

▶ **FILE #:** 8-H-12-UR **AGENDA ITEM #:** 40

POSTPONEMENT(S): 8/9/2012 **AGENDA DATE:** 9/13/2012

▶ **APPLICANT:** U. S. CELLULAR CORPORATION

OWNER(S): John Locascio

TAX ID NUMBER: 57 12541

JURISDICTION: City Council District 5

▶ **LOCATION:** West end of Oaklett Dr., east of Haynes Sterchi Rd.

▶ **APPX. SIZE OF TRACT:** 30.18 acres

SECTOR PLAN: North City

GROWTH POLICY PLAN: Urban Growth Area (Inside City Limits)

ACCESSIBILITY: Access is via Haynes Sterchi Rd., a minor collector street with an 18' pavement width within a 40' right-of-way.

UTILITIES: Water Source: Knoxville Utilities Board

Sewer Source: Knoxville Utilities Board

WATERSHED: Knob Fork Creek

▶ **ZONING:** RP-1 (Planned Residential)

▶ **EXISTING LAND USE:** Vacant land adjacent to church site

▶ **PROPOSED USE:** 195' Monopole Telecommunications Tower

HISTORY OF ZONING: None noted

SURROUNDING LAND USE AND ZONING: North: Vacant land / RP-1 (Planned Residential)

South: Residences / R-1 (Low Density Residential)

East: Vacant land and school / RP-1 (Planned Residential) & R-1 (Low Density Residential)

West: Church / RP-1 (Planned Residential)

NEIGHBORHOOD CONTEXT: The proposed tower site is located in an area that includes a mix of institutional and low density residential uses.

STAFF RECOMMENDATION:

▶ **APPROVE the request for a 195' monopole telecommunications tower in the RP-1 zoning district and to allow the tower to be closer than 110% of the height of the tower from the adjoining property that is owned by the church, subject to 5 conditions.**

1. Modifying the monopole tower design to utilize close mount antenna arrays.
2. Meeting all applicable requirements of the Knoxville Zoning Ordinance.
3. Meeting all applicable requirements of the Knoxville Department of Engineering.
4. Since the FAA does not require any lighting for this facility, there shall be no lighting on the tower.
5. 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 RP-1 zoning district.

COMMENTS:

This is a request for a new 195 foot monopole telecommunications tower to be located within a 10,000 square foot lease area located on a portion of a 46 acre tract (two large parcels owned by Trinity Chapel, Inc.). The subject property is zoned RP-1 (Planned Residential) and telecommunication towers are considered as a use on review in this district. The proposed tower site will have access to Haynes Sterchi Rd. through the parking lot for Trinity Chapel Church. A 15' wide gravel access drive will provide access from the tower site to the parking lot.

The proposed tower is required to be located 214.5 feet (110% of the tower height) from the nearest residential zoned property. The only property within that distance is property owned by the church. The property owner has entered into an agreement with U. S. Cellular to allow the tower to be located closer than the required 214.5'. The Knoxville Zoning Ordinance allows for this waiver of the 110% standard. The tower meets the minimum setback standard for the RP-1 District.

The proposed tower will be over 500' from the nearest residence. The proposed tower would be over 220' from the Sterchi Elementary School property. The applicant is proposing a 6' high security fence topped with three strands of barbed wire around the tower and equipment area. Due to the height of the tower, FAA does not require lighting for the tower.

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 tower will support up to 4 telecommunication carrier antenna arrays. U. S. Cellular Corporation will be the principal user for the tower. An agreement has been submitted stating that U. S. Cellular Corporation agrees to make all of its facilities available to other wireless providers.

Attached to the staff report are several support documents, including 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 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 the required utilities are available to serve this site.
2. The tower site, being located on a larger tract of land should have minimal impact on nearby residences.

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 RP-1 (Planned Residential) zoning district.
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 of the General Plan and the North City Sector Plan. The use is in harmony with the general purpose and intent of the Zoning Ordinance. Since this site is located on a larger tract of land, the use will not significantly injure the value of adjacent property. The use will not draw additional traffic through residential areas.

