

**KNOXVILLE/KNOX COUNTY METROPOLITAN PLANNING COMMISSION  
 USE ON REVIEW REPORT**

▶ **FILE #:** 5-C-15-UR **AGENDA ITEM #:** 47  
 POSTPONEMENT(S): 5/14/2015- 6/11/2015 **AGENDA DATE:** 7/9/2015  
 ▶ **APPLICANT:** **BRANCH TOWERS**  
 OWNER(S): Branch Towers

TAX ID NUMBER: 154 07503 [View map on KGIS](#)

JURISDICTION: County Commission District 5

STREET ADDRESS: 1612 Garland Rd

▶ **LOCATION:** **Southeast side of Bluegrass Rd., northeast side of Garland Rd.**

▶ **APPX. SIZE OF TRACT:** **7.24 acres**

SECTOR PLAN: Southwest County

GROWTH POLICY PLAN: Planned Growth Area

ACCESSIBILITY: Access is via Bluegrass Rd., a minor collector street with an 18' pavement width within a 50' right-of-way.

UTILITIES: Water Source: First Knox Utility District

Sewer Source: First Knox Utility District

WATERSHED: Tennessee River

▶ **ZONING:** **RA (Low Density Residential)**

▶ **EXISTING LAND USE:** **Residence and vacant land**

▶ **PROPOSED USE:** **194' Monopole Telecommunications Tower**

HISTORY OF ZONING: None noted

SURROUNDING LAND USE AND ZONING: North: Residences and vacant land / A (Agricultural)

South: Residences / RA (Low Density Residential)

East: Residence / PR (Planned Residential)

West: Residences / RA (Low Density Residential)

NEIGHBORHOOD CONTEXT: The proposed site is located in an area of low density residential development.

**STAFF RECOMMENDATION:**

▶ **APPROVE the request for a 194' monopole commercial telecommunications tower in the RA (Low Density Residential) zoning district subject to 9 conditions.**

1. Meeting all applicable requirements of the Knox County Zoning Ordinance.
2. Revising the design of the monopole to utilize close/flush mounted antenna arrays instead of the typical basket mount design.
3. Relocating the access driveway off of Bluegrass Rd. approximately 70 feet to the west in order to obtain at least 300 feet of sight distance from the driveway in both directions along Bluegrass Rd. A revised development plan shall be submitted to Planning Commission and Knox County Department of Engineering and Public Works Staff for review and approval.
4. Meeting the Utility Access Driveway standards and all other applicable requirements of the Knox County

Fire Prevention Bureau.

5. Meeting all applicable requirements of the Knox County Department of Engineering and Public Works.
6. Submitting for Planning Commission Staff approval a reforestation/landscape plan for the areas that have been cleared and graded outside of the tower enclosure area and the access and turnaround areas.
7. Installing the evergreen landscaping screen along the fenced enclosure and all the landscaping identified in condition 6 above within six months of the tower becoming operational. The applicant shall be responsible for maintaining all landscaping.
8. Since the FAA does not require any lighting for this facility, there shall be no lighting on the tower.
9. At the time of the request for a building permit, posting a bond or other approved financial surety that would ensure the removal of the tower if it is abandoned.

With the conditions noted above, this request meets all criteria for a use-on-review in the RA zoning district.

#### **COMMENTS:**

This is a request for a new 194' monopole commercial telecommunications tower to be located within a 10,000 square foot lease area located on a portion of a 7.24 acre tract. The subject property is zoned RA (Low Density Residential) and telecommunication towers are considered as a use on review in this district. Access to the site is by an easement off of Bluegrass Rd., a minor collector street. The driveway is required to meet the Utility Access Driveway standards of the Knox County Fire Prevention Bureau which requires a 16' wide paved access driveway.

The proposed tower is required to be located 213.4 feet (110% of the tower height) from the nearest residence. The proposed tower exceeds that minimum standard since the nearest residence is approximately 215' from the base of the tower. The applicant is proposing an 8' high security fence around the tower and equipment area. The FAA does not require any lighting for a tower of this height.

The applicant states that there are no existing structures in the area that can be used for antenna placement to obtain the required coverage. The applicant is proposing up to 4 telecommunication carrier antenna arrays on this tower. T- Mobile will be the principal client for the tower. A letter has been submitted stating that Branch Towers LLC agrees to make all of its facilities available to other wireless providers.

Attached to the staff report are several support documents submitted by the applicant and a report from MPC's tower consultant, Mr. Larry E. Perry. Mr. Perry's report describes the proposal and highlights his findings. Mr. Perry concludes that the proposed monopole tower is technically justified by the materials submitted by the applicant (see attached report).

#### **EFFECT OF THE PROPOSAL ON THE SUBJECT PROPERTY, SURROUNDING PROPERTY AND THE COMMUNITY AS A WHOLE**

1. The proposed development will have minimal impact on local services since utilities are available to serve this site.
2. The tower site is located on a 7.24 acre parcel that is heavily wooded on the western half in the location of the proposed tower. The existing vegetation in combination with the recommended landscaping should help to minimize the impact of the proposed facility on nearby residences.
3. Requiring the antenna arrays to be close/flush mounted instead of the typical basket mount design will help to reduce the visual impact of the proposed tower.
4. The proposed tower with four antenna array locations for cellular providers will help meet a service need that is generated by the number of residents in the area that use their cell and smart phones for sharing data and as their home phone in lieu of land line service.

#### **CONFORMITY OF THE PROPOSAL TO CRITERIA ESTABLISHED BY THE KNOXVILLE ZONING ORDINANCE**

1. With the recommended conditions, the proposed commercial telecommunications tower at this location meets the standards required in the Commercial Telecommunications Facilities section of the Knox County Zoning Ordinance.
2. The proposed tower is consistent with the general standards for uses permitted on review. The proposed development is consistent with the adopted plans and policies (See comments below regarding the Wireless Communications Facility Plan). The use is in harmony with the general purpose and intent of the Zoning Ordinance. The use should not significantly injure the value of adjacent property. The use will not draw additional traffic through residential areas.

## CONFORMITY OF THE PROPOSAL TO ADOPTED PLANS

1. The Southwest County Sector Plan proposes low density residential uses on this property.
2. The site is located within the Planned Growth Area on the Knoxville-Knox County-Farragut Growth Policy Plan map.
3. Under the guidelines for tower placement in the Wireless Communications Facility Plan this proposed tower falls within the "Sensitive Areas" and "Avoidance Areas". The proposed 194' monopole tower is classified as a tall monopole. The proposed tower site is located within 500' of a residence which the Plan considers to be "Sensitive Areas" for the location of telecommunication towers. The Plan discourages tall monopole towers located in these areas. The proposed tower is also within an "Avoidance Area" since it would be located within a single-family residential neighborhood. The Plan discourages tall monopole towers located within residential neighborhoods.

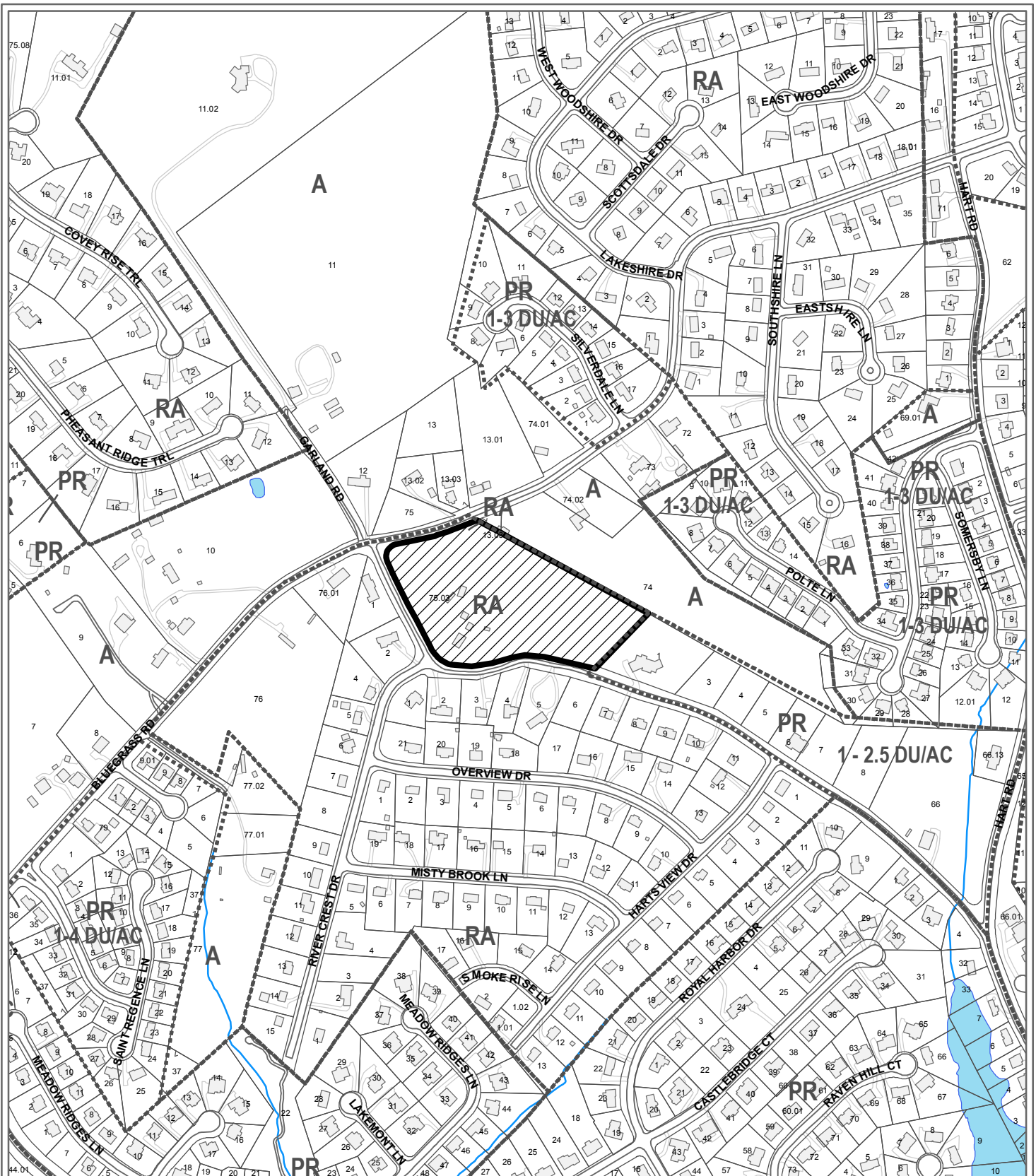
Since the Plan discourages the use of tall monopole towers in a residential neighborhood and within 500 feet of a residence, it is the responsibility of the applicant to document that they have looked at other options in providing the needed coverage in this area. Based on the documentation provided by the applicant and verified by the review conducted by the Planning Commission's consultant, it has been determined that there are no other alternate sites within a mile that are useable for providing the needed coverage.

It should be noted that the Wireless Communication Facilities Plan was developed in 2002 "as a guide in making decisions on applications for approval of new telecommunications towers." When the Plan was adopted in 2002, cell phones were used primarily for voice service with the greater demands being in business, shopping areas and along road corridors, with less demand in residential neighborhoods. With the introduction of the smart phone and the sharing of data by phone, and with an increasing number of people replacing land line service with cellular service, there is now a greater demand for service in the residential neighborhoods. This change in the use of cell phones has increased the need for finding suitable sites for telecommunication towers in the residential areas.

ESTIMATED TRAFFIC IMPACT: Not required.

ESTIMATED STUDENT YIELD: Not applicable.

MPC's approval or denial of this request is final, unless the action is appealed to the Knox County Board of Zoning Appeals. The date of the Knox County Board of Zoning Appeals hearing will depend on when the appeal application is filed. Appellants have 30 days to appeal an MPC decision in the County.



