

## AGENDA SUMMARY ITEM

### Agenda Item #: C-\_3\_

**Agenda Item:** Approval and authorization for the Mayor to sign the “Co-Location Agreement” between the Village of Royal Palm Beach and DISH Wireless, LLC regarding the cell tower site at 980 Crestwood Boulevard.

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If approved, this Co-Location Agreement will allow DISH Wireless, LLC (“DISH”) to locate a wireless communication facility adjacent to the existing tower site managed by Crown Castle (Business Unit # 805808). DISH is proposing to lease 100 square feet of space from the Village to support its wireless communication facility. DISH has agreed to pay the Village \$33,010.00 for the initial five-year term of the Agreement (\$6,602.00 per year). Payment for the entire initial five-year term is due within thirty (30) days of execution of the Agreement by both parties. Subsequent payment amounts for renewal terms are outlined in the Agreement.

**Recommended Action:**

Staff recommends that the Village Council approve the Co-Location Agreement with DISH Wireless, LLC, and authorize the Mayor to sign.

Initiator	Village Manager Approval	Agenda Date	Village Council Action
Stanley G. Hochman Finance Director		February 16, 2023	

## CO-LOCATION AGREEMENT

THIS CO-LOCATION AGREEMENT (this "Agreement") is entered into this \_\_\_\_ day of \_\_\_\_\_, 2023, effective immediately (the "Effective Date"), between the Village of Royal Palm Beach, a municipal corporation, ("Village") having its principal office located at 1050 Royal Palm Beach Boulevard, Royal Palm Beach, Florida, 33411; and DISH Wireless, L.L.C, a Colorado limited liability company, with its principal offices at 9601 South Meridian Boulevard, Englewood, Colorado 80112 ("DISH," and together with Village, the "Parties," each a "Party").

WHEREAS, the Village is the fee owner of the real property located at 980 Crestwood Boulevard, Royal Palm Beach (Palm Beach County), Florida 33411, and legally described and depicted as set forth on the attached Exhibit "A" (a/k/a Crown Castle ID # 805808) (hereinafter referred to as the "Premises"); and

WHEREAS, the Village, as landlord, and Crown Communication Inc., a Delaware corporation, d/b/a Crown Comm Inc., in the state of Florida ("Tenant"), entered into that certain Lease Agreement dated June 7, 2007 (the "Initial Lease") as amended by a "First Amendment to Lease Agreement and Assignment of Lease Agreement" dated August 23, 2010 (the "Amended Lease") (hereinafter both documents are collectively referred to as the "Lease") regarding the lease of the Premises; and

WHEREAS, as a result of the assignment of the Lease referenced above, the current tenant under the terms of the Lease is Crown Castle South, LLC, a Delaware limited liability company (the "Tenant") and an "Amended Memorandum of Lease" regarding the amended terms of the Lease has been recorded in the Public Records for Palm Beach County, Florida at Official Records Book, 24036, Pages 0919-0929 ("MOL"); and

WHEREAS, DISH seeks to lease ground space from the Village on its Premises in order to co-locate certain wireless communication facilities at that location; and

WHEREAS, the Village is willing to enter into a lease agreement with DISH for ground space in order to accommodate DISH's co-location of wire communication facilities.

NOW, THEREFORE, for and in consideration of the mutual covenants contained herein, as well as other good and valuable consideration outlined herein, the receipt and sufficiency of which are hereby acknowledged, the Village and DISH hereby agree as follows:

1. LEASE AREA AND USE. The Village agrees to allow DISH to co-locate certain of its



facilities on a portion of the Village's Premises identified in the attached Exhibit "B" and consisting of approximately one hundred (100) square feet of land (hereinafter referred to as the "Lease Area"). Tenant has no objection to such co-location of facilities on the Premises as such an arrangement was specifically agreed to in Section 7 of the Initial Lease and confirmed via Tenant's Letter of No Objection dated January 23, 2023. The location and legal description of the Premises and the Lease Area are depicted on Exhibits "A" and "B", respectively. The location of non-exclusive easements for utilities and access to and from the Lease Area are described on Exhibit "A". The Lease Area will be used by DISH for the purpose of co-locating, installing, removing, replacing, maintaining and operating, at its sole expense, a wireless communication facility, (hereinafter referred to as "WCF"), or other electronic signal transmission device or technology, including related antenna equipment and fixtures. Any WCF in the Lease Area which produces noise shall be sited and/or insulated in such a fashion as to minimize the audio impact on adjacent property and buildings, and shall not exceed fifty decibels (50 db) when measured from the nearest property line to such equipment; provided however, that the WCF may exceed such noise threshold in certain temporary situations when power is unavailable to the WCF, as a result of natural disasters or similar emergency circumstances where DISH must deploy a generator to the Lease Area to avoid interruption of power. DISH agrees to comply with the Village's emergency generator noise requirements contained in Section 26-101 of the Village Code in such situations. Any WCF in the Lease Area shall not exceed fifty (50) inches in height.

2. TERM. The Term of this Agreement (the "Initial Term") shall commence on the Effective Date and shall run for a period of five (5) years. This Agreement will be automatically renewed for five (5) additional renewal terms (each a "Renewal Term") of five (5) years each, unless either party provides notice of intention not to renew not less than one hundred eighty (180) days prior to the expiration of the Initial Term or any subsequent Renewal Term.

3. FEES.

A. INITIAL TERM FEE. The initial annual user fee for the Lease Area will be SIX THOUSAND SIX HUNDRED TWO DOLLARS AND NO CENTS (\$6,602.00), which is equivalent to Five Hundred Fifty Dollars and Seventeen Cents (\$550.17) per month. The total fee due for the entire five (5) year Initial Term is **THIRTY-THREE THOUSAND TEN DOLLARS AND NO CENTS (\$33,010.00)** (hereinafter the "Initial Term Fee"). DISH shall pay the Initial Term Fee to the Village within thirty (30) days after the Effective Date of this Agreement.

B. RENEWAL TERM FEES. The total fee for each of the Renewal Terms (the “Renewal Term Fee”) shall be as follows:

- \$40,161.71 for the First Renewal Term (\$8,032.34 X 5 Years)
- \$48,862.86 for the Second Renewal Term (\$9,772.57 X 5 Years)
- \$59,449.15 for the Third Renewal Term (\$11,889.83 X 5 Years)
- \$72,328.97 for the Fourth Renewal Term (\$14,465.79 X 5 Years)
- \$87,999.26 for the Fifth Renewal Term (\$17,599.85 X 5 Years)

The fee for the First Renewal Term is calculated by taking the fee for the last year of the Initial Term (\$6,602.00), increasing it at the effective rate of four percent (4%) a year compounded annually during the duration of the Initial Term and multiplying this annual compounded total amount for the last year by five (the number of years in the First Renewal Term).

Each Renewal Term Fee shall be payable in advance for the entire Renewal Term at the beginning of each, five (5) Year Renewal Term. DISH shall pay each Renewal Term Fee to the Village on or before the first day of the applicable Renewal Term.

4. TITLE AND QUIET POSSESSION. The Village represents and agrees as follows:

- (a) that it is the owner of the Lease Area;
- (b) that it has the right to enter into this Agreement;
- (c) that the person signing this Agreement on behalf of the Village has the authority to sign; and
- (d) that DISH is entitled to access to the Lease Area at all times and to the use of the Lease Area for the purposes set forth herein throughout the Initial Term and each Renewal Term so long as DISH is not in default beyond the expiration of any cure period.

5. ASSIGNMENT/SUBLETTING. DISH shall not assign or transfer this Agreement without the prior written consent of the Village, which consent will not be unreasonably withheld, delayed or conditioned; provided, however, that DISH may assign without the Village's prior written consent to any party controlling, controlled by or under common control with DISH or to any party which acquires substantially all of the assets of DISH ; and further provided, however, that the Village may assign this Agreement without DISH's prior written consent if the Village is selling or transferring ownership of the property underlying the Lease Area to another party so long as the purchaser or assignee specifically agrees in writing to comply with all the terms and conditions of this Agreement. DISH may sublet the Lease Area, but in such case shall remain fully liable to the Village under this Agreement.

6. USE OF ADJACENT PREMISES BY THIRD PARTIES. Subject to the interference provisions set forth in Section 10 hereunder, DISH hereby acknowledges and understands that additional third parties may be allowed by the Village at its sole discretion to co-locate their equipment in other areas adjacent to the Lease Area and/or the Premises and/or on the self supported structure managed by the Tenant under certain circumstances. Further, subject to the interference provisions set forth in Section 10 hereunder, it is also understood and agreed that the Village may utilize the self-supported structure on the Premises for the location of the Village telemetry system and other communications facilities, as needed at no cost to the Village.

7. NOTICES. All notices must be in writing and are effective when delivered via certified mail, or a nationally recognized courier service, to the address set forth below, or as otherwise provided by law.

<b>Village of Royal Palm Beach</b>	<b>DISH Wireless, L.L.C.</b>
1050 Royal Palm Beach Boulevard Royal Palm Beach, Florida 33411 Attn: Raymond C. Liggins, P.E., Village Manager	DISH Wireless, L.L.C. 5701 South Santa Fe Drive Littleton, Colorado 80120 Attn: Lease Administration, Site ID MIMIA00112A  Send all utility documentation to:  DISH Wireless L.L.C. Attn: Utilities Management (MIMIA00112A) 5701 South Santa Fe Drive Littleton, Colorado 80120

8. IMPROVEMENTS. Subject to the interference provisions set forth in Section 10 hereinbelow, DISH may, at its expense, make such improvements on the Lease Area as it deems necessary from time to time for the operation of a transmitter Site for a wireless voice and data communications in cooperation with Tenant and in such a way as will not interfere with the Village's use of the Premises or the Village's other property. Within sixty (60) days of termination or expiration of this Agreement, DISH shall remove its equipment and improvements. DISH shall restore the Lease Area to the condition existing prior to the Effective Date of this Agreement (except for ordinary wear and tear and damage caused by natural disasters) within sixty (60) days of the expiration or termination of this Agreement.

9. COMPLIANCE WITH LAWS. The Village represents that the Village's property (including the Lease Area) and all improvements located thereon, are in compliance with building,

life/safety, disability and other laws, codes and regulations of applicable governmental authorities. During the Initial Term and each Renewal Term of this Agreement, DISH shall comply with all applicable laws relating to its possession and use of the Lease Area and understands that the Village may lease property surrounding the Lease Area to other tenants at a future time.

10. INTERFERENCE. DISH will resolve technical interference problems with other equipment located at the Premises upon the Effective Date of this Agreement. In addition, if DISH desires to add additional equipment to the Lease Area after its initial installation, DISH will resolve technical interference problems with other equipment installed at the Premises between the Effective Date of this Agreement and such future date. Likewise, the Village will not permit the installation of any future equipment, upgrades or enhancements by others which result in technical interference problems with DISH's equipment or creates structural problems with the self-support structure on the Premises.

11. UTILITIES. The Village represents that utilities adequate for DISH's use of the Lease Area are available. DISH will pay for all utilities used by it at the Lease Area. The Village will cooperate with DISH in DISH's efforts to obtain utilities from any location provided by the Village.

12. TERMINATION.

(a) Termination by DISH for Convenience. Notwithstanding any provision contained in this Agreement to the contrary, DISH may, at any time for any reason, terminate this Agreement by delivering thirty (30) days' written notice to the Village. In such instance, the Village shall retain the prepaid fees for the balance of the then-current year, plus the fees for one (1) additional year (the "Termination Fee"), and the Village shall promptly remit any additional prepaid fees to DISH within ninety (90) days from the date of the termination.

(b) Termination by DISH for Cause. In addition to the foregoing right of termination for convenience, DISH may terminate this Agreement, upon thirty (30) days written notice to the Village, without payment of the Termination Fee, in the following circumstances: (1) if DISH determines that the Village fails to have proper ownership of the Lease Area or the Lease Agreement has not been assigned in accordance with Section 5 above; (2) if DISH fails to obtain any license, permit, approval or authorization for the initial installation and setup of its WCF and related equipment and fixtures at the Lease Area at the beginning of this Agreement, failed to obtain any license, permit, approval or authorization for any future reasonable installation and setup of WCF-related equipment and fixtures at the Lease Area that complies with all federal, state and local

laws, or has any such approval revoked, canceled, expires or terminated by third parties having jurisdiction over same (i.e., FCC) despite diligent efforts by DISH; or (3) if the Village is in default under this Agreement and fails to cure such default within thirty (30) days of its receipt of DISH's notice of default. In such circumstances, the Village shall refund all unused Initial Term Fee or Renewal Term Fee, as applicable, prorated after the date of termination, to DISH within ninety (90) days from the date of termination.

(c) Nonrenewal by Either Party. Notwithstanding any other provision in this Agreement, either party may terminate this Agreement by providing the other party written notice of nonrenewal not less than one hundred eighty (180) days prior to the expiration of the Initial Term of any subsequent Renewal Term, including the final Fifth Renewal Term.

13. DEFAULT. If DISH is in default under this Agreement for a period of twenty (20) days following receipt of notice from the Village with respect to a default which may be cured solely by the payment of money, or is in default under this Agreement for a period of thirty (30) days following receipt of notice from the Village with respect to a default which may not be cured solely by the payment of money, then, in either event, this Agreement may, at the option of the Village, be terminated in which case the Village shall be entitled to retain all pre-paid monies. However, in the case of a default which may not be cured solely by the payment of money and which cannot reasonable be cured within the thirty (30) day period, if DISH shall commence the curing of such default within the thirty (30) day period and proceed diligently to completion, the Village agrees not to terminate this Agreement. The determination as to whether or not DISH is proceeding diligently shall be solely within the discretion of the Village. All improvements placed on the Lease Area by DISH shall be removed within thirty (30) days of the termination. If the Village is in default under this Agreement for a period of thirty (30) days following receipt of notice from DISH with respect to a non-monetary default, then this Agreement may, at the option of DISH, be terminated. The remedies provided in this Section 13 are not exclusive, and in the event of a default by either party, the non-defaulting party may pursue any available remedies under law or in equity.

14. INDEMNITY. The Village, subject to the limitations set forth below, and DISH each indemnifies the other against and holds the other harmless from any and all costs (including reasonable attorney's fees) and claims of liability or loss which arise out of the use and/or occupancy of the Lease Area by the indemnifying Party. This indemnity does not apply to any claims arising from the sole negligence or intentional misconduct of either Party. DISH hereby acknowledges that it does not currently intend to use the Lease Area for propane tanks or generators. However, if in the

future, DISH does intend to use the Lease Area for those purposes, then DISH specifically accepts all responsibility and liability, whatsoever, for those facilities and/or for any and all damages which may arise by virtue of the placement of those facilities in the Lease Area. The foregoing indemnification by the Village shall not constitute a waiver of sovereign immunity beyond the limits set forth in Section 768.28, Florida Statutes.

15. HAZARDOUS SUBSTANCES. The Village represents that it has no knowledge of any substance, chemical or waste on the Lease Area that is identified as hazardous, toxic or dangerous in any applicable federal, state or local law or regulation. Neither the Village nor DISH shall introduce or use any such substance on the Lease Area or the Premises in violation of any applicable law. Should the requisite authority, such as the FCC, OSHA, having jurisdiction over the same, determine that the WCF system is dangerous to the public's health, safety and welfare, and if DISH is unable or unwilling to correct or modify its WCF system in such a way as to remedy the dangerous determination within the timeframe provided by such government agency ("Agency Deadline"), then the Village shall have the unilateral right to terminate this Agreement for convenience upon thirty (30) days' prior written notice to DISH, and shall not be required to give DISH notice and opportunity to cure before termination, so long as such termination notice is given after the Agency Deadline, and the Village shall be entitled to retain the Termination Fee for breach of contract. DISH shall be required to cease operation immediately upon delivery of the Village's notice of termination, and shall remove its equipment and improvements within thirty (30) days after the termination date. The remedies provided in this Section 15 are not exclusive, and the Village shall have the right to pursue any additional remedies available under law or in equity.

16. MISCELLANEOUS.

- (a) This Agreement applies to and binds the heirs, successors, executors, administrators and assigns of the Parties to this Agreement;
- (b) This Agreement is governed by the laws of the State of Florida and venue for any lawsuits brought to enforce this Agreement shall be Palm Beach County;
- (c) This Agreement constitutes the entire agreement between the Parties and supersedes all prior written and verbal agreements, representations, promises or understandings between the Parties. Any amendments to this Agreement must be in writing and executed by both Parties;
- (d) If any provision of this Agreement is invalid or unenforceable with respect to any Party, the

remainder of this Agreement or the application of such provision to persons other than those as to whom it is held invalid or unenforceable, will not be affected and each provision of this Agreement will be valid and enforceable to the fullest extent permitted by law; and

(e) The prevailing Party in any action or proceeding in court to enforce the terms of the Agreement is entitled to receive its reasonable attorneys' fees and other reasonable enforcement costs and expenses from the non-prevailing Party.

*[Signature page to follow]*

IN WITNESS WHEREOF, the parties have executed this Agreement of the day and year first above written.

WITNESSES:

By: \_\_\_\_\_  
Print Name: \_\_\_\_\_

DISH WIRELESS, L.L.C.

