ORDINANCE NO. 3258

AN ORDINANCE APPROVING A CONDITIONAL USE PERMIT ALLOWING A CELLULAR COMMUNICATIONS TOWER AT A LOCATION GENERALLY DESCRIBED AS 1100 NW 8TH STREET IN THE CITY OF ABILENE, KANSAS

WHEREAS, the Planning Commission reviewed a request by Great Plains Rentals, Inc. to allow the placement of a cellular communication tower by Nex-Tech Wireless, LLC at property generally located at 1100 NW 8th Street in Abilene, Kansas;

WHEREAS, Nex-Tech Wireless, LLC has entered into an agreement with Great Plains Rentals, Inc. to lease said property for the construction and maintenance of a cellular communications tower; and

WHEREAS, the Planning Commission conducted a Public Hearing per Section 24-4 of the Zoning and Subdivision Regulations on October 14, 2014, and following public comment recommended approval of the Conditional Use Permit allowing a cellular communications tower on the above referenced property.

NOW, THEREFORE BE IT ORDAINED, by the City Commission of the City of Abilene, as follows:

SECTION 1. Conditional Use Permit. That a Conditional Use Permit is hereby issued to Great Plains Rentals, Inc. for the placement of a cellular communications tower by Nex-Tech Wireless, LLC as generally provided in the Conditional Use Permit application as provided in **Exhibit A**, attached hereto.

SECTION 2. Permit Conditions; Approval. Per Section 20-103 of the Zoning and Subdivision Regulations, the Planning Commission may impose, and the City Commission may approve, reasonable conditions on the approval of a Conditional Use Permit. Such conditions are approved for this Permit as follows: the applicant will place a red utility beacon at the top of the tower.

SECTION 3. Implementation. The City Manager, or designee, is hereby authorized to issue a Conditional Use Permit once all conditions have been reasonably met.

SECTION 4. Effective Date. This Ordinance shall become effective and in full force from and after its passage, adoption and publication in the official City newspaper.

[REMAINDER OF PAGE LEFT BLANK]

PASSED AND APPROVED by the Governing Body of the City of Abilene, Kansas this 10th day of November, 2014.

CITY OF ABILENE, KANSAS

By: _____
Brenda Finn Bowers, Mayor

ATTEST:

_____
Penny Soukup, CMC
City Clerk

EXHIBIT A

Conditional Use Permit Application

Great Plains Rentals, Inc.

1100 NW 8th Street

Abilene, KS

November 10, 2014

CITY OF ABILENE, KANSAS

DEVELOPMENT APPROVAL APPLICATION FORM

419 N. Broadway · Abilene, Kansas 67410 · Tel: (785) 263-2550 · Fax: (785) 263-2552 · www.abilenecityhall.com

***INSTRUCTIONS:** This Application and all required fees and information must be submitted in accordance with the Code of the City of Abilene and the City of Abilene Zoning and Subdivision Regulations. All information requested in this application must be provided and answered completely.*

PART I: TO BE COMPLETED BY APPLICANT

APPLICATION INFORMATION

APPLICATION FOR (CHECK APPROPRIATE BOX):

- ☐ ADMINISTRATIVE APPEAL
- ☐ ANNEXATION
- ☐ CERTIFICATE OF APPROPRIATENESS
- ☐ COMPREHENSIVE PLAN AMENDMENT
- ☒ CONDITIONAL USE PERMIT
- ☐ DEVELOPMENT CODE AMENDMENT
- ☐ FINAL PLAT
- ☐ HOME OCCUPATION PERMIT
- ☐ LANDMARK DESIGNATION
- ☐ LOT SPLIT
- ☐ LOT SPLIT
- ☐ NON-CONFORMING USE CERTIFICATE
- ☐ PRELIMINARY PLAT
- ☐ PLANNED DEVELOPMENT
- ☐ REPLAT
- ☐ REZONING / ZONING MAP AMENDMENT
- ☐ SITE PLAN
- ☐ VACATION (PLAT, STREET, EASEMENT)
- ☐ VARIANCE

FOR OFFICIAL USE ONLY

Appn Number: 14-4

Date Received: 8/29/14

Received By: [illegible]

BRIEF DESCRIPTION OF APPLICATION PURPOSE:

The placement of a 137 feet wireless communication tower and 250 sq. ft. of space at the base of the tower.

APPLICANT INFORMATION

APPLICANT/AGENT (If Not Property Owner):

Name: Richard Gaito Tel: (785) 621-3629

Business Name: Nex-Tech Wireless, LLC Fax: (785) 621-2599

Address: 3001 New Way

City: Hays State: KS Zip Code: 67601

E-mail: rgaito@ntwls.com

PROPERTY INFORMATION

PROPERTY ADDRESS OR GENERAL LOCATION (IN RELATION TO NEAREST STREETS):

NW 8th and N Washington St.

PROPERTY TAX IDENTIFICATION NUMBER: 021114170100200302 0

ZONING: Existing: Industrial Proposed: Industrial

LAND USE: Existing: Industrial Proposed: Industrial

GROSS SIZE OF PLAT/LOT:

Residential: ____ Commercial: ____ Industrial: ____ Other: 250 Sq. ft Total: 250 Sq. ft

NUMBER OF LOTS:

Residential: ____ Commercial: ____ Industrial: ____ Other: 1 Total: 1

IMPROVEMENT CHARACTERISTICS:

Number of Buildings or Structures: 1 Total Building Area: 96 sq. ft

Maximum Height of Buildings or Structures: 8 ft Total Impervious Area: ____

EXISTING PUBLIC FACILITIES:	Public	Private	Other (Describe)
Water Service:	☑	☐	☐
Wastewater Service:	☑	☐	☐
Roadway Access:	☑	☑	☐

FLOODPLAIN INFORMATION:

Floodway: ☐Yes ☑ No FIRM Map-Panel Number: ____

Floodway Fringe: ☐Yes ☑ No Zone: ____

ARE ANY OTHER PERMITS OR DEVELOPMENT APPROVALS REQUIRED, APPLIED FOR OR RECEIVED FOR THE APPLICATION PROPERTY BY THE CITY OR ANY OTHER JURISDICTION OR AGENCY?

☐Yes ☑ No If Yes, Describe Briefly and Attach a Copy of Each Permit, Approval or Application

APPLICANT/PROPERTY OWNER CERTIFICATION*

I/we acknowledge receipt of the instruction sheet explaining the method of submitting this application. I/we realize that this application cannot be processed unless it is completely filled in; is accompanied by a current abstractor's certificate as required in the instruction sheet; and is accompanied by the appropriate fee. I/we further certify that the foregoing information is true and correct to the best of our knowledge. I/we acknowledge that the City of Abilene Planning Commission, Board of Zoning Appeals or City Commission shall have authority to impose such conditions as it deems necessary in order to serve the public interest and welfare.

Richard Hurst — 8/29/14

Applicant Signature — Date

R E Apley Jr — 8-28-14

Property Owner Signature — Date

** This Application must bear the signature(s) of the property owner(s). If an authorized agent signs on the owner's behalf, the agent shall sign his own name and attach the owner's written notarized authorization to this Application.*

PART II - TO BE COMPLETED BY STAFF

DOCUMENTS TO BE SUBMITTED WITH APPLICATION**

☐ Copy of Deed	☐ Easements and Covenants	☒ Location Map
☐ Site Plan	☐ Preliminary Plat	☐ Final Plat
☐ Infrastructure Plans	☐ Development Agreement	☐ Grading and Stormwater Plans
☐ Elevation Survey	☐ Traffic Impact Study	☐ Construction Plans
☐ Performance Agreement	☐ Proof of Notification	☐ Utility Plans
☐ Text Amendment Language	☐ Property Owner List	☐ Comprehensive Plan Amendment Justification
☐ Annexation Boundary Map	☒ Operating Characteristics Report	☐ Administrative Appeal Justification
☐ Variance Justification	☐ Other _____	

Additional document requirements provided to applicant on _____. The applicant is advised that the application is not accepted for public review until such time as the above identified documents are submitted and a Determination of Complete Application is certified.

Tim Hamilton — Name
8/29/14 — Title

[signature] — Signature
8/29/14 — Date

*** Number of copies for submission determined by Zoning Administrator. The Zoning Administrator may request additional information as deemed necessary to properly evaluate the permit application.*

APPLICATION REVIEW

DECISION-MAKING BODY: ☐ Staff ☒ Planning Commission ☐ Board of Zoning Appeals ☒ City Commission ☐ Heritage Commission ☐ Other (specify): _____

DATE OF INITIAL HEARING(S): PC OCT 14 CC Oct 27

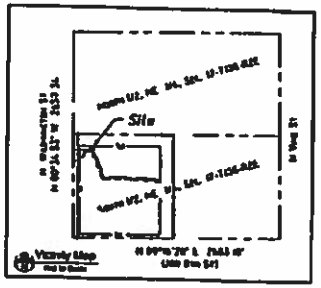
FEE AMOUNT: $100.00 **DATE FEE PAID:** 8/29/14

DETERMINATION OF COMPLETE APPLICATION:
I certify that the Development Approval Application and attached documents are sufficient in form and content for review and recommendation by the decision-making bodies of the City of Abilene. As such, all required notifications and hearings may proceed pursuant to City regulations and procedures. This certification does not preclude the review, recommendation and/or decision-making bodies from requesting additional information as deemed necessary to serve the public interest.

Tim Hamilton — Name
Planner — Title

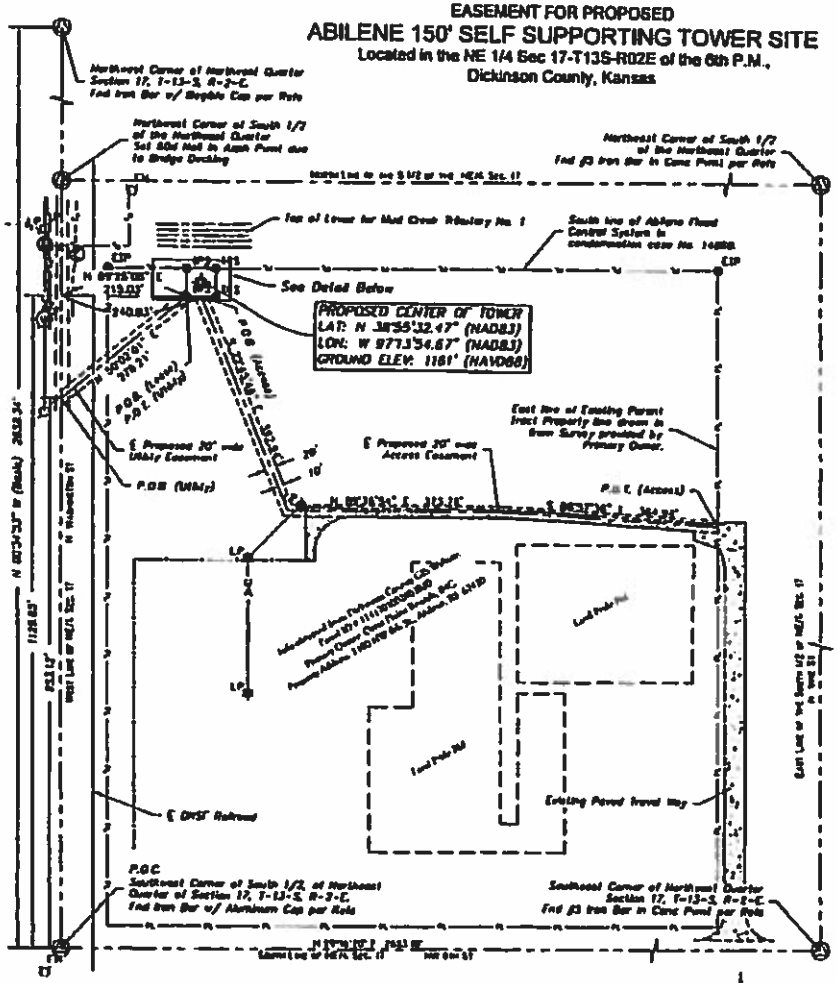
[signature] — Signature
8/29/14 — Date

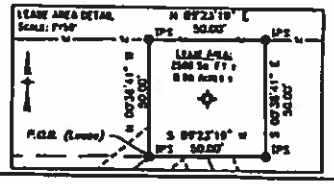
EASEMENT FOR PROPOSED
ABILENE 150' SELF SUPPORTING TOWER SITE
Located in the NE 1/4 Sec 17-T13S-R02E of the 6th P.M.,
Dickinson County, Kansas



SURVEY NOTES:

1. Proposed Tower Coordinates meet 1A Tower Certificates.
2. Tract location was provided by Nex-Tech Wireless.
3. Field Work for survey was performed on May 28th, 2014.
4. According to the FIRM # 20041C0070C dated Dec. 16, 1988, the above site is located in Shaded Zone X (Areas of 500-year flood; areas of 100-year flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 100-year flood).
5. Basis of Bearings: The West line of the Northeast Quarter (NE/4) of Section 17 as being N 00°34'53" W





State of Kansas)
) SS
June 6, 2014
County of Dickinson)

We, Merestone Surveying LLC, Surveyors in aforesaid county and state do hereby certify that this 6th day of June, survey of the following:

Proposed Lease Area Description
A Lease area situated on a tract of land located in the South Half (S 1/2) of the Northeast Quarter (NE 1/4) of Section Seventeen (17), Township Thirteen (13) South, Range Two (2) East of the Sixth Principal Meridian, Dickinson County, Kansas, more particularly described as follows, to wit:

COMMENCING (P.O.C.) at the Southwest corner of said South Half (S 1/2);
Thence N 00°34'53" W along the West line of said South Half (S 1/2) a distance of 1129.65 feet
Thence N 89°25'08" E a distance of 215.03 feet to the POINT OF BEGINNING (P.O.B. Lease);
Thence N 00°36'41" W a distance of 50.00 feet; Thence N 89°23'19" E a distance of 50.00 feet;
Thence S 00°36'41" E a distance of 50.00 feet; Thence S 89°23'19" W a distance of 50.00 feet to the POINT OF BEGINNING (P.O.B. Lease). Said tract contains 2500 square feet or 0.06 acres more or less and is subject to any easements and/or right(s) of way of record.

TOGETHER WITH:

Access Easement:
A 20 foot wide Access Easement lying 10 feet on each side of the following described centerline, said side easement lines shall be prolonged and/or shortened to intersect their intended lease area, section line, and/or right-of-way lines .

COMMENCING (P.O.C.) at the Southwest corner of said South Half (S 1/2);
Thence N 00°34'53" W along the West line of said South Half (S 1/2) a distance of 1129.65 feet;
Thence N 89°25'08" E a distance of 248.03 feet to the Point of Beginning (P.O.B. Access);
Thence S 22°43'49" E a distance of 397.94 feet; Thence N 89°36'54" E a distance of 373.76 feet;
Thence S 86°37'36" E a distance of 364.94 feet to the Point of Termination (P.O.T. Access);

TOGETHER WITH:

Utility Easement:
A 20 foot wide Utility Easement lying 10 feet on each side of the following described centerline, said side easement lines shall be prolonged and/or shortened to intersect their intended lease area, section line, and/or right-of-way lines .

COMMENCING (P.O.C.) at the Southwest corner of said South Half (S 1/2).
Thence N 00°34'53" W along the West line of said South Half (S 1/2) a distance of 953.12 feet to the Point of Beginning (P.O.B. Utility).
Thence N 58°02'01" E to the Southwest corner of above Lease Area a distance of 278.21 feet, said point being the Point of Termination (P.O.T. Utility).

The accompanying sketch is a true and correct exhibit of said survey based on actual field measurements where the monuments are of the character and occupy the positions as indicated.

TODD P. HORNBAKER
LICENSED
LS-1532
6/16/2014
KANSAS
LAND SURVEYOR

Todd P. Hornbaker
LS #1532, State of Kansas

This document should contain an orig and stamped seal and a surveyor's signature in blue ink. If it does not, it is a copy and should be assumed to contain unauthorized alterations. The certification on this document shall not apply to any copies.

