

Market: MNP
Cell Site Number: DESMIA1753
Cell Site Name: WEST_HIGH-LLW-IASC-Sioux City
Fixed Asset Number: 13169467

FOURTH AMENDMENT TO SITE LEASE AGREEMENT

This Fourth Amendment to Site Lease Agreement (Fourth Amendment), dated as of the latter of the signature dates below, is by and between the Woodbury County Board of Supervisors, c/o Starcomm Public Safety Board, the City of Sioux City, Iowa ("Lessors") and New Cingular Wireless PCS, LLC, a Delaware limited liability company, having a mailing address of 575 Morosgo Drive NE, Atlanta, GA 30324 ("Lessee") as follows:

WHEREAS, Lessors and Lessee (or their respective predecessors-in-interest) entered into a Site Lease Agreement between the parties signed on or about September 5, 2006 and went into effect on September 29, 2006 when the building permit was issued, with respect to a cell tower located at 3430 W. 23rd Street, Sioux City, Iowa (the "Lease"); and

WHEREAS, the parties amended the Lease by that certain Amendment to Site Lease Agreement dated March 4, 2008 ("First Amendment"); and

WHEREAS, Long Lines Communications, LLC a Delaware limited liability company, Long Lines Wireless, LLC, a Delaware limited liability company, Long Lines, LLC, a Delaware limited liability company, LL License Holdings, LLC, a Delaware limited liability company, LL License Holdings II, LLC, a Delaware limited liability company, Advanced Network Communications, L.L.C., an Iowa limited liability company (each an "Assignor" and, collectively, the "Assignors"), and LL Acquisition Company, LLC, a Delaware limited liability company ("Assignee") entered into an Global Contribution, Bill Of Sale, Assignment, and Assumption Agreement dated December 20, 2013; and

WHEREAS, LL Acquisition Company, LLC a Delaware limited liability company merged with and into New Cingular Wireless PCS, LLC a Delaware limited liability company on February 28, 2014; and

WHEREAS, the parties amended the Lease by that certain Amendment #2 to Site Lease Agreement dated October 27, 2014 ("Second Amendment"); and

WHEREAS, the parties amended the Lease by that certain Third Amendment to Site Lease Agreement dated August 20, 2018 ("Third Amendment"); and

WHEREAS, Lessors and Lessee desire to further amend the Lease to make modifications which include maintenance, upgrade and may include addition of the antennas, radio equipment, amplifiers, diplexers, surge protectors and any other relative items necessary for the successful and secure operation of the wireless communications facility; and

WHEREAS, Lessors and Lessee, in their mutual interest, wish to amend the Lease as set forth below accordingly.

NOW THEREFORE, in consideration of the foregoing and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Lessors and Lessee agree as follows:

1. Exhibit A-3 with stamped drawings dated September 1, 2017 is removed in its entirety and replaced with a new Exhibit A-4 with stamped drawings dated June 7, 2018. It is understood that as a result of this amendment, the Site Plan indicates the new updated engineering, antenna's, mounts shelters and other hardware at this location.

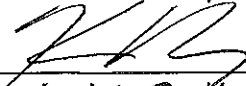
2. Other Terms and Conditions Remain. In the event of any inconsistencies between the Lease and this Fourth Amendment, the terms of this Fourth Amendment shall control. Except as expressly set forth in this Fourth Amendment, the Lease otherwise is unmodified and remains in full force and effect. Each reference in the Amendment to itself shall be deemed also to refer to this Fourth Amendment.


3. Capitalized Terms. All capitalized terms used but not defined herein shall have the same meanings as defined in the Lease.


IN WITNESS WHEREOF, this Fourth Amendment is effective and entered into as of the date last written below.

[SIGNATURES APPEAR ON THE NEXT PAGE]

LESSORS: Woodbury County Board of Supervisors c/o
Starcomm Public Safety Board


By: Keith Radig
Title: Chariman
Date: March 12, 2019

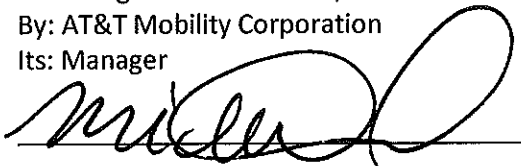
ATTEST:

Patrick Gill, County Auditor
Michelle Skaff Deputy Auditor

City of Sioux City, Iowa

By: Robert E. Scott
Title: Mayor
Date: 3-18-19

ATTEST:

Lisa L. McCardle, City Clerk

LESSEE: New Cingular Wireless PCS, LLC
By: AT&T Mobility Corporation
Its: Manager



By: Name: Michelle Durand
Title: Title: Manager of Real Estate & Construction
Date: 11/8/18

CONSENT TO SUBLEASE AMENDMENT

On this 11 day of February, ~~2018~~²⁰¹⁹, Sioux City Community School District as Landlord and pursuant to Paragraph 8 of the Lease – Business Property dated October 25, 2004 hereby consents to the Sublease Amendment between Starcomm, Woodbury County, Iowa, the City of Sioux City and New Cingular Wireless PCS, LLC.

Sioux City Community School District

By:



Print Name:

Jeremy Saint

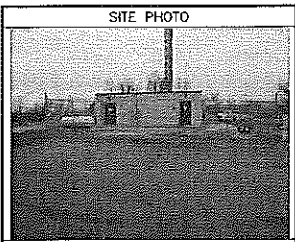
Title:


Board President

Cell Site Number: DESMIA1753
Cell Site Name: WEST_HIGH-LLW-IASC-Sioux City
Fixed Asset Number: 13169467

EXHIBIT A-4

See attached exhibit comprised of 11 pages, dated June 7, 2018.





PROJECT : LTE 4C
SITE # : IAL01753
FA # : 13169467
PTN # : 3529A0EQ7
PACE # : MRUMW022734
SITE NAME : LLW IASC WEST HIGH
ADDRESS : 3301 WEST 19TH STREET
SIOUX CITY, IA 51103
JURISDICTION: CITY OF SIOUX

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A4	ANTENNA PLAN
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A6	ANTENNA BRIN AND MOUNTING DETAILS
A7	CABLE NOTES & COLOR CODING
E1	GROUNDING DETAILS
E2	GROUNDING DETAILS & NOTES

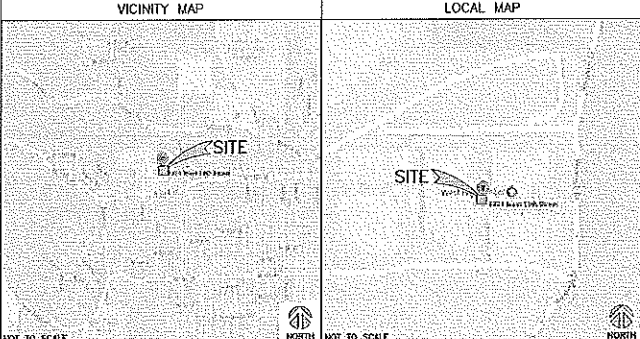


PROJECT INFORMATION

SITE NAME: LLW IASC WEST HIGH
COUNTY: WOODBURY
ADDRESS: 3301 WEST 19TH STREET
SIOUX CITY, IA 51103
JURISDICTION: CITY OF SIOUX
SITE NUMBER: IAL01753
FA NUMBER: 13169467
PTN: 3529A0EQ7
PACE: MRUMW022734
OSID: 100000
LATITUDE: 42° 30' 43.9518" N (42.512208)
LONGITUDE: 96° 27' 17.9676" W (-96.454931)
GROUND OWNER: WOODBURY, IA
AFFILIANT: AT&T WIRELESS
901 S. PARQUETTE AVE.
MIDLEFORD, IA 52402
AT&T PROJECT MANAGER: VERNA GARRISON
EMAIL: VG47356@ATT.COM
AT&T CONSTRUCTION MANAGER: ANTHONY J SAUJ
PHONE: (783) 203-3015
EMAIL: ASS394@ATT.COM
TOWER OWNER: WOODBURY COUNTY BOARD OF SUPERVISORS C/O SIOUX CITY PUBLIC SAFETY BOARD & CITY OF SIOUX CITY, IOWA
500 DOUGLAS STREET, SUITE 104
SIOUX CITY, IOWA 51101
OLENA SEDWY (712) 278-6959