By: \_\_\_\_\_  
Print Name: \_\_\_\_\_

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Its: \_\_\_\_\_  
Date: \_\_\_\_\_

WITNESSES:

By: \_\_\_\_\_  
Print Name: \_\_\_\_\_

VILLAGE OF ROYAL PALM BEACH

By: \_\_\_\_\_  
Print Name: \_\_\_\_\_

By: \_\_\_\_\_  
Name: Fred Pinto  
Its: Mayor  
Date: \_\_\_\_\_

ATTEST:

\_\_\_\_\_  
Diane DiSanto, Village Clerk

(SEAL)



EXHIBIT "A"

LEGAL DESCRIPTION OF PREMISES

A PORTION OF TRACT "B" OF "SECTION 15, NORTHEAST QUARTER", AS PER THE PLAT THEREOF RECORDED IN PLAT BOOK 107, PAGE 173, OF THE PUBLIC RECORDS OF PALM BEACH COUNTY, FLORIDA, LOCATED IN THE NORTHEAST 1/4 OF SECTION 15, TOWNSHIP 43 SOUTH, RANGE 41 EAST, SAID PALM BEACH COUNTY, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE NORTHEAST CORNER OF THE NORTHEAST 1/4 OF SECTION 15, TOWNSHIP 43 SOUTH, RANGE 41 EAST, PALM BEACH COUNTY, FLORIDA, SAID POINT BEING LOCATED NORTH 86°37'42" EAST, A DISTANCE OF 100.00 FEET FROM A FOUND 4" X 4" CONCRETE MONUMENT REFERENCE POINT WITH DISK STAMPED "P.B.C. WC 100"; THENCE SOUTH 86°37'42" WEST ALONG THE NORTH LINE OF SAID NORTHEAST 1/4 FOR 628.98 FEET; THENCE DEPARTING SAID NORTH LINE SOUTH 01°41'08" WEST FOR 200.78 FEET TO THE MOST NORTHERLY CORNER OF TRACT "A" OF "SECTION 15, NORTHEAST QUARTER", AS PER THE PLAT THEREOF RECORDED IN PLAT BOOK 107, PAGE 173, OF THE PUBLIC RECORDS OF SAID PALM BEACH COUNTY: THENCE ALONG THE EASTERLY LINE OF SAID TRACT "A" FOR THE FOLLOWING THREE (3) DESCRIBED COURSES; (1) SOUTH 03°22'18" EAST FOR 83.00 FEET TO THE POINT OF BEGINNING; (2) CONTINUE SOUTH 03°22'18" EAST FOR 57.00 FEET; (3) NORTH 86°37'42" EAST FOR 52.00 FEET; THENCE NORTH 03°22'18" WEST FOR 57.00 FEET; THENCE SOUTH 86°37'42" WEST FOR 52.00 FEET TO SAID POINT OF BEGINNING.

CONTAINING 2,964 SQUARE FEET, MORE OR LESS.

## LEGAL DESCRIPTION OF ACCESS EASEMENTS

### 23-FOOT X 52-FOOT CROWN CASTLE NON-EXCLUSIVE EASEMENT

A PORTION OF TRACT "B" OF "SECTION 15, NORTHEAST QUARTER", AS PER THE PLAT THEREOF RECORDED IN PLAT BOOK 107, PAGE 173, OF THE PUBLIC RECORDS OF PALM BEACH COUNTY, FLORIDA, LOCATED IN THE NORTHEAST 1/4 OF SECTION 15, TOWNSHIP 43 SOUTH, RANGE 41 EAST, SAID PALM BEACH COUNTY, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE NORTHEAST CORNER OF THE NORTHEAST 1/4 OF SECTION 15, TOWNSHIP 43 SOUTH, RANGE 41 EAST, PALM BEACH COUNTY, FLORIDA, SAID POINT BEING LOCATED NORTH 86°37'42" EAST, A DISTANCE OF 100.00 FEET FROM A FOUND 4" X 4" CONCRETE MONUMENT REFERENCE POINT WITH DISK STAMPED "P.B.C. WC 100"; THENCE SOUTH 86°37'42" WEST ALONG THE NORTH LINE OF SAID NORTHEAST 1/4 FOR 628.98 FEET; THENCE DEPARTING SAID NORTH LINE SOUTH 01°41'08" WEST FOR 200.78 FEET TO THE MOST NORTHERLY CORNER OF TRACT "A" OF "SECTION 15, NORTHEAST QUARTER", AS PER THE PLAT THEREOF RECORDED IN PLAT BOOK 107, PAGE 173, OF THE PUBLIC RECORDS OF SAID PALM BEACH COUNTY; THENCE ALONG THE EASTERLY LINE OF SAID TRACT "A" FOR THE FOLLOWING TWO (2) DESCRIBED COURSES; (1) SOUTH 03°22'18" EAST FOR 60.00 FEET TO THE POINT OF BEGINNING; (2) CONTINUE SOUTH 03°22'18" EAST FOR 23.00 FEET; THENCE NORTH 86°37'42" EAST FOR 52.00 FEET; THENCE NORTH 03°22'18" WEST FOR 23.00 FEET; THENCE SOUTH 86°37'42" WEST FOR 52.00 FEET TO SAID POINT OF BEGINNING.

CONTAINING 1,196 SQUARE FEET, MORE OR LESS.

### CROWN CASTLE NON-EXCLUSIVE EASEMENT

(BEING THE SAME DESCRIPTION THAT APPEARS IN THE CROSS-ACCESS AGREEMENT RECORDED IN OFFICIAL RECORDS BOOK 21296, PAGE 1490, OF THE PUBLIC RECORDS OF PALM BEACH COUNTY, FLORIDA)

A PORTION OF LAND IN SECTION 15, TOWNSHIP 43 SOUTH, RANGE 41 EAST, VILLAGE OF ROYAL PALM BEACH, PALM BEACH COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHEAST CORNER OF SECTION 15, TOWNSHIP 43 SOUTH, RANGE 41 EAST, THENCE S86°37'42"W ALONG THE NORTH LINE OF SAID SECTION 15 FOR A DISTANCE OF 646.68 FEET; THENCE S03°22'18"E FOR 200.00 FEET TO A POINT ON THE SOUTH RIGHT OF WAY LINE OF THE M-1 CANAL AS DESCRIBED IN THAT CERTAIN EASEMENT AGREEMENT FROM PALM BEACH COLONY, INC., TO

INDIAN TRAIL WATER CONTROL DISTRICT, DATED DECEMBER 17, 1968, AND RECORDED IN OFFICIAL RECORDS BOOK 1694 AT PAGE 1753, OF THE PUBLIC RECORDS OF PALM BEACH COUNTY, FLORIDA, SAID POINT BEING THE POINT OF BEGINNING: THENCE CONTINUE S03°22'18"E FOR 100.00 FEET; THENCE SOUTH 86°37'42" W ALONG A LINE PARALLEL WITH AND 100.00 FEET SOUTH AS MEASURED AT RIGHT ANGLES TO THE SOUTH RIGHT OF WAY LINE OF THE SAID M-1 CANAL FOR A DISTANCE OF 61.76 FEET; THENCE N03°22'18"W FOR 100.00 FEET; THENCE N86°37'42"E ALONG THE SOUTH RIGHT OF WAY LINE OF SAID M-1 CANAL FOR A DISTANCE OF 61.76 FEET TO THE POINT OF BEGINNING.

CROWN CASTLE NON-EXCLUSIVE EASEMENT

(BEING THE SAME DESCRIPTION THAT APPEARS IN THE ACCESS AGREEMENT RECORDED IN OFFICIAL RECORDS BOOK 4012, PAGE 573, AS ASSIGNED BY THE ASSIGNMENT OF ACCESS AGREEMENT TO PALM BEACH COUNTY RECORDED IN OFFICIAL RECORDS BOOK 20266, PAGE 601, BOTH OF THE PUBLIC RECORDS OF PALM BEACH COUNTY, FLORIDA)

A PARCEL OF LAND IN THE NORTHEAST QUARTER (N.E. 1/4) OF SECTION 15, TOWNSHIP 43 SOUTH, RANGE 41 EAST, PALM BEACH COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE NORTHEAST CORNER OF SAID SECTION 15; THENCE SOUTH 86°37'43" WEST (FOR CONVENIENCE THE BEARINGS SHOWN HEREIN ARE RELATIVE TO AN ASSUMED MERIDIAN) ALONG THE NORTH LINE OF SAID SECTION 15, A DISTANCE OF 628.98 FEET TO THE POINT OF BEGINNING OF THIS DESCRIPTION; THENCE LEAVING SAID NORTH LINE SOUTH 01°41'08" WEST, A DISTANCE OF 200.78 FEET; THENCE SOUTH 86°37'43" WEST ALONG A LINE THAT IS 200.00 FEET SOUTH OF AND PARALLEL WITH THE NORTH LINE OF SAID SECTION 15, A DISTANCE OF 62.00 FEET; THENCE NORTH 01°41'08" EAST, A DISTANCE OF 200.78 FEET TO A POINT OF INTERSECTION WITH THE NORTH LINE OF SAID SECTION 15; THENCE NORTH 86°37'43" EAST ALONG SAID NORTH LINE, A DISTANCE OF 62.00 FEET TO THE POINT OF BEGINNING.

CONTAINING 0.29 ACRES MORE OR LESS.

## LEGAL DESCRIPTION OF UTILITY EASEMENT

A PORTION OF TRACT "A" AND TRACT "B" OF "SECTION 15, NORTHEAST QUARTER", AS PER THE PLAT THEREOF RECORDED IN PLAT BOOK 107, PAGE 173, OF THE PUBLIC RECORDS OF PALM BEACH COUNTY, FLORIDA, LOCATED IN THE NORTHEAST 1/4 OF SECTION 15, TOWNSHIP 43 SOUTH, RANGE 41 EAST, SAID PALM BEACH COUNTY, LYING WITHIN 5 FEET OF BOTH SIDES OF A CENTERLINE BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE NORTHEAST CORNER OF THE NORTHEAST 1/4 OF SECTION 15, TOWNSHIP 43 SOUTH, RANGE 41 EAST, PALM BEACH COUNTY, FLORIDA, SAID POINT BEING LOCATED NORTH 86°37'42" EAST, A DISTANCE OF 100.00 FEET FROM A FOUND 4" X 4" CONCRETE MONUMENT REFERENCE POINT WITH DISK STAMPED "P.B.C. WC 100"; THENCE SOUTH 86°37'42" WEST ALONG THE NORTH LINE OF SAID NORTHEAST 1/4 FOR 628.98 FEET; THENCE DEPARTING SAID NORTH LINE SOUTH 01°41'08" WEST FOR 200.78 FEET TO THE MOST NORTHERLY CORNER OF TRACT "A" OF "SECTION 15, NORTHEAST QUARTER", AS PER THE PLAT THEREOF RECORDED IN PLAT BOOK 107, PAGE 173, OF THE PUBLIC RECORDS OF SAID PALM BEACH COUNTY: THENCE ALONG THE EASTERLY LINE OF SAID TRACT "A" FOR THE FOLLOWING TWO (2) DESCRIBED COURSES; (1) SOUTH 03°22'18" EAST FOR 60.00 FEET TO THE NORTHWESTERLY CORNER OF A TOWER PARCEL; (2) CONTINUE SOUTH 03°22'18" EAST FOR 5.00 FEET TO THE POINT OF BEGINNING OF THE CENTERLINE OF THE HEREIN DESCRIBED NON-EXCLUSIVE 10 FOOT WIDE UTILITY EASEMENT; THENCE SOUTH 86°37'42" WEST FOR 15.62 FEET; THENCE NORTH 02°01'37" EAST FOR 95.92 FEET; THENCE SOUTH 88°18'52" EAST FOR 11.00 FEET TO THE POINT OF TERMINUS OF THE HEREIN DESCRIBED CENTERLINE.

CONTAINING 1,225 SQUARE FEET, MORE OR LESS.

EXHIBIT “B”

SKETCH AND LEGAL DESCRIPTION OF RESERVED SPACE





1. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS.
2. ANTENNAS AND MOUNTS OMITTED FOR CLARITY.
3. THE SUBJECT PROPERTY IS IN FLOOD ZONE "AE" AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN ACCORDING TO F.E.M.A. PER COMMUNITY PANEL NUMBER 12099C0551F, DATED 10/05/17.
4. GC TO REFER TO FINAL UTILITY COORDINATION DOCUMENT FOR ALL MEET-ME-POINTS AND ROUTING DETAILS.



1

1. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS.
2. CONTRACTOR SHALL MAINTAIN A 10'-0" MINIMUM SEPARATION BETWEEN THE PROPOSED GPS UNIT, TRANSMITTING ANTENNAS AND EXISTING GPS UNITS.
3. ANTENNAS AND MOUNTS OMITTED FOR CLARITY.



4' 2' 0 4'

$1/4" = 1' - 0"$

4

A circular professional engineer seal for Joshua H. Carden. The outer ring contains the text "JOSHUA H. CARDEN" at the top and "PROFESSIONAL ENGINEER" at the bottom, separated by two stars. Inside this ring, the word "LICENSE" is at the top, "No 83511" is in the center, and "STATE OF FLORIDA" is at the bottom, also separated by two stars. The seal has a decorative border of small dots.

This item has been digitally signed and sealed by  
JOSHUA H. CARDEN using a Digital Signature and date. Printed  
copies of this document are not considered signed and sealed  
and the signature must be verified on any electronic copies.

January 5, 2023

**A-1**

- NOTES
1. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS.

2. ANTENNA SPECIFICATIONS REFER TO ANTENNA SCHEDULE AND TO FINAL CONSTRUCTION RFDS FOR ALL RF DETAILS.

3. PROPOSED CABLE/ROUTING AND PROPOSED EQUIPMENT SHALL BE VERIFIED BY A PASSING SA PRIOR TO CONSTRUCTION.

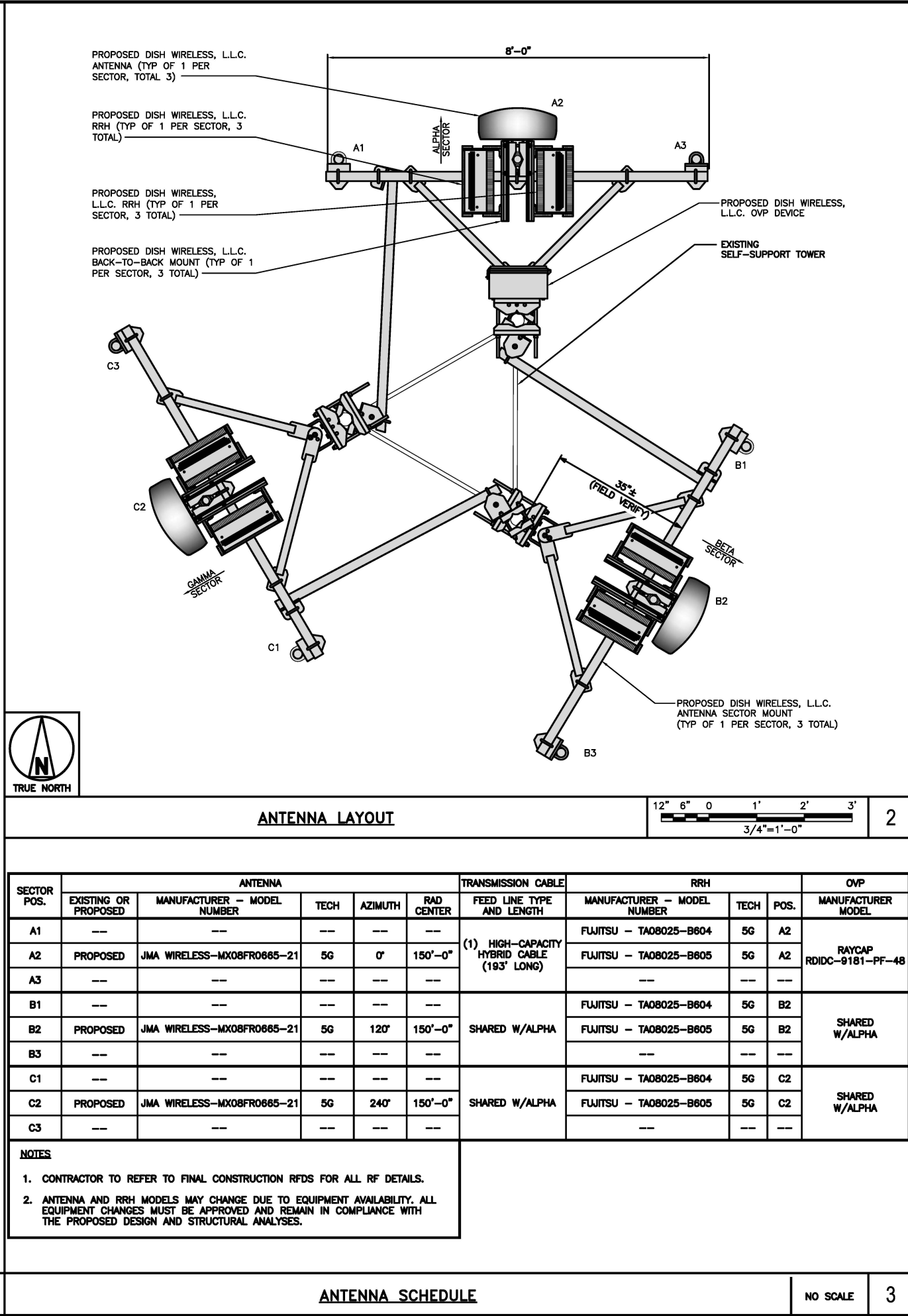
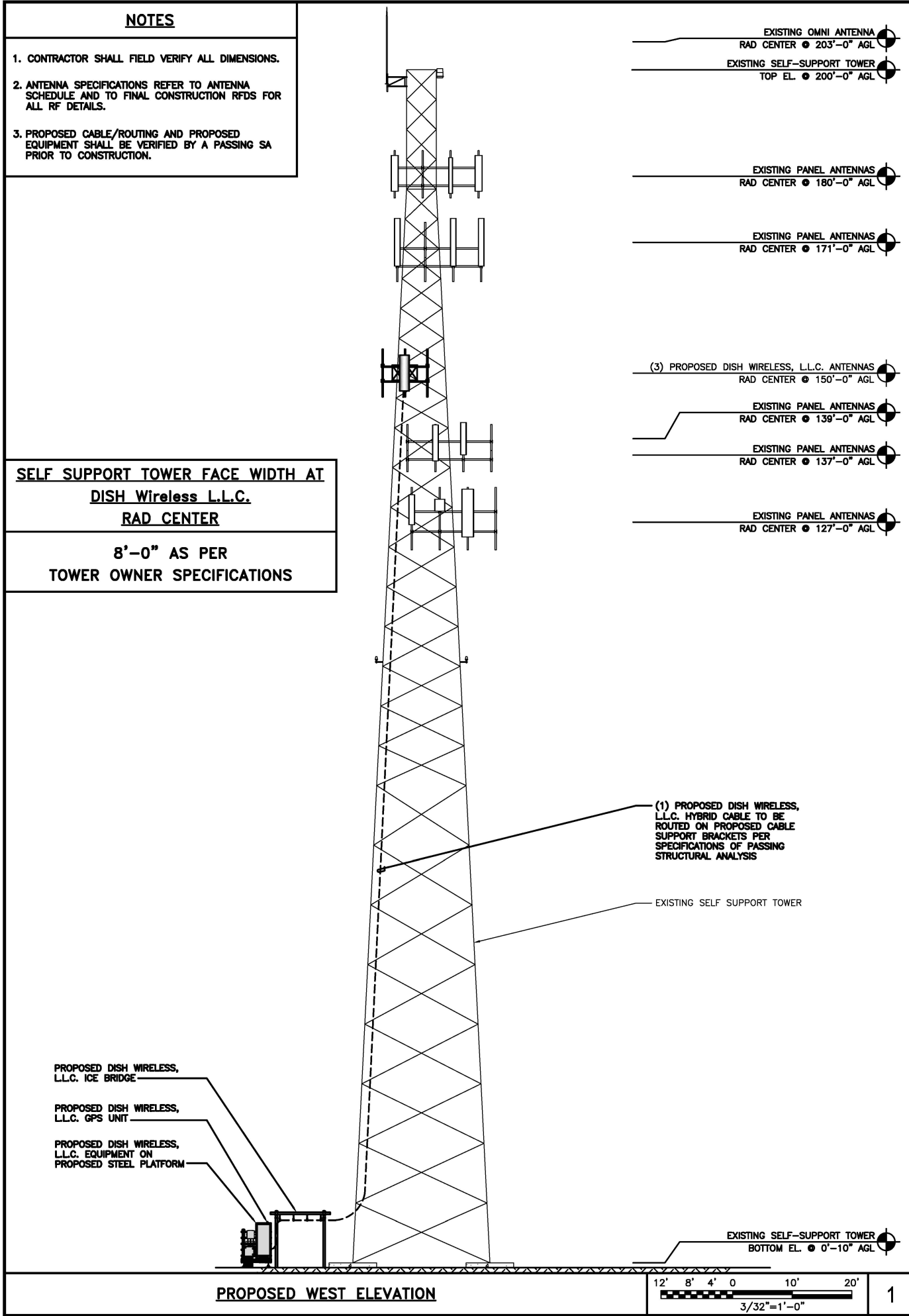
SELF SUPPORT TOWER FACE WIDTH AT

DISH Wireless L.L.C.

