

**CITY OF LA VISTA**  
**MAYOR AND CITY COUNCIL REPORT**  
**FEBRUARY 18, 2020 AGENDA**

| <b>Subject:</b>  | <b>Type:</b>                                | <b>Submitted By:</b>                |
|--|---|-------------------------------------|
| CONDITIONAL USE PERMIT<br>AMENDMENT – SAC WIRELESS<br>O/B/O AT&T – 8101 S 120 <sup>TH</sup> ST | ◆ ORDINANCE<br>◆ RESOLUTION<br>RECEIVE/FILE | CALE BRODERSEN<br>ASSISTANT PLANNER |

**SYNOPSIS**

A public hearing has been scheduled and a resolution prepared for Council to consider an application to amend the Conditional Use Permit for the existing cell tower generally located southeast of the intersection of S 123<sup>rd</sup> Plaza and Eastport Parkway to allow for equipment upgrades by AT&T.

**FISCAL IMPACT**

N/A.

**RECOMMENDATION**

Approval.

**BACKGROUND**

A public hearing has been scheduled to consider an application submitted by SAC Wireless, on behalf of AT&T, to amend the Conditional Use Permit for the existing cell tower located at 8101 S 120<sup>th</sup> Street, generally located southeast of the intersection of S 123<sup>rd</sup> Plaza and Eastport Parkway, to allow for equipment upgrades on the tower. The proposed upgrades include swapping out three antennas, adding three radios, and swapping out the power plant. A structural analysis on the proposed tower upgrades was performed and signed off on by a licensed Professional Civil Engineer.

A detailed staff report is attached.

The Planning Commission held a public hearing on February 6, 2020 and voted unanimously to recommend approval of the Conditional Use Permit amendment, as the CUP request is consistent with the Comprehensive Plan and the Zoning Ordinance.

**RESOLUTION NO.**

A RESOLUTION OF THE MAYOR AND CITY COUNCIL OF THE CITY OF LA VISTA, NEBRASKA AUTHORIZING THE EXECUTION OF AN AMENDMENT TO A CONDITIONAL USE PERMIT FOR SAC WIRELESS ON BEHALF OF AT&T TO CONSTRUCT IMPROVEMENTS AND OPERATE A WIRELESS COMMUNICATION TOWER LOCATED AT 8101 S 120<sup>TH</sup> STREET.

WHEREAS, SAC Wireless on behalf of AT&T has applied for approval of an amendment to their conditional use permit for a wireless communication tower at 8101 S 120<sup>th</sup> Street, located southeast of the intersection of S 123<sup>rd</sup> Plaza and Eastport Parkway; and

WHEREAS, the La Vista Planning Commission reviewed the application on February 6, 2020 and recommends approval; and

WHEREAS, the Mayor and City Council of the City of La Vista are agreeable to the amendment of the conditional use permit for such purposes.

NOW THEREFORE, BE IT RESOLVED, that the Mayor and City Council of the City of La Vista hereby authorize the execution of an amendment to a Conditional Use Permit in form and content submitted at this meeting, with such modifications that the City Administrator or City Attorney may determine necessary or advisable, for SAC Wireless on behalf of AT&T, to allow for improvements and operation of a wireless communication tower at 8101 S 120<sup>th</sup> Street,

PASSED AND APPROVED THIS 18TH DAY OF FEBRUARY, 2020.

CITY OF LA VISTA

ATTEST:

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Douglas Kindig, Mayor

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Pamela A. Buethe, CMC  
City Clerk



CITY OF LA VISTA  
PLANNING DIVISION

RECOMMENDATION REPORT

CASE NUMBER: PCUP 19-0006

FOR HEARING ON: February 18, 2020

REPORT PREPARED ON: February 7, 2020

**I. GENERAL INFORMATION**

**A. APPLICANT:**

SAC Wireless on behalf of AT&T  
540 W Madison, 9<sup>th</sup> Floor  
Chicago, IL 60661

**B. PROPERTY OWNERS:**

American Tower Corporation  
10 Presidential Way  
Woburn, MA 01801

**C. LOCATION:** Southeast of the intersection of S 123<sup>rd</sup> Plaza and  
Eastport Parkway; 8101 S 120<sup>th</sup> Street.

**D. LEGAL DESCRIPTION:** See attached Conditional Use Permit.

**E. REQUESTED ACTION(S):** Conditional Use Permit Amendment to  
allow for cell tower upgrades

**F. EXISTING ZONING AND LAND USE:**

TA Transitional Agriculture District; Gateway Corridor District  
(Overlay District); Existing cell tower.

**G. PURPOSE OF REQUEST:**

1. To make the following equipment upgrades on an existing cell tower: swap out of three antennas, add three radios, and swap out the power plant.

**II. BACKGROUND INFORMATION**

**A. EXISTING CONDITION OF SITE:** The existing cell tower sits on a slight hill and slopes gradually downward to the west toward Eastport Parkway and gradually downward to the east toward the Nebraska Multi-Sport Complex property.

**B. GENERAL NEIGHBORHOOD/AREA ZONING AND LAND USES:**

1. **North:** Vacant; TA – Transitional Agriculture District, Gateway Corridor District (Overlay District), and FF/FW Flood Plain Districts (Overlay District); Nebraska Multi-Sport Complex.
2. **East:** Vacant; TA – Transitional Agriculture District, Gateway Corridor District (Overlay District),

and FF/FW Flood Plain Districts (Overlay District); Nebraska Multi-Sport Complex.

3. **South:** Vacant; TA – Transitional Agriculture District, Gateway Corridor District (Overlay District), and FF/FW Flood Plain Districts (Overlay District); Nebraska Multi-Sport Complex.

4. **West:** Lot 3 Southport East Replat Replat Six; Vacant; C-3 Highway Commercial/Office Park District; Gateway Corridor District (Overlay District).

**C. RELEVANT CASE HISTORY:**

1. In April of 1999 a Special Use Permit was issued to Aliant Cellular for the construction and operation of a cell tower on the site.
2. In 2004 the Special Use Permit was amended as a Conditional Use Permit to reflect a change in ownership of the tower and to permit continued operation.

**D. APPLICABLE REGULATIONS:**

1. Zoning Ordinance Section 5.05 TA Transitional Agriculture District
2. Zoning Ordinance Section 5.17 Gateway Corridor District (Overlay District)
3. Zoning Ordinance Section 7.11 Wireless Communication Towers
4. Zoning Ordinance Article 6 – Conditional Use Permits.

**III. ANALYSIS**

**A. COMPREHENSIVE PLAN:** The Future Land Use Map of the Comprehensive Plan currently designates this property for Parks and Recreation.

**B. OTHER PLANS:** N/A.

**C. TRAFFIC AND ACCESS:**

1. Access to the site is located off Eastport Parkway.

**D. UTILITIES:**

1. N/A.

**E. PARKING REQUIREMENTS:**

1. The property has a crushed rock parking lot and is of sufficient size for the maintenance/equipment trucks that need access.

**IV. REVIEW COMMENTS:**

1. The proposed cell tower improvements have been reviewed and signed off on by a Professional Civil Engineer licensed in the State of

Nebraska. See the attached Structural Analysis Report for more information.

2. The owner of the cell tower, American Tower Corporation, has issued a Letter of Authorization, authorizing the applicant to obtain the necessary building and land-use permits to make the proposed equipment improvements. The letter of authorization is provided as an attachment to the Conditional Use Permit.
3. After obtaining an amended Conditional Use Permit, the applicant will need to obtain the proper building permits for the improvements.

**V. STAFF RECOMMENDATION – CONDITIONAL USE PERMIT AMENDMENT:**

Staff recommends approval of the Conditional Use Permit amendment as the CUP amendment request is consistent with the Comprehensive Plan and the Zoning Ordinance.

**VI. PLANNING COMMISSION RECOMMENDATION – CONDITIONAL USE PERMIT AMENDMENT:**

The Planning Commission held a public hearing on February 6, 2020 and voted unanimously to recommend approval of the Conditional Use Permit amendment, as the CUP amendment request is consistent with the Comprehensive Plan and the Zoning Ordinance.

**VII. ATTACHMENTS TO REPORT:**

1. Vicinity Map
2. Conditional Use Permit
3. Site Plan
4. FAA Approval Letter
5. Improvement Plan Set
6. Owner Letter of Authorization
7. Structural Analysis Report without attachments

**VIII. COPIES OF REPORT SENT TO:**

1. Erin McConnaughay, SAC Wireless on behalf of AT&T
2. Amanda Fay, American Tower Corp.
3. Public Upon Request.

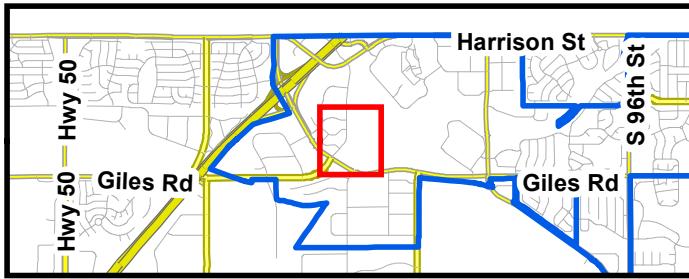
Prepared by: Assistant Planner

  
Cale Brodersen  
Deputy Community Development Director

2/7/2020



**Project Vicinity Map**



**Wireless Communication Tower  
CUP Amendment - AT&T  
8101 S 120th St.**

1/31/2020  
CB



**CITY OF LA VISTA**  
**CONDITIONAL USE PERMIT**  
**(Eligible Facility – Wireless Communication Tower)**

This Amendment to a Conditional Use Permit is issued this \_\_\_\_\_ day of \_\_\_\_\_, 2020 by the City of La Vista, a municipal corporation in the county of Sarpy County, Nebraska (“City”) to SAC Wireless, LLC o/b/o AT&T, pursuant to the La Vista Zoning Ordinance.

WHEREAS, SAC Wireless, LLC o/b/o AT&T, has applied for an amendment to an existing Conditional Use Permit for an Eligible Facility for the purpose of modifying and operating the hereinafter described tower communications structure and improvements (Permitted Structure), identified on Exhibit “A”, the site plan exhibit displayed in the original Special Use Permit, and incorporated herein by this reference, and Exhibit “C”, the Improvements Plan Set incorporated herein by this reference, located at 8101 S 120<sup>th</sup> Street, same being:

All that part of Tax Lot 3 in the Southwest Quarter (SW ¼) of Section 17, Township 14 North, Range 12 East of the 6<sup>th</sup> P.M., in Sarpy County, Nebraska, lying South of the middle of Old Papillion Creek Bed and lying northwesterly of the Chicago, Burlington and Quincy Railroad right-of-way, EXCEPT that part thereof included within the following described parcel conveyed to the County of Sarpy, Nebraska, described as follows:

Commencing at the Northwest corner of the South Half of said Southwest Quarter; thence South 02°32'43" East (assumed bearing), along the West line of said Southwest Quarter, 46.72 feet; thence North 87°27'17" East, perpendicular to said West line, 33.00 feet, to the true Place of Beginning; thence North 09°10'09" East, 445.30 feet; thence north 05°31'16" West, 933.35 feet; thence North 01°54'16" East, 758.35 feet; thence North 42°53'18" West, 100.89 feet; thence South 12°19'35" West, 499.39 feet, to a point being 33.00 feet East of the West line of the Northwest Quarter of said Section 17; thence South 02°37'28" East, parallel with said West line of the Northwest Quarter, 1,074.39 feet; thence South 02°32'44" East, parallel with the West line of said Southwest Quarter, 1,370.74 feet, to the Place of Beginning.

AND, EXCEPT that part thereof conveyed to the County of Sarpy, Nebraska, described as follows:

Commencing at the Southwest corner of said Section 17; thence North 02°32'44" West (assumed bearing), along the West line of said Section 17, for 1,238.89 feet, to the Point of Beginning; thence North 02°32'44" West, along said West line of Section 17, for 374.60 feet; thence North 87°27'16" East, for 50.0 feet; thence South 02°32'44" East, along a line that is 50 feet East of and parallel to the West line of said Section 17, for 72.54 feet; thence Southerly, along a 527.47 foot radius curve to the right (having a chord bearing South 04°44'51" West, for a chord length of 133.92 feet), or an arc length of 134.28 feet; thence South 02°32'44" East, along a line that is 33 feet East from and parallel to the West line of said Section 17, for 169.23 feet; thence South 87°27'16" West, for 33.0 feet, to the Point of Beginning.

AND, EXCEPT that part thereof conveyed to the County of Sarpy, Nebraska, described as follows:

Commencing at the Southwest corner of said Section 17; thence North 02°32'44" West (assumed bearing), along the West line of said Section 17, for 442.29 feet, to the Northerly right-of-way line of the Chicago Northwestern Railroad and being the Point of Beginning; thence continuing North 02°32'44" West, along the West line of said Section 17, for 122.91 feet; thence South 68°31'34" East, for 117.09 feet, to a point on the Northerly right-of-way of the Chicago Northwestern Railroad; thence Southwesterly, along a 5,627.09 foot radius curve to the right and along the Northerly right-of-way of the Chicago Northwestern Railroad (for a chord bearing of South 54°41'06" West, and a chord length of 134.19 feet), for an arc distance of 134.19 feet to the Point of Beginning:

Subject to public roads and/or highways. (hereinafter referred to as the "Premises"); and

WHEREAS, on April 20, 1999 the Mayor and City Council of the City of La Vista had approved the issuance of a Special Use Permit to Aliant Cellular for the development of the tower communications structure and improvements; and

WHEREAS, a Conditional Use Permit is a Special Use Permit; and

WHEREAS, on July 20, 2004 the Mayor and City Council of the City of La Vista had approved an amendment to the Conditional Use Permit reflecting the change in ownership of the hereinafter described structure and improvements on said property;

NOW, THEREFORE, BE IT KNOWN THAT subject to the conditions hereof and guarantees hereby required, this Conditional Use Permit as amended is issued to SAC Wireless, LLC o/b/o AT&T to modify and operate a communications tower owned by American Tower Corporation according to the La Vista Zoning Ordinance:

#### Conditions of Permit

The conditions to which the granting of this permit is subject are:

1. The construction and modification of the proposed wireless telecommunications facilities shall be legally permissible upon the City's approval of this Conditional Use Permit and upon the issuance of all applicable building permits to be obtained in accordance with the La Vista Municipal Code;

2. The applicant is authorized to do business in the State of Nebraska;

3. The application complies with federal guidelines regarding interference and ANSI standards as adopted by the FCC including but not limited to NIER standards; and

4. The proposed installation will not cause physical or RF interference with other telecommunications devices.

5. All utilities at a wireless telecommunications facilities site shall be installed underground whenever possible and in compliance with all laws, ordinances, rules and regulations of the City, including specifically, but not limited to, the National Electrical Code where appropriate.

6. All wireless telecommunications facilities shall be constructed, operated, maintained, repaired, provided for removal of, modified, or restored in strict compliance with all

current applicable technical, safety, and safety-related codes adopted by the City, State, or United States, including but not limited to the most recent editions of the ANSI Code and the National Electrical Code, as well as accepted and responsible workmanlike industry practices and recommended practices of the National Association of Tower Erectors. The codes include, but are not limited to, construction, building, electrical, fire, safety, health, and land use codes. In the event of a conflict between or among any of the preceding codes, the more stringent shall apply.

7. A holder of an eligible facilities permit granted under this Article shall obtain, at its own expense, all permits and licenses required by applicable law, rule, regulation or code, and must maintain the same, in full force and effect, for as long as required by the City or other governmental entity or agency having jurisdiction over the applicant.