PROJECT CONSULTANTS

PROJECT MANAGEMENT: SAC WIRELESS
540 W. MADISON ST. 17TH FLOOR
CHICAGO, ILLINOIS 60661
CONTACT: ROBERT SCHWARTZ
EMAIL: ROBERT.SCHWARTZ@SACW.COM
SITE ACQUISITION ZONING: SAC WIRELESS
540 W. MADISON ST. 17TH FLOOR
CHICAGO, ILLINOIS 60661
CONTACT: ASHLEY RICHMOND
EMAIL: ASHLEY.RICHMOND@SACW.COM
ENGINEER: LEONARDO SPERREA
CPD ENGINEERING AND ARCHITECTURE
PROFESSIONAL CORPORATION
520 SOUTH MAIN STREET, STE. 2531
ARROW, IOWA 44331
CONTACT: KEVIN FRALEIGH
PHONE: (330) 572-2100
CONSTRUCTION: SAC WIRELESS
540 WEST MADISON ST., 16TH FLOOR
CHICAGO, IL 60661
CONTACT: DANIA HURBAND
PHONE: DANIA.HURBAND@SACW.COM



DRIVING DIRECTIONS

DIRECTIONS FROM AT&T OFFICE: HEAD NORTH ON PARQUETTE AVE TURN RIGHT (EAST SOUTHEAST) ONTO 6TH ST S TURN RIGHT (SOUTH SOUTHWEST) ONTO SR 65 GO STRAIGHT (SOUTH) ONTO I-35W S RAMP AT EXIT 130, GO STRAIGHT (WEST) ONTO I-80 W RT AT EXIT 400, KEEP RIGHT (SOUTH SOUTHWEST) ONTO I-220 S RAMP AT EXIT 18, KEEP LEFT (SOUTH SOUTHWEST) ONTO I-29 S RAMP AT EXIT 4, KEEP RIGHT (SOUTH SOUTHWEST) ONTO N SHORE DR RAMP GO STRAIGHT (EAST) ONTO CR 23 TURN RIGHT (SOUTHWEST) ONTO SR 103 TURN LEFT (SOUTHWEST) ONTO MILITARY DR KEEP RIGHT (SOUTH SOUTHWEST) ONTO RIVERSIDE BLVD GO STRAIGHT (SOUTH) ONTO SR 12 TURN LEFT (EAST) ONTO PAUL AVE ARRIVE AT WEST 19TH STREET, SIOUX CITY, IA 51103



 Know what's below.
 Call before you dig.

SCOPE OF WORK

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

- REMOVE (2) EXISTING RISERS FROM PORTION 2 (1 PER SECTION)
- INSTALL (2) NEW 40' RISERS AT PORTION 4 (1 PER SECTION)
- INSTALL (2) NEW 15' RUP DG BRACKETS IN EXISTING TOWER PLANT
- INSTALL (1) NEW RECEIVER IN EXISTING TOWER PLANT

REVISIONS

REV.	DATE	DESCRIPTION	BY
1	02/12/18	ISSUED FOR PERMIT	JA
2	02/12/18	ISSUED FOR PERMIT	JA
3	02/12/18	ISSUED FOR PERMIT	JA
4	02/12/18	ISSUED FOR PERMIT	JA



 I hereby certify that the above described project has been prepared by me or under my direct supervision and that I am a duly licensed Professional Engineer in the State of Iowa.

Signature: Leonardo A. Sperrea
 Date: 02/12/2018

CODE COMPLIANCE

- 2015 INTERNATIONAL BUILDING CODE
- 2015/16-222 STRUCTURAL STANDARD FOR ANTENNA STRUCTURES
- NFPA 70B LIGHTNING PROTECTION CODE
- 2014 NATIONAL ELECTRICAL CODE

REFERENCE MATERIALS

- THESE DRAWINGS ARE BASED AT&T RECORD DOCUMENT DATED 01/22/2018

SPECIAL NOTES

- ALL WORK SHALL BE INSTALLED IN CONFORMANCE WITH CURRENT FIRST CONSTRUCTION INSTALLATION CODE.
- EXISTING CONDITIONS WILL BE CHECKED & VERIFIED IN FIELD. IF SIGNIFICANT DEVIATIONS OR DISCREPANCIES ARE ENCOUNTERED AT THE TIME OF CONSTRUCTION, A REPAIR ORDER WILL BE ISSUED & CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY.
- THESE DRAWINGS USE FULL SIZE & SCALEABLE ON 11"x17" SHEET SIZE.
- STATEMENT MUST COMPLY WITH THE ENERGY CODE IS NOT REQUIRED.
- SCOPE OF WORK DOES NOT INCLUDE MODIFICATIONS TO EXISTING 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.

