH POINT VENTS PER NFPA AND AGA CODES.

SPECIFICATIONS:

1. PIPE (LOW-PRESSURE): STEEL PIPE; ASTM A53, TYPE OR S, ELECTRIC-RESISTANCE WELDED OR SEAMLESS, GRADE A OR B, SCHEDULE 40 GALVANIZED STEEL, PAINTED YELLOW.
2. PIPE FITTINGS (ABOVE GROUND):
 - A. GRAY-IRON THREAD FITTINGS: ASME B16.4, CLASS 125, GALVANIZED STANDARD PATTERN.
 - B. UNIONS: ASME B16.39, CLASS 150, BLACK MALLEABLE IRON, FEMALE PATTERN, BRASS TO IRON SEAT, GROUND JOINT.
 - C. TRANSITION FITTINGS: TYPE, MATERIAL, AND END CONNECTIONS TO MATCH PIPING BEING JOINED.
 - D. PROVIDE DI-ELECTRIC UNIONS WHERE REQUIRED BETWEEN DIFFERENT METALLIC PIPE MATERIALS.
3. PIPE (UNDERGROUND): POLYETHYLENE PIPE; ASTM D 2513, SDR 11 OR IN ACCORDANCE WITH LOCAL CODES AND REGULATIONS.
4. POLYETHYLENE FITTINGS (UNDERGROUND): ASTM D 2683, SOCKET TYPE OR ASTM D 3261, BUTT TYPE WITH DIMENSIONS MATCHING ASTM D 2513, SDR 11, POLYETHYLENE PIPE.
5. TRANSITION FITTINGS: MANUFACTURED PIPE FITTING FOR CONNECTION TO POLYETHYLENE PIPE AND WITH ONE ASTM A 533 / A 53M, SCHEDULE 40, GALVANIZED STEEL PIPE END FOR THREADED CONNECTION TO GALVANIZED STEEL PIPE.
6. SERVICE-LINE RISER: MANUFACTURED PIPE FITTING WITH POLYETHYLENE PIPE INLET FOR CONNECTION TO UNDERGROUND POLYETHYLENE PIPE RISER SECTION WITH PROTECTIVE-COATED, ANODES, STEEL CASING AND THREADED OUTLET FOR THREADED CONNECTION TO ABOVE GROUND STEEL PIPING.

LP GAS SYSTEM FOR BACKUP GENERATOR
NOT TO SCALE

GENERATOR INSTALLATION RESPONSIBILITIES:

BTS ENGINEER:

1. DELIVERY AND SET UP OF GENERATOR.

GENERAL CONTRACTOR:

1. RUNS STUB-UPS FOR LP GAS TO GENERATOR.
2. COORDINATE DELIVERY OF LP GAS LINE TO THE SITE.
3. PULLS ALARM WIRES, START CIRCUIT WIRES, CONTROL CIRCUIT WIRES, AND LINE VOLTAGE WIRES FROM THE PPC TO THE ATS AND TO THE GENERATOR. HOME RUNS WIRES BACK TO THE ATS.
4. GROUNDS FOR GENERATOR.

GENERATOR MANUFACTURER CERTIFIED ELECTRICIAN:

1. COMPLETES FUEL CONNECTIONS.
2. TERMINATES ALARMS AND CONTROL CIRCUITS TO THE GENERATOR.
3. INSTALL FUEL REGULATORS.
4. FINAL INSPECTION AND START UP.
5. NOTIFY OPERATIONS (CELL TECHS) TWO DAYS PRIOR TO START-UP SCHEDULE. PLAN ON CELL TECH ARRIVAL EARLY AFTERNOON. IF START-UP PROBLEMS OCCUR, NOTIFY CELL TECH OF DELAY BEFORE NOON.
6. RUN LOAD TEST (ADDITIONAL COST TO VERIZON) AS REQUIRED, MOSTLY IN CORE.
7. EMAIL COPY OF START-UP CHECK OFF LIST TO VERIZON.

CELL TECH:

1. CELL TECH TO PUNCH DOWN ALL ALARMS IN CROSS CONNECT AND BTS.
2. CELL TECH TO VERIFY START-UP AND SIGN OFF ACCEPTING GENERATOR.
3. CELL TECH TO NOTIFY VIA TEXT MESSAGING OF ACCEPTANCE.

GENERATOR MANUFACTURER / VERIZON WIRELESS START-UP PROCEDURES:

NOTE: BEFORE RUNNING GENERATOR OR INTERRUPTING POWER, NOTIFY THE NETWORK OPERATIONS CENTER (NOC) AND APPROPRIATE CELL TECH.

1. INSPECT ALL CONNECTING CIRCUITS (GROUND LEADS - START LEADS - BLOCK HEATER - BATTERY CHARGER - POWER OUTLET LEADS) AND ANCHORING OF THE GENERATOR.
2. VERIFY ALL CIRCUITS ARE TERMINATED CORRECTLY AND CORRECT WIRE SIZES ARE USED, THE BATTERY IS CONNECTED, THE CHARGER ACTIVATED AND THE BATTERY IS CHARGING.
3. CHECK ALL LIQUID LEVELS.
4. PLACE ATS IN THE MANUAL MODE AND PROGRAMMED TO SET THE EXERCISER CLOCK TO OPERATE EVERY TWO WEEKS FOR ONE HOUR UNDER LOAD.
5. FUEL SYSTEM IS INSPECTED AND CHECKED FOR LEAKS. VERIFY CORRECT PRESSURE (4 TO 6 OUNCES) AND VERIFY PIPE SIZE.
6. DOCUMENT THE MODEL AND SERIAL NUMBER (SEND INFORMATION TO OPS AND BTS ENGINEER).
7. PREPARE FOR A NO LOAD (MANUAL) START-UP - IF REQUIRED.
8. VERIFY ATS IS IN MANUAL CONTROL POSITION.
9. START UP GENERATOR MANUALLY AND VERIFY VOLTAGE AND FREQUENCY. SET VOLTAGE FOR 230 VOLTS AND FREQUENCY FOR 60 HERTZ.
10. VERIFY ENGINE RUN ALARM IS ACTIVATED AND THERE IS CONTINUITY TO TELCO BOX.
11. INDUCE LOW OIL PRESSURE, HIGH WATER TEMP, OVER/UNDER VOLTAGE/FREQUENCY FAULTS SEPARATELY AND VERIFY THE ALARM IS ACTIVATED AND HAS CONTINUITY TO TELCO BOX.
12. PLACE ATS CONTROLS IN AUTOMATIC.
13. MANUALLY DISCONNECT COMMERCIAL POWER AND VERIFY GENERATOR TRANSFER.
14. ALLOW GENERATOR TO RUN UNDER LOAD FOR ONE HOUR - IF REQUIRED AND RECORD LOAD, COOLANT TEMPERATURE AND VOLTAGE (SEND INFORMATION TO OPS).
15. RESTORE COMMERCIAL POWER AND CHECK FOR TRANSFER, GENERATOR WILL REMAIN RUNNING FOR APPROXIMATELY 5 MINUTES FOR COOL DOWN.
16. COMPLETE ALL REQUIRED START-UP DOCUMENTATION LOCATED IN THE MANUAL, SCAN INTO JOB FILE AND EMAIL COPY TO KATOLIGHT AND OPS.
17. CONTACT OPS TWO DAYS PRIOR TO TESTING.