LEGEND
- Lease Line
- Parent Tract Legal Description
- Overhead Electric
- Section Line
- Gas Line
- Edge of Concrete
- Edge of Asphalt
- Existing Fence
- Existing Underground Telco
- Existing Underground Gas Line
- Underground Waterline
- Railroad Track Centerline
- Proposed Center of Tower #4 Rebar Set
- Gas Meter
- Utility Pole
- Light Pole
- Section Corner Found
- 1/1"x24" Iron Rod Set w/ Merestone Cap
- Exist Iron Bar
- Exist Iron Bar w/ Cap
- Cow Pad
- Guy Wire
- Fire Hydrant

MERESTONE SURVEYING LLC
1141 N. Andrew Rd.
Abilene, KS 67410
Ph 316.435.9770
Fx 316.435.9775
www.merestonells.com
Merestone Surveying

Date	June 2, 2014	Drawn by:	MM
Scale	As Noted	Approved by:	TPH
Sheet	1 of 1	Job	14-05-702

Rev. #	By:	Date:	Description
-			
-			
-			

Abilene Self-Supporting Tower
Nex-Tech Wireless
Part of the NE/4, Sec 17-T13S-R2E
Dickinson, Co., KS

SITE NAME:

ABILENE WEST

PART OF THE NE/4, SEC 17-T13S-R2E
ABILENE, KS 67410

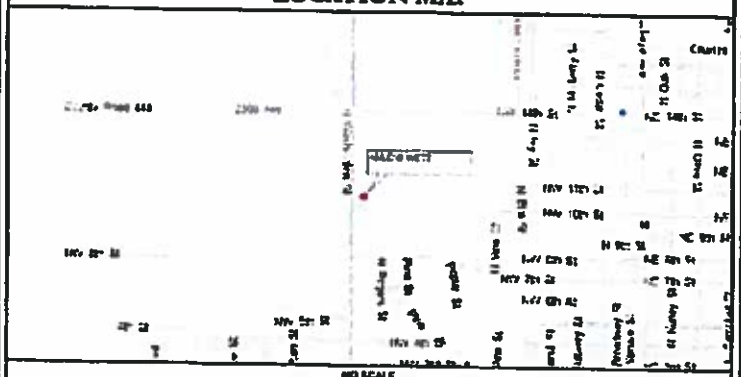
EXISTING 137'-0" SELF-SUPPORT

NEW BUILD PROJECT

PROJECT SUMMARY

SITE NAME:	ABILENE WEST
SITE NUMBER:	[illegible]
FAA NUMBER:	2014-ACE-2323-OE
SITE ADDRESS:	PART OF THE NE/4, SEC 17-T13S-R2E ABILENE, KS 67410
JURISDICTION:	DICKINSON COUNTY
TOWER OWNER:	NEX-TECH WIRELESS 3101 NEW WAY HAYS, KS 67601 RICHARD GANTO (785) 621-3620
NAD83	
LATITUDE, LONGITUDE:	38° 55' 33.8304" N 97° 13' 54.3800" W
LANDLORD:	GREAT PLAINS RENTAL
CUSTOMER/APPLICANT:	NEX-TECH WIRELESS 3101 NEW WAY HAYS, KS 67601 RICHARD GANTO (785) 621-3620
OCCUPANCY TYPE:	UNMANNED
A.D.A. COMPLIANCE:	FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION

LOCATION MAP



NO SCALE

DRAWING INDEX

SHEET #	SHEET DESCRIPTION	REV #
T-1	TITLE SHEET	0
GN-1	GROUNDING AND ELECTRICAL NOTES	0
-	SURVEY	6/16/14
C-1	SITE PLAN	0
C-2	TOWER ELEVATIONS AND ANTENNA ORIENTATION	0
C-3	SAFECLIMB BRIDGE DETAILS	0
C-4	COMPOUND DETAILS	0
C-5	COMPOUND DETAILS	0
S-1	SHELTER FOUNDATION PLAN & DETAILS	0
S-2	GENERATOR & PROPANE FOUNDATION PLANS	0
E-1	UTILITY ROUTING PLAN	0
E-2	ONE LINE DIAGRAM, SCHEDULE & DETAILS	0
E-3	H-FRAME DETAILS	0
G-1	COMPOUND GROUNDING PLAN & NOTES	0
G-2	GROUNDING DETAILS	0
G-3	GROUNDING DETAILS	0
G-4	GROUNDING DETAILS	0

CONTACT INFORMATION

A&E FIRM: B+T GROUP 1717 S. BOULDER, STE. 300 TULSA, OK 74119	CONSTRUCTION MANAGER: BRAD WILLIAMS NEX-TECH WIRELESS (785) 431-7888
CONTACT: KENT MEYERS PHONE: (918) 587-4630	SURVEYOR: SURVEYOR PHONE:
SITE OWN.: NEX-TECH WIRELESS 3101 NEW WAY HAYS, KS 67601	ELECTRIC PROVIDER: MIDWEST ENERGY PHONE: (800) 401-5664
CONTACT: RICHARD GANTO PHONE: (785) 621-3620	TELCO PROVIDER: TRI-COUNTY TELEPHONE PHONE: (800) 362-2376

DRIVING DIRECTIONS

DEPART SALINA MUNICIPAL AIRPORT ON BAILEY RD. TURN LEFT ONTO CENTENNIAL RD, TURN RIGHT ONTO W SCHILLING RD. TAKE RAMP (LEFT) ONTO I-135 [US-81]. AT EXIT 93A, TAKE RAMP (RIGHT) ONTO I-70 [US-40] AT EXIT 272, TURN RIGHT ONTO RAMP. TURN RIGHT ONTO KS-15 [N BUCKEYE AVE] TURN RIGHT ONTO NW 14TH ST [OLD HIGHWAY 40]. KEEP STRAIGHT ONTO 14TH ST [OLD 40]. ROAD NAME CHANGES TO 2300 AVE [OLD HIGHWAY 40]. TURN LEFT ONTO N WASHINGTON ST. TURN LEFT ONTO ACCESS ROAD(S). ARRIVE ABILENE WEST.

A/E DOCUMENT REVIEW STATUS

TITLE	SIGNATURE	DATE
NEX-TECH R.E. MGR.:		
NEX-TECH R.F. MGR.:		
NEX-TECH NetOps:		
NEX-TECH CONST. MGR.:		
INTERCONNECT:		
NEX-TECH SITE DEV. MGR.:		
PROPERTY OWNER:		
PLANNING:		

THE FOLLOWING PARTIES HEREBY APPROVE AND ACCEPT THESE DRAWINGS AND AUTHORIZE THE CONTRACTOR TO PROCEED WITH THE CONSTRUCTION DESCRIBED HEREIN. ALL DRAWINGS ARE SUBJECT TO REVIEW BY THE LOCAL BUILDING DEPARTMENT AND MAY REQUIRE CHANGES OR MODIFICATIONS.

CODE COMPLIANCE

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

CODE TITLE	CODE
BUILDING/DWELLING	IBC 2012
STRUCTURAL	IBC 2012
MECHANICAL	IMC 2012
ELECTRICAL	NEC 2011

PROJECT DESCRIPTION

THE PROPOSED PROJECT INCLUDES:

- INSTALL NEW EQUIPMENT SHELTER.
- INSTALL NEW GENERATOR.
- INSTALL NEW PROPANE TANK
- INSTALL NEW POWER & TELCO UTILITIES.
- INSTALL NEW GROUNDING SYSTEM.
- INSTALL (12) NEW ANTENNA.
- INSTALL (8) NEW RRUS.
- INSTALL (8) 1 5/8" & (3) 7/8" COAX CABLES
- INSTALL (1) DC SURGE PROTECTION W/ (1) HYBRID LINE.

DO NOT SCALE DRAWINGS

ALL DRAWINGS CONTAINED HEREIN ARE FORMATTED FOR 11X17. CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

SEE SHEET GN-1 FOR ADDITIONAL CONSTRUCTION NOTES

CALL KANSAS ONE CALL
(800) DIG-SAFE
CALL 3 WORKING DAYS
BEFORE YOU DIG!

B+T GRP

NEXTECH wireless

ABILENE WEST

PART OF THE NE/4, SEC 17-T13S-R2E
ABILENE, KS 67410

EXISTING SELF-SUPPORT

PROJECT NO: [illegible]

CHECKED BY: [illegible]

ISSUED FOR:

REV	DATE	BY	DESCRIPTION
A	6/16/14	[illegible]	PRELIMINARY DRAFTS
0	8/27/14	[illegible]	CONSTRUCTION

B&T ENGINEERING, INC.
C-1403
Expires 12/31/14

CHAD ERIC TUTTLE
LICENSED
16376
8/27/14
KANSAS
PROFESSIONAL ENGINEER

SHEET NUMBER: T-1

REVISION: 0

GENERAL NOTES

1. THE FACILITY IS AN UNOCCUPIED WIRELESS FACILITY.
2. PLANS ARE NOT TO BE SCALED AND ARE INTENDED TO BE A DIAGRAMMATIC OUTLINE ONLY, UNLESS NOTED OTHERWISE. THE WORK SHALL INCLUDE PROVIDING MATERIALS, EQUIPMENT, APPURTENANCES AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
3. CONTRACTOR SHALL APPLY FOR ALL UTILITY SERVICES (POWER AND TELEPHONE) NOT LATER THAN THE NEXT BUSINESS DAY FOLLOWING AWARD OF CONTRACT. COORDINATE WITH ELECTRIC UTILITY COMPANY FOR EXACT TRANSFORMER LOCATION, METERING REQUIREMENTS, AND SERVICE ROUTING. COORDINATE WITH TELEPHONE COMPANY FOR EXACT TELEPHONE REQUIREMENTS AND ROUTING OF SERVICE.
4. PRIOR TO THE SUBMISSION OF BIDS, THE CONTRACTORS WILL VISIT THE JOB SITE AND BE RESPONSIBLE FOR ALL CONTRACT DOCUMENTS, FIELD CONDITIONS, AND 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 IMPLEMENTATION ENGINEER AND ARCHITECT/ENGINEER PRIOR TO PROCEEDING WITH THE WORK.
5. WRITTEN AUTHORIZATION IS REQUIRED BEFORE STARTING WORK ON ANY ITEM NOT CLEARLY DEFINED OR IDENTIFIED BY THE CONTRACT DOCUMENTS.
6. CONTRACTOR SHALL NOT COMMENCE EXCAVATION OR DIGGING UNTIL AFTER CONTRACTOR HAS HAD UTILITY LOCATING SERVICES LOCATE AND IDENTIFY ALL EXISTING UNDERGROUND UTILITIES AND OTHER SYSTEMS SHALL BE REPAIRED BY CONTRACTOR AT CONTRACTOR'S EXPENSE.
7. INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY INDICATED OTHERWISE OR WHERE LOCAL CODES OR REGULATIONS TAKE PRECEDENCE.
8. ALL WORK PERFORMED AND MATERIALS INSTALLED SHALL BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES. THE CONTRACTOR SHALL GIVE ALL NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS, AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. ELECTRICAL SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE NATIONAL AND UTILITY COMPANY SPECIFICATIONS, LOCAL, STATE, AND JURISDICTIONAL CODES, ORDINANCES, AND APPLICABLE REGULATIONS.
9. THE GENERAL CONTRACTOR WILL SUPERVISE AND DIRECT THE WORK USING THE BEST SKILLS AND ATTENTION. THE CONTRACTOR WILL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT INCLUDING CONTACT AND COORDINATION WITH THE OWNER AND WITH THE LANDLORD'S AUTHORIZED REPRESENTATIVE.
10. DETAILS ARE INTENDED TO SHOW END RESULT OF DESIGN. MINOR MODIFICATIONS MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR CONDITIONS. SUCH MODIFICATIONS WILL BE INCLUDED AS PART OF THE WORK.
11. REPRESENTATIONS OF TRUE NORTH, OTHER THAN THOSE FOUND ON THE PLAT OF THE SURVEY DRAWING WILL NOT BE USED TO IDENTIFY OR ESTABLISH THE BEARING OF TRUE NORTH AT THE SITE. THE CONTRACTOR WILL RELY SOLELY ON THE PLAT OF SURVEY DRAWING AND ANY SURVEYOR'S MARKINGS AT THE SITE FOR THE ESTABLISHMENT OF TRUE NORTH, AND WILL NOTIFY THE ARCHITECT/ENGINEER PRIOR TO PROCEEDING WITH THE WORK IF ANY DISCREPANCY IS FOUND BETWEEN THE VARIOUS ELEMENTS OF THE WORKING DRAWINGS AND THE TRUE NORTH ORIENTATION AS DEPICTED ON THE PLAT SURVEY. THE CONTRACTOR WILL ASSUME SOLE LIABILITY FOR ANY FAILURE TO NOTIFY THE ARCHITECT/ENGINEER.
12. COORDINATE WORK WITH LOCAL UTILITY COMPANY AND CONSTRUCT TO UTILITY COMPANY ENGINEERING PLANS AND SPECIFICATIONS. PROVIDE TRENCHING AND BACKFILL. PAY ALL UTILITY FEES UNLESS NOTED OTHERWISE. THE WORK WILL INCLUDE PROVIDING MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
13. ALL EXISTING UTILITIES, FACILITIES, CONDITIONS, AND THEIR DIMENSIONS SHOWN ON PLANS HAVE BEEN PLOTTED FROM AVAILABLE RECORDS. THE ARCHITECT/ENGINEER AND OWNER ASSUME NO RESPONSIBILITY AS TO SUFFICIENCY OR ACCURACY OF THE INFORMATION SHOWN ON THE PLANS OR THE MANNER OF THEIR REMOVAL OR ADJUSTMENT. CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING EXACT LOCATION OF ALL EXISTING UTILITIES AND FACILITIES PRIOR TO START OF CONSTRUCTION. CONTRACTOR SHALL ALSO OBTAIN FROM EACH UTILITY COMPANY, DETAILED INFORMATION RELATIVE TO WORKING SCHEDULES AND METHODS OF REMOVING OR ADJUSTING EXISTING UTILITIES.

GROUNDING NOTES

1. CONTRACTOR IS SOLELY RESPONSIBLE TO OBTAIN A COPY OF NEX-TECH WIRELESS LATEST REVISION OF GROUNDING REQUIREMENTS AND TO INSTALL THE SITE GROUNDING SYSTEM IN ACCORDANCE WITH THE MOST STRINGENT REQUIREMENTS OF THE REFERENCED DOCUMENT OR THE REQUIREMENTS AS SHOWN IN THESE DRAWINGS. NOTE THAT THE REFERENCED DOCUMENT ADDRESSES GROUNDING OF ITEMS THAT ARE NOT SHOWN IN THESE DRAWINGS.
2. ALL DETAILS ARE SHOWN IN GENERAL TERMS. ACTUAL GROUNDING INSTALLATION REQUIREMENTS AND CONSTRUCTION MAY VARY ACCORDING TO SITE CONDITIONS. VERIFY EXACT EQUIPMENT GROUNDING WITH EQUIPMENT MANUFACTURER AND OWNER.
3. GROUND RODS SHALL BE DRIVEN AT 8'-0" TO 10'-0" INTERVALS OF THE GROUND RING OR RADIALS UNO. GROUND RODS SHALL NOT BE PLACED CLOSER THAN 8'-0" APART PER NEC 250.53. MINIMUM SPACING BETWEEN ELECTROLYTIC GROUND RODS (EGR'S) SHALL BE 20'-0" UNO
4. INSTALL GROUND CONDUCTORS AND GROUND RODS A MINIMUM OF 1' (MINIMUM 3') FROM EQUIPMENT CONCRETE SLAB, SPREAD FOOTING OR FENCE.
5. ALL BELOW GRADE CONNECTIONS EXOTHERMIC WELD TYPE; ABOVE GRADE CONNECTIONS. EXOTHERMIC WELD TYPE (FENCE AND TOWER) OR MECHANICAL TYPE (2-HOLE LONG-BARREL LUGS WITH MECHANICAL CONNECTORS AT EQUIPMENT) ALL HARDWARE SHALL BE STAINLESS STEEL WITH LOCKWASHERS.
6. CLEAN EXOTHERMIC WELD CONNECTIONS ON GALVANIZED SURFACES THOROUGHLY AND COVER W/ (2) TWO COATS SHERWIN WILLIAMS CALMITE PAINT B55W13 (OR EQUIVALENT).
7. ALL ELECTRICAL AND MECHANICAL GROUND CONNECTIONS SHALL BE BARE BRIGHT SURFACES AND HAVE ANTI-OXIDATION COMPOUND APPLIED TO THE CONNECTIONS (THOMAS AND BETT'S KOPR-SHIELD).
8. THE MINIMUM BEND RADIUS FOR GROUND CONDUCTORS SHALL BE 8 INCHES FOR 6 AWG WIRE AND 12 INCHES FOR 2 AWG AND GREATER WIRE.
9. ITEMS TO BE BONDED TO THE GROUND RING INCLUDE BUT ARE NOT LIMITED TO CORNER FENCE POSTS AND FENCE POSTS WITHIN 6' OF GROUND RING, GROUND BUSS BARS, EQUIPMENT CABINETS OR SHELTERS, EQUIPMENT RACKS, CABLE SUPPORT STRUCTURES, TOWER, GENERATOR ANY OTHER METALLIC OBJECTS WITHIN 6' OF GROUND RING.
10. GROUNDING INSTALLATIONS AND CONNECTIONS SHALL BE MADE BY ELECTRICAL CONTRACTOR. CONTRACTOR SHALL ENSURE THAT ALL EXOTHERMIC WELD CONNECTIONS SHOOT PROPERLY WITH NO VOIDS OR DETERIORATION TO MATERIALS, LEADS, AND OTHER COMPONENTS. ENSURE THAT EACH LEAD IS OF SUFFICIENT LENGTH TO REACH ITS DESIGNATED TERMINATIONS POINT OR 24" INTO SHELTER OR EQUIPMENT CABINET, WHICHEVER IS LONGER.
11. OBSERVE NEC AND LOCAL UTILITY REQUIREMENTS FALL ELECTRICAL SERVICE GROUNDING.
12. GROUNDING ATTACHMENT TO TOWER SHALL BE PER MANUFACTURER'S RECOMMENDATIONS OR AT GROUNDING POINTS PROVIDED [4 MINIMUM].
13. GROUND COAXIAL RF CABLES USING GROUND KITS TO GROUND BARS AT TOP, MIDDLE, AND BOTTOM
14. ALL EXPOSED GROUND LEADS TO GROUND RING SHALL BE ENCASED IN 3/4" PVC OR FLEXIBLE TYPE CONDUIT TO 24" BELOW GRADE.
15. THE CONTRACTOR SHALL PERFORM BOTH PRE-CONSTRUCTION AND POST-CONSTRUCTION GROUND RESISTANCE WEDGER TESTS ON THE GROUNDING SYSTEM AND SHALL SUBMIT RESULTS IN WRITING TO THE CONSTRUCTION MANAGER. CONDUCT TESTS IN DRY WEATHER, NO LESS THAN 48 HOURS AFTER RAINFALL, AND IN ACCORDANCE WITH THE FALL-OF-POTENTIAL METHOD DEFINED IN IEEE 81 GUIDE FOR MEASURING EARTH RESISTIVITY
16. NOTIFY CONSTRUCTION MANAGER WHEN GROUNDING SYSTEM IS COMPLETE AND READY FOR INSPECTION PRIOR TO BACKFILLING. AFTER INSPECTION, BACKFILL ALL EXCAVATION WORK WITH SUITABLE MATERIAL AND COMPACT THOROUGHLY IN 8" LIFTS TO AVOID SINKING.