**5-C-15-UR  
USE ON REVIEW**



194' Monopole Telecommunications Tower in RA (Low Density Residential)

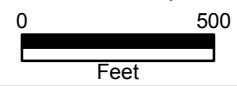
Original Print Date: 4/27/2015  
 Metropolitan Planning Commission \* City / County Building \* Knoxville, TN 37902

Revised:

Petitioner: Branch Towers

Map No: 154

Jurisdiction: County



BRANCH TOWERS/ T MOBILE LLC

Telecommunications Tower Site Review

USE ON REVIEW APPLICATION # 5-C-15-UR

CONSULTANT'S SUMMARY

TILLERY SITE

Knox County

**Location:** 1612 Garland Road

**Proposed Tower Height:** 194 foot Monopole Support Structure with an equipment cabinet on a wooded plot of land

**Address:** 1612 Garland Road

Knoxville, Tennessee

**District:** # 5 Knox County **Parcel** 154-07503

**Use:** Telecommunications antenna support structure

**Zoning:** RA (Low Density Residential)

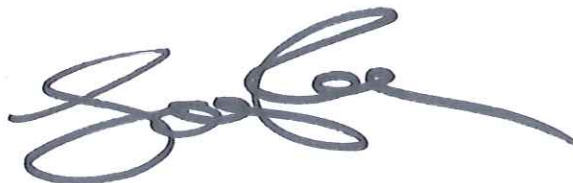
**Land Planning Area:** Planned Growth

**Variations and waivers:** Applicant requests a waiver of the landscaping requirements of the Ordinance due to the fact that the site is isolated in a wooded area and the base area is not seen from a public road or area. Further, the applicant intends to preserve as much of the natural vegetation in place as possible and has agreed to add landscaping should the Commission require it.

**Need:** The applicant is Branch Towers and T Mobile, a licensed cellular carrier by the Federal Communications Commission and possibly other users. The applicant has proven a need for the site for its coverage requirements to include the new 4G technology and the site is necessary to provide that coverage and to overcome the shadowing effect of surrounding hills and wooded areas.

**Instant Proposal:** Construct a 194 foot (overall height) Monopole type support structure.

**Consultant's Recommendation:** The site and application meets the requirements of the Ordinance. The applicant is encouraged to use close mounted antennas where possible.



**REPORT TO  
METROPOLITAN PLANNING COMMISSION**

for

Proposed Telecommunications Tower Site  
Located at 1612 Garland Road  
Knoxville, TN known as

**“TILLERY”**

**BRANCH TOWERS/T MOBILE LLC**

**UOR 5-C-15-UR**

**COMPLIANCE WITH**

**THE MPC TELECOMMUNICATIONS FACILITY ORDINANCE**

4/28/2015

The proposed site for the applicant is a 194 foot (overall height) Monopole antenna support structure to be located south of Bluegrass Road and east of Garland Road in West Knox County. The supporting material from applicant has been reviewed for technical and Federal/State legal compliance As well as with the Knox County Wireless Communication Facilities Plan from 2002. This is a new telecommunications site.

**REQUESTED**

- 1. Location.** The location is within the **County** of Knox in **District 5** and is located **Parcel** 154-07503
- 2. Zoning.** RA (Low Density Residential)
- 3. Land Planning Area:** Planned Growth
- 4. Proposed Tower Height:** 194 foot Monopole tower with equipment building
- 5. Address:** 1612 Garland Road  
Knoxville, Tennessee
- 6. Tower height.** The requested height is 194 feet above ground level will support up to 3 additional telecommunications carrier antennas for a total of 4 users. Lighting will not be required on this structure.

7. **Variances.** The set back requirements in Article 4.92 of the Ordinance for Knox County for RA sites requires that the structure be set back a minimum distance of 110% of the structure height or in this case 214 feet from the nearest dwelling unit (residence). The proposed site meets that requirement and no variances are required as the nearest dwelling is more than 216 feet from the base of the proposed structure. The proposed site is within a wooded area with trees on the north, west, south and east of the site although there is a pasture, open field to the east before the tree line.(See photo attached.)

8. **Site.** This application is for the construction of a new Monopole type antenna support structure to be located in a wooded parcel.

9. **Use.** This antenna support structure will be used for telecommunications with the present state of the art communications technology using PCS and cellular communication sources. The applicant is Branch Towers and T Mobile LLC and there are 3 possible additional telecommunications users for the facility.

10. **Setbacks.** The setback requirements are that the facility must be 110% height of the tower from any dwelling unit. The applicant meets that requirement and no variances are required other than the landscaping requirement of the Ordinance which the applicant has agreed to include should the Commission deem it necessary.

11. **Height.** The proposed structure is for 194 feet and no aviation lighting is required.

## EVALUATION

The following is a list of items reviewed:

Zoning Ordinance for Knoxville Tennessee by Metropolitan Planning Commission---Telecommunication Facilities Section (as amended thru October 1, 2004)

Knoxville City Wireless Communications Facilities Plan dated 2002

Check for other existing towers capable of supporting the load and elevation clearance requested by the applicant herein and within 1 mile radius of site.

Check for Antenna Support Structure stress analysis for co-location users' equipment support

Review support structure drawings and specifications with applicant

Review FAA lighting and marking requirements and proposals

Review FCC requirements regarding signal coverage, towers and lighting

Review applicant's justification for site in compliance with the FCC's requirements for telecommunication company providers compliance with required coverage for the use of the general public.

Review Site plan by applicant  
Check Zoning

Check setbacks for building and antenna support structure

Check for compliance with Wireless Communication Facility Plan

Check proximity to other structures and district boundaries

Check nature of surrounding land uses

Check surrounding foliage and tree coverage

Check design of tower for esthetic changes

Check height requirements necessary for coverage

Check separation from other towers

Telecommunications Act of 1996 as amended

Tennessee Code Annotated 13-24-305

Check frequencies proposed for possible interference to TV and radio reception in the immediate vicinity of the structure.

## **DISCUSSION**

I visited the proposed tower site that is a part of this review.

The site elevation at this location is about 993 feet. It is located on a wooded parcel near Bluegrass Road and Garland Road in west Knox County.

The request is for a 194 foot overall height Monopole structure of which T Mobile will use the top 15 feet and the additional usable lower 75 feet is for other carriers' expansion.

This a new site that is necessary to meet the applicant's coverage requirements of the FCC. There is very little signal in the area from T Mobile as measured.

The site is a good elevation location and by the addition of a cell site here, it would probably eliminate the need for other sites nearby.

The proposed structure should not affect adjacent property as it is on a parcel of land that is basically agricultural although zoned residential and is heavily wooded. The site would be screened from any area roads by the woods.



It is located in an RA (Low Density Residential) zoned area.

Using the MPC's Wireless Facilities Matrix the site qualifies as a Sensitive site in a discouraged area that it is 194 feet and located on a wooded area but is within 500 feet of an existing residential home.

The proposed access road to the site from Bluegrass Road and is level..

There are no other antenna support structures within 1 mile of this site and reviewing that site, the coverage needed for this area could not be achieved using that tower. The coverage is based on the new technology currently being touted by the various carriers, 4G, for data and voice transmission. The tower height is justified in this case in that the new technology is fairly limited as to range and there are surrounding hills to this location which the added tower elevation will help prevent shadow areas.

### **DISCUSSION RE FACILITIES PLAN**

*The Facilities plan is a guideline adopted by the MPC in 2002 for the placement and appearance of wireless communications facilities. The following discussion is based on this application and how it relates to the Plan. **The plan is an advisory plan and not a legal requirement.** The Planning Commission may approve applications that are inconsistent with the matrix; however, the Commission should be satisfied that the intent of the Ordinance is met and the application is in substantial compliance with the spirit of the guidelines.*

(1) **View Protection**--The structure (194 feet) coupled with no lighting requirements and should have little impact on the view aesthetics of the area.

(2) **Land Use Compatibility**—The proposed site is on a small rolling hill in a wooded area. The equipment cabinet and associated facilities would be compatible with the local land use and the surrounding area is lightly wooded. The site will be unmanned and will have no impact on noise, traffic or air pollution.

(3) **Design Compatibility**—The proposed location in a wooded area would blend in with surrounding land usage and design. The new structure will be a Monopole type structure 194 feet in height.

(4) **Sensitive Area**---This location is Discouraged as it is located within 500 feet of a residence and located in an Sensitive area of the Matrix. (*See attached Matrix*). Discouraged doesn't mean not allowed, but rather an encouragement to the applicant to seek other alternatives. In this case, there are no other support structures with a mile of the proposed location and thus are not available alternatives.

(5) **Avoidance Area**---The location is also Discouraged as it is in an area of single family residential homes. Again Discouraged doesn't mean not allowed, but rather an encouragement to the applicant to seek other alternatives. See above for discussion.

## SUMMARY

- (1) The proposed antenna support structure is a 194 foot Monopole structure including antennas. Lighting WILL NOT be required for this structure by the FAA due to its proposed height.
- (2) A review of the structure stress analysis on the proposed structure and specifications support the use of the Monopole structure by three additional other potential users in the future.
- (3) The structure design meets or exceeds FCC and EIA requirements.
- (4) The area surrounding the site is pasture/wooded and zoned Low Density Residential. The nearest residence is about 216 feet north from the tower base.
- (5) There is no general use technology (such as satellite communications) that is available at the present time nor in the immediate future that would negate the need for the structure. However, should such a technology become available and the structure of no further use, the Ordinance at Article 4.92 requires it to be removed.
- (6) The proposed equipment facility is an outdoor cabinet and will have no impact on the aesthetics of the adjacent land uses. The landscape plan indicates that the fenced area will be surrounded by wooded vegetation some of which is presently existing. While no landscaping is proposed, the applicant has indicated that it would add landscaping should the Commission require same.
- (7) The applicant has received authorization from the various governmental agencies, including the Federal Communications Commission, to provide communication service to the citizens of Knoxville, Tennessee.
- (8) The requested site will have minimal impact on the community involved by its very location in the woods.
- (9) There are no other antenna support structures within 1 mile of the proposed site that are usable for the coverage required.
- (10) There are no waivers required other than the landscaping requirement.
- (11) The proposed site and structure will have no environmental impact within the federal guidelines.

(12) Assuming that there are 4 carriers operating cellular or PCS transmitters/receivers at this site and all are operating at the same time, the radiation produced by the combination of all the users at the same time using the standards and protocols proposed and used by the carriers today, will be considerably below that established by the Federal Communications Commission and the EPA as creating any danger to humans or animals.

(13) There is a need for the structure in this area to provide for the wide spectrum wireless internet service and for other wireless voice and data services to be provided under government regulation by the various proposed carriers who plan to use the site.

[14] There are no other antenna structures within 1 mile radius that would allow the coverage needed by the applicant for this area.

[15] It appears that the applicant is attempting to have coverage of this site on both sides of the river without the need for additional towers in those areas, thus the height requirement.

[16] While the site is in a Discouraged area because of being located within 500 feet of a single family residence, the location will probably save an additional tower in the area due to its height and being able to service both sides of the river from a single location.

## RECOMMENDATION

In light of the analysis and review of documents, it is my professional opinion that the applicant meets all requirements of the Ordinance and the federal requirements. The applicant is encouraged to use close mounted antennas where possible.

Respectfully submitted,

A handwritten signature in blue ink, appearing to read 'Larry Perry', is written over the typed name and title.

