

## **BOARD OF COUNTY COMMISSIONERS OF DOUGLAS COUNTY, KANSAS**

### **WEDNESDAY, DECEMBER 20, 2017**

4:00 p.m.

#### **CONSENT AGENDA**

- (1) (a) Consider approval of Commission Orders; and
- (b) Consider approval of acquisition of temporary easement for drainage structure replacement, Project No. 2017-63 (Kevin Sontag)

#### **REGULAR AGENDA**

- (2) Consider SP-17-00670; a Site plan for co-location of communication equipment for KwiKom communication on an existing 300' tower. The application was submitted by David Blaha, Hyden tower/HPB Properties LLC for Sherilyn and Freda LaDuke, property owners of record. The tower is located at 249A N 2100 Road. Sandra Day is the planner.
- (3) (a) Consider approval of Accounts Payable (if necessary)
- (b) Appointments
- (c) **Board of Zoning Appeals (1) positions 10/17**
- (d) **Building Code of Appeals Board (2) positions 12/16**
- (e) **Community Corrections Advisory Board (1) position**
- (f) **Senior Services Board of Directors (3) positions**
- (g) **Eudora Township Trustee position**
- (c) Public Comment
- (d) Miscellaneous
- (4) Adjourn

### **WEDNESDAY, DECEMBER 27, 2017 – Canceled**

### **WEDNESDAY, JANUARY 3, 2018**

-Proclamation for Human Trafficking Awareness Month – Kristen Tebow

6:00 p.m.

-Regular: Consider options for Project No. 2016-18, Route 1055 improvements at the N 700 curve west of Vinland (Keith Browning)

### **WEDNESDAY, JANUARY 10, 2018**

### **WEDNESDAY, JANUARY 17, 2018**

### **WEDNESDAY, JANUARY 24, 2018**

### **WEDNESDAY, JANUARY 31, 2018**

***Note:** The Douglas County Commission meets regularly on Wednesdays at 4:00 P.M. for administrative items and/or 6:00 P.M. for public items at the Douglas County Courthouse. Specific regular meeting dates that are not listed above have not been cancelled unless specifically noted on this schedule.*



## DOUGLAS COUNTY PUBLIC WORKS

3755 E. 25<sup>th</sup> Street  
Lawrence, KS 66046  
(785) 832-5293 Fax (785) 842-1201  
dgcopubw@douglascountyks.org  
www.douglascountyks.org

**Keith A. Browning, P.E.**  
Director of Public Works/County Engineer

---

### MEMORANDUM

To : Board of County Commissioners

From : Keith A. Browning, P.E., Director of Public Works/County Engineer  
Kevin R. Sontag, P.S., County Surveyor

Date : December 15th, 2017

Re : Consent agenda  
Acquisition of temporary easement for drainage structure replacement  
Project No. 2017-63 (Str. No. 03.28N-24.00E)

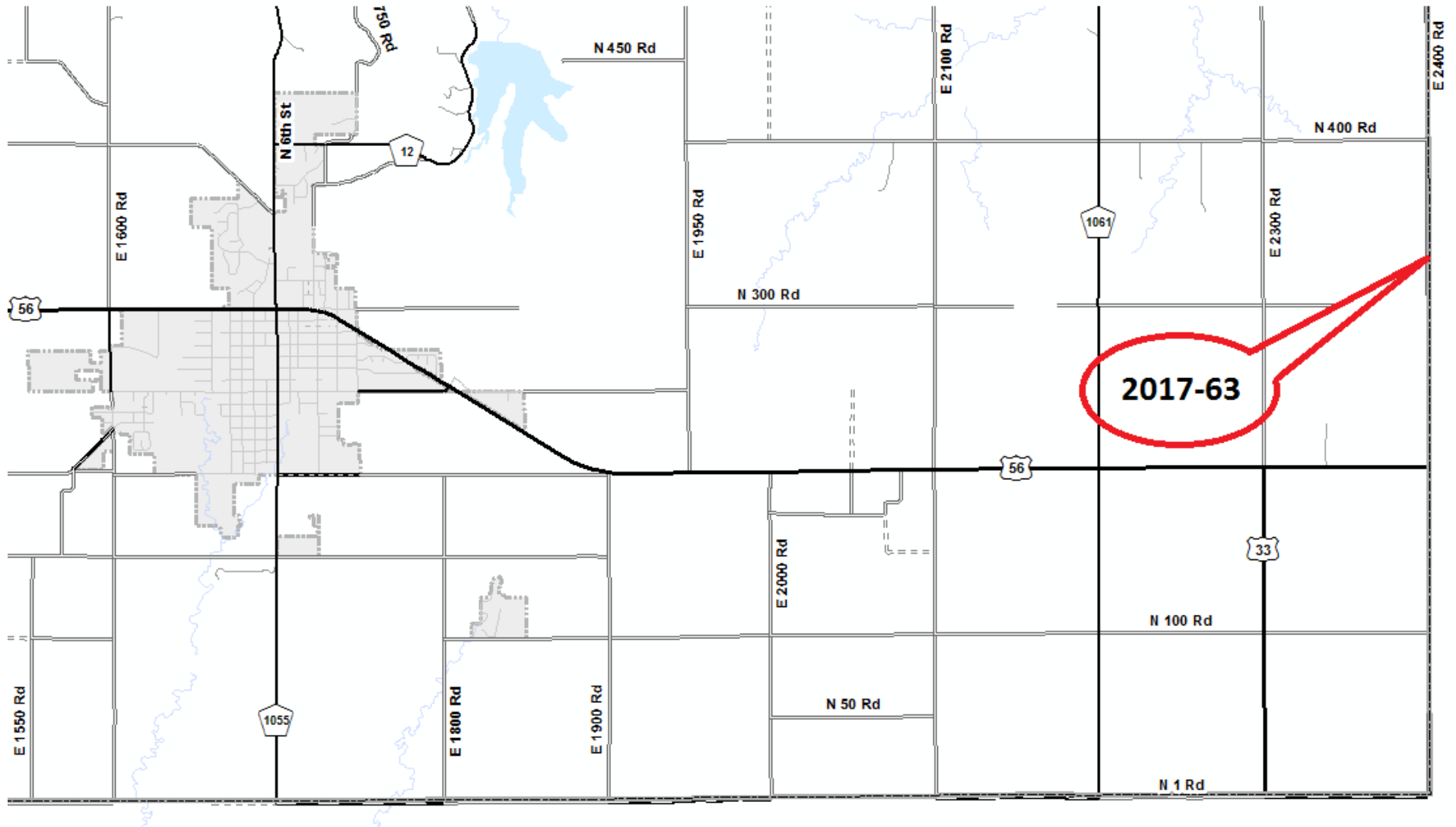
A project has been designed to replace a deficient drainage structure on E2400 Road (Douglas-Johnson County line) approximately 7 miles east of Baldwin City. Plans were developed in-house and negotiations with the landowner for temporary construction easement are complete.

Construction is currently planned to begin spring 2018 and will be accomplished using county personnel.

To ensure the proper completion of a necessary construction project, approval is recommended for the attached CONTRACT FOR HIGHWAY PURPOSES.

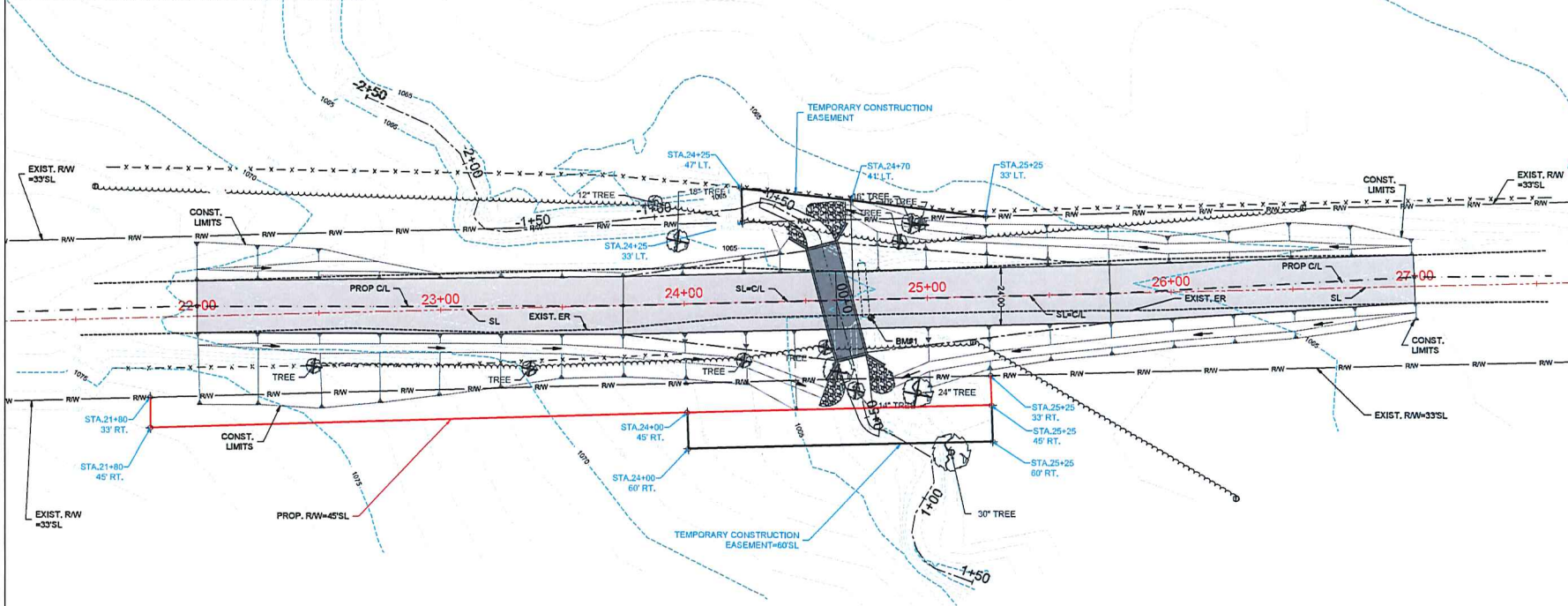
**ACTION REQUIRED:** Consent agenda approval of CONTRACT FOR HIGHWAY PURPOSES for Project No. 2017-63 (Str. No. 03.28N-24.00E)

## General Location Map for Project No. 2017-63



SECTION CORNER INFORMATION				
SECTION CORNER	R/CODE	SECTION CORNER COORDINATE	SL- STATION	CORNER STATUS
SE CORNER SEC. 34-T14-R21	Z17A	N: 177119.841 E: 2151370.777	10+00	RECORD
EL 1/2 CORNER SEC. 34-T14-R21	U17X	N: 179771.321 E: 2151289.879	36+52.81	RECORD
BENCHMARK INFORMATION				
BM #1	STA. 24+76.87, 7.51' RT.	ELEV: 1065.53	N: 178596.805 E: 215133.191	NE CORNER OF CONCRETE HEADWALL
P.I. INFORMATION				
PI #1	STA. 22+00.00, 4.22' LT. to SL	ELEV: 1069.94	N: 178319.33	E: 2151329.96
PI #2	STA. 23+75.00, 0.00' to SL	ELEV: 1066.02	N: 178484.30	E: 2151328.84
PI #3	STA. 25+75.00, 0.00' to SL	ELEV: 1064.78	N: 178694.21	E: 2151322.74
PI #4	STA. 27+00.00, 3.89' LT. to SL	ELEV: 1066.30	N: 178818.58	E: 2151315.04

NOTE: ONCE EXISTING BM IS REMOVED, SURVEY WILL ESTABLISH 2 TEMPORARY BM.