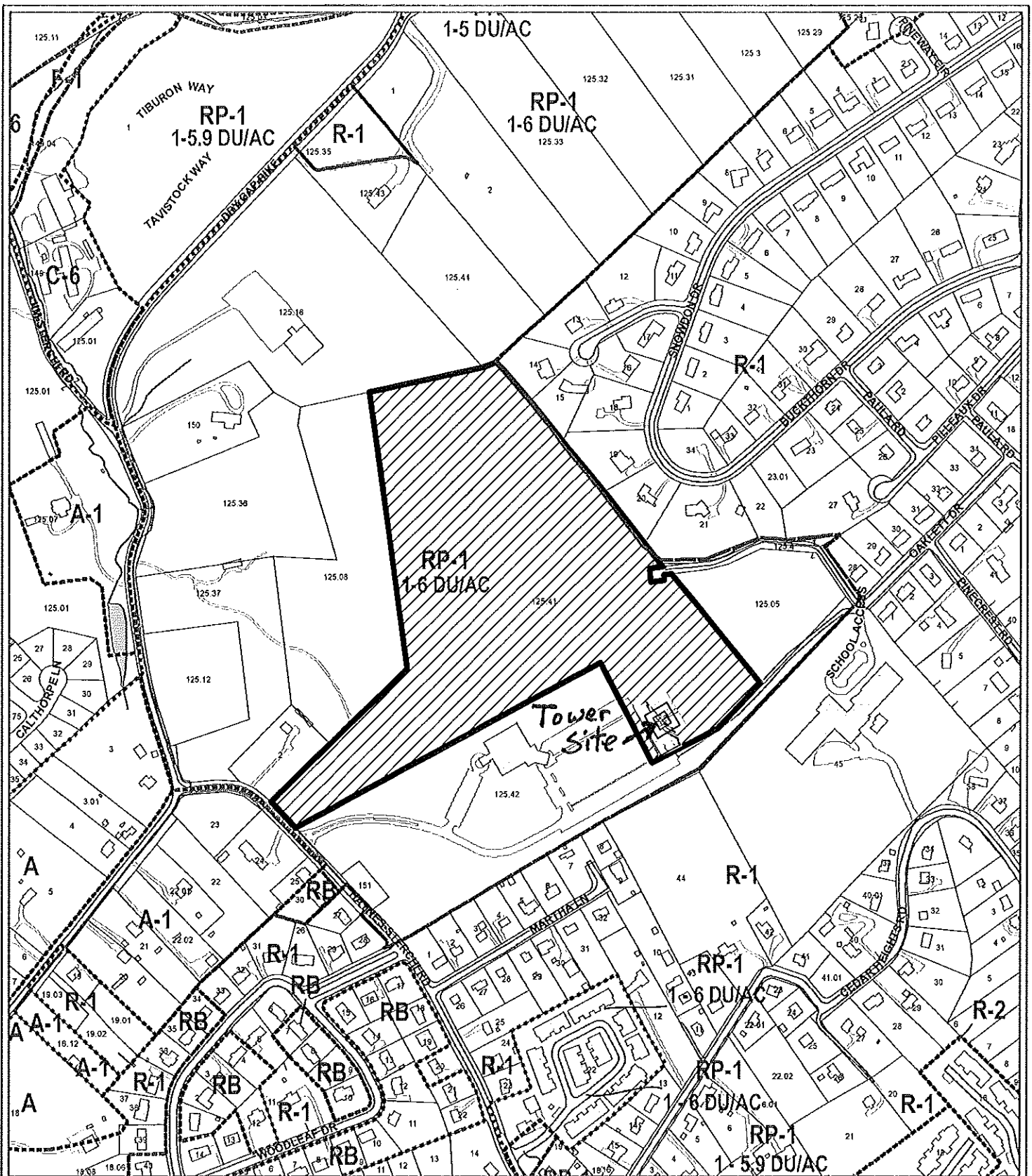
CONFORMITY OF THE PROPOSAL TO ADOPTED PLANS

1. The North City Sector Plan proposes low density residential uses on this property. With the minimal site alteration required for the proposed tower and the proposed location on a large tract of land adjacent to heavily wooded areas, the proposed development would be consistent with this land designation.
2. Under the guidelines for tower placement in the Wireless Communications Facility Plan, this proposed tower would be considered a tall monopole. The proposed tower falls within the "Sensitive Area" of the Land Use/Wireless Facilities Matrix since the proposed tower site is located on non-residential property (church site) within a residential area. The Plan discourages tall monopole towers in these areas. It is Staff's position that the impact of the proposed tower is reduced by the location of the tower on this large tract of land and by the heavily wooded areas that adjoin the site.
3. The site is located within the Urban Area on the Knoxville-Knox County-Farragut Growth Policy Plan map.

ESTIMATED TRAFFIC IMPACT: Not calculated.

ESTIMATED STUDENT YIELD: Not applicable.

MPC's approval or denial of this request is final, unless the action is appealed to the Knoxville City Council. The date of the Knoxville City Council hearing will depend on when the appeal application is filed. Appellants have 15 days to appeal an MPC decision in the City.



**8-H-12-UR
USE ON REVIEW**

Petitioner: U. S. Cellular Corporation



195' Monopole Telecommunications Tower in RP-1 (Planned Residential)

Original Print Date: 7/17/2012 Revised:
Metropolitan Planning Commission * City / County Building * Knoxville, TN 37902

Map No: 57
Jurisdiction: City



US CELLULAR CORPORATION
Telecommunications Tower Site Review
8-H-12-UR
CONSULTANT'S SUMMARY
INSKIP SITE
North Knoxville City

Location: 815 Oaklett Drive, Knoxville City *(Northwest of Sterchi Elementary School and west of Haynes Sterchi Road)*