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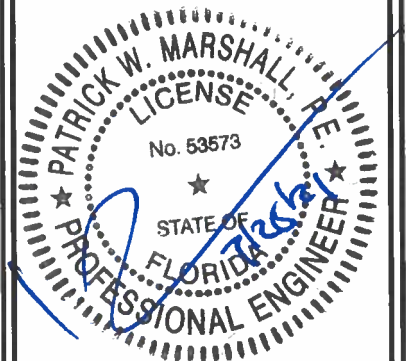
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SHEET NUMBER: **C-11** REVISION: **1**

MAKE:	ERICSSON
MODEL:	RADIO 4449 B13/B5
DIMENSIONS, HxWxD:	28.0"x15.0"x10.0"
WEIGHT:	70.0 lbs



MAKE:	ERICSSON
MODEL:	RADIO 8843 B2/B66A
DIMENSIONS, HxWxD:	28.0"x15.0"x10.0"
WEIGHT:	75.0 lbs



- Advanced Antenna System(AAS)
- 4G+ adds upto 16T-AF
- Up to 120W RF Power
- 4QPP up to 75 dBm
- Up to 230 MHz BW & C/Nw
- Max Serial rate @ BW = 200MHz for 4R
- Support number of layers: DL/UL 16/8

App scenario	QPSK	BPSK	QPSK	QPSK	QPSK
4G+ streaming video	10-15 Mbps	10-15 Mbps	10-15 Mbps	10-15 Mbps	10-15 Mbps
4G+ downloading & Vo	10-15 Mbps	10-15 Mbps	10-15 Mbps	10-15 Mbps	10-15 Mbps

- 4 x 25 Gbps eCPIC / comparable to 10G eCPIC SFP II
- 48 VDC max 1540 W
- 40 deg +55C (-40°C Serial I/Os)

*NOTE E// sites will use one side of the VDU for Low Band, A 6630 (+ 160w) for Mid Band and a Front Haul Gateway + 3 Radios

4 ERICSSON AIR6449 SPECIFICATION
SCALE: NOT TO SCALE

Raycap's Flexib Tower, Base Stations and Rooftop protection and Distribution products provide protection for up to 12 Remote Radio Heads/Integrated Antennas. The solutions mitigate the risk of damage due to lightning and provide high levels of availability and reliability to radio equipment.



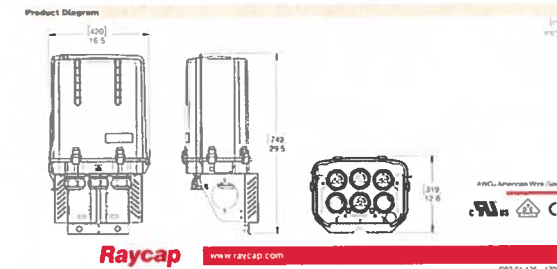
- Features
 - Designed for distribution to 12 RFRU circuits, DC power and fiber optics
 - Alarm for moisture detection and intrusion
 - Digital Voltmeter with twelve (12) position probe to monitor each DC circuit
 - Power relays for sensing and controlling circuit breakers
 - Employs the Sealed-Air™ 30-VI/30-CHT Super Protective Enclosure (SPE) specifically designed for the Remote Radio Head (RRH) installation environment and certified for use in DC applications and in DC overvoltage categories (40V)
 - The Sealed-Air™ 30-VI/30-CHT is a Class I SPD certified for use per the IEC 61643-11 standards as protection for installation in areas where direct lightning exposure is expected
 - Provides very low-impedance air-to-air to withstand direct lightning currents of up to 3kA (10/350) without damage
 - Provides very low-impedance clamping voltage unique to Class I product (a class that does not employ spark gaps or other switching elements) Sinksafors offers unique protection levels to the RFRU equipment as well as the Base Band Units
 - Ground connection to the RFRU (2) and the Base Band Unit (BBU) wires per hybrid cable, and communicates all voltage boost system and alarm data
 - Patent pending design

- Distributes DC up to 12 Remote Radio Heads and connects up to 24 LC fiber pairs
- Unlikes an IP 67 rated enclosure, also rated to NEBS and UL, allowing for indoor or outdoor installation on a roof or tower top
- Six total cable ports for cable access with custom configurable UL rated glands that accommodate varying diameters of hybrid (combined power and fiber optic) or standard cables with diameters up to 2" (well met standard 1 1/4" coax class cables) depends upon port configuration
- Lightweight aerodynamic design provides maximum flexibility for tower top installation



Raycap www.raycap.com

Model Numbers	NCMD-6837-PV-40
Normal Operating Voltage	48VDC
Maximum On-line Current (I _{OL})	2.5 x 10.00 A
Maximum Surge Current (I _{SC})	10.00 A (100 μs)
Maximum Input/Output Current per I/O Module (I _{IO})	5 x 1.00 A (100 μs)
Maximum Core Input/Output Voltage (V _{IO})	75 VDC
Logic Protection Rating (VPR) per IEC 60611-1	4200
Power for Class 1 or Class 2 I/O	Class 1
Power Allow.	100% (no safety, short-circuits or power output)
Isolation Terminal	
Module Range	1 to 10 modules per device
Input Module (I/O)	1 to 10 modules per device
Power Board Type	2 to 10 modules per device to protect 12.00 A (100 μs) I/O
Power Board Type	100% limited core connection on a side
Biochemical	
Support Connection Method	Compression Lug #10 - 62 (0.015" x 1.00" x 1.00")
For Connection Method	1.00" Single Module
Pressure Rating (psi)	1000" Vert
Environment Rating	IP67
Operating Temperature	40 °C (-10 °C)
Life Expectancy	100,000
Dimension (L x W x H)	7.00" x 10.00" x 2.00" (178 mm x 254 mm x 50 mm)
Weight	1.00 kg (2.20 lbs)
Core and Shell Weight	1.00 kg (2.20 lbs)

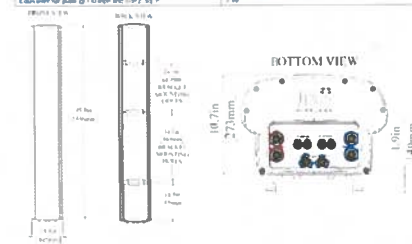


X-Pol, Hex-Port 8 ft 60° Fast Roll Off with Smart Bias T
(2) 695-894 MHz & (4) 1695-2180 MHz

[illegible][illegible]

Dimensions (Length, width, height) (mm)	55 x 15 x 127 ± 0.10
Shipping dimensions (Length, width, height) (mm)	156 x 20 x 15 ± 0.10

Age	100 days post-conception (3 weeks)	0.2 x 1.0 mmole NaOH/L
AP contractile force		60 μ m/s (± 2.5 m/s or 60 μ m/s)
AP contractile weight	0.1 g	70 (30-110)
Shipping weight	0.1 g	120-160 (4)
Antennae extending and retracted without touching		110 (10-140) 110 (10-140) (10-140)
Antennae length (if retracted and extended $\times 10$ g)		24 (21-27)
Range of movement (if free)		2 (1-3)
Placed and moved around for 10 min		150 (121)
Final state (if no touching)	100 m/s or 100 m/s	200 (125-275) 100 (125-275) 100
Antennae length (if retracted and extended $\times 10$ g)		1.0



Shipping Information	
Accessories Included	Description
MUSIMAR0800 □□	1P + Pop-ME + FRQ 627 x 127 x 9 Pkg 1 x 1 x 10 LBS 7
Optional Accessories	
MSUCB-C-A3 P-6C	Cableless A-361 jumper cable - M/F 10 meters Cableless A-361 jumper cable - F/M 10 meters

[illegible]

5 JMA WIRELESS MX06FRO860 SPECIFICATION
SCALE: NOT TO SCALE

EXISTING 254'-0"
SELF-SUPPORT TOWER

ISSUED FOR:				
REV	DATE	DRWN	DESCRIPTION	DES/QA
A	5/27/2021	CW	LEASE EXHIBIT ISSUE	CW
0	6/10/2021	CW	ISSUED FOR PRELIMS	CW
1	7/23/2021	CW	ISSUED FOR FINALS	CW