RAD CENTER

8'-0" AS PER

TOWER OWNER SPECIFICATIONS



dish wireless.

5701 SOUTH SANTA FE DRIVE  
LITTLETON, CO 80120

TOWER ENGINEERING PROFESSIONALS  
326 TRYON RD. RALEIGH, NC 27603  
OFFICE: (919) 661-6351  
FL COA# 31011

JOSHUA H. CARDEN  
LICENSE  
No 83511  
STATE OF FLORIDA  
PROFESSIONAL ENGINEER

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TDD CLR MJC

RFDS REV #: 2

CONSTRUCTION DOCUMENTS

SUBMITTALS

REV	DATE	DESCRIPTION
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B	05-23-22	PRELIMINARY
O	01-05-23	CONSTRUCTION

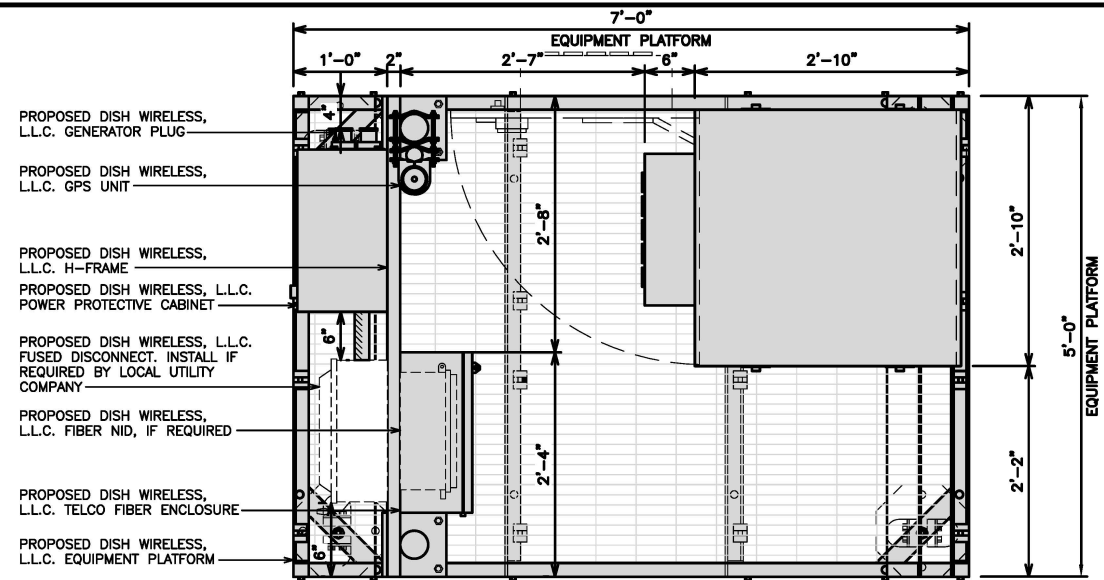
A&E PROJECT NUMBER  
25949

DISH WIRELESS, L.L.C.  
PROJECT INFORMATION  
MIMIA00112A  
980 CRESTWOOD BLVD  
ROYAL PALM BEACH, FL 33411

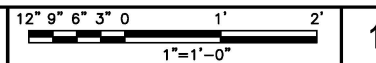
SHEET TITLE  
ELEVATION, ANTENNA  
LAYOUT AND SCHEDULE

SHEET NUMBER  
A-2





PLATFORM EQUIPMENT PLAN

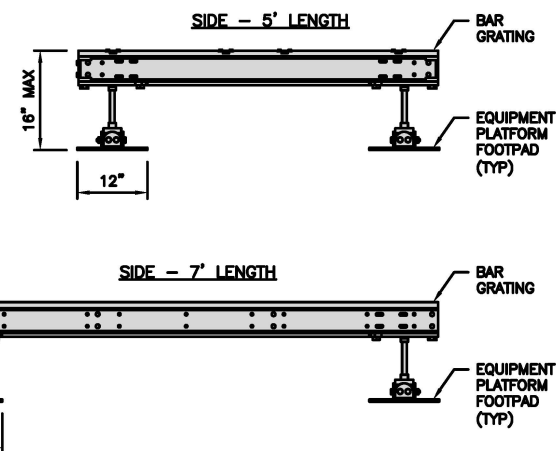
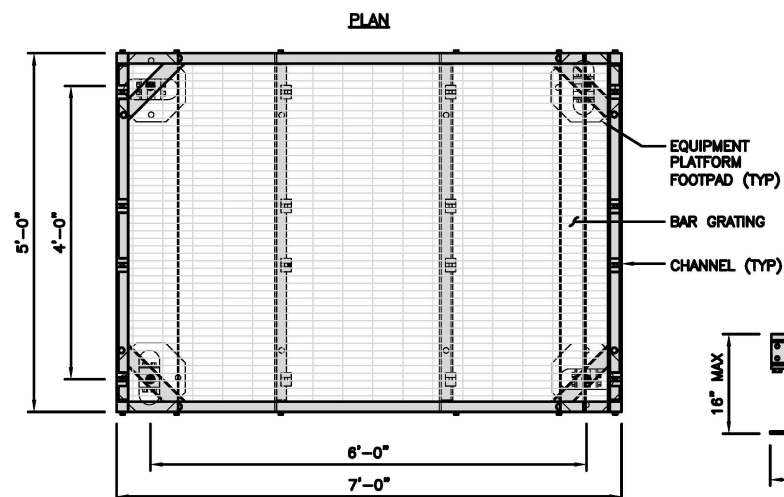


1

COMMSCOPE MTC4045LP  
5X7 PLATFORM

DIMENSIONS (HxWxD)	17"x84"x80"
TOTAL WEIGHT	423 LBS

- NOTE:
- GC TO PROVIDE EXTENDED THREAD FOR PLATFORM IF REQUIRED HEIGHT EXCEEDS 17"
  - PLATFORM MUST BE LEVEL WITHIN 1 DEGREE

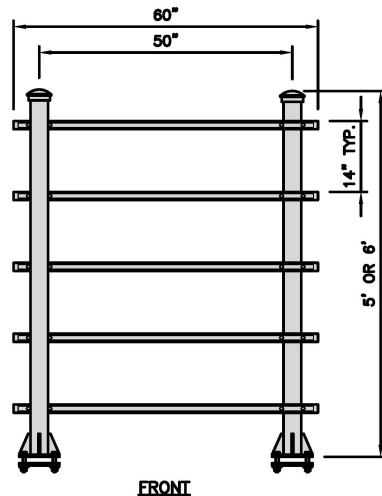
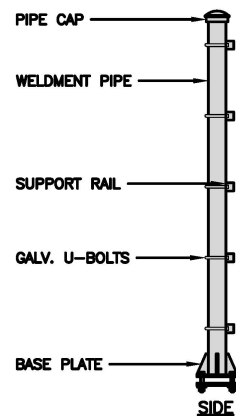


PLATFORM DETAIL

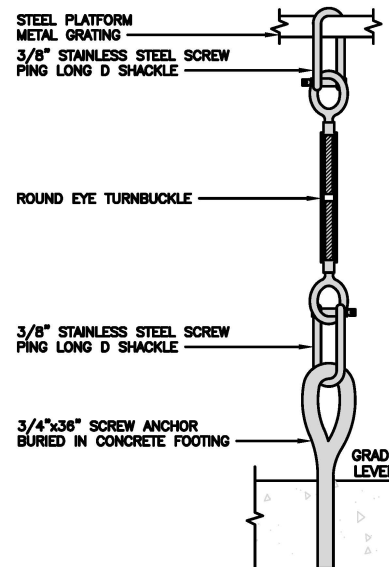
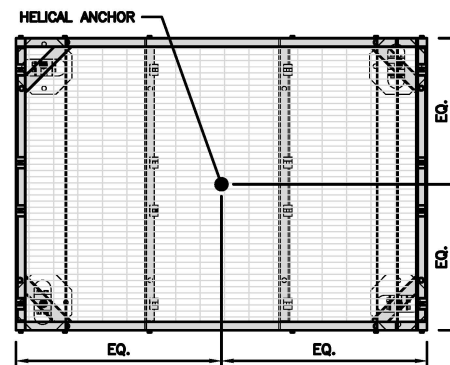
NO SCALE 2

COMMSCOPE MTC4045HFLD  
H-FRAME

UNISTRUT/SUPPORT RAILS QTY	5
WEIGHT	59.74 lbs



NOTE:  
OR DISH WIRELESS L.L.C.  
APPROVED EQUIVALENT

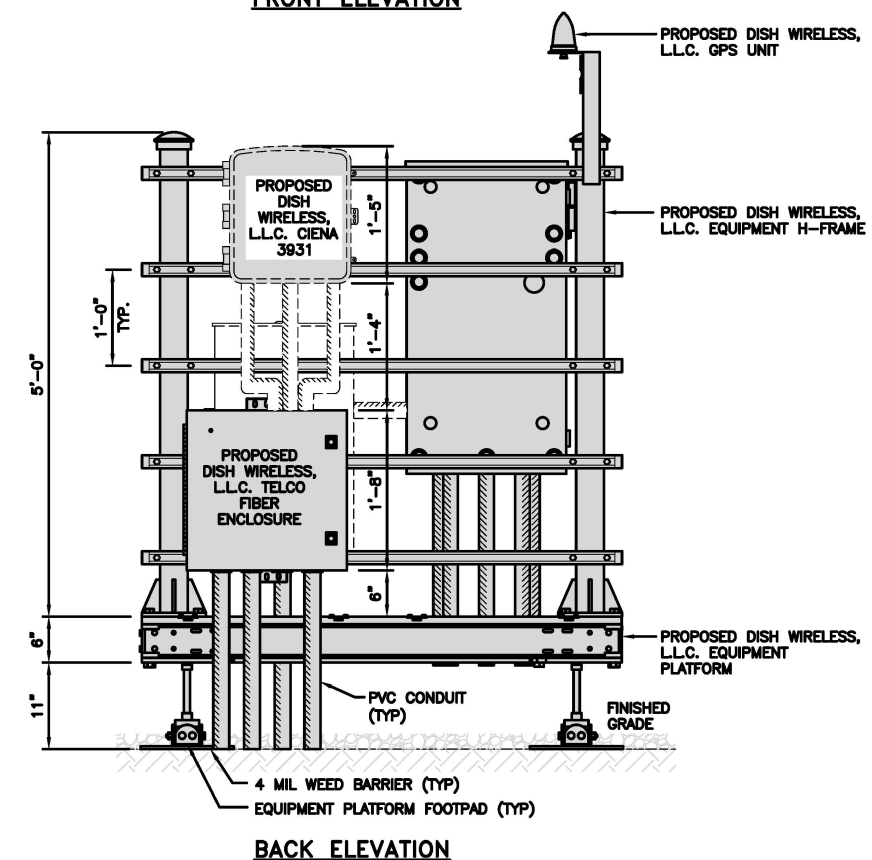
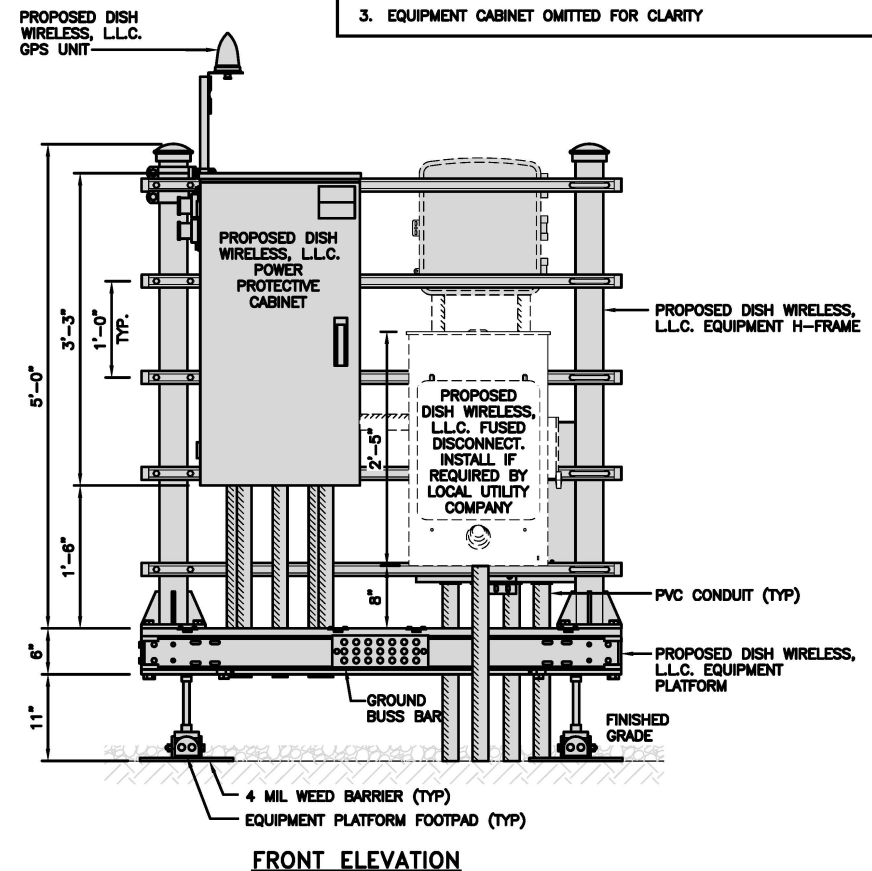


PLATFORM ANCHORAGE DETAIL

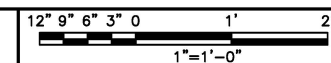
NO SCALE 4

NOTES

- CONTRACTOR TO BURY PLATFORM FEET WITH A MINIMUM OF 2" OF FILL PER EXISTING SITE SURFACE
- WEED BARRIER FABRIC TO BE ADDED AT DISCRETION OF DISH WIRELESS, L.L.C. CONSTRUCTION MANAGER AT TIME OF CONSTRUCTION. ONE SHEET 8'x8' INSTALLED UNDER ALL FOUR FEET OF THE PLATFORM (4 MIL BLACK PLASTIC)
- EQUIPMENT CABINET OMITTED FOR CLARITY



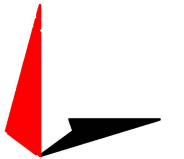
H-FRAME EQUIPMENT ELEVATION



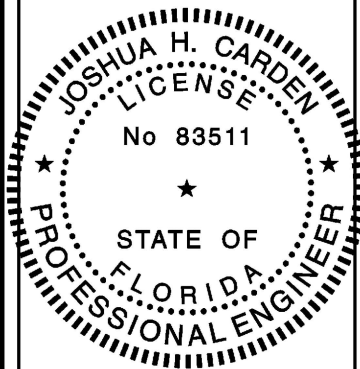
5

**dish**  
wireless.

5701 SOUTH SANTA FE DRIVE  
LITTLETON, CO 80120



TOWER ENGINEERING PROFESSIONALS  
326 TRYON RD. RALEIGH, NC 27603  
OFFICE: (919) 661-6351  
FL COA# 31011



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A&E PROJECT NUMBER  
25949

DISH WIRELESS, L.L.C.  
PROJECT INFORMATION  
MIMIA00112A  
980 CRESTWOOD BLVD  
ROYAL PALM BEACH, FL 33411

SHEET TITLE  
EQUIPMENT PLATFORM AND  
H-FRAME DETAILS

SHEET NUMBER

**A-3**

CHARLES INDUSTRY HVAC  
CUBE-PM63915IN4

DIMENSIONS (HxWxD)	74"x32"x32"
POWER PLANT	-48VDC ABB/600W
TOTAL WEIGHT (EMPTY)	383 lbs

PLAN

BACK

SIDE

FRONT

CABINET DETAIL

NO SCALE

1

RAYCAP PPC  
RDIAC-2465-P-240-MTS

ENCLOSURE DIMENSIONS (HxWxD)	39"x22.855"x12.593"
WEIGHT:	80 lbs
OPERATING AC VOLTAGE	240/120 1 PHASE 3W+G

TOP

BACK

SIDE

FRONT

SIDE

POWER PROTECTION CABINET (PPC) DETAIL

NO SCALE

2

SQUARE D FUSED DISCONNECT  
D224NRB

ENCLOSURE DIM (HxWxD)	29.25"x19.00"x8.50"
ENCLOSURE TYPE	NEMA 3R RAINPROOF
UL LISTED	FILE E-2875

SIDE

FRONT

FUSED DISCONNECT DETAIL

NO SCALE

3

CIENA 3931  
FIBER NID ENCLOSURE

DIMENSIONS (HxWxD)	17"x16.8"x7"
WEIGHT	28.6 lbs

TOP

SIDE

FRONT

FIBER NID ENCLOSURE DETAIL

NO SCALE

5

CHARLES CFIT-PF2020DSH1  
FIBER TELCO ENCLOSURE

ENCLOSURE DIMS (HxWxD)	20"x20"x9"
ENCLOSURE WEIGHT	20 lbs
MOUNTING	WALL
COMPLIANCE	TYPE 4

TOP

SIDE

BACK

FRONT

FIBER TELCO ENCLOSURE DETAIL

NO SCALE

6

COMMSCOPE WB-K110-B  
WAVEGUIDE BRIDGE KIT

DIMENSIONS (HxL)	160"x10'
WEIGHT/ VOLUME	325.0 LBS
CABLE RUN (QTY)	12

PLAN

FRONT

SIDE

INCLUDED PRODUCTS:

WB-T12-3 TRAPEZE KIT,  
3 RUNGS

WB-LB12-3 SUPPORT BRACKET

MF-130 DIRECT BURIAL PIPE  
COLUMN, 13'-4"

ICE BRIDGE DETAIL

NO SCALE

7

FINISH SLOPE  
TO DRAIN

A-A

PROPOSED 3.5" DIA.  
SCH 40 PIPE  
GALVANIZED

PROPOSED 1'-6"  
DIA. CONCRETE  
PIER (TYP)

CONCRETE PIER

A-A SECTION

3" DIA SCH 40 PIPE

18" DIA DRILLED  
PIER FOUNDATION

1'-6"

TYPICAL ICE BRIDGE CONCRETE PIER DETAIL

NO SCALE

8

PROPOSED ICE BRIDGE

PROPOSED 1.75"  
DIA HYBRID CABLE

PROPOSED CABLE CLAMP  
@ 3'-0" O.C.