8. Proof of approval of the Permitted Structure by the Federal Aviation Administration (attached hereto as Exhibit "B" and incorporated herein by this reference) was valid when the structure was constructed. Proof of approval of the Permitted Structure by the FAA and any other federal or state agencies having jurisdiction thereover, for the use thereof, or the airspace effected thereby may be required at any time.

9. The tower, telecommunications facilities and antennas shall at all times be kept and maintained in good condition, order and repair so that the same does not constitute a nuisance to or a danger to the life or property of any person or the public.

10. The monopole will be secured by a perimeter fence and accessed through a gated entrance. Location of fencing, equipment shelter, etc. shall be located according to the Compound Plan in the Improvement Plan Set (attached hereto as Exhibit "C" and incorporated herein by this reference).

11. A signed letter of authorization has been provided by the owner of the tower, authorizing SAC Wireless o/b/o AT&T Wireless to obtain this Conditional Use Permit amendment allowing modifications to the Permitted Structure (attached hereto as Exhibit "D" and incorporated herein by this reference).

12. Appropriate landscaping and buffering as identified by the Planning Department will be required to match the surrounding area and match and future growth in the area.

13. The applicant's right to maintain the use as approved pursuant to these provisions shall be based on the following:

- a. An annual inspection to determine compliance with the conditions of approval. The conditional use permit may be revoked upon a finding by the City that there is a violation of the terms of approval.
- b. All obsolete or unused structures, accessory facilities or materials with an environmental or safety hazard shall be abated and/or removed at owner's expense within twelve (12) months of cessation of the conditional use.

14. Notwithstanding any other provision herein to the contrary, this permit, and all rights granted hereby, shall expire and terminate as to a permitted use hereunder upon the first of the following to occur:

- a. Owner's abandonment of the permitted use. Non-use thereof for a period of twelve (12) months shall constitute a presumption of abandonment.

- b. Cancellation, revocation, denial or failure to maintain any federal, state or local permit required for the Use.
- c. Owner's breach of any other terms hereof and his failure to correct such breach within ten (10) days of City's giving notice thereof.

15. In the event of the owner's failure to promptly remove any safety or environmental hazard from the premises, or the expiration or termination of this permit and the owner's failure to promptly remove any permitted materials or any remaining environmental or safety hazard, the City may, at its option (but without any obligation to the owner or any third party to exercise said option) cause the same to be removed at owner's cost (including, but not limited to, the cost of any excavation and earthwork that is necessary or advisable) and the owner shall reimburse the City the costs incurred to remove the same. Owner hereby irrevocably grants the City, its agents and employees the right to enter the premises and to take whatever action as is necessary or appropriate to remove the structures or any environmental or safety hazards in accordance with the terms of this permit, and the right of the City to enter the premises as necessary or appropriate to carry out any other provision of this permit.

#### Miscellaneous

1. Delay of City to terminate this Permit on account of breach of AT&T Wireless or SAC Wireless o/b/o AT&T Wireless of any of the terms hereof shall not constitute a waiver of City's right to terminate, unless it shall have expressly waived said breach, and a waiver of the right to terminate upon any breach shall not constitute a waiver of the right to terminate upon a subsequent breach of AT&T Wireless or SAC Wireless o/b/o AT&T Wireless whether said breach be of the same or different nature.

2. Future communications tower modification requests meeting the requirements of FCC Order 14-153 (Eligible Facilities) that result in the need to amend this Conditional Use Permit may be processed administratively by the Planning Department of the City of La Vista, at the sole discretion of the Community Development Director.

3. Any notice to be given by City hereunder shall be in writing and shall be sufficiently given if sent by regular mail, postage prepaid, addressed to SAC Wireless o/b/o AT&T Wireless and American Tower Corporation, as follows:

|   |     |  |
|---|-----|--|
| SAC Wireless o/b/o AT&T Wireless<br>Attn: Erin McConnaughay<br>540 W. Madison St, 9 <sup>th</sup> Fl<br>Chicago, IL 60661<br>(815) 343-0845 | and | American Tower Corporation<br>Attn: Amanda Fay<br>RE: Site #98468<br>10 Presidential Way<br>Woburn, MA 01801 |
|---|-----|--|

Effective Date

This Permit shall take effect upon the filing hereof with the City Clerk a signed original hereof.

THE CITY OF LA VISTA

By \_\_\_\_\_  
Douglas Kindig, Mayor

Attest:

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Pam Buethe  
City Clerk

CONSENT AND INDEMNIFICATION AGREEMENT

The undersigned does hereby consent and agree to the conditions of this permit and that the terms hereof constitute an agreement on the part of the undersigned to fully and timely perform each and every condition and term hereof, and the undersigned does hereby warrant, covenant and agree to fully and timely perform and discharge all obligations and liabilities herein required by AT&T. to be performed or discharged.

Owner of Improvements:

By: \_\_\_\_\_

Title: \_\_\_\_\_

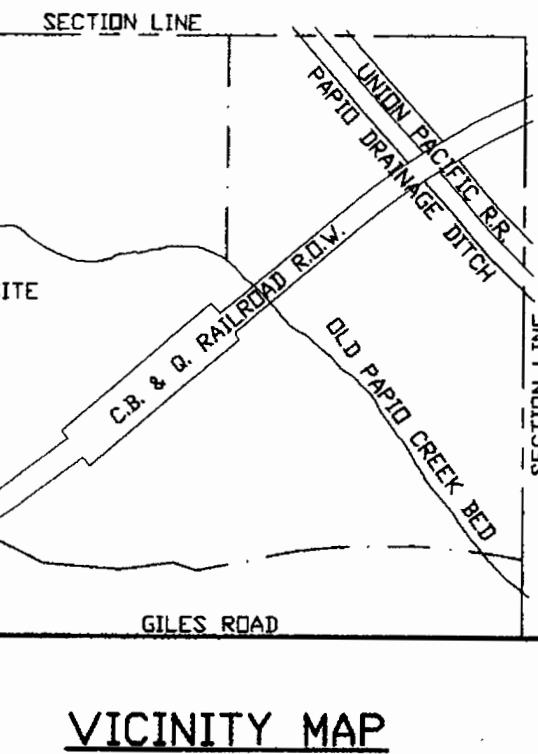
Date: \_\_\_\_\_

| REVISIONS   |  |
|---|--|
| ISSUE 1   |  |
| Aliant Cellular   |  |
| Cellular Engineering<br>500 So. 16th Street Lincoln, Nebraska 68508<br>P. O. Box 81308 Lincoln, Nebraska 68501-1309 |  |

**CELLULAR TOWER SITE PLAN  
8001 S. 120TH ST.  
LAVISTA, NEBRASKA**

| ASSOCIATED LAYERS |             |
|-------------------|-------------|
| BLK 0             |             |
| ACEL              |             |
| CADD FILE         | C41F468     |
| DRAWN             | S. A. HORKY |
| CHECKED           | S. E. DAVIS |
| DATE              | 3-4-99      |
| PLOT AT           | 1/4"=1'-0"  |
| ISSUE             | 1           |
| DRAWING NO.       | 41-F-468C   |

EXHIBIT A



SW 1/4, NW 1/4  
SECTION 17-T14N-R12E

ZONED TA

COORDINATES: 41° 10' 49" N. LAT.  
96° 5' 59" W. LON.

ELEVATION: 1064' A.M.S.L.

MAGNETIC DECLINATION: 4° 52' 59" E.



SCALE: 1"=20'-0"

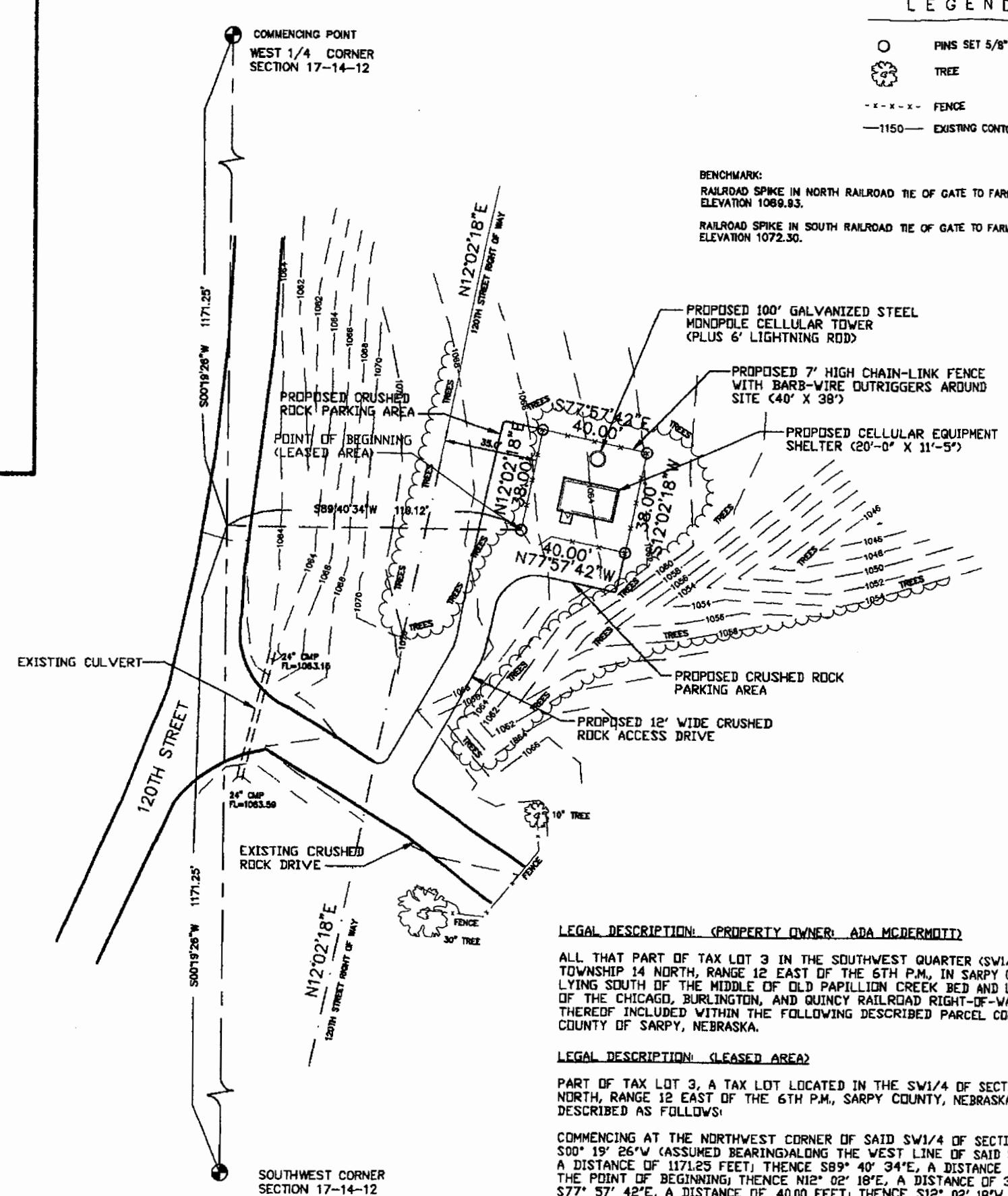


EXHIBIT A

# Exhibit B

Federal Aviation Administration  
Central Region, ACE-520  
601 East 12th Street  
Kansas City, MO 64106

AERONAUTICAL STUDY  
No: 99-ACE-0296-OE

ISSUED DATE: 03/22/99

JOHN R BARBER  
ALIANT CELLULAR & COMMUNICATIONS  
PO BOX 81309  
LINCOLN, NE 68501-1309

## \*\* DETERMINATION OF NO HAZARD TO AIR NAVIGATION \*\*

The Federal Aviation Administration has completed an aeronautical study under the provisions of 49 U.S.C., Section 44718 and, if applicable, Title 14 of the Code of Federal Regulations, part 77, concerning:

Description: ANTENNA TOWER, FREQ. 880-894 MHz, ERP=500 WATTS

Location: LA VISTA NE  
Latitude: 41-10-48.99 NAD 83  
Longitude: 096-06-00.06  
Heights: 114 feet above ground level (AGL)  
1179 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

-See attachment for additional condition(s) or information.

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking and/or lighting are accomplished on a voluntary basis, we recommend it be installed and maintained in accordance with FAA Advisory Circular 70/7460-1.

This determination expires on 09/22/99 unless:

- (a) extended, revised or terminated by the issuing office or
- (b) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case the determination expires on the date prescribed by the FCC for completion of construction or on the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE POSTMARKED OR DELIVERED TO THIS OFFICE AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any



## PROJECT INFORMATION

SITE NAME: 120TH & GILES ROAD  
 COUNTY: SARPY  
 ADDRESS: 8101 SOUTH 120TH STREET  
 LA VISTA, NE 68128  
 JURISDICTION: CITY OF LA VISTA  
 SITE NUMBER: NEL01031  
 FA NUMBER: 10083517  
 PTN: 3525A0KF9F  
 PACE: MRUMW032715  
 ATC ASSET #: 98468

LATITUDE: 41° 10' 49.26" N (41.18035)  
 LONGITUDE: 96° 06' 0.04" W (-96.10001)

TOWER OWNER: AMERICAN TOWER CORP.  
 120TH & GILES  
 SITE# 98468

GROUND OWNER: AMERICAN TOWER CORP.  
 120TH & GILES  
 SITE# 98468

LANDLORD CONTACT: STEVEN RICK  
 PHONE: (414)-801-1969  
 STEVEN.RICK@AMERICANTOWER.COM

APPLICANT: AT&T WIRELESS  
 7900 XERXES AVE S, 3RD FLOOR  
 BLOOMINGTON, MN 55431

AT&T PROJECT MANAGER: PETER MCENERY  
 PHONE: (952)-258-9629  
 EMAIL: PM753@ATT.COM

AT&T CONSTRUCTION MANAGER: MIKE VANSTEEL  
 EMAIL: MV5267@ATT.COM

## PROJECT CONSULTANTS

PROJECT MANAGEMENT: SAC WIRELESS  
 540 W. MADISON ST., 9TH FLOOR  
 CHICAGO, ILLINOIS 60661  
 CONTACT: SHAMMIKA CHISOLM  
 EMAIL: SHAMMIKA.CHISOLM@SACW.COM