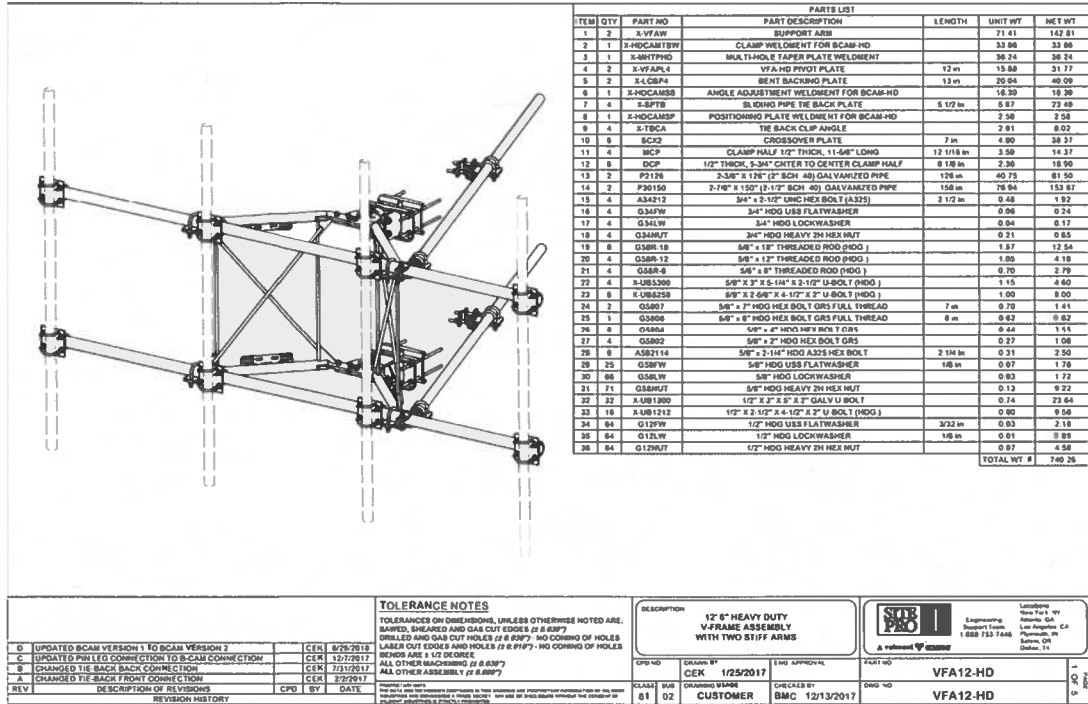
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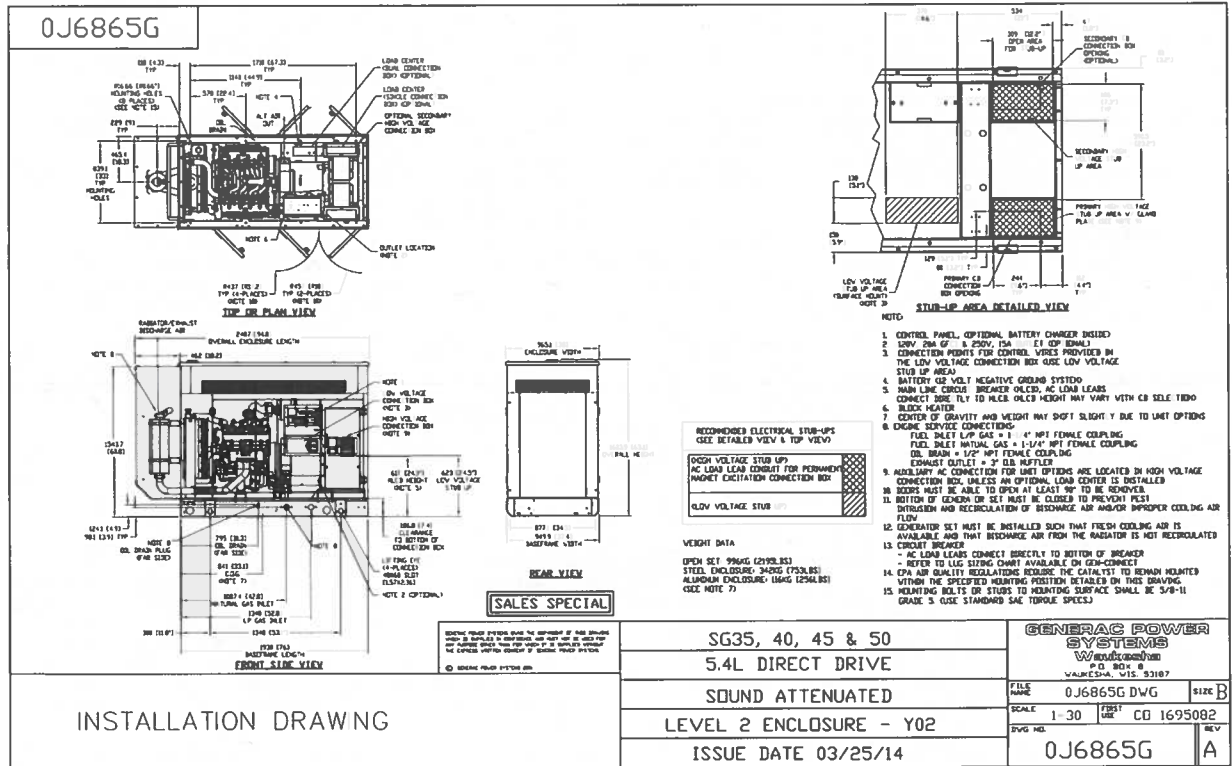
REVISION:

C-12

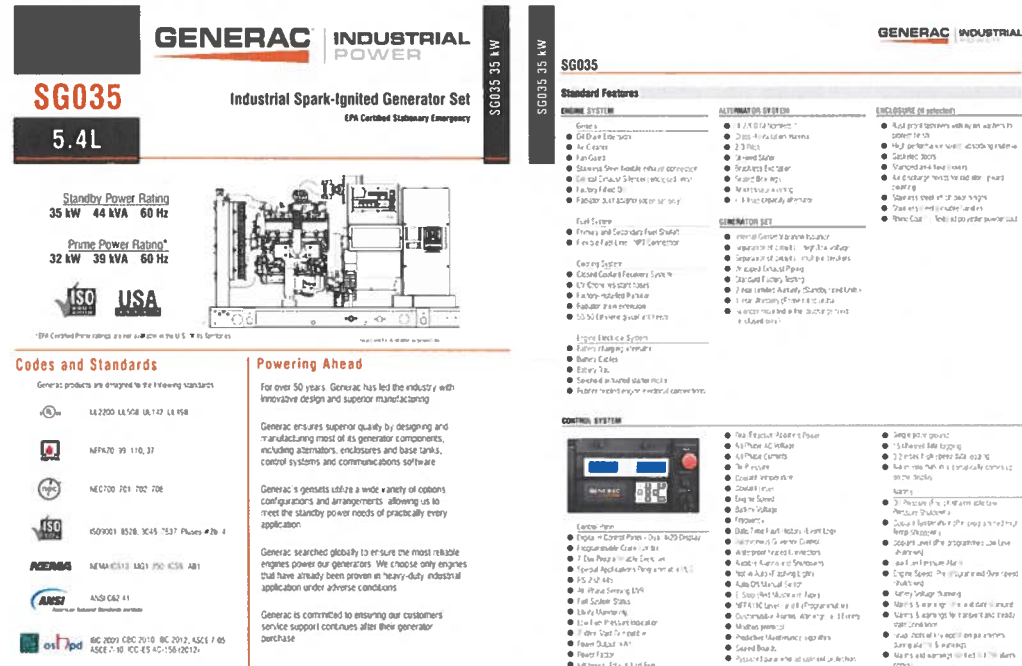
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1 SITE PRO 1 VFA12-HD SECTOR MOUNT SPECIFICATION
SCALE: NOT TO SCALE



2 GENERAC SG035 LP GAS GENERATOR ENCLOSURE SPECIFICATIONS
SCALE: NOT TO SCALE



3 GENERAC SG035 LP GAS GENERATOR SPECIFICATIONS
SCALE: NOT TO SCALE

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ROSWELL, GA 30076
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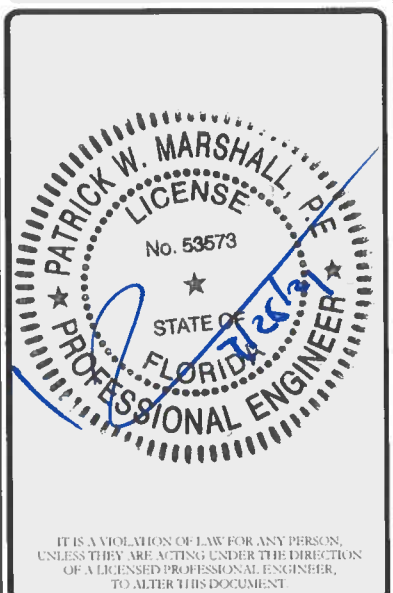
VERIZON SITE NUMBER:
585456