Larry Perry  
Consultant

LAND USE/WIRELESS FACILITIES MATRIX		Co-Location	Stealth Structure	Low Monopole Below 90'	Moderate Monopole 90' - 150'	Tall Monopole 150' - 199'	Lattice Tower	Guyed Tower
OPPORTUNITY AREAS	Industrial/Business Park							
	Industrial Use							
	Pre-approved Government-owned Property							
	Urban Expressway Corridor							
	Rural/Heavily Wooded							
	Pasture							
	Central Business District							
	Office/Commercial Corridor							
	Shopping Center							

SENSITIVE AREAS	Within 500' of a Residence							
	Rural Residential							
	Non-residential Property in Residential Area (church, cemetery, library, etc.)							
	Multi-family Residential							
	On Hill below Ridgeline							

AVOIDANCE AREAS	Conservation Open Space							
	Scenic Highway							
	Public Park							
	Ridgetop/Ridgeline							
	Scenic Vista							
	Historic District/Site							
	Single-family Residential							
	Vacant Residential Lot							

5-C-15-UR

Encouraged



Neutral



Discouraged





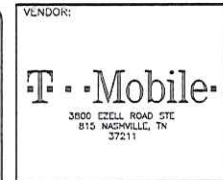
3800 EZELL ROAD STE 815 NASHVILLE, TN 37211

T-MOBILE SITE NUMBER: **9KX0353B**  
 T-MOBILE SITE NAME: **TILLERY**  
 BRANCH TOWERS SITE NUMBER: **TN-0014**  
 BRANCH TOWERS SITE NAME: **TILLERY**  
 FCC NUMBER:  
 SITE ADDRESS:

**1612 GARLAND ROAD  
 KNOXVILLE TN 37922**

NEW EQUIPMENT AND ANTENNAS ON: **PROPOSED 194'-0" MONOPOLE**

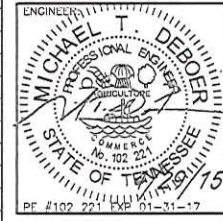
*S-C-TS-UR*  
 REVISER  
 4-29-15



PRODUCED BY:  
**DE BOER**  
 MICHAEL T. DE BOER  
 965 WYNSTONE DRIVE  
 JEFFERSON, SD 57038  
 605-422-1548

PRODUCED BY:  
**BR NCH**  
 COMMUNICATIONS, LLC  
 BRANCH COMMUNICATIONS  
 1516 S BOSTON AVE STE 215  
 TULSA, OKLAHOMA 74119  
 (918) 949-4551

SITE NAME:  
**TILLERY**  
 T-MOBILE NUMBER:  
**9KX0353B**  
 SITE ADDRESS:  
 1612 GARLAND ROAD  
 KNOXVILLE TN 37922  
 PROJECT NUMBER:  
**TN-0014**

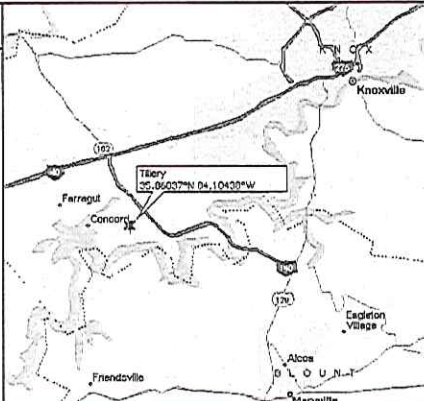


NO	DATE	DESCRIPTION	BY
A	3/24/15	PRELIM ISSUE	NDP
G	3/27/15	CONST ISSUE	NDP
T	4/28/15	CONST ISSUE	NDP

SHEET TITLE:  
**TITLE SHEET**  
 SHEET #:  
**T1**  
 PROJECT #:  
 TN-0014  
 BY: CKD  
 NDP JWM **1**

**SITE INFORMATION**

SITE TYPE: 194'-0" MONOPOLE  
 SITE NAME: TILLERY  
 SITE NUMBER: TN-0014  
 SITE ADDRESS: 1612 GARLAND ROAD  
 KNOXVILLE, TN 37922  
 SITE COORDINATES (NAD 83):  
 LATITUDE: N 35° 51' 37.085"  
 LONGITUDE: W -84° 06' 15.697"  
 GROUND ELEVATION: 993.7' (AMSL)  
 COUNTY: KNOX COUNTY  
 JURISDICTION: KNOX COUNTY  
 PARCEL ID: 154-07503  
 ZONING: RA - LOW DENSITY RESIDENTIAL  
 OCCUPANCY TYPE: UNMANNED  
 A.D.A. COMPLIANCE: FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION.  
 APPLICANT: T-MOBILE  
 3800 EZELL ROAD STE 815  
 NASHVILLE, TN 37211  
 CUSTOMER SERVICE  
 615-445-7958



**DRAWING INDEX**

NO	DESCRIPTION
T1	TITLE SHEET
GN1	GENERAL NOTES
GN2	GENERAL NOTES
GN3	GENERAL NOTES
GN4	GENERAL NOTES
1 of 2	SURVEY
2 of 2	SURVEY
GP1	GRADING SITE PLAN
GP2	GRADING SITE PLAN DETAILS
C1	OVERALL SITE PLAN
C2	SITE PLAN
C3	CONCRETE PAD DETAILS
C4	ANTENNA ORIENTATION, MOUNT, AND SCHEDULE
C5	WAVEGUIDE AND EQUIPMENT DETAILS
C6	COMPOUND DETAILS
C7	CIVIL DETAILS
C8	SIGNAGE DETAILS
C9	COLOR CODING DETAILS
C10	UNISTRUT TABLE
C11	LANDSCAPING PLAN AND DETAILS
E1	UTILITY ROUTING PLANS
E2	ELECTRICAL DETAILS
E3	PPC UTILITY RACK SCHEDULE & DETAILS
E4	UTILITY RACK DETAILS
E5	AVV CONDUIT DIAGRAM DETAIL
E6	ALARM CABLING WIRE AND PROGRAM GUIDE
G1	COMPOUND GROUNDING PLAN
G2	GROUNDING DETAILS
G3	GROUNDING DETAILS
G4	GROUNDING DETAILS
RF1	RFDS DATA
RF2	RFDS DATA

**DRIVING DIRECTIONS**

DEPART 3800 EZELL RD. (S) .3 MI TURN L (E) ONTO HAYWOOD LN .3 MI TAKE RAMP (R) ONTO I-24 5.5 MI @ EXIT 526, TAKE RAMP (R) ONTO I-40 164.4 MI @ EXIT 378, TURN R ONTO RAMP .4 MI TURN R (SE) ONTO N CEDAR BLUFF RD NW .4 MI TURN R (W) ONTO US-11 1.9 MI TAKE RAMP (R) ONTO I-140 2.3 MI @ EXIT 3, TURN R ONTO RAMP .3 MI TURN R (SW) ONTO WESTLAND DR 1.6 MI TURN L (E) ONTO SR-332 .7 MI TURN L (NE) ONTO BLUEGRASS RD .5 MI TURN R (S) ONTO LOCAL ROAD(S) 32 YDS ARRIVE TILLERY

ONE CALL NUMBER:  
**CALL TENNESSE ONE CALL 811  
 (615) 367-1110  
 CALL 3 WORKING DAYS BEFORE YOU DIG!**



**A&E DRAWING REVIEW**

TITLE:	SIGNATURE:	DATE:
PROPERTY OWNER:		
T-MOBILE CONSTRUCTION MGR:		
ZONING APPROVAL:		
RF ENGINEER:		
SITE ACQUISITION:		
STATUS CODE:		
1	ACCEPTED-WITH OR NO COMMENTS, CONSTRUCTION MAY PROCEED	
2	NOT ACCEPTED-RESOLVE COMMENTS AND RESUBMIT	

**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.

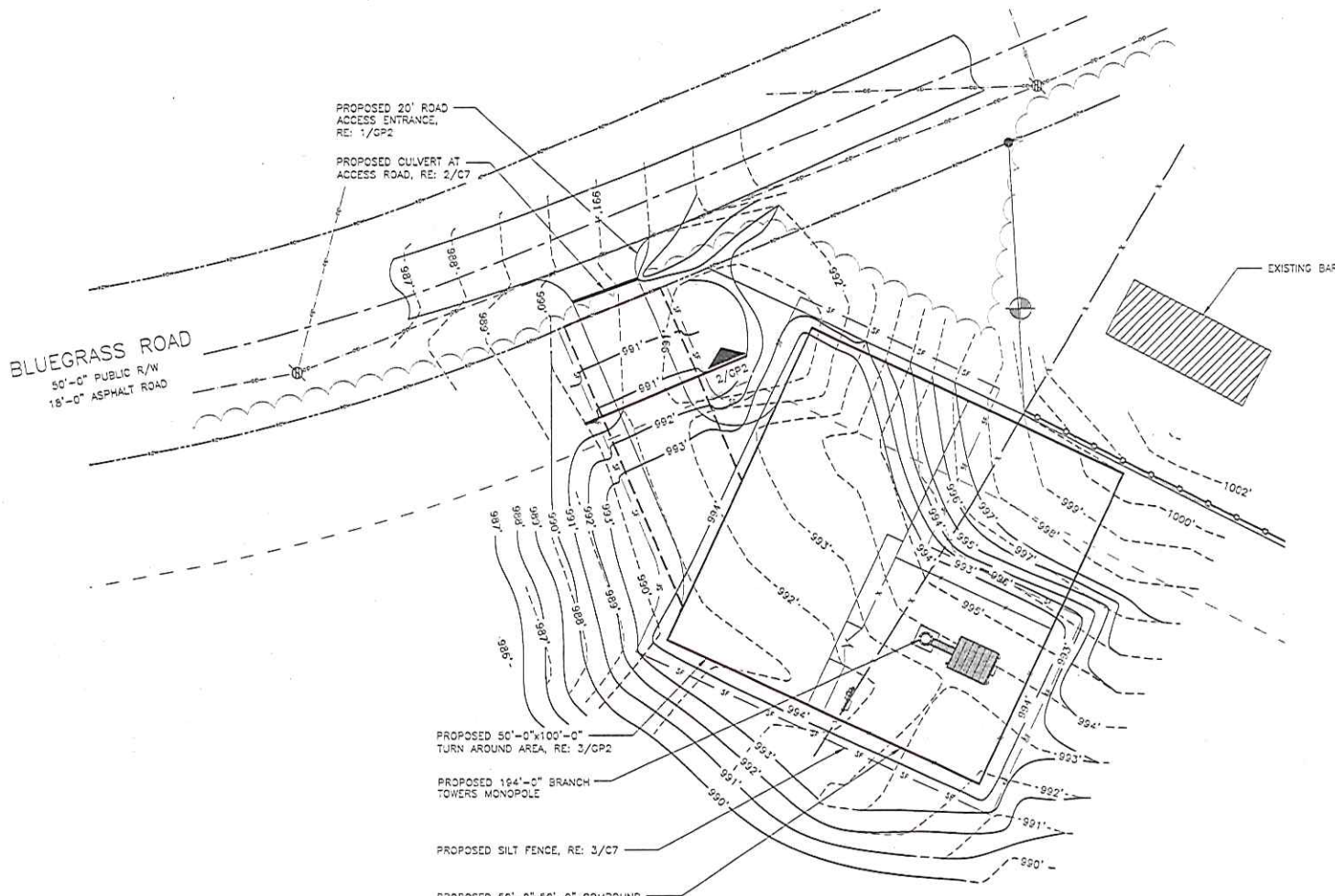
BUILDING/DWELLING CODE: IBC 2012  
 STRUCTURAL CODE: IBC 2012  
 PLUMBING CODE: IPC 2012  
 MECHANICAL CODE: IMC 2012  
 ELECTRIC CODE: NEC 2011  
 FIRE/LIFE SAFETY CODE: IFC 2012

**DO NOT SCALE DRAWINGS**

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.