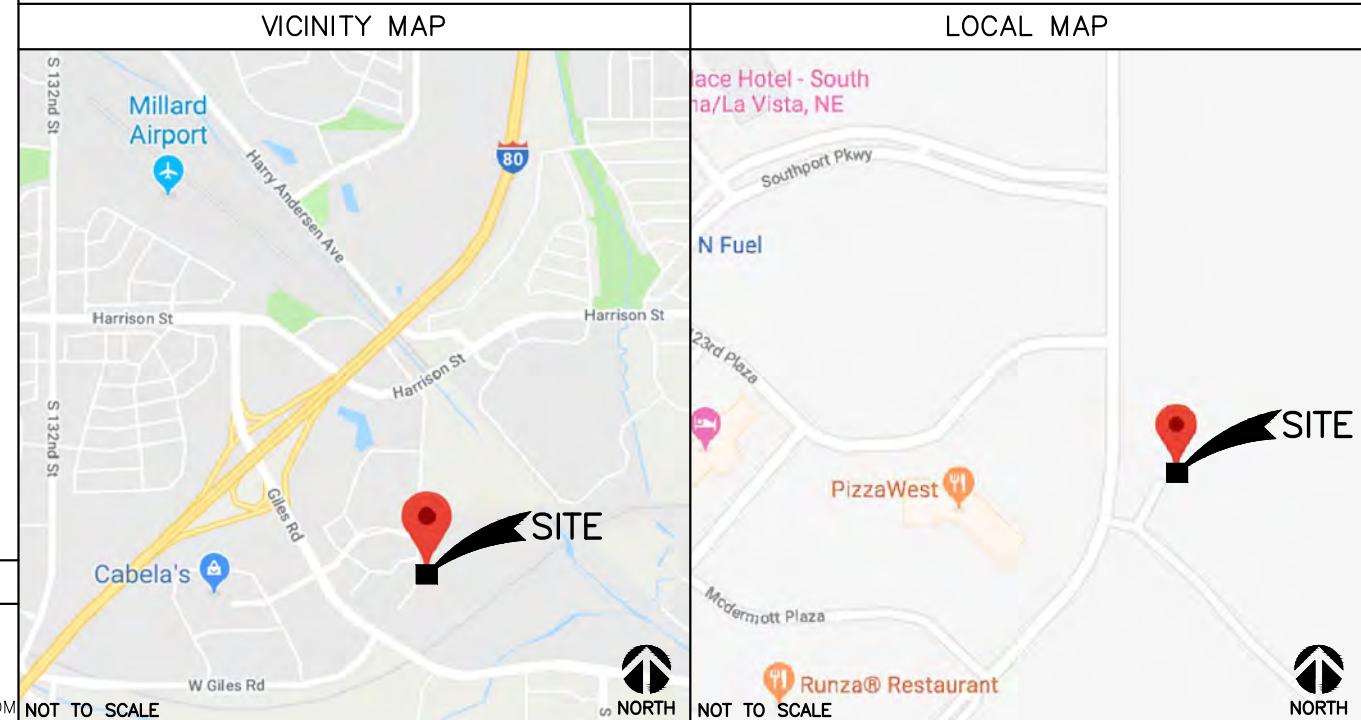
SITE ACQUISITION: SAC WIRELESS  
 CONTACT: SID KLEMM  
 EMAIL: SID.KLEMM@SACW.COM

ARCHITECT: NESTOR POPOWYCH, A.I.A.  
 SAC AE DESIGN GROUP, INC.  
 540 W. MADISON ST., 9TH FLOOR  
 CHICAGO, ILLINOIS 60661  
 CONTACT: KEVIN ALLEN  
 PHONE: (312)-895-4977 EXT.4362  
 EMAIL: KEVIN.ALLEN@SACW.COM

CONSTRUCTION: SAC WIRELESS  
 540 W. MADISON ST. 9TH FLOOR  
 CHICAGO, ILLINOIS 60661  
 CONTACT: RAKHI BISEN  
 EMAIL: RAKHI.BISEN@SACW.COM

AT&T  
MOBILITY

PROJECT : LTE 4C  
 SITE # : NEL01031  
 FA # : 10083517  
 PTN # : 3525A0KF9F  
 PACE # : MRUMW032715  
 ATC ASSET# : 98468  
**ATC SITE NAME: 120TH & GILES ROAD**  
**JURISDICTION : CITY OF LA VISTA**  
**SITE NAME : 120TH & GILES ROAD**  
**ADDRESS : 8101 SOUTH 120TH STREET**  
**LA VISTA, NE 68128**



## DRIVING DIRECTIONS

DIRECTIONS FROM: 7900 XERXES AVE S, BLOOMINGTON MN 55431

HEAD SOUTH TOWARD XERXES AVE S. CONTINUE ONTO XERXES AVE S. TURN LEFT ONTO W 82ND ST. TURN LEFT ONTO PENN AVE S. TURN RIGHT AT THE 1ST CROSS STREET ONTO W 82ND ST. TURN RIGHT ONTO HUMBOLDT AVE S. TAKE THE RAMP ON THE LEFT ONTO I-35W S. CONTINUE ONTO I-35 S. KEEP LEFT TO STAY ON I-35 S. USE THE RIGHT 2 LANES TO MERGE ONTO I-35 S/ I-80 W TOWARD KANSAS CITY/COUNCIL BLUFFS. KEEP RIGHT AT THE FORK TO CONTINUE ON I-80 W, FOLLOW SIGNS FOR COUNCIL BLUFFS/OMAHA. KEEP LEFT AT THE FORK TO STAY ON I-80 W, FOLLOW SIGNS FOR INTERSTATE 80 W/OMAHA. KEEP LEFT TO STAY ON I-80 W. TAKE EXIT 442 FOR GILES RD TOWARD HARRISON ST. TURN RIGHT ONTO GILES RD (SIGNS FOR HARRISON ST). TURN RIGHT AT THE 1ST CROSS STREET ONTO HARRISON ST. TURN LEFT ONTO EASTPORT PKWY.



## DRAWING INDEX

|     |                                   |
|-----|-----------------------------------|
| T1  | TITLE SHEET                       |
| SP1 | NOTES & SPECIFICATIONS            |
| A1  | COMPOUND PLAN                     |
| A2  | EQUIPMENT PLAN                    |
| A3  | TOWER ELEVATION                   |
| A4  | ANTENNA PLAN                      |
| A5  | ANTENNA & CABLE CONFIGURATION     |
| A6  | ANTENNA, RRH AND MOUNTING DETAILS |
| A7  | CABLE NOTES & COLOR CODING        |
| E1  | GROUNDING DETAILS                 |
|     |                                   |
|     |                                   |
|     |                                   |

## SCOPE OF WORK

THIS IS NOT AN ALL INCLUSIVE LIST. CONTRACTOR SHALL UTILIZE SPECIFIED EQUIPMENT PART OR ENGINEER APPROVED EQUIVALENT. CONTRACTOR SHALL VERIFY ALL NEEDED EQUIPMENT TO PROVIDE A FUNCTIONAL SITE. THE PROJECT GENERALLY CONSISTS OF THE FOLLOWING:

## LTE 4C (AWS) SCOPE:

- REMOVE (3) EXISTING AT&T GSM PANEL ANTENNAS.
- (1) PER SECTOR IN POSITION 1. (TYP. OF 3 SECTORS)
- INSTALL (3) PROPOSED AT&T LTE 4C PANEL ANTENNAS.
- (1) PER SECTOR IN POSITION 1. (TYP. OF 3 SECTORS)
- REMOVE (3) EXISTING GSM TMAS.
- (1) PER SECTOR IN POSITION 1. (TYP. OF 3 SECTORS)
- REMOVE EXISTING RF JUMPERS IN POSITION 1. (TYP. OF 3 SECTORS)
- REMOVE (6) EXISTING COAX CABLES.
- (2) PER SECTOR IN POSITION 1. (TYP. OF 3 SECTORS)
- INSTALL (3) PROPOSED AT&T LTE 4C (AWS) AIRSCALE B25/66 DUAL BAND RRHS. (1) PER SECTOR IN POSITION 1. (TYP. OF 3 SECTORS)
- INSTALL (1) PROPOSED RAYCAP DC6-48-60-18-8C (SQUID).
- INSTALL (1) PROPOSED 8 AWG DC TRUNK LINE.
- INSTALL (1) PROPOSED FIBER TRUNK LINE.

## LTE 4C (AWS) GROUND SCOPE:

- INSTALL PROPOSED POWER PLANT TO REPLACE EXISTING POWER PLANT.
- REUSE EXISTING BATTERIES.
- INSTALL (3) PROPOSED 50A BREAKERS IN PROPOSED POWER PLANT.
- INSTALL PROPOSED ABIA CARD IN EXISTING FIF RACK.

## CODE COMPLIANCE

- 2012 NEBRASKA STATE BUILDING CODE
- 2014 NATIONAL ELECTRIC CODE
- TIA/EIA-222-G

## REFERENCE MATERIALS

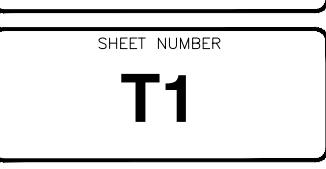
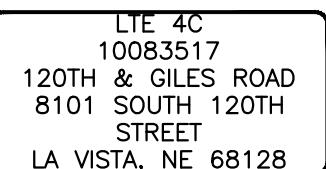
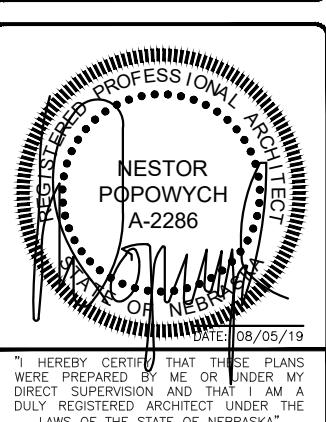
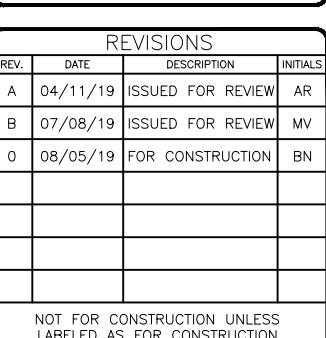
- THESE DRAWINGS ARE BASED AT&T SCOPING DOCUMENT DATED 03/25/19
- REVISED RFDS PENDING. CONTRACTOR TO USE LATEST VERSION WITH CD'S PER SCOPE OF WORK.

## SPECIAL NOTES

- ALL WORK SHALL BE INSTALLED IN CONFORMANCE WITH CURRENT AT&T CONSTRUCTION INSTALLATION GUIDE.
- EXISTING CONDITIONS WILL BE CHANGED & VERIFIED IN FIELD. IF SIGNIFICANT DEVIATIONS OR DETERIORATION ARE ENCOUNTERED AT THE TIME OF CONSTRUCTION, A REPAIR PERMIT WILL BE OBTAINED & CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY.
- THESE DRAWINGS ARE FULL SIZE & SCALEABLE ON 11"X17" SHEET SIZE.
- STATEMENT THAT COMPLIANCE WITH THE ENERGY CODE IS NOT REQUIRED.
- SCOPE OF WORK DOES NOT INVOLVE MODIFICATIONS TO EXTERIOR ENVELOPE OF BUILDING, HVAC SYSTEMS OR ELECTRICAL LIGHTING.

## DO NOT SCALE DRAWINGS

CONTRACTOR SHALL VERIFY ALL PLANS & EXISTING DIMENSIONS & CONDITIONS ON THE JOB SITE & SHALL IMMEDIATELY NOTIFY THE ARCHITECT OR ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.



**GENERAL CONSTRUCTION**

1. FOR THE PURPOSE OF CONSTRUCTION DRAWINGS, THE FOLLOWING DEFINITIONS SHALL APPLY:  
CONTRACTOR/CM – SAC WIRELESS  
SUB-CONTRACTOR – PER TRADE  
OWNER – AT&T WIRELESS
2. ALL SITE WORK SHALL BE COMPLETED AS INDICATED ON THE DRAWINGS AND AT&T PROJECT SPECIFICATIONS.
3. GENERAL CONTRACTOR SHALL VISIT THE SITE AND SHALL FAMILIARIZE HIMSELF WITH ALL CONDITIONS AFFECTING THE PROPOSED WORK AND SHALL MAKE PROVISIONS. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING HIMSELF WITH ALL CONTRACT DOCUMENTS, FIELD CONDITIONS, DIMENSIONS, AND CONFIRMING THAT THE WORK MAY BE ACCOMPLISHED AS SHOWN PRIOR TO PROCEEDING WITH CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE COMMENCEMENT OF WORK.
4. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. GENERAL 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 WORK.
5. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES, AND APPLICABLE REGULATIONS.
6. UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
7. PLANS ARE NOT TO BE SCALED. THESE PLANS ARE INTENDED TO BE A DIAGRAMMATIC OUTLINE ONLY UNLESS OTHERWISE NOTED. DIMENSIONS SHOWN ARE TO FINISH SURFACES UNLESS OTHERWISE NOTED. SPACING BETWEEN EQUIPMENT IS THE MINIMUM REQUIRED CLEARANCE. THEREFORE, IT IS CRITICAL TO FIELD VERIFY DIMENSIONS, SHOULD THERE BE ANY QUESTIONS REGARDING THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A CLARIFICATION FROM THE ENGINEER PRIOR TO PROCEEDING WITH THE WORK. DETAILS ARE INTENDED TO SHOW DESIGN INTENT. MODIFICATIONS MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR CONDITIONS AND SUCH MODIFICATIONS SHALL BE INCLUDED AS PART OF WORK AND PREPARED BY THE ENGINEER PRIOR TO PROCEEDING WITH WORK.
8. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
9. IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION SPACE FOR APPROVAL BY THE ENGINEER PRIOR TO PROCEEDING.
10. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF WORK AREA, ADJACENT AREAS AND BUILDING OCCUPANTS THAT ARE LIKELY TO BE AFFECTED BY THE WORK UNDER THIS CONTRACT. WORK SHALL CONFIRM TO ALL OSHA REQUIREMENTS AND THE LOCAL JURISDICTION.
11. GENERAL CONTRACTOR SHALL COORDINATE WORK AND SCHEDULE WORK ACTIVITIES WITH OTHER DISCIPLINES.
12. ERECTION SHALL BE DONE IN A WORKMANLIKE MANNER BY COMPETENT EXPERIENCED WORKMAN IN ACCORDANCE WITH APPLICABLE CODES AND THE BEST ACCEPTED PRACTICE. ALL MEMBERS SHALL BE LAID PLUMB AND TRUE AS INDICATED ON THE DRAWINGS.
13. SEAL PENETRATIONS THROUGH FIRE RATED AREAS WITH UL LISTED MATERIALS APPROVED BY LOCAL JURISDICTION. CONTRACTOR SHALL KEEP AREA CLEAN, HAZARD FREE, AND DISPOSE OF ALL DEBRIS.
14. WORK PREVIOUSLY COMPLETED IS REPRESENTED BY LIGHT SHADED LINES AND NOTES. THE SCOPE OF WORK FOR THIS PROJECT IS REPRESENTED BY DARK SHADED LINES AND NOTES. CONTRACTOR SHALL NOTIFY THE GENERAL CONTRACTOR OF ANY EXISTING CONDITIONS THAT DEVIATE FROM THE DRAWINGS PRIOR TO BEGINNING CONSTRUCTION.
15. CONTRACTOR SHALL PROVIDE WRITTEN NOTICE TO THE CONSTRUCTION MANAGER 48 HOURS PRIOR TO COMMENCEMENT OF WORK.
16. 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 THE OWNER.
17. THE CONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION.
18. GENERAL CONTRACTOR SHALL COORDINATE AND MAINTAIN ACCESS FOR ALL TRADES AND CONTRACTORS TO THE SITE AND/OR BUILDING.
19. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR SECURITY OF THE SITE FOR THE DURATION OF CONSTRUCTION UNTIL JOB COMPLETION.
20. THE GENERAL CONTRACTOR SHALL MAINTAIN IN GOOD CONDITION ONE COMPLETE SET OF PLANS WITH ALL REVISIONS, ADDENDA, AND CHANGE ORDERS ON THE PREMISES AT ALL TIMES.
21. THE GENERAL CONTRACTOR SHALL PROVIDE PORTABLE FIRE EXTINGUISHERS WITH A RATING OF NOT LESS THAN 2-A OT 2-A:10-B:C AND SHALL BE WITHIN 25 FEET OF TRAVEL DISTANCE TO ALL PORTIONS OF WHERE THE WORK IS BEING COMPLETED DURING CONSTRUCTION.
22. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES SHALL BE PROTECTED AT ALL TIMES, AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY THE ENGINEER. 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 SHALL INCLUDE BUT NOT BE LIMITED TO A) FALL PROTECTION, B) CONFINED SPACE, C) ELECTRICAL SAFETY, AND D) TRENCHING & EXCAVATION.
23. ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED, CAPPED, PLUGGED OR OTHERWISE DISCONNECTED AT POINTS WHICH WILL NOT INTERFERE WITH THE

EXECUTION OF THE WORK, AS DIRECTED BY THE RESPONSIBLE ENGINEER, AND SUBJECT TO THE APPROVAL OF THE OWNER AND/OR LOCAL UTILITIES.