SERVICE ROUTING NOTES

1. CONTRACTOR SHALL COORDINATE WITH LOCAL UTILITY COMPANY FOR INSTALLATION EXACT METER BASE TYPE AND OF INCOMING SERVICE CONDUCTORS AND REQUIREMENTS. VERIFY EXACT LOCATION OF EQUIPMENT WITH CONSTRUCTION MANAGER PRIOR TO INSTALLATION.
2. CONDUIT LINES SHALL HAVE A CONTINUOUS SLOPE DOWNWARD AND AWAY FROM THE EQUIPMENT TO PROPERTY LINE SO THAT WATER WILL FLOW AWAY FROM THE EQUIPMENT. TRENCHES SHALL BE EXCAVATED ALONG STRAIGHT LINES BEFORE CONDUITS ARE LAID SO THAT THE ELEVATION CAN BE ADJUSTED, IF NECESSARY, TO AVOID UNSEEN OBSTRUCTIONS. MANUFACTURED BENDS SHALL HAVE MINIMUM RADIUS OF 36" FOR CONDUITS.
3. ALL CONDUITS SHALL BE SEALED WEATHER TIGHT ON INTERIOR AND EXTERIOR OF EQUIPMENT OR SHELTER TO PREVENT MOISTURE INFILTRATION. SEALANTS SHALL BE IDENTIFIED FOR USE WITH THE CABLE INSULATION, SHIELD OR OTHER COMPONENTS.
4. CELLULAR EQUIPMENT CABINETS OR SHELTERS SHALL BE FURNISHED BY RESPECTIVE CARRIER AND INSTALLED BY CONTRACTOR. CONTRACTOR SHALL OBTAIN EQUIPMENT DRAWINGS AND SPECIFICATIONS TO VERIFY EXACT INSTALLATION DETAILS AND REQUIREMENTS WHICH MAY NOT BE SPECIFICALLY ADDRESSED WITHIN THESE DRAWINGS.
5. CONTRACTOR SHALL FURNISH AND INSTALL PULL BOXES IN CONDUIT RUNS AT EACH OCCURRENCE WHERE EXCEEDING 360 DEGREES IN TOTAL BENDS OR 300' IN LENGTH AT A CONVENIENT INTERMEDIATE LOCATION. PULL BOXES SHALL BE SIZED PER NEC 314.
6. ON SPARE CONDUITS, PROVIDE 2 PULL STRINGS SECURELY FASTENED AT EACH END OF THE CONDUITS PULL STRINGS SHALL BE 200LB TEST POLYETHYLENE CORD. PROVIDE CAP ON END OF THE CONDUITS AND MARK AS SHOWN ON THE SERVICES ROUTING PLAN.
7. MAINTAIN MINIMUM BENDING RADIUS FOR CONDUIT INSTALLATIONS PER CONDUIT/FIBER MANUFACTURER RECOMMENDATIONS.
8. REFERENCE E1 FOR ONE-LINE, CONDUIT AND WIRE SIZE, AND SPECIFICATIONS.
9. PROVIDE MINIMUM OF 36 INCHES WORK CLEARANCE IN FRONT OF EQUIPMENT AND EQUIPMENT RACKS.
10. UNDERGROUND CONDUIT SHALL BE SCHEDULE 40 PVC UP TO THE VERTICAL SWEEP, AT WHICH POINT THE CONDUIT SHALL BE TRANSITIONED TO SCHEDULE 80 PVC UP TO THE EQUIPMENT CONDUITS UNDER ROAD BEDS OR OTHER HEAVY TRAFFIC AREA SHALL BE SCHEDULE 80 WITH 36" RADIUS BENDS. (HEAVY WALL).
11. SPARE CONDUITS SHALL BE CAPPED WEATHERPROOF.
12. ALL CONDUITS SHALL HAVE MEASURABLE-TYPE PULL STRINGS.
13. ALL CONDUIT RISERS SHALL BE SCHEDULE 80 PVC (FURNISHED AND INSTALLED BY CONTRACTOR) UNLESS NOTED OTHERWISE.

ELECTRICAL ABBREVIATIONS

A, AMP	AMPERES
ABT	ABOUT
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
BLDG	BUILDING
C	CONDUIT
CAT	CATALOG
CIGB	COPPER INSULATED GROUND BAR
CKT	CIRCUIT
DWG	DRAWING(S)
EGR	ELECTROLYTIC GROUND ROD
EQPT	EQUIPMENT
EXIST	EXISTING
FBO	FURNISHED BY OTHERS
FEW	FURNISHED W/ EQUIPMENT
GFI	GROUND FAULT INTERRUPTER
GND	GROUND
JB	JUNCTION BOX
LTG	LIGHTING
MCB	MAIN CIRCUIT BREAKER
MLO	MAIN LUGS ONLY
MTD	MOUNTED
N	NEUTRAL
NEC	NATIONAL ELECTRICAL CODE
NIC	NOT IN CIRCUIT
NO	NUMBER
NTS	NOT TO SCALE
PEEP	POLYPHASER EARTHED ENTRY PANEL
RECEPT	RECEPTACLE
REQD	REQUIRED
SBTC	SOLID BARE TINNED COPPER
SCH	SCHEDULE
TYP	TYPICAL
UG	UNDERGROUND
UNO	UNLESS NOTED OTHERWISE
V	VOLT(S)
WP	INDICATES WEATHERPROOF
X'FMR	TRANSFORMER

B+T GRP

NEXTECH wireless

ABILENE WEST

PART OF THE NE/4, SEC 17-T13-R2E
ABILENE, KS 67410

EXISTING SELF-SUPPORT

PROJECT NO: [illegible]
CHECKED BY: [illegible]

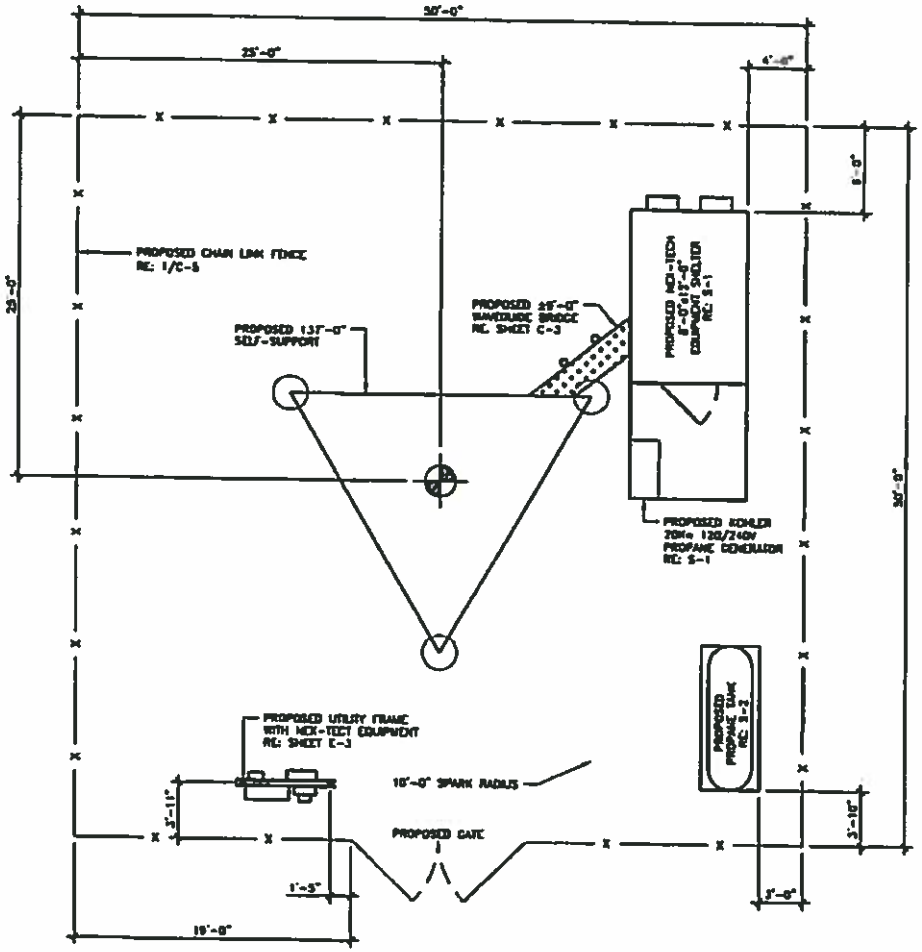
ISSUED FOR:

REV	DATE	BY	DESCRIPTION
A	4/11/14	SAM	PRELIMINARY REVIEW
0	5/12/14	SAM	CONSTRUCTION

B&T ENGINEERING, INC.
E-1403
Expires 12/31/14

CHAD EDWARD DEVILLE
LICENSED
16076
8/27/14
KANSAS
PROFESSIONAL ENGINEER

SHEET NUMBER: GN-1
REVISION: 0



1 SITE PLAN
SCALE: 0' 1' 5' 10' 20'

B+T GRP

NEXTECH wireless

ABILENE WEST

PART OF THE NE/4, SEC 17-T13S-R2E
ABILENE, KS 67410

EXISTING SELF SUPPORT

PROJECT NO: 94354.001
CHECKED BY: ELM

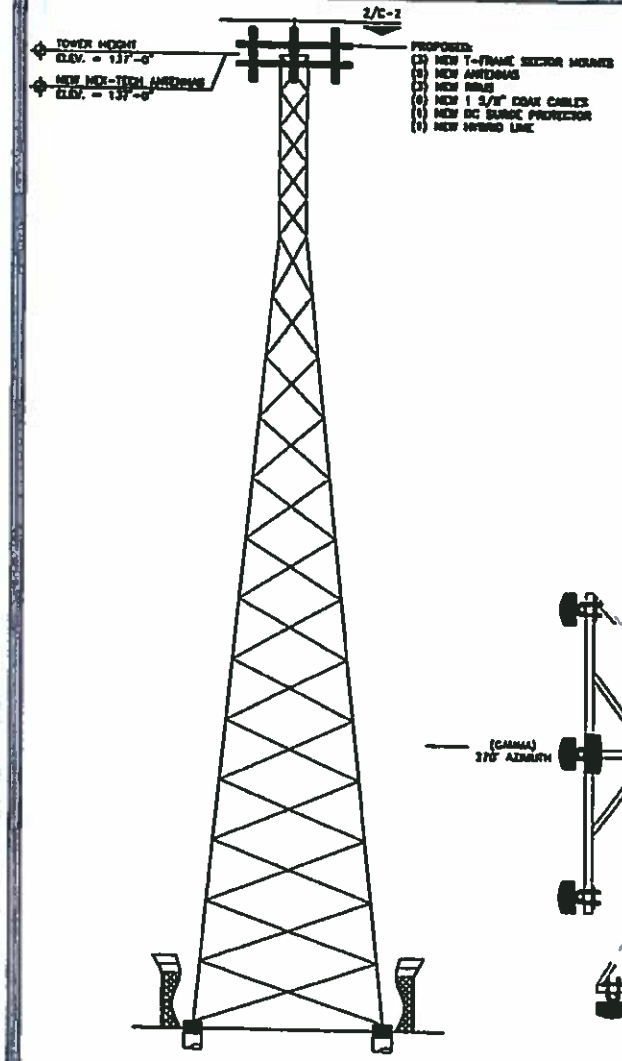
ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION
A	8/18/14	DMJ	PRELIMINARY ISSUED
0	8/27/14	DMJ	CONSTRUCTION

B&T ENGINEERING, P.C.
E-1403
Expires 12/31/14

CHAD ERIC TUTTLE
LICENSED
10278
8/27/14
KANSAS
PROFESSIONAL ENGINEER

SHEET NUMBER: C-1
REVISION: 0

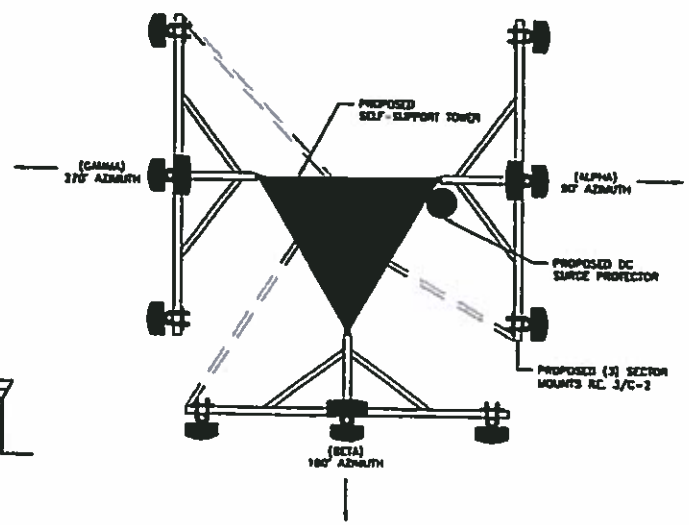


1 EXISTING TOWER ELEVATION
SCALE: N.T.S.

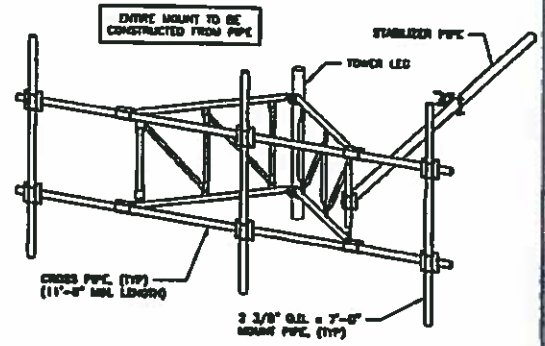
CONTRACTOR TO VERIFY FINAL RF DATA SHEET BEFORE STARTING CONSTRUCTION

PROPOSED ANTENNA, CABLE & EQUIPMENT SCHEDULE

SECTOR		RAD CENTER HEIGHT	MANUFACTURER	MODEL	RRHS	AZIMUTH	FEEDLINES	CABLE LENGTH
ALPHA	1	137'-0"	JAYBEAM	PCSA065-16-2	-	90°	1 5/8"	172'
	2	137'-0"	KATHREIN	K-840-31270-02	RRUS-11	90°	-	-
	3	137'-0"	JAYBEAM	PCSA065-16-2	-	90°	1 5/8"	172'
BETA	4	137'-0"	JAYBEAM	PCSA065-16-2	-	180°	1 5/8"	172'
	5	137'-0"	KATHREIN	K-840-31270-02	RRUS-11	180°	-	-
	6	137'-0"	JAYBEAM	PCSA065-16-2	-	180°	1 5/8"	172'
GAMMA	7	137'-0"	JAYBEAM	PCSA065-16-2	-	270°	1 5/8"	172'
	8	137'-0"	KATHREIN	K-840-31270-02	RRUS-11	270°	-	-
	9	137'-0"	JAYBEAM	PCSA065-16-2	-	270°	1 5/8"	172'
-	-	137'-0"	RAYCAP	PD SERIES	-	-	7/8" HYBRID	172'