TN-0014-903533B-Prop-Final-C&G-031115.dwg - 8:46:11 - UNG-EEBEE - Apr 23, 2015  
 TN-0014-903533B-Prop-Final-C&G-031115.dwg - 8:46:11 - UNG-EEBEE - Apr 23, 2015

P:\0114\_000000\Draw\Eng\06\_011187.dwg - Sheet(01) - User:mgp - Apr 23, 2015 - 11:50am



**1 GRADING SITE PLAN**  
SCALE: N.T.S.



VENDOR:  
**T-Mobile**  
3806 EZELL ROAD STE  
815 NASHVILLE, TN  
37211

PRODUCED BY:  
**DE BOER**  
MICHAEL T. DE BOER  
605 WINSTONE DRIVE  
JEFFERSON, MO 64509  
660-422-1046

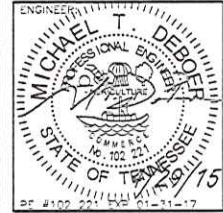
PRODUCED BY:  
**BRANCH**  
COMMUNICATIONS, LLC  
BRANCH COMMUNICATIONS  
1516 S BOSTON AVE STE 215  
TULSA, OKLAHOMA 74119  
(918) 949-6521

SITE NAME:  
**TILLERY**

T-MOBILE NUMBER:  
**9KX0353B**

SITE ADDRESS:  
1612 GARLAND ROAD  
KNOXVILLE TN 37922

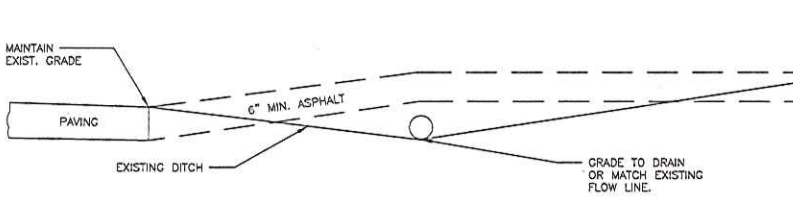
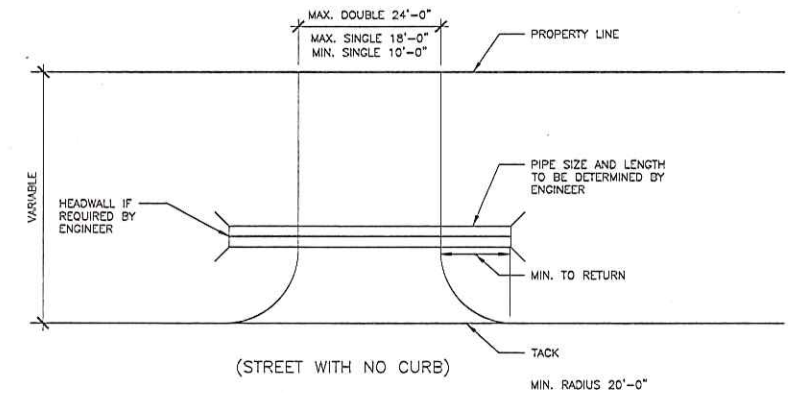
PROJECT NUMBER:  
**TN-0014**



NO	DATE	DESCRIPTION	BY
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O	3/27/15	CONST ISSUE	NDP
1	4/28/15	CONST ISSUE	NDP

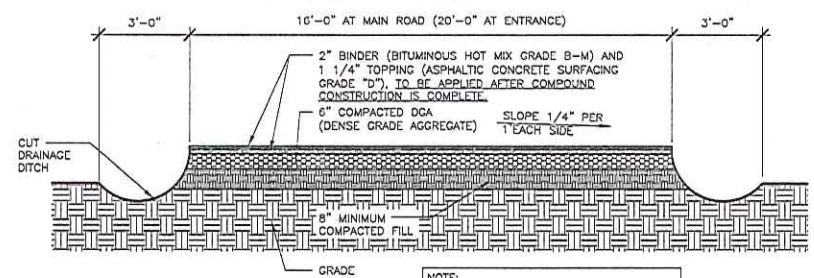
SHEET TITLE:  
**GRADING SITE PLAN**

SHEET #: <b>GP1</b>	PROJECT #: TN-0014	REV: 1
BY: NDP	CHKD: JWM	



**1 TEMPORARY RESIDENTIAL DRIVEWAY (NO CURB)**  
SCALE: N.T.S.

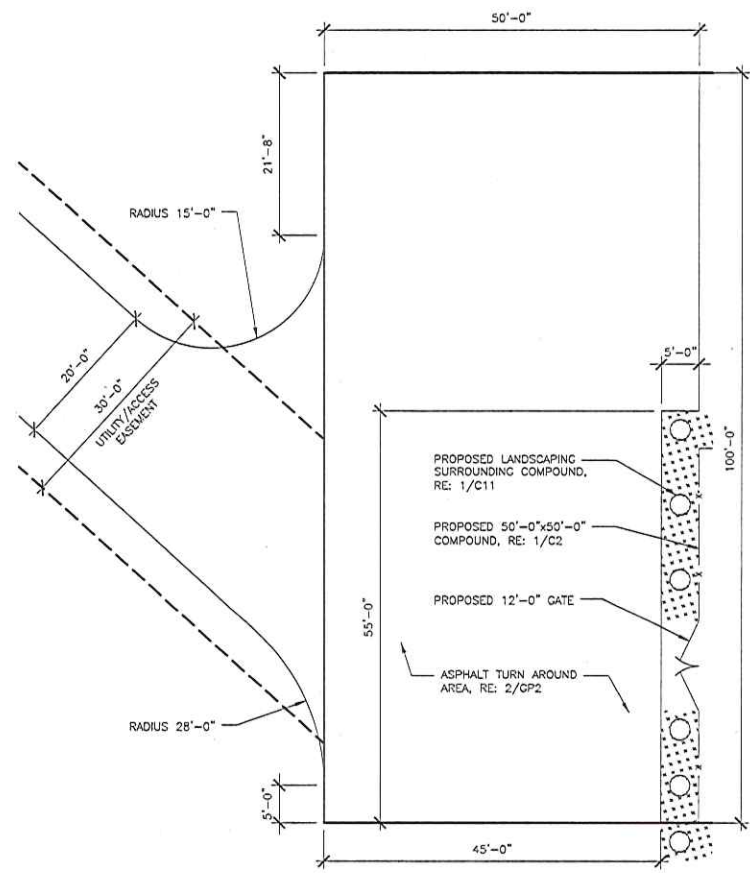
- NOTES:**
1. CONTRACTOR TO HAVE A BRANCH COMMUNICATIONS REPRESENTATIVE TO VERIFY PREVENTATIVE WEED CONTROL MATERIAL HAS BEEN INSTALLED IN COMPOUND AND ACCESS ROAD PRIOR TO PLACEMENT OF ROCK AGGREGATE.
  2. THE CONTRACTOR MUST EITHER SUPER-ELEVATE OR GROWN ALL ROAD SECTIONS.
  3. THE MAXIMUM SUPER-ELEVATION SHALL NOT EXCEED 8% CROSS SLOPE.



NOTE:  
ASPHALT PAVEMENTS FOR SITE SHALL BE IN ACCORDANCE WITH KNOX COUNTY REQUIREMENTS.

**2 AT GRADE ACCESS ROAD DETAIL**  
SCALE: N.T.S.

- NOTES:**
1. ALL RESTRICTIONS APPLICABLE TO PERMANENT DRIVES WILL ALSO APPLY TO TEMPORARY CONSTRUCTION.
  2. PERMIT TO CARRY 'TEMPORARY' NOTATION.



**3 TURN AROUND AREA PLAN**  
SCALE: N.T.S.

VENDOR:

**T-Mobile**  
3600 EZELL ROAD STE  
815 NASHVILLE, TN  
37211

PRODUCED BY:

**DE BOER**  
MICHAEL T. DE BOER  
965 WYNGTONE DRIVE  
JEFFERSON, SD 57038  
605-422-1546

PRODUCED BY:

**BR NCH**  
COMMUNICATIONS, LLC  
BRANCH COMMUNICATIONS  
1516 S BOSTON AVE STE 215  
TULSA, OKLAHOMA 74119  
(918) 949-4521

SITE NAME:

**TILLERY**

T-MOBILE NUMBER:  
**9KX0353B**

SITE ADDRESS:  
1612 GARLAND ROAD  
KNOXVILLE TN 37922

PROJECT NUMBER:  
**TN-0014**

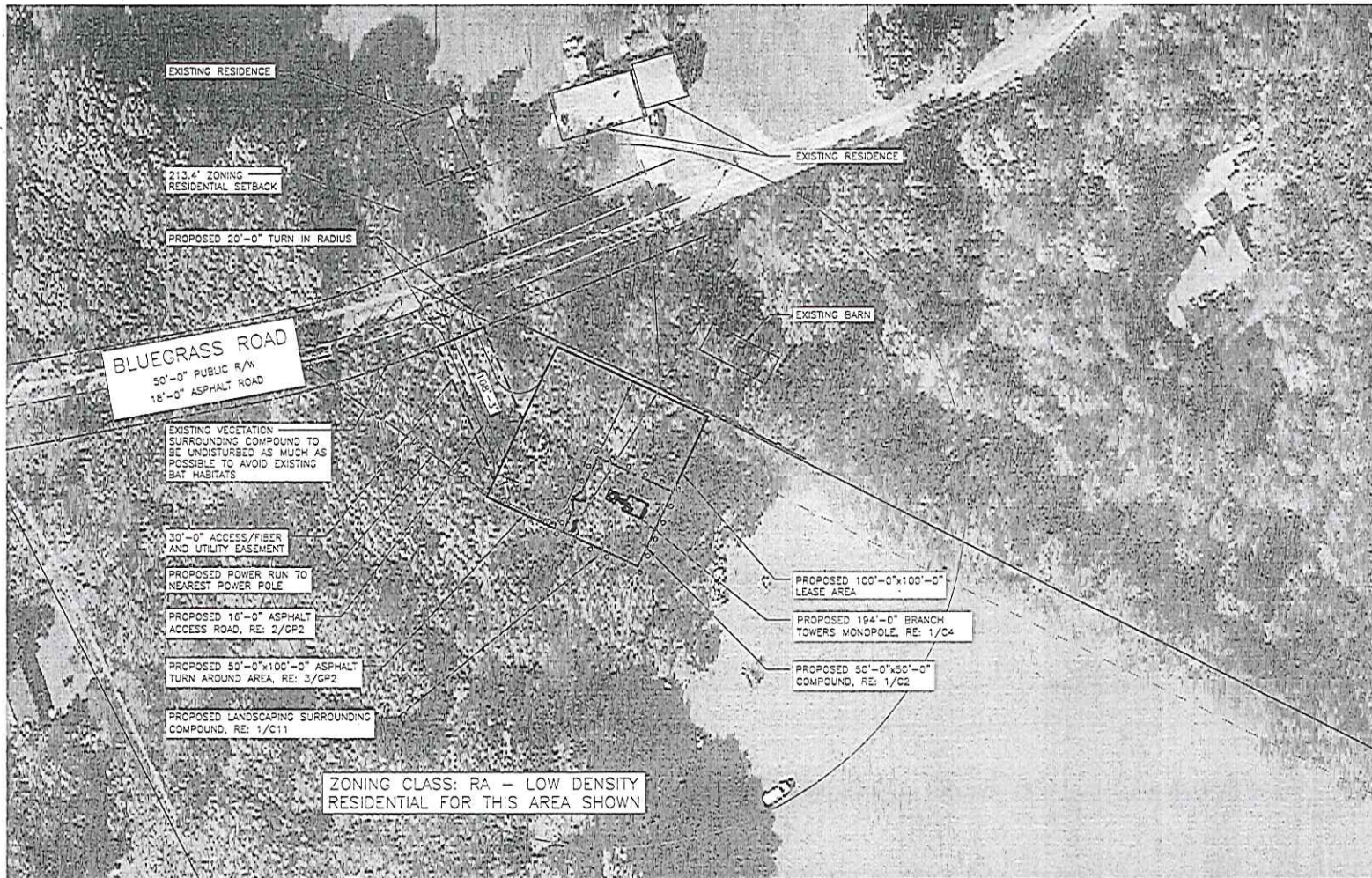
ENGINEER:

**MICHAEL T. DEBOER**  
PROFESSIONAL ENGINEER  
No. 102,221  
COMMERCIAL  
STATE OF TENNESSEE  
EXPIRES 12/31/15  
PF #102,221 EXP 01-31-17