EXISTING SELF  
SUPPORT TOWER

HYBRID CABLE RUN

NO SCALE

9

dish  
wireless.

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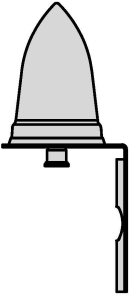
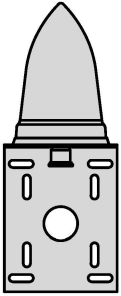
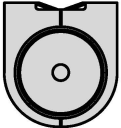
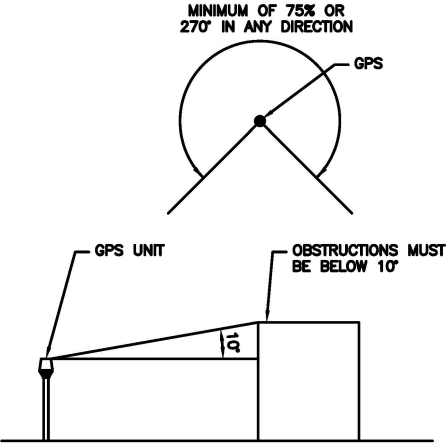
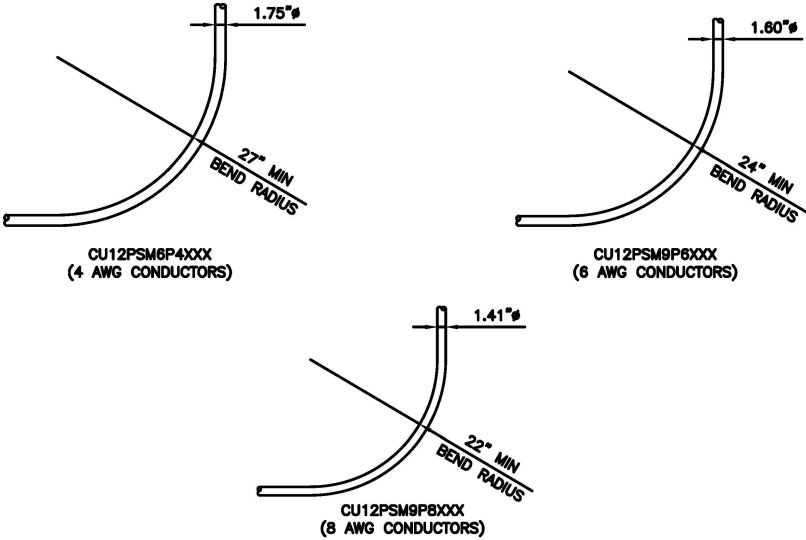
A&E PROJECT NUMBER  
25949

DISH WIRELESS, L.L.C.  
PROJECT INFORMATION

MIMIA00112A  
980 CRESTWOOD BLVD  
ROYAL PALM BEACH, FL 33411

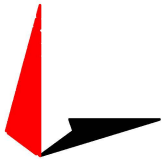
SHEET TITLE  
EQUIPMENT DETAILS

SHEET NUMBER  
A-4

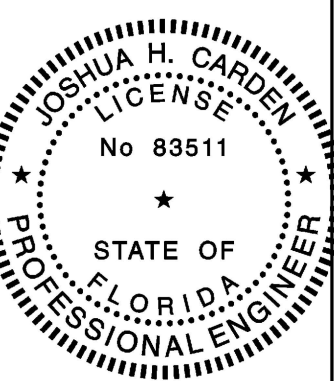
<table><tr><td colspan="2">PCTEL GPSGL-TMG-SPI-40NCB</td></tr><tr><td>DIMENSIONS (DiaxH) MM/INCH</td><td>81x184mm 3.2"x7.25"</td></tr><tr><td>WEIGHT W/ACCESSORIES</td><td>075 lbs</td></tr><tr><td>CONNECTOR</td><td>N-FEMALE</td></tr><tr><td>FREQUENCY RANGE</td><td>1590 ± 30MHz</td></tr></table> <div><p>BACK</p></div> <div><p>SIDE</p></div> <div><p>TOP</p></div>			PCTEL GPSGL-TMG-SPI-40NCB		DIMENSIONS (DiaxH) MM/INCH	81x184mm 3.2"x7.25"	WEIGHT W/ACCESSORIES	075 lbs	CONNECTOR	N-FEMALE	FREQUENCY RANGE	1590 ± 30MHz	<div></div>			<div></div>										
PCTEL GPSGL-TMG-SPI-40NCB																										
DIMENSIONS (DiaxH) MM/INCH	81x184mm 3.2"x7.25"																									
WEIGHT W/ACCESSORIES	075 lbs																									
CONNECTOR	N-FEMALE																									
FREQUENCY RANGE	1590 ± 30MHz																									
GPS DETAIL			NO SCALE			1			GPS MINIMUM SKY VIEW REQUIREMENTS			NO SCALE			2			CABLES UNLIMITED HYBRID CABLE MINIMUM BEND RADIUSES			NO SCALE			3		
NOT USED			NO SCALE			4			NOT USED			NO SCALE			5			NOT USED			NO SCALE			6		
NOT USED			NO SCALE			7			NOT USED			NO SCALE			8			NOT USED			NO SCALE			9		



5701 SOUTH SANTA FE DRIVE  
LITTLETON, CO 80120



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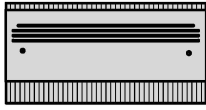
DISH WIRELESS, L.L.C.  
PROJECT INFORMATION  
  
MIMIA00112A  
980 CRESTWOOD BLVD  
ROYAL PALM BEACH, FL 33411

SHEET TITLE  
EQUIPMENT DETAILS

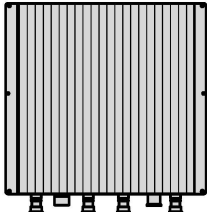
SHEET NUMBER  
A-5



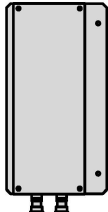
FUJITSU DUAL BAND TA08025-B604	
DIMENSIONS (HxWxD)	14.9"x15.7"x7.8"
WEIGHT	63.9 lbs
CONNECTOR TYPE	4.3-10 RF CONNECTOR
POWER SUPPLY	DC -58~-36V



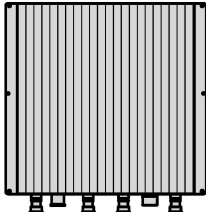
PLAN



BACK

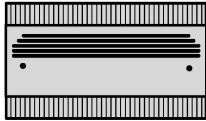


SIDE

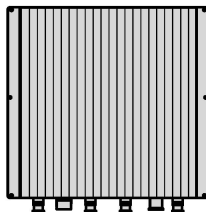


FRONT

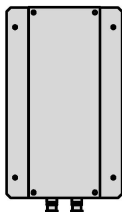
FUJITSU TRIPLE BAND TA08025-B605	
DIMENSIONS (HxWxD)	14.9"x15.7"x9"
WEIGHT	74.95 lbs
CONNECTOR TYPE	4.3-10 RF CONNECTOR
POWER SUPPLY	DC -58~-36V



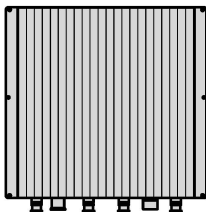
PLAN



BACK



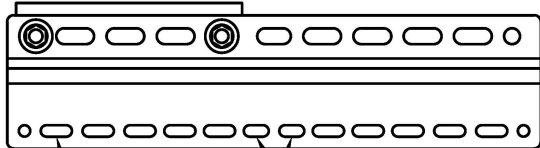
SIDE



FRONT

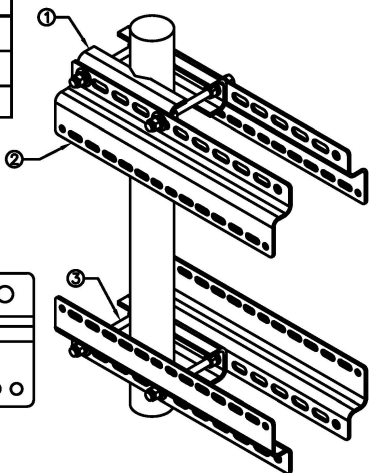
SABRE INDUSTRIES RRU BRACKET MOUNT C10123155	
DIMENSIONS (HxWxD) (1 BRACKET)	5"x20"x1-13/16"
WEIGHT (FULL ASSEMBLY)	35.79 lbs
PACKAGE QUANTITY	4

ITEM#	DESCRIPTION
1	PLATE, CHANNEL BRACKET
2	RRH Z BRACKET, 3/16"
3	THREADED ROD ASSEMBLY 1/2"x12"



11MM x 30MM SLOTS  
40MM ON CENTER

11MM x 24MM SLOTS



RRH DETAIL

NO SCALE

1

RRH DETAIL

NO SCALE

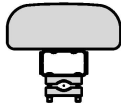
2

REMOTE RADIO MOUNT DETAIL

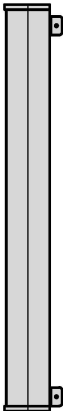
NO SCALE

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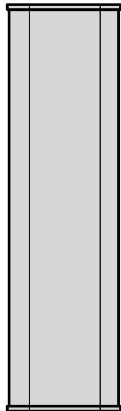
JMA MX08FRO665-21	
DIMENSIONS (HxWxD)	72"x20.0"x8.0"
RF PORTS, CONNECTOR TYPE	8 x 4.3-10 FEMALE
WEIGHT	64.5 lbs
WEIGHT WITH BRACKETS	82.5 lbs



PLAN



SIDE

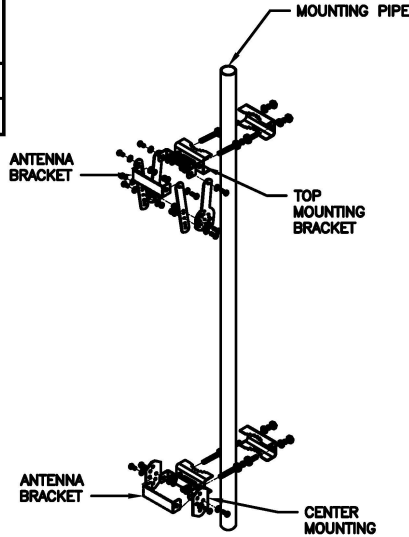


FRONT

JMA ANTENNA MOUNT BRACKET  
#91900318

TOTAL WEIGHT (WITH BRACKETS)	18 lbs (8.18 Kg)
POLE DIAMETER RANGE	2.5" TO 4.5"

NOTE:  
KIT #91900318: TOP AND BOTTOM BRACKETS  
FOR 4-, 6-, AND 8-FOOT ANTENNAS  
ANTENNA BRACKET NOT PART OF KIT



NOTE:  
OR DISH Wireless L.L.C.  
APPROVED EQUIVALENT

ANTENNA DETAIL

NO SCALE

4

NOT USED

NO SCALE

5

ANTENNA BRACKET DETAIL

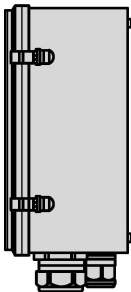
NO SCALE

6

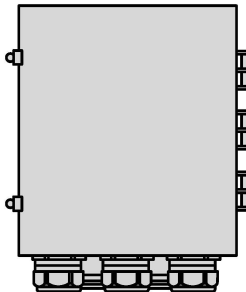
RAYCAP RDIDC-9181-PF-48 DC SURGE PROTECTION	
DIMENSIONS (HxWxD)	18.98"x14.39"x8.15"
WEIGHT	21.82 LBS



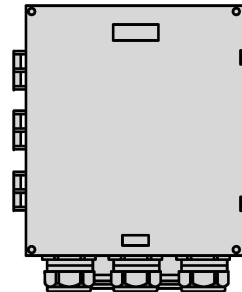
PLAN



SIDE

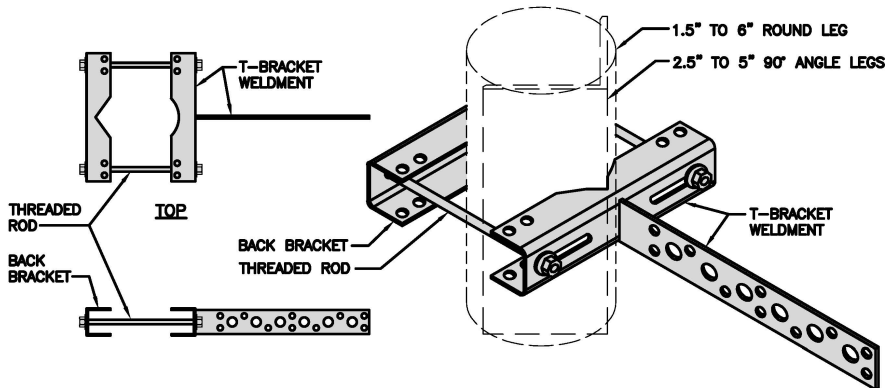


BACK



FRONT

SITEPRO1 T600 UNIVERSAL T-BRACKET	
DIMENSIONS (HxWxD)	2.25"x10.0"x15.25"
WEIGHT/ VOLUME	5.60 LBS



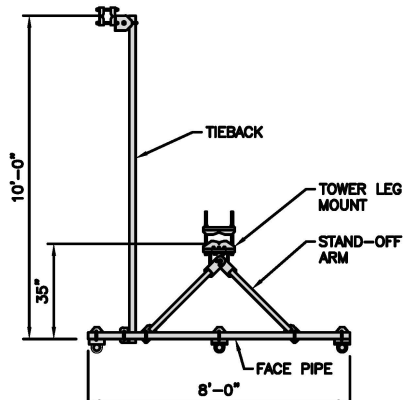
SIDE

ISOMETRIC

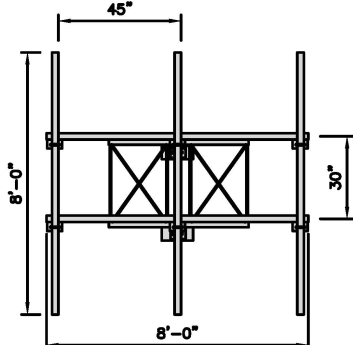
COMMSCOPE V-FRAME  
MTC3975083

FACE SIZE	8'-0"
WEIGHT	352.136 lbs

NOTE:  
OR DISH Wireless L.L.C.  
APPROVED EQUIVALENT



PLAN



FRONT

SURGE SUPPRESSION DETAIL

NO SCALE

7

VERTICAL CABLE SUPPORT DETAIL

NO SCALE

8

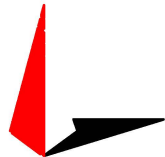
ANTENNA FRAME DETAIL

NO SCALE

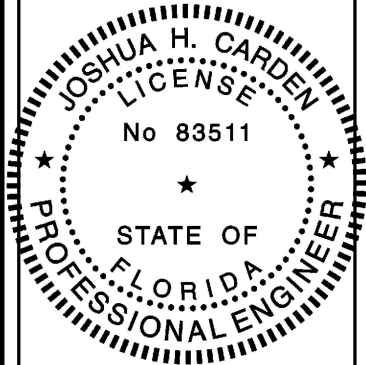
9

dish  
wireless.

5701 SOUTH SANTA FE DRIVE  
LITTLETON, CO 80120



TOWER ENGINEERING PROFESSIONALS  
326 TRYON RD. RALEIGH, NC 27603  
OFFICE: (919) 661-6351  
FL COA# 31011



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January 5, 2023

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TDD CLR MJC

RFDS REV #: 2

CONSTRUCTION  
DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
A	11-15-21	PRELIMINARY
B	05-23-22	PRELIMINARY
0	01-05-23	CONSTRUCTION

A&E PROJECT NUMBER

25949

DISH WIRELESS, L.L.C.  
PROJECT INFORMATION

MIMIA00112A  
980 CRESTWOOD BLVD  
ROYAL PALM BEACH, FL 33411

SHEET TITLE  
EQUIPMENT DETAILS

SHEET NUMBER

A-6

- NOTES
1. CONTRACTOR SHALL FIELD VERIFY ALL PROPOSED UNDERGROUND UTILITY CONDUIT ROUTE.