BU #: 809328
LAKE CITY WJ-FL-012-058

555 HACKNEY LANE
LAKE CITY, FL 32055

EXISTING 254' 0"
SELF-SUPPORT TOWER

REV	DATE	DRWN	DESCRIPTION	APP'D
A	5/7/2021	CW	ISSUED FOR ISSUE	CW
B	6/10/2021	CW	ISSUED FOR PROGRESS	CW
C	7/23/2021	CW	ISSUED FOR PROGRESS	CW



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REVISION: 1

SITE PLAN DISCLAIMER:

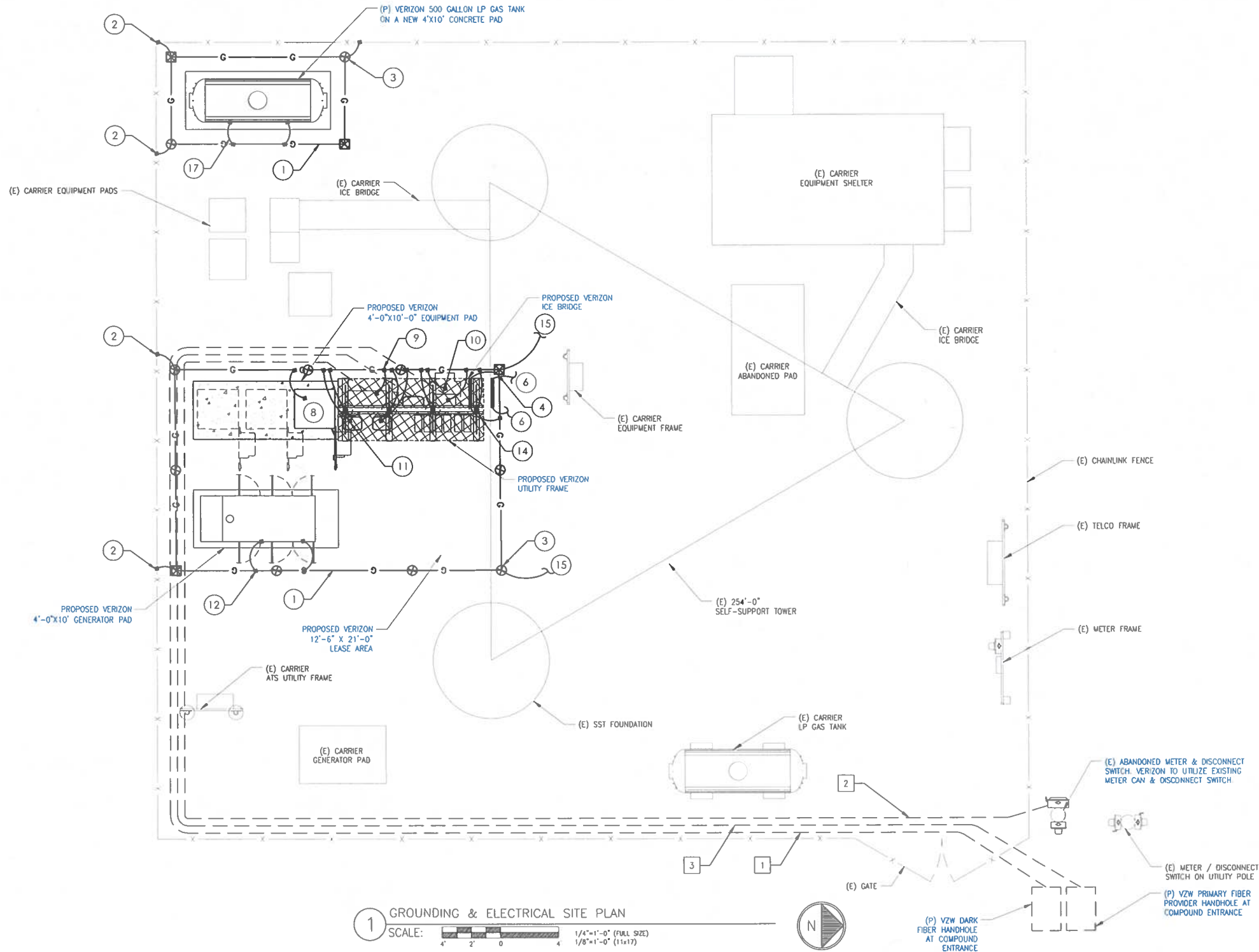
PROPERTY LINES AND STRUCTURES HAVE BEEN DIGITIZED FROM PREVIOUS PLAN SETS OR FROM ASSESSORS MAPS. PM&A HAS NOT COMPLETED A SITE SURVEY AND THEREFORE MAKES NO CLAIMS AS TO THE ACCURACY OF INFORMATION DEPICTED ON THIS SHEET. CONTRACTOR SHALL FIELD VERIFY SITE PLAN & EQUIPMENT SHOWN AGAINST PRESENT FIELD CONDITIONS. IF PLANS DO NOT MATCH UP WITH SITE CONDITION AT TIME OF CONSTRUCTION, CONTACT VERIZON AND THE CROWN CASTLE CM.

GROUNDING KEY NOTES

- 1 #2 AWC BARE TINNED SOLID COPPER GROUND RING BURIED 30" BELOW GRADE (TYP.)
- 2 GROUND ALL FENCE POSTS TO GROUND RING WITH CADWELD CONNECTION (AS REQUIRED).
- 3 PROPOSED GROUND ROD (TYP.).
- 4 PROPOSED GROUND ROD WITH INSPECTION WELL (TYP.).
- 5 N/A
- 6 BOND TOWER MOUNTED GROUND BAR TO EXISTING TOWER GROUND RING (TYP. - 2).
- 7 GROUND BATTERY CABINET TO NEW GROUND RING PER MANUFACTURER'S SPECIFICATIONS.
- 8 GROUND EQUIPMENT CABINET TO NEW GROUND RING PER MANUFACTURER'S SPECIFICATIONS.
- 9 GROUND 200A ILC TO GROUND BAR PER MANUFACTURER'S SPECIFICATIONS.
- 10 GROUND TELCO CABINET & BUSS BAR TO GROUND BAR PER MANUFACTURER'S SPECS.
- 11 GROUND OVP TO GROUND RING PER MANUFACTURER'S SPECS.
- 12 PROPOSED #2 AWC BARE TINNED SOLID COPPER WIRE 2-HOLE LUG CONNECTION TO GENERATOR BASE FRAME, CADWELD CONNECTION TO NEW GROUND RING (TYP.)
- 13 BOND EACH ICE BRIDGE SECTION TOGETHER WITH JUMPERS. BOND FIRST AND LAST SECTION TO GROUND RING.
- 14 BOND COAX GROUND BAR TO GROUND RING WITH #2 AWC SOLID BARE TINNED COPPER WIRE (TYP. - 2 PLACES)
- 15 BOND EVERY ICE BRIDGE / UTILITY FRAME POST BASE TO GROUND RING WITH CADWELD.
- 16 GROUND EQUIPMENT GROUND RING TO ALL ADJACENT GROUND RINGS (TYP. OF 2 PLACES)
- 17 PROPOSED #2 AWC BARE TINNED SOLID COPPER GROUND WIRE FROM LP GAS TANK TO GROUND RING (TYP. OF 2 PLACES)

ELECTRICAL KEY NOTES

- 1 PROPOSED (2) 2" SCH. 40 PVC CONDUIT W/ THREE-CELL MAXCELL & MULE TAPE FOR VERIZON DARK FIBER ROUTED FROM THE VZW EQUIPMENT FRAME TO THE FIBER HANDHOLE AT THE COMPOUND ENTRANCE (APPROX. 120' LONG)
- 2 PROPOSED 2" SCH. 40 PVC CONDUIT FROM THE VERIZON METER / DISCONNECT SWITCH TO THE VZW AC PANEL. COORDINATE FINAL MEET POINT FOR VZW METER & DISCONNECT SWITCH WITH LOCAL UTILITY COMPANY (APPROX. 110' LONG, AS SHOWN)
- 3 PROPOSED 2" SCH. 40 PVC CONDUIT W/ THREE-CELL MAXCELL & MULE TAPE FOR PRIMARY FIBER PROVIDER ROUTED FROM THE PROPOSED FIBER HANDHOLE AT THE COMPOUND ENTRANCE TO THE VERIZON EQUIPMENT FRAME. INSTALL AS REQUIRED (APPROX. 120' LONG, AS SHOWN)