24. THE AREAS OF THE OWNER'S 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.
25. CONTRACTOR SHALL MINIMIZE DISTURBANCE TO THE EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE FEDERAL AND LOCAL JURISDICTION FOR EROSION AND SEDIMENT CONTROL.
26. NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUNDING. FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.
27. THE SUBGRADE SHALL BE BROUGHT TO A SMOOTH UNIFORM GRADE AND COMPAKTED TO 95 PERCENT STANDARD PROCTOR DENSITY UNDER PAVEMENT AND STRUCTURES AND 80 PERCENT STANDARD PROCTOR DENSITY IN OPEN SPACE. ALL TRENCHES IN PUBLIC RIGHT OF WAY SHALL BE BACKFILLED WITH FLOWABLE FILL OR OTHER MATERIAL PRE-APPROVED BY THE LOCAL JURISDICTION.
28. ALL NECESSARY RUBBISH, STUMPS, DEBRIS, STICKS, STONES, AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN A LAWFUL MANNER.
29. ALL BROCHURES, OPERATING AND MAINTENANCE MANUALS, CATALOGS, SHOP DRAWINGS, AND OTHER DOCUMENTS SHALL BE TURNED OVER TO THE GENERAL CONTRACTOR AT COMPLETION OF CONSTRUCTION AND PRIOR TO PAYMENT.
30. CONTRACTOR SHALL SUBMIT A COMPLETE SET OF AS-BUILT REDLINES TO THE GENERAL CONTRACTOR UPON COMPLETION OF PROJECT AND PRIOR TO FINAL PAYMENT.
31. CONTRACTOR SHALL LEAVE PREMISES IN A CLEAN CONDITION.
32. THE PROPOSED FACILITY WILL BE UNMANNED AND DOES NOT REQUIRE POTABLE WATER OR SEWER SERVICE, AND IS NOT FOR HUMAN HABITAT (NO HANDICAP ACCESS REQUIRED).
33. OCCUPANCY IS LIMITED TO PERIODIC MAINTENANCE AND INSPECTION, APPROXIMATELY 2 TIMES PER MONTH, BY AT&T TECHNICIANS.
34. NO OUTDOOR STORAGE OR SOLID WASTE CONTAINERS ARE PROPOSED.
35. ALL MATERIAL SHALL BE FURNISHED AND WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST REVISION AT&T MOBILITY GROUNDING STANDARD "TECHNICAL SPECIFICATION FOR CONSTRUCTION OF GSM/GPRS WIRELESS SITES" AND "TECHNICAL SPECIFICATION FOR FACILITY GROUNDING", IN CASE OF A CONFLICT BETWEEN THE CONSTRUCTION SPECIFICATION AND THE DRAWINGS, THE DRAWINGS SHALL GOVERN.
36. CONTRACTORS SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS REQUIRED FOR CONSTRUCTION. IF CONTRACTOR CANNOT OBTAIN A PERMIT, THEY MUST NOTIFY THE GENERAL CONTRACTOR IMMEDIATELY.
37. CONTRACTOR SHALL REMOVE ALL TRASH AND DEBRIS FROM THE SITE ON A DAILY BASIS.
38. INFORMATION SHOWN ON THESE DRAWINGS WAS OBTAINED FROM SITE VISITS AND/OR DRAWINGS PROVIDED BY THE SITE OWNER. CONTRACTORS SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.
39. NO WHITE STROBE LIGHTS ARE PERMITTED. LIGHTING IF REQUIRED, WILL MEET FAA STANDARDS AND REQUIREMENTS.

**ANTENNA MOUNTING**

40. DESIGN AND CONSTRUCTION OF ANTENNA SUPPORTS SHALL CONFORM TO CURRENT ANSI/TIA-222 OR APPLICABLE LOCAL CODES.
41. ALL STEEL MATERIALS SHALL BE GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A123 "ZINC (HOT-DIP GALVANIZED) COATINGS ON IRON AND STEEL PRODUCTS", UNLESS NOTED OTHERWISE.
42. ALL BOLTS, ANCHORS AND MISCELLANEOUS HARDWARE SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 "ZINC-COATING (HOT-DIP) ON IRON AND STEEL HARDWARE", UNLESS NOTED OTHERWISE.
43. DAMAGED GALVANIZED SURFACES SHALL BE REPAIRED BY COLD GALVANIZING IN ACCORDANCE WITH ASTM A780.
44. ALL ANTENNA MOUNTS SHALL BE INSTALLED WITH LOCK NUTS, DOUBLE NUTS AND SHALL BE TORQUED TO MANUFACTURER'S RECOMMENDATIONS.
45. CONTRACTOR SHALL INSTALL ANTENNA PER MANUFACTURER'S RECOMMENDATION FOR INSTALLATION AND GROUNDING.
46. ALL UNUSED PORTS ON ANY ANTENNAS SHALL BE TERMINATED WITH A 50-0HM LOAD TO ENSURE ANTENNAS PERFORM AS DESIGNED.
47. PRIOR TO SETTING ANTENNA AZIMUTHS AND DOWNTILTS, ANTENNA CONTRACTOR SHALL CHECK THE ANTENNA MOUNT FOR TIGHTNESS AND ENSURE THAT THEY ARE PLUMB. ANTENNA AZIMUTHS SHALL BE SET FROM TRUE NORTH AND BE ORIENTED WITHIN +/- 5% AS DEFINED BY THE RFDS. ANTENNA DOWNTILTS SHALL BE WITHIN +/- 0.5% AS DEFINED BY THE RFDS. REFER TO ND-00246.
48. JUMPERS FROM THE TMA'S MUST TERMINATE TO OPPOSITE POLARIZATION'S IN EACH SECTOR.
49. CONTRACTOR SHALL RECORD THE SERIAL #, SECTOR, AND POSITION OF EACH ACTUATOR INSTALLED AT THE ANTENNAS AND PROVIDE THE INFORMATION TO AT&T.
50. TMA'S SHALL BE MOUNTED ON PIPE DIRECTLY BEHIND ANTENNAS AS CLOSE TO ANTENNA AS FEASIBLE IN A VERTICAL POSITION.

**TORQUE REQUIREMENTS**

51. ALL RF CONNECTIONS SHALL BE TIGHTENED BY A TORQUE WRENCH.

52. ALL RF CONNECTIONS, GROUNDING HARDWARE AND ANTENNA HARDWARE SHALL HAVE A TORQUE MARK INSTALLED IN A CONTINUOUS STRAIGHT LINE FROM BOTH SIDES OF THE CONNECTION.

- A. RF CONNECTION BOTH SIDES OF THE CONNECTOR.
- B. GROUNDING AND ANTENNA HARDWARE ON THE NUT SIDE STARTING FROM THE THREADS TO THE SOLID SURFACE. EXAMPLE OF SOLID SURFACE: GROUND BAR, ANTENNA BRACKET METAL.

**FIBER & POWER CABLE MOUNTING**

53. THE FIBER OPTIC TRUNK CABLES SHALL BE INSTALLED INTO CONDUITS, CHANNEL CABLE TRAYS, OR CABLE TRAY. WHEN INSTALLING FIBER OPTIC TRUNK CABLES INTO A CABLE TRAY SYSTEM, THEY SHALL BE INSTALLED INTO AN INTER-DUCT AND A PARTITION BARRIER SHALL BE INSTALLED BETWEEN THE 600 VOLT CABLES AND THE INTER-DUCT IN ORDER TO SEGREGATE CABLE TYPES. OPTIC FIBER TRUNK CABLES SHALL HAVE APPROVED CABLE RESTRAINTS EVERY (60) SIXTY FEET AND SECURELY FASTENED TO THE CABLE TRAY SYSTEM. NFPA 70 (NEC) ARTICLE 770 RULES SHALL APPLY.
54. THE TYPE TC-ER CABLES SHALL BE INSTALLED INTO CONDUITS, CHANNEL CABLE TRAYS, OR CABLE TRAY AND SHALL BE SECURED AT INTERVALS NOT EXCEEDING (6) SIX FEET. AN EXCEPTION: WHERE TYPE TC-ER CABLES ARE NOT SUBJECT TO PHYSICAL DAMAGE, CABLES SHALL BE PERMITTED TO MAKE A TRANSITION BETWEEN CONDUITS, CHANNEL CABLE TRAYS, OR CABLE TRAY WHICH ARE SERVING UTILIZATION EQUIPMENT OR DEVICES, A DISTANCE (6) SIX FEET SHALL NOT BE EXCEEDED WITHOUT CONTINUOUS SUPPORTING. NFPA 70 (NEC) ARTICLES 336 AND 392 RULES SHALL APPLY.
55. WHEN INSTALLING OPTIC FIBER TRUNK CABLES OR TYPE TC-ER CABLES INTO CONDUITS, NFPA 70 (NEC) ARTICLE 300 RULES SHALL APPLY.

**56-61 RESERVED FOR ADDITIONAL NOTES.****COAXIAL CABLE NOTES**

62. TYPES AND SIZES OF THE ANTENNA CABLE ARE BASED ON ESTIMATED LENGTHS. PRIOR TO ORDERING CABLE, CONTRACTOR SHALL VERIFY ACTUAL LENGTH BASED ON CONSTRUCTION LAYOUT AND NOTIFY THE PROJECT MANAGER IF ACTUAL LENGTHS EXCEED ESTIMATED LENGTHS.
63. CONTRACTOR SHALL VERIFY THE DOWN-TILT OF EACH ANTENNA WITH A DIGITAL LEVEL.
64. CONTRACTOR SHALL CONFIRM COAX COLOR CODING PRIOR TO CONSTRUCTION.
65. ALL JUMPERS TO THE ANTENNAS FROM THE MAIN TRANSMISSION LINE SHALL BE 1/2" DIA. LDF AND SHALL NOT EXCEED 6'-0".
66. ALL COAXIAL CABLE SHALL BE SECURED TO THE DESIGNED SUPPORT STRUCTURE, IN AN APPROVED MANNER, AT DISTANCES NOT TO EXCEED 4'-0" OC.
67. CONTRACTOR SHALL FOLLOW ALL MANUFACTURER'S RECOMMENDATIONS REGARDING BOTH THE INSTALLATION AND GROUNDING OF ALL COAXIAL CABLES, CONNECTORS, ANTENNAS, AND ALL OTHER EQUIPMENT.
68. CONTRACTOR SHALL GROUND ALL EQUIPMENT, INCLUDING ANTENNAS, RET MOTORS, TMA'S, COAX CABLES, AND RET CONTROL CABLES AS A COMPLETE SYSTEM. GROUNDING SHALL BE EXECUTED BY QUALIFIED WIREMEN IN COMPLIANCE WITH MANUFACTURER'S SPECIFICATION AND RECOMMENDATION.
69. CONTRACTOR SHALL PROVIDE STRAIN-RELIEF AND CABLE SUPPORTS FOR ALL CABLE ASSEMBLIES, COAX CABLES, AND RET CONTROL CABLES. CABLE STRAIN-RELIEFS AND CABLE SUPPORTS SHALL BE APPROVED FOR THE PURPOSE. INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.
70. CONTRACTOR TO VERIFY THAT EXISTING COAX HANGERS ARE STACKABLE SNAP IN HANGERS. IF EXISTING HANGERS ARE NOT STACKABLE SNAP IN HANGERS THE CONTRACTOR SHALL REPLACE EXISTING HANGERS WITH NEW SNAP IN HANGERS IF APPLICABLE.

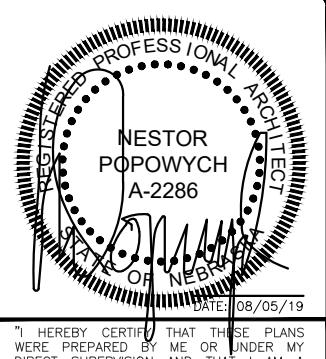
**GENERAL CABLE AND EQUIPMENT NOTES**

71. CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY ANTENNA, TMAS, DIPLEXERS, AND COAX CONFIGURATION, MAKE AND MODELS PRIOR TO INSTALLATION.
72. ALL CONNECTIONS FOR HANGERS, SUPPORTS, BRACING, ETC. SHALL BE INSTALLED PER TOWER MANUFACTURER'S RECOMMENDATIONS.
73. CONTRACTOR SHALL REFERENCE THE TOWER STRUCTURAL ANALYSIS/DESIGN DRAWINGS FOR DIRECTIONS ON CABLE DISTRIBUTION/ROUTING.
74. ALL OUTDOOR RF CONNECTORS/CONNECTIONS SHALL BE WEATHERPROOFED, EXCEPT THE RET CONNECTORS, USING BUTYL TAPE AFTER INSTALLATION AND FINAL CONNECTIONS ARE MADE. BUTYL TAPE SHALL HAVE A MINIMUM OF ONE-HALF TAPE WIDTH OVERLAP ON EACH TURN AND EACH LAYER SHALL BE WRAPPED THREE TIMES. WEATHERPROOFING SHALL BE SMOOTH WITHOUT BUCKLING. BUTYL BLEEDING IS NOT ALLOWED.
75. IF REQUIRED TO PAINT ANTENNAS AND/OR COAX:
  - A. TEMPERATURE SHALL BE ABOVE 50° F.
  - B. PAINT COLOR MUST BE APPROVED BY BUILDING OWNER/LANDLORD.
  - C. FOR REGULATED TOWERS, FAA/FCC APPROVED PAINT IS REQUIRED.
  - D. DO NOT PAINT OVER COLOR CODING OR ON EQUIPMENT MODEL NUMBERS.
76. ALL CABLES SHALL BE GROUNDED WITH COAXIAL CABLE GROUND KITS. FOLLOW THE MANUFACTURER'S RECOMMENDATIONS.
  - A. GROUNDING AT THE ANTENNA LEVEL.
  - B. GROUNDING AT MID LEVEL, TOWERS WHICH ARE OVER 200'-0", ADDITIONAL CABLE GROUNDING REQUIRED.
  - C. GROUNDING AT BASE OF TOWER PRIOR TO TURNING HORIZONTAL.
  - D. GROUNDING OUTSIDE THE EQUIPMENT SHELTER AT ENTRY PORT.
  - E. GROUNDING INSIDE THE EQUIPMENT SHELTER AT THE ENTRY PORT.
77. ALL PROPOSED GROUND BAR DOWNLEADS ARE TO BE TERMINATED TO THE EXISTING ADJACENT GROUND BAR DOWNLEADS A MINIMUM DISTANCE OF 4'-0" BELOW GROUND BAR. TERMINATIONS MAY BE EXOTHERMIC OR COMPRESSION.