SHEET TITLE
TITLE SHEET
 SHEET NUMBER
T1

GENERAL CONSTRUCTION

- FOR THE PURPOSE OF CONSTRUCTION DRAWINGS, THE FOLLOWING DEFINITIONS SHALL APPLY:
CONTRACTOR/CM - SAC WIRELESS
SUB-CONTRACTOR - TDS
OWNER - AT&T WIRELESS
- ALL SITE WORK SHALL BE COMPLETED AS INDICATED ON THE DRAWINGS AND AT&T PROJECT SPECIFICATIONS.
- 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, ORDINANCES, AND CONFORMING 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.
- ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. GENERAL CONTRACTOR SHALL ISSUE ALL NECESSARY ORDERS AND PERMITS WITH ALL LOCAL, STATE, FEDERAL, AND FEDERAL REGULATIONS AND MAINTAIN RECORDS OF ALL PUBLIC AUTHORITY RECORDING THE PERFORMANCE OF WORK.
- ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES, AND APPLICABLE REGULATIONS.
- UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
- PLANS ARE NOT TO BE SCALED. THESE PLANS ARE INTENDED TO BE A SUPPLEMENTARY OUTLINE ONLY UNLESS OTHERWISE NOTED. DIMENSIONS SHOWN ARE TO FINISH SURFACES UNLESS OTHERWISE NOTED. SPACING BETWEEN EQUIPMENT IS THE MINIMUM ALLOWED CLEARANCE. THEREFORE, IT IS COMBINE 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. DIMENSIONS ARE INTENDED TO SHOW DESIGN INTENT. MODIFICATIONS MAY BE REQUIRED TO SUIT JOB CONDITIONS OR CONDITIONS AND SUCH MODIFICATIONS SHALL BE OBTAINED AS PART OF WORK AND PREPARED BY THE ENGINEER PRIOR TO PROCEEDING WITH WORK.
- THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
- 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.
- 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 CONFORM TO ALL OSHA REQUIREMENTS AND THE LOCAL JURISDICTION.
- GENERAL CONTRACTOR SHALL COORDINATE WORK AND SCHEDULE WORK ACTIVITIES WITH OTHER BUSINESSES.
- ERECTOR SHALL BE DONE IN A WORKMANSHIP MANNER BY COMPETENT EXPERIENCED WORKMEN IN ACCORDANCE WITH APPLICABLE CODES AND THE BEST ACCEPTED PRACTICE. ALL MEMBERS SHALL BE LAD PLUMBS AND TRUE AS INDICATED ON THE DRAWINGS.
- SEAL PENETRATIONS THROUGH FIRE RATED AREAS WITH LISTED MATERIALS APPROVED BY LOCAL JURISDICTION. CONTRACTOR SHALL KEEP AREA CLEAN, HAZARD FREE, AND DISPOSEL OF ALL DEBRIS.
- WORK PREVIOUSLY COMPLETED IS REPRESENTED BY LIGHT SHOWN LINES AND NOTES. THE SCOPE OF WORK FOR THIS PROJECT IS REPRESENTED BY DARK SHOWN LINES AND NOTES. CONTRACTOR SHALL NOTIFY GENERAL CONTRACTOR OF ANY EXISTING CONDITIONS THAT DEVIATE FROM THE DRAWINGS PRIOR TO BEGINNING CONSTRUCTION.
- CONTRACTOR SHALL PROVIDE WRITTEN NOTICE TO THE CONSTRUCTION MANAGER 48 HOURS PRIOR TO COMMENCEMENT OF WORK.
- THE CONTRACTOR SHALL NOTIFY EXISTING IMPROVEMENTS, PREVIOUSLY, CURBS, LAWNSCAPES AND STRUCTURES, AND DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER.
- THE CONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION.
- GENERAL CONTRACTOR SHALL COORDINATE AND MAINTAIN ACCESS FOR ALL TRADES AND CONTRACTORS TO THE SITE AND/OR BUILDING.
- THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR SECURITY OF THE SITE FOR THE DURATION OF CONSTRUCTION UNTIL JOB COMPLETION.
- THE GENERAL CONTRACTOR SHALL MAINTAIN GOOD CONDITION THE COMPLETE SET OF PLANS WITH ALL REVISIONS, ADDENDAS, AND CHANGE ORDERS ON THE PREMISES AT ALL TIMES.
- THE GENERAL CONTRACTOR SHALL PROVIDE PORTABLE FIRE EXTINGUISHERS WITH A RATING OF NOT LESS THAN 2-A OR 2-ABC-10-BE AND SHALL BE WITHIN 25 FEET OF TRAVEL DISTANCE TO ALL PORTIONS OF WHERE THE WORK IS BEING COMPLETED DURING CONSTRUCTION.
- 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. CAREFUL SHIELDING SHOULD BE USED BY THE CONTRACTOR WHEN EXCAVATING OR DRILLING PITS AROUND OR NEAR UTILITIES. CONTRACTOR SHALL PROVIDE SAFETY TRAILING FOR THE WORKING AREA. THIS SHALL INCLUDE BUT NOT BE LIMITED TO A) FALL PROTECTION, B) COVERED SPACE, C) ELECTRICAL SAFETY, AND D) TRECHING & EXCAVATION.
- ALL EXISTING UTILITY SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED, CAPPED, FLAGGED 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.
- THE AREAS OF THE OWNER'S PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE TOUGH EQUIPMENT OR ENCAUSTIC, SHALL BE GRADED TO A UNIFORM SLOPE, AND STABILIZED TO PREVENT EROSION.
- 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.
- NO TILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUND. FROZEN MATERIAL, SNOW OR ICE SHALL NOT BE PLACED IN ANY TILL OR EMBANKMENT.
- THE SURFACE SHALL BE BROUGHT TO A SMOOTH UNIFORM GRADE AND COMPACTED TO 95 PERCENT STANDARD PROCTOR DENSITY UNDER PAVEMENT AND STRUCTURES AND 90 PERCENT STANDARD PROCTOR DENSITY IN OPEN SPACE. ALL TRENCHES IN PUBLIC RIGHT OF WAY SHALL BE BACKFILLED WITH FILLABLE FILL OR OTHER MATERIAL PRE-APPROVED BY THE LOCAL JURISDICTION.
- ALL NECESSARY RUBBER, STUMPS, DEBRIS, STICKS, SHOULDS, AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN A LAWFUL MANNER.
- 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.
- CONTRACTOR SHALL SUBMIT A COMPLETE SET OF AS-BUILT RECORDS TO THE GENERAL CONTRACTOR UPON COMPLETION OF PROJECT AND PRIOR TO FINAL PAYMENT.
- CONTRACTOR SHALL LEAVE FREESIES IN A CLEAN CONDITION.
- THE PROPOSED FACILITY WILL BE UNMANNED AND DOES NOT REQUIRE POTABLE WATER OR SEWER SERVICE, AND IS NOT FOR HUMAN HABITAT AND WAD/CAP ACCESS REQUIRED.
- OCCUPANCY IS LIMITED TO PERIODIC MAINTENANCE AND INSPECTION APPROXIMATELY 2 TIMES PER MONTH, BY AT&T TECHNICIANS.
- NO OUTDOOR STORAGE OR SOLID WASTE CONTAINERS ARE PROPOSED.
- ALL MATERIAL SHALL BE FURNISHED AND WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST REVISIONS AND MOST RECENTLY GROUNDING STANDARD SPECIFICATION FOR CONSTRUCTION OF CONCRETE WIRELESS SITES AND TECHNICAL SPECIFICATION FOR FACILITY GROUNDING, IN CASE OF A CONFLICT BETWEEN THE CONSTRUCTION SPECIFICATION AND THE ORDINANCES, THE ORDINANCES SHALL GOVERN.
- CONTRACTOR 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.
- CONTRACTOR SHALL REMOVE ALL TRASH AND DEBRIS FROM THE SITE ON A DAILY BASIS.
- 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.
- NO WHITE STABLE LIGHTS ARE PERMITTED, LIGHTING IF REQUIRED, SHALL MEET FAA STANDARDS OF REQUIREMENTS.
- ANTENNA MOUNTING**
- DESIGN AND CONSTRUCTION OF ANTENNA SUPPORTS SHALL CONFORM TO CURRENT ANSI/VIA-222 OR APPLICABLE LOCAL CODES.
- ALL STEEL MATERIALS SHALL BE GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A123 Z106 (HOT-DIP GALVANIZED) COATING ON IRON AND STEEL PRODUCTS, UNLESS NOTED OTHERWISE.
- ALL BOLTS, NUTS AND MISCELLANEOUS HARDWARE SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 Z106-COATING (HOT-DIP) ON IRON AND STEEL HARDWARE, UNLESS NOTED OTHERWISE.
- DAMAGED GALVANIZED SURFACES SHALL BE REPAIRED BY COLD GALVANIZING IN ACCORDANCE WITH ASTM A765.
- ALL ANTENNA MOUNTS SHALL BE INSTALLED WITH LOCK NUTS, DOUBLE NUTS AND SHALL BE TORQUED TO MANUFACTURER'S RECOMMENDATIONS.
- CONTRACTOR SHALL INSTALL ANTENNA PER MANUFACTURER'S RECOMMENDATION FOR ESTABLISHING AND GROUNDING.
- ALL WIRELESS POWER ON ANY ANTENNA SHALL BE TERMINATED WITH A 50-OHM LOAD TO INSURE ANTENNAS PERFORM AS DESIGNED.
- BEFORE TO SETTING ANTENNA ADJACENTS AND DOWNLINES, ANTENNA CONTRACTOR SHALL CHECK THE ANTENNA MOUNT FOR TIGHTNESS AND ENSURE THAT THEY ARE PLUMB. ANTENNA ADJACENTS SHALL BE SET FROM TRUE NORTH AND BE ORIENTED WITHIN +/- 5% AS DEFINED BY THE RFS. ANTENNA DOWNLINES SHALL BE WITHIN +/- 0.5% AS DEFINED BY THE RFS. REFER TO ND-00246.
- ALL DOWNLINES FROM THE TWR MUST TERMINATE TO OPPOSITE POLARIZATION'S IN EACH SECTION.
- CONTRACTOR SHALL RECORD THE SERIAL #, SECTION, AND POSITION OF EACH ADJACENT INSTALLED AT THE ANTENNAS AND PROVIDE THE INFORMATION TO AT&T.
- THIS SHALL BE MOUNTED ON PIPE DIRECTLY BEHIND ANTENNAS AS CLOSE TO ANTENNAS AS FEASIBLE IN A VERTICAL POSITION.
- 300VDC REQUIREMENTS**
- ALL RF CONNECTORS SHALL BE TIGHTENED BY A TORQUE WRENCH.