DENNIS L. DWYER  
DAVID L. DWYER  
39715 W 199TH ST  
EDGERTON, KS 66021  
SE 1/4 CORNER SEC. 34-T14-R21  
B51T P1289



Douglas County Public Works  
3755 East 25th Street  
Lawrence, Kansas 66046



Project: CULVERT REPLACEMENT  
Prepared: 2017-03  
Designed: A.C.  
Checked: C.V.  
Drawn: J.W.B.  
Date: 05/2017

GENERAL LAYOUT & RW  
SHEET 03 OF 10

CULVERT REPLACEMENT FOR E 2400 ROAD  
STRUCTURE NO. 03.28N 24.00E  
PROJECT NO. 2017-63

- LIMIT TREE REMOVAL WITHIN RW AND EASEMENTS TO ONLY:
1. THE AREAS AFFECTED BY CONSTRUCTION ACTIVITIES, AND
  2. A MINIMAL AMOUNT OF AREA TO PROVIDE AN ADEQUATE TURNAROUND FOR CONSTRUCTION TRAFFIC.

DENNIS L. DWYER  
LARRY E. DWYER  
39715 W 199TH ST  
EDGERTON, KS 66021  
SW 1/4 CORNER SEC. 35 T14 R21  
(Per JOCO GIS)

# Memorandum

## City of Lawrence

### Planning & Development Services

**TO:** Craig Weinaug, County Administrator  
Scott McCullough, Planning and Development Services Director  
Sean Reid, Director, Zoning and Codes Department  
Tonya Voigt, County Zoning and Codes Department  
Judy Stone, County Zoning and Codes Department  
Randy Roberts, Douglas County Emergency Communications

**FROM:** Sandra Day, Planner

**CC:** Douglas County Board of County Commissioners  
David Blaha, Hyden tower/HPB Properties LLC.  
File

**Date:** December 14, 2017

**RE:** SP-17-00670; 249 N 2100 Road; KwiKom

**Staff Recommendation:** Planning staff recommends approval of the above referenced site plan.

#### ATTACHMENTS

1. General Location Map
2. Property Area Map
3. Proposed site plan
4. Staff report – CUP-13-00156

#### SUMMARY

The Board of County Commissioners at their meeting on July 10, 2013 approved the existing tower located at 249 N 2100 Road. The Commission approved a Conditional Use Permit (CUP-13-00156) for the purposes of constructing a 300' communication tower for Douglas County emergency communication equipment. Douglas County was the applicant. The tower design will accommodate space for multiple carriers. The purpose of the application was specifically for the exclusive use of the tower for Douglas County equipment. At the time of the approval, there was no intent to sub-lease space on the tower. There was a recognition that an unknown user could come forward and make a request for tenant space on the tower. In order to preserve the County's use of the structure for future needs the CUP was approved with the following condition:

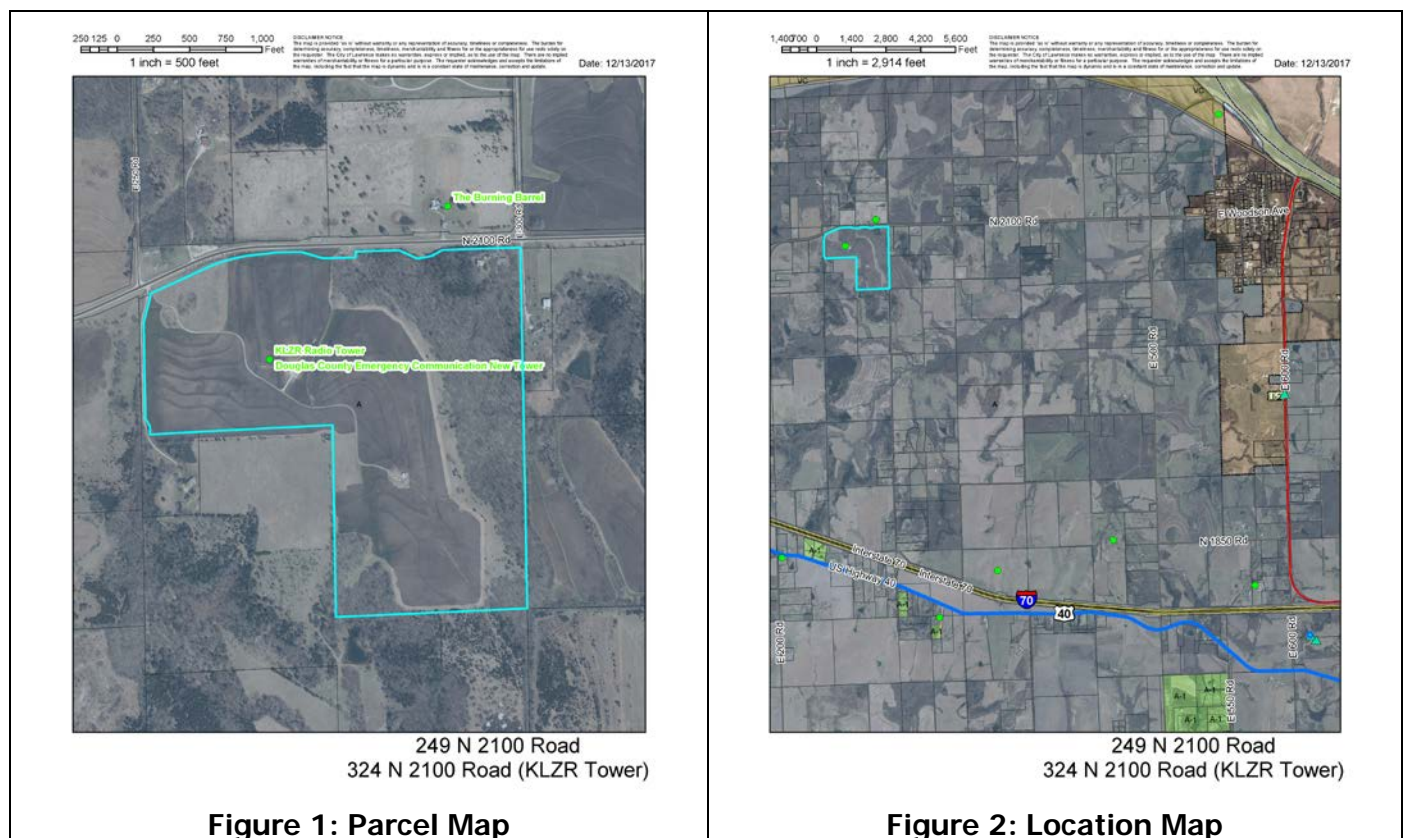
*Use of this tower for carriers other than Douglas County Emergency Communication Department shall require County Commission approval, as the tower owner, in addition to site plan review and approval of any co-location request for new equipment other than that expressly used for Douglas County Emergency Management. Equipment changes or improvements by Douglas County may be approved by site plan amendment per the County Zoning Administrator. "*



After approval for the tower was granted, the tower was constructed but is not owned by Douglas County as originally planned and noted in the application documentation. Douglas County is a tenant on the tower. The tower owner is pursuing a request to allow co-location of equipment for Kwikom on this tower. Per the conditions of approval, any co-location on this tower first requires specific approval by the County Commission.

Typically, co-location of communication equipment on communication towers, water towers or building mounted applications are reviewed administratively through the Planning Office. Building permits are issued through the Zoning and Codes Office. This application deviates from that process because of the condition placed on the original Conditional Use Permit.

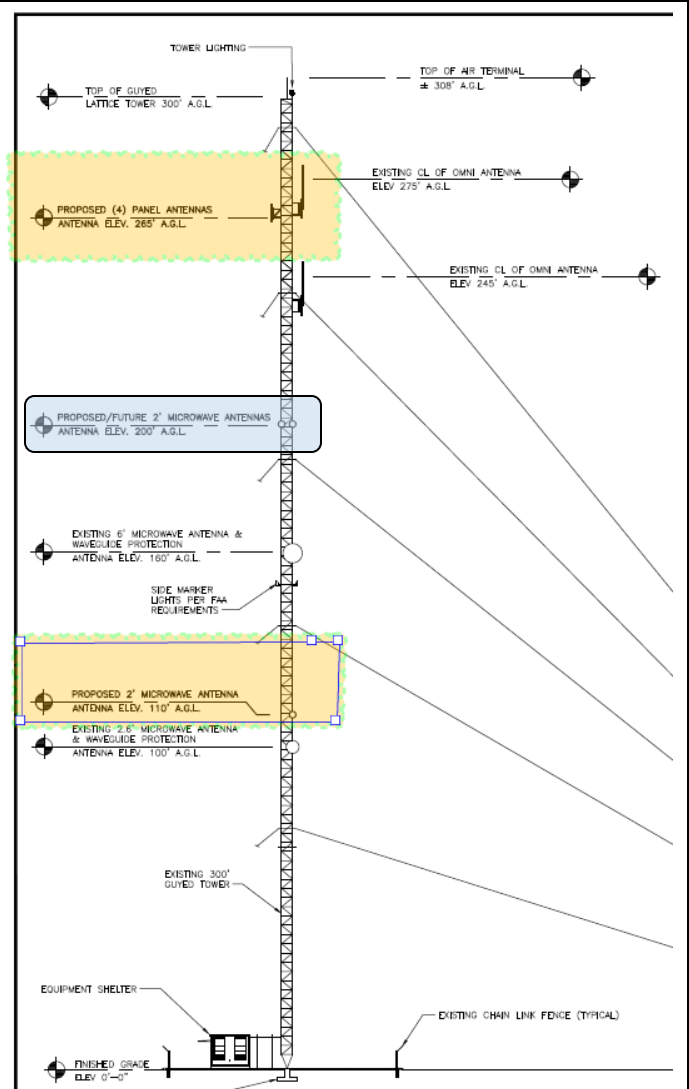
Zoning and Land Use:	
Subject Property Zoning:	A (Agricultural) District. Existing rural agricultural district with two tower structures.
Surrounding Zoning:	A (Agricultural) District in all directions. Existing rural agricultural uses including scattered residences.



Existing Development: This site includes two tower structures accessed from the same driveway. A rural residence is located in the northeast corner of 109-acre tract. The tower compound includes an existing equipment shelter building and a generator pad.

Proposed Development: The proposed changes to the tower include the addition of equipment located at the ground level within the existing enclosure. This ground equipment is required in connection with the proposed antenna that will be co-located on the tower structure as shown on the attached site plan. The proposed plans show four proposed panel antennas located 265' above ground level and a 2' microwave antenna located at 110' above ground level (highlighted in gold in image to the right).

This plan also shows equipment, located 200' above ground level, as a future addition (highlighted in blue in image to the right).