2 PROPOSED ANTENNA ORIENTATION
SCALE: N.T.S.



3 PROPOSED SECTOR MOUNT DETAIL
SCALE: N.T.S.

B+T GRP

NEXTECH wireless

ABILENE WEST

PART OF THE NE/4, SEC 17-T13S-R2E
ABILENE, KS 67410

EXISTING SELF-SUPPORT

PROJECT NO: [illegible]
CHECKED BY: [illegible]

ISSUED FOR:

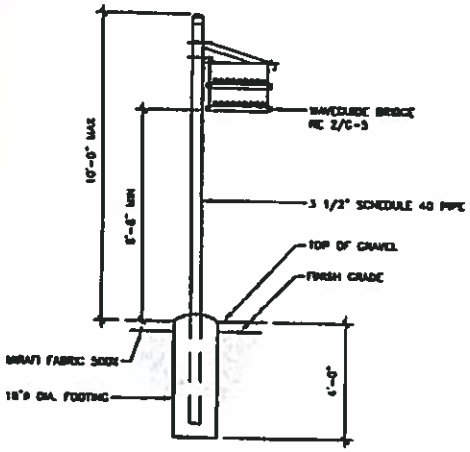
REV	DATE	DRAWN	DESCRIPTION
A	6/13/14	[illegible]	PRELIMINARY REVIEW
B	6/27/14	[illegible]	CONSTRUCTION

B&T ENGINEERING, INC.
(C-1403)
Expires 12/31/14

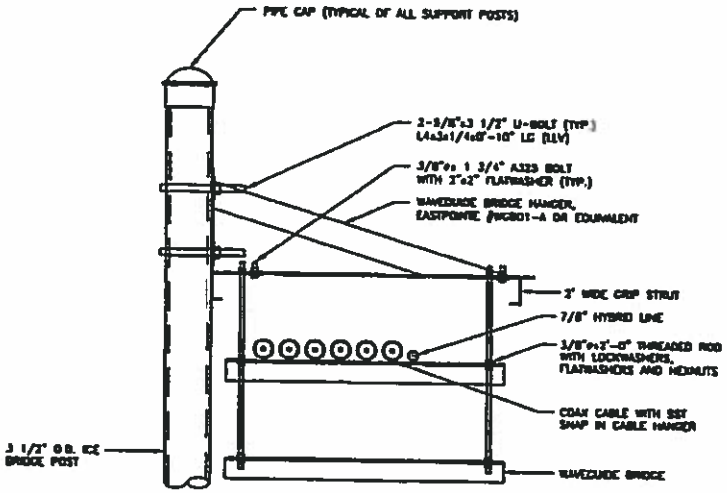
CHAD ERIC [illegible]
LICENSED
16278
8/27/14
KANSAS
PROFESSIONAL ENGINEER

© B & T GROUP OF LTD PTE LTD [illegible]

SHEET NUMBER: C-2
REVISION: 0



1 WAVEGUIDE BRIDGE SECTION
SCALE: N.T.S.



2 ENLARGED WAVEGUIDE BRIDGE SECTION
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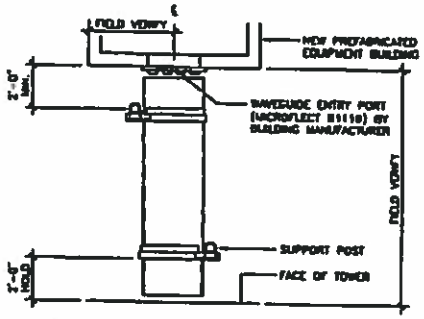
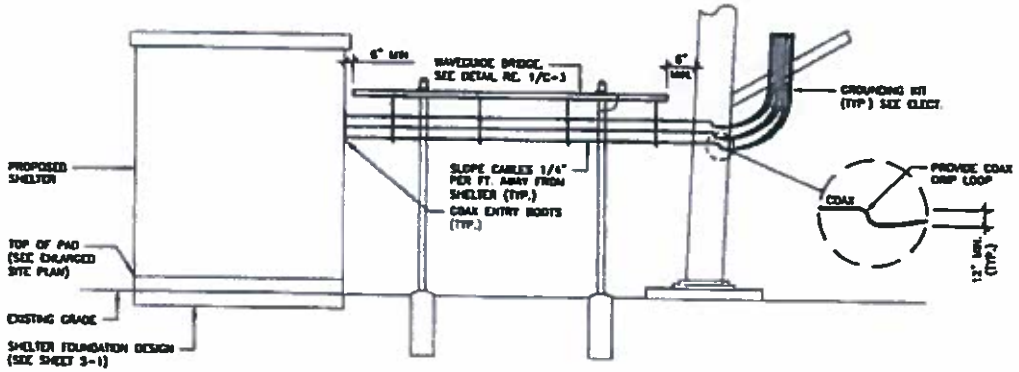


NOTE:

1. ADJUST CENTERLINE OF WAVEGUIDE PORT ON BUILDING WITH CENTERLINE OF WAVEGUIDE BRIDGE.
2. SEE DETAIL FOR WAVEGUIDE BRIDGE GROUNDING DETAILS.
3. ALL MATERIALS USED FOR WAVEGUIDE SHALL BE HOT-DIPPED GALVANIZED. ALL FIELD CUTS OR DRILLED OPENINGS SHALL BE RESEALED WITH (3) COATS OF COLD-GALVANIZING COMPOUND TO CLEANED SURFACES.

3 TYPICAL WAVEGUIDE BRIDGE PLAN
SCALE: N.T.S.



4 TYPICAL WAVEGUIDE BRIDGE ELEVATION
SCALE: N.T.S.

B+T GRP

NEXTECH wireless

ABILENE WEST

PART OF THE NE/4, SEC 17-T13S-R2E
ABILENE, KS 67410

EXISTING SELF-SUPPORT

PROJECT NO: 94115.003
CHECKED BY: BLM

ISSUED FOR:

REV	DATE	STATE	DESCRIPTION
A	6/18/14	DRAFT	PRELIMINARY REVIEW
B	8/27/14	DRAFT	CONSTRUCTION

BAT ENGINEERING, INC.
E-1483
Expires 12/31/14

CHAD ERIC BATTE
LICENSED
NO. 17978
8/27/14
KANSAS
PROFESSIONAL ENGINEER

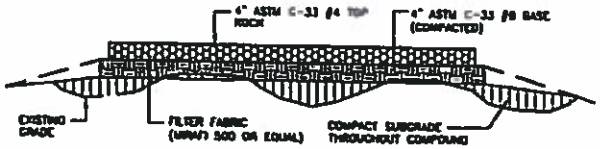
SHEET NUMBER: C-3
REVISION: 0

SILT FENCE NOTES

1. THE FILTER FABRIC USED SHALL MEET THE REQUIREMENTS OF THE STATE OR LOCAL JURISDICTION: WHICHEVER IS MORE STRICT.
2. SILT FENCE HEIGHT SHALL BE A MINIMUM OF 2'-6" ABOVE GROUND HEIGHT.
3. CONSTRUCT SILT FENCE OF A CONTINUOUS ROLL. CUT THE LENGTH OF BARRIER TO AVOID JOINTS. FABRIC TO BE FASTENED SECURELY TO FENCE POSTS WITH TIE WIRES.
4. SUPPORT FABRIC WITH WOVEN WIRE MESH. OPENING SHALL BE 6" MAX. SPACING. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO POSTS WITH TIE WIRES AT THE TOP OF THE WOVEN WIRE FENCE AND THE MIDPOINT BETWEEN POSTS.
5. POSTS FOR SILT FENCE SHALL BE STEEL.
6. FENCE POSTS SPACING SHALL NOT EXCEED 4'.
7. EXCAVATE A TRENCH APPROX. 6" WIDE AND 6" DEEP ALONG THE PROPOSED LINE OF POSTS AND SLOPE FROM THE BARRIER. BACKFILL THE TRENCH WITH #57 STONE PLACED OVER THE FILTER FABRIC.
8. DO NOT ATTACH THE FILTER FABRIC TO EXISTING FENCES, TREES, ETC.
9. REMOVE FENCING FOLLOWING STABILIZATION OF SLOPES AND ALL DISTURBED AREAS.

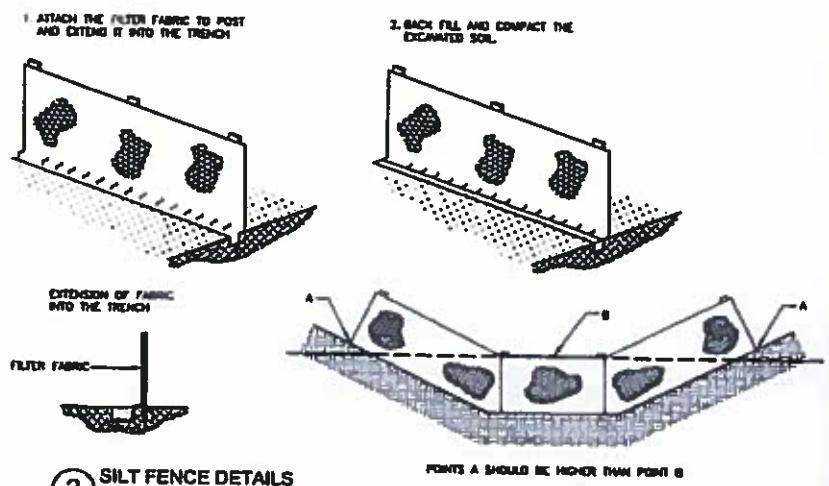
SOIL & EROSION CONTROL

1. THE CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS FOR SOIL EROSION AND SEDIMENT CONTROL AND OTHER REQUIREMENTS OF GOVERNMENTAL AUTHORITIES HAVING JURISDICTION.
2. CONSTRUCTION AT THE SITE WILL BEGIN WITH THE INSTALLATION OF EROSION CONTROL MEASURES SUFFICIENT TO CONTROL SEDIMENT DEPOSITS AND EROSION.
3. EROSION CONTROL DEVICES SHALL BE INSTALLED BEFORE GROUND DISTURBANCE OCCURS. IT IS THE CONTRACTORS RESPONSIBILITY TO ACCOMPLISH EROSION CONTROL FOR ALL DRAINAGE PATTERNS CREATED AT VARIOUS STAGES DURING CONSTRUCTION. ANY DIFFICULTY IN CONTROLLING EROSION DURING ANY PHASE OF CONSTRUCTION SHALL BE REPORTED TO THE CONSTRUCTION MANAGER IMMEDIATELY.
4. ALL SILT BARRIERS MUST BE REPLACED AS ACCESS IS OBTAINED DURING CLEARING. NO GRADING SHALL BE DONE UNTIL SILT BARRIER IS INSTALLED.
5. CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL MEASURES UNTIL PERMANENT VEGETATION HAS BEEN ESTABLISHED. CONTRACTOR SHALL INSPECT EROSION CONTROL MEASURES AT THE END OF EACH WORKING DAY TO ENSURE MEASURES ARE FUNCTIONING PROPERLY.
6. THE CONTRACTOR SHALL REMOVE ACCUMULATED SILT WHEN THE SILT REACHES 6" IN HEIGHT WITHIN SILT FENCE BARRIERS.
7. FAILURE TO INSTALL, OPERATE OR MAINTAIN ALL EROSION CONTROL MEASURES MAY RESULT IN ALL CONSTRUCTION BEING STOPPED ON THE JOB SITE UNTIL SUCH MEASURES ARE CORRECTED.
8. A COPY OF THE APPROVED LAND DISTURBANCE PLAN AND PERMIT IF REQUIRED SHALL BE PRESENT ON THE JOB SITE WHENEVER LAND DISTURBANCE ACTIVITY IS IN PROGRESS.
9. ANY AREA OF DISTURBANCE LEFT EXPOSED OR IS ANTICIPATED THAT IT WILL BE EXPOSED BEYOND THE EXPOSURE PERIOD REQUIRED BY LOCAL AUTHORITIES SHALL BE STABILIZED WITH TEMPORARY SEEDING.
10. EROSION CONTROL MEASURES SHALL BE MAINTAINED AT ALL TIMES. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE PROVIDED IF REQUIRED UPON INSPECTION BY AND DIRECTION FROM LOCAL AUTHORITIES.
11. UPON COMPLETION OF WORK, OR AS DIRECTED BY EROSION CONTROL AUTHORITIES, ALL DISTURBED AREAS NOT IMPROVED WITH GRAVEL SHALL BE SEEDED WITH PERMANENT SEEDING MATERIAL SUITABLE FOR THE LOCAL GROWING AREA.
12. FILTER CLOTH SHALL HAVE APPROVED BACKING OR BUILT-IN REINFORCED STRUCTURE AS RECOMMENDED BY THE MANUFACTURER TO SUPPORT THE FILTER CLOTH. THE MULLEN BURST STRENGTH OF FILTER CLOTH SHALL BE GREATER THAN 140 PSI AND THE EDGES SHALL BE TREATED TO PREVENT UNRAVELING.
13. A PRE ASSEMBLED SILT FENCE MEETING THE REQUIREMENTS OF THE DRAWING IS ACCEPTABLE IN LIEU OF A FIELD CONSTRUCTED SILT FENCE.
14. SILT FENCE TO BE REMOVED AFTER CONSTRUCTION IS COMPLETE.
15. PLACE STRAW BALES ON ALL DOWN STREAM SIDE OF ALL SILT FENCES. BALES SHALL BE PLACED END TO END AGAINST NEW SILT FENCES.