- ALL RF CONNECTORS, GROUNDING HARDWARE AND ANTENNA HARDWARE SHALL HAVE A TORQUE WRENCH INSTALLED IN A CONTINUOUS STRAIGHT LINE FROM BOTH SIDES OF THE CONNECTOR.
- IN CONNECTION BOTH SIDES OF THE CONNECTOR:
A. GROUNDING AND ANTENNA HARDWARE ON THE HUB SIDE STARTING FROM THE THREAS TO THE SOLID SURFACE. EXAMPLE OF SOLID SURFACE: GROUND BAR, ANTENNA BRACKET METAL.
- FEED & POWER CABLE MOUNTING**
- THE FEED OPTIC TRUNK CABLES SHALL BE INSTALLED INTO CONDUITS, CHANNEL CABLE TRAYS, OR CABLE TRAY. MUST WEARINGS FEED OPTIC TRUNK CABLES AND A CABLE TRAY SYSTEM, THEY SHALL BE INSTALLED INTO AN INTER DUCT AND A PASTHOLE BRACKET SHALL BE INSTALLED BETWEEN THE 600 VOLT CABLES AND THE INTER DUCT IN ORDER TO SEGREGATE CABLE TYPES. OPTIC FEED TRUNK CABLES SHALL HAVE APPROVED CABLE RESTRAINTS ENTRY (60) OPTIC FEED AND SECURELY FASTENED TO THE CABLE TRAY SYSTEM. NFPA 70 (NEC) ARTICLE 770 RULES SHALL APPLY.
- THE TPO-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 THE TPO-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 UTILITY EQUIPMENT OR DEVICES. A DISTANCE (6) SIX FEET SHALL NOT BE EXCEEDED WITHOUT CONTINUOUS SUPPORTING. NFPA 70 (NEC) ARTICLES 338 AND 392 RULES SHALL APPLY.
- WHEN INSTALLING OPTIC FEED TRUNK CABLES OR TPO-ER CABLES INTO CONDUITS, NFPA 70 (NEC) ARTICLE 300 RULES SHALL APPLY.
- COAXIAL CABLE NOTES**
- 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.
- CONTRACTOR SHALL VERIFY THE DOWN-TILT OF EACH ANTENNA WITH A DIGITAL LEVEL.
- CONTRACTOR SHALL CONFIRM COAX COLOR CODING PRIOR TO CONSTRUCTION.
- ALL JUNCTIONS TO THE ANTENNAS FROM THE MAIN TRANSMISSION LINE SHALL BE 1/2" DIA. ID AND SHALL NOT EXCEED 6'-0".
- ALL COAXIAL CABLE SHALL BE SECURED TO THE DESIGN SUPPORT STRUCTURE, IN AN APPROVED MANNER, AT DISTANCES NOT TO EXCEED 4'-0" OC.
- CONTRACTOR SHALL FOLLOW ALL MANUFACTURER'S RECOMMENDATIONS REGARDING BOTH THE INSTALLATION AND GROUNDING OF ALL COAXIAL CABLES, CONNECTORS, ANTENNAS, AND ALL OTHER EQUIPMENT.
- CONTRACTOR SHALL GROUND ALL EQUIPMENT INCLUDING ANTENNAS, RET MOUNTS, TRAYS, COAX CABLES, AND RET CONTROL CABLES AS A COMPLETE SYSTEM. THE SYSTEM SHALL BE EXCLUDED BY OBTAINED WRENCH IN CONFORMANCE WITH THE MANUFACTURER'S SPECIFICATION AND RECOMMENDATION.
- CONTRACTOR SHALL PROVIDE STRAIN RELIEF AND ASSEMBLY COAX CABLES AND RET CONTROL CABLE SUPPORTS SHALL BE PROVIDED FOR TO ACCORDANCE WITH MANUFACTURER'S SPECIFICATION.
- CONTRACTOR TO VERIFY THAT EXISTING COAX HANGES, IF EXISTING HANGES ARE NOT CONFORMER SHALL REPLACE EXISTING HANGES AS APPLICABLE.
- GENERAL CABLE AND EQUIPMENT NOTES**
- CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY ANTENNA, TOWER, COAX, AND COAX CONFIGURATION, MAKE AND MODELS PRIOR TO INSTALLATION.
- ALL CONNECTORS FOR WADERS, SUPPORTS, BRACKETS, ETC. SHALL BE INSTALLED PER TOWER MANUFACTURER'S RECOMMENDATIONS.
- CONTRACTOR SHALL REFERENCE THE TOWER STRUCTURAL ANALYSIS/DESIGN DRAWINGS FOR DIMENSIONS OF CABLE USE/BUILDING/HEIGHT.
- IF REQUIRED TO PAINT ANTENNAS AND/OR COAX:
A. TEMPERATURE SHALL BE ABOVE 50° F.
B. POINT COLOR MUST BE APPROVED BY BUILDING OWNER/LANDLORD.
C. FOR REGULATED TOUERS, PAINT/COAT APPROVED PAINT IS REQUIRED.
D. DO NOT PAINT OVER COLOR CODING OR ON EQUIPMENT MODEL NUMBERS.
- ALL CABLES SHALL BE GROUNDING 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 IS REQUIRED.
C. GROUNDING AT BASE OF TOWER PRIOR TO TURNING HORIZONTAL.
D. GROUNDING OUTSIDE THE EQUIPMENT SHELTER AT ENTRY POINT.
E. GROUNDING INSIDE THE EQUIPMENT SHELTER AT THE ENTRY POINT.
- 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 EXHAUSTIVE OR COMPRESSION.

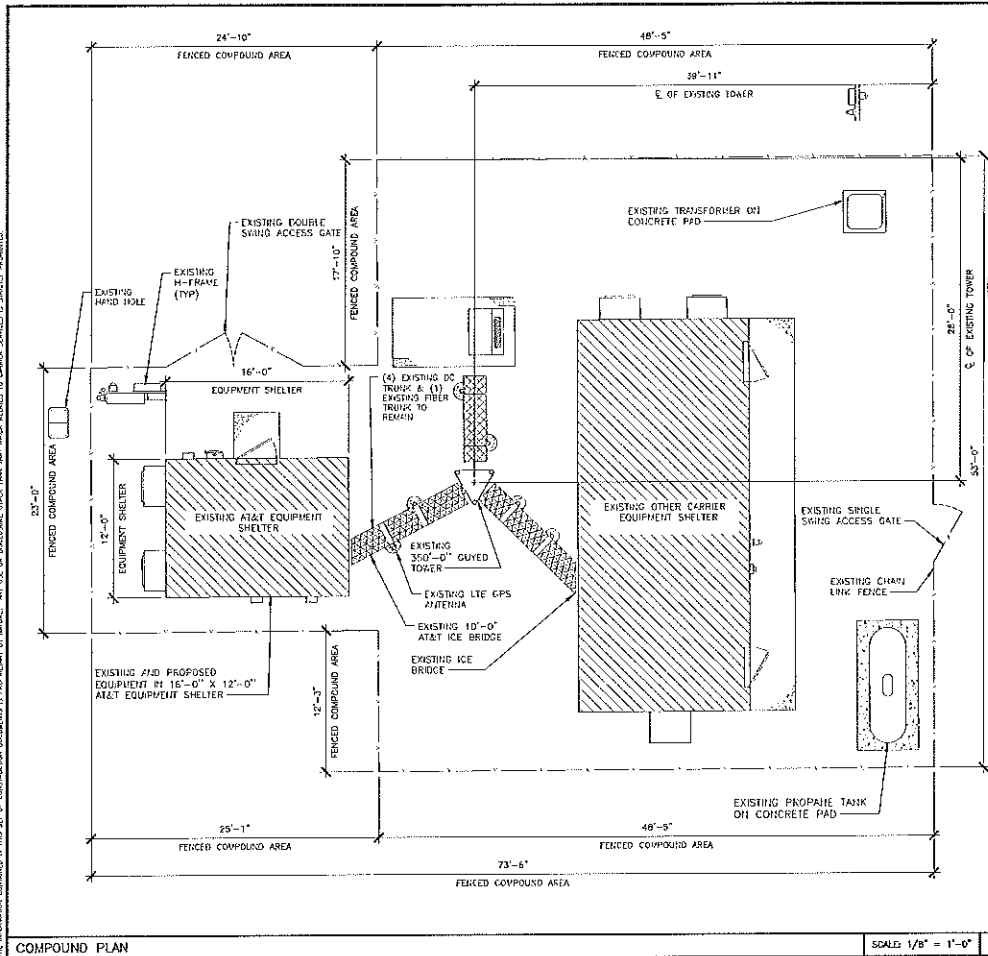
REVISIONS	
NO.	DATE
1	04/27/18
2	05/21/18
3	06/19/18