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ROSWELL, GA 30076
OFFICE 678-230-2325

VERIZON SITE NUMBER:
585456

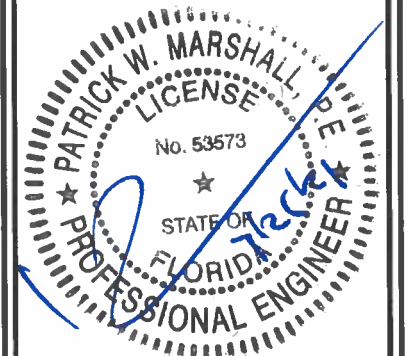
BU #: 809328
LAKE CITY W J-FL-012-058

555 HACKNEY LANE
LAKE CITY, FL 32055

EXISTING 254'-0"
SELF-SUPPORT TOWER

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DESIGN
A	5/27/2021	CW	LEASE EXHIBIT ISSUE	CW
0	6/10/2021	CW	ISSUED FOR PRELIMS	CW
1	7/23/2021	CW	ISSUED FOR FINALS	CW



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SHEET NUMBER:

G-1

REVISION:

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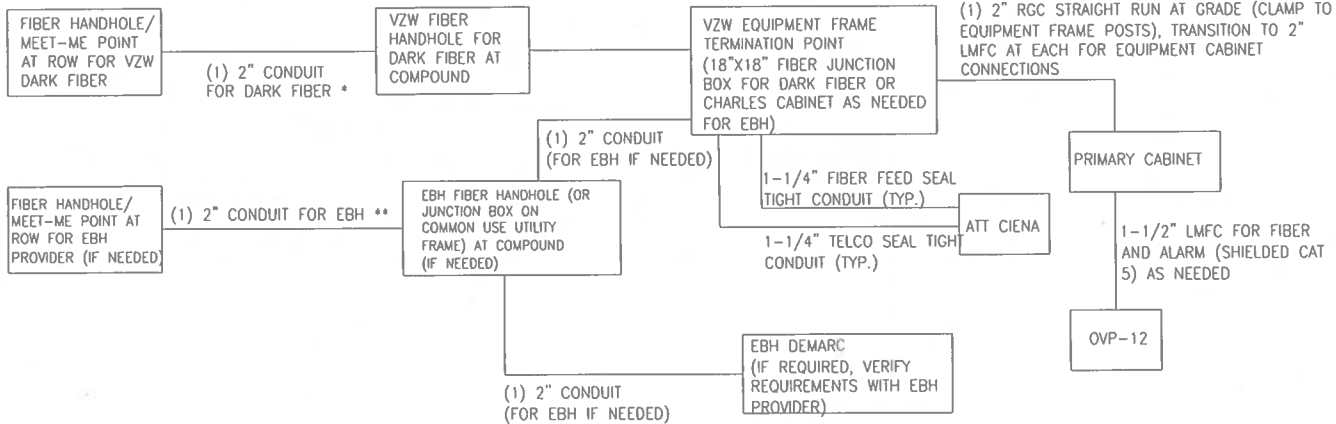
COMMON VZW DC PLANT RECTIFIER REQUIREMENTS			
RECTIFIER	INPUT FLA CURRENT AT 240 VAC (EACH RECTIFIER)	2 RECT / BRANCH CIRCUIT (PREFERRED APPROACH)	1 RECT / BRANCH CIRCUIT (ALT APPROACH)
GE 75A (NE075AC48xxxx or sim)	22 AMPS (MAX)	60A/2P #3 THHN	30A/2P #10 THHN

LOAD CALCULATION	
LOAD	AMPS
PROPOSED LOAD:	123.0
TOTAL DEMAND:	129.0
VOLTAGE: 120/240V SINGLE PHASE 3W 200A	

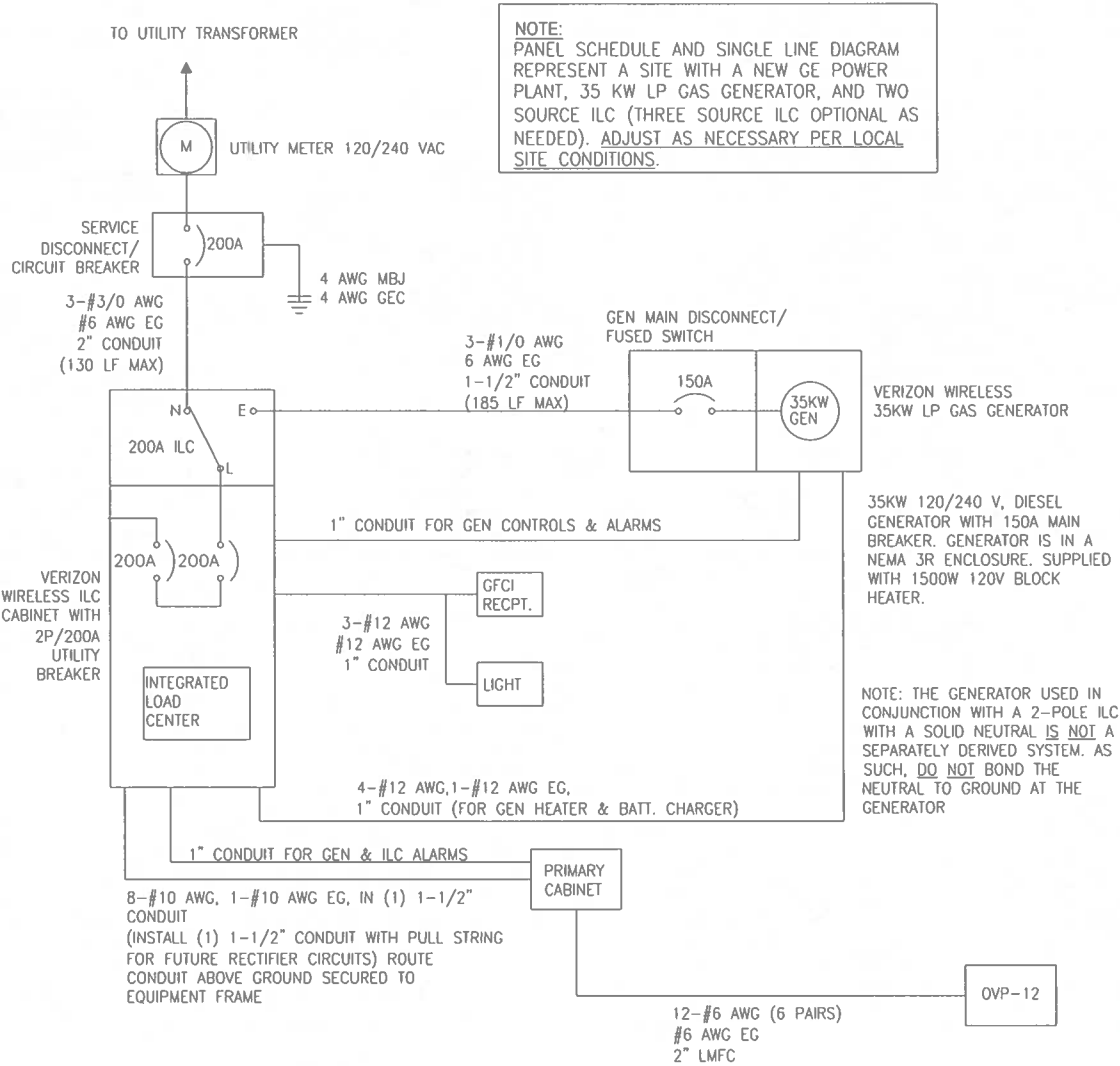
PANEL NAME:		VZW ILC			MODEL NUMBER:		INTERSECT AA300G-1PH-3R										
RATED VOLTAGE:		240	120	VOLTS	PHASE/WIRE:		1	3									
MAIN BREAKER:		200	AMPS		BUS RATING:		200		KEY DOOR LATCH:		YES						
MOUNT:		SURFACE			NEUTRAL BAR:		YES		HENGED DOOR:		YES						
ENCLOSURE TYPE:		NEMA 3R			AIC:		65K										
POS	USAGE FACTOR	BUS AMPS		LOAD	POLES	AMPS	L1	L2	AMPS	POLES	LOAD	BUS AMPS		USAGE FACTOR	POS		
		L1	L2									L1	L2				
1	1	18		RECTIFIER	2	30A			30A	2	FUTURE RECTIFIER	18		1	2		
3	1		18											18	1	4	
5	1	18		RECTIFIER	2	30A			30A	2	FUTURE RECTIFIER	18		1	6		
7	1		18											18	1	8	
9	1	18		RECTIFIER	2	30A								1	10		
11	1		18												1	12	
13	1	18		RECTIFIER	2	30A									14		
15	1		18													16	
17	1.25	12		GFI RECEPT. /LIGHT	1	20A									18		
19	1.25		12	BLOCK HEATER	1	20A									20		
21	1.25	5		BATT. CHARGER	1	20A									22		
23															24		
25															26		
27															28		
29															30		
		93.25	87	:SUB TOTAL AMPS							SUB TOTAL AMPS:		36	36			
												FACTORED TOTAL AMPS:		129.25	123		