## Site Evaluation

249 N 2100 Road

Communication tower is located to the northwest. Radio tower is located to the southeast. Tower is a 308' tall guyed tower. The proposed equipment would be located at 265' and 110' above ground level.

Future equipment to be added at 200' above ground level.

Related Requests for Site:

- CUP-13-00156; Original Approval, with restrictions.
- CUP-4-2-87; KLZR Radio tower to the southeast on same parcel.

Additional Regulatory Site Requirements

RESPONSE  
(Check one of the following)

Airport Overlay District

☐ YES☒ NO

If Yes, determination of Airport Advisory Board may be required

Is property located Regulatory Flood Plain?

☐ YES☒ NO

*If Yes, A separate Flood Plain Development Permit may be required.*

Is City infrastructure used for co-location request?

☐ YES☒ NO

Has Structural Analysis been completed and approved for City infrastructure? **Not applicable to this request.**

☐ YES☐ NO

Is property subject to Historic Environs Review (HRC)

☐ YES☒ NO

If Yes describe

Is tower height modified by this application?

☐ YES☒ NO

Is tower enclosure or setback modified by this application?

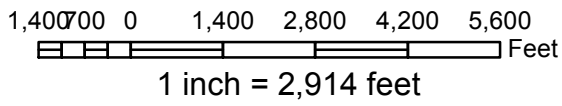
☐ YES☒ NO**Conclusion**

The proposed equipment modifications do not alter the tower height or enclosure of the existing tower. Improvements at the ground level include the addition of a frame for mounting equipment and cables that connect to antenna mounted on the tower.

This application represents the first request for co-location of communication equipment on this structure in addition to the existing Emergency Communication Department equipment originally installed on this tower. Douglas County Emergency Commission Department staff reviewed this application and did not have any comments. The proposed request is not anticipated to conflict with existing equipment currently located on the tower.

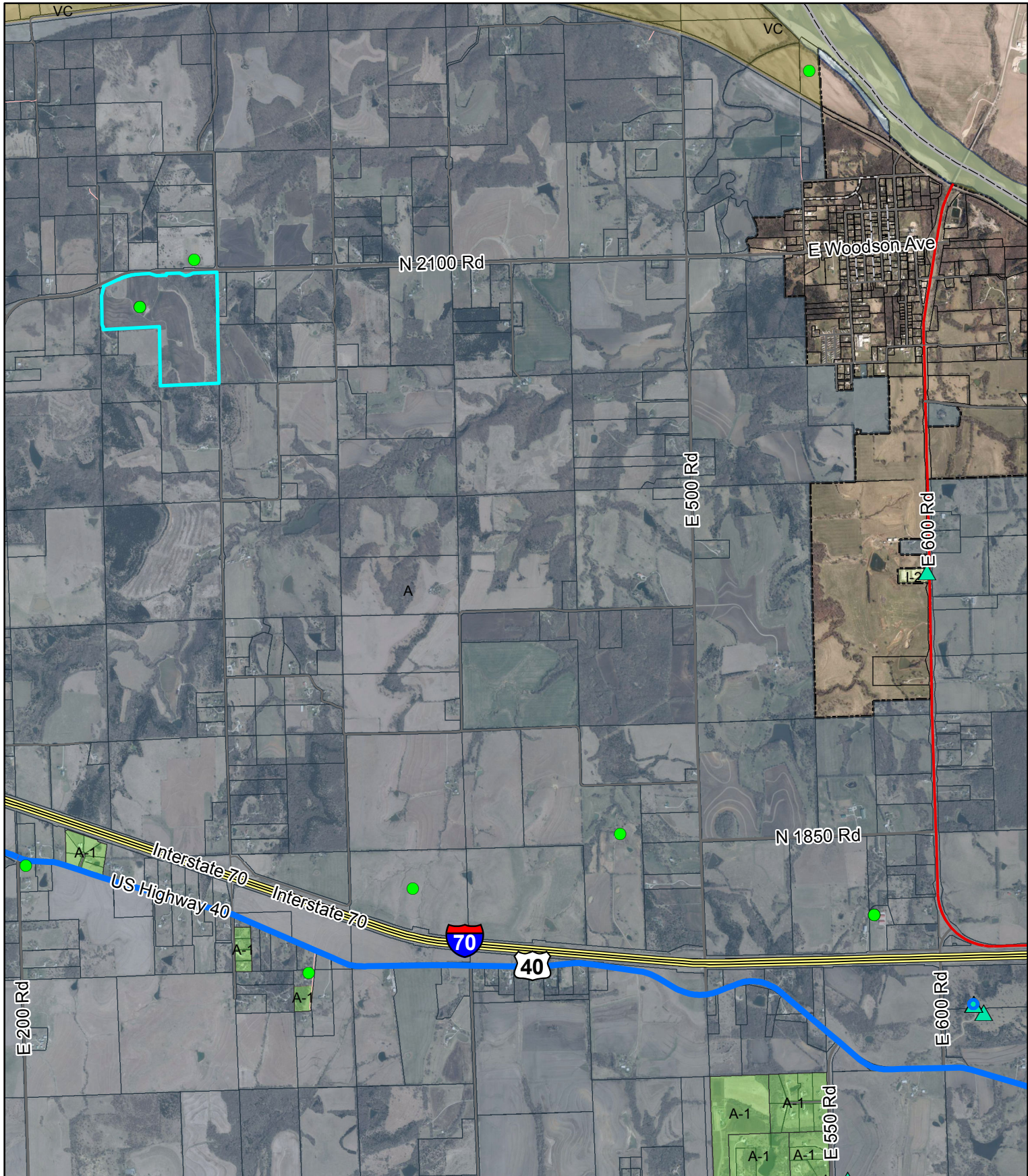
The proposed request is consistent with similar applications for co-location of communication equipment on other structures located in Douglas County and is supported by staff.





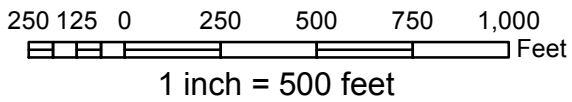
DISCLAIMER NOTICE  
The map is provided "as is" without warranty or any representation of accuracy, timeliness or completeness. The burden for determining accuracy, completeness, timeliness, merchantability and fitness for or the appropriateness for use rests solely on the requester. The City of Lawrence makes no warranties, express or implied, as to the use of the map. There are no implied warranties of merchantability or fitness for a particular purpose. The requester acknowledges and accepts the limitations of the map, including the fact that the map is dynamic and is in a constant state of maintenance, correction and update.

Date: 12/13/2017



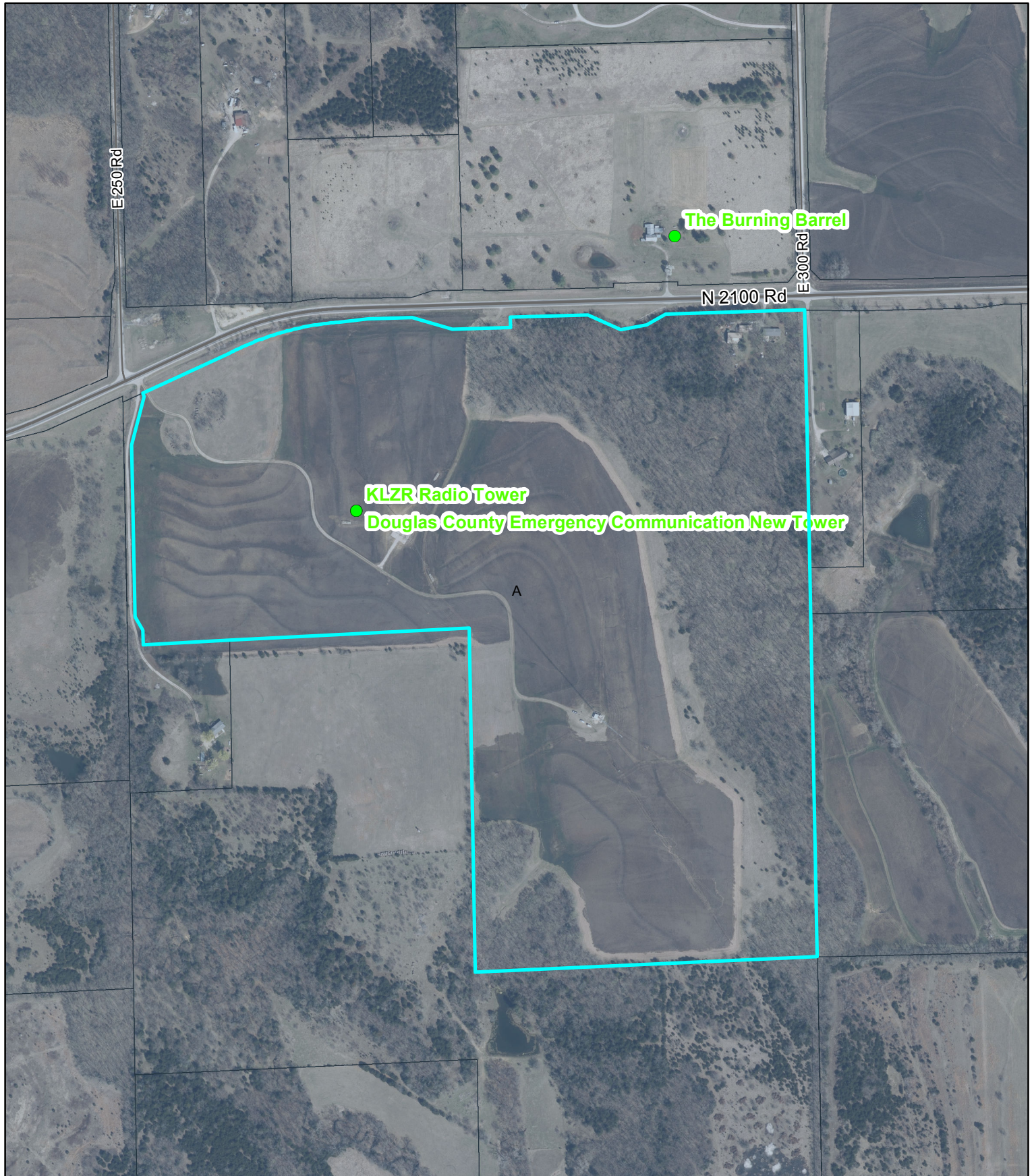
249 N 2100 Road  
324 N 2100 Road (KLZR Tower)





DISCLAIMER NOTICE  
The map is provided "as is" without warranty or any representation of accuracy, timeliness or completeness. The burden for determining accuracy, completeness, timeliness, merchantability and fitness for or the appropriateness for use rests solely on the requester. The City of Lawrence makes no warranties, express or implied, as to the use of the map. There are no implied warranties of merchantability or fitness for a particular purpose. The requester acknowledges and accepts the limitations of the map, including the fact that the map is dynamic and is in a constant state of maintenance, correction and update.