DATE: 07/18
PROJECT: 13189467
SHEET: 11 OF 11

LTE 4C
13189467
11.W. IASC WEST HIGH
3301 WEST 10TH STREET
SIOUX CITY, IA 51103

SHEET TITLE
NOTES & SPECIFICATIONS

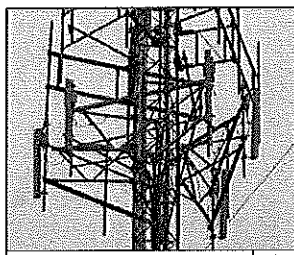
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SP1



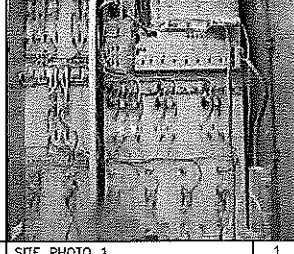
I hereby certify that this engineering document was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer in the State of Iowa.
 License No. 23970
 State of Iowa
 Effective Date: 02/01/2018



REV.	DATE	DESCRIPTION	BY
1	02/01/18	ISSUED FOR PERMIT	JM
2	02/07/18	ISSUED FOR PERMIT	JM



SITE PHOTO 2 2



SITE PHOTO 1 1

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 UNLESS AS NOTED OTHERWISE

LTE 4C
 13169467
 ILL. IASC WEST HIGH
 3301 WEST 19TH STREET
 SIOUX CITY, IA 51103

SHEET TITLE
COMPOUND PLAN

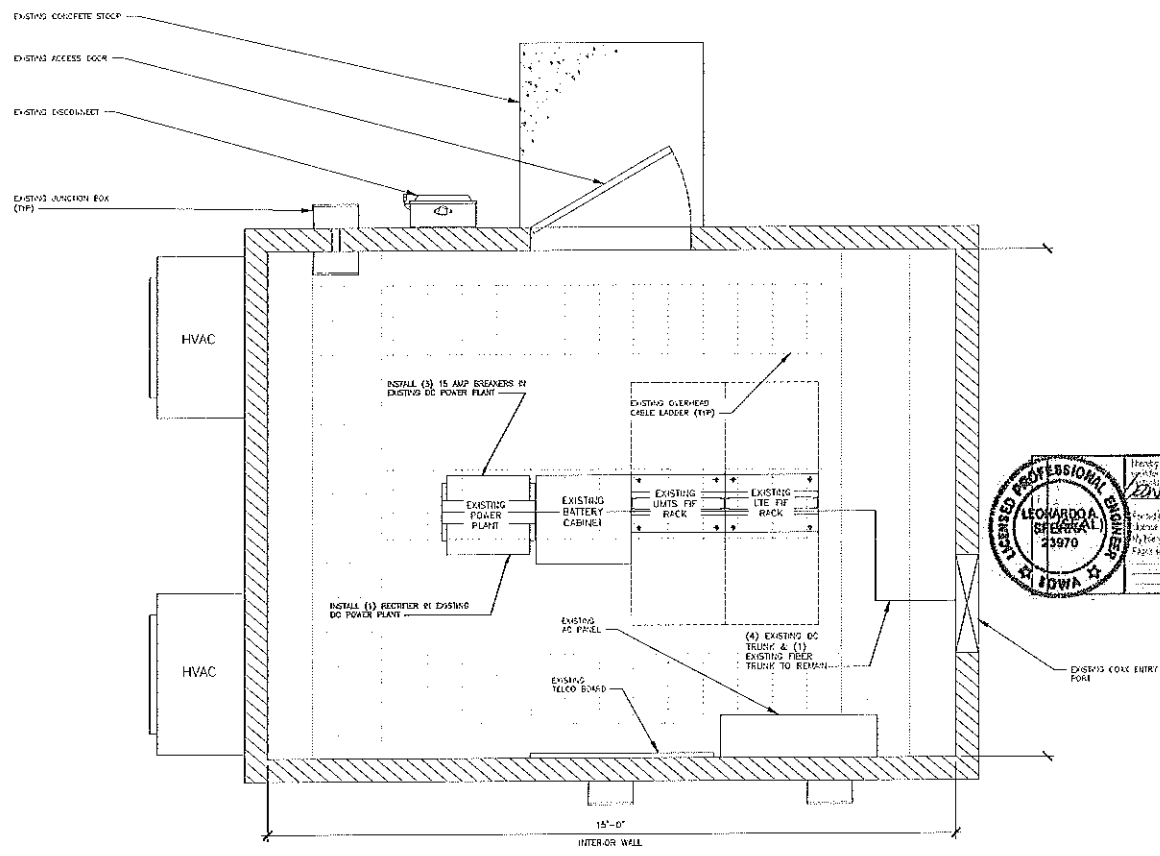
SHEET NUMBER
A1

COMPOUND PLAN

SCALE: 1/8" = 1'-0"

3

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1	02/21/18	ISSUED FOR PERMIT
2	02/21/18	ISSUED FOR REVIEW
3	04/07/18	ISSUED FOR COST



LEONARDO A. SERRA, INC.
 13169467
 3301 WEST 19TH STREET
 SIOUX CITY, IA 51103
 5/17/18

LITE 4C
 13169467
 LLW, JASC WEST HIGH
 3301 WEST 19TH STREET
 SIOUX CITY, IA 51103

SHEET TITLE
EQUIPMENT PLAN

SHEET NUMBER
A2

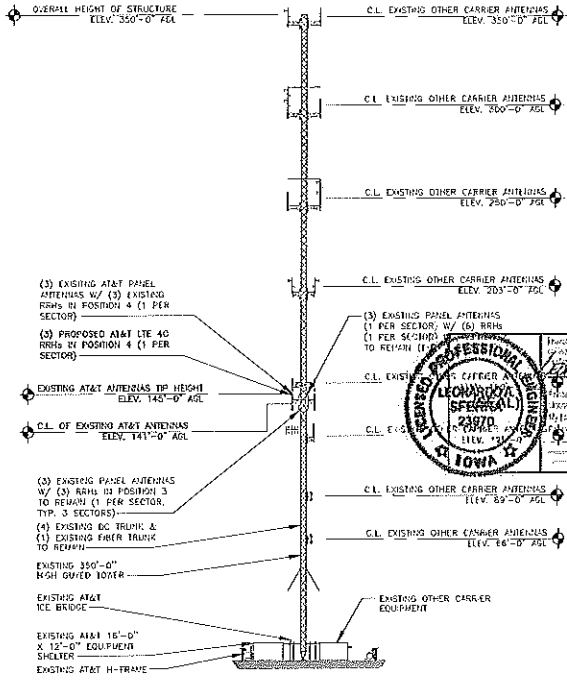
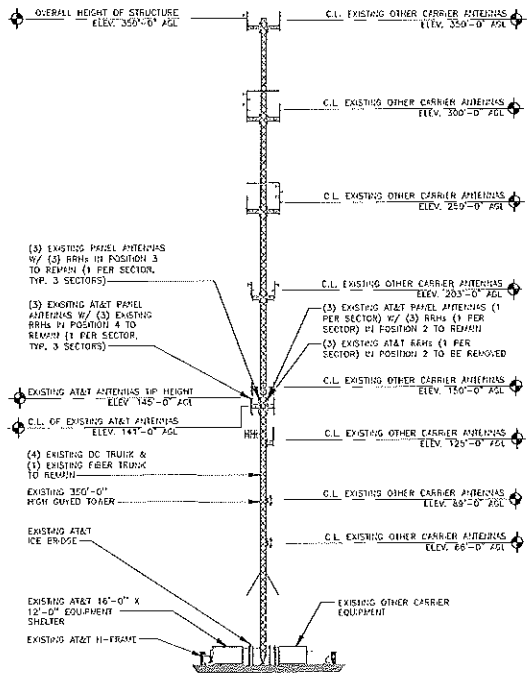
EQUIPMENT PLAN

SCALE: 1/2" = 1'-0"