NOTES:
1. ALL CONDUCTORS ARE TYPE THWN (75°C) COPPER.
2. MAXIMUM LENGTH OF RUN FOR RECTIFIER CIRCUITS IS 50FT.
3. INTERSECT/ GENERAC INTEGRATED LOAD CENTER INCLUDES 200 AMP MAIN DISCONNECT AND TRANSFER SWITCH FOR PORTABLE OR PERMANENT GENERATOR.
4. RECTIFIER LOADS ARE CONSIDERED TO BE NON-CONTINUOUS.
5. IF ADDITIONAL FUTURE LOADS ARE ADDED WHICH CAUSE TOTAL DEMAND TO EXCEED GENERATOR BREAKER SIZE, BACKUP POWER SYSTEM SHALL BE EVALUATED AND UPGRADED AS NECESSARY.

PANEL SCHEDULE



NOTES:
• ADD (1) ADDITIONAL 2" CONDUIT FOR DARK FIBER (2 TOTAL) IF REQUIRED BY LOCAL MARKET FACILITIES, VERIFY PRIOR TO CONSTRUCTION. (ADD 2 PULL STRINGS TO EACH CONDUIT)
• VERIFY EBH REQUIREMENTS WITH TELCO PROVIDER PRIOR TO CONSTRUCTION. (ADD 2 PULL STRINGS TO EACH CONDUIT)



NOTES:
1. ALL EQUIPMENT SHALL BE NEMA 3R RATED.
2. ALL EQUIPMENT SHALL BE LIGHTNING PROTECTED IN ACCORDANCE WITH TIA-222-G AND VERIZON WIRELESS STANDARDS.
3. CONDUCTOR SIZES AND DISTANCES HAVE BEEN SIZED FOR 3% MAX VOLTAGE DROP (TOTAL SYSTEM VOLTAGE DROP ON BOTH FEEDERS AND BRANCH CIRCUITS TO THE FARTHEST DEMAND SHALL NOT EXCEED 5%).
4. WIRE SIZING AND MAXIMUM DISTANCE FROM GENERATOR TO ILC ASSUMES POWER FACTOR OF 0.9.
5. BELOW GRADE CONDUIT SHALL BE SCHEDULE 80 PVC. ABOVE GRADE CONDUIT SHALL BE GALVANIZED RIGID CONDUIT. BELOW GRADE PVC CONDUIT SHALL TRANSITION TO GRC PRIOR TO RISING ABOVE GRADE. ALL BENDS SHALL HAVE A MINIMUM 24" RADIUS. ALL FITTINGS SHALL BE SUITABLE FOR USE WITH THREADED RIGID CONDUIT. VERIFY CONDUIT TYPE WITH LOCAL CONSTRUCTION MANAGER AND ADJUST IF NECESSARY. ALL CONDUIT SHALL MEET NEC, STATE, AND LOCAL CODE REQUIREMENTS AS REQUIRED.

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PM&A
P. MARSHALL & ASSOCIATES
1000 HOLCOMB WOODS PKWY, STE 210,
ROSWELL, GA 30076
OFFICE 678-230-2325

VERIZON SITE NUMBER:
585456

BU #: **809328**
LAKE CITY W J-FL-012-058

555 HACKNEY LANE
LAKE CITY, FL 32055

EXISTING 254'-0"
SELF-SUPPORT TOWER

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DWG/QA
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C	7/23/2021	CW	ISSUED FOR FINALS	CW



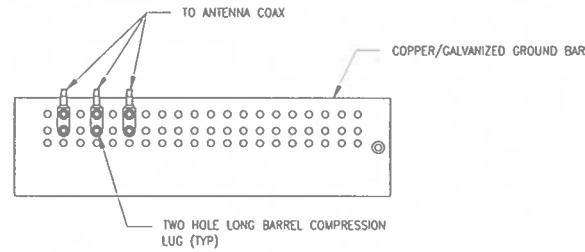
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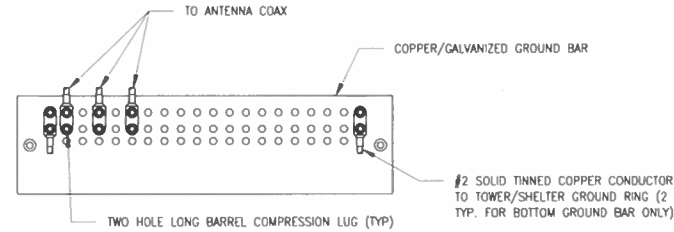
G-2

REVISION:

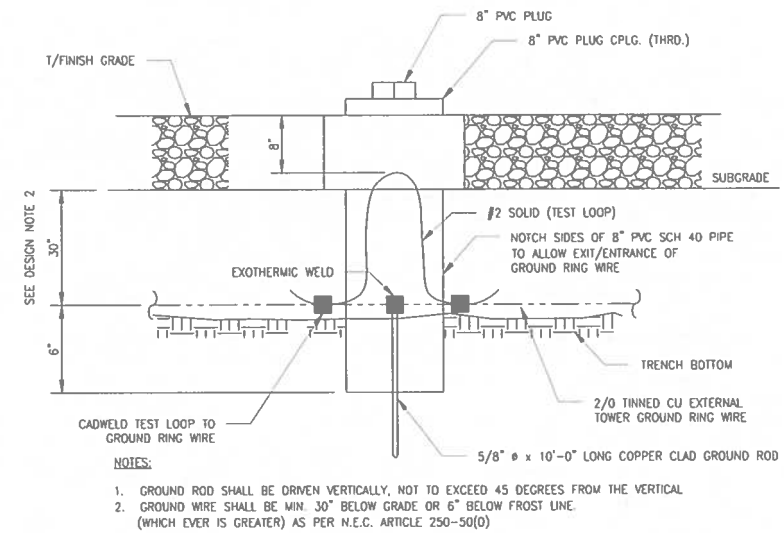
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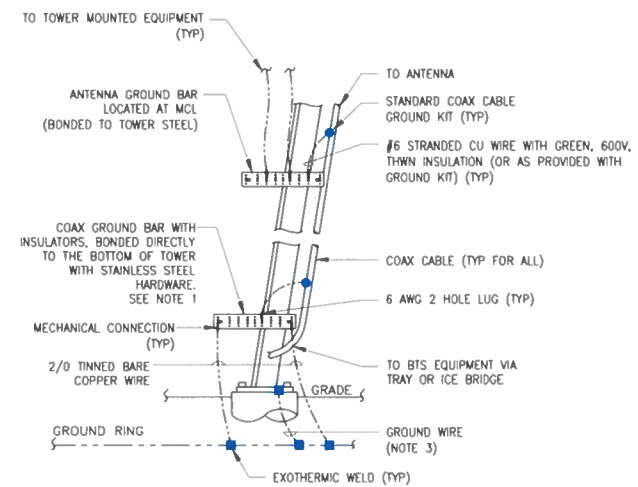
1 ANTENNA SECTOR GROUND BAR DETAIL
SCALE: NOT TO SCALE