1 COMPOUND DETAIL
SCALE: N.T.S.

2 ACCESS ROAD DETAIL
SCALE: N.T.S.



3 SILT FENCE DETAILS
SCALE: N.T.S.

B+T GRP

NEXTECH wireless

ABILENE WEST

PART OF THE NE/4, SEC 17-T13S-R2E
ABILENE, KS 67410

EXISTING SELF-SUPPORT

PROJECT NO: [illegible]
CHECKED BY: [illegible]

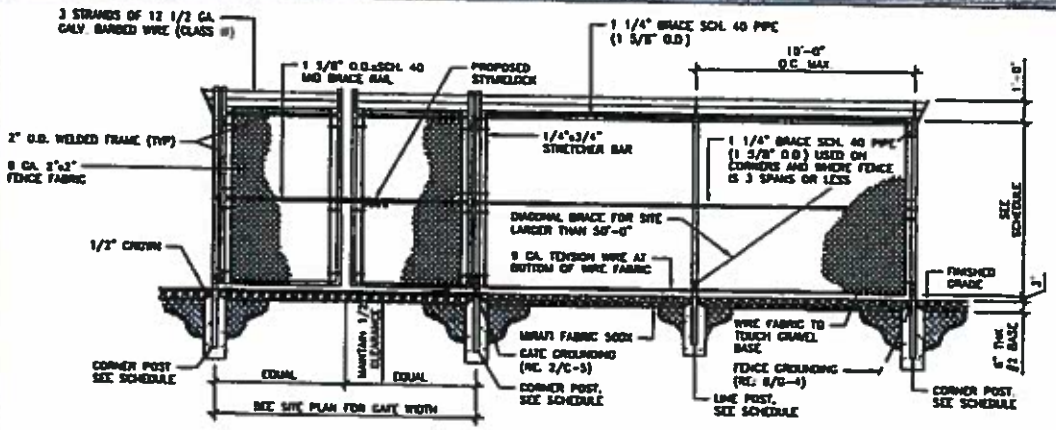
ISSUED FOR:

REV	DATE	BY	DESCRIPTION
A	[illegible]	[illegible]	PRELIMINARY REVIEW
0	[illegible]	[illegible]	CONSTRUCTION

BAT CHEMICAL, INC.
E-1403
Expires 12/31/14

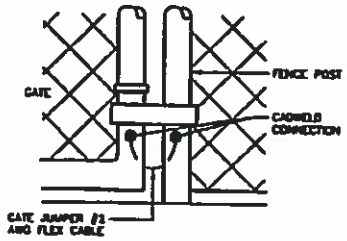
CHAD ERIC BATTLE
LICENSED
10076
8/27/14
KANSAS
PROFESSIONAL ENGINEER

SHEET NUMBER: C-4
REVISION: 0



TYPICAL FENCING SIZES		
6' HIGH FENCE	SIZE	POST FOOTING
LINE POST	2"ø	8"ø x 72" DP
CORNER POST	3"ø	12"ø x 18" DP
GATE POST	4"ø	12"ø x 18" DP

1 FENCE AND GATE ELEVATION
SCALE: N.T.S.



2 GATE GROUNDING
SCALE: N.T.S.

B+T GRP

NEXTECH wireless

ABILENE WEST

PART OF THE NE/4, SEC 17-T13S-R2E
ABILENE, KS 67410

EXISTING SELF SUPPORT

PROJECT NO:	[illegible]
CHECKED BY:	[illegible]

ISSUED FOR:

REV	DATE	[illegible]	[illegible]
A	6/11/14	[illegible]	[illegible]
0	8/27/14	[illegible]	[illegible]

B&T ENGINEERING, INC.
E-1403
Expires 12/31/14

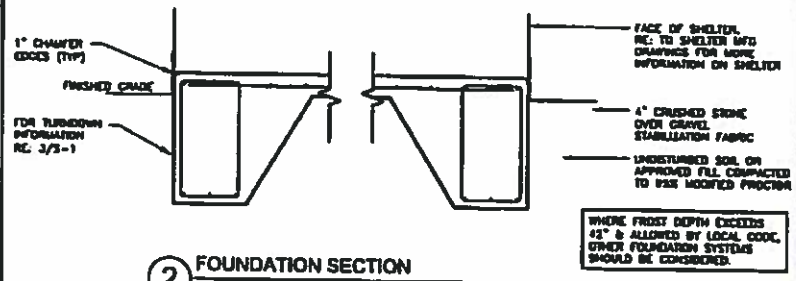
CHAD ERIC TUTTLE
LICENSED
16075
8/27/14
KANSAS
PROFESSIONAL ENGINEER

SHEET NUMBER: C-5
REVISION: 0

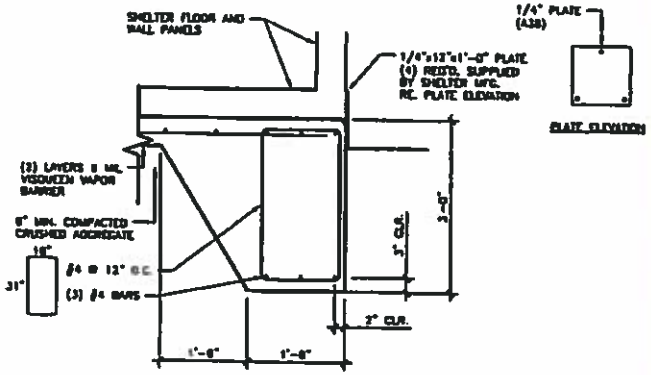
SHELTER FOUNDATION NOTES

1. STRUCTURAL FILL, IF REQUIRED, SHALL CONSIST OF A SANDY TYPE SOIL MIXTURE OF SANDY SOIL AND GRAVEL, WHICH SHALL COVER A LIQUID LIMIT LESS THAN 30 AND SHALL BE COMPACTED TO A MINIMUM OF 95% MODIFIED STANDARD PROCTOR IN ACCORDANCE WITH ASTM D 698.
2. SUB-GRADE SHALL BE SCARIFIED AND COMPACTED TO A MINIMUM OF 95% MODIFIED STANDARD PROCTOR IN ACCORDANCE WITH ASTM D 698.
3. FOUNDATION ELEMENTS SHOWN WERE DESIGNED ASSUMING A 4KS ALLOWABLE SOIL BEARING PRESSURE = 3000 PSF.
4. CONTRACTOR SHALL VERIFY BEARING CAPACITY CONSTRAINTS PRIOR TO PLACEMENT OF FOUNDATION ELEMENTS. SHOULD BEARING CAPACITY CONSTRAINTS NOT MEET OR EXCEED THOSE SHOWN IN NOTE 3, THE CONTRACTOR SHALL NOTIFY THE OWNER IN WRITING AND CEASE ACTIVITY UNTIL FURTHER DIRECTED.
5. CONCRETE COMPRESSIVE STRENGTH (F'c) SHALL BE [redacted] PSI AT 28 DAYS. 4" NOMINAL SLUMP, 5-7% ENTRAINED AIR.
6. ALL REINFORCING STEEL SHALL BE NEW BILLET STEEL INTERMEDIATE GRADE ASTM A-615-08.
7. WELDED WIRE FABRIC FOR CONCRETE SHALL CONFORM TO ASTM A-185 SPECIFICATIONS.
8. COORDINATE WITH ELECTRICAL DRAWINGS FOR CONDUITS, SLEEVES, ANCHORS, HANGERS AND OTHER ITEMS RELATED TO CONCRETE WORK.
9. PROVIDE DETAILING, FABRICATION AND INSTALLATION OF REINFORCING IN ACCORDANCE WITH ACI 315 AND ACI 318.
10. ALL CONCRETE WORK SHALL BE EXECUTED IN ACCORDANCE WITH THE "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" (ACI 318)
11. ALL CONCRETE SHALL BE VIBRATED. TOP OF FOUNDATION SHALL BE SQUARE AND LEVEL WITH SMOOTH FLOAT FINISH AND A 1" CHAMFER AT ITS EDGE.
12. ALL REINFORCING STEEL SHALL BE INSPECTED AND APPROVED BY VERIZON'S CONSTRUCTION MANAGER PRIOR TO PLACEMENT OF CONCRETE. CONTRACTOR SHALL NOTIFY CONSTRUCTION MANAGER 48 HOURS BEFORE PLACING CONCRETE.
13. CONCRETE SHALL BE SAMPLE TESTED CONDUCTED IN ACCORDANCE WITH ASTM C31 AND C39.
14. READY MIX CONCRETE SHALL BE IN ACCORDANCE WITH ASTM C94 SPECIFICATIONS.

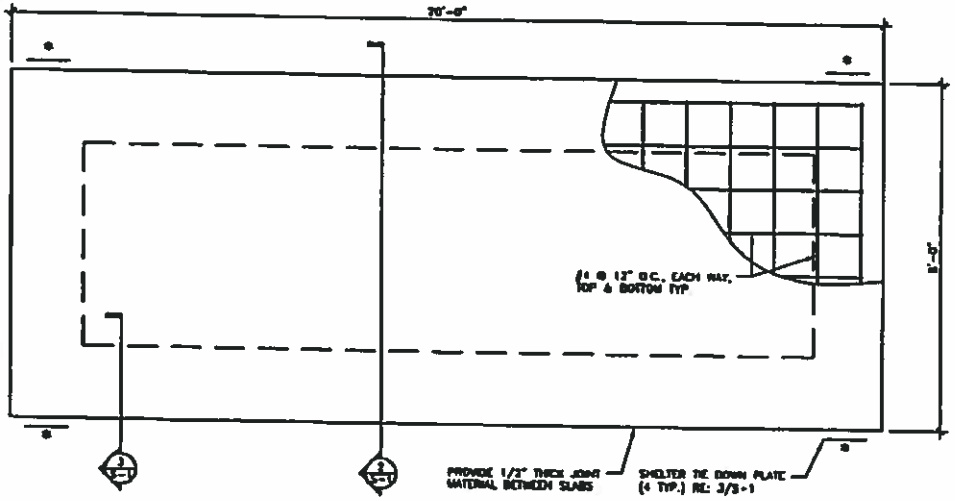
[redacted]



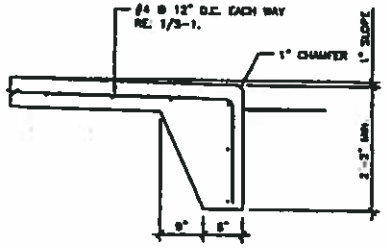
2 FOUNDATION SECTION
SCALE: N.T.S.



3 TURNDOWN FOOTING DETAILS
SCALE: N.T.S.



1 SHELTER SLAB DETAIL
SCALE: N.T.S.



4 CONCRETE STOOP SECTION
SCALE: N.T.S.

B+T GRP

NEXTECH wireless

ABILENE WEST

PART OF THE NE/4, SEC 17, T13S-R2E
ABILENE, KS 67410

EXISTING SELF SUPPORT

Project No: [redacted]
CHECKED BY: KLM

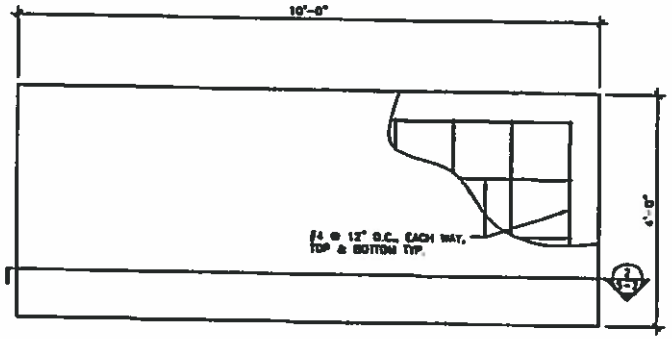
ISSUED FOR:

REV	DATE	DRAWN	DESCRIPTION
A	8/19/14	[redacted]	PRELIMINARY REVIEW
B	8/25/14	[redacted]	CONSTRUCTION

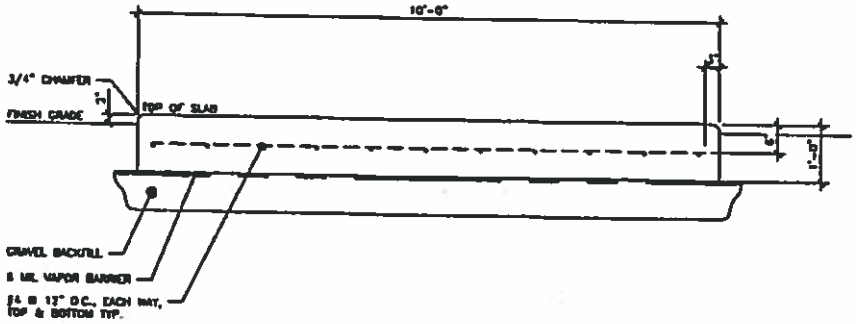
B&T ENGINEERING, INC.
E-1463
Expires 12/31/14

CHAD ERIC BUTLER
LICENSED
16070
8/27/14
KANSAS
PROFESSIONAL ENGINEER

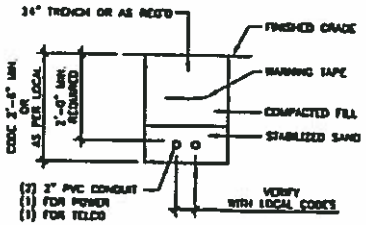
SHEET NUMBER: S-1
REVISION: 0



1 EQUIPMENT SLAB DETAIL
SCALE: N.T.S.

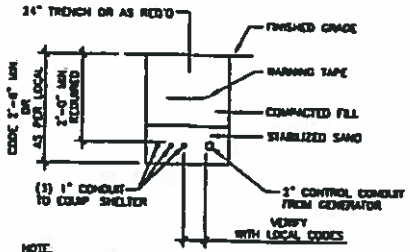


2 EQUIPMENT FOUNDATION SECTION
SCALE: N.T.S.



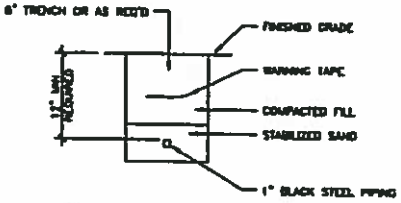
NOTE:
CONTRACTOR TO USE SCHEDULE 80 CALV. PIPE UNDER ALL TRAFFIC CONDITIONS

3 UTILITY TRENCH
SCALE: N.T.S.



NOTE:
CONTRACTOR TO USE SCHEDULE 80 CALV. PIPE UNDER ALL TRAFFIC CONDITIONS

4 GENERATOR UTILITY TRENCH
SCALE: N.T.S.



NOTE:
CONTRACTOR TO USE SCHEDULE 80 CALV. PIPE UNDER ALL TRAFFIC CONDITIONS

5 PROPANE PIPING TRENCH
SCALE: N.T.S.

B+T GRP

NEXTECH wireless

ABILENE WEST

PART OF THE NE/4, SEC 17-T13S-R2E
ABILENE, KS 67410

EXISTING SELF-SUPPORT

PROJECT NO: 14014.00
CHECKED BY: RLM

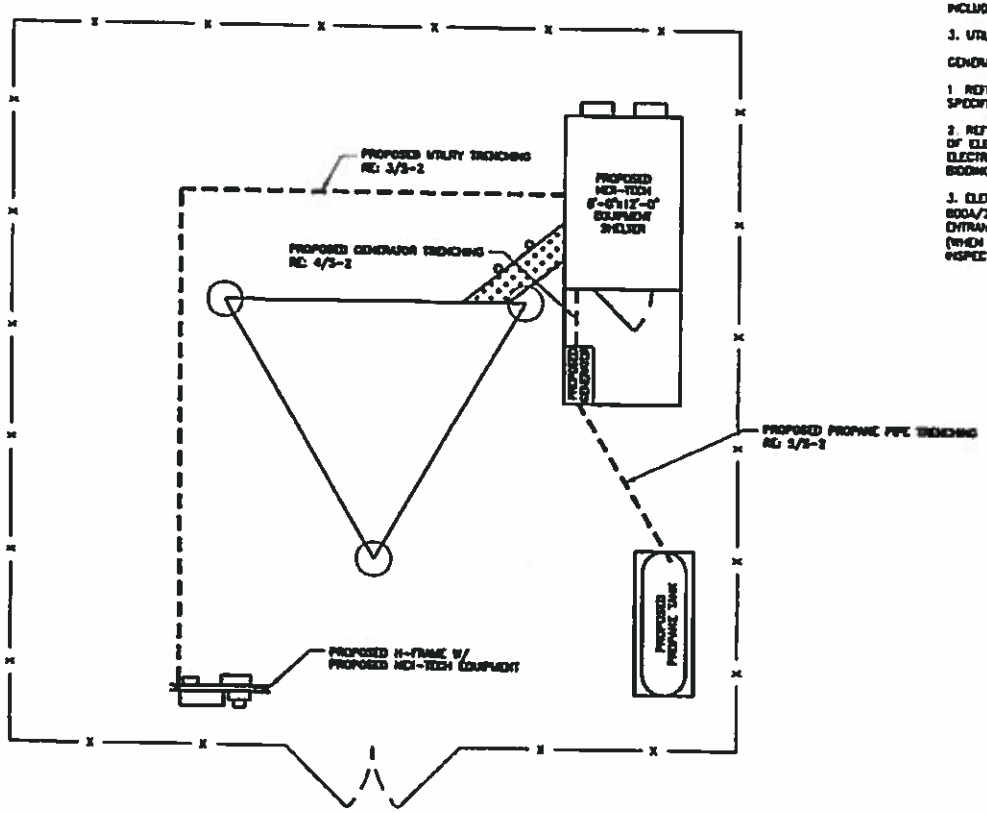
ISSUED FOR:

REV	DATE	DRAWN	DESCRIPTION
A	8/18/14	DMW	PRELIMINARY REVIEW
0	8/27/14	DMW	CONSTRUCTION

B&T ENGINEERING, INC.
(C-1483)
Expires 12/31/14

CHAD ERICKSON
LICENSED
16078
8/27/14
KANSAS
PROFESSIONAL ENGINEER

SHEET NUMBER: S-2
REVISION: 0



1 UTILITY ROUTING PLAN
SCALE: 0' 1' 5' 10' 20'

N

POWER & TELEPHONE GENERAL NOTES

1. CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANY FOR FINAL AND EXACT WORK/MATERIALS REQUIREMENTS AND CONSTRUCT TO UTILITY COMPANY ENGINEERING PLANS AND SPECIFICATIONS ONLY.