1

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EXISTING TOWER ELEVATION

SCALE: 1" = 50' 2

PROPOSED TOWER ELEVATION

SCALE: 1" = 50' 1



NO.	DATE	DESCRIPTION
1	02/24/18	ISSUED FOR PERMITS
2	05/24/18	ISSUED FOR PERMITS
3	05/24/18	ISSUED FOR PERMITS
4	05/24/18	ISSUED FOR PERMITS
5	05/24/18	ISSUED FOR PERMITS
6	05/24/18	ISSUED FOR PERMITS
7	05/24/18	ISSUED FOR PERMITS
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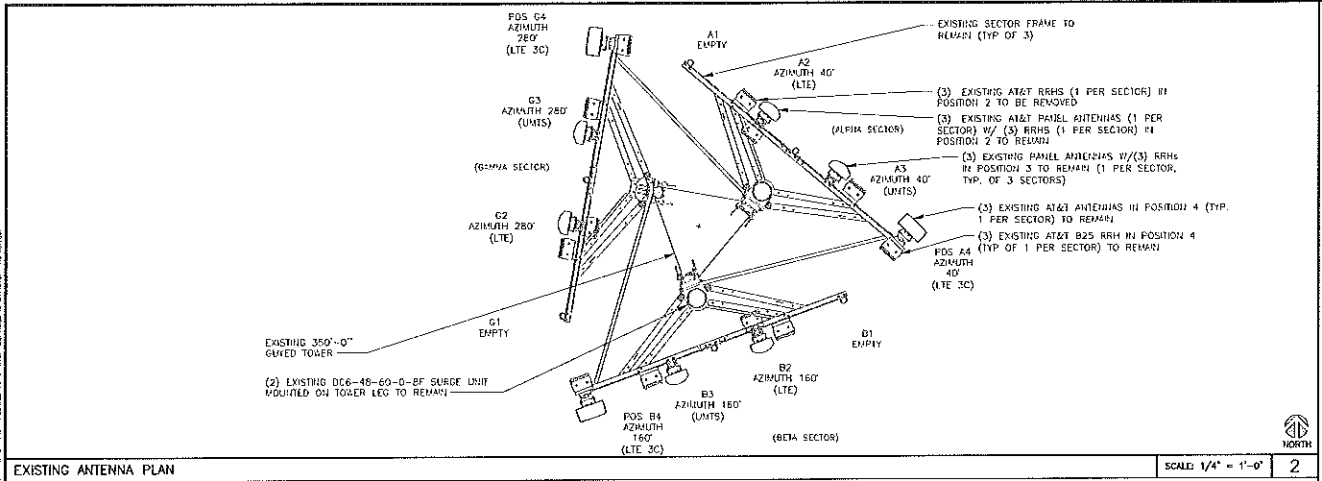


LEONARDO A. STEFFEN
 3570
 12/31/2018

LTE 4G
 13189467
 3301 WEST 10TH STREET
 SIOUX CITY, IA 51103

SHEET TITLE
TOWER ELEVATION

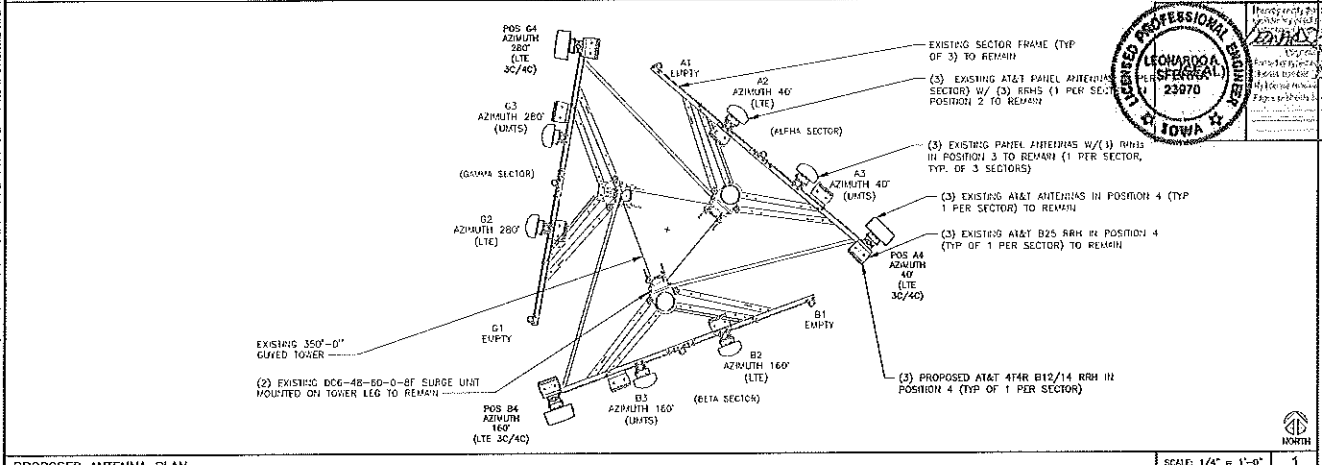
SHEET NUMBER
A3



EXISTING ANTENNA PLAN

SCALE: 1/4" = 1'-0" 2

at&t
SDC
Professional Corporation
 2018/18
 2018
 REVISIONS
 NO FOR CONSTRUCTION UNLESS Labeled AS CONSTRUCTION SET



PROPOSED ANTENNA PLAN

SCALE: 1/4" = 1'-0" 1



LEONARDO A. SFERZARI
 PROFESSIONAL ENGINEER
 LICENSE NO. 23970
 STATE OF IOWA
 2018
 SHEET TITLE
ANTENNA PLAN
 SHEET NUMBER
A4

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PROPOSED ANTENNA CONFIGURATION AND CABLE SCHEDULE

SUPPLIED BY AT&T WIRELESS, FROM SCOPING DOCUMENT DATED 01/22/2018

SECTOR	POS	TECH	ANTENNA	ANTENNA Ø HEIGHT	AZIMUTH	TMA/RRU MODEL #	DC SURGE AND DISTRIBUTION	CABLE TYPE	CABLE LENGTH (+20%)	DOWNTILTS
A	1	EMPTY		141' AGL					± 175'	0
	2	1C/2C	KMW ET-X-UW-70-16-70- 18-IR- (X)		40°	(1) RRH4X25-WCS-4R (X)	(2) DC / (1) FIBER (X)			
	3	UMTS	KMW ET-X-UW-70-16-70- 18-IR- (X)		40°	(1) RRH2X60-850 (X)	(1) DC/SHARED FIBER (X)			
	4	3C/4C	KMW EPBQ-654-L8H8-L2 (X)		40°	(1) B25 RRH4X30-4R (X), (1) 4T4R B12/14 (N)	(1) DC/SHARED FIBER (X)			
B	1	EMPTY		141' AGL			(1)DC6-48-6D-- 18-BF (X) (1)DC6-48-0--8F(X)			0
	2	1C/2C	KMW ET-X-UW-70-16-70- 18-IR- (X)		160°	(1) RRH4X25-WCS-4R (X)	SHARED W/ A2			
	3	UMTS	KMW ET-X-UW-70-16-70- 18-IR- (X)		160°	(1) RRH2X60-850 (X)	SHARED W/ A3			
	4	3C/4C	KMW EPBQ-654-L8H8-L2 (X)		160°	(1) B25 RRH4X30-4R (X), (1) 4T4R B12/14 (N)	SHARED W/ A4			
C	1	EMPTY		141' AGL						0
	2	1C/2C	KMW ET-X-UW-70-16-70- 18-IR- (X)		280°	(1) RRH4X25-WCS-4R (X)	SHARED W/ A2			
	3	UMTS	KMW ET-X-UW-70-16-70- 18-IR- (X)		280°	(1) RRH2X60-850 (X)	SHARED W/ A3			
	4	3C/4C	KMW EPBQ-654-L8H8-L2 (X)		280°	(1) B25 RRH4X30-4R (X), (1) 4T4R B12/14 (N)	SHARED W/ A4			

* INCLUDES SAFETY FACTOR OF 20' FL (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
(R) = EXISTING/RELOCATED
(E) = ELECTRICAL
(M) = MECHANICAL