2. ANTENNAS AND MOUNTS OMITTED FOR CLARITY.

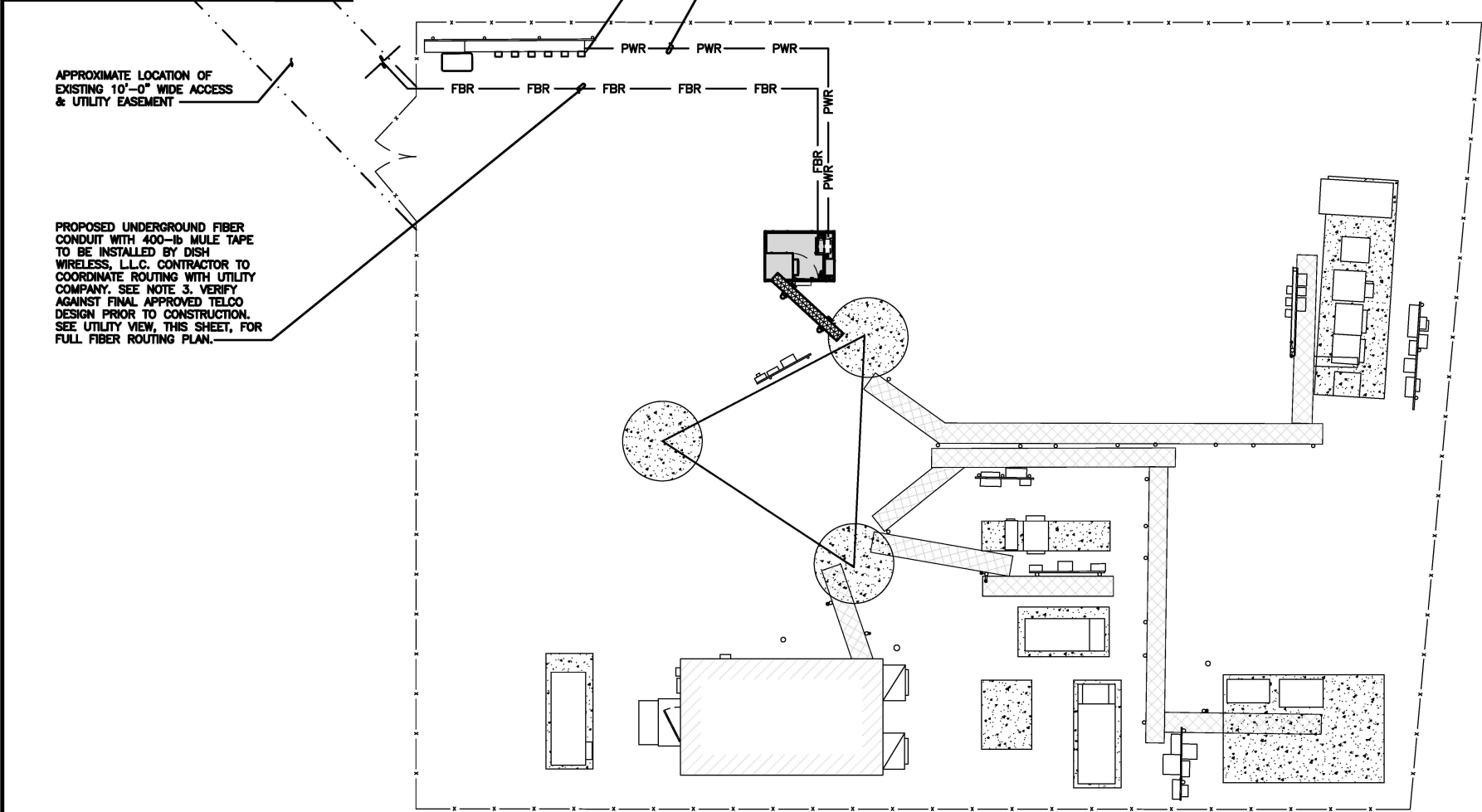
3. ALL CONDUITS INSIDE THE COMPOUND NEED TO BE INSTALLED WITHIN 3' OF THE FENCE LINE. CONDUITS NEED TO BE MINIMUM OF 24" TO TOP OF CONDUIT.

4. ANY CONDUITS RUNNING ACROSS THE GATE OR COMPOUND NEED TO BE SCHEDULE 80.

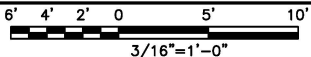
5. NO ELECTRICAL WORK WITHOUT THE PROPER PERMITTING.

6. GC TO REFER TO FINAL UTILITY COORDINATION DOCUMENT FOR ALL MEET-ME-POINTS AND ROUTING DETAILS.

7. SPECIFIC EASEMENT RIGHTS. DUE TO UTILITY EASEMENT RIGHTS SPECIFIED IN THE GROUND LEASE, CUSTOMER MAY INSTALL EQUIPMENT WITHIN SPECIFIED UTILITY EASEMENT AREA. "PWR" AND "FBR" PATH DEPICTED ON A-1 AND E-1 REPRESENT PLANNED ROUTING BASED ON BEST AVAILABLE INFORMATION INCLUDING BUT NOT LIMITED TO A SURVEY, EXHIBITS, METES AND BOUNDS OF THE UTILITY EASEMENT, FIELD VERIFICATION, PRIOR PROJECT DOCUMENTATION AND OTHER REAL PROPERTY RIGHTS DOCUMENTS. WHEN INSTALLING THE UTILITIES PLEASE LOCATE AND FOLLOW EXISTING PATH. IF EXISTING PATH IS MATERIALLY INCONSISTENT WITH THE "PWR" AND "FBR" PATH DEPICTED ON A-1 AND E-1 AND SAID VARIANCE IS NOT NOTED ON CDS, PLEASE NOTIFY CROWN CASTLE REAL ESTATE AS FURTHER COORDINATION MAY BE NEEDED.



UTILITY ROUTE PLAN



DC POWER WIRING SHALL BE COLOR CODED AT EACH END FOR IDENTIFYING +24V AND -48V CONDUCTORS. RED MARKINGS SHALL IDENTIFY +24V AND BLUE MARKINGS SHALL IDENTIFY -48V.

1. CONTRACTOR SHALL INSPECT THE EXISTING CONDITIONS PRIOR TO SUBMITTING A BID. ANY QUESTIONS ARISING DURING THE BID PERIOD IN REGARDS TO THE CONTRACTOR'S FUNCTIONS, THE SCOPE OF WORK, OR ANY OTHER ISSUE RELATED TO THIS PROJECT SHALL BE BROUGHT UP DURING THE BID PERIOD WITH THE PROJECT MANAGER FOR CLARIFICATION, NOT AFTER THE CONTRACT HAS BEEN AWARDED.
2. ALL ELECTRICAL WORK SHALL BE DONE IN ACCORDANCE WITH CURRENT NATIONAL ELECTRICAL CODES AND ALL STATE AND LOCAL CODES, LAWS, AND ORDINANCES. PROVIDE ALL COMPONENTS AND WIRING SIZES AS REQUIRED TO MEET NEC STANDARDS.
3. LOCATION OF EQUIPMENT, CONDUIT AND DEVICES SHOWN ON THE DRAWINGS ARE APPROXIMATE AND SHALL BE COORDINATED WITH FIELD CONDITIONS PRIOR TO CONSTRUCTION.
4. CONDUIT ROUGH-IN SHALL BE COORDINATED WITH THE MECHANICAL EQUIPMENT TO AVOID LOCATION CONFLICTS. VERIFY WITH THE MECHANICAL EQUIPMENT CONTRACTOR AND COMPLY AS REQUIRED.
5. CONTRACTOR SHALL PROVIDE ALL BREAKERS, CONDUITS AND CIRCUITS AS REQUIRED FOR A COMPLETE SYSTEM.
6. CONTRACTOR SHALL PROVIDE PULL BOXES AND JUNCTION BOXES AS REQUIRED BY THE NEC ARTICLE 314.
7. CONTRACTOR SHALL PROVIDE ALL STRAIN RELIEF AND CABLE SUPPORTS FOR ALL CABLE ASSEMBLIES. INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.
8. ALL DISCONNECTS AND CONTROLLING DEVICES SHALL BE PROVIDED WITH ENGRAVED PHENOLIC NAMEPLATES INDICATING EQUIPMENT CONTROLLED, BRANCH CIRCUITS INSTALLED ON, AND PANEL FIELD LOCATIONS FED FROM.
9. INSTALL AN EQUIPMENT GROUNDING CONDUCTOR IN ALL CONDUITS PER THE SPECIFICATIONS AND NEC 250. THE EQUIPMENT GROUNDING CONDUCTORS SHALL BE BONDED AT ALL JUNCTION BOXES, PULL BOXES, AND ALL DISCONNECT SWITCHES, AND EQUIPMENT CABINETS.
10. ALL NEW MATERIAL SHALL HAVE A U.L. LABEL.
11. PANEL SCHEDULE LOADING AND CIRCUIT ARRANGEMENTS REFLECT POST-CONSTRUCTION EQUIPMENT.
12. CONTRACTOR SHALL BE RESPONSIBLE FOR AS-BUILT PANEL SCHEDULE AND SITE DRAWINGS.
13. ALL TRENCHES IN COMPOUND TO BE HAND DUG.

ELECTRICAL NOTES

NO SCALE

NOTE

IMAGE SHOWN PROVIDED IN UTILITY COORDINATION DOCUMENT BY OTHERS



UTILITY VIEW

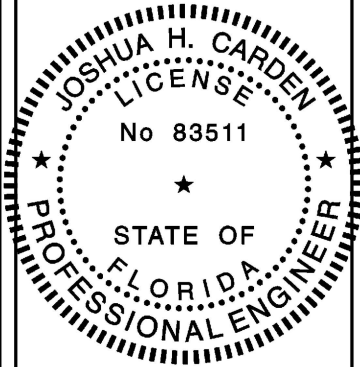
NO SCALE



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PROJECT INFORMATION  
  
MIMIA00112A  
980 CRESTWOOD BLVD  
ROYAL PALM BEACH, FL 33411

SHEET TITLE  
ELECTRICAL/FIBER ROUTE  
PLAN AND NOTES

SHEET NUMBER

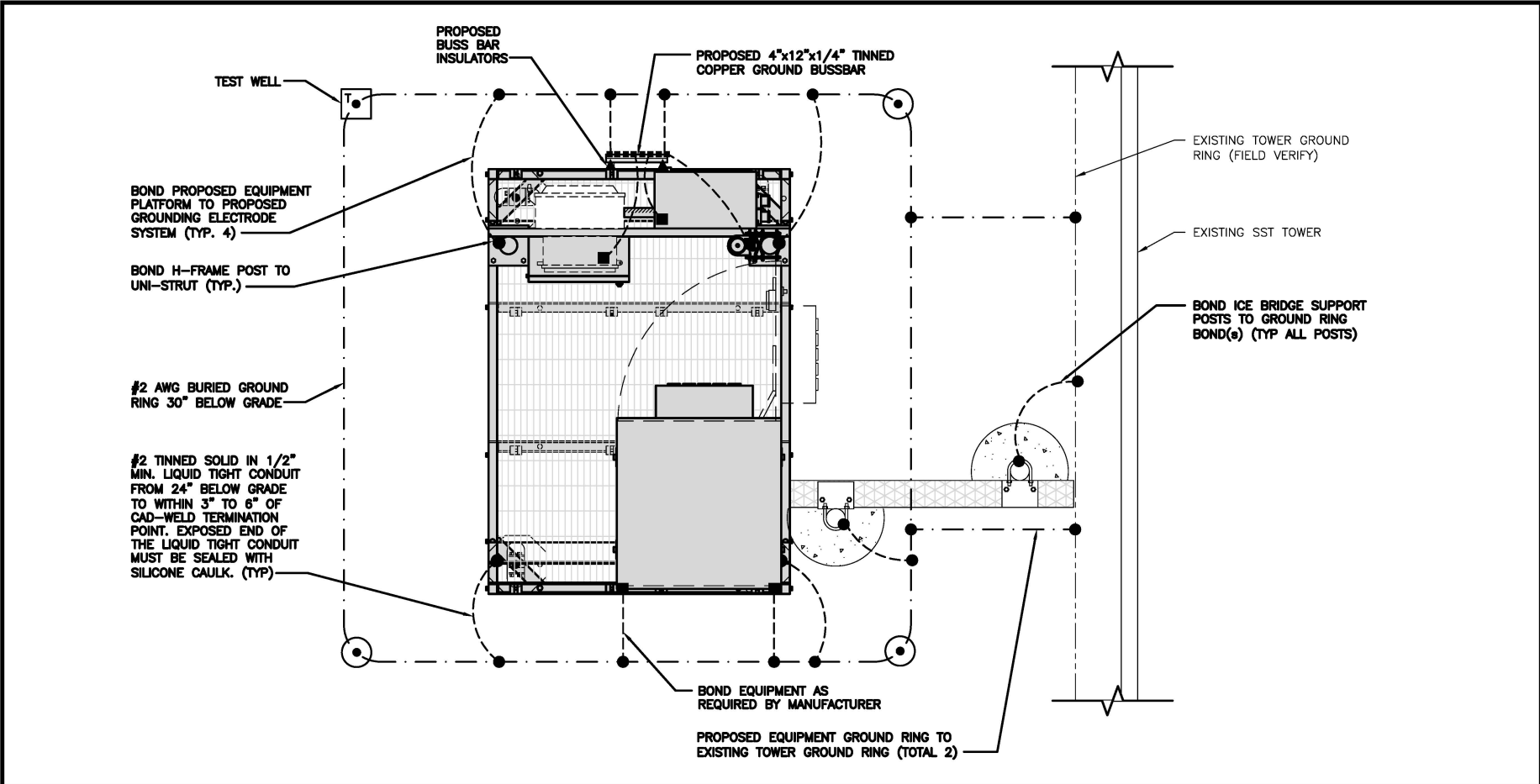
E-1





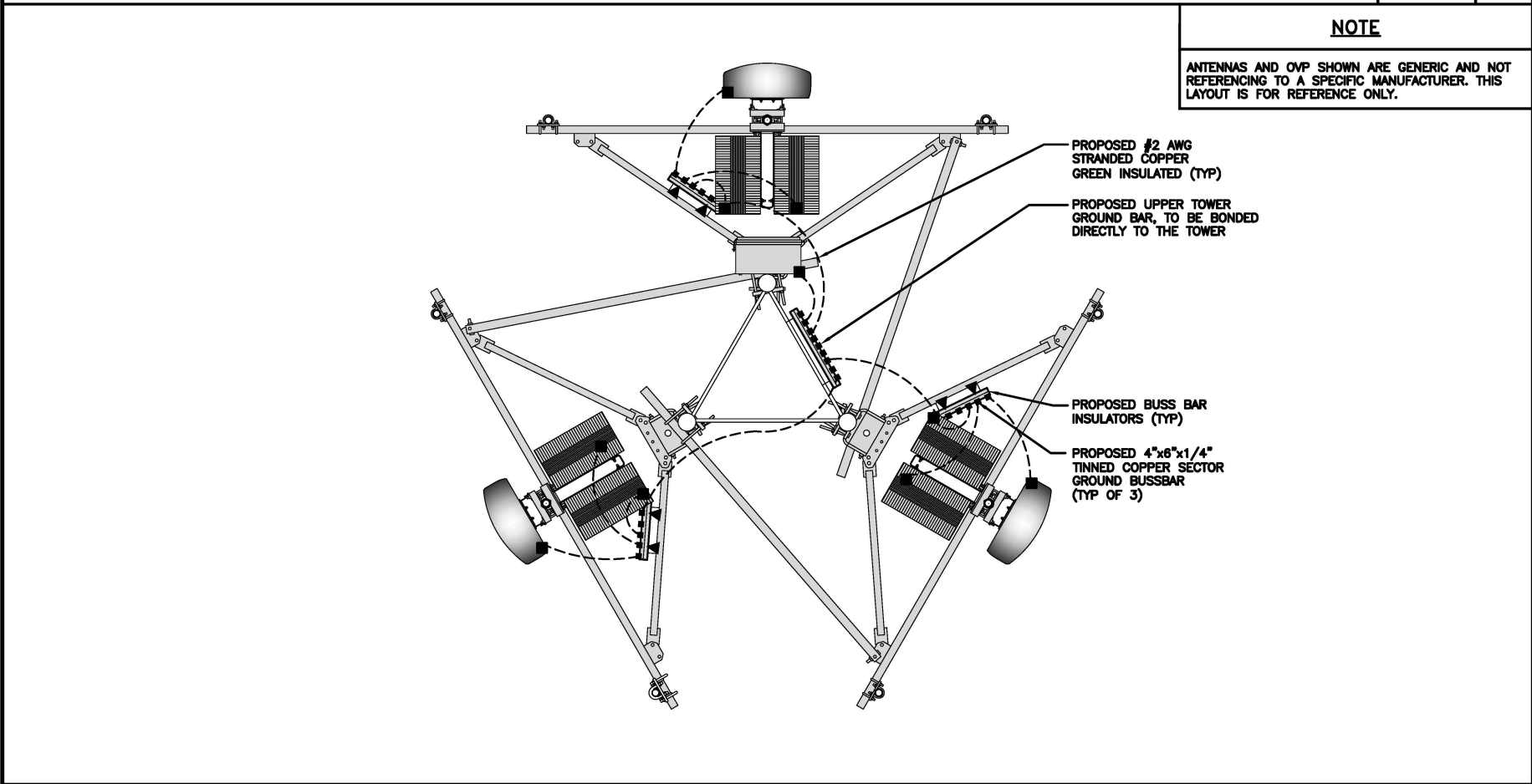






TYPICAL EQUIPMENT GROUNDING PLAN

NO SCALE 1



TYPICAL ANTENNA GROUNDING PLAN

NO SCALE 2

● EXOTHERMIC CONNECTION

■ MECHANICAL CONNECTION

TEST GROUND ROD WITH INSPECTION SLEEVE

#2 AWG STRANDED & INSULATED

#2 AWG SOLID COPPER TINNED

▲ BUSS BAR INSULATOR

GROUNDING LEGEND

1. GROUNDING IS SHOWN DIAGRAMMATICALLY ONLY.

2. CONTRACTOR SHALL GROUND ALL EQUIPMENT AS A COMPLETE SYSTEM. GROUNDING SHALL BE IN COMPLIANCE WITH NEC SECTION 250 AND DISH WIRELESS, L.L.C. GROUNDING AND BONDING REQUIREMENTS AND MANUFACTURER'S SPECIFICATIONS.