Date: 12/13/2017



249 N 2100 Road  
324 N 2100 Road (KLZR Tower)





LECOMPTON RAW LAND  
PART OF SEC. 6, T. 12S, R. 18E,  
IN DOUGLAS COUNTY, KANSAS

CERTIFICATION:

I HEREBY CERTIFY THAT A SURVEY WAS MADE BY ME, OR UNDER MY DIRECT SUPERVISION, ON THE GROUND OF THE LEASE AREA, LEASE ACCESS EASEMENT, AND LEASE UTILITY EASEMENT PREMISES HEREIN DESCRIBED, AND THE RESULTS OF SAID SURVEY ARE REPRESENTED HEREON. THIS SURVEY WAS EXECUTED IN ACCORDANCE WITH THE CURRENT MINIMUM STANDARDS FOR PROPERTY BOUNDARY SURVEYS OVER SAID LEASE PREMISES TO THE BEST OF MY PROFESSIONAL KNOWLEDGE AND BELIEF.

JEFFREY B. LOVELACE KS-LS1326

DATE: \_\_\_\_\_

08-28-13: ADDED UTILITY EASEMENT  
08-21-13: ADDED UTILITY EASEMENT  
04-15-13: ADDED PROPERTY & A/E  
04-12-13: ADDED ADDITIONAL TOPO

LEGEND

POWER POLE	Ø PP
LIGHT POLES	⊗ LP
TELEPHONE PEDESTAL	□ T&L
ANCHOR	⋈
BENCHMARK	⬢
CONTROL POINT	⬢
GATE POST	• GP
PROPERTY CORNER	⊙
TOWER POINT	⬢
FENCE	— X — X — X —
OVERHEAD POWER LINE	— OHP —



2936 N.W. Hwy 24  
Topeka, KS 66618  
Phone: (785) 232-1840  
Fax: (785) 232-1877



Land Surveying - Land Planning  
Telecommunications Surveys  
929 SE 3rd Street Lee's Summit, Missouri 64063  
Phone: (816) 347-9997 Fax: (816) 347-9979

SURVEY COORDINATED BY:

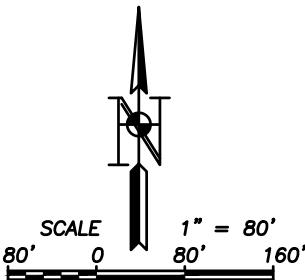
LOVELACE AND ASSOCIATES, LLC  
P.O. BOX 68,  
LEE'S SUMMIT, MO 64063  
TELEPHONE: 816-347-9997  
FAX: 816-347-9979

SURVEY PROVIDED BY:

LOVELACE AND ASSOCIATES, LLC  
P.O. BOX 68,  
LEE'S SUMMIT, MO 64063  
TELEPHONE: 816-347-9997  
FAX: 816-347-9979

SURVEY PROVIDED FOR:

HAYDEN TOWER SERVICE, INC.  
2936 NW HWY 24,  
TOPEKA, KS 66618  
TELEPHONE: 785-232-1840



FLOOD NOTE:

According to my Interpretations of Community Panel No. 20087C03400 of the Flood Insurance Rate Map for Douglas County, Kansas, dated 11-04-2009, the subject property is in Flood Zone "X", i.e. "areas determined to be Outside 500 year flood plain".



SITE I.D.: NA

SITE NAME: LECOMPTON RAW LAND

SITE LOCATION:  
DOUGLAS COUNTY,  
KANSAS

LA PROJECT NO.: 13083

DRAWN BY: A.C.T.

CHECKED BY: J.B.L.

DATE: 03-28-13

FIELDWORK DATE: 03-27-13

SHEET NUMBER  
1 OF 1

DOUGLAS COUNTY  
PLANNING & ZONING  
APPROVAL

PROPERTY DESCRIPTION: Parent Parcel as Provided

The East Half of the Northeast Quarter (NE1/4) of Section Six (6), Township Twelve (12), Range Eighteen (18), and the Northwest Quarter (NW1/4) of the Northeast Quarter (NE1/4) of Section Six (6), Township Twelve (12), Range Eighteen (18), less .86 acres as described in Deed recorded in Book 508, Page 195, containing 116.4 acres, more or less, in Douglas County, Kansas.

NOTE: The parent parcel graphically shown hereon, in full or in part, is the same as that described above.

PROPERTY DESCRIPTION: LEASE AREA, ACCESS/UTILITY EASEMENT, AND GUY ANCHOR EASEMENTS

A 100 foot by 100 foot Lease Area, situated in Section 6, Township 12 South, Range 18 East, in Douglas County, Kansas, more particularly described as follows:

COMMENCING at the Northeast Corner of land described in Deed in Book 508, Page 195; thence along the East line of said land in said Deed, South 24°47'13" East, a distance of 35.00 feet (Fnd. 5/8" Iron Bar); thence South 14°39'42" West, a distance of 192.36 feet (Record) 192.41 feet (Measured) (Fnd. 5/8" Iron Bar); thence South 01°00'20" East, a distance of 353.30 feet; thence leaving said East line, North 88°59'40" East, a distance of 974.28 feet to the POINT OF BEGINNING; thence North 32°44'44" East, a distance of 100.00 feet; thence South 57°15'16" East, a distance of 100.00 feet; thence South 32°44'44" West, a distance of 100.00 feet; thence North 57°15'16" West, a distance of 100.00 feet to the POINT OF BEGINNING. Containing 10,000 square feet.

A 20 foot wide Access/Utility Easement, situated in Section 6, Township 12 South, Range 18 East, in Douglas County, Kansas, lying 10.00 feet on each side of the following described centerline:

COMMENCING at the Northeast Corner of land described in Deed in Book 508, Page 195; thence along the East line of said land in said Deed, South 24°47'13" East, a distance of 35.00 feet (Fnd. 5/8" Iron Bar); thence South 14°39'42" West, a distance of 192.36 feet (Record) 192.41 feet (Measured) (Fnd. 5/8" Iron Bar); thence South 01°00'20" East, a distance of 353.30 feet; thence leaving said East line, North 88°59'40" East, a distance of 974.28 feet; thence South 57°15'16" East, a distance of 55.00 feet to the POINT OF BEGINNING of said centerline; thence South 32°44'44" West, a distance of 135.41 feet; thence North 57°15'16" West, a distance of 227.30 feet; thence North 45°48'21" West, a distance of 56.90 feet; thence North 23°04'22" West, a distance of 55.46 feet; thence North 03°14'55" West, a distance of 105.48 feet; thence North 21°32'20" West, a distance of 54.71 feet; thence North 49°51'58" West, a distance of 54.21 feet; thence North 76°48'51" West, a distance of 77.90 feet; thence South 85°42'20" West, a distance of 137.82 feet; thence North 87°02'22" West, a distance of 97.82 feet; thence North 66°48'23" West, a distance of 36.34 feet; thence North 43°12'57" West, a distance of 64.59 feet; thence North 11°48'52" West, a distance of 88.09 feet; thence North 33°18'09" West, a distance of 35.17 feet; thence North 55°55'33" West, a distance of 30.23 feet; thence North 81°13'07" West, a distance of 37.06 feet; thence North 64°19'47" West, a distance of 44.40 feet; thence North 42°23'14" West, a distance of 34.72 feet; thence North 31°25'56" West, a distance of 72.33 feet to the Southerly Right of Way line of N 2100TH ROAD (Public R/W) and the POINT OF TERMINATION.

Three 20 foot wide Guy Anchor Easements, situated in Section 6, Township 12 South, Range 18 East, in Douglas County, Kansas, lying 10.00 feet on each side of the following described centerline:

COMMENCING at the Northeast Corner of land described in Deed in Book 508, Page 195; thence along the East line of said land in said Deed, South 24°47'13" East, a distance of 35.00 feet (Fnd. 5/8" Iron Bar); thence South 14°39'42" West, a distance of 192.36 feet (Record) 192.41 feet (Measured) (Fnd. 5/8" Iron Bar); thence South 01°00'20" East, a distance of 353.30 feet; thence leaving said East line, North 88°59'40" East, a distance of 974.28 feet; thence North 72°33'04" East, a distance of 78.10 feet to the POINT OF BEGINNING of said centerline, said point hereinafter referred to as POINT "A"; thence South 87°15'16" East, a distance of 260.00 feet to the POINT OF TERMINATION; thence BEGINNING at aforementioned POINT "A"; thence North 23°44'44" East, a distance of 260.00 feet to the POINT OF TERMINATION; thence BEGINNING at aforementioned POINT "A"; thence South 27°15'16" East, a distance of 260.00 feet to the POINT OF TERMINATION.

A current Title Commitment had not been provided by the owners as of the date of issuance of this Plot of Survey. This company has made no investigation or independent search for easements of record, encumbrances, restrictive covenants, ownership title evidence, or any other facts that an accurate and current title search may disclose.

Notes:

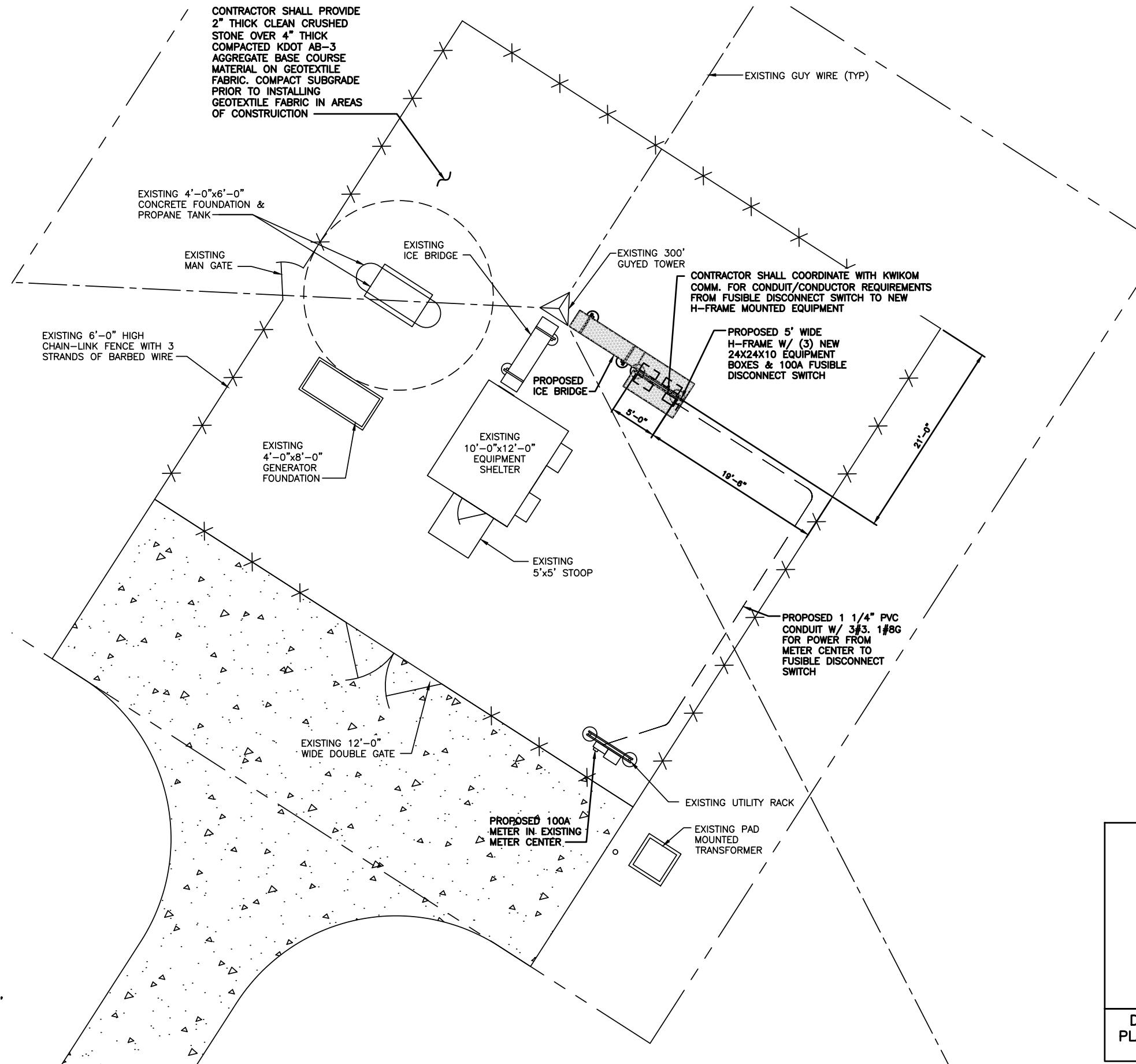
Bearings shown hereon are based on Kansas State Plane Coordinate System of 1983 (NAD 83).