REV	DATE	DESCRIPTION	BY
1	02/12/18	ISSUED FOR REVIEW	JK
2	02/27/18	ISSUED FOR REVIEW	JK
3	03/07/18	ISSUED FOR CONSTRUCTION	JK



NOT FOR CONSTRUCTION UNLESS
Labeled AS CONSTRUCTION SET

6/7/18
Leonardo A. Rivera
Professional Engineer
2018

EPB
I HEREBY CERTIFY THAT THESE PLANS
WERE PREPARED BY ME OR UNDER MY
SUPERVISION AND THAT I AM A
LICENSED PROFESSIONAL ENGINEER UNDER THE
LAWS OF THE STATE OF IOWA

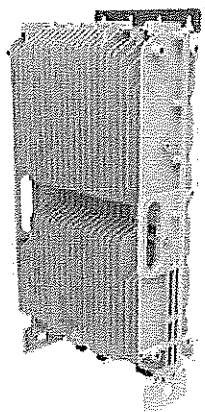
LTE 4C
13169467
LLW_IASC WEST HIGH
3301 WEST 19TH STREET
SIOUX CITY, IA 51103

SHEET TITLE
ANTENNA &
CABLE
CONFIGURATION

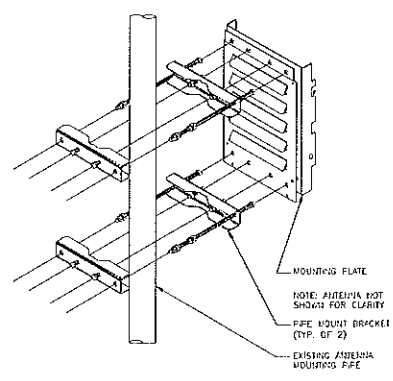
SHEET NUMBER
A5

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NON-SCALE ANTENNA
 DIMENSIONS: 20.7 x 15.4 x 2.4
 WEIGHT: 63.2 LBS
 # OF T-RX PORTS: 4
 REFERENCES:
 * SCS-12 DL 727-232-0190
 DL 652-215-0100
 DL 756-058-0100
 * EAND-14 DL 745-245-0100



LTE 4C RRH DETAIL	NOT TO SCALE	6	RRH MOUNTING DETAIL	NOT TO SCALE	4	NOT USED	NOT TO SCALE	2
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NOT USED	NOT TO SCALE	5	NOT USED	NOT TO SCALE	3	NOT USED	NOT TO SCALE	1
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REV.	DATE	DESCRIPTION	BY
1	04/17/18	ISSUED FOR PERMITS	JAS
2	05/21/18	ISSUED FOR PERMITS	JAS
3	05/21/18	ISSUED FOR CONSTRUCTION	JAS



LEONARDO A. STELLA
 LICENSE NO. 23970
 STATE OF IOWA
 6/7/18
 2018

I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED BY ME OR UNDER MY CLOSE PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED ENGINEER UNDER THE LAWS OF THE STATE OF IOWA.

LTE 4C
 13169467
 LLW, IASC WEST HIGH
 3301 WEST 19TH STREET
 SIOUX CITY, IA 51103

SHEET TITLE
ANTENNA, RRH AND MOUNTING DETAILS

SHEET NUMBER
A6

THE INFORMATION CONTAINED IN THIS SET OF CONSTRUCTION DOCUMENTS IS PROPRIETARY TO WATSON. ANY USE OR REPRODUCTION OF THIS INFORMATION WITHOUT THE WRITTEN CONSENT OF WATSON IS PROHIBITED.

- CONTRACTOR IS TO REFER TO AT&T'S MOST CURRENT RADIO FREQUENCY DATA SHEET (RFDS) PRIOR TO CONSTRUCTION.
- THE SIZE, WIDTH, AND DIRECTION OF THE MARKINGS SHALL BE ADJUSTED TO ACHIEVE THE ANGLE(S) SPECIFIED AND THAT SHEARINGS AND TO MEET THE SYSTEM REQUIREMENTS.
- CONTRACTOR SHALL VERIFY THE HEIGHT OF THE ANTENNA WITH THE AT&T WIRELESS PROJECT MANAGER.
- VERIFY TYPE AND SIZE OF TOWER LED PRIOR TO ORDERING ANY ANTENNA MOUNT.
- UNLESS NOTED OTHERWISE THE CONTRACTOR MUST PROVIDE ALL MATERIAL NECESSARY.
- 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.
- CONTRACTOR SHALL VERIFY ALL RF INFORMATION PRIOR TO CONSTRUCTION.
- SHEEP TEST SHALL BE PERFORMED BY GENERAL CONTRACTOR AND SUBMITTED TO AT&T WIRELESS CONSTRUCTION SPECIFICS. TEST SHALL BE PERFORMED PER AT&T WIRELESS STANDARDS.
- CABLE LENGTHS WERE DETERMINED BASED ON THE DESIGN DRAWING. CONTRACTOR TO VERIFY ACTUAL LENGTH DURING PRE-CONSTRUCTION WALK.
- CONTRACTOR TO USE ROSENBERGER FIBER LINE HANGER COMPONENTS (OR ENGINEER APPROVED EQUAL).

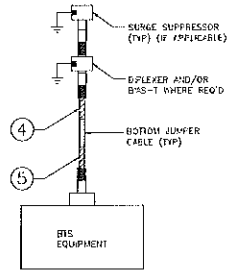
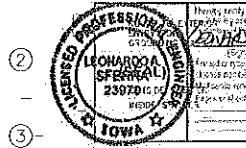
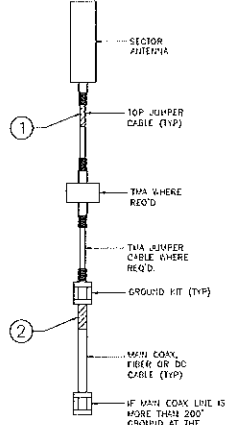
ANTENNA & CABLING NOTES NO SCALE 4

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 FROM THE TOP-JUMPER CONNECTION AND WITH (1) SET OF 3/4" WIDE COLOR BANDS JUST PRIOR TO ENTERING THE BITS OR TRANSMITTER BUILDING.
3	CABLE ENTRY POINT 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.

CABLE MARKING DIAGRAM NO SCALE 3

- THE ANTENNA SYSTEM COAX SHALL BE LABELLED 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 SECTION AND CABLE NUMBER AS SHOWN ON "CABLE COLOR CHART".
- WHEN AN EXISTING CONDUIT 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 PRESENCE OF AN EXISTING COLOR CODING AND TAPPING SCHEME, OR WHEN INSTALLING PROPOSED CONDUIT CABLES, THIS GUIDELINE SHALL BE IMPLEMENTED AT THAT SITE REGARDLESS OF TECHNOLOGY.
- ALL COLOR CODE TAPE SHALL BE 3/4"-5/8" AND SHALL BE INSTALLED USING A MINIMUM OF (3) THREE STRIPS 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 PROPOSED TECHNOLOGY, THE EXISTING COLOR CODING SCHEME SHALL REMAIN UNCHANGED.