NO	DATE	DESCRIPTION	BY
A	3/24/15	PRELIM ISSUE	NDP
O	3/27/15	CONST ISSUE	NDP
T	4/28/15	CONST ISSUE	NDP

SHEET TITLE:  
**GRADING SITE PLAN  
DETAILS**

SHEET #: **GP2** PROJECT #: **TN-0014** RLV: **1**  
BY: **CKD** NDP: **JWM**



TN-0014, 20130313, Hwy, East, Cn, 01115, 441 - Sheet 01 - User: rjgpc2 - Apr 23, 2015 - 11:35am

**1 OVERALL SITE PLAN**  
SCALE: N.T.S.



VENDOR:

**T-Mobile**  
3800 CELL ROAD STE  
815 NASHVILLE, TN  
37211

PRODUCED BY:

**DE BOER**  
MICHAEL T. DE BOER  
965 WYNDSTONE DRIVE  
JEFFERSON, SC 29035  
803-442-1948

PRODUCED BY:

**BR NCH**  
COMMUNICATIONS, LLC  
BRANDI COMMUNICATIONS  
1516 S. EIGHTON AVE. STE. 212  
TULSA, OKLAHOMA 74119  
(918) 949-4501

SITE NAME:  
**TILLERY**

T-MOBILE NUMBER:  
**9KX0353B**

SITE ADDRESS:  
1612 GARLAND ROAD  
KNOXVILLE TN 37922

PROJECT NUMBER:  
**TN-0014**

ENGINEER:

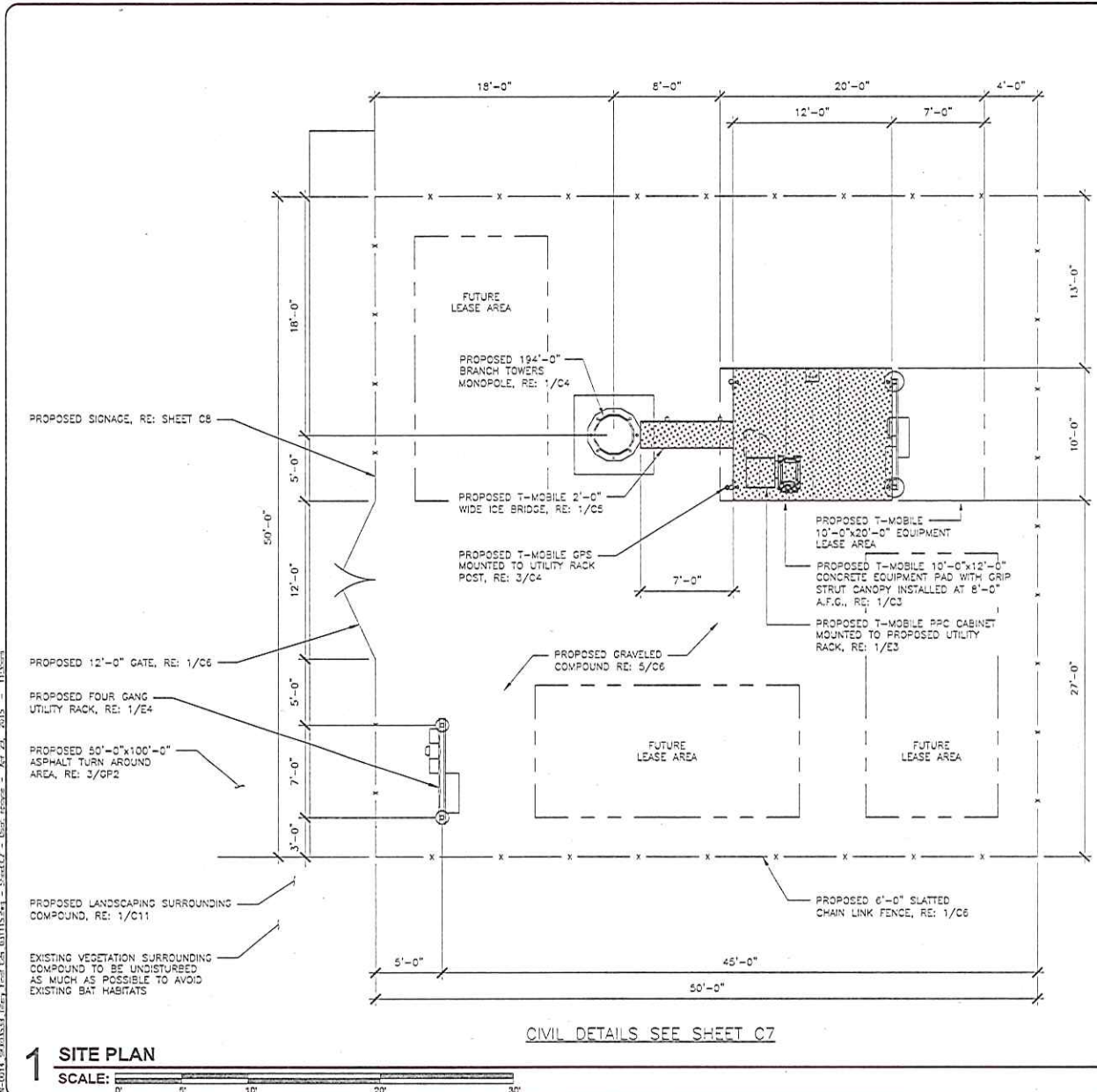
**MICHAEL T. DEBOER**  
PROFESSIONAL ENGINEER  
STATE OF TENNESSEE  
No. 102,237  
EXPIRES 12/31/15  
BF #102,237 (L) 01-11-17

NO.	DATE	DESCRIPTION	BY
A	3/24/15	PRELIM ISSUE	NDP
B	3/27/15	CONST ISSUE	NDP
T	4/28/15	CONST ISSUE	NDP

SHEET TITLE:  
**OVERALL SITE PLAN**

SHEET #: <b>C1</b>	PROJECT #: TN-0014	REV: 1
BY: NDP	CHKD: JWM	





**NOTES:**  
 1. GENERAL CONTRACTOR TO PROVIDE CABLE TRAY, ICE BRIDGE, LIGHTS, CANOPY, ALL POSTS, GROUNDING, CONDUITS, J-BOXES, UNISTRUT, WIRING, ECT.  
 2. CONTRACTOR TO STUB-UP REQUIRED CONDUITS PRIOR TO POURING CONCRETE PER EQUIPMENT CABINET INSTRUCTIONS.

VENDOR:  
**T-Mobile**  
 3600 CELL ROAD STE  
 615 NASHVILLE, TN  
 37211

PRODUCED BY:  
**DE BOER**  
 MICHAEL T. DE BOER  
 905 WYNSTONE DRIVE  
 JEFFERSON, MO 64538  
 800-422-1548

PRODUCED BY:  
**BR NCH**  
 COMMUNICATIONS, LLC  
 BRANCH COMMUNICATIONS  
 1516 S BOSTON AVE STE 215  
 TULSA, OKLAHOMA 74119  
 (918) 949-4201

SITE NAME:  
**TILLERY**  
 T-MOBILE NUMBER:  
**9KX0353B**  
 SITE ADDRESS:  
 1612 GARLAND ROAD  
 KNOXVILLE TN 37922  
 PROJECT NUMBER:  
**TN-0014**

ENGINEER:  
  
 MICHAEL T. DEBOER  
 PROFESSIONAL ENGINEER  
 STATE OF TENNESSEE  
 10223  
 12/31/15

NO	DATE	DESCRIPTION	BY
A	3/24/15	PRELIM ISSUE	NDP
O	3/27/15	CONST ISSUE	NDP
T	4/28/15	CONST ISSUE	NDP

SHEET TITLE:  
**SITE PLAN**  
 SHEET #:  
**C2**  
 PROJECT #:  
 TN-0014  
 REV: 1  
 BY: TKD:  
 NDP JWM

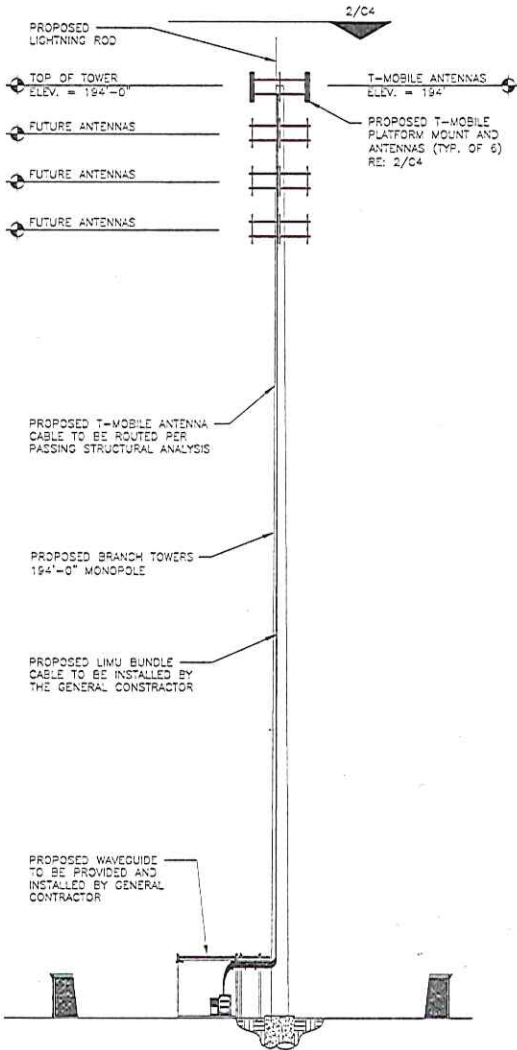
**1 SITE PLAN**  
 SCALE: 0 5 10 20 30'

CIVIL DETAILS SEE SHEET C7



15-C014-000153-1001 - Final C2 - 08/11/15 - 44 - Plan C2 - User: tkd - Apr 23, 2015 - 11:58 AM

THESE DRAWINGS ARE NOT INTENDED TO REFLECT THE STRUCTURAL INTEGRITY OF THE TOWER. THE PROPOSED ANTENNAS AND TRANSMISSION LINES SHOWN ARE REPRESENTATIVE IN NATURE AND DO NOT REFLECT THE ACTUAL CONFIGURATIONS REQUIRED. THE CONTRACTOR SHALL REFER TO THE STRUCTURAL ANALYSIS OF THIS TOWER SITE FOR THE APPROVED LOCATION AND CONFIGURATION OF ALL ANTENNAS AND TRANSMISSION LINES. ALL ANTENNAS MUST BE MOUNTED AND THE TRANSMISSION LINES CONFIGURED IN STRICT ACCORDANCE WITH THE STRUCTURAL ANALYSIS. (TOWER BY OTHERS)

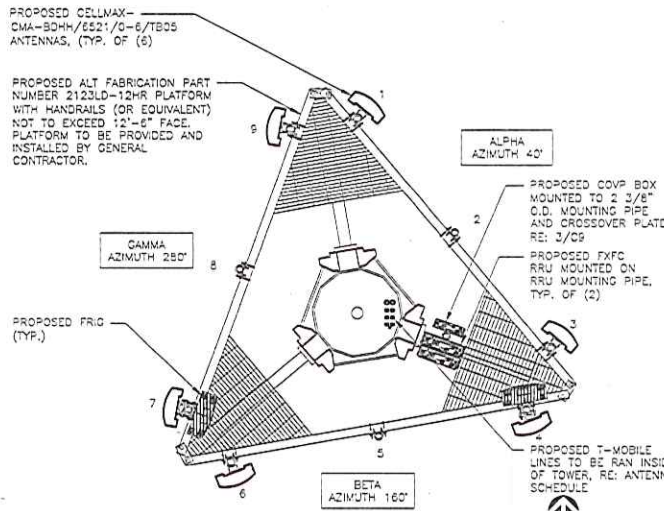


**1 PROPOSED TOWER ELEVATION**  
SCALE: N.T.S.

ANTENNA POSITION	COAX COLOR CODE	AZIMUTH (DEGREES) MAGNETIC	SECTOR	RAD CENTER (FEET)	ANTENNA VENDOR	PROPOSED ANTENNA MODEL #	MECHANICAL DOWNTILT (DEGREES)	ELECTRICAL DOWNTILT (DEGREES)	COAX/CABLE FEEDLINE		
									QTY.	SIZE	LENGTH
1	RED	40°	ALPHA	194'	CELLMAX	CMA-BDHH/6521/0-6/TB05	0'	0'	1		225'
2	--	--	--	--	--	--	--	--	--	--	--
3	RED RED	40°	ALPHA	194'	CELLMAX	CMA-BDHH/6521/0-6/TB05	0'	0'	1	LMU BUNDLE	225'
4	BLUE	160°	BETA	194'	CELLMAX	CMA-BDHH/6521/0-6/TB05	0'	0'	--	--	--
5	--	--	--	--	--	--	--	--	--	--	--
6	BLUE BLUE	160°	BETA	194'	CELLMAX	CMA-BDHH/6521/0-6/TB05	0'	0'	--	--	--
7	GREEN	280°	GAMMA	194'	CELLMAX	CMA-BDHH/6521/0-6/TB05	0'	0'	--	--	--
8	--	--	--	--	--	--	--	--	--	--	--
9	GREEN GREEN	280°	GAMMA	194'	CELLMAX	CMA-BDHH/6521/0-6/TB05	0'	0'	--	--	--