Proposed Tower Height: 195 foot Monopole

Address: 815 Oaklett Drive
Knoxville, Tennessee 37917

District: North Knoxville City #5 **Map Book:** 057 **Parcel:** 12541

Use: Telecommunications antenna structure

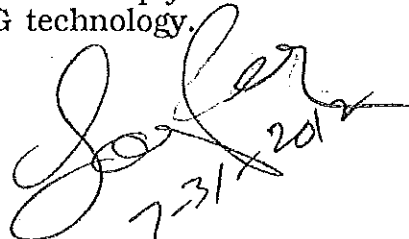
Zoning: RP1 (Planned Residential)

Variances and waivers: None required or requested

Need: The applicant is US Cellular Corporation a licensed PCS carrier by the Federal Communications Commission and possibly other users.

Instant Proposal: Construct a 195 foot monopole tower type support structure. While this structure is quite tall, the location is such that it will support 4 other carriers in the future, thus eliminating the need for additional towers in the immediate area. The site is needed for the coverage required using the new 4G technology which has a high data rate and fairly short coverage area.

Consultant's Recommendation: The site and application meets the requirements of the Ordinance and the spirit of the Facilities Plan. The applicant has proven a need for the site to comply with its FCC mandated coverage requirements for the new 4G technology.


7-31-2012

**REPORT TO
METROPOLITAN PLANNING COMMISSION**

for

Proposed Telecommunications Tower Site
Located at 815 Oaklett Drive
Knoxville, TN known as

INSKIP SITE

US CELLULAR

UOR 8-H-12-UR

COMPLIANCE WITH

THE MPC TELECOMMUNICATIONS FACILITY ORDINANCE

7/30/2012

The proposed site for the applicant is a 195 foot monopole to be located at 815 Oaklett Drive, Knoxville in North Knoxville City. The supporting material from applicant has been reviewed for technical and Federal/State legal compliance as well as with the Knoxville City Wireless Communication Facilities Plan from 2002. This is a new telecommunication site. The site is a capacity and fill site. This means that there is coverage at the site at the present, but the capacity of the existing coverage does not provide sufficient signal levels for the new 4G (4th Generation) technology.