3. ALL GROUND CONDUCTORS SHALL BE COPPER; NO ALUMINUM CONDUCTORS SHALL BE USED.

GROUNDING KEY NOTES

A. EXTERIOR GROUND RING: #2 AWG SOLID COPPER, BURIED AT A DEPTH OF AT LEAST 30 INCHES BELOW GRADE, OR 6 INCHES BELOW THE FROST LINE AND APPROXIMATELY 24 INCHES FROM THE EXTERIOR WALL OR FOOTING.

B. TOWER GROUND RING: THE GROUND RING SYSTEM SHALL BE INSTALLED AROUND AN ANTENNA TOWER'S LEGS, AND/OR GUY ANCHORS. WHERE SEPARATE SYSTEMS HAVE BEEN PROVIDED FOR THE TOWER AND THE BUILDING, AT LEAST TWO BONDS SHALL BE MADE BETWEEN THE TOWER RING GROUND SYSTEM AND THE BUILDING RING GROUND SYSTEM USING MINIMUM #2 AWG SOLID COPPER CONDUCTORS.

C. INTERIOR GROUND RING: #2 AWG STRANDED GREEN INSULATED COPPER CONDUCTOR EXTENDED AROUND THE PERIMETER OF THE EQUIPMENT AREA. ALL NON-TELECOMMUNICATIONS RELATED METALLIC OBJECTS FOUND WITHIN A SITE SHALL BE GROUNDED TO THE INTERIOR GROUND RING WITH #6 AWG STRANDED GREEN INSULATED CONDUCTOR.

D. BOND TO INTERIOR GROUND RING: #2 AWG SOLID TINNED COPPER WIRE PRIMARY BONDS SHALL BE PROVIDED AT LEAST AT FOUR POINTS ON THE INTERIOR GROUND RING, LOCATED AT THE CORNERS OF THE BUILDING.

E. GROUND ROD: UL LISTED COPPER CLAD STEEL. MINIMUM 1/2" DIAMETER BY EIGHT FEET LONG. GROUND RODS SHALL BE INSTALLED WITH INSPECTION SLEEVES. GROUND RODS SHALL BE DRIVEN TO THE DEPTH OF GROUND RING CONDUCTOR.

F. CELL REFERENCE GROUND BAR: POINT OF GROUND REFERENCE FOR ALL COMMUNICATIONS EQUIPMENT FRAMES. ALL BONDS ARE MADE WITH #2 AWG UNLESS NOTED OTHERWISE. STRANDED GREEN INSULATED COPPER CONDUCTORS. BOND TO GROUND RING WITH (2) #2 SOLID TINNED COPPER CONDUCTORS.

G. HATCH PLATE GROUND BAR: BOND TO THE INTERIOR GROUND RING WITH TWO #2 AWG STRANDED GREEN INSULATED COPPER CONDUCTORS. WHEN A HATCH-PLATE AND A CELL REFERENCE GROUND BAR ARE BOTH PRESENT, THE CRGB MUST BE CONNECTED TO THE HATCH-PLATE AND TO THE INTERIOR GROUND RING USING (2) TWO #2 AWG STRANDED GREEN INSULATED COPPER CONDUCTORS EACH.

H. EXTERIOR CABLE ENTRY PORT GROUND BARS: LOCATED AT THE ENTRANCE TO THE CELL SITE BUILDING. BOND TO GROUND RING WITH A #2 AWG SOLID TINNED COPPER CONDUCTORS WITH AN EXOTHERMIC WELD AND INSPECTION SLEEVE.

I. TELCO GROUND BAR: BOND TO BOTH CELL REFERENCE GROUND BAR OR EXTERIOR GROUND RING.

K. FRAME BONDING: THE BONDING POINT FOR TELECOM EQUIPMENT FRAMES SHALL BE THE GROUND BUS THAT IS NOT ISOLATED FROM THE EQUIPMENTS METAL FRAMEWORK.

L. INTERIOR UNIT BONDS: METAL FRAMES, CABINETS AND INDIVIDUAL METALLIC UNITS LOCATED WITH THE AREA OF THE INTERIOR GROUND RING REQUIRE A #6 AWG STRANDED GREEN INSULATED COPPER BOND TO THE INTERIOR GROUND RING.

M. FENCE AND GATE GROUNDING: METAL FENCES WITHIN 7 FEET OF THE EXTERIOR GROUND RING OR OBJECTS BONDED TO THE EXTERIOR GROUND RING SHALL BE BONDED TO THE GROUND RING WITH A #2 AWG SOLID TINNED COPPER CONDUCTOR AT AN INTERVAL NOT EXCEEDING 25 FEET. BONDS SHALL BE MADE AT EACH GATE POST AND ACROSS GATE OPENINGS.

N. EXTERIOR UNIT BONDS: METALLIC OBJECTS, EXTERNAL TO OR MOUNTED TO THE BUILDING, SHALL BE BONDED TO THE EXTERIOR GROUND RING. USING #2 TINNED SOLID COPPER WIRE

O. ICE BRIDGE SUPPORTS: EACH ICE BRIDGE LEG SHALL BE BONDED TO THE GROUND RING WITH #2 AWG BARE TINNED COPPER CONDUCTOR. PROVIDE EXOTHERMIC WELDS AT BOTH THE ICE BRIDGE LEG AND BURIED GROUND RING.

P. DURING ALL DC POWER SYSTEM CHANGES INCLUDING DC SYSTEM CHANGE OUTS, RECTIFIER REPLACEMENTS OR ADDITIONS, BREAKER DISTRIBUTION CHANGES, BATTERY ADDITIONS, BATTERY REPLACEMENTS AND INSTALLATIONS OR CHANGES TO DC CONVERTER SYSTEMS IT SHALL BE REQUIRED THAT SERVICE CONTRACTORS VERIFY ALL DC POWER SYSTEMS ARE EQUIPPED WITH A MASTER DC SYSTEM RETURN GROUND CONDUCTOR FROM THE DC POWER SYSTEM COMMON RETURN BUS DIRECTLY CONNECTED TO THE CELL SITE REFERENCE GROUND BAR

Q. TOWER TOP COLLECTOR BUSS BAR IS TO BE MECHANICALLY BONDED TO TOWER STEEL.

REFER TO DISH WIRELESS, L.L.C. GROUNDING NOTES.

GROUNDING KEY NOTES

NO SCALE 3

dish

wireless.

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FL COA# 31011

JOSHUA H. CARDEN

LICENSE

No 83511

STATE OF FLORIDA

PROFESSIONAL ENGINEER

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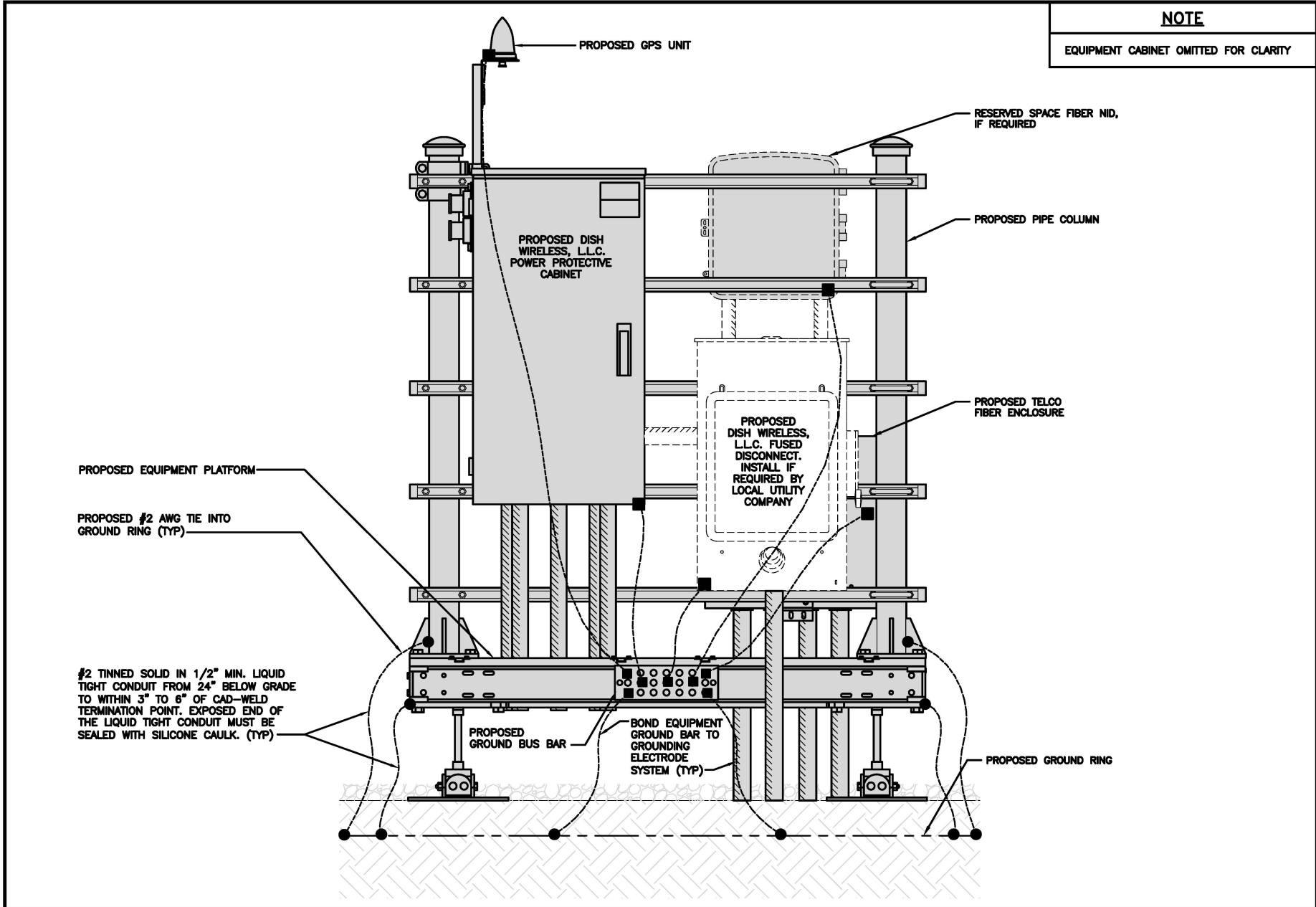
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MIMIA00112A  
980 CRESTWOOD BLVD  
ROYAL PALM BEACH, FL 33411