Coordinates were derived using GPS Static Survey methods and post processed data with Magellan/Ashtech receivers and "Locus System" processor software.

Set 1/2" Iron bar at Lease corners unless otherwise noted.

The purpose of this survey is to establish and describe a Lease Parcel and associated easements. This is not a boundary survey of the Parent Parcel.

The utilities as shown on this drawing were developed from the information available (existing utility maps, aboveground observations and/or surface markings placed on the ground by the utility company or a representative thereof). This company has made no attempt to excavate or go below surface to locate utilities and does not extend or imply a guaranty or warranty as to the exact location of or complete inventory of utilities in this area. It shall be the contractors responsibility to verify the location and depth of all utilities (whether shown or not) prior to excavation or construction and to protect said utilities from damage.



DOUGLAS COUNTY  
PLANNING & ZONING  
APPROVAL



PLANS PREPARED FOR:

**Hayden**  
TOWER SERVICE, INC.

2936 NW Highway 24  
Topeka, Kansas 66618  
Phone: (785) 232-1840  
Fax: (785) 232-1877

PLANS PREPARED BY:

9900 West 109th Street, Suite 300  
Overland Park, Kansas 66210  
Phone: 913-438-7700  
Fax: 913-438-7777

**SSC**

ENGINEERING LICENSE:

STATE OF KANSAS

PE CERTIFICATE OF AUTHORIZATION # E-571

ENGINEER:	PE#:	DISCIPLINE:
MLO MICHAEL L. OWENS	16971	STRUCTURAL/CIVIL SC
KV KEVIN VANMAELE	22105	STRUCTURAL/CIVIL SC
REJ ROBERT E. JENSEN	16096	STRUCTURAL/CIVIL SC
NRK NICHOLAS R. KEFELDT	22059	STRUCTURAL/CIVIL SC
TMS TERRANCE M. SUPER	9250	ELECTRICAL E
SDK SHELTON D. KEISLING	13654	ELECTRICAL E

DRAWING NOTICE

THIS DRAWING HAS NOT BEEN PUBLISHED AND IS THE SOLE PROPERTY OF SSC, INC. AND IS LENT TO THE BORROWER FOR THEIR CONFIDENTIAL USE ONLY, AND IN CONSIDERATION OF THE LOAN OF THIS DRAWING, THE BORROWER PROMISES AND AGREES TO RETURN IT UPON REQUEST AND AGREES THAT IT WILL NOT BE REPRODUCED, COPIED, LENT OR OTHERWISE DISPOSED OF DIRECTLY OR INDIRECTLY, NOR USED FOR ANY PURPOSE OTHER THAN FOR WHICH IT IS FURNISHED.

SUBMITTALS				
DESCRIPTION	DATE	BY	REV	
SITE PLAN APPLICATION	11/20/17	DCP	A	
REISSUED SITE PLAN APPLICATION	11/26/17	DCP	B	

APPLICANT NAME:

LECOMPTON RAWLAND

SITE ADDRESS:

249A NORTH 2100 ROAD  
LECOMPTON, KANSAS  
66050

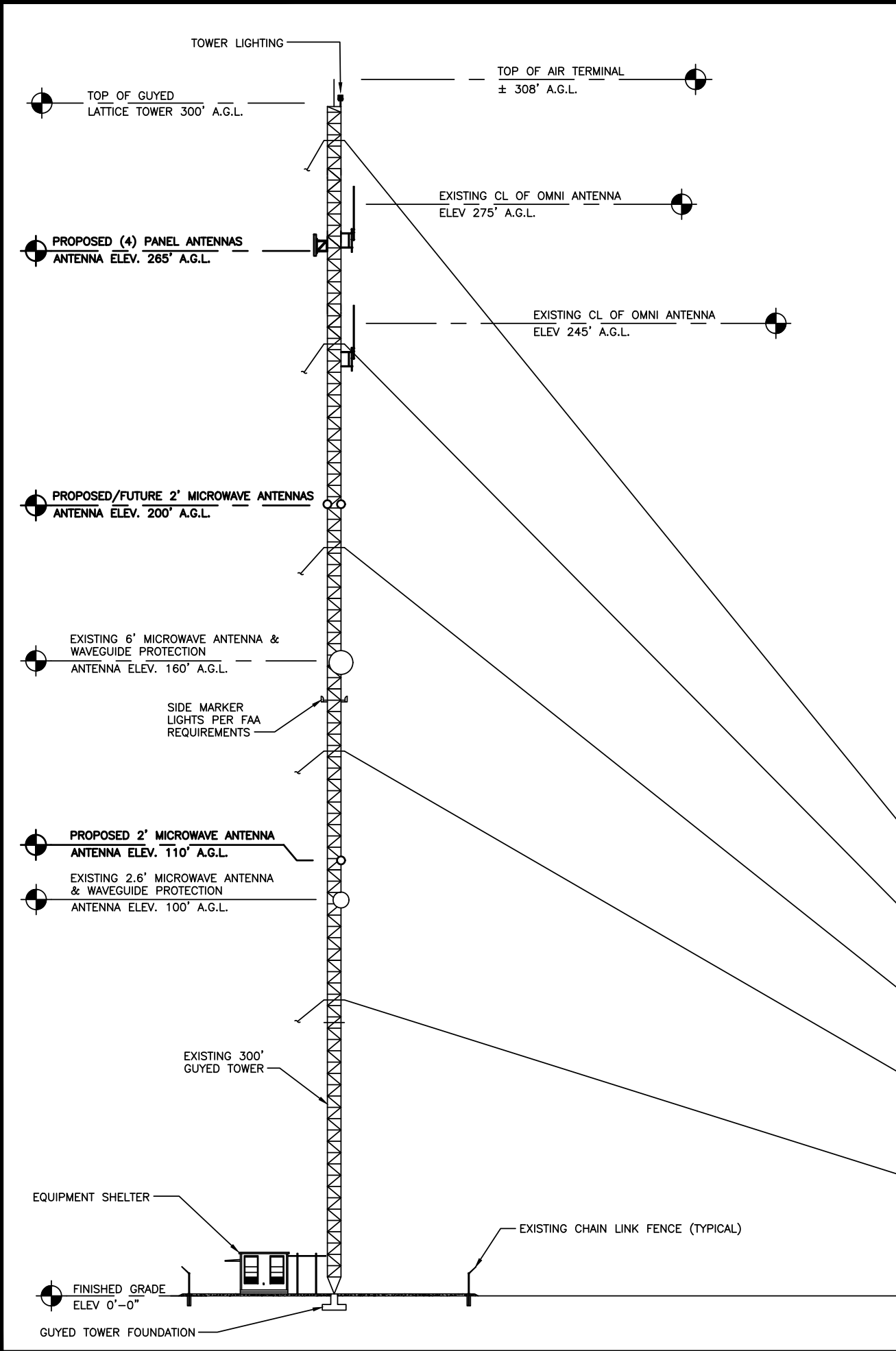
SHEET DESCRIPTION:

SITE PLAN

SHEET NUMBER:

A-1.0





ANTENNA LOADING KEY								
ANTENNA MODEL #	QTY.	ANTENNA ELEVATION	LINE SIZE	AZIMUTH	EQUIPMENT	ANTENNA SIZE	ANTENNA MOUNT	PROPOSED OR FUTURE LOADING
CAMBIUM C050900D021A	1	265'-0"	CAT 5e	45°	EPMP 2000 AP	6.2"x23.4"x5.9"	2' STAND-OFF	PROPOSED
CAMBIUM C050900D021A	1	265'-0"	CAT 5e	135°	EPMP 2000 AP	6.2"x23.4"x5.9"	2' STAND-OFF	PROPOSED
CAMBIUM C050900D021A	1	265'-0"	CAT 5e	225°	EPMP 2000 AP	6.2"x23.4"x5.9"	2' STAND-OFF	PROPOSED
CAMBIUM C050900D021A	1	265'-0"	CAT 5e	315°	EPMP 2000 AP	6.2"x23.4"x5.9"	2' STAND-OFF	PROPOSED
MICROWAVE LOADING KEY								
MICROWAVE MODEL #	QTY.	MICROWAVE ELEVATION	LINE SIZE	AZIMUTH	EQUIPMENT	DISH SIZE	DISH MOUNT	PROPOSED OR FUTURE LOADING
UBIQUITI AIR FIBER AF-5G30-S45	1	110'-0"	CAT 5e	116.25°	AF-5X RADIO	2'	2' STAND-OFF	PROPOSED
UBIQUITI AIR FIBER AF-5G30-S45	1	200'-0"	CAT 5e	245.87°	AF-5X RADIO	2'	2' STAND-OFF	PROPOSED
UBIQUITI AIR FIBER AF-5G30-S45	1	200'-0"	CAT 5e	TBD	AF-5X RADIO	2'	2' STAND-OFF	FUTURE

- ANTENNA NOTES:**
1. ANTENNA CONTRACTOR SHALL INSURE ALL ANTENNA MOUNTING PIPES ARE PLUMB.
  2. MULTI PORT ANTENNAS: TERMINATE UNUSED ANTENNA PORTS WITH CONNECTOR CAP & WEATHERPROOF THOROUGHLY.
  3. CONTRACTOR MUST FOLLOW ALL MANUFACTURER'S RECOMMENDATIONS REGARDING THE INSTALLATION OF COAXIAL CABLES, CONNECTORS, AND ANTENNAS.
  4. WEATHERPROOF ALL ANTENNA CONNECTORS WITH SELF AMALGAMATING TAPE.
  5. ANTENNA CONTRACTOR SHALL PERFORM A "TAPE DROP" MEASUREMENT TO CONFIRM/VALIDATE ANTENNA CENTER LINE (ACL) HEIGHT. CONTRACTOR SHALL SUBMIT A COMPLETED HEIGHT VERIFICATION FORM TO THE CONSTRUCTION MANAGER.
  6. ALL AZIMUTHS ARE ORIENTED CLOCKWISE FROM TRUE NORTH.