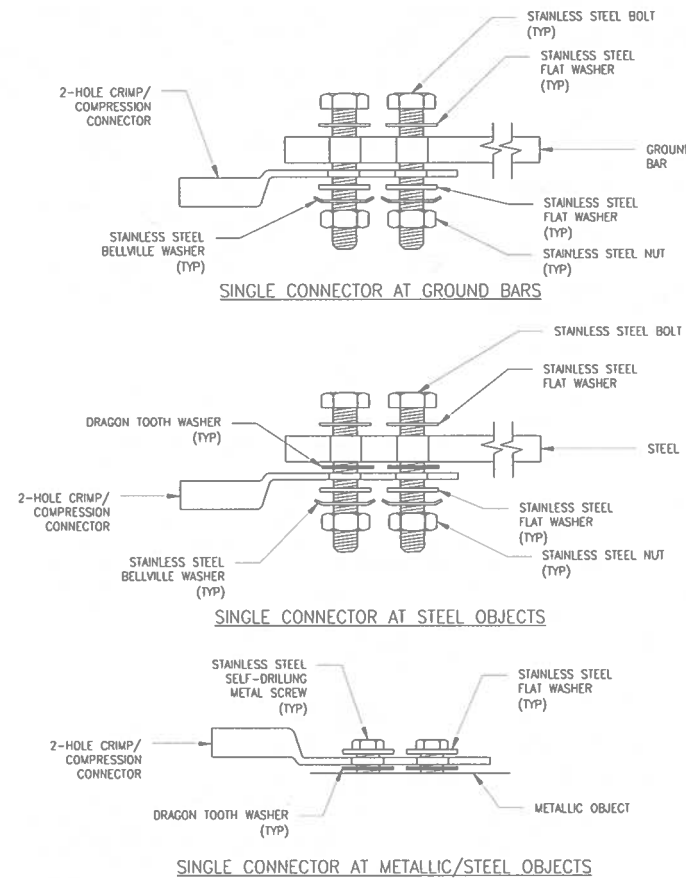
2 TOWER/SHELTER GROUND BAR DETAIL
SCALE: NOT TO SCALE



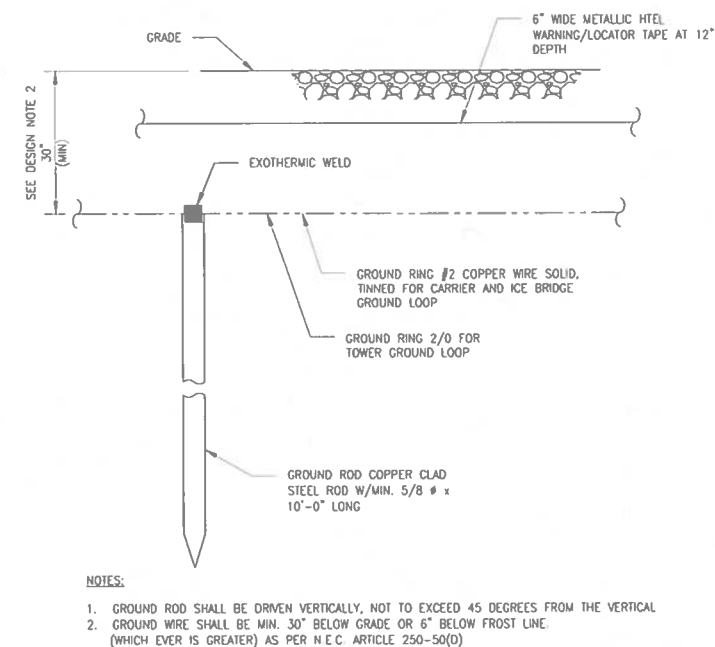
3 INSPECTION WELL DETAIL
SCALE: NOT TO SCALE



4 TYPICAL ANTENNA CABLE GROUNDING
SCALE: NOT TO SCALE



5 HARDWARE DETAIL FOR EXTERIOR CONNECTIONS
SCALE: NOT TO SCALE



6 GROUND ROD DETAIL
SCALE: NOT TO SCALE

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VERIZON SITE NUMBER:
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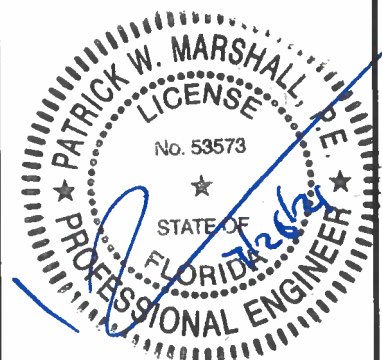
BU #: 809328
LAKE CITY W J-FL-012-058

555 HACKNEY LANE
LAKE CITY, FL 32055

EXISTING 254'-0"
SELF-SUPPORT TOWER

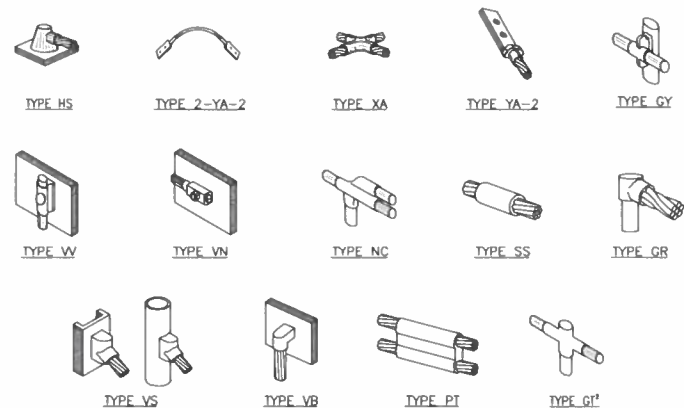
ISSUED FOR:

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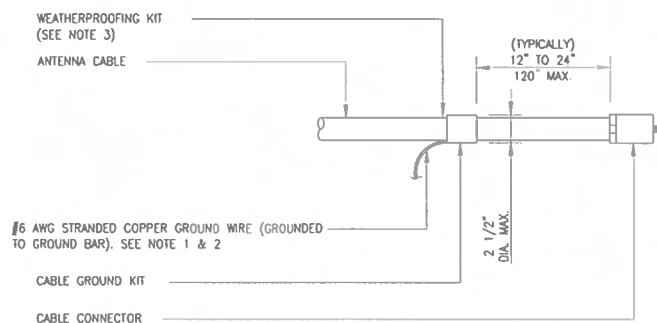
SHEET NUMBER: **G-3** REVISION: **1**



NOTE:

1. ERICO EXOTHERMIC "MOLD TYPES" SHOWN HERE ARE EXAMPLES. CONSULT WITH CONSTRUCTION MANAGER FOR SPECIFIC MOLDS TO BE USED FOR THIS PROJECT.
2. MOLD TYPE ONLY TO BE USED BELOW GRADE WHEN CONNECTING GROUND RING TO GROUND ROD.

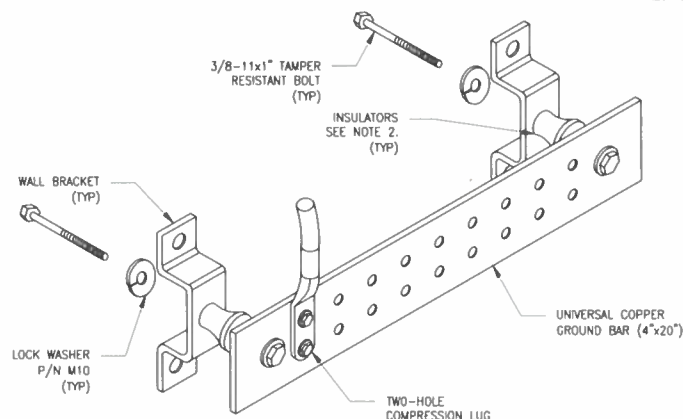
1 CADWELD GROUNDING CONNECTIONS
SCALE: NOT TO SCALE



NOTES:

1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.
2. GROUNDING KIT SHALL BE TYPE AND PART NUMBER AS SUPPLIED OR RECOMMENDED BY CABLE MANUFACTURER.
3. WEATHER PROOFING SHALL BE TWO-PART TAPE KIT, COLD SHRINK SHALL NOT BE USED.