CABLE MARKING NOTES NO SCALE 2



CABLE COLOR CODING DIAGRAM NO SCALE 1



NO	DATE	DESCRIPTION	BY
1	02/17/18	ISSUE FOR PERMIT	AS
2	02/17/18	ISSUE FOR PERMIT	AS
3	02/17/18	ISSUE FOR PERMIT	AS

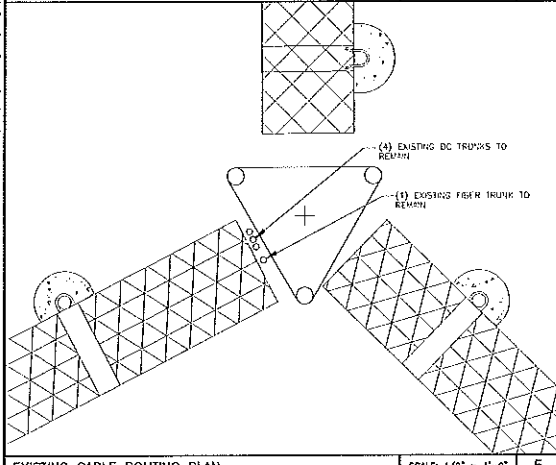
LEONARDO A. SIERRA
 PROFESSIONAL ENGINEER
 LICENSE NO. 23970
 STATE OF IOWA

LTE 4C
 13169467
 LEW. IASC WEST HIGH
 3301 WEST 19TH STREET
 SIOUX CITY, IA 51103

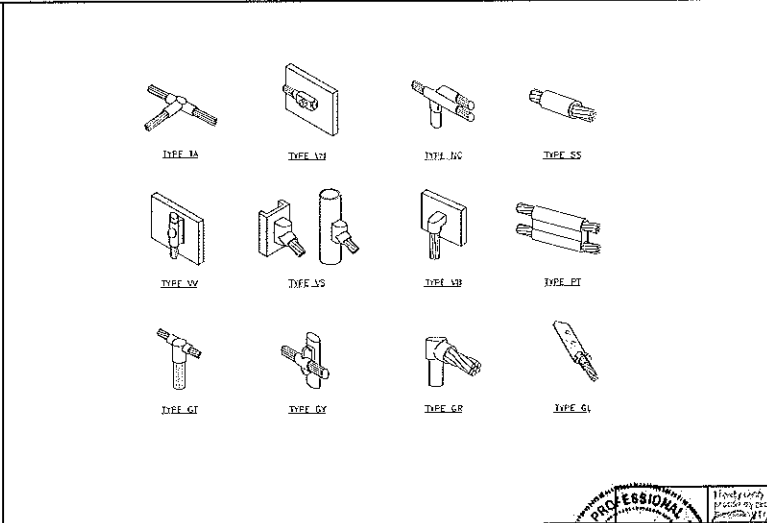
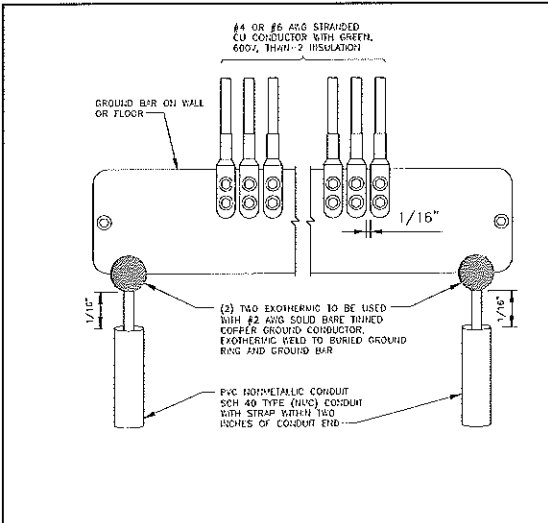
SHEET TITLE
CABLE NOTES & COLOR CODING

SHEET NUMBER
A7

NOT USED 6

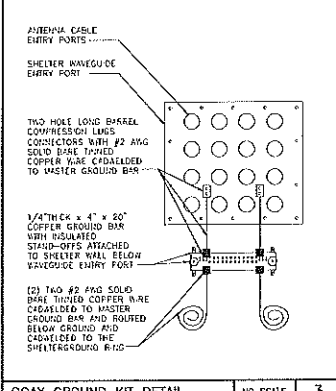


EXISTING CABLE ROUTING PLAN SCALE: 1/2" = 1'-0" 5

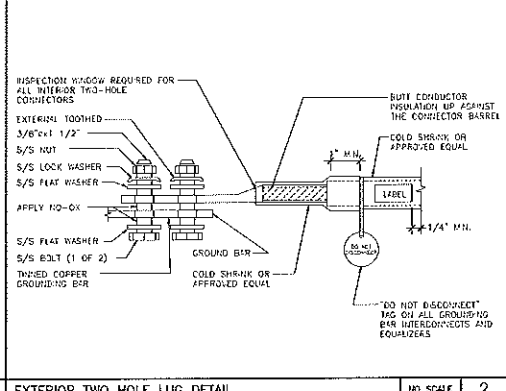


GROUND BAR DETAILS NO SCALE 5

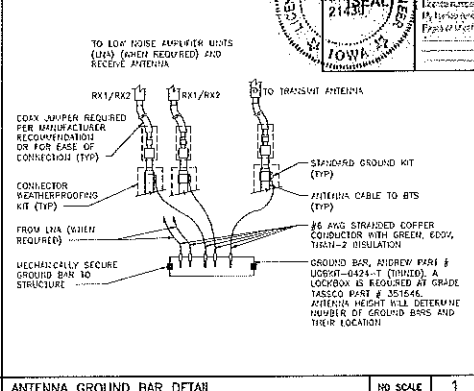
CALDWELD DETAILS



COAX GROUND KIT DETAIL NO SCALE 3



EXTERIOR TWO HOLE LUG DETAIL NO SCALE 2



ANTENNA GROUND BAR DETAIL NO SCALE 1

REVISIONS	
REV. 1	02/27/16
REV. 2	02/27/16
REV. 3	04/07/16
REV. 4	04/07/16

This engineering document was prepared by:
 Steven P. Schulz
 1430
 18
 67718

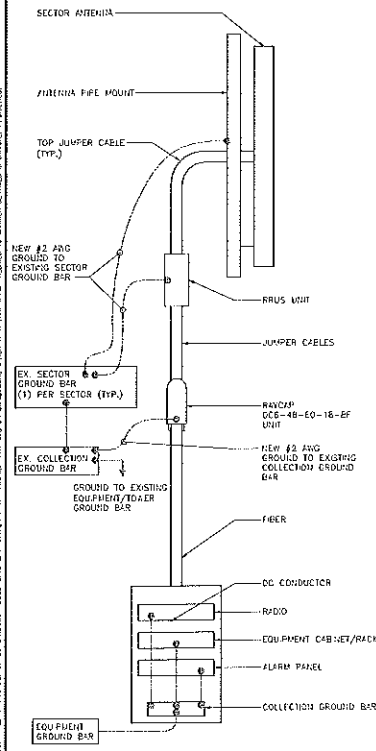
DATE: _____
 I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED BY ME OR UNDER MY CLOSE SUPERVISION AND THAT I AM A duly licensed ENGINEER UNDER THE laws of the STATE OF IOWA.

LTE 4C
 13169467
 LLW JASC WEST HIGH
 3301 WEST 19TH STREET
 SIOUX CITY, IA 51103

SHEET TITLE
**GROUNDING
 DETAILS**

SHEET NUMBER
E1

NOTE: GROUND LEAD INSIDE RUBBER GROMMET TO BE ATTACHED WITH X-CROSS ZIP TIES TO BRACKET, DO NOT USE STRAP-IN HANGERS AROUND GROUNDS.



- NOTES:**
- COORDINATE WITH CONSTRUCTION MANAGER FOR THE PROVISION OF DC CIRCUIT BREAKERS AND OTHER PROVISIONS TO SUPPORT THE NEW EQUIPMENT.
 - PROPERLY BOND ALL EQUIPMENT AND CONDUCTIVE SURFACES TO EXISTING GROUND PER NEC AND AT&T STANDARDS.
- LOADING NOTE:**
NO NEW LOADS ARE BEING ADDED TO THE EXISTING AC ELECTRICAL SERVICE PANEL OR FEEDER.

ELECTRICAL NOTES NO SCALE 3

GROUNDING RISER DIAGRAM NO SCALE 4

DETAIL NOT USED NO SCALE 2

DETAIL NOT USED NO SCALE 1



NO.	DATE	REVISION	BY
1	06/21/18	ISSUED FOR PERMIT	JL
2	06/27/18	ISSUED FOR PERMIT	JL
3	06/27/18	ISSUED FOR PERMIT	JL

FOR CONSTRUCTION USES
Labeled as CONSTRUCTION SET



Steven P. Schmitt
Professional Engineer
No. 21430
Iowa

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LTE 4C
13169467
L.W. JASC WEST HIGH
3301 WEST 10TH STREET
SIoux CITY, IA 51103

SHEET TITLE
**GROUNDING
DETAILS &
NOTES**

SHEET NUMBER
E2