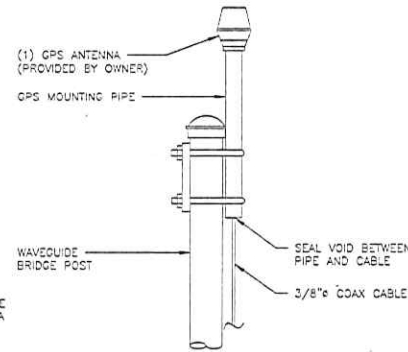
COLOR CODING PROVIDED BY OWNER, RE: 1/C9 & 2/C9

GENERAL CONTRACTOR TO OBTAIN LATEST RFDS FROM T-MOBILE PRIOR TO CONSTRUCTION FOR ALL PROPOSED EQUIPMENT, ORIENTATION, AND ELEVATIONS. ELECTRICAL TILT ON GSM AND LTE ANTENNAS NEEDS TO BE CHANGED TO 2 ON ALL THREE SECTORS.



**2 ANTENNA AZIMUTH PLAN**  
SCALE: N.T.S.

- NOTES:**
- COORDINATE GPS ANTENNA LOCATION WITH CONSTRUCTION MANAGER.
  - MAINTAIN MINIMUM BEND RADIUS ON COAX CABLE AT ALL TIMES.
  - ENSURE LOCATION OF GPS ANTENNA ALLOWS FOR CLEAR VIEW OF SOUTHERN HORIZON.
  - GPS MOUNT TO BE PROVIDED BY OWNER.
  - GPS ANTENNA TO BE INSTALLED BY CONTRACTOR.



**3 GPS ANTENNA DETAIL**  
SCALE: N.T.S.

VENDOR:

**T-Mobile**  
3800 EZZEL ROAD STE  
815 NASHVILLE, TN  
37211

PRODUCED BY:

**DE BOER**  
MICHAEL T. DE BOER  
965 WINSTON DRIVE  
JEFFERSON, MO 63038  
636-422-1546

PRODUCED BY:

**BR NCH**  
COMMUNICATIONS, LLC  
BRANCH COMMUNICATIONS  
1612 S BOSTON AVE STE 215  
TULSA, OKLAHOMA 74119  
(918) 949-4521

SITE NAME:

**TILLERY**

T-MOBILE NUMBER:

**9KX0353B**

SITE ADDRESS:

1612 GARLAND ROAD  
KNOXVILLE TN 37922

PROJECT NUMBER:

**TN-0014**

ENGINEER:

**MICHAEL T. DEBOER**  
PROFESSIONAL ENGINEER  
COMMERCIAL  
No. 102,211  
STATE OF TENNESSEE  
EXPIRES 12/31/15  
BF #102,211 (01/01/11-11/17)

NO.	DATE	DESCRIPTION	BY
X	1/24/15	PRELIM ISSUE	NDP
0	3/27/15	CONST ISSUE	NDP
1	4/28/15	CONST ISSUE	NDP

SHEET TITLE:

**ANTENNA ORIENTATION, MOUNT, AND SCHEDULE**

SHEET #:

**C4**

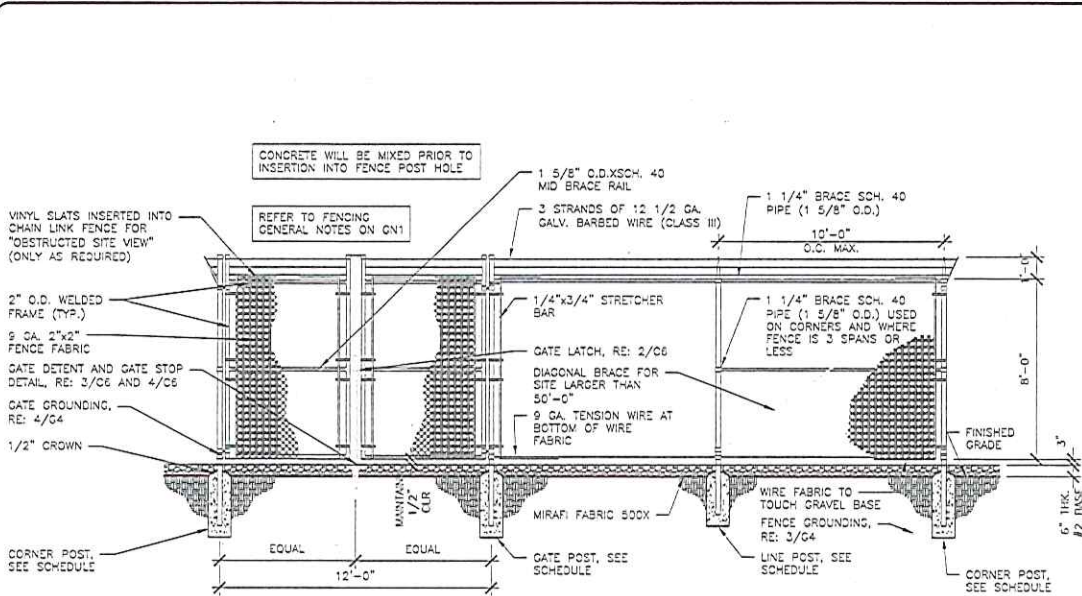
PROJECT #:

TN-0014

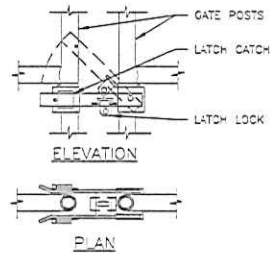
REV:

BY: CKD  
NDP JWM

**1**

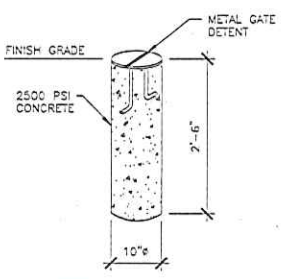


TYPICAL FENCING SIZES		
6' HIGH FENCE	SIZE	POST FOOTING
LINE POST	2"ø	9"ø X 48" DEEP
CORNER POST	3"ø	12"ø X 60" DEEP
GATE POST	4"ø	12"ø X 60" DEEP

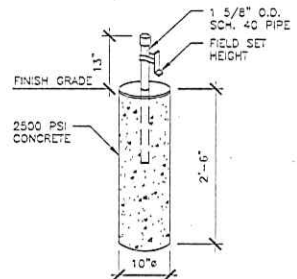


**1 FENCING DETAIL**  
SCALE: N.T.S.

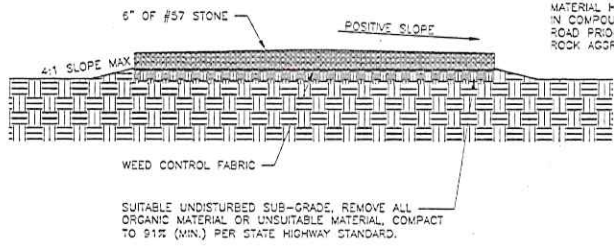
**2 GATE LATCH DETAIL**  
SCALE: N.T.S.



**3 GATE DETENT DETAIL**  
SCALE: N.T.S.



**4 GATE STOP/KEEPER DETAIL**  
SCALE: N.T.S.



**5 COMPOUND DETAIL**  
SCALE: N.T.S.

**NOTE:**  
1. CONTRACTOR TO HAVE A BRANCH TOWERS REPRESENTATIVE VERIFY PREVENTATIVE WEED CONTROL MATERIAL HAS BEEN INSTALLED IN COMPOUND AND ACCESS ROAD PRIOR TO PLACEMENT OF ROCK AGGREGATE.

VENDOR:  
**T-Mobile**  
3650 ELLI ROAD STE  
870 NASHVILLE, TN  
37211

PRODUCED BY:  
**DE BOER**  
MICHAEL T. DE BOER  
965 WINGSTONE DRIVE  
JEFFERSON, TN 37035  
662-422-1046

PRODUCED BY:  
**BR NCH**  
COMMUNICATIONS, LLC  
BRANCH COMMUNICATIONS  
1616 S BOSTON AVE STE 210  
TULSA, OKLAHOMA 74119  
(918) 949-4551

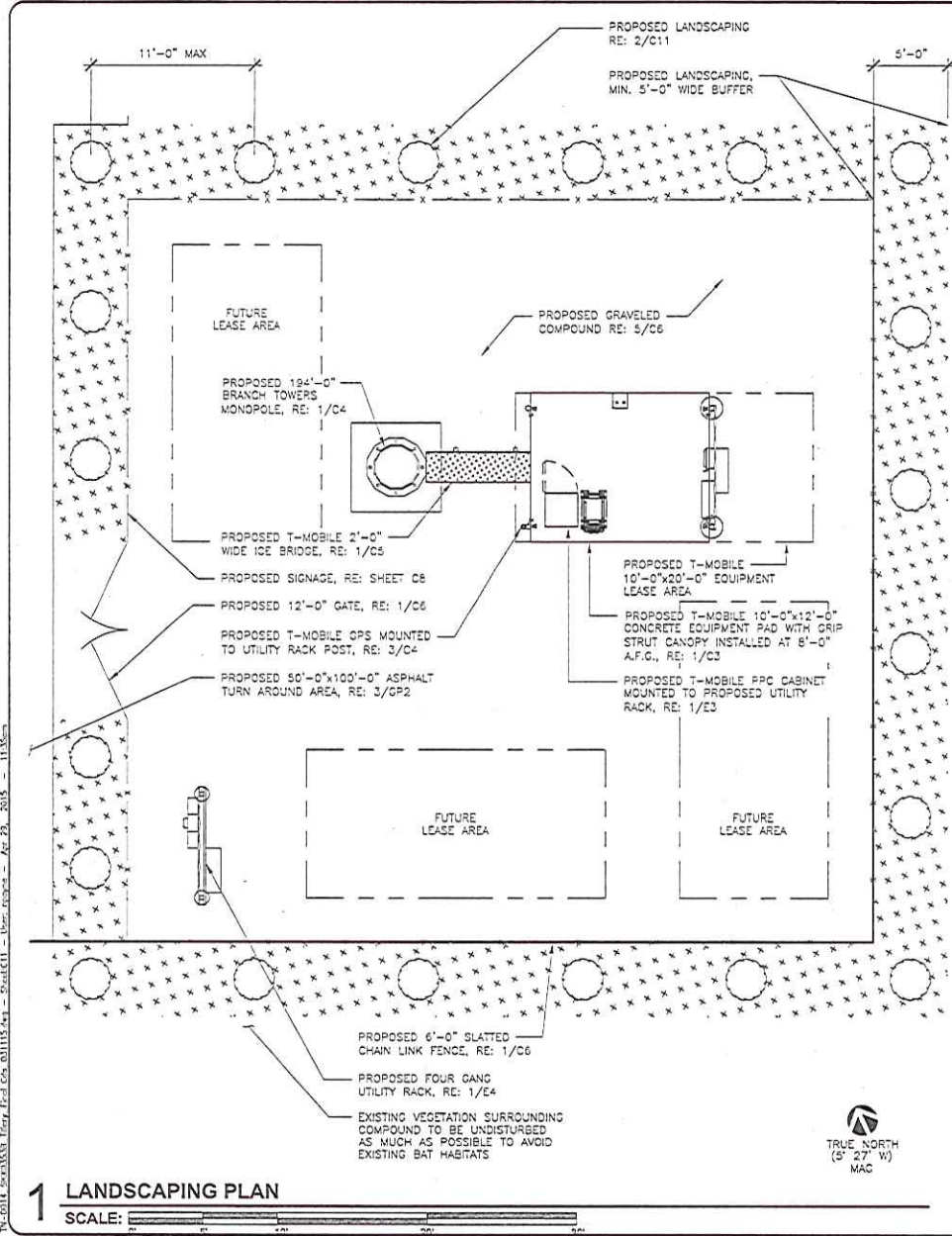
SITE NAME:  
**TILLERY**  
T-MOBILE NUMBER:  
**9KX0353B**  
SITE ADDRESS:  
1612 GARLAND ROAD  
KNOXVILLE TN 37922  
PROJECT NUMBER:  
**TN-0014**