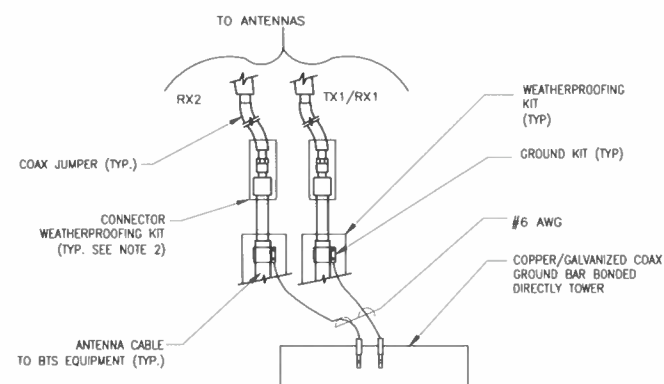
3 CABLE GROUND KIT CONNECTION
SCALE: NOT TO SCALE



NOTES:

1. DOWN LEAD (HOME RUN) CONDUCTORS ARE NOT TO BE INSTALLED ON CROWN CASTLE USA INC. TOWER, PER THE GROUNDING DOWN CONDUCTOR POLICY GAS-STD-10091. NO MODIFICATION OR DRILLING TO TOWER STEEL IS ALLOWED IN ANY FORM OR FASHION, CAD-WELDING ON THE TOWER AND/OR IN THE AIR ARE NOT PERMITTED.
2. OMIT INSULATOR WHEN MOUNTING TO TOWER STEEL OR PLATFORM STEEL. USE INSULATORS WHEN ATTACHING TO BUILDING OR SHELTERS.

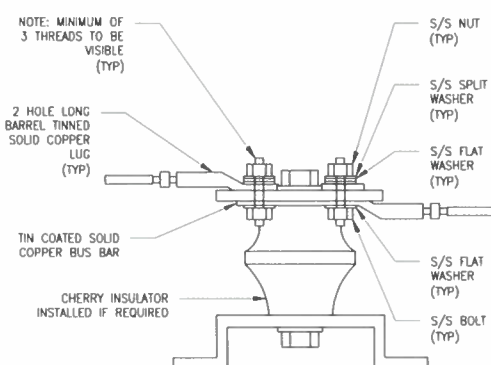
6 GROUND BAR DETAIL
SCALE: NOT TO SCALE



NOTES:

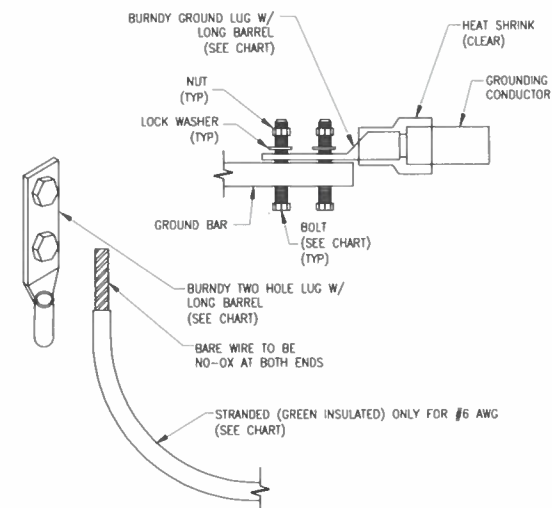
1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO ANTENNA GROUND BAR.
2. WEATHER PROOFING SHALL BE TWO-PART TAPE KIT. COLD SHRINK SHALL NOT BE USED.

4 GROUND CABLE CONNECTION
SCALE: NOT TO SCALE



7 LUG DETAIL
SCALE: NOT TO SCALE

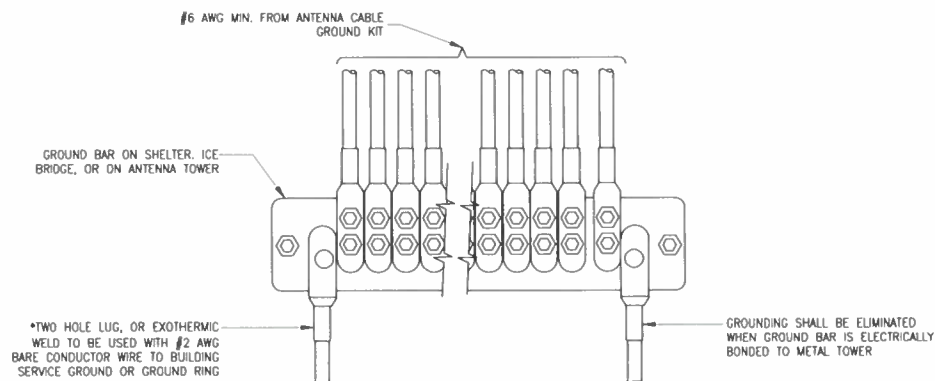
WIRE SIZE	BURNDY LUG	BOLT SIZE
#6 AWG GREEN INSULATED	YA6C-2TC38	3/8" - 16 NC S 2 BOLT
#2 AWG SOLID TINNED	YA3C-2TC38	3/8" - 16 NC S 2 BOLT
#2 AWG STRANDED	YA2C-2TC38	3/8" - 16 NC S 2 BOLT
#2/0 AWG STRANDED	YA26-2TC38	3/8" - 16 NC S 2 BOLT
#4/0 AWG STRANDED	YA28-2N	1/2" - 16 NC S 2 BOLT



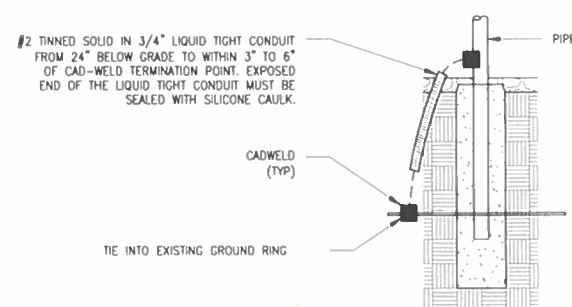
NOTES:

1. ALL GROUNDING LUGS ARE TO BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS. ALL HARDWARE BOLTS, NUTS, LOCK WASHERS SHALL BE STAINLESS STEEL. ALL HARDWARE ARE TO BE AS FOLLOWS: BOLT, FLAT WASHER, GROUND BAR, GROUND LUG, FLAT WASHER AND NUT.

2 MECHANICAL LUG CONNECTION
SCALE: NOT TO SCALE



5 GROUNDWIRE INSTALLATION
SCALE: NOT TO SCALE



8 TRANSITIONING GROUND DETAIL
SCALE: NOT TO SCALE

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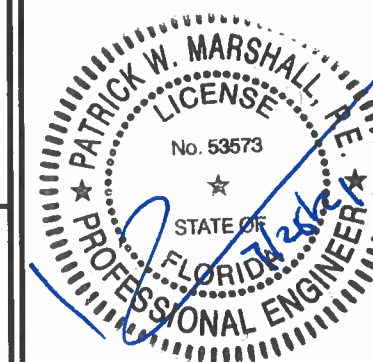
BU #: 809328
LAKE CITY W J-FL-012-058

555 HACKNEY LANE
LAKE CITY, FL 32055

EXISTING 254'-0"
SELF-SUPPORT TOWER

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DFS/QM
A	5/27/2021	CW	LEASE EXHIBIT ISSUE	CW
0	6/10/2021	CW	ISSUED FOR PRELIMS	CW
1	7/23/2021	CW	ISSUED FOR FINALS	CW



IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT

SHEET NUMBER: REVISION:

G-4

1