2. CONTRACTOR SHALL FURNISH AND INSTALL ALL CONDUIT, PULL WIRES, CABLE PULLBOXES, CONCRETE EXCASEMENT OF CONDUIT (IF REQUIRED), TRANSFORMER PAD, BARRIERS, POLE RISERS, TRENCHING, BACKFILL AND INCLUDE ANY UTILITY COMPANY REQUIREMENTS IN SCOPE OF WORK.

3. UTILITY CONTACTS. RE. SHEET T-1

GENERAL ELECTRICAL NOTES

1. REFER TO SPECIFICATIONS DRAWINGS IN THIS SET FOR ELECTRICAL SPECIFICATIONS.

2. REFER TO ELECTRICAL DETAILS WHICH ARE APPLICABLE FOR THE TYPE OF ELECTRICAL AND TELEPHONE SERVICES. VERIFY REQUIREMENTS. FOR ELECTRICAL AND TELEPHONE SERVICES WITH LOCAL UTILITIES BEFORE BIDDING AND INCLUDE IN SCOPE OF WORK

3. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL A NEW 800A/3P/800A FUSED MAIN DISCONNECT SWITCH WITH SERVICE ENTRANCE LABEL IN WEATHERPROOF NEMA 3R ENCLOSURE (WHEN REQUIRED BY LOCAL JURISDICTION). VERIFY WITH LOCAL BUILDING INSPECTOR BEFORE BID AND INCLUDE IN SCOPE OF WORK IF REQUIRED

B+T GRP

NEXTECH wireless

ABILENE WEST

PART OF THE NE/4, SEC 17-T15-R2E
ABILENE, KS 67410

EXISTING SELF-SUPPORT

PROJECT No: [illegible]
CHECKED BY: [illegible]

ISSUED FOR:

REV	DATE	DRAWN	DESCRIPTION
A	[illegible]	[illegible]	[illegible]
0	[illegible]	[illegible]	[illegible]

B&T ENGINEERS, INC.
E-1403
Expires 12/31/14

CHAD ERIC TUTLE
LICENSED
16078
8/27/14
KANSAS
PROFESSIONAL ENGINEER

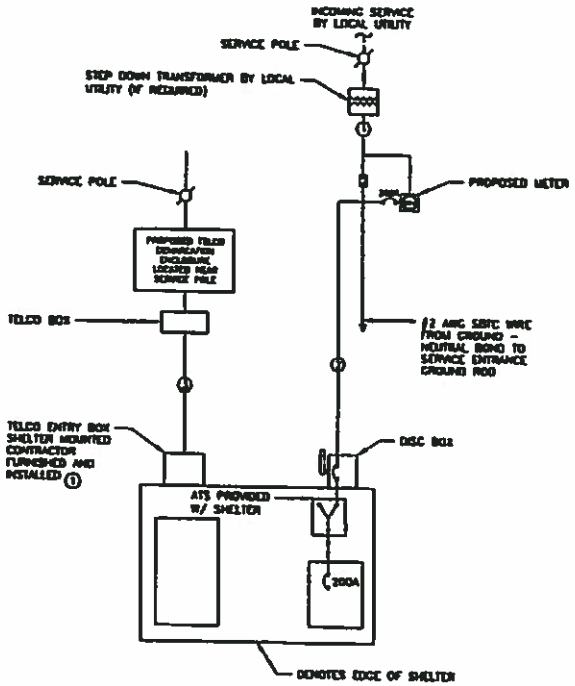
SHEET NUMBER: E-1
REVISION: 0

CABLE AND CONDUIT SCHEDULE

MARK	CONDUIT		WIRES EACH CONDUIT				REMARKS
	QTY	SIZE	QTY	SIZE	GREEN GROUND SIZE	ISOLATED GREEN/YELLOW GROUND SIZE	
①				**	**		INCOMING POWER CONDUIT FROM LOCAL UTILITY
②	1	3"	3	(3) 3/0	(1) #4	(1) #2	POWER TO SHELTER
③	1	2"	1				INCOMING TELCO CONDUIT FROM TELCO DEMARC BOX TO SHELTER (23 PAIR DIRECT BURIAL CABLE GEL FILLED) OR APPROVED EQUAL

** SIZED BY LOCAL UTILITY COMPANY

NOTE: ALARM WIRING NOT SHOWN IN SCHEDULE. RE. 2/E-2



① ONE LINE DIAGRAM
SCALE: N.T.S.

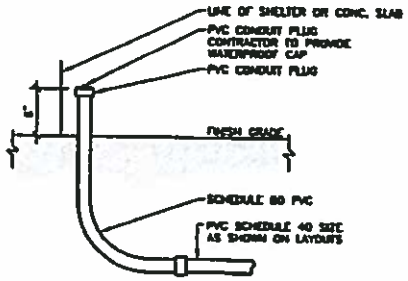
GENERAL NOTES

1. CONTRACTOR SHALL COORDINATE INCOMING SERVICES WITH LOCAL UTILITIES PRIOR TO TRENCHING
2. ALL CONDUCTORS SHALL BE COPPER, 75°C RATED AND CONDUCTOR INSULATION SHALL BE THWN OR THHN.
3. ALL TERMINATIONS SHALL BE LISTED AND IDENTIFIED FOR USE WITH 75°C RATED CONDUCTORS OPERATING AT 75°C.
4. GROUND FAULT PROTECTIONS REQUIRED FOR UTILITY RECEPTACLES.
5. SERVICE NEUTRAL SHALL BE GROUNDED AT ONE LOCATION ONLY
6. WIRE/NEUTRAL GREEN/GROUND SHALL BE MAINTAINED THROUGHOUT THE SITE ELECTRICAL SYSTEM (TAPED WILL NOT BE ACCEPTABLE).
7. EQUIPMENT LOCATED OUTSIDE OF EXPOSED TO MOISTURE SHALL BE NEMA 3R RATED.
8. CONTRACTOR SHALL USE SCHEDULE 40 PVC CONDUIT UNDERGROUND AND SCHEDULE 80 PVC (UV WEATHER/SUNLIGHT RESISTANT) CONDUIT WHERE EXPOSED, UNLESS OTHERWISE NOTED
9. ALL NEWLY INSTALLED EQUIPMENT SHALL BE AIC RATED (MINIMUM) IN ACCORDANCE WITH THE FAULT CURRENT SUMMARY TABLE OR AS OTHERWISE DIRECTED BY LOCAL UTILITY BASE ON AS-BUILT CONDITIONS. EXACT VALUES SHOULD BE OBTAINED FROM LOCAL UTILITY BASE ON CONDUCTORS INSTALLED LENGTH, TRANSFORMER SIZE, % IMPEDANCE, AND FUSES USED AT POLE.

ONE LINE DIAGRAM NOTES

NOTES BY SYMBOL "①"

1. CONTRACTOR SHALL PROVIDE SHELTER MOUNTED TELCO JUNCTION BOX AND ASSOCIATED COMPONENTS. REFER TO E4 FOR RISER ELEVATION DETAILS AND EQUIPMENT SPECIFICATIONS
2. CONTRACTOR SHALL LABEL BREAKER BOX AND ALL CIRCUIT BREAKERS WITH RESPECT TO WHAT THEY FEED
3. POWER DISTRIBUTION CENTER "PDC" IS FURNISHED AND PRE-WIRED WITH SHELTER AND SHOWN FOR REFERENCE ONLY. PDC IS RATED FOR 200A, 120/240V, 1 PHASE, 3 WIRE, 40 POLE AND INTEGRAL TVSS. REFER TO SHELTER DRAWINGS FOR PANEL SCHEDULE AND ADDITIONAL INFORMATION. PROVIDE THE CONNECTIONS INDICATED.
4. DISCONNECT BOX SUPPLIED WITH SHELTER AND INSTALLED BY CONTRACTOR.



② STUB-UP U.G. CONDUIT
SCALE: N.T.S.

B+T GRP

NEXTECH wireless

ABILENE WEST

PART OF THE NE/4, SEC 17, T13S-R2E
ABILENE, KS 67410
EXISTING SELF-SUPPORT

PROJECT NO: [illegible]
CHECKED BY: [illegible]

ISSUED FOR:

REV	DATE	BY	DESCRIPTION
A	[illegible]	[illegible]	PRELIMINARY REVIEW
0	[illegible]	[illegible]	CONSTRUCTION

B&T ENGINEERING, INC.
E-1403
Expires 12/31/14

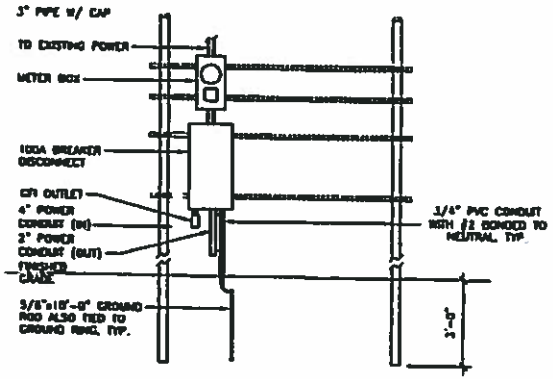
CHAD ERIC BUTLER
LICENSED
10075
8/27/14
KANSAS
PROFESSIONAL ENGINEER

SHEET NUMBER: E-2
REVISION: 0

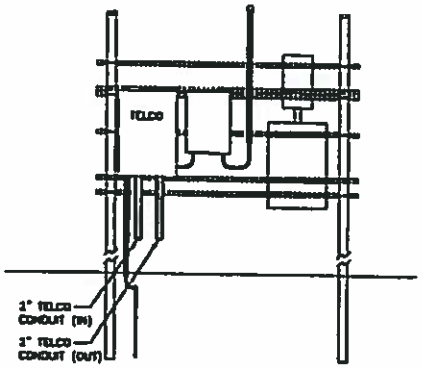
CADWELD CONNECTION PREFERRED.
U-BOLT GND CLAMP SECONDARY
(BURNDY GAR6424 OR ILSCO CPL-5)

LIGHT CONTROLLER AND WIRELESS
REPORTING SYSTEM IS FURNISHED
BY OWNER AND INSTALLED BY CONTRACTOR.

TOWER OVER 200' WILL LIGHTS
AND WIRELESS CONTROLLER.



FRONT VIEW



REAR VIEW

1 H-FRAME ELEVATION
SCALE: N.T.S.

B+T GRP

NEXTECH wireless

ABILENE WEST

PART OF THE NE/4, SEC 17-T11S-R2E
ABILENE, KS 67410

EXISTING SELF-SUPPORT

PROJECT NO: 9414.001
CHECKED BY: BLM

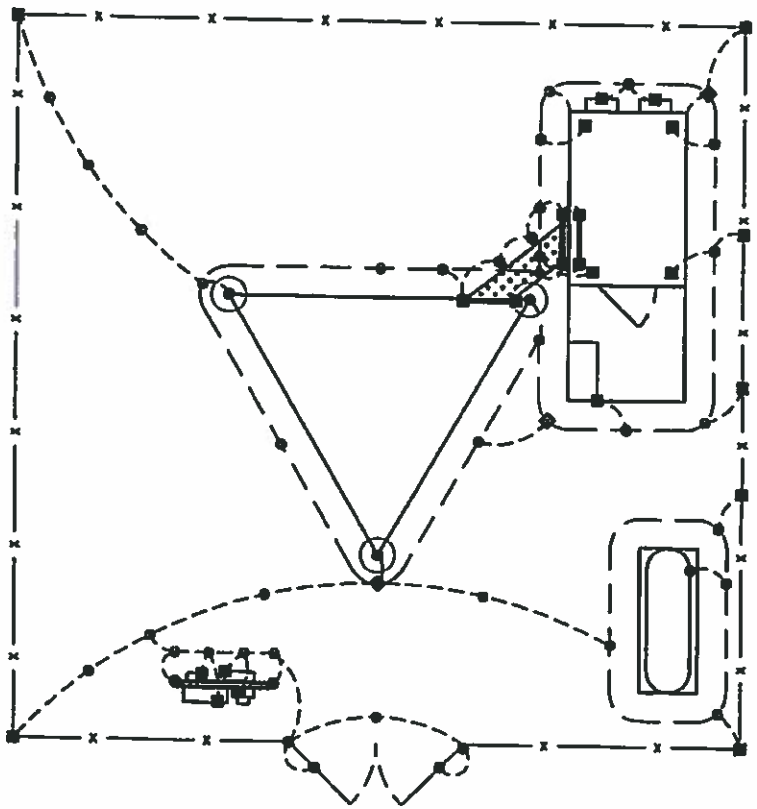
ISSUED FOR:

REV	DATE	DRAWN	DESCRIPTION
A	9/15/14	BMF	PRELIMINARY REVIEW
0	9/27/14	BMF	CONSTRUCTION

B&T ENGINEERING, INC.
E-1483
Expires 12/31/14

CHAD ERIC BOYLE
LICENSED
16078
9/27/14
KANSAS
PROFESSIONAL ENGINEER

SHEET NUMBER: E-3
REVISION: 0



GROUNDING LEGEND

- 5/8" x 8'-0" LONG GALVANIZED STEEL GROUNDING ROD
- 5/8"x8'-0" LONG GALVANIZED STEEL GROUND ROD IN INSPECTION SLEEVE
- EXOTHERMIC WELD CONNECTION
- MECHANICAL CONNECTION
- GROUND CONDUCTOR, TYPE AND SIZE AS NOTED, MIN. 30" BELOW GRADE OR 6" BELOW FROST LINE, WHICHEVER IS GREATER.

1 EQUIPMENT GROUNDING PLAN
SCALE: 0' 1' 5' 10' 20'

N

B+T GRP

NEXTECH wireless

ABILENE WEST

PART OF THE NE/4, SEC 17-T13S-R2E
ABILENE, KS 67410

EXISTING SELF-SUPPORT

PROJECT NO: [illegible]
CHECKED BY: [illegible]

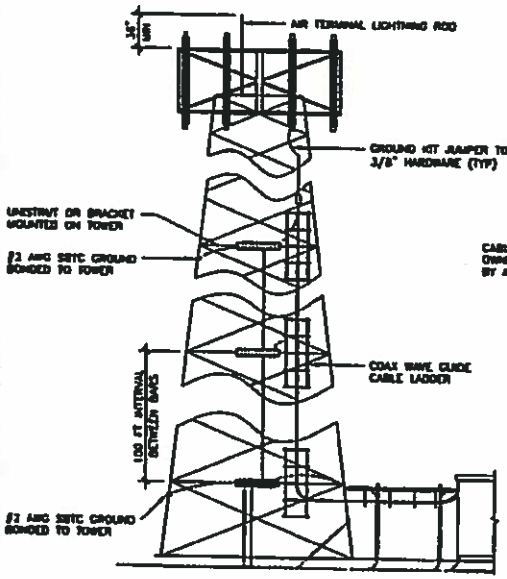
ISSUED FOR:

REV	DATE	BY	DESCRIPTION
A	4/11/14	[illegible]	PRELIMINARY [illegible]
0	8/27/14	[illegible]	CONSTRUCTION

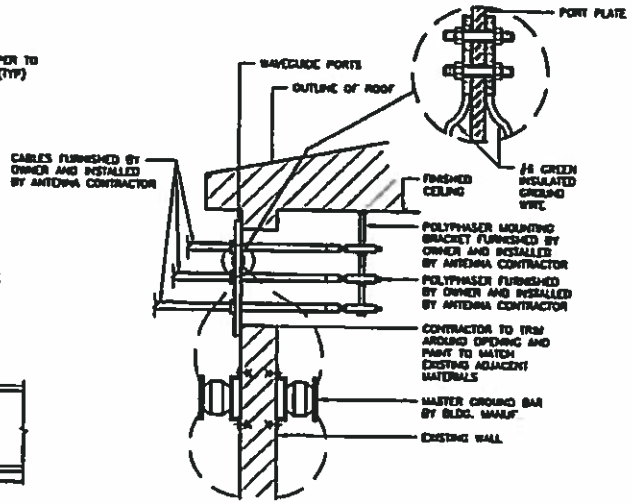
BAT ENGINEERING, INC.
[illegible]
Expires 12/31/14

CHAD ERIC [illegible]
LICENSED
16078
8/27/14
KANSAS
PROFESSIONAL ENGINEER

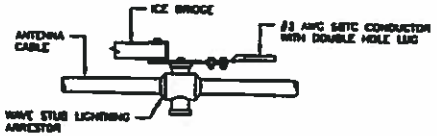
SHEET NUMBER: G-1
REVISION: 0



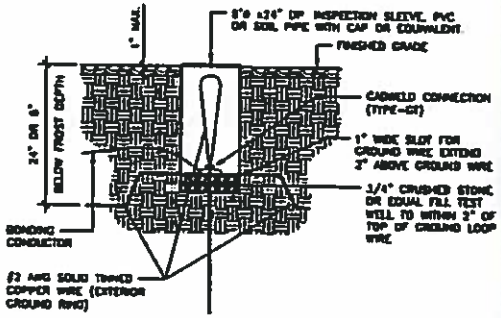
1 ANTENNA GROUND BAR LOCATION
SCALE: N.T.S.