SHEET TITLE  
GROUNDING PLANS  
AND NOTES

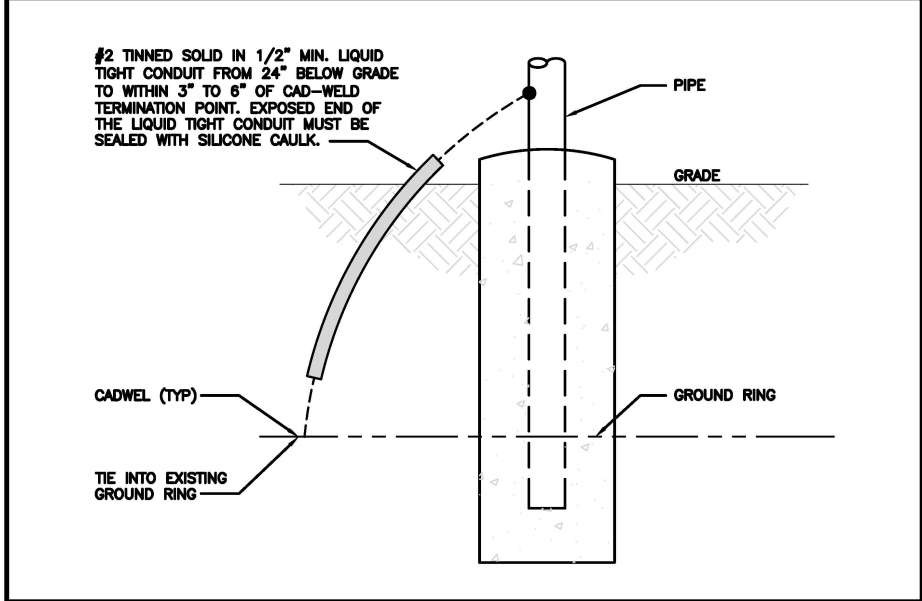
SHEET NUMBER  
**G-1**





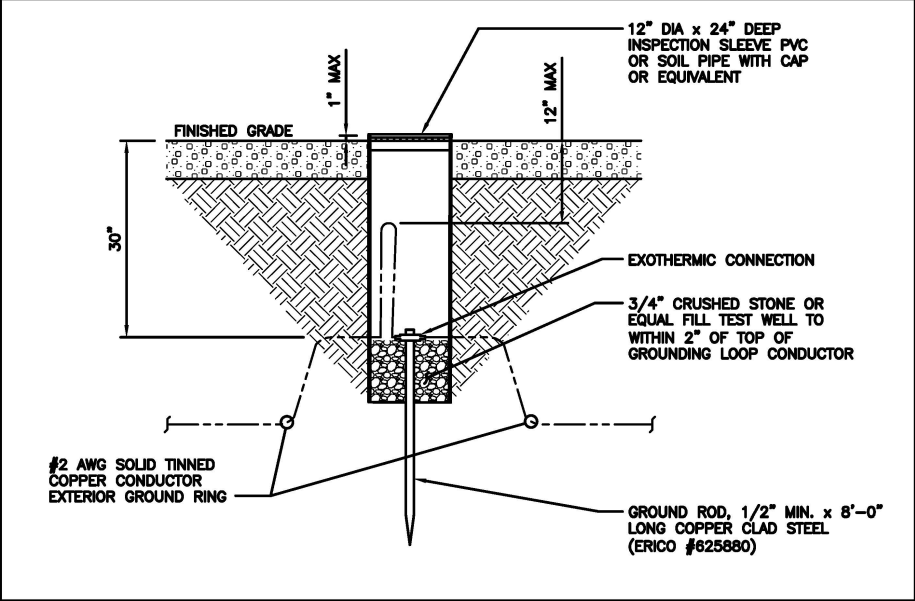
H-FRAME GROUNDING DETAIL

NO SCALE 1



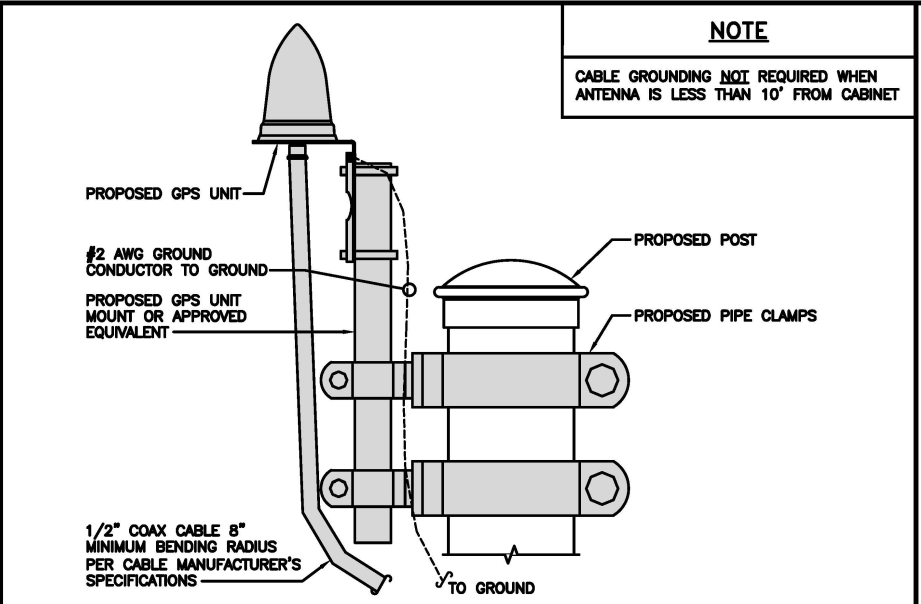
TRANSITIONING GROUND DETAIL

NO SCALE 4



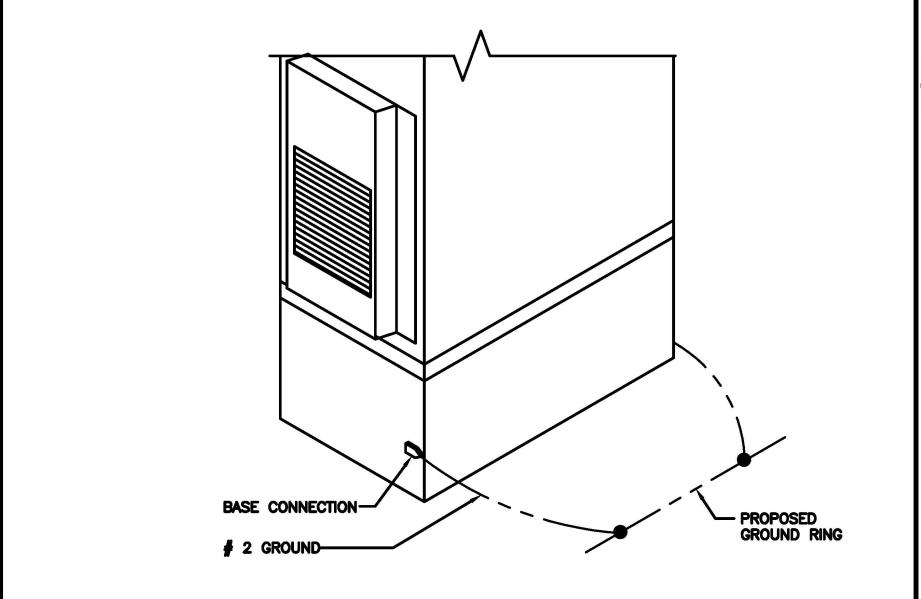
TYPICAL TEST GROUND ROD WITH INSPECTION SLEEVE

NO SCALE 5



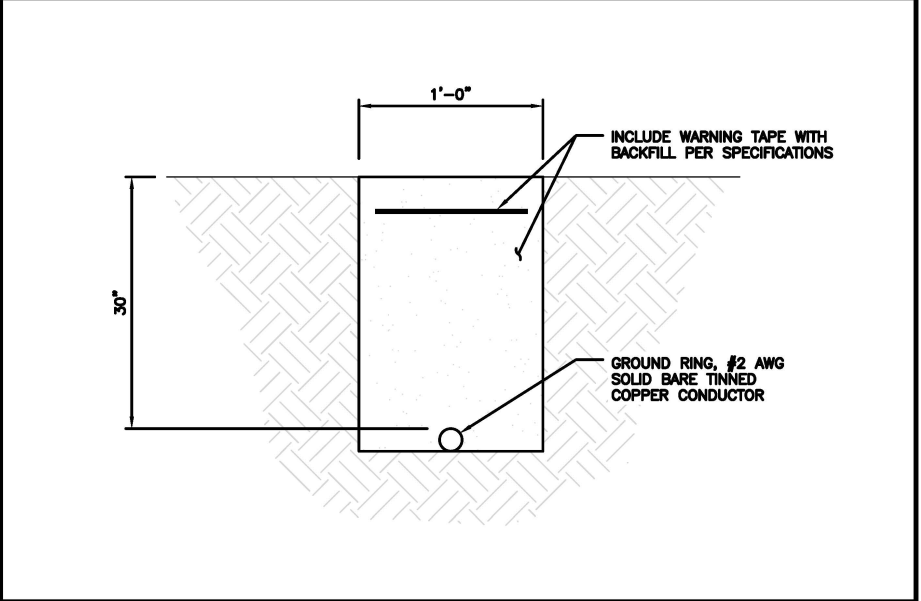
TYPICAL GPS UNIT GROUNDING

NO SCALE 2



OUTDOOR CABINET GROUNDING

NO SCALE 3

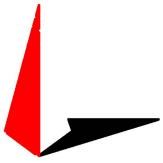


TYPICAL GROUND RING TRENCH

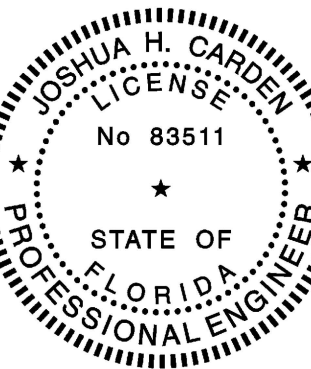
NO SCALE 6

**dish**  
wireless.

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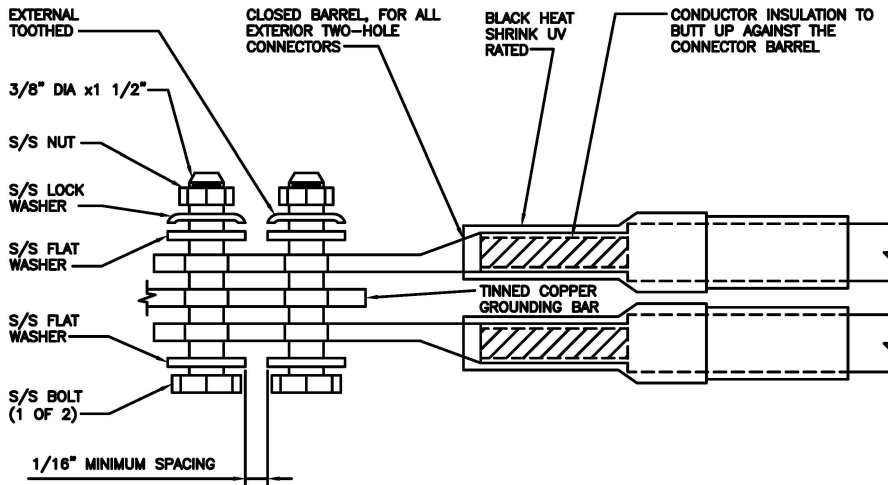
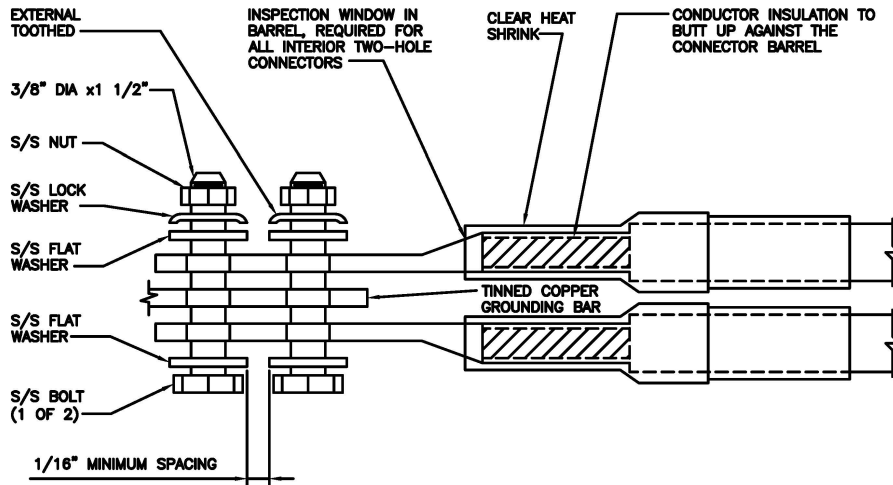
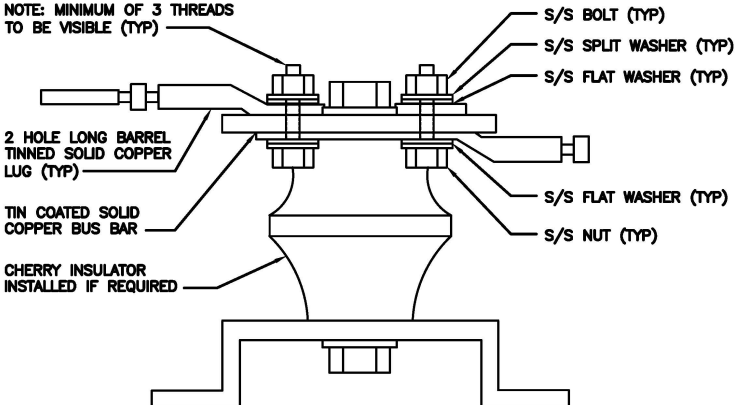
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ROYAL PALM BEACH, FL 33411

SHEET TITLE  
GROUNDING DETAILS

SHEET NUMBER  
**G-2**

<div>1. EXOTHERMIC WELD (2) TWO, #2 AWG BARE TINNED SOLID COPPER CONDUCTORS TO GROUND BAR. ROUTE CONDUCTORS TO BURIED GROUND RING AND PROVIDE PARALLEL EXOTHERMIC WELD.</div> <div>2. ALL EXTERIOR GROUNDING HARDWARE SHALL BE STAINLESS STEEL 3/8" DIAMETER OR LARGER. ALL HARDWARE 18-8 STAINLESS STEEL INCLUDING LOCK WASHERS, COAT ALL SURFACES WITH AN ANTI-OXIDANT COMPOUND BEFORE MATING.</div> <div>3. FOR GROUND BOND TO STEEL ONLY: COAT ALL SURFACES WITH AN ANTI-OXIDANT COMPOUND BEFORE MATING.</div> <div>4. DO NOT INSTALL CABLE GROUNDING KIT AT A BEND AND ALWAYS DIRECT GROUND CONDUCTOR DOWN TO GROUNDING BUS.</div> <div>5. NUT &amp; WASHER SHALL BE PLACED ON THE FRONT SIDE OF THE GROUND BAR AND BOLTED ON THE BACK SIDE.</div> <div>6. ALL GROUNDING PARTS AND EQUIPMENT TO BE SUPPLIED AND INSTALLED BY CONTRACTOR.</div> <div>7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING ADDITIONAL GROUND BAR AS REQUIRED.</div> <div>8. ENSURE THE WIRE INSULATION TERMINATION IS WITHIN 1/8" OF THE BARREL (NO SHINERS).</div>														
TYPICAL GROUNDING NOTES			NO SCALE	1	TYPICAL EXTERIOR TWO HOLE LUG			NO SCALE	2	TYPICAL INTERIOR TWO HOLE LUG			NO SCALE	3
														
LUG DETAIL			NO SCALE	4	NOT USED			NO SCALE	5	NOT USED			NO SCALE	6
NOT USED			NO SCALE	7	NOT USED			NO SCALE	8	NOT USED			NO SCALE	9

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SHEET TITLE		
GROUNDING DETAILS		
SHEET NUMBER		
G-3		



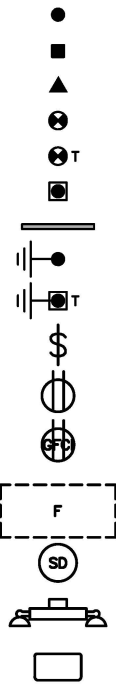


EXOTHERMIC CONNECTION  
MECHANICAL CONNECTION  
BUSS BAR INSULATOR  
CHEMICAL ELECTROLYTIC GROUNDING SYSTEM  
TEST CHEMICAL ELECTROLYTIC GROUNDING SYSTEM  
EXOTHERMIC WITH INSPECTION SLEEVE  
GROUNDING BAR  
GROUND ROD  
TEST GROUND ROD WITH INSPECTION SLEEVE  
  
SINGLE POLE SWITCH  
  
DUPLEX RECEPTACLE  
  
DUPLEX GFCI RECEPTACLE  
  
FLUORESCENT LIGHTING FIXTURE  
(2) TWO LAMPS 48-T8  
  
SMOKE DETECTION (DC)  
  
EMERGENCY LIGHTING (DC)  
  
SECURITY LIGHT W/PHOTOCELL LITHONIA ALXW  
LED-1-25A400/51K-SR4-120-PE-DEBTD

CHAIN LINK FENCE  
WOOD/WROUGHT IRON FENCE  
WALL STRUCTURE  
LEASE AREA  
PROPERTY LINE (PL)  
SETBACKS  
ICE BRIDGE  
CABLE TRAY  
WATER LINE  
UNDERGROUND POWER  
UNDERGROUND TELCO  
OVERHEAD POWER  
OVERHEAD TELCO  
UNDERGROUND TELCO/POWER  
ABOVE GROUND POWER  
ABOVE GROUND TELCO  
ABOVE GROUND TELCO/POWER  
WORKPOINT

SECTION REFERENCE

DETAIL REFERENCE



LEGEND

AB ANCHOR BOLT  
ABV ABOVE  
AC ALTERNATING CURRENT  
ADDL ADDITIONAL  
AFF ABOVE FINISHED FLOOR  
AFG ABOVE FINISHED GRADE  
AGL ABOVE GROUND LEVEL  
AIC AMPERAGE INTERRUPTION CAPACITY  
ALUM ALUMINUM  
ALT ALTERNATE  
ANT ANTENNA  
APPROX APPROXIMATE  
ARCH ARCHITECTURAL  
ATS AUTOMATIC TRANSFER SWITCH  
AWG AMERICAN WIRE GAUGE  
BATT BATTERY  
BLDG BUILDING  
BLK BLOCK  
BLKG BLOCKING  
BM BEAM  
BTC BARE TINNED COPPER CONDUCTOR  
BOF BOTTOM OF FOOTING  
CAB CABINET  
CANT CANTILEVERED  
CHG CHARGING  
CLG CEILING  
CLR CLEAR  
COL COLUMN  
COMM COMMON  
CONC CONCRETE  
CONSTR CONSTRUCTION  
DBL DOUBLE  
DC DIRECT CURRENT  
DEPT DEPARTMENT  
DF DOUGLAS FIR  
DIA DIAMETER  
DIAG DIAGONAL  
DIM DIMENSION  
DWG DRAWING  
DWL DOWEL  
EA EACH  
EC ELECTRICAL CONDUCTOR  
EL ELEVATION  
ELEC ELECTRICAL  
EMT ELECTRICAL METALLIC TUBING  
ENG ENGINEER  
EQ EQUAL  
EXP EXPANSION  
EXT EXTERIOR  
EW EACH WAY  
FAB FABRICATION  
FF FINISH FLOOR  
FG FINISH GRADE  
FIF FACILITY INTERFACE FRAME  
FIN FINISH(ED)  
FLR FLOOR  
FDN FOUNDATION  
FOC FACE OF CONCRETE  
FOM FACE OF MASONRY  
FOS FACE OF STUD  
FOW FACE OF WALL  
FS FINISH SURFACE  
FT FOOT  
FTG FOOTING  
GA GAUGE  
GEN GENERATOR  
GFCI GROUND FAULT CIRCUIT INTERRUPTER  
GLB GLUE LAMINATED BEAM  
GLV GALVANIZED  
GPS GLOBAL POSITIONING SYSTEM  
GND GROUND  
GSM GLOBAL SYSTEM FOR MOBILE  
HDG HOT DIPPED GALVANIZED  
HDR HEADER  
HGR HANGER  
HVAC HEAT/VENTILATION/AIR CONDITIONING  
HT HEIGHT  
IGR INTERIOR GROUND RING

IN INCH  
INT INTERIOR  
LB(S) POUND(S)  
LF LINEAR FEET  
LTE LONG TERM EVOLUTION  
MAS MASONRY  
MAX MAXIMUM  
MB MACHINE BOLT  
MECH MECHANICAL  
MFR MANUFACTURER  
MGB MASTER GROUND BAR  
MIN MINIMUM  
MISC MISCELLANEOUS  
MTL METAL  
MTS MANUAL TRANSFER SWITCH  
MW MICROWAVE  
NEC NATIONAL ELECTRIC CODE  
NM NEWTON METERS  
NO. NUMBER  
# NUMBER  
NTS NOT TO SCALE  
OC ON-CENTER  
OSHA OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION  
OPNG OPENING  
P/C PRECAST CONCRETE  
PCS PERSONAL COMMUNICATION SERVICES  
PCU PRIMARY CONTROL UNIT  
PRC PRIMARY RADIO CABINET  
PP POLARIZING PRESERVING  
PSF POUNDS PER SQUARE FOOT  
PSI POUNDS PER SQUARE INCH  
PT PRESSURE TREATED  
PWR POWER CABINET  
QTY QUANTITY  
RAD RADIUS  
RECT RECTIFIER  
REF REFERENCE  
REINF REINFORCEMENT  
REQ'D REQUIRED  
RET REMOTE ELECTRIC TILT  
RF RADIO FREQUENCY  
RMC RIGID METALLIC CONDUIT  
RRH REMOTE RADIO HEAD  
RRU REMOTE RADIO UNIT  
RWY RACEWAY  
SCH SCHEDULE  
SHT SHEET  
SIAD SMART INTEGRATED ACCESS DEVICE  
SIM SIMILAR  
SPEC SPECIFICATION  
SQ SQUARE  
SS STAINLESS STEEL  
STD STANDARD  
STL STEEL  
TEMP TEMPORARY  
THK THICKNESS  
TMA TOWER MOUNTED AMPLIFIER  
TN TOE NAIL  
TOA TOP OF ANTENNA  
TOC TOP OF CURB  
TOF TOP OF FOUNDATION  
TOP TOP OF PLATE (PARAPET)  
TOS TOP OF STEEL  
TOW TOP OF WALL  
TVSS TRANSIENT VOLTAGE SURGE SUPPRESSION  
TYP TYPICAL  
UG UNDERGROUND  
UL UNDERWRITERS LABORATORY  
UNO UNLESS NOTED OTHERWISE  
UMTS UNIVERSAL MOBILE TELECOMMUNICATIONS SYSTEM  
UPS UNINTERRUPTIBLE POWER SYSTEM (DC POWER PLANT)  
VIF VERIFIED IN FIELD  
W WIDE  
W/ WITH  
WD WOOD  
WP WEATHERPROOF  
WT WEIGHT

ABBREVIATIONS

dish

wireless.