ENGINEER:  
**MICHAEL T. DEBOER**  
PROFESSIONAL SEAL  
STATE OF TENNESSEE  
No. 102221  
EXPIRES 12/31/15  
PF 0102 221 011 01-11-17

NO.	DATE	DESCRIPTION	BY
A1	3/24/15	PRELIM ISSUE	NDP
0	3/27/15	CONST ISSUE	NDP
1	4/26/15	CONST ISSUE	NDP

SHEET TITLE:  
**COMPOUND DETAILS**  
SHEET #: **C6** PROJECT #: **TN-0014** REV: **1**  
BY: **CKO**  
NDP **JWM**

P:\004\000333\Tillery\_Plan\CA\_031115.dwg - Sheet06 - User:mpc - Apr 23, 2015 - 11:50am

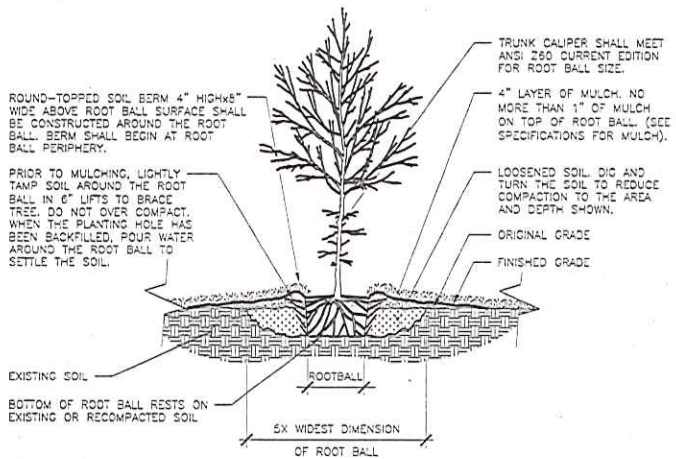


**GENERAL PLANTING NOTES:**

1. ALL PLANTS MUST BE HEALTHY, VIGOROUS MATERIAL, FREE OF PESTS AND DISEASE.
2. ALL PLANTS MUST BE CONTAINER-GROWN OR BALLED AND BURLAPPED AS SPECIFIED.
3. ALL TREES MUST BE STRAIGHT TRUNKED, FULL HEADED AND MEET ALL REQUIREMENTS.
4. ALL PLANTS ARE SUBJECT TO THE APPROVAL OF THE ENGINEER'S REPRESENTATIVE BEFORE, DURING, AND AFTER INSTALLATION.
5. ALL PLANTS AND PLANTING AREAS MUST BE COMPLETELY MULCHED OR COVERED IN PINE STRAW AS SPECIFIED.
6. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES AND SHALL AVOID DAMAGE TO ALL UTILITIES DURING COURSE OF THE WORK.
7. THE CONTRACTOR IS RESPONSIBLE FOR FULLY MAINTAINING ALL PLANTING (INCLUDING, BUT NOT LIMITED TO: WATERING, SPRAYING, MULCHING, FERTILIZATION, ETC.) OF PLANTING AREAS UNTIL THE WORK IS ACCEPTED IN TOTAL BY THE ENGINEER'S REPRESENTATIVE.
8. THE CONTRACTOR AGREES TO PERFORM ALL LANDSCAPE MAINTENANCE (INCLUDING WATERING) THROUGHOUT THE ONE YEAR GUARANTEE PERIOD UNLESS OTHERWISE DETERMINED.
9. THE CONTRACTOR SHALL COMPLETELY GUARANTEE ALL PLANT MATERIAL FOR A PERIOD OF ONE YEAR AND MAKE ALL REPLACEMENTS BEFORE OR AT THE END OF THE GUARANTEE PERIOD.
10. THE ENGINEER'S REPRESENTATIVE WILL APPROVE THE STAKED LOCATION OF ALL PLANT MATERIAL PRIOR INSTALLATION.
11. AFTER BEING DUG AT THE NURSERY SOURCE, ALL TREES IN LEAF SHALL BE ACCLIMATED FOR TWO (2) WEEKS UNDER A MIST SYSTEM PRIOR TO INSTALLATION.
12. ANY PLANT MATERIAL THAT DIES, TURNS BROWN OR DEFOOLIATES (PRIOR TO TOTAL ACCEPTANCE OF THE WORK) SHALL BE PROMPTLY REMOVED FROM THE SITE AND REPLACED WITH MATERIAL OF THE SAME SPECIES, QUANTITY, SIZE AND MEETING ALL SPECIFICATIONS.
13. STANDARDS SET FORTH IN "AMERICAN STANDARD FOR NURSERY STOCK", LATEST EDITION, REPRESENTS GUIDELINE SPECIFICATIONS ONLY AND SHALL CONSTITUTE MINIMUM QUALITY REQUIREMENTS FOR PLANT MATERIAL.
14. ALL TREE PROTECTION MEASURES SHALL BE INSTALLED PRIOR TO GRADING.
15. UNDISTURBED BUFFERS SHALL BE REPLANTED TO BUFFER STANDARDS WHERE SPARSELY VEGETATED OR WHERE DISTURBED AT APPROVED UTILITY CROSSINGS. REPLANTING IS SUBJECT TO COUNTY ARBORIST.
16. SEE PLAN FOR MINIMUM PLANT SIZE, HEIGHT.

QUANTITY	SCIENTIFIC NAME	COMMON NAME	MATURE SIZE (HT X WTH)
20	"JUNIPERUS VIRGINIANA"	EASTERN RED CEDAR	40-60 FT X 1-2 FT TRUNK DIAMETER

PINSTRAW MULCH - 2" SETTLED LAYERS OF CLEAN STRAW



VENDOR:

**T-Mobile**

3806 EXELL ROAD STE  
815 NASHVILLE, TN  
37211

PRODUCED BY:

**DE BOER**

MICHAEL T. DE BOER  
863 WYNDSTONE DRIVE  
JEFFERSON, TN 37033  
663-423-1948

PRODUCED BY:

**BRANCH**  
COMMUNICATIONS, LLC

BRANCH COMMUNICATIONS  
1516 S BOSTON AVE STE 212  
TULSA, OKLAHOMA 74119  
(918) 943-4551

SITE NAME:

**TILLERY**

T-MOBILE NUMBER:  
**9KX0353B**

SITE ADDRESS:  
1612 GARLAND ROAD  
KNOXVILLE TN 37922

PROJECT NUMBER:  
**TN-0014**

ENGINEER:

**MICHAEL T. DEBOER**  
PROFESSIONAL ENGINEER  
STATE OF TENNESSEE  
No. 10222  
EXPIRES 12/31/15  
PE #10222, LUM #1-31-17

NO	DATE	DESCRIPTION	BY
A	3/24/15	PRELIM ISSUE	NDP
B	3/27/15	CONST ISSUE	NDP
C	4/28/15	CONST ISSUE	NDP

SHEET TITLE:  
**LANDSCAPING PLAN AND DETAILS**

SHEET #: **C11** PROJECT #: **TN-0014** REV: **1**  
BY: **CKD** NDP **JWM**

**1 LANDSCAPING PLAN**  
SCALE:

**2 SHRUB PLANTING DETAIL**  
SCALE: N.T.S.



March 27, 2015

MPC - Knoxville/Knox County Metropolitan Planning Commission  
400 Main Street  
Knoxville TN 37902

**Subject:** Use-in-Review Application for TN-0010 Corey  
**Location:** 1612 Garland Road

Mr. Brechko:

Branch Towers, together with T-Mobile, respectfully submits the following application for Use-in-Review approval from Knoxville/Knox County Metropolitan Planning Commission for a 194 foot monopole to be located on property at 1612 Garland Road.

The proposed cell Facility is located within an RA – Low Density Residential zoning district in Knox County. The purpose of this tower is to meet T-Mobile's coverage and capacity needs along Route-332, I-140 and Westland Dr.

Please consider the forgoing application and associated information provided herein. Branch Towers and T-Mobile are prepared to address any issues or concerns as the review process proceeds.

If you have any questions or comments, please contact me at 918-851-9102.

Sincerely,

A handwritten signature in black ink that reads "Kayla Kramer". The signature is written in a cursive, flowing style.

Kayla Kramer  
Branch Communications

Branch Communications, LLC  
1516 S Boston Ave, Ste 215 Tulsa, Oklahoma 74119  
office (918) 949-4551 fax (918) 949-4557

**USE-IN-REVIEW APPLICATION FOR A PROPOSED TELECOMMUNICATIONS FACILITY  
ON PROPERTY OWNED BY JAMES L. TILLERY, JR.  
LOCATED AT 1612 GARLAND RD, KNOXVILLE, TENNESSEE**

**Applicant**  
Branch Towers, LLC  
1516 S Boston Avenue, Suite 215  
Tulsa OK 74119

**Property Owner**  
James L. Tillery, Jr.  
2119 Ridgecrest Road  
Knoxville TN 37086

**Submitted to:**  
MPC – Knoxville/Knox County Metropolitan Planning Commission  
City of Knoxville  
400 Main Street  
Knoxville TN 37902

**Branch Communications, LLC**  
1516 S Boston Ave, Ste 215 Tulsa, Oklahoma 74119  
office (918) 949-4551 fax (918) 949-4557

**I. PROJECT SUMMARY**

This application is respectfully submitted by Branch Towers, LLC (“Branch”) on behalf of James L. Tillery, Jr. and T-Mobile for review and approval of Use-in-Review for a telecommunications facility by the Knoxville/Knox County Metropolitan Planning Commission. Pursuant to this joint application narrative, Branch proposes to construct a 194 foot monopole style telecommunications tower on a portion of a parcel of land owned by James L. Tillery, Jr., situated south of Bluegrass Road and east of Garland Road. This property has an address of 1612 Garland Road, Knoxville, TN 37922 (referred to as the “Facility”) known as parcel number 154 07503.

In addition to meeting the coverage objectives of T-Mobile and other future providers, the proposed Facility adheres to the ordinance to assure safety, ensure compatibility with adjacent land uses and minimizes the impact to revitalization and redevelopment areas, and historic districts. The current design utilizing a monopole is a preferred style suggested by the ordinance.

The proposed 194 foot tower height does not exceed limitation per the ordinance. The separation distance from all residential dwelling units shall be 110% of tower height. 110% of the proposed 194 foot tower results in a 214’ setback requirement. The tower structure meets the setback requirement. Page 6 of CDs (survey) shows the nearest residential structure is 216 feet from the proposed tower. The proposed project is located within the interior of a wooded lot and is in conformance with the standards of the code. The Applicant is willing to consider any means of screening the City suggests, in addition to existing tree coverage. The proposed Facility will be designed to be the least intrusive means of providing service in the City, and is respectfully submitted that the Knoxville/Knox County Metropolitan Planning Commission to consider the approval of Branch Towers, LLC’s application.