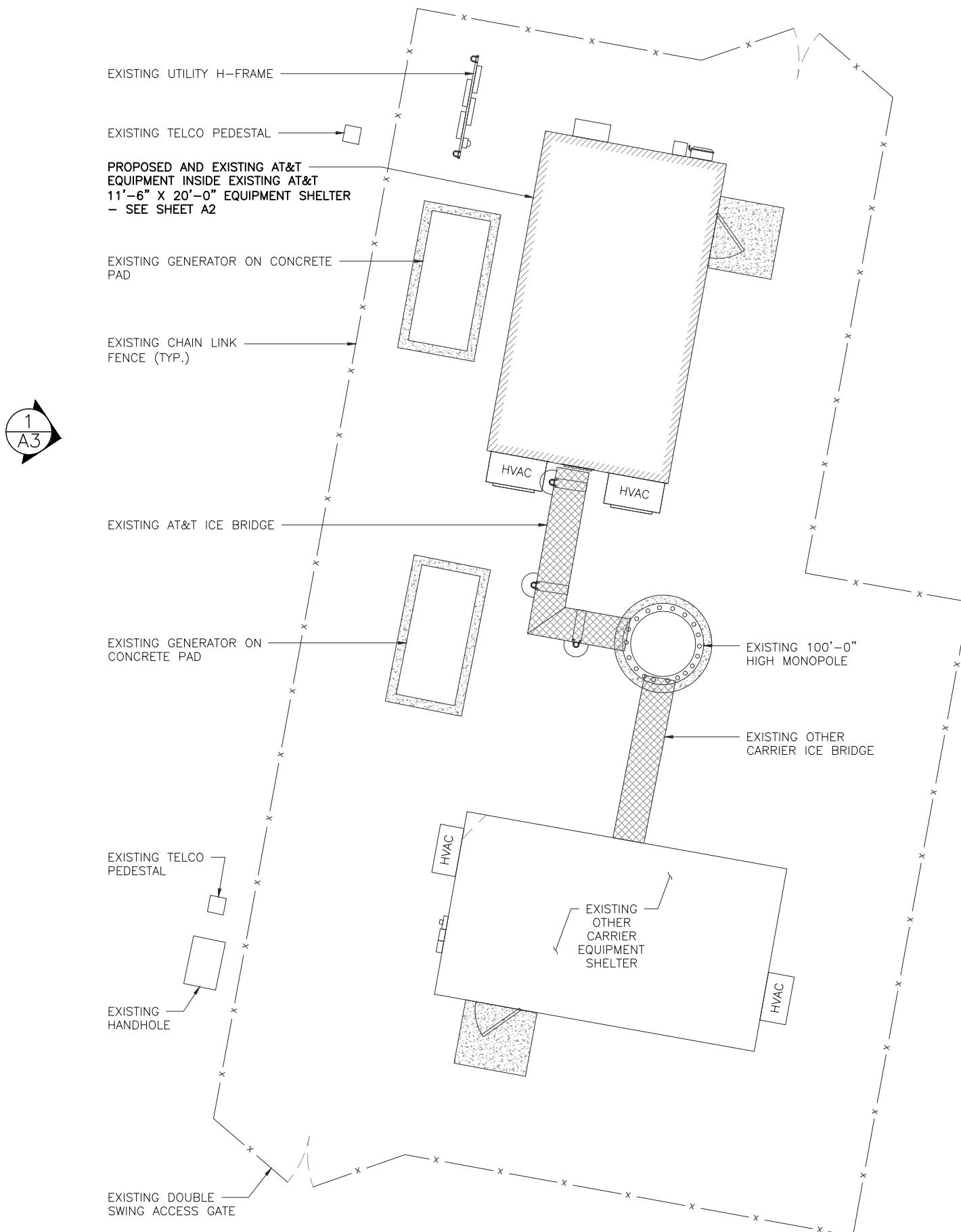
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| REV.      | DATE     | DESCRIPTION       | INITIALS |
| A         | 04/11/19 | ISSUED FOR REVIEW | AR       |
| B         | 07/08/19 | ISSUED FOR REVIEW | MV       |
| O         | 08/05/19 | FOR CONSTRUCTION  | BN       |

NOT FOR CONSTRUCTION UNLESS LABELED AS FOR CONSTRUCTION

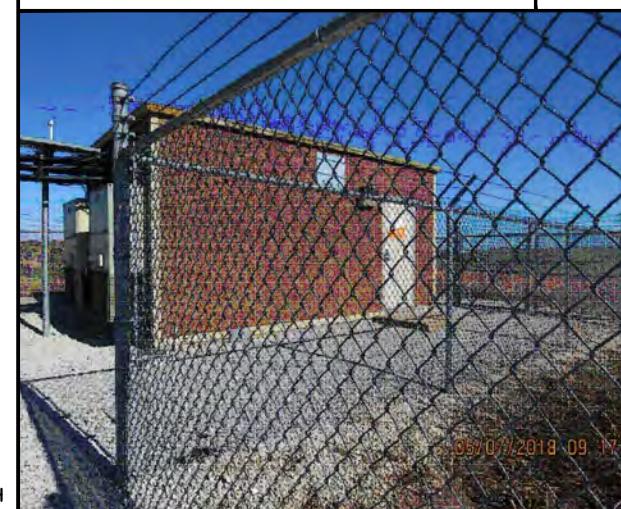


LTE 4C  
10083517  
120TH & GILES ROAD  
8101 SOUTH 120TH  
STREET  
LA VISTA, NE 68128

SHEET TITLE  
NOTES & SPECIFICATIONS  
SHEET NUMBER  
SP1



SITE PHOTO 2



SITE PHOTO 1

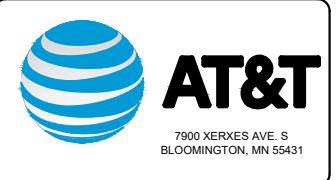


0 1' 2' 4' **SCALE: 1/4" = 1'-0"**  
(OR) **1/8" = 1'-0"**

136)

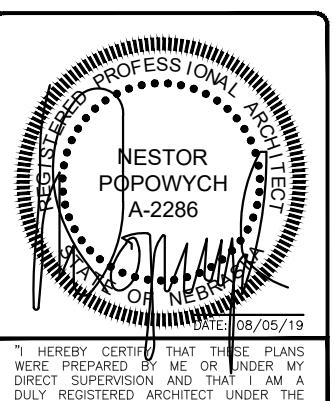
SITE PHOTO 1

1



| REVISIONS |          |                   |          |
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"I HEREBY CERTIFY THAT THOSE PLANS  
WERE PREPARED BY ME OR UNDER MY  
DIRECT SUPERVISION AND THAT I AM A  
DULY REGISTERED ARCHITECT UNDER THE  
LAWS OF THE STATE OF NEBRASKA"

LTE 4C  
10083517  
120TH & GILES ROAD  
8101 SOUTH 120TH  
STREET  
LA VISTA, NE 68128

SHEET TITLE

SHEET NUMBER  
**A1**

\_\_\_\_\_



7900 XERXES AVE. S  
LOOMINGTON, MN 55431

7900 XERXES AVE. S  
LOOMINGTON, MN 55431



540 W. MADISON ST.  
9TH FLOOR  
CHICAGO, IL 60661

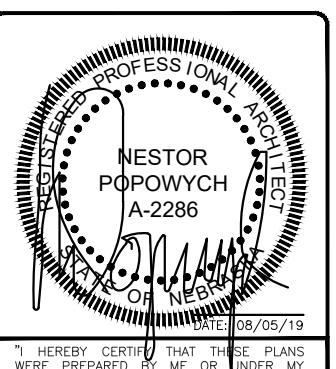


540 W. MADISON ST.  
9TH FLOOR  
CHICAGO, IL 60661  
[www.sacw.com](http://www.sacw.com)  
312 895 4977

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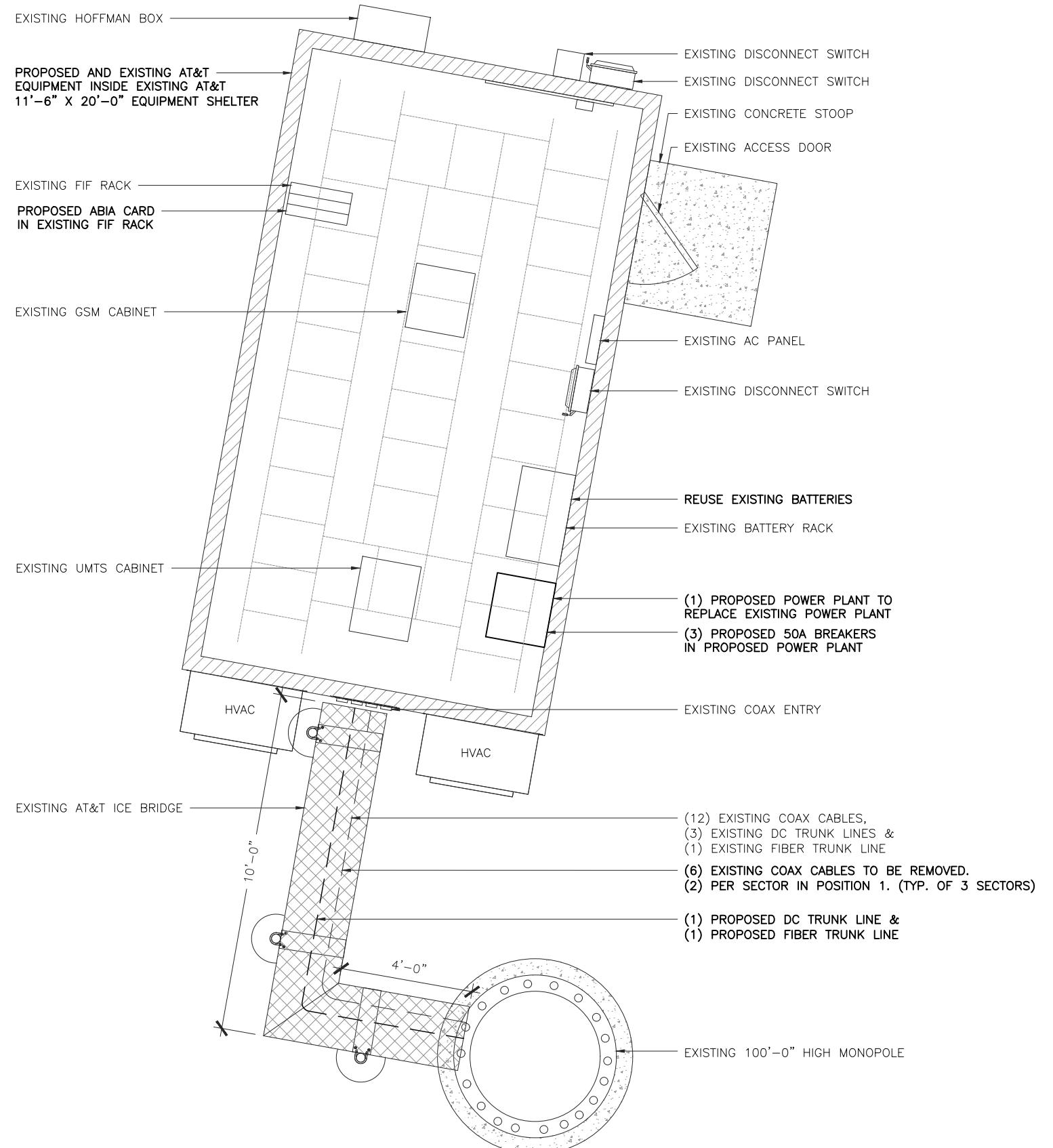
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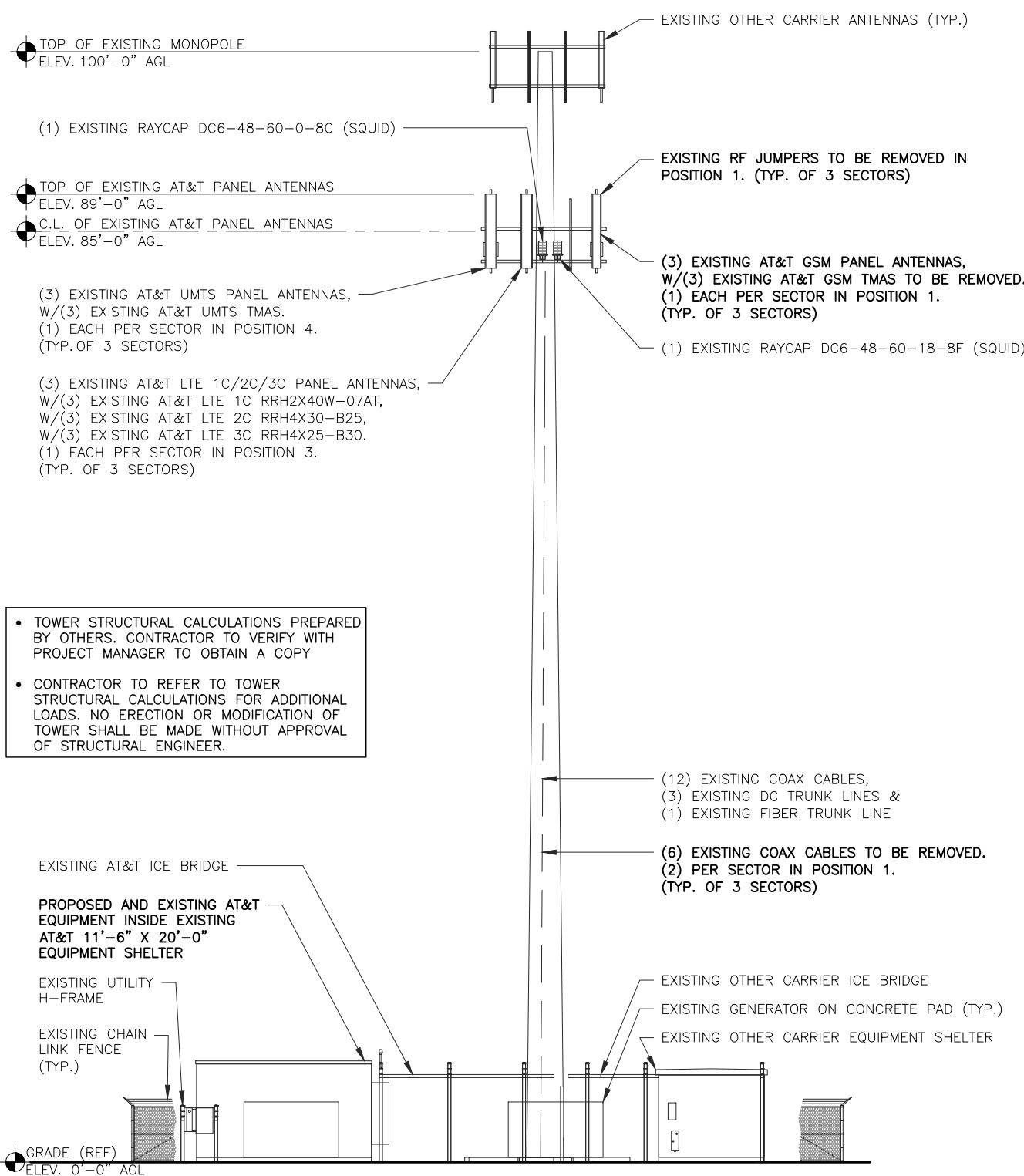
**SHEET TITLE**

# EQUIPMENT PLAN

**SHEET NUMBER**

A2





EXISTING TOWER ELEVATION

0 2' 4' 8'  
(OR) 1/16" = 1'-0" (11x17)

2

PROPOSED TOWER ELEVATION

SCALE: 1/8" = 1'-0" (24x36)  
(OR) 1/16" = 1'-0" (11x17)

1

0 2' 4' 8'  
(OR) 1/16" = 1'-0" (11x17)