5701 SOUTH SANTA FE DRIVE  
LITTLETON, CO 80120

TOWER ENGINEERING PROFESSIONALS  
326 TRYON RD. RALEIGH, NC 27603  
OFFICE: (919) 661-6351  
FL COA# 31011

JOSHUA H. CARDEN

LICENSE

No 83511

STATE OF FLORIDA

PROFESSIONAL ENGINEER

This item has been digitally signed and sealed by JOSHUA H. CARDEN using a Digital Signature and date. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

January 5, 2023

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RFDS REV #: 2

CONSTRUCTION DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
A	11-15-21	PRELIMINARY
B	05-23-22	PRELIMINARY
O	01-05-23	CONSTRUCTION

A&E PROJECT NUMBER  
25949

DISH WIRELESS, L.L.C.  
PROJECT INFORMATION  
  
MIMIA00112A  
980 CRESTWOOD BLVD  
ROYAL PALM BEACH, FL 33411

SHEET TITLE  
LEGEND AND ABBREVIATIONS

SHEET NUMBER  
GN-1

SIGN TYPES		
TYPE	COLOR	COLOR CODE PURPOSE
INFORMATION	GREEN	"INFORMATIONAL SIGN" TO NOTIFY OTHERS OF SITE OWNERSHIP & CONTACT NUMBER AND POTENTIAL RF EXPOSURE.
NOTICE	BLUE	"NOTICE BEYOND THIS POINT" RF FIELDS BEYOND THIS POINT MAY EXCEED THE FCC GENERAL PUBLIC EXPOSURE LIMIT. OBEY ALL POSTED SIGNS AND SITE GUIDELINES FOR WORKING IN RF ENVIRONMENTS. IN ACCORDANCE WITH FEDERAL COMMUNICATIONS COMMISSION RULES ON RADIO FREQUENCY EMISSIONS 47 CFR-1.1307(b)
CAUTION	YELLOW	"CAUTION BEYOND THIS POINT" RF FIELDS BEYOND THIS POINT MAY EXCEED THE FCC GENERAL PUBLIC EXPOSURE LIMIT. OBEY ALL POSTED SIGNS AND SITE GUIDELINES FOR WORKING IN RF ENVIRONMENTS. IN ACCORDANCE WITH FEDERAL COMMUNICATIONS COMMISSION RULES ON RADIO FREQUENCY EMISSIONS 47 CFR-1.1307(b)
WARNING	ORANGE/RED	"WARNING BEYOND THIS POINT" RF FIELDS AT THIS SITE EXCEED FCC RULES FOR HUMAN EXPOSURE. FAILURE TO OBEY ALL POSTED SIGNS AND SITE GUIDELINES FOR WORKING IN RF ENVIRONMENTS COULD RESULT IN SERIOUS INJURY. IN ACCORDANCE WITH FEDERAL COMMUNICATIONS COMMISSION RULES ON RADIO FREQUENCY EMISSIONS 47 CFR-1.1307(b)

SIGN PLACEMENT:

- RF SIGNAGE PLACEMENT SHALL FOLLOW THE RECOMMENDATIONS OF AN EXISTING EME REPORT, CREATED BY A THIRD PARTY PREVIOUSLY AUTHORIZED BY DISH Wireless L.L.C.
- INFORMATION SIGN (GREEN) SHALL BE LOCATED ON EXISTING DISH Wireless L.L.C. EQUIPMENT.
  - A) IF THE INFORMATION SIGN IS A STICKER, IT SHALL BE PLACED ON EXISTING DISH Wireless L.L.C. EQUIPMENT CABINET.
  - B) IF THE INFORMATION SIGN IS A METAL SIGN IT SHALL BE PLACED ON EXISTING DISH Wireless L.L.C. H-FRAME WITH A SECURE ATTACH METHOD.
- IF EME REPORT IS NOT AVAILABLE AT THE TIME OF CREATION OF CONSTRUCTION DOCUMENTS; PLEASE CONTACT DISH Wireless L.L.C. CONSTRUCTION MANAGER FOR FURTHER INSTRUCTION ON HOW TO PROCEED.

NOTES:

1. FOR DISH Wireless L.L.C. LOGO, SEE DISH Wireless L.L.C. DESIGN SPECIFICATIONS (PROVIDED BY DISH Wireless L.L.C.)
2. SITE ID SHALL BE APPLIED TO SIGNS USING "LASER ENGRAVING" OR ANY OTHER WEATHER RESISTANT METHOD (DISH Wireless L.L.C. APPROVAL REQUIRED)
3. TEXT FOR SIGNAGE SHALL INDICATE CORRECT SITE NAME AND NUMBER AS PER DISH Wireless L.L.C. CONSTRUCTION MANAGER RECOMMENDATIONS.
4. CABINET/SHELTER MOUNTING APPLICATION REQUIRES ANOTHER PLATE APPLIED TO THE FACE OF THE CABINET WITH WATER PROOF POLYURETHANE ADHESIVE
5. ALL SIGNS WILL BE SECURED WITH EITHER STAINLESS STEEL ZIP TIES OR STAINLESS STEEL TECH SCREWS
6. ALL SIGNS TO BE 8.5"x11" AND MADE WITH 0.04" OF ALUMINUM MATERIAL

# INFORMATION

This is an access point to an area with transmitting antennas.

Obey all signs and barriers beyond this point.  
Call the DISH Wireless L.L.C. NOC at 1-866-624-6874

Site ID: \_\_\_\_\_



THIS SIGN IS FOR REFERENCE PURPOSES ONLY

## NOTICE



Transmitting Antenna(s)

Radio frequency fields beyond this point MAY **EXCEED** the FCC Occupational exposure limit.

Obey all posted signs and site guidelines for working in radio frequency environments.

Call the DISH Wireless L.L.C. NOC at 1-866-624-6874 prior to working beyond this point.

Site ID: \_\_\_\_\_



THIS SIGN IS FOR REFERENCE PURPOSES ONLY

## CAUTION



Transmitting Antenna(s)

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Site ID: \_\_\_\_\_



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## WARNING



Transmitting Antenna(s)

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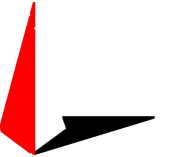
Site ID: \_\_\_\_\_



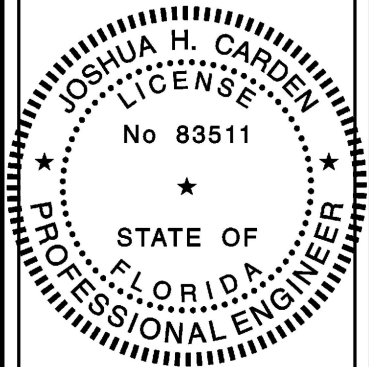
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ROYAL PALM BEACH, FL 33411

SHEET TITLE  
RF SIGNAGE

SHEET NUMBER  
**GN-2**



SITE ACTIVITY REQUIREMENTS:

1. NOTICE TO PROCEED – NO WORK SHALL COMMENCE PRIOR TO CONTRACTOR RECEIVING A WRITTEN NOTICE TO PROCEED (NTP) AND THE ISSUANCE OF A PURCHASE ORDER. PRIOR TO ACCESSING/ENTERING THE SITE YOU MUST CONTACT THE DISH WIRELESS, L.L.C. AND TOWER OWNER NOC & THE DISH WIRELESS, L.L.C. AND TOWER OWNER CONSTRUCTION MANAGER.

2. "LOOK UP" – DISH WIRELESS, L.L.C. AND TOWER OWNER 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 DISH WIRELESS, L.L.C. AND DISH WIRELESS, L.L.C. AND TOWER OWNER POC OR CALL THE NOC TO GENERATE A SAFETY CLIMB MAINTENANCE AND CONTRACTOR NOTICE TICKET.

3. 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.

4. 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 DISH WIRELESS, L.L.C. AND TOWER OWNER STANDARDS, 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).

5. ALL SITE WORK TO COMPLY WITH DISH WIRELESS, L.L.C. AND TOWER OWNER INSTALLATION STANDARDS FOR CONSTRUCTION ACTIVITIES ON DISH WIRELESS, L.L.C. AND TOWER OWNER TOWER SITE AND LATEST VERSION OF ANSI/TIA–1019–A–2012 "STANDARD FOR INSTALLATION, ALTERATION, AND MAINTENANCE OF ANTENNA SUPPORTING STRUCTURES AND ANTENNAS."

6. IF THE SPECIFIED EQUIPMENT CAN NOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY DISH WIRELESS, L.L.C. AND TOWER OWNER PRIOR TO PROCEEDING WITH ANY SUCH CHANGE OF INSTALLATION.

7. 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.

8. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER’S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.

9. THE CONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES INCLUDING PRIVATE LOCATES SERVICES PRIOR TO THE START OF CONSTRUCTION.

10. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER AUTILITIES 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.

11. ALL SITE WORK SHALL BE AS INDICATED ON THE STAMPED CONSTRUCTION DRAWINGS AND DISH PROJECT SPECIFICATIONS, LATEST APPROVED REVISION.

12. 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.

13. 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 DISH WIRELESS, L.L.C. AND TOWER OWNER, AND/OR LOCAL UTILITIES.

14. 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.

15. THE SITE SHALL BE GRADED TO CAUSE SURFACE WATER TO FLOW AWAY FROM THE CARRIER’S EQUIPMENT AND TOWER AREAS.

16. THE SUB GRADE SHALL BE COMPACTED AND BROUGHT TO A SMOOTH UNIFORM GRADE PRIOR TO FINISHED SURFACE APPLICATION.

17. 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.

18. 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.

19. 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.

20. CONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS AND RADIOS REMOVED SHALL BE RETURNED TO THE OWNER’S DESIGNATED LOCATION.

21. CONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION. TRASH AND DEBRIS SHOULD BE REMOVED FROM SITE ON A DAILY BASIS.

22. 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.

GENERAL NOTES:

1.FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY:

CONTRACTOR:GENERAL CONTRACTOR RESPONSIBLE FOR CONSTRUCTION

CARRIER:DISH WIRELESS, L.L.C.

TOWER OWNER:TOWER OWNER

2. 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.

3. 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.

4. 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.

5. 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.

6. 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 CARRIER POC AND TOWER OWNER.

7. 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.

8. UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.

9. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER’S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.

10. 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 TOWER OWNER PRIOR TO PROCEEDING WITH ANY SUCH CHANGE OF INSTALLATION.

11. CONTRACTOR IS TO PERFORM A SITE INVESTIGATION, BEFORE SUBMITTING BIDS, 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.

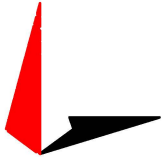
12. THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR’S EXPENSE TO THE SATISFACTION OF DISH WIRELESS, L.L.C. AND TOWER OWNER

13. 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.

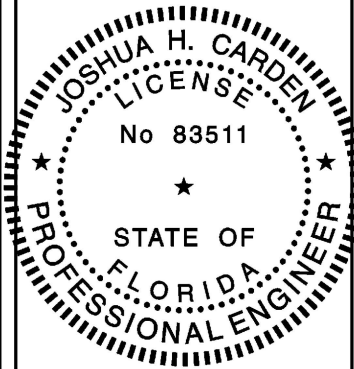
14. CONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION. TRASH AND DEBRIS SHOULD BE REMOVED FROM SITE ON A DAILY BASIS.



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SHEET TITLE  
GENERAL NOTES

SHEET NUMBER  
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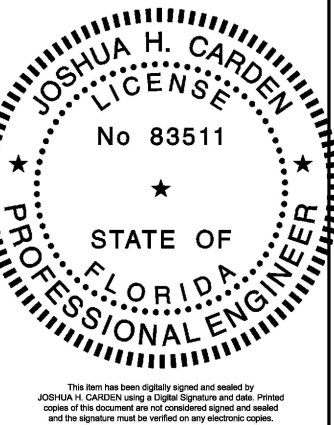
## CONCRETE, FOUNDATIONS, AND REINFORCING STEEL:

1. ALL CONCRETE 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.
2. UNLESS NOTED OTHERWISE, SOIL BEARING PRESSURE USED FOR DESIGN OF SLABS AND FOUNDATIONS IS ASSUMED TO BE 1000 psf.
3. 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.
4. 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.
5. 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 ( $F_y$ ) OF STANDARD DEFORMED BARS ARE AS FOLLOWS:  
  - #4 BARS AND SMALLER 40 ksi
  - #5 BARS AND LARGER 60 ksi
6. 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"
7. A TOOLED 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:**

1. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, NEC AND ALL APPLICABLE FEDERAL, STATE, AND LOCAL CODES/ORDINANCES.
2. CONDUIT ROUTINGS ARE SCHEMATIC. CONTRACTOR SHALL INSTALL CONDUITS SO THAT ACCESS TO EQUIPMENT IS NOT BLOCKED AND TRIP HAZARDS ARE ELIMINATED.
3. WIRING, RACEWAY AND SUPPORT METHODS AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE NEC.
4. 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.
- 4.2. 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 AIC 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.
5. 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.
6. 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).
7. PANEL BOARDS (ID NUMBERS) SHALL BE CLEARLY LABELED WITH PLASTIC LABELS.
8. TIE WRAPS ARE NOT ALLOWED.
9. 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.
10. 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.
11. POWER AND CONTROL WIRING IN FLEXIBLE CORD SHALL BE MULTI-CONDUCTOR, TYPE SOOW CORD (#14 OR LARGER) UNLESS OTHERWISE SPECIFIED.
12. 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.
13. 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).
14. RACEWAY AND CABLE TRAY SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND NEC.
15. ELECTRICAL METALLIC TUBING (EMT), INTERMEDIATE METAL CONDUIT (IMC), OR RIGID METAL CONDUIT (RMC) SHALL BE USED FOR EXPOSED INDOOR LOCATIONS.

16. ELECTRICAL METALLIC TUBING (EMT) OR METAL-CLAD CABLE (MC) SHALL BE USED FOR CONCEALED INDOOR LOCATIONS.
17. SCHEDULE 40 PVC UNDERGROUND ON STRAIGHTS AND SCHEDULE 80 PVC FOR ALL ELBOWS/90s AND ALL APPROVED ABOVE GRADE PVC CONDUIT.
18. LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT (LIQUID-TITE FLEX) SHALL BE USED INDOORS AND OUTDOORS, WHERE VIBRATION OCCURS OR FLEXIBILITY IS NEEDED.
19. CONDUIT AND TUBING FITTINGS SHALL BE THREADED OR COMPRESSION-TYPE AND APPROVED FOR THE LOCATION USED. SET SCREW FITTINGS ARE NOT ACCEPTABLE.
20. CABINETS, BOXES AND WIRE WAYS SHALL BE LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND THE NEC.
21. WIREWAYS SHALL BE METAL WITH AN ENAMEL FINISH AND INCLUDE A HINGED COVER, DESIGNED TO SWING OPEN DOWNWARDS (WIREMOLD SPECIMATE WIREWAY).
22. SLOTTED WIRING DUCT SHALL BE PVC AND INCLUDE COVER (PANDUIT TYPE E OR EQUAL).
23. 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.
24. 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 3 (OR BETTER) FOR EXTERIOR LOCATIONS.
25. 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.
26. NONMETALLIC RECEPTACLE, SWITCH AND DEVICE BOXES SHALL MEET OR EXCEED NEMA OS 2 (NEWEST REVISION) AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND WEATHER PROTECTED (WP OR BETTER) FOR EXTERIOR LOCATIONS.
27. THE CONTRACTOR SHALL NOTIFY AND OBTAIN NECESSARY AUTHORIZATION FROM THE CARRIER AND/OR DISH WIRELESS, L.L.C., AND TOWER OWNER BEFORE COMMENCING WORK ON THE AC POWER DISTRIBUTION PANELS.
28. THE CONTRACTOR SHALL PROVIDE NECESSARY TAGGING ON THE BREAKERS, CABLES AND DISTRIBUTION PANELS IN ACCORDANCE WITH THE APPLICABLE CODES AND STANDARDS TO SAFEGUARD LIFE AND PROPERTY.
29. INSTALL LAMICOID LABEL ON THE METER CENTER TO SHOW "DISH WIRELESS, L.L.C.".
30. ALL EMPTY/SPARE CONDUITS THAT ARE INSTALLED ARE TO HAVE A METERED MULE TAPE PULL CORD INSTALLED.



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DRAWN BY:	CHECKED BY:	APPROVED BY:
TDD	CLR	MJC

RFDS REV #: 2

**CONSTRUCTION  
DOCUMENTS**

SUBMITTALS		
REV	DATE	DESCRIPTION
A	11-15-21	PRELIMINARY
B	05-23-22	PRELIMINARY
0	01-05-23	CONSTRUCTION

A&E PROJECT NUMBER  
25949

DISH WIRELESS, L.L.C.  
PROJECT INFORMATION

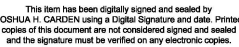
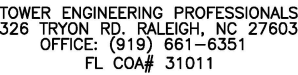
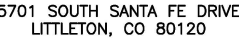
MIMIA00112A  
980 CRESTWOOD BLVD  
ROYAL PALM BEACH, FL 33411

SHEET TITLE  
GENERAL NOTES

SHEET NUMBER

**GN-4**

1. ALL GROUND ELECTRODE SYSTEMS (INCLUDING TELECOMMUNICATION, RADIO, LIGHTNING PROTECTION SYSTEMS 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.
2. 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.
3. 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.
4. METAL CONDUIT AND TRAY SHALL BE GROUNDED AND MADE ELECTRICALLY CONTINUOUS WITH LISTED BONDING FITTINGS OR BY BONDING ACROSS THE DISCONTINUITY WITH #6 COPPER WIRE UL APPROVED GROUNDING TYPE CONDUIT CLAMPS.
5. 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.
6. 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.
7. 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.
8. ALL EXTERIOR GROUND CONDUCTORS BETWEEN EQUIPMENT/GROUND BARS AND THE GROUND RING SHALL BE #2 SOLID TINNED COPPER UNLESS OTHERWISE INDICATED.
9. ALUMINUM CONDUCTOR OR COPPER CLAD STEEL CONDUCTOR SHALL NOT BE USED FOR GROUNDING CONNECTIONS.
10. USE OF 90° BENDS IN THE PROTECTION GROUNDING CONDUCTORS SHALL BE AVOIDED WHEN 45° BENDS CAN BE ADEQUATELY SUPPORTED.
11. EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE.
12. ALL GROUND CONNECTIONS ABOVE GRADE (INTERIOR AND EXTERIOR) SHALL BE FORMED USING HIGH PRESS CRIMPS.
13. COMPRESSION GROUND CONNECTIONS MAY BE REPLACED BY EXOTHERMIC WELD CONNECTIONS.
14. ICE BRIDGE BONDING CONDUCTORS SHALL BE EXOTHERMICALLY BONDED OR BOLTED TO THE BRIDGE AND THE TOWER GROUND BAR.
15. APPROVED ANTIOXIDANT COATINGS (i.e. CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS.
16. ALL EXTERIOR GROUND CONNECTIONS SHALL BE COATED WITH A CORROSION RESISTANT MATERIAL.
17. MISCELLANEOUS ELECTRICAL AND NON-ELECTRICAL METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE NEC.
18. BOND ALL METALLIC OBJECTS WITHIN 6 ft OF MAIN GROUND RING WITH (1) #2 BARE SOLID TINNED COPPER GROUND CONDUCTOR.
19. 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.
20. 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).
21. 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 GROUNDING CONDUCTORS SHALL NOT BE SMALLER THAN 2/0 COPPER. ROOFTOP GROUNDING RING SHALL BE BONDED TO THE EXISTING GROUNDING SYSTEM, THE BUILDING STEEL COLUMNS, LIGHTNING PROTECTION SYSTEM, AND BUILDING MAIN WATER LINE (FERROUS OR NONFERROUS METAL PIPING ONLY). DO NOT ATTACH GROUNDING TO FIRE SPRINKLER SYSTEM PIPES.



January 5, 2023

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## GENERAL NOTES

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## GN-5