DOUGLAS COUNTY  
PLANNING & ZONING  
APPROVAL

APPLICANT:

PLANS PREPARED FOR:   
2936 NW Highway 24  
Topeka, Kansas 66618  
Phone: (785) 232-1840  
Fax: (785) 232-1877

PLANS PREPARED BY:   
9900 West 109th Street, Suite 300  
Overland Park, Kansas 66210  
Phone: 913-438-7700  
Fax: 913-438-7777

ENGINEERING LICENSE:   
STATE OF KANSAS  
PE CERTIFICATE OF AUTHORIZATION # E-571  
ENGINEER: MLO MICHAEL L. OWENS 16971 DISCIPLINE: STRUCTURAL/CIVIL SC  
KV KEVIN VANMAELE 22105 STRUCTURAL/CIVIL SC  
REJ ROBERT E. JENSEN 16096 STRUCTURAL/CIVIL SC  
NRK NICHOLAS R. KEFELDT 22059 STRUCTURAL/CIVIL SC  
TMS TERRANCE M. SUPER 9250 ELECTRICAL E  
SDK SHELTON D. KEISLING 13654 ELECTRICAL E

DRAWING NOTICE  
THIS DRAWING HAS NOT BEEN PUBLISHED AND IS THE SOLE PROPERTY OF SSC, INC. AND IS LENT TO THE BORROWER FOR THEIR CONFIDENTIAL USE ONLY, AND IN CONSIDERATION OF THE LOAN OF THIS DRAWING, THE BORROWER PROMISES AND AGREES TO RETURN IT UPON REQUEST AND AGREES THAT IT WILL NOT BE REPRODUCED, COPIED, LENT OR OTHERWISE DISPOSED OF DIRECTLY OR INDIRECTLY, NOR USED FOR ANY PURPOSE OTHER THAN FOR WHICH IT IS FURNISHED.

SUBMITTALS				
DESCRIPTION	DATE	BY	REV	
SITE PLAN APPLICATION	11/20/17	DCP	A	
REISSUED SITE PLAN APPLICATION	11/26/17	DCP	B	

APPLICANT NAME:   
LECOMPTON RAWLAND

SITE ADDRESS:   
249A NORTH 2100 ROAD  
LECOMPTON, KANSAS  
66050

SHEET DESCRIPTION:   
TOWER ELEVATION &  
ANTENNA KEY

SHEET NUMBER:   
A-1.0



**PLANNING COMMISSION REPORT**  
**Regular Agenda – Public Hearing Item**

PC Staff Report  
6/24/13

**ITEM NO. 1:     CONDITIONAL USE PERMIT; COMMUNICATION TOWER; 249 N 2100 ROAD (SLD)**

**CUP-13-00156:** Consider a Conditional Use Permit for a 300' guy wire communication tower to be located at 249 N 2100 Road. Submitted by Selective Site Consultants on behalf of Douglas County Emergency Communication Department for Freda and Sherilyn Laduke, property owners of record. *Joint meeting with Lecompton Planning Commission.*

**STAFF RECOMMENDATION:** Staff recommends approval of the Conditional Use Permit for the 300' tower and forwarding it to the County Commission subject to the following conditions:

- 1) The provision of a revised site plan that adds the following notes to the face of the drawing:
  - a) *"The owner at the owner's expense shall remove any tower not in use for a period of three years or more."*
  - b) *"A sign shall be posted on the tower or the exterior fence around the base of the tower with the name and telephone number of the tower owner/operator."*
  - c) *"Use of this tower for carriers other than Douglas County Emergency Communication Department shall require County Commission approval, as the tower owner, in addition to site plan review and approval of any co-location request for new equipment other than that expressly used for Douglas County Emergency Management. Equipment changes or improvements by Douglas County may be approved by site plan amendment per the County Zoning Administrator. "*
  - d) *"A change of ownership of the tower shall require a new Conditional Use Permit and public hearing."* This will allow review of the intended use of the tower and public notice of the proposed change.

**Reason for Request:**     *"To enhance and upgrade Douglas County's emergency communication system to the P25 800 MHz Digital Radio standard."*

**KEY POINTS**

- Per Section 12-319-4.31 of the Zoning Regulations for the Unincorporated Territory of Douglas County, *radio, television, telecommunication and microwave towers* are uses which may be approved as a Conditional Use.

**DESCRIPTION OF USE**

Request is for the construction of a 300' tower to accommodate public communication equipment specifically for Douglas County. The tower is proposed to be constructed on a 100' by 100' leased area.

**ASSOCIATED CASES/OTHER ACTION REQUIRED**

- Board of County Commissioners' approval of the Conditional Use.
- Zoning and Codes Office issuance of a Conditional Use Permit when plans have been released to the Zoning and Codes Office and conditions of approval have been met.

**PUBLIC COMMENT**

- Area property owners called asking for more detail regarding the location of the proposed tower.

Figure 1. Zoning of Area

This property is located in the northwest portion of Douglas County west of Lecompton on the south side of N 2100 Road. The property and the surrounding area is zoned A (Agricultural). This area is rural in nature and includes large tracts of land for agricultural activities with scattered rural residential homes located along county roads. Section 12-319-4.31 (d) (5) recommends that towers be located in commercial, industrial or agricultural zoning districts. The subject property is zoned Agricultural.

## II. CHARACTER OF THE AREA

**Staff Finding** – This area is rural in nature, with agricultural lands, and scattered residential homes along county roads.

### **III. SUITABILITY OF SUBJECT PROPERTY FOR THE USES TO WHICH IT HAS BEEN RESTRICTED**

Applicant's response: *"The subject property is used for agricultural purposes. The site is suitable for the above proposed use."*

The current zoning designation for the property is A (Agricultural) District, a variety of agriculture-related uses are allowed. Towers are allowed in this district with approval of a Conditional Use Permit. Additionally, the agricultural district is a recommended base district for towers. The proposed request will not alter the underlying zoning district.

**Staff Finding** – The property is suitable for agricultural uses. A Conditional Use Permit (CUP) does not change the underlying zoning; therefore, the suitability of the property for agricultural uses will not be altered.

### **IV. LENGTH OF TIME SUBJECT PROPERTY HAS REMAINED VACANT AS ZONED**

This A (Agricultural) zoning has been in place since 1966. The proposed tower will be located on a leased area in the north portion of the 110-acre site. There is an existing tower located to the southeast of the proposed tower.

**Staff Finding** – The property has been zoned A (Agricultural) since the adoption of the zoning in 1966.

### **V. EXTENT TO WHICH REMOVAL OF RESTRICTIONS WILL DETRIMENTALLY AFFECT NEARBY PROPERTY**

Applicant's Response: *"There will be no detrimental affect. The use is unmanned, will generate little traffic, noise or pollution."*

Section 12-319-1.01 of the County Zoning Regulations recognize that *"....certain uses may be desirable when located in the community, but that these uses may be incompatible with other uses permitted in a district...when found to be in the interest of the public health, safety, morals and general welfare of the community may be permitted, except as otherwise specified in any district from which they are prohibited."*

This request is for a 300' guy-wired communication tower. The purpose of the tower is for the location of emergency communication equipment only. Other communication carriers such as Sprint, AT&T, T-Mobile are not proposed to provide equipment on this tower structure. There is no office or staff associated with this structure. Access to the site shall be limited to regular service and maintenance of the tower and associated equipment. There are few residents located within the immediate area. Land parcels are generally 30 acres or larger. There is an existing 1000' tower located on this same property. The existing structure is not capable of structurally supporting any additional equipment, therefore, the need for this tower. There are no anticipated detrimental effects to nearby property owners from the proposed land use.

**Staff Finding** – Given the large parcel size and the very low density of residential use there should be no detrimental effect on surrounding property.

### **VI. RELATIVE GAIN TO THE PUBLIC HEALTH, SAFETY AND WELFARE BY THE DESTRUCTION OF THE VALUE OF THE PETITIONER'S PROPERTY AS COMPARED TO THE HARDSHIP IMPOSED UPON THE INDIVIDUAL LANDOWNERS**

Applicant's Response: *"Enhanced communication for first responders in Douglas County. Please see attached memo from Scott Ruf dated April 20, 2012."*

The purpose of this criterion is to compare the effect of denial of the request on the public health, safety and welfare to the effect on the individual landowner.

The applicant states "the overarching goal of Douglas County Emergency Communications is to provide highly efficient, effective and interoperable public safety communications for City and County Police, fire and EMS agencies...". The applicant is a public service division of the local government. The application notes the existing communication system is aging and that state and federal requirements make it necessary for Douglas County to expand and upgrade the existing system. (Refer to memo to David Corliss, City Manager and Craig Weinaug, County Administrator, dated April 20, 2012).

The purpose of this request is to extend coverage to a portion of Douglas County that currently lacks coverage. Denial of this request hinders the County's ability to implement planned communication improvements as part of the basic public services provided to residents of Douglas County.

**Staff Finding** – Approval of the request will facilitate planned emergency communication coverage for the northwest portion of Douglas County. Approval will benefit the public health, safety, and convenience by providing more reliable communication to emergency personnel as needed.

## **VII. CONFORMANCE WITH THE COMPREHENSIVE PLAN**

The subject property is not located within an identified urban growth area though it is within the 3 mile buffer of Lecompton. The comprehensive plan recommends that agricultural uses continue to be the predominant land use within the areas of the county beyond the designated urban growth areas. Uses permitted in the rural area should continue to be limited to those which are compatible with agricultural production and uses.

**Staff Finding** – The comprehensive plan recommends that uses in the rural area be limited to those compatible with agricultural uses and that the design should be consistent with the rural character. A Conditional Use Permit can be used to allow specific non-residential uses subject to approval of a site plan. This tool allows proportional development in harmony with the surrounding area. The proposed request is consistent with the Comprehensive Plan.

## **STAFF REVIEW**

This new tower is proposed within three miles of the City of Lecompton. A joint meeting with the Lecompton Planning Commission is required per Resolution 80-5.

Section 12-319-4.31 allows radio, television, telecommunication, and microwave towers in Douglas County subject to approval of a Conditional Use Permit when the structures are more than 100' tall. This section also provides guidelines and standards intended to be used during the review of the application.

The proposed site plan shows the location of a new structure to accommodate equipment specific to the purposes of the Douglas County Emergency Communication Department. This application differs from previous similar applications where the applicant intended the structure for telecommunication equipment by private carriers. Prior to the construction of a new tower, an applicant is required to show reasonable proof that there is no opportunity to "co-locate" on another tower within the

proximity of the proposed location. In this case there is an existing 1000' tower immediately to the southeast of the proposed site; however, that structure does not provide adequate structural capability to support additional equipment.

Per section 12-319-4.31 (c)(3) new towers are required to provide space for "at least three two-way antennas for every 150' of tower height, or at least one two-way antenna and one microwave facility for every 150 feet of tower heights." The applicant is requesting a waiver from the co-location provisions of the Zoning Regulations. The structure is designed to accommodate multiple carrier equipment; however, the intent of this tower is to provide space for emergency communication (public) equipment only. There is no intent to sub-lease space on this tower to other carriers. This would allow remaining tower space to be reserved for future equipment intended to serve the public system.