1

SCALE: 1/8" = 1'-0" (24x36)  
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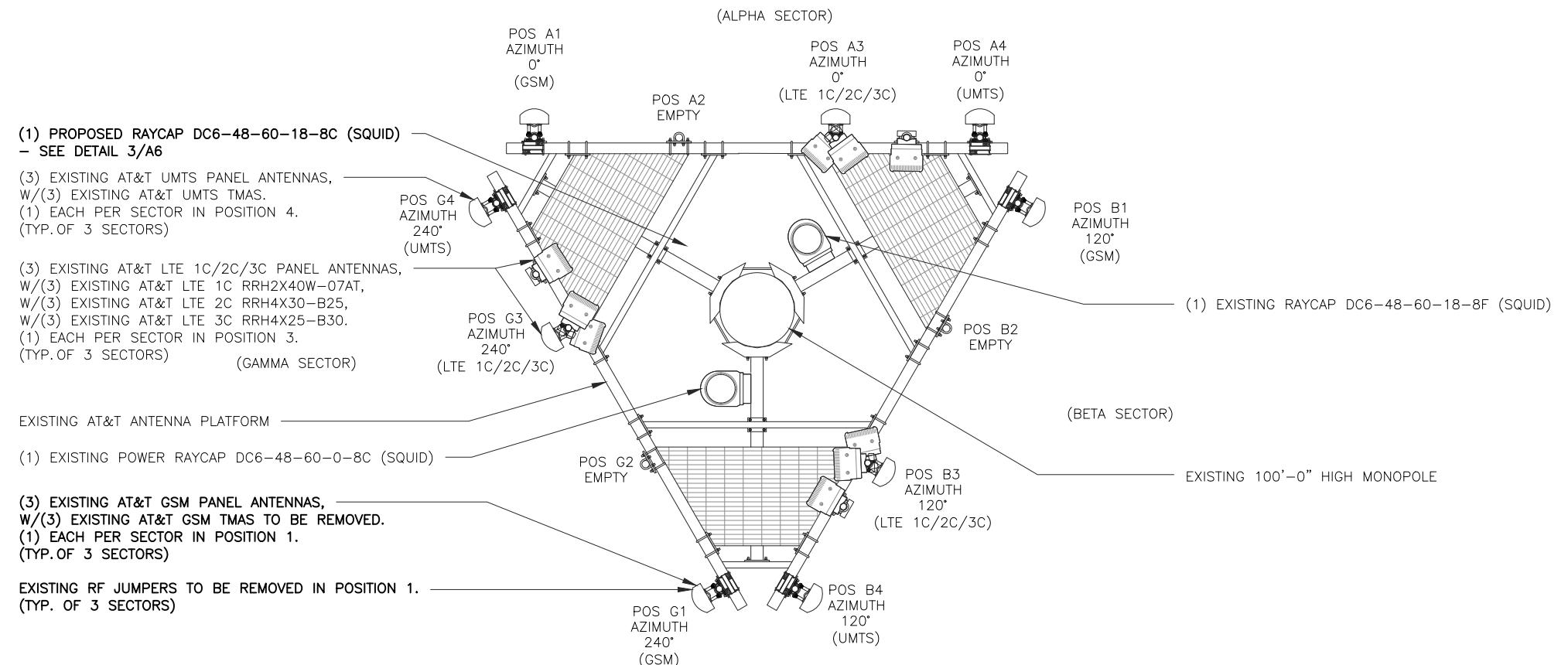
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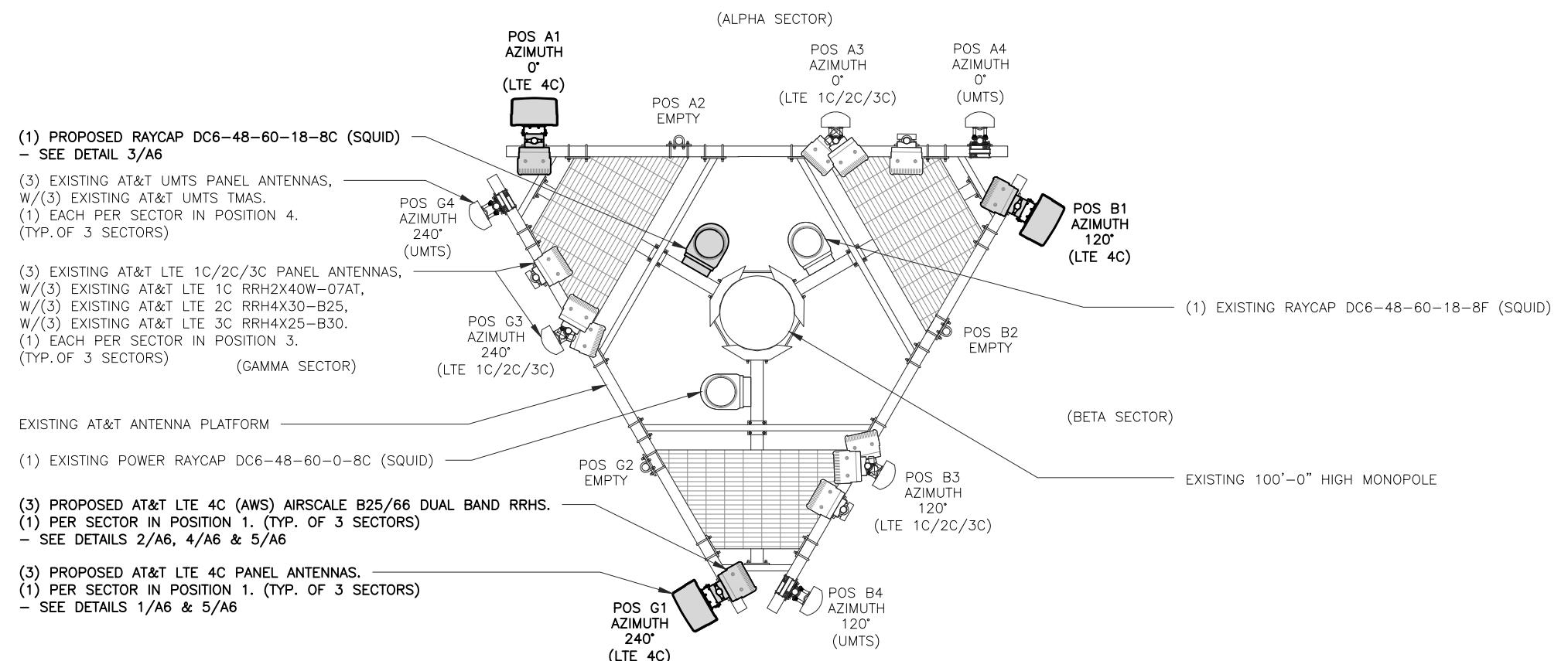
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EXISTING ANTENNA PLAN

0 2' 4' 8' SCALE: 1/8" = 1'-0" (24x36)  
(OR) 1/16" = 1'-0" (11x17) 2

NOT FOR CONSTRUCTION UNLESS  
LABELED AS FOR CONSTRUCTION

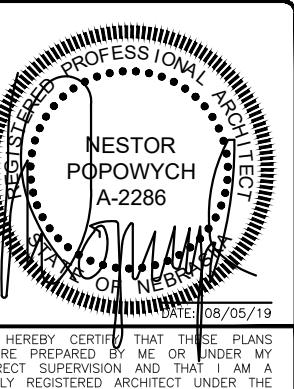


PROPOSED ANTENNA PLAN

0 2' 4' 8' SCALE: 1/8" = 1'-0" (24x36)  
(OR) 1/16" = 1'-0" (11x17) 1



| REVISIONS |          |                   |          |
|-----------|----------|-------------------|----------|
| REV.      | DATE     | DESCRIPTION       | INITIALS |
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| B         | 07/08/19 | ISSUED FOR REVIEW | MV       |
| O         | 08/05/19 | FOR CONSTRUCTION  | BN       |
|           |          |                   |          |
|           |          |                   |          |
|           |          |                   |          |
|           |          |                   |          |



LTE 4C  
10083517  
120TH & GILES ROAD  
8101 SOUTH 120TH  
STREET  
LA VISTA, NE 68128

SHEET TITLE  
ANTENNA  
PLAN

SHEET NUMBER  
A4

## PROPOSED ANTENNA CONFIGURATION AND CABLE SCHEDULE

| SECTOR | POS | TECH         | ANTENNA                      | ANTENNA<br>HEIGHT | AZIMUTH | TMA/RRH MODEL #   | DC SURGE AND<br>DISTRIBUTION      | CABLE TYPE  | CABLE LENGTH<br>(+20%) | DOWNTILTS |
|--------|-----|--------------|------------------------------|-------------------|---------|---|-----------------------------------|---|------------------------|-----------|
| A      | 1   | LTE 4C       | COMMSCOPE (N)<br>NNH4-65C-R6 | 85' AGL           | 0°      | (1) AIRSCALE B25/66 (N)   | (1) RAYCAP (N)<br>DC6-48-60-18-8C | (1) DC TRUNK LINE (N)<br>(1) FIBER TRUNK LINE (N)   | 170'                   | 0         |
|        | 2   | EMPTY        |                              |                   |         |   |                                   |   |                        |           |
|        | 3   | LTE 1C/2C/3C | KMW (X)<br>EPBQ-652L8H8      |                   | 0°      | (1) RRH2X40W-07AT (X)<br>(1) RRH4X30-B25 (X)<br>(1) RRH4X25-B30 (X) |                                   | (1) DC TRUNK LINE (X)<br>(1) FIBER TRUNK LINE (X)   |                        | 0         |
|        | 4   | UMTS         | KATHREIN (X)<br>80010766     |                   | 0°      | (1) TMA (X)   |                                   | (2) COAX (X)  |                        | 0         |
| B      | 1   | LTE 4C       | COMMSCOPE (N)<br>NNH4-65C-R6 | 85' AGL           | 120°    | (1) AIRSCALE B25/66 (N)   | (1) RAYCAP (X)<br>DC6-48-60-0-8C  | DC TRUNK (SHARED W/A1)<br>FIBER TRUNK (SHARED W/A1) | 170'                   | 0         |
|        | 2   | EMPTY        |                              |                   |         |   |                                   |   |                        |           |
|        | 3   | LTE 1C/2C/3C | KMW (X)<br>EPBQ-652L8H8      |                   | 120°    | (1) RRH2X40W-07AT (X)<br>(1) RRH4X30-B25 (X)<br>(1) RRH4X25-B30 (X) |                                   | DC TRUNK (SHARED W/A3)<br>FIBER TRUNK (SHARED W/A3) |                        | 0         |
|        | 4   | UMTS         | KATHREIN (X)<br>80010766     |                   | 120°    | (1) TMA (X)   |                                   | (2) COAX (X)  |                        | 0         |
| G      | 1   | LTE 4C       | COMMSCOPE (N)<br>NNH4-65C-R6 | 85' AGL           | 240°    | (1) AIRSCALE B25/66 (N)   | (1) RAYCAP (X)<br>DC6-48-60-0-8C  | DC TRUNK (SHARED W/A1)<br>FIBER TRUNK (SHARED W/A1) | 170'                   | 0         |
|        | 2   | EMPTY        |                              |                   |         |   |                                   |   |                        |           |
|        | 3   | LTE 1C/2C/3C | KMW (X)<br>EPBQ-652L8H8      |                   | 240°    | (1) RRH2X40W-07AT (X)<br>(1) RRH4X30-B25 (X)<br>(1) RRH4X25-B30 (X) |                                   | DC TRUNK (SHARED W/A3)<br>FIBER TRUNK (SHARED W/A3) |                        | 0         |
|        | 4   | UMTS         | KATHREIN (X)<br>80010766     |                   | 240°    | (1) TMA (X)   |                                   | (2) COAX (X)  |                        | 0         |

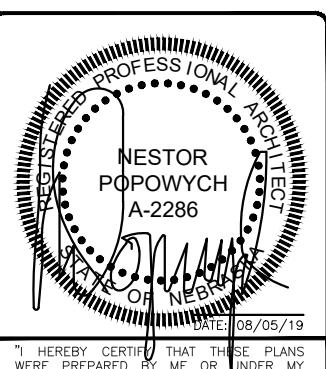
\* INCLUDES SAFETY FACTOR OF 20' FT. (10 FT. AT BOTH ENDS OF CABLE RUN).  
CONTRACTOR TO VERIFY RF DATA WITH AT&T WIRELESS CONSTRUCTION MANAGER  
AND/OR RF ENGINEER PRIOR TO INSTALLATION

(N) = NEW  
(X) = EXISTING  
(XR) = EXISTING/RELOCATED  
(E) = ELECTRICAL  
(M) = MECHANICAL



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NOT FOR CONSTRUCTION UNLESS  
LABELED AS FOR CONSTRUCTION



LTE 4C  
10083517  
120TH & GILES ROAD  
8101 SOUTH 120TH  
STREET  
LA VISTA, NE 68128

SHEET TITLE  
ANTENNA &  
CABLE  
CONFIGURATION

SHEET NUMBER  
A5

NOT USED

NOT TO  
SCALE

6

RRH MOUNTING DETAIL

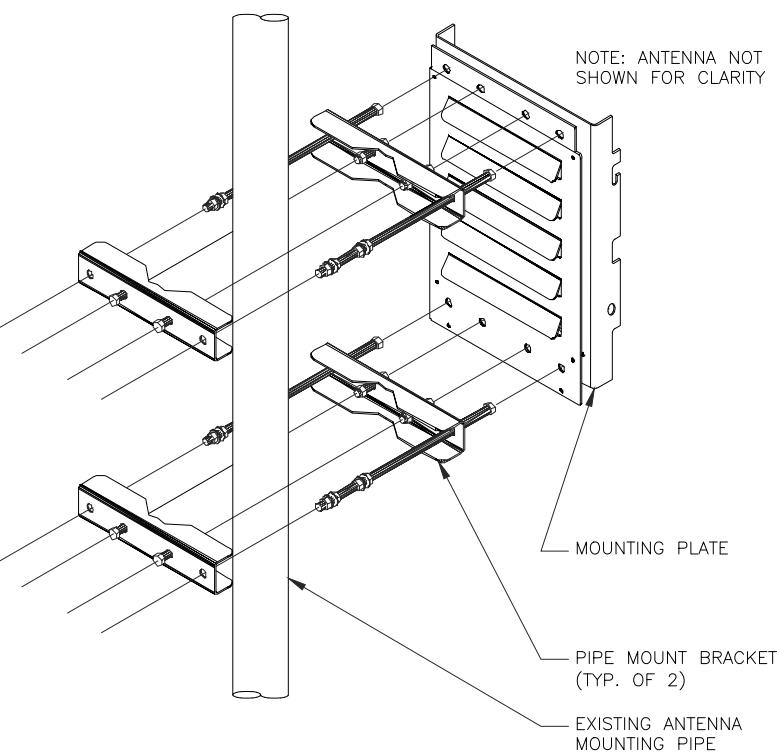
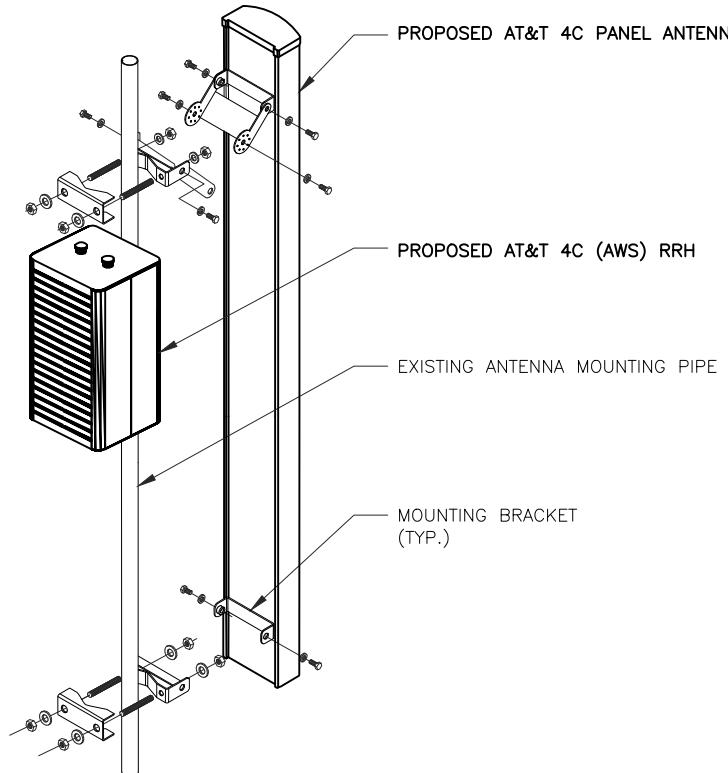
NOT TO  
SCALE