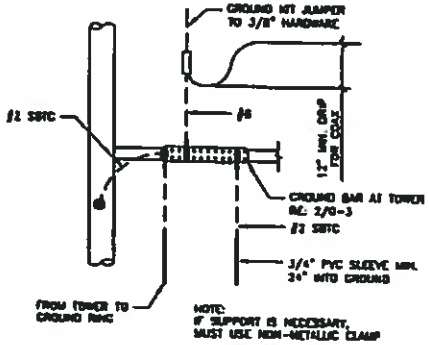
2 GROUNDING @ COAX ENTRY PORT
SCALE: N.T.S.



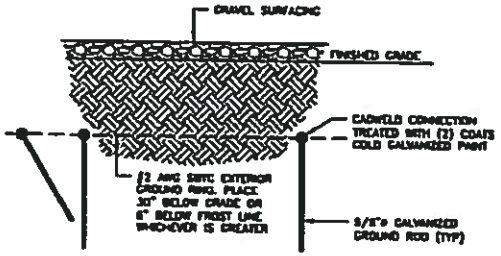
3 LIGHTNING ARRESTOR DETAIL
SCALE: N.T.S.



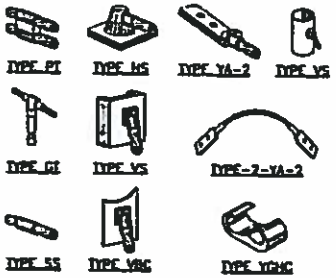
4 INSPECTION WELL DETAIL
SCALE: N.T.S.



5 TYP. TOWER CGIBE WITH COAX/WAVEGUIDE GROUND KITS
SCALE: N.T.S.



6 GROUND RING AND ROD DETAIL
SCALE: N.T.S.



7 CADWELD CONNECTION TYPES
SCALE: N.T.S.

B+T GRP

NEXTECH wireless

ABILENE WEST

PART OF THE NE/4, SEC 17-T11S-R2E
ABILENE, KS 67410

EXISTING SELF-SUPPORT

PROJECT Info: [illegible]

CHECKED BY: [illegible]

ISSUED FOR:

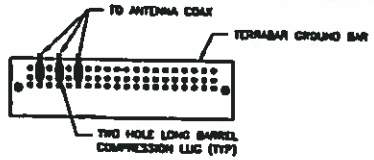
REV	DATE	DRWN	DESCRIPTION
A	8/15/14	[illegible]	PRELIMINARY REVIEW
0	8/27/14	[illegible]	CONSTRUCTION

B&T ENGINEERING, INC.
E-1403
Expires 12/31/14

CHAD ERIC HUTTO
LICENSED
16076
8/27/14
KANSAS
PROFESSIONAL ENGINEER

SHEET NUMBER: G-2

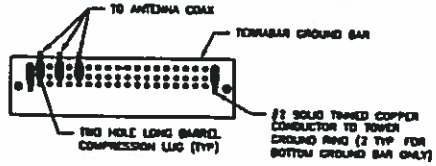
REVISION: 0



NOTES:

1. DOUBLING UP "OR STACKING" OF CONNECTIONS IS NOT PERMITTED.
2. EXTERIOR ANTIOXIDANT JOINT COMPOUND TO BE USED ON ALL EXTERIOR CONNECTIONS.
3. GROUND BAR SHALL NOT BE ISOLATED FROM TOWER. MOUNT DIRECTLY TO TOWER STEEL.

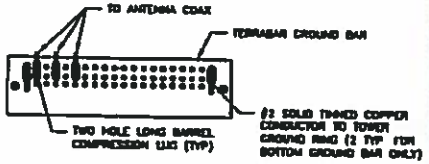
1 ANTENNA GROUND BAR DETAIL
SCALE: N.T.S.



NOTES:

1. DOUBLING UP "OR STACKING" OF CONNECTIONS IS NOT PERMITTED.
2. EXTERIOR ANTIOXIDANT JOINT COMPOUND TO BE USED ON ALL EXTERIOR CONNECTIONS.
3. GROUND BAR SHALL NOT BE ISOLATED FROM TOWER. MOUNT DIRECTLY TO TOWER STEEL.
4. INSTALL GROUND BARS AT 75 FT INTERVAL MAXIMUM.

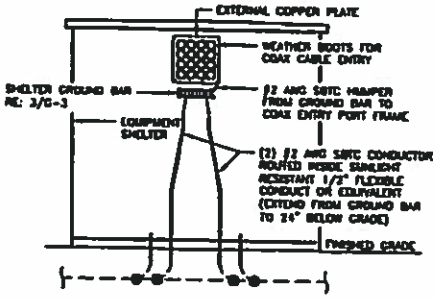
2 TOWER GROUND BAR DETAIL
SCALE: N.T.S.



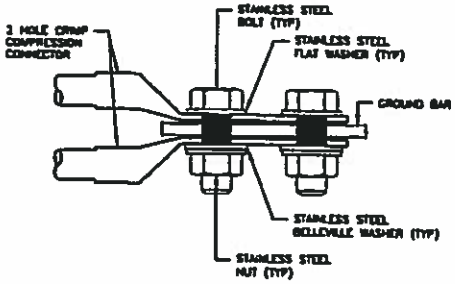
NOTES:

1. DOUBLING UP "OR STACKING" OF CONNECTIONS IS NOT PERMITTED.
2. EXTERIOR ANTIOXIDANT JOINT COMPOUND TO BE USED ON ALL EXTERIOR CONNECTIONS.
3. GROUND BAR SHALL NOT BE ISOLATED FROM TOWER. MOUNT DIRECTLY TO TOWER STEEL.

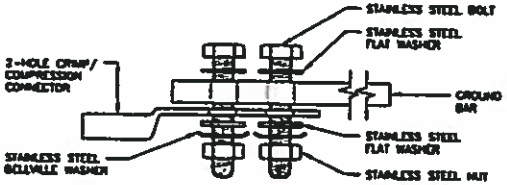
3 SHELTER GROUND BAR DETAIL
SCALE: N.T.S.



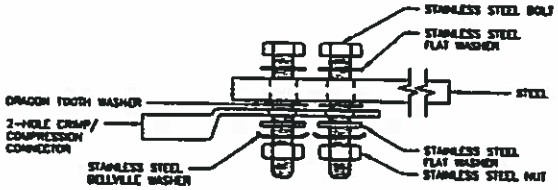
4 TYP. PEEP UNIT COPPER STRAP DETAIL
SCALE: N.T.S.



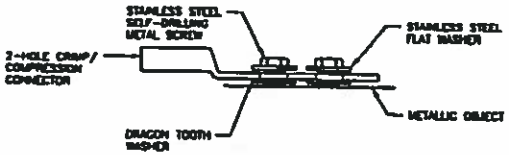
5 BACK TO BACK CONNECTION DETAIL
SCALE: N.T.S.



SINGLE CONNECTOR AT GROUND BARS



SINGLE CONNECTOR AT STEEL OBJECTS



SINGLE CONNECTOR AT METALLIC/STEEL OBJECTS

ANTICORROSIVE GREASES WORK BY FILLING THE GAPS TO KEEP WATER OUT AND THUS THERE IS NO ELECTROLYTE IN THE CONNECTION TO EFFECT ION TRANSFER. ANTICORROSIVE GREASES WITH SUSPENDED ZINC PARTICLES WORK BECAUSE THE ZINC PARTICLES FORM A GROUND CONDUCTOR BETWEEN THE BASE METALS AND ALSO ACT AS A SACRIFICIAL ANODE SO THAT THE ZINC PARTICLES CORRODE RATHER THAN THE BASE METALS.

BECAUSE LUGS AND BARS HAVE SLIGHT HIGH AND LOW SPOTS DISTRIBUTED ALONG THEIR SURFACES, GAPS IN THE CONTACT SURFACES CAN OCCUR WHERE LOW SPOTS LINE UP WITH EACH OTHER. IF MOISTURE ENTERS THIS GAP THE WATER ACTS LIKE AN ELECTROLYTE BECAUSE IT PROVIDES AN ELECTROCHEMICAL PATH FOR ION TRANSFER BETWEEN THE TWO METALS. THE METAL THAT IS LESS NOBLE ON THE GALVANIC TABLE WILL GIVE UP ELECTRONS AND THE SURFACE WILL CORRODE.

6 HARDWARE DETAIL FOR ANTI-CORROSIVE GREASE
SCALE: N.T.S.

7 HARDWARE DETAIL FOR EXTERIOR CONNECTIONS
SCALE: N.T.S.

B+T GRP

NEXTECH wireless

ABILENE WEST

PART OF THE NE/4, SEC 17-T11S-R2E
ABILENE, KS 67410

EXISTING SELF-SUPPORT

PROJECT NO: [illegible]
CHECKED BY: [illegible]

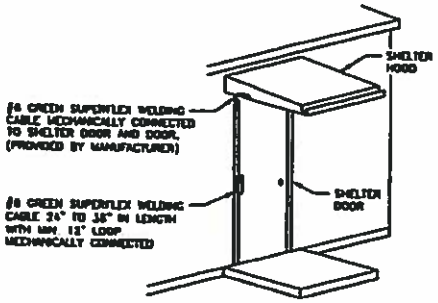
ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION
A	[illegible]	[illegible]	[illegible]
B	[illegible]	[illegible]	[illegible]

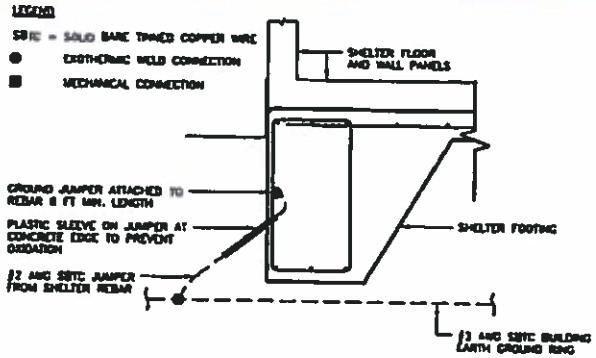
B&T ENGINEERING, INC.
E-1403
Expires 12/31/14

CHAD BRUCE TUTTLE LICENSED 16076 8/27/14 KANSAS PROFESSIONAL ENGINEER

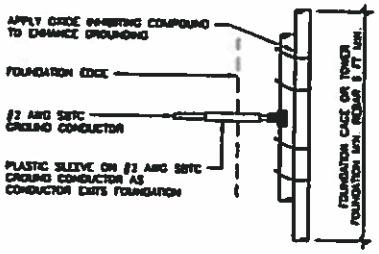
SHEET NUMBER: G-3
REVISION: 0



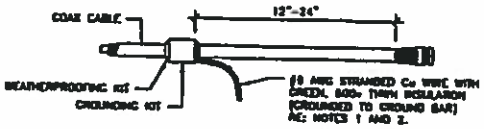
1 SHELTER DOOR GROUNDING DETAIL
SCALE: N.T.S.



2 SHELTER FOUNDATION GROUNDING DETAIL
SCALE: N.T.S.



3 SHELTER/TOWER FNDN GROUNDING DETAIL
SCALE: N.T.S.



NOTES:

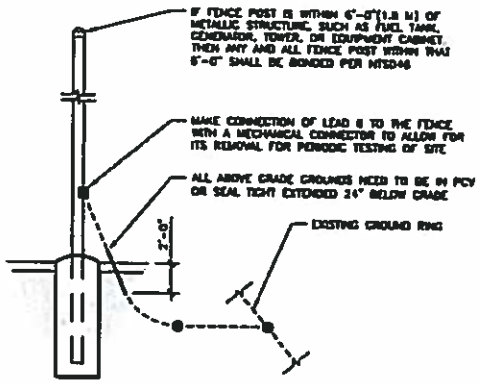
1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.
2. GROUNDING KIT SHALL BE TYPE AND PART NUMBER AS SUPPLIED OR RECOMMENDED BY CABLE MANUFACTURER.
3. WEATHER PROOFING SHALL BE (TYPE AND PART NUMBER AS SUPPLIED OR RECOMMENDED BY CABLE MANUFACTURER.)

4 COAX GROUNDING DETAIL
SCALE: N.T.S.

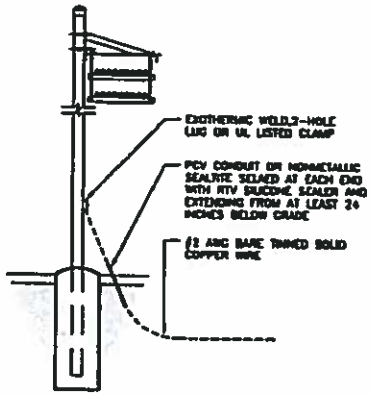
LEGEND:

EXOTHERMIC WELD CONNECTION

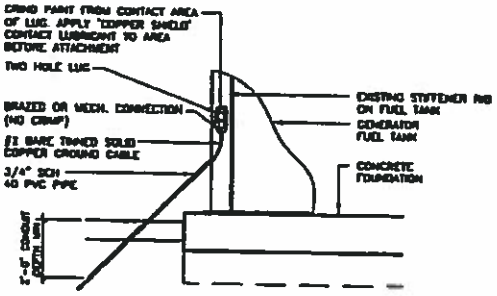
MECHANICAL WELD CONNECTION



6 FENCE POST GROUNDING DETAIL
SCALE: N.T.S.



7 TYP. WAVEGUIDE BRIDGE POST GROUNDING DETAIL
SCALE: N.T.S.



TYPICAL GENERATOR
5 GROUND CONNECTION DETAIL
SCALE: N.T.S.

B+T GRP

NEXTECH wireless

ABILENE WEST

PART OF THE NE/4, SEC 17-T13S-R2E
ABILENE, KS 67410

EXISTING SELF SUPPORT

PROJECT NO: [illegible]
CHECKED BY: [illegible]

ISSUED FOR:

REV	DATE	[illegible]	[illegible]
A	6/16/14	[illegible]	[illegible]
B	6/27/14	[illegible]	Construction

B&T ENGINEERING, INC.
(-1403)
Expires 12/31/14

CHAD ERIC [illegible]
16078
8/27/14
KANSAS
PROFESSIONAL ENGINEER

SHEET NUMBER: G-4
REVISION: 0

LEASE AGREEMENT
(Land Only)

This Lease Agreement is made and entered into as of the 20th day of May, 2014, by and among Great Plains Rentals, Inc. "Lessor", and Nex-Tech Wireless, LLC, 3001 New Way, Hays, Kansas 67601, a Kansas limited liability company, hereinafter called "Lessee".

1. Description of Property.

Lessor hereby grants and conveys permission to Lessee to construct, operate and install buildings and/or radio communications structures, backup generator and equipment as required and necessary to support Lessee's wireless telecommunications system on a parcel not to exceed fifty feet (50') by fifty feet (50') plus a ten foot (10') buffer surrounding such parcel at a location agreed by Lessor, on the following premises:

> A parcel of land located in the Northeast Quarter of Section Seventeen (17), Township Thirteen (13) South, Range Two (2) East of the 6th Principal Meridian, Dickinson County, Kansas, more particularly described as follows: Commencing at the Southwest corner of said Northeast Quarter; thence on an assumed bearing of N 89°48'53" E along the South line of said Northeast Quarter a distance of 80.00 feet to a point on the East right-of-way line of the AT&SF Railway Company; thence N 00°02'37" W along said East right-of-way a distance of 40.00 feet to the POINT OF BEGINNING of the parcel to be described:
> -thence continuing N 00°02'37" W along said East right-of-way a distance of 1139.51 feet to a point on the South right-of-way line of the Abilene Flood Control System in Condemnation case No. 14869;
> -thence N 89°55'48" E along said South right-of-way a distance 1048.70 feet;
> -thence S 00°00'00" E a distance of 1137.40 feet;
> -thence S 89°48'53" W a distance of 1047.84 feet to a point on said East right-of-way line, said point also being the POINT OF BEGINNING.
> Said parcel contains 27.40 acres, more or less, and is subject to easement, reservations, and restrictions of record, and is commonly known as 1100 NW 8th Street, Abilene, Kansas.