**II. PROJECT DESCRIPTION**

A. Existing Conditions: This Facility is situated in the interior of a 7.24 acre, wooded parcel off Bluegrass Road, in Knoxville. The property is in the RA – Low Density Residential zoning district. The property consists of the owner’s residence set to the back of the property, with the proposed Site location Branch Towers has leased of 10,000 square

**Branch Communications, LLC**  
1516 S Boston Ave, Ste 215 Tulsa, Oklahoma 74119  
office (918) 949-4551 fax (918) 949-4557

foot area (100' X 100') towards the front of the property. Branch Towers has leased a 10,000 square foot area (100' X 100') with a 30' access/utility easement. The proposed Facility will be connected to Bluegrass Road by a 16 foot wide paved road and utility easement for the power and telecommunications needs of the Facility. Utilities including power and telephone service are being coordinated to be available at the Facility.

B. Proposed Development: The proposed telecommunications Facility will consist of the following:

- Construction of a 194 foot monopole structurally capable of supporting colocation by at least three additional telecommunications providers.
- Installation of a concrete foundation capable of supporting the monopole, and installation of a separate 10' x 12' foundation for T-Mobile's outdoor equipment.
- Installation of a 6 foot fence comprised of chain-link and topped with barbed wire to secure the compound containing the monopole and ground-based equipment.
- The uppermost 10 feet of the monopole will consist of T-Mobile antennae platform with a centerline of approximately 190 feet. The platform will be structurally capable of carrying 3 antenna sectors, each consisting of up to 4 antennae panels. With T-Mobile's equipment and antennae in place, the Facility will be 194 feet in height (T-Mobile's antenna will extend only to the top of the Monopole). The associated cabling will travel from the antennae down the monopole to the bottom of the monopole and along an ice bridge
- The access road to the Facility is less than 150'.

### III. DEVELOPMENT STANDARDS

Section 20 – Commercial telecommunications facilities contains specific provisions regulating telecommunications facilities. In accordance with therewith, Branch Towers, LLC submits the following:

- A. A new commercial telecommunications tower proposed for construction must accommodate at least three (3) antenna arrays if the tower is one hundred thirty (130) feet in height or greater.

**Branch Communications, LLC**  
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Sheet C4 of the CDs show the proposed 194 foot tower with three additional locations for future tenant locations.

- B. Applicants requesting a building permit or use on review approval for a new tower shall simultaneously file a letter of intent committing the tower owner and his/her successors to allow the shared use of the tower if an additional user agrees in writing to meet reasonable terms and conditions for shared use.

A letter of intent signed by Curtis Branch, President of Branch Towers, LLC, has been included in the submittal package.

- C. Applications for a building permit or use on review approval for a new tower shall include maps of the intended coverage area, the corresponding search radius for tower sites, and existing facilities within that search radius. Existing facilities shall include towers, buildings, and other structures of such height as to meet the engineering needs of the applicant. The applicant shall also provide written evidence that location on an existing structure is not feasible due to at least one (1) of the following reasons:

- (1) No suitable facilities exist that would allow service to be provided to the proposed coverage area.

A map of the intended coverage area with corresponding search radius for tower sites and existing facilities has been provided. Additionally, documentation showing T-Mobile's attempt to collocate on the existing stealth tower owned by US Cellular and ultimate decision not to collocate on the tower due to insufficient centerline availability.

- D. If the applicant is not a licensed provider of commercial telecommunications services, the application shall, in addition to meeting all the other requirements of this section, include at least one (1) letter from such a licensed provider indicating intent to locate on the proposed tower. The maps and written evidence required in Part B.1.c. of this section shall be based on the needs of the licensed provider(s) who furnishes said letter of intent.

T-Mobile has provided a letter of intent and the necessary maps included in this package.

- E. Plans and drawings submitted as part of a use on review application for a new tower site shall be certified by a licensed professional engineer or architect.

Tennessee licensed engineer, Michael T. DeBoer, has signed the drawings.

- F. The professional planning staff of the metropolitan planning commission shall refer technical engineering aspects of the administration and enforcement of this section to a registered professional engineer(s) qualified in the design and installation of wireless

communications facilities to provide advice and assistance. Any use on review application for a new communications tower of sixty (60) or more feet in height shall, at the discretion of the professional planning staff of the metropolitan planning commission, be referred to the engineering consultant for review and report. Any reasonable costs not to exceed one thousand five hundred dollars (\$1,500.00) incurred for the engineering consultant's review and recommendation shall be reimbursed by the applicant to the metropolitan planning commission.

The required \$1500 fee has been included in the submittal package.

- G. Setbacks. Except as otherwise noted in this section, all towers shall be set back from all properties zoned A-1, R-1, R-1A, R-1E, R-2, R-3, RP-1, RP-2, RP-3, R-4, TC-1, or TND-1, all properties with an H-1 or an NC-1 overlay, and any residentially or agriculturally zoned property within the Town of Farragut or Knox County, a minimum distance equal to one hundred ten (110) percent of the height of the tower, or the minimum principal use setback of the zoning district in which the tower is located, whichever is greater.

The proposed Facility is located on an RA zoned lot with 110% setback for a 194 foot tower being 165 feet. Page 6 of CDs shows the 214' setback to residential structures.

- H. Landscaping. The following landscaping standards shall apply:
- i. For all towers, at least one (1) row of evergreen trees or shrubs capable of forming a continuous hedge at least five (5) feet in height and screening the base of the tower from public view within two (2) years of planting shall be planted and maintained in healthy condition. A break in the hedge, not to exceed twelve (12) feet in width, shall be allowed for access for maintenance personnel and vehicles.
  - ii. New or existing vegetation, earth berms, existing topographic features, walls, fences, building and features other than those described above may be used to meet the requirements of these regulations if the code administrator finds that they achieve the same degree of screening.

No screening shall be required if the base of the tower is not visible from adjoining property or is not otherwise visible from a dedicated public right-of-way, or if waiver of this requirement is necessary for the continued operation of agricultural or forestry uses.

The proposed Facility is on a wooded lot with adequate natural screening.

March 25, 2015

Re: Proposed T-Mobile Wireless Communications Facility  
Site Name: 9KX0353B

To Whom It May Concern:

The purpose of this letter is to state the need for a new T-Mobile Wireless Communications Facility to be built on the site located at 10500 Sandpiper Ln, Knoxville, TN. The tower is necessary to meet coverage and capacity needs in the commercial and residential areas near Garland, as well as to provide coverage along Route-332, I-140 and Westland Dr. The only viable alternative solution is a new tower as there are no other suitable structures for collocation. This site will provide the wireless voice and data experience that the T-Mobile customers rely on. It will also provide critical safety support through enhanced 911 services.

This site has been designed and will be constructed and operated in accordance with all applicable requirements and regulations set forth by the various agencies that manage them including the FAA and the FCC. This site will transmit within the licensed frequency bands owned by T-Mobile and will adhere to FCC regulated power limitations. RF emission readings in the accessible areas will be below the FCC limits for exposure. Appropriate RF emission signage will be placed at the entrance to the site.

Sincerely,



Kevin Blewitt  
Senior Engineer, RF Deployment  
T-Mobile USA



March 27, 2015

MPC - Knoxville/Knox County Metropolitan Planning Commission  
400 Main Street  
Knoxville TN 37902

**Subject:** Letter of Intent to allow shared use of tower

**Site Number:** TN-0014 Tillery

To Whom It May Concern:

Upon Use-in-Review approval for the proposed 194' monopole tower, Branch Towers, LLC, will commit to allow the shared use of the tower if an additional user agrees in writing to meet reasonable terms and conditions for shared use. Branch Towers, LLC, further understands this commitment is not intended to limit the rights of parties to set rent or establish other terms and conditions for the shared use of a telecommunications tower or other structure.

This commitment will be binding upon our successors and assigns, and will be for the benefit of the Company, its successors, and its assigns.

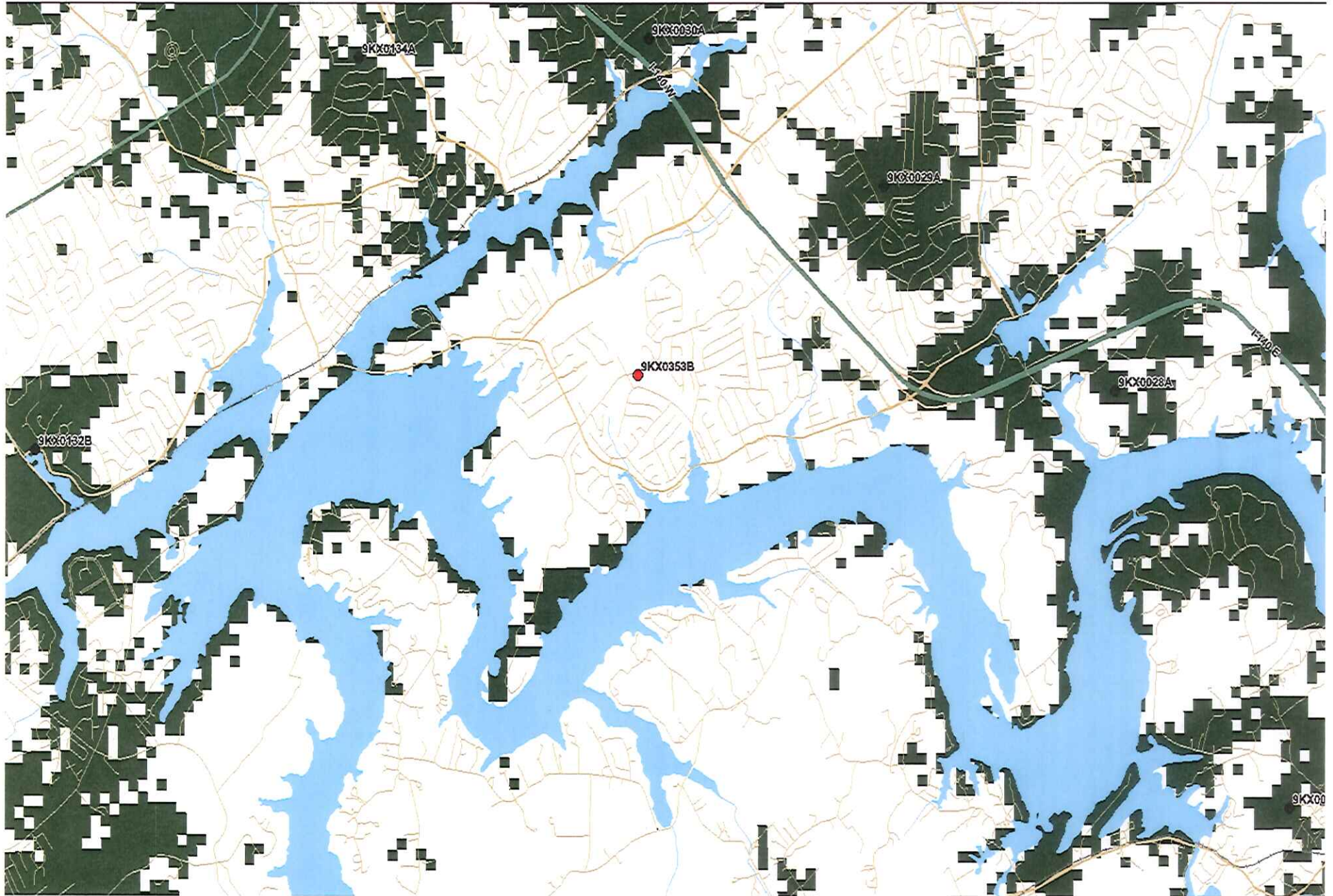
A handwritten signature in black ink, appearing to read "C. Branch", is written over a horizontal line.

**Curtis R. Branch**

President

DATE: 3/27/15

# T-Mobile Coverage without 9KX0353B



# T-Mobile Coverage with 9KX0353B