4

LTE 4C (AWS) RRH DETAIL

NOT TO  
SCALE

2



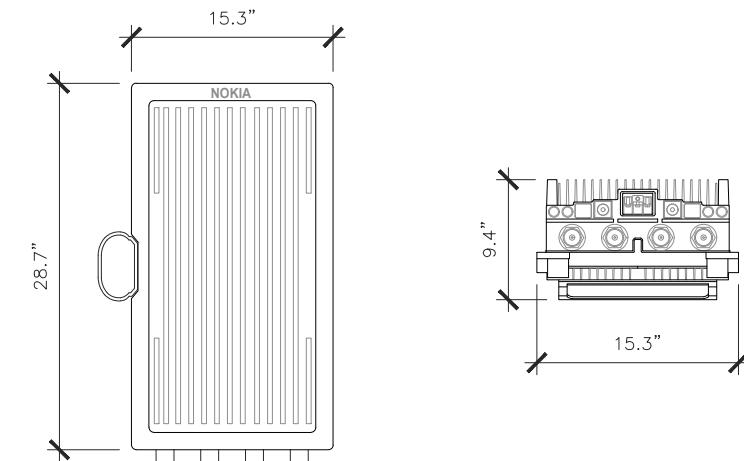
NOKIA AIRSCALE DUAL RRH 4T4R B25/66 320W AHFIB

DIMENSIONS, HxWxD: 560 X 308 X 149 (MM) (CORE)  
28.7" X 15.3" X 9.4" (CORE)

730 X 390 X 240 (MM)  
(OVERALL NOT-TO-EXCEED WITH COVER AND BRACKET)

28.7" X 15.3" X 9.4"  
(OVERALL NOT-TO-EXCEED WITH COVER AND BRACKET)

WEIGHT:  
< 40 (kg)  
< 88.2 lbs  
(OVERALL NOT-TO-EXCEED WITH COVER AND BRACKET)



LTE 4C ANTENNA AND RRH MOUNTING DETAIL

NOT TO  
SCALE

5

RAYCAP DC6-48-60-18-8C DETAIL

NOT TO  
SCALE

3

LTE 4C ANTENNA DETAIL

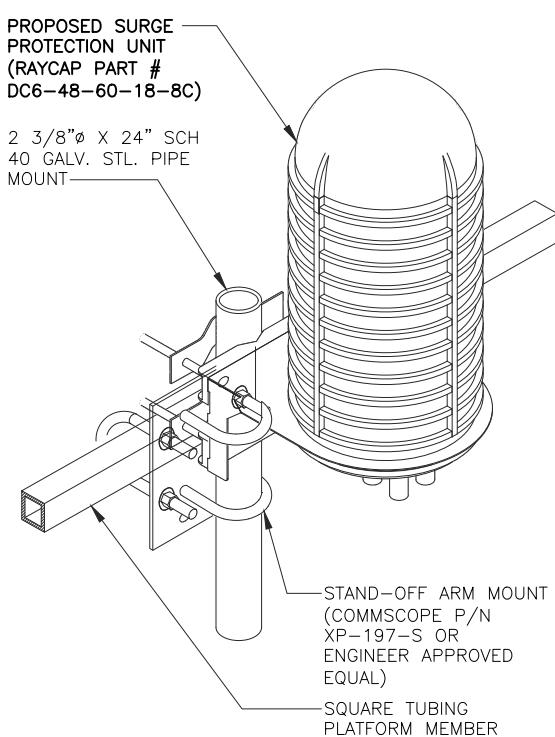
NOT TO  
SCALE

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| REVISIONS |          |                   |          |
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|           |          |                   |          |

NOT FOR CONSTRUCTION UNLESS  
LABELED AS FOR CONSTRUCTION



COMMSCOPE ANTENNAS NNH4-65C-R6

DIMENSIONS, HXWxD: 96"X19.6"X7.8"

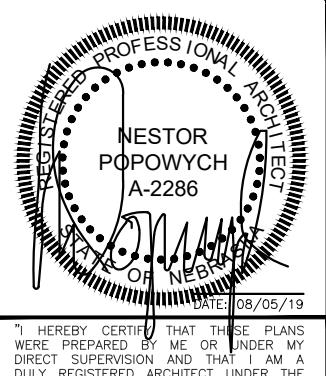
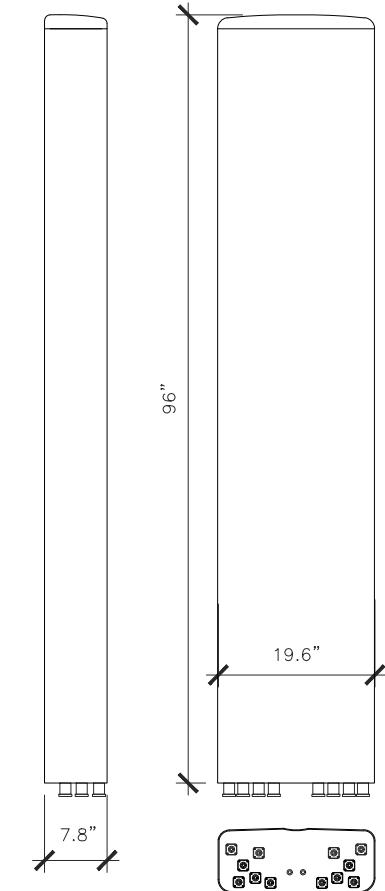
SURVIVAL WIND SPEED: >124 MPH

WEIGHT, WITHOUT MOUNTING: 99.2 LBS. (45 kg)

CONNECTOR: 8-PIN DIN FEMALE  
8-PIN DIN MALE

CONNECTOR POSITION: BOTTOM

MOUNTING POLE: 2.4-4.5 INCHES



LTE 4C  
10083517  
120TH & GILES ROAD  
8101 SOUTH 120TH  
STREET  
LA VISTA, NE 68128

SHEET TITLE  
ANTENNA,  
RRH AND  
MOUNTING  
DETAILS

SHEET NUMBER  
A6

NOT USED

6

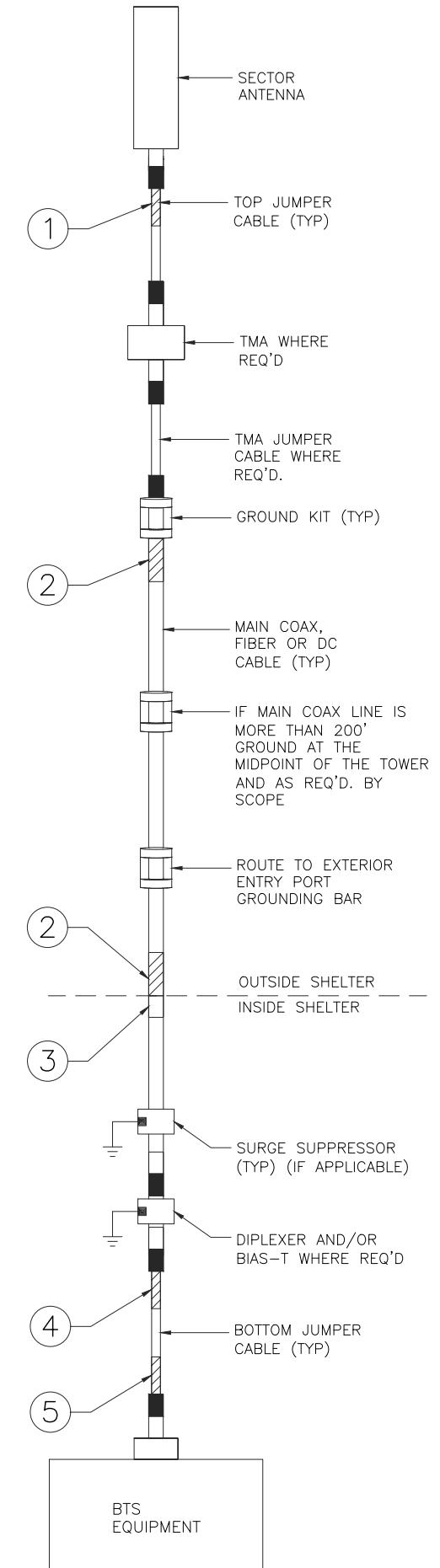
1. CONTRACTOR IS TO REFER TO AT&T'S MOST CURRENT RADIO FREQUENCY DATA SHEET (RFDS) PRIOR TO CONSTRUCTION.
2. THE SIZE, HEIGHT, AND DIRECTION OF THE ANTENNAS SHALL BE ADJUSTED TO ACHIEVE THE AZIMUTHS SPECIFIED AND LIMIT SHADOWING AND TO MEET THE SYSTEM REQUIREMENTS.
3. CONTRACTOR SHALL VERIFY THE HEIGHT OF THE ANTENNA WITH THE AT&T WIRELESS PROJECT MANAGER.
4. VERIFY TYPE AND SIZE OF TOWER LEG PRIOR TO ORDERING ANY ANTENNA MOUNT.
5. UNLESS NOTED OTHERWISE THE CONTRACTOR MUST PROVIDE ALL MATERIAL NECESSARY.
6. ANTENNA AZIMUTHS ARE DEGREES OFF OF TRUE NORTH, BEARING CLOCKWISE, IN WHICH ANTENNA FACE IS DIRECTED. ALL ANTENNAS (AND SUPPORTING STRUCTURES AS PRACTICAL) SHALL BE ACCURATELY ORIENTED IN THE SPECIFIED DIRECTION.
7. CONTRACTOR SHALL VERIFY ALL RF INFORMATION PRIOR TO CONSTRUCTION.
8. SWEEP TEST SHALL BE PERFORMED BY GENERAL CONTRACTOR AND SUBMITTED TO AT&T WIRELESS CONSTRUCTION SPECIALIST. TEST SHALL BE PERFORMED PER AT&T WIRELESS STANDARDS.
9. CABLE LENGTHS WERE DETERMINED BASED ON THE DESIGN DRAWING. CONTRACTOR TO VERIFY ACTUAL LENGTH DURING PRE-CONSTRUCTION WALK.
10. CONTRACTOR TO USE ROSENBERGER FIBER LINE HANGER COMPONENTS (OR ENGINEER APPROVED EQUAL).

|                         |          |   |
|-------------------------|----------|---|
| ANTENNA & CABLING NOTES | NO SCALE | 4 |
|-------------------------|----------|---|

| RF, DC, & COAX CABLE MARKING LOCATIONS TABLE |  |
|--|--|
| NO   | LOCATIONS  |
| 1  | EACH TOP-JUMPER SHALL BE COLOR CODED WITH (1) SET OF 3" WIDE BANDS.  |
| 2  | EACH MAIN COAX SHALL BE COLOR CODED WITH (1) SET OF 3" WIDE BANDS NEAR THE TOP-JUMPER CONNECTION AND WITH (1) SET OF 3/4" WIDE COLOR BANDS JUST PRIOR TO ENTERING THE BTS OR TRANSMITTER BUILDING. |
| 3  | CABLE ENTRY PORT ON THE INTERIOR OF THE SHELTER.   |
| 4  | ALL BOTTOM JUMPERS SHALL BE COLOR CODED WITH (1) SET OF 3/4" WIDE BANDS ON EACH END OF THE BOTTOM JUMPER.  |
| 5  | ALL BOTTOM JUMPERS SHALL BE COLOR CODED WITH (1) SET OF 3/4" WIDE BANDS ON EACH END OF THE BOTTOM JUMPER.  |

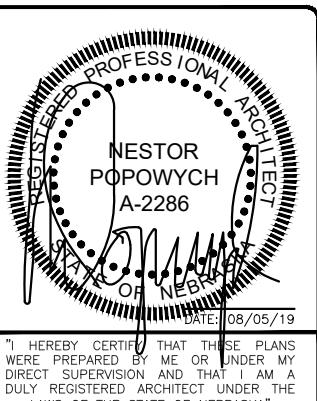
TABLE MARKING DIAGRAM NO SCALE 3

- THE ANTENNA SYSTEM COAX SHALL BE LABELED WITH VINYL TAPE.
- THE STANDARD IS BASED ON EIGHT COLORED TAPES—RED, BLUE, GREEN, YELLOW, ORANGE, BROWN, WHITE, AND VIOLET. THESE TAPES MUST BE  $3/4"$  WIDE & UV RESISTANT SUCH AS SCOTCH 35 VINYL ELECTRICAL COLOR CODING TAPE AND SHOULD BE READILY AVAILABLE TO THE ELECTRICIAN OR CONTRACTOR ON SITE.
- USING COLOR BANDS ON THE CABLES, MARK ALL RF CABLE BY SECTOR AND CABLE NUMBER AS SHOWN ON "CABLE COLOR CHART".
- WHEN AN EXISTING COAXIAL LINE THAT IS INTENDED TO BE A SHARED LINE BETWEEN TECHNOLOGIES IS ENCOUNTERED, THE CONTRACTOR SHALL REMOVE THE EXISTING COLOR CODING SCHEME AND REPLACE IT WITH THE COLOR CODING STANDARD. IN THE ABSENCE OF AN EXISTING COLOR CODING AND TAGGING SCHEME, OR WHEN INSTALLING PROPOSED COAXIAL CABLES, THIS GUIDELINE SHALL BE IMPLEMENTED AT THAT SITE REGARDLESS OF TECHNOLOGY.
- ALL COLOR CODE TAPE SHALL BE 3M-35 AND SHALL BE INSTALLED USING A MINIMUM OF (3) THREE WRAPS OF TAPE AND SHALL BE NEATLY TRIMMED AND SMOOTHED OUT SO AS TO AVOID UNRAVELING.
- ALL COLOR BANDS INSTALLED AT THE TOP OF THE TOWER SHALL BE A MINIMUM OF  $3"$  WIDE, AND SHALL HAVE A MINIMUM OF  $3/4"$  OF SPACE BETWEEN EACH COLOR.
- ALL COLOR CODES SHALL BE INSTALLED SO AS TO ALIGN NEATLY WITH ONE ANOTHER FROM SIDE-TO-SIDE.
- IF EXISTING CABLES AT THE SITE ALREADY HAVE A COLOR CODING SCHEME AND THEY ARE NOT INTENDED TO BE REUSED OR SHARED WITH THE NEW TECHNOLOGY, THE EXISTING COLOR CODING SCHEME SHALL REMAIN UNTouched.