2. Term.

The initial term of this Lease Agreement shall be twenty-five (25) years from the Commencement Date, as set forth in Article 16. Following the tenth anniversary of the lease term, the Lease may be terminated by either party upon two (2) years written notice to the other party, in which case the Lease shall terminate on the second lease anniversary date following receipt of written notice. [redacted]

3. **Lease Payments.**

[redacted]

4. **Installation and Maintenance of Lessee's Building, Structures and Equipment.**

Lessor agrees and hereby grants Lessee free access to the described land for the purpose of constructing, inspecting and maintaining the facilities as set forth in Article 1. It is agreed that only engineers and contractors of Lessee, including their subcontractors, or persons under their direct supervision, and employees of Lessee, will be permitted to enter the property. It is further agreed that Lessee's construction and installation will comply with all applicable rules and regulations of the Federal Communications Commission, State Corporation Commission of the State of Kansas, and all applicable Electrical Codes. In addition, Lessee shall comply at all times with all Federal, State or local statutes, regulations, ordinances or judicial decisions concerning protection of human health or the environment.

5. **Road and Utility Easement.**

If the construction site is not immediately adjacent to a public road, an easement twenty (20) feet wide shall be granted by the Lessor to the Lessee, from the nearest public road to the site for the purpose of constructing an access road and installing required public utility facilities, including electrical and telephone lines.

6. **Site Maintenance.**

Lessee shall construct a ten foot (10') chain-link fence surrounding the leased premises as approved by Lessor, and shall keep the same in good condition.

7. **Surface Use.**

Lessor shall have the right to use all areas of the leased premises not within ten (10) feet

of any fenced enclosure or dedicated roadway. Such use by Lessor may include cultivation, as well as grazing, provided such cultivation does not interfere with Lessee's equipment, including, but not limited to, tower, anchors, guy wires and fences.

8. Lessee's Equipment.

Lessor acknowledges and agrees that all personal property, equipment, apparatus, generators, fittings, fixtures and trade fixtures installed or stored on Lessee's premises constitute personal and exclusive property of Lessee or one of Lessee's affiliates, including without limitation, all telecommunications equipment, towers, switches, cables, wiring and associated equipment or personal property (collectively, the "Equipment"). The Equipment shall remain at all times the personal property of the Lessee or one of Lessee's affiliates, and neither the Lessor nor any person claiming by, through or under Lessor shall have any right, title or interest (including without limitation a security interest) in the Equipment. Lessee, and Lessee's successors in interest, shall have the right to remove the Equipment at any time during the term of this Lease, Lessee shall remove the Equipment, including all foundations, at least three feet (3') below grade upon the expiration of the term of this Lease or its earlier termination, and shall return the property to its previous condition. With respect to the holder of any mortgage, deed of trust or other lien affecting Lessor's interest in the premises, whether existing as of the date hereof or arising hereafter, Lessor and Lessee hereby agree, acknowledge and declare that the Equipment is now and shall at all times hereafter remain the personal and exclusive property of Lessee or one of Lessee's affiliates. The parties further acknowledge and agree that Lessor shall have no right or authority to grant a lien or security interest in or to any of the Equipment. Lessee shall keep the premises and the Lessor free from any liens arising out of any work performed, materials furnished or obligations incurred by Lessee. Lessee shall provide to Lessor for all contractors utilized by Lessee proper and valid proof of insurance. Lessee shall keep the premises and the Lessor free from any liens arising out of any work performed, materials furnished or obligations incurred by Lessee.

9. Sublease.

Lessee shall not assign this Lease or sublet the premises or any part thereof, except to an affiliate of Lessee, without first obtaining the written consent of the Lessor. Notwithstanding the above prohibition or limitation of Lessee's right to sublease or assign its interest under this Lease, Lessor acknowledges and agrees that Lessee shall have the right to grant a security interest in its right and interest under this Lease. Lessor further agrees that any person foreclosing or otherwise realizing upon such a security interest granted by Lessee shall succeed to, and, shall have the benefits of, all Lessee's rights, title and interest under this Lease.

10. Lessee's Right to Lease.

Notwithstanding Article 9, Lessee shall have the right to lease use of or space on its tower facilities to other entities in a manner consistent with other provisions of this Lease.

11. Site Cleanup on Termination.

Lessee shall remove all buildings, structures and equipment placed upon the demised premises within one hundred twenty (120) days after termination of this Lease and restore the real estate to its original condition at Lessee's cost including the cement barrier that has been placed above ground, the concrete foundation shall be removed to a minimum of three feet (3') below grade and the remainder that is underground may be left with the real estate.

12. Hazardous Substances.

A. Lessee represents and warrants, to Lessor and Lessor's successors and assigns that:

(1) no dangerous, toxic or hazardous pollutants, contaminants, chemicals, wastes, materials, or substances, as defined in or governed by the provisions of any federal, state or local law, statute, code, ordinance, regulation, requirement or rule relating thereto (collectively, the "Environmental Regulations"), including without limitation urea formaldehyde, dioxins, polycholorinated biphenyls, asbestos, asbestos-containing materials, nuclear fuel wastes, and petroleum products, or any other wastes or substances which would subject the owner or occupant of the premises to any damages, penalties or liabilities under any applicable environmental regulation (collectively, the "Hazardous Substances") will be located, produced, treated, transported, incorporated, discharged, emitted, released, deposited or disposed of in, upon, under, over or from the premises during Lessees occupation of the leased premises;

(2) no threat shall exist of a discharge, release or emission of a Hazardous Substance upon or from the premises into the environment;

(3) no underground or above ground storage tank shall be located in or under the premises, during the Lease term.

(4) during the term of the lease and any extension or renewals, no violation of any Environmental Regulation shall be permitted in, upon, under, over or from the premises;

B. Lessee agrees that it will not use any dangerous, toxic or hazardous pollutants, chemicals, materials or substances as defined in or governed by the provisions of any federal, state of Kansas or local law, statute, code, ordinance, regulation, requirement or rule relating thereto (collectively, the "Environmental Regulations") which would subject Lessor or any other occupant of the premises to any damages, penalties or liabilities under any applicable environmental regulation.

C. Lessee, at its sole cost and expense, may have access to the leased premises prior to commencement of the lease term to conduct All Appropriate Inquiry pursuant to 40 CFR Part 312. In the event the results of its inspection are not satisfactory to Lessee in its sole discretion, it may terminate the lease upon written notice to Lessor.

13. Taxes and Insurance.

Lessee shall be responsible for and shall pay all personal property taxes on the leased premises. Upon demand, Lessee shall furnish Lessor with reasonable evidence of Lessee's

compliance with this section. To the extent any such property of Lessee shall be assessed together with real or personal property of Lessor, Lessee shall reimburse Lessor for any taxes paid by Lessor attributable to such assessment upon demand by Lessor, which demand shall be accompanied by reasonable documentation of such assessment.

Lessee shall at all times during the term of this Lease maintain at its own expense worker's compensation and employers' liability insurance in accordance with appropriate laws on all employees used in the performance of this Lease, and shall maintain commercial general public liability and property damage insurance covering operations, products, completed operation, contractual and independent contractors' liability in minimum bodily injury amounts of $1,000,000 per occurrence and aggregate. Lessor shall be named as an additional named insured on such policies which shall waive all right of subrogation against Lessor. All work by Lessee and Lessee's contractors shall conform to current building codes, and shall be competed in a workman like manner.

14. Lessors' Indemnity.

Lessor hereby agrees to indemnify and hold Lessee harmless from any damages, claims or causes of action which may arise during the term of this Lease as a result of any wilful misconduct or gross negligence by the Lessor, their agents, servants or employees, and to pay all reasonable costs and expenses, including, but not limited to, attorney's fees and court costs.

15. Lessee's Indemnity.

Lessee hereby agrees to indemnify and hold Lessor harmless from any damages, claims or causes of action which may arise during the term of this Lease as a result of any action or negligence by the Lessee, their agents, servants or employees, and to pay all reasonable costs and expenses, including, but not limited to, attorney's fees and court costs.

16. Contingency.

This Lease Agreement is contingent upon Lessee receiving all necessary permits and licenses, including, but not limited to, FAA, FCC and any zoning requirements. Any other provision herein contained notwithstanding, no lease payment shall be due until receipt by Lessee of final approval. The date of receipt of such final approval shall be the "Commencement Date" of this Agreement and the date payment is due pursuant to Article 3.

17. Governing Law.

Any claim arising out of this Agreement shall be governed by the laws of the State of Kansas, except with respect to conflict of laws.

18. Binding Effect.

This Agreement is binding upon the parties hereto, their respective heirs, executors, administrators, successors and assigns. Each individual who executes this Contract on behalf of a

party represents that he or she is duly authorized to execute this Contract on behalf of that party and is operating within the scope of his or her authority.

19. **Integration.**

This Agreement constitutes the full and complete understanding of the parties. Any other oral or written prior agreements or understandings are superseded hereby. Any amendment hereto must be in writing signed by both parties.

IN WITNESS WHEREOF, each party has executed this Agreement as of the date and year above written.

LESSOR

GREAT PLAINS RENTALS, INC.
P.O. Box 5060
Salina, Kansas 67402

By: Roy E Applequist
Name: Roy E. Applequist
Title: President

LESSEE

NEX-TECH WIRELESS, LLC
3001 New Way
Hays, Kansas 67601

By: Nathan Sutter
Name: Nathan Sutter
Title: Director of Network Operations

ACKNOWLEDGMENTS

STATE OF KANSAS)
) SS:
COUNTY OF SALINE)

This instrument was acknowledged before me this 20 day of May, 2014, by Roy E. Applequist of GREAT PLAINS RENTALS, INC., a Kansas corporation, Lessor, for and on behalf of said company.

Sheldon A. Muninger
Notary Public

My Appointment Expires:

SHELDON A. MUNINGER
Notary Public - State of Kansas
My Appt. Expires 1-24-15

STATE OF KANSAS)
) SS:
COUNTY OF ELLIS)

This instrument was acknowledged before me on this 5th day of June, 2014, by Nathan Sutter, Director of Network of NEX-TECH WIRELESS, LLC, a Kansas limited liability company, Lessee, for and on behalf of said company.

Amy Marie Miller
Notary Public

My Appointment Expires:

AMY MARIE MILLER
Notary Public
State of Kansas
My Commission Expires 2-18-18

Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
2601 Meacham Boulevard
Fort Worth, TX 76193

Aeronautical Study No.
2014-ACE-2523-OE

Issued Date: 08/26/2014

Richard Gaito
Nex-Tech Wireless
3001 New Way
Hays, KS 67601

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

The Federal Aviation Administration has conducted 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:

Structure:	Antenna Tower Abilene West
Location:	Abilene, KS
Latitude:	38-55-32.47N NAD 83
Longitude:	97-13-54.67W
Heights:	1161 feet site elevation (SE)
	137 feet above ground level (AGL)
	1298 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:

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

_____ At least 10 days prior to start of construction (7460-2, Part 1)
__X__ Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

See attachment for additional condition(s) or information.
Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/ lighting are accomplished on a voluntary basis, we recommend it be installed and maintained in accordance with FAA Advisory circular 70/7460-1 K Change 2.

This determination expires on 02/26/2016 unless:

(a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
(b) extended, revised, or terminated by the issuing office.
(c) 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 the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is based, in part, on the foregoing description which includes specific coordinates , heights, frequency(ies) and power . Any changes in coordinates , heights, and frequencies or use of greater power will void this determination. Any future construction or alteration , including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

A copy of this determination will be forwarded to the Federal Communications Commission (FCC) because the structure is subject to their licensing authority.

If we can be of further assistance, please contact our office at (816) 329-2508. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2014-ACE-2523-OE.

Signature Control No: 221075830-227905972 (DNE)
Vee Stewart
Specialist

Attachment(s)
Additional Information
Frequency Data
Map(s)

cc: FCC

An aeronautical study was completed on this structure with the submitted above ground level (AGL) height of 150 feet. The study determined that an AGL height of 150 feet exceeds FAR 77.17(a)(3) by 13 feet. The sponsor/rep has provided an e-mail reducing the AGL height to 137 feet. At the revised AGL height of 137 feet the structure would not exceed FAA obstruction standards.

Frequency Data for ASN 2014-ACE-2523-OE

LOW FREQUENCY	HIGH FREQUENCY	FREQUENCY UNIT	ERP	ERP UNIT
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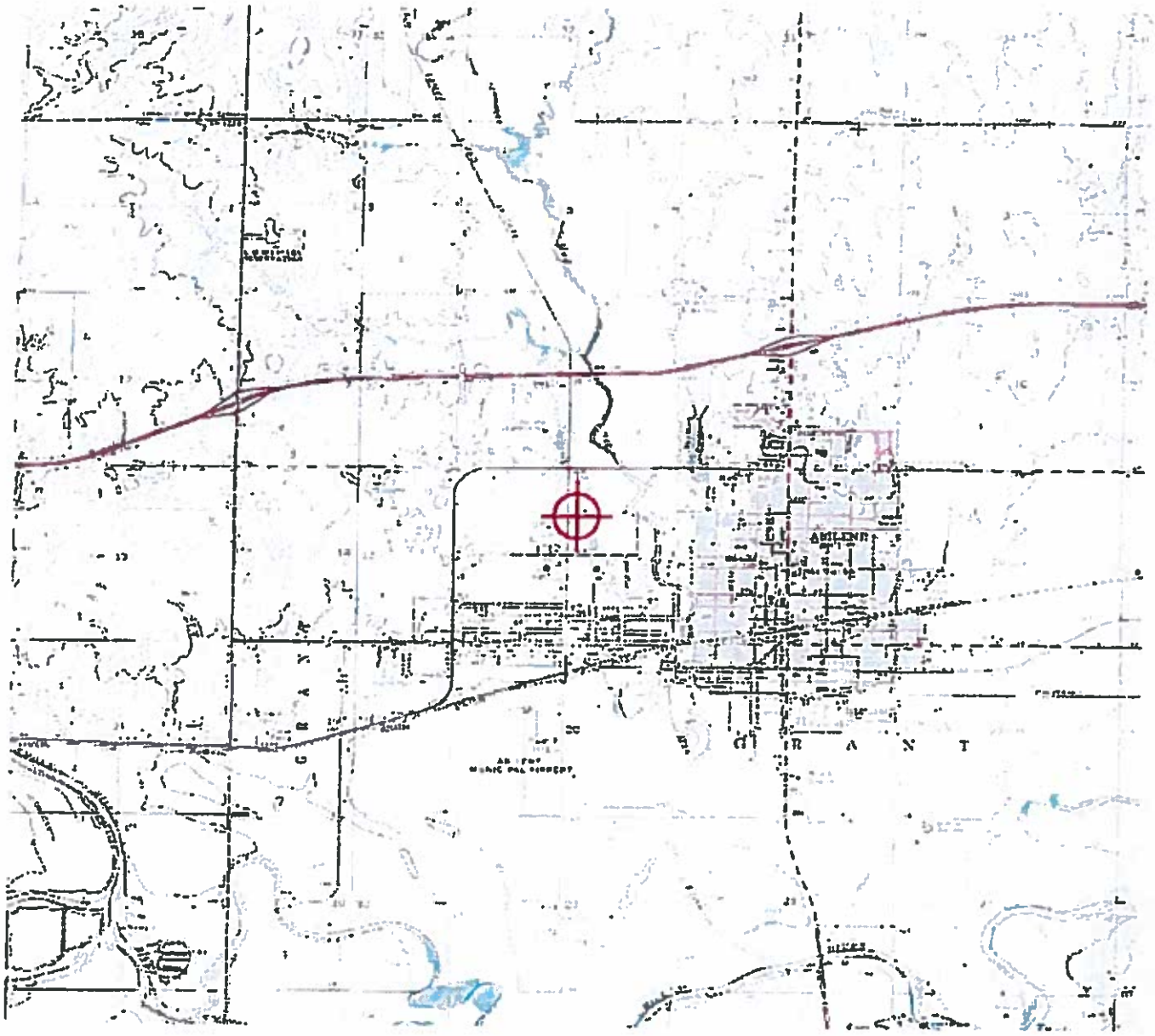
1850	1910	MHz	1640	W

TOPO Map for ASN 2014-ACE-2523-OE