### **Tower Removal**

As with any tower, if the equipment is removed and the tower is vacant for 3 years then the tower owner (Douglas County) would be required to remove the structure. All towers are required to provide a sign on the structure or fence around the base of the tower identifying the tower owner/operator with a name and phone number. These elements should be added to the site plan as notes for future reference.

### **Setback**

The County Zoning Regulations require the tower to be setback a distance equal to the height of the tower from any property line except that the setback may be reduced if documentation from a registered engineer is submitted certifying the fall zone of the tower in event of a failure or collapse. The proposed structure and accessory ground equipment complies with the setback requirements and is more than 300' from the nearest property line.

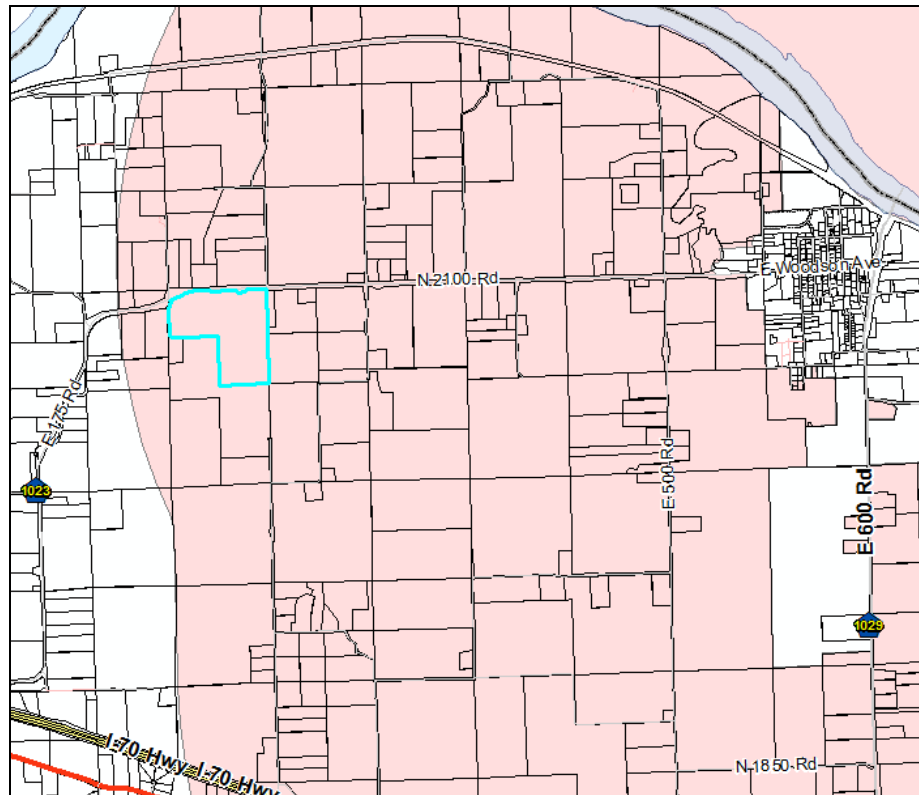
### **Lighting**

Minimal lighting per FAA requirements will be provided for this tower. Lighting of the equipment shelter should be limited to the area around the access doorway. Any lighting added to the site shall require review and approval by the County Zoning Administrator per applicable building permits to ensure lighting is limited to the site and directed downward.

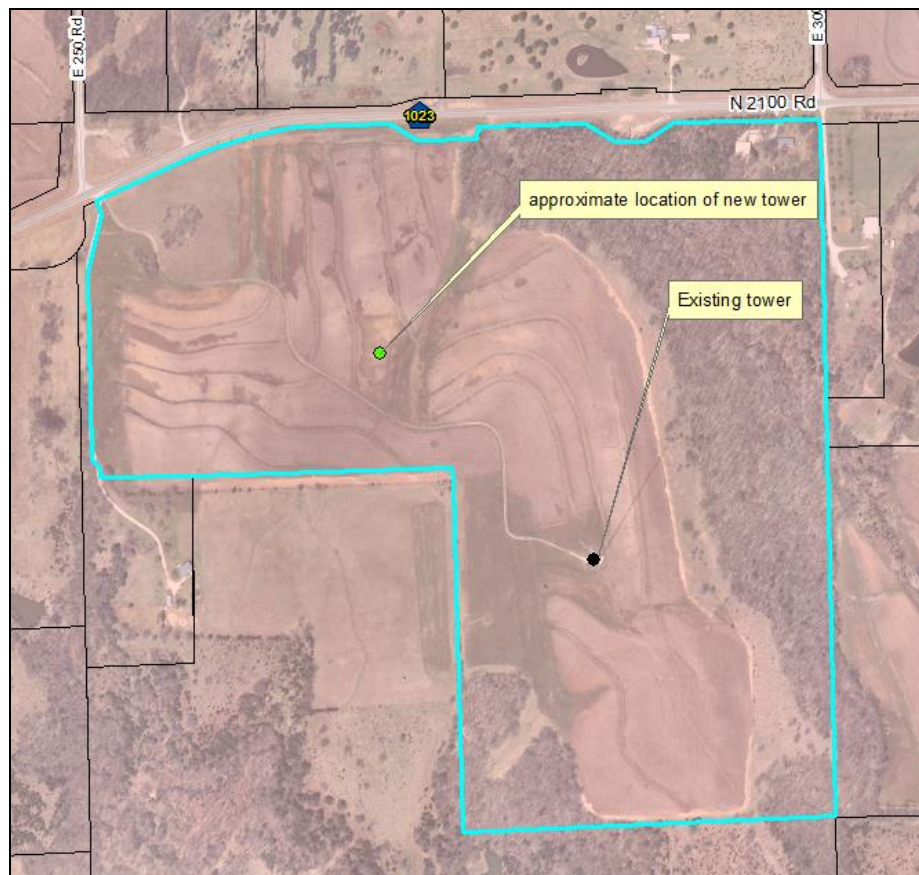
Use of this tower for other carriers shall require County Commission approval as the tower owner. Change of ownership of the tower shall require a new Conditional Use Permit and public hearing. This will allow review of the intended use of the tower and public notice of the proposed change.

### **Conclusion**

This request is for the construction of a new communication tower for the exclusive use of public communication equipment. Additional site plan notes are recommended to clarify the use and intent of this tower. Staff recommends approval of the Conditional Use Permit for a 300' tower located at 249 N 2100 Road (CUP-13-00156) as conditioned.



**Figure 3: 3 mile buffer area**



**Figure 4: Existing and proposed tower locations**





# Memorandum

## City of Lawrence

### Planning & Development Services

**TO:** Craig Weinaug, County Administrator  
Scott McCullough, Planning and Development Services Director  
Sean Reid, Director, Zoning and Codes Department  
Tonya Voigt, County Zoning and Codes Department  
Judy Stone, County Zoning and Codes Department  
Randy Roberts, Douglas County Emergency Communications

**FROM:** Sandra Day, Planner

**CC:** Douglas County Board of County Commissioners  
David Blaha, Hyden tower/HPB Properties LLC.  
File

**Date:** December 14, 2017  
Updated on December 20, 2017

**RE:** SP-17-00670; 249 N 2100 Road; KwiKom

**Staff Recommendation:** Planning staff recommends approval of the above referenced site plan subject to the following conditions:

1. Provision of a note on the face of the site plan that states all equipment and electrical connections must be separate from and independent of the Douglas County Emergency Communication's building, equipment and power connections.

This memo has been revised to respond to questions for clarification from County staff to provide assurance that the proposed equipment will not be co-located with the existing building housing Douglas County equipment and that it will have a power source independent of the power to the County building.

#### ATTACHMENTS

1. General Location Map
2. Property Area Map
3. Proposed site plan
4. Staff report – CUP-13-00156

#### SUMMARY

The Board of County Commissioners at their meeting on July 10, 2013 approved the existing tower located at 249 N 2100 Road. The Commission approved a Conditional Use Permit (CUP-13-00156) for the purposes of constructing a 300' communication tower for Douglas County emergency communication equipment. Douglas County was the applicant. The tower design will accommodate space for multiple carriers. The purpose of the application was specifically for the exclusive use of the tower for Douglas County equipment. At the time of the approval, there was no intent to sub-lease

space on the tower. There was a recognition that an unknown user could come forward and make a request for tenant space on the tower. In order to preserve the County's use of the structure for future needs the CUP was approved with the following condition:

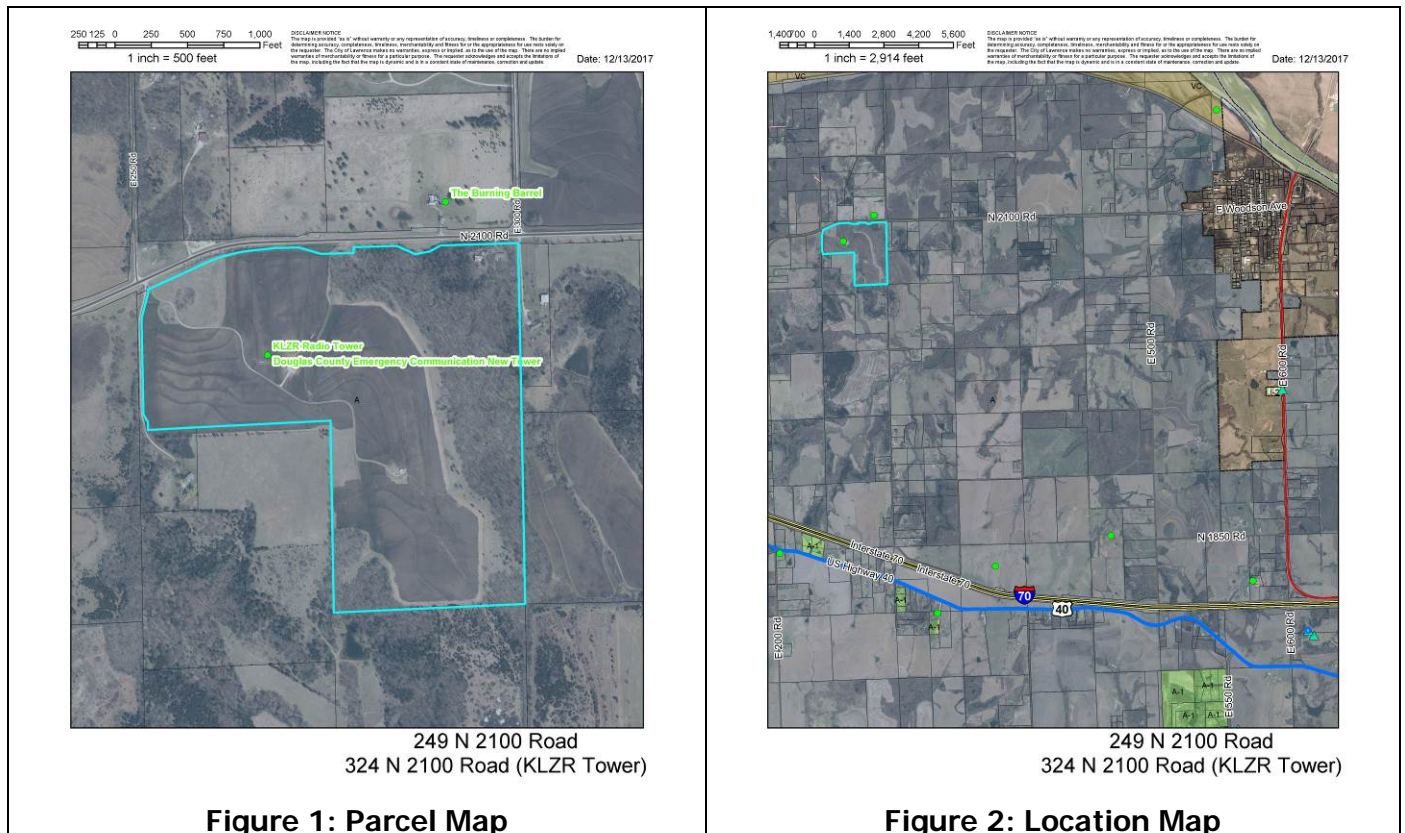
*Use of this tower for carriers other than Douglas County Emergency Communication Department shall require County Commission approval, as the tower owner, in addition to site plan review and approval of any co-location request for new equipment other than that expressly used for Douglas County **Emergency Management**. Equipment changes or improvements by Douglas County may be approved by site plan amendment per the County Zoning Administrator. "*

**The reference to Emergency Management was incorrect in the original report and should have been "Douglas County Emergency Communications", which is a separate department from DC Emergency Management.**

After approval for the tower was granted, the tower was constructed but is not owned by Douglas County as originally planned and noted in the application documentation. Douglas County is a tenant on the tower. The tower owner is pursuing a request to allow co-location of equipment for KwiKom on this tower. Per the conditions of approval, any co-location on this tower first requires specific approval by the County Commission.