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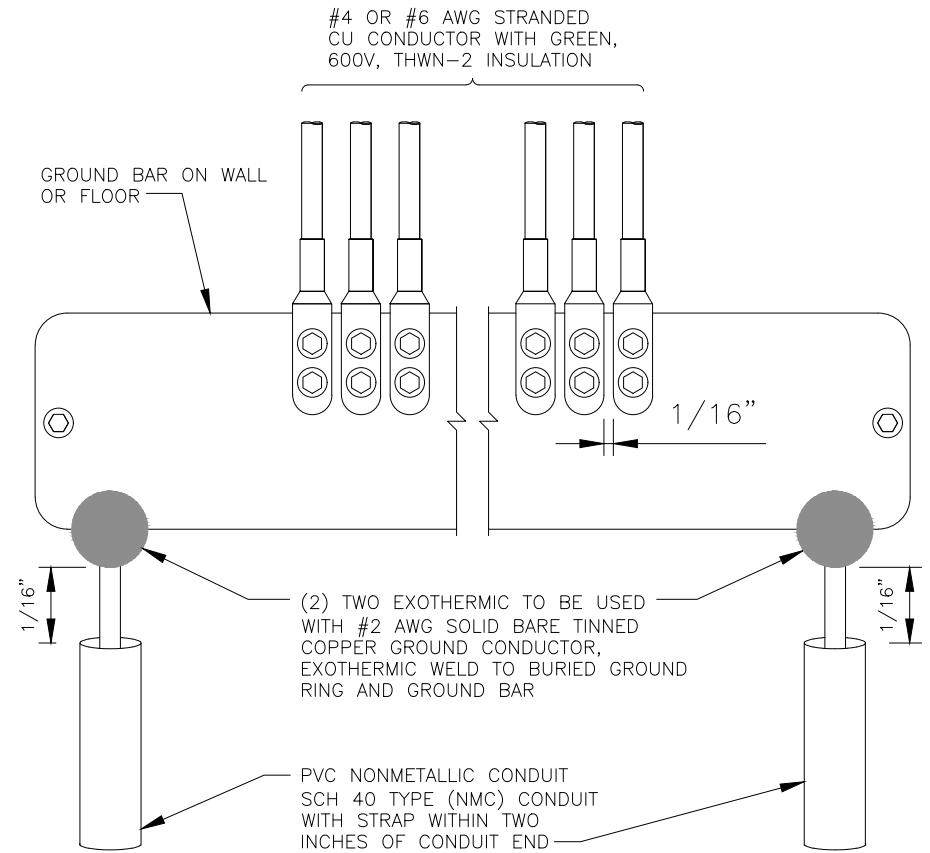
"I HEREBY CERTIFY THAT THESE PLANS  
WERE PREPARED BY ME OR UNDER MY  
DIRECT SUPERVISION AND THAT I AM A  
DULY REGISTERED ARCHITECT UNDER THE  
LAWS OF THE STATE OF NEBRASKA"

LTE 4C  
10083517  
120TH & GILES ROAD  
8101 SOUTH 120TH  
STREET  
LA VISTA, NE 68128

SHEET TITLE

**CABLE NOTES  
& COLOR  
CODING**

SHEET NUMBER  
**A7**



### GROUND BAR DETAILS

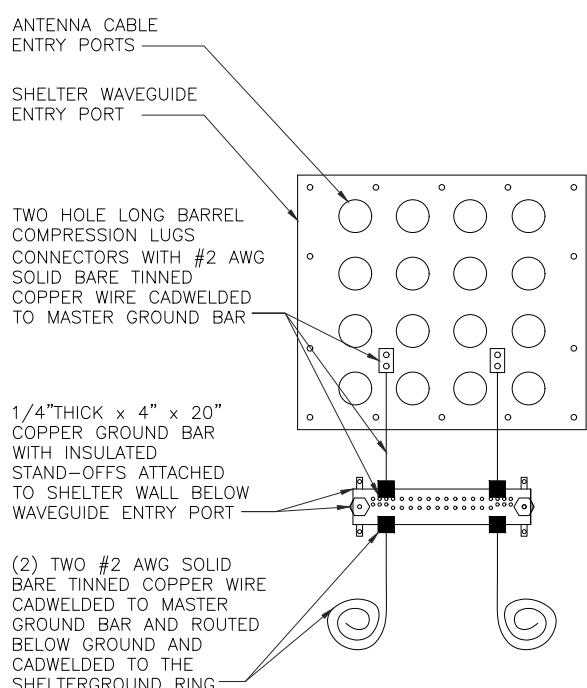
NO SCALE

5

### CALDWELD DETAILS

NO SCALE

4



INSPECTION WINDOW REQUIRED FOR ALL INTERIOR TWO-HOLE CONNECTORS

EXTERNAL TOOTHED  
3/8"Øx1 1/2"

S/S NUT

S/S LOCK WASHER

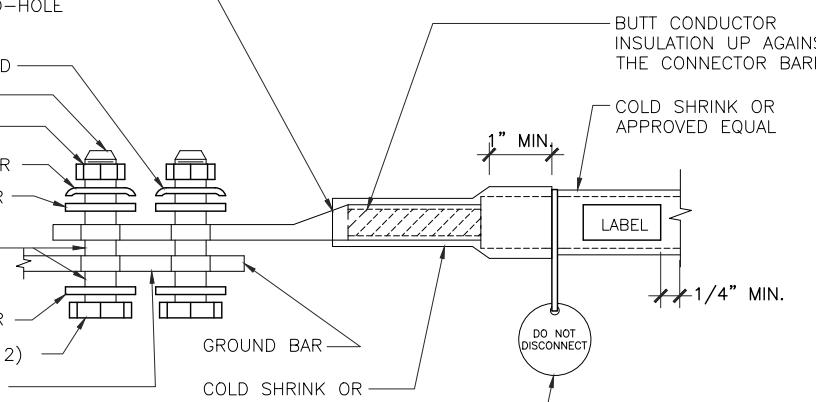
S/S FLAT WASHER

APPLY NO-OX

S/S FLAT WASHER

S/S BOLT (1 OF 2)

TINNED COPPER GROUND BAR



TO LOW NOISE AMPLIFIER UNITS (LNA) (WHEN REQUIRED) AND RECEIVE ANTENNA

RX1/RX2

COLD SHRINK OR APPROVED EQUAL

BUTT CONDUCTOR INSULATION UP AGAINST THE CONNECTOR BARREL

1" MIN.

COLD SHRINK OR APPROVED EQUAL

LABEL

1/4" MIN.

DO NOT DISCONNECT

TAG ON ALL GROUNDING BAR INTERCONNECTS AND EQUALIZERS

"DO NOT DISCONNECT" TAG ON ALL GROUNDING BAR INTERCONNECTS AND EQUALIZERS

DO NOT DISCONNECT

# Exhibit D



## LETTER OF AUTHORIZATION

**ATC SITE # / NAME: 98468/120TH & GILES ROAD**  
**SITE ADDRESS: 8001 East Port PKWY, La Vista, NE 68128-2320**  
**LICENSEE: AT&T Mobility d/b/a New Cingular Wireless PCS, LLC**

I, Margaret Robinson, Senior Counsel for American Tower\*, owner of the tower facility located at the address identified above (the "Tower Facility"), do hereby authorize AT&T Mobility d/b/a New Cingular , its successors and assigns, and/or its agent, (collectively, the "Licensee") to act as American Tower's non-exclusive agent for the sole purpose of filing and consummating any land-use or building permit application(s) as may be required by the applicable permitting authorities for Licensee's telecommunications' installation.

We understand that this application may be denied, modified or approved with conditions. The above authorization is limited to the acceptance by Licensee only of conditions related to Licensee's installation and any such conditions of approval or modifications will be Licensee's sole responsibility.

Signature:

Print Name: Margaret Robinson  
Senior Counsel  
American Tower\*

### NOTARY BLOCK

Commonwealth of MASSACHUSETTS  
County of Middlesex

This instrument was acknowledged before me by Margaret Robinson, Senior Counsel for American Tower\*, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same.

WITNESS my hand and official seal, this 29th day of January, 2020.

NOTARY SEAL



GERARD T. HEFFRON

Notary Public

Commonwealth of Massachusetts  
My Commission Expires  
August 9, 2024

Notary Public

My Commission Expires: August 9, 2024

\*American Tower includes all affiliates and subsidiaries of American Tower Corporation.



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## Structural Analysis Report

Structure : 100 ft Monopole  
ATC Site Name : 120TH & Giles Road, NE  
ATC Asset Number : 98468  
Engineering Number : OAA753384\_C3\_01  
Proposed Carrier : AT&T Mobility  
Carrier Site Name : 120TH & Giles Road  
Carrier Site Number : OMAHNE1031-10083517  
Site Location : 8001 EAST Port PKWY  
LA Vista, NE 68128-2320  
41.180400,-96.100000  
County : Sarpy  
Date : October 16, 2019  
Max Usage : 95%  
Result : Pass

Prepared By:  
Mark Iakovenko  
Engineer Intern

Reviewed By:

COA: CA1343

**Table of Contents**

|                                      |          |
|--------------------------------------|----------|
| Introduction .....                   | 1        |
| Supporting Documents .....           | 1        |
| Analysis .....                       | 1        |
| Conclusion .....                     | 1        |
| Existing and Reserved Equipment..... | 2        |
| Equipment to be Removed.....         | 2        |
| Proposed Equipment .....             | 2        |
| Structure Usages .....               | 3        |
| Foundations .....                    | 3        |
| Deflection and Sway .....            | 3        |
| Standard Conditions .....            | 4        |
| Calculations .....                   | Attached |

## Introduction

The purpose of this report is to summarize results of a structural analysis performed on the 100 ft monopole to reflect the change in loading by AT&T Mobility.

## Supporting Documents

|                            |  |
|----------------------------|--|
| <b>Tower Drawings</b>      | Valmont Drawing #DD0184Z, dated July 20, 1999  |
| <b>Foundation Drawing</b>  | Valmont Drawing #DD0184Z, dated July 20, 1999  |
| <b>Geotechnical Report</b> | GSI Job #991264, dated June 14, 1999   |
| <b>Modifications</b>       | ATC Project #42060933, dated July 11, 2008<br>ATC Project #OAA742188_C6_03, dated January 16, 2019 |
| <b>Inspection</b>          | TIA inspection by ATC, dated September 9, 2015 No structural deficiencies were found               |

## Analysis

The tower was analyzed using American Tower Corporation's tower analysis software. This program considers an elastic three-dimensional model and second-order effects per ANSI/TIA-222.

|                                 |  |
|---------------------------------|--|
| <b>Basic Wind Speed:</b>        | 90 mph (3-second gust, $V_{ASD}$ )/115 mph (3-second gust, $V_{ULT}$ ) |
| <b>Basic Wind Speed w/ Ice:</b> | 40 mph (3-Second Gust) w/ 3/4" radial ice concurrent                   |
| <b>Code:</b>                    | ANSI/TIA-222-G / 2012 IBC  |
| <b>Structure Class:</b>         | II   |
| <b>Exposure Category:</b>       | C  |
| <b>Topographic Category:</b>    | 1  |
| <b>Crest Height:</b>            | 0 ft   |
| <b>Spectral Response:</b>       | $S_s = 0.10, S_1 = 0.05$   |
| <b>Site Class:</b>              | D - Stiff Soil   |

## Conclusion

Based on the analysis results, the structure meets the requirements per the applicable codes listed above. The tower and foundation can support the equipment as described in this report.

If you have any questions or require additional information, please contact American Tower via email at [Engineering@americantower.com](mailto:Engineering@americantower.com). Please include the American Tower site name, site number, and engineering number in the subject line for any questions.

### Existing and Reserved Equipment

| Elev. <sup>1</sup> (ft) | Qty | Antenna                             | Mount Type              | Lines  | Carrier                          |
|-------------------------|-----|-------------------------------------|-------------------------|--|----------------------------------|
| 100.0                   | 3   | Ericsson Radio 4449 - B13&B5        | Platform with Handrails | (1) 1.56" (39.7mm)<br>Hybrid<br>(6) 7/8" Coax  | ALLTEL<br>COMMUNICATIONS,<br>LLC |
|                         | 3   | Ericsson Radio 8843 - B2 + B66A     |                         |  |                                  |
|                         | 6   | JMA Wireless MX06FIT865-02 (71 lbs) |                         |  |                                  |
|                         | 3   | Amphenol Antel HTXCW631619R000      |                         |  |                                  |
|                         | 1   | Raycap RCMDC-3315-PF-48 (32 lbs)    |                         |  |                                  |
| 85.0                    | 1   | Raycap DC6-48-60-18-8C-EV           | Platform with Handrails | (1) 0.39" (10mm)<br>Fiber Trunk<br>(1) 0.40" (10.3mm)<br>Fiber<br>(2) 0.78" (19.7mm)<br>8 AWG 6<br>(1) 0.82" (20.8mm)<br>8 AWG 6<br>(6) 1 5/8" Coax<br>(1) 3/8" (0.38"-<br>9.5mm) RET<br>Control Cable | AT&T MOBILITY                    |
|                         | 3   | Kathrein Scala 800 10766            |                         |  |                                  |
|                         | 3   | Alcatel-Lucent RRH4x25-WCS-4R       |                         |  |                                  |
|                         | 3   | Alcatel-Lucent B25 RRH4x30-4R       |                         |  |                                  |
|                         | 3   | Lucent 9442 RRH 700 MHz             |                         |  |                                  |
|                         | 3   | KMW EPBQ-654L8H8-L2                 |                         |  |                                  |
|                         | 3   | LGP Allgon LGP186nn                 |                         |  |                                  |
|                         | 1   | Raycap DC6-48-60-18-8F ("Squid")    |                         |  |                                  |

### Equipment to be Removed

| Elev. <sup>1</sup> (ft) | Qty | Antenna                  | Mount Type | Lines           | Carrier       |
|-------------------------|-----|--------------------------|------------|-----------------|---------------|
| 85.0                    | 3   | Kathrein Scala 800 10766 | -          | (6) 1 5/8" Coax | AT&T MOBILITY |
|                         | 3   | LGP Allgon LGP186nn      |            |                 |               |

### Proposed Equipment

| Elev. <sup>1</sup> (ft) | Qty | Antenna   | Mount Type              | Lines                         | Carrier       |
|-------------------------|-----|---|-------------------------|-------------------------------|---------------|
| 85.0                    | 1   | Raycap DC6-48-60-0-8C                             | Platform with Handrails | (1) 0.82" (20.8mm)<br>8 AWG 6 | AT&T MOBILITY |
|                         | 3   | Nokia AirScale Dual RRH 4T4R B25/66 320W<br>AHFIB |                         |                               |               |
|                         | 3   | Commscope NNH4-65C-R6                             |                         |                               |               |

<sup>1</sup>Contracted elevations are shown for appurtenances within contracted installation tolerances. Appurtenances outside of contract limits are shown at installed elevations.

Install proposed lines inside the pole shaft.

### Structure Usages

| Structural Component | Controlling Usage | Pass/Fail |
|----------------------|-------------------|-----------|
| Shaft                | 95%               | Pass      |
| Reinforcement        | 86%               | Pass      |

### Foundations

| Reaction Component | Analysis Reactions | % of Usage |
|--------------------|--------------------|------------|
| Moment (Kips-Ft)   | 1,295.2            | 75%        |
| Axial (Kips)       | 32.2               | 49%        |

The structure base reactions resulting from this analysis were found to be acceptable through analysis based on geotechnical and foundation information, therefore no modification or reinforcement of the foundation will be required.

### Deflection and Sway\*

| Antenna Elevation (ft) | Antenna   | Carrier       | Deflection (ft) | Sway (Rotation) (°) |
|------------------------|---|---------------|-----------------|---------------------|
| 85.0                   | Raycap DC6-48-60-0-8C<br>Nokia AirScale Dual RRH 4T4R<br>B25/66 320W AHFIB<br>Commscope NNH4-65C-R6 | AT&T MOBILITY | 1.131           | 1.623               |

\*Deflection and Sway was evaluated considering a design wind speed of 60 mph (3-Second Gust) per ANSI/TIA-222-G



## **Standard Conditions**

All engineering services performed by ATC Tower Services LLC are prepared on the basis that the information used is current and correct. This information may consist of, but is not limited to the following:

- Information supplied by the client regarding antenna, mounts and feed line loading
- Information from drawings, design and analysis documents, and field notes in the possession of ATC Tower Services LLC

It is the responsibility of the client to ensure that the information provided to ATC Tower Services LLC and used in the performance of our engineering services is correct and complete.

All assets of American Tower Corporation, its affiliates and subsidiaries (collectively "American Tower") are inspected at regular intervals. Based upon these inspections and in the absence of information to the contrary, American Tower assumes that all structures were constructed in accordance with the drawings and specifications.

Unless explicitly agreed by both the client and ATC Tower Services LLC, all services will be performed in accordance with the current revision of ANSI/TIA-222.

All services are performed, results obtained, and recommendations made in accordance with generally accepted engineering principles and practices. ATC Tower Services LLC is not responsible for the conclusions, opinions and recommendations made by others based on the information supplied herein.