Typically, co-location of communication equipment on communication towers, water towers or building mounted applications are reviewed administratively through the Planning Office. Building permits are issued through the Zoning and Codes Office. This application deviates from that process because of the condition placed on the original Conditional Use Permit.

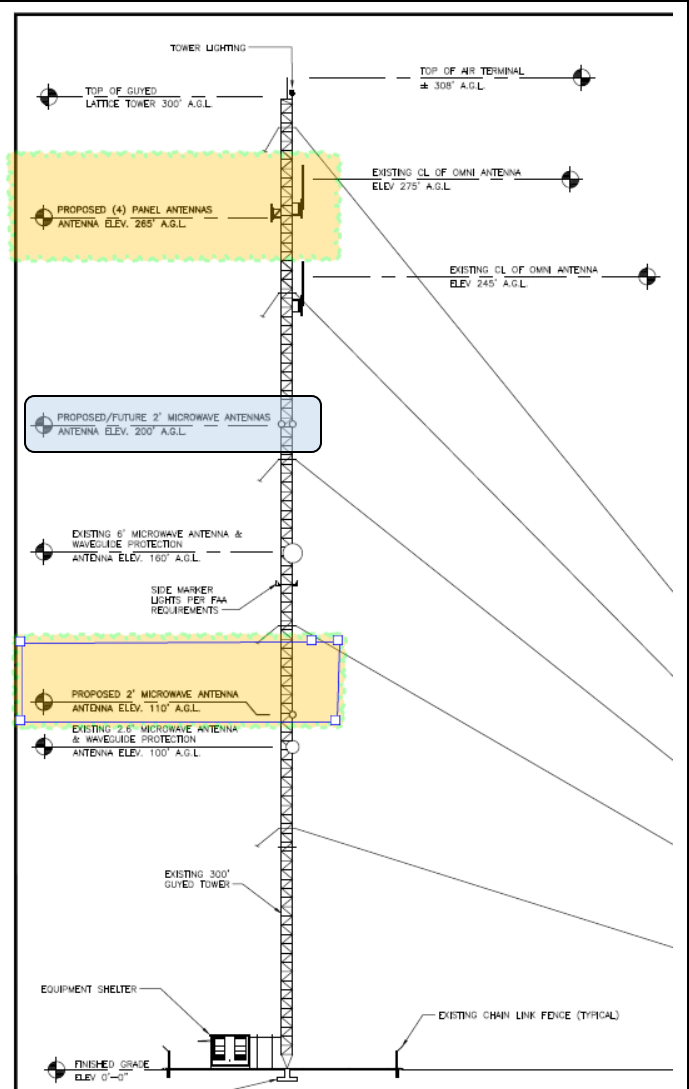
Zoning and Land Use:	
Subject Property Zoning:	A (Agricultural) District. Existing rural agricultural district with two tower structures.
Surrounding Zoning:	A (Agricultural) District in all directions. Existing rural agricultural uses including scattered residences.



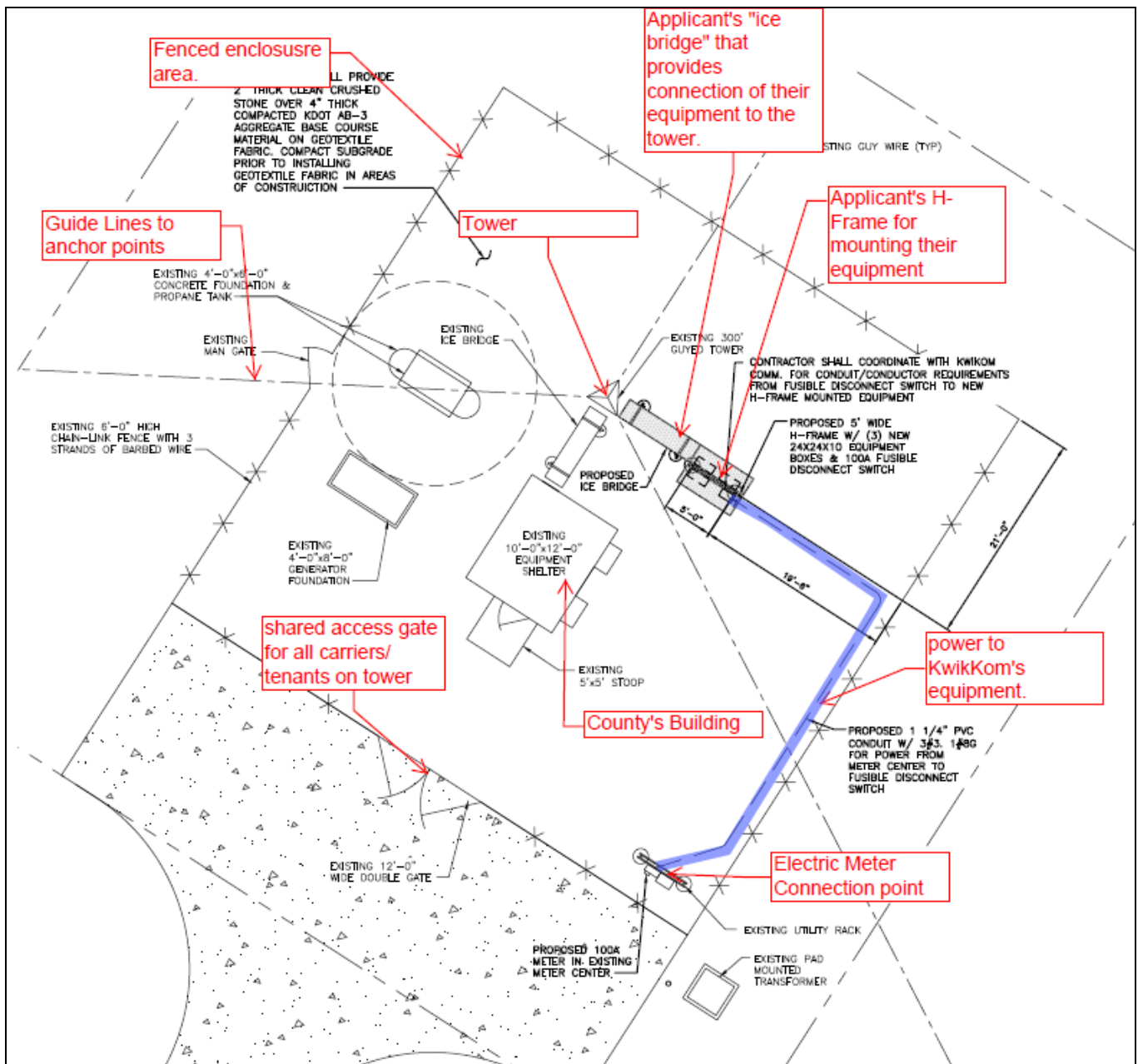
Existing Development: This site includes two tower structures accessed from the same driveway. A rural residence is located in the northeast corner of 109-acre tract. The tower compound includes an existing equipment shelter building and a generator pad.

Proposed Development: The proposed changes to the tower include the addition of equipment located at the ground level within the existing enclosure. This ground equipment is required in connection with the proposed antenna that will be co-located on the tower structure as shown on the attached site plan. The proposed plans show four proposed panel antennas located 265' above ground level and a 2' microwave antenna located at 110' above ground level (highlighted in gold in image to the right).

This plan also shows equipment, located 200' above ground level, as a future addition (highlighted in blue in image to the right).



By state law, emergency communication equipment is protected and cannot share space with another carrier. For this reason, the original design included an equipment shelter to fully enclose County equipment within the fenced enclosure area at the base of the tower. The proposed application includes the construction of a frame located within the fenced enclosure area at the base of the tower that provides space for mounting the applicant's equipment separate from the existing equipment within the fenced enclosure area. The plan also shows the existing electric meter panel, also located in the fenced enclosure area that will be modified to allow for power to be extended to the applicant's equipment. The image below is intended to highlight these details for clarification.



Staff recommends the site plan be revised to add a note to the face of the drawing to clearly state that the proposed equipment shall be independently located and will not shower power through the County building or equipment.



## Site Evaluation

249 N 2100 Road

Communication tower is located to the northwest. Radio tower is located to the southeast. Tower is a 308' tall guyed tower. The proposed equipment would be located at 265' and 110' above ground level.

Future equipment to be added at 200' above ground level.

## Related Requests for Site:

- CUP-13-00156; Original Approval, with restrictions.
- CUP-4-2-87; KLZR Radio tower to the southeast on same parcel.

Additional Regulatory Site Requirements	RESPONSE (Check one of the following)	
Airport Overlay District	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
If Yes, determination of Airport Advisory Board may be required		
Is property located Regulatory Flood Plain?	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
<i>If Yes, A separate Flood Plain Development Permit may be required.</i>		
Is City infrastructure used for co-location request?	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
Has Structural Analysis been completed and approved for City infrastructure? <b>Not applicable to this request.</b>	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Is property subject to Historic Environs Review (HRC)	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
If Yes describe		
Is tower height modified by this application?	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
Is tower enclosure or setback modified by this application?	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO

**Conclusion**

The proposed equipment modifications do not alter the tower height or enclosure of the existing tower. Improvements at the ground level include the addition of a frame for mounting equipment and cables that connect to antenna mounted on the tower.

This application represents the first request for co-location of communication equipment on this structure in addition to the existing Emergency Communication Department equipment originally installed on this tower. Douglas County Emergency **Communication** Department staff reviewed this application and did not have any comments. The proposed request is not anticipated to conflict with existing equipment currently located on the tower.

The proposed request is consistent with similar applications for co-location of communication equipment on other structures located in Douglas County and is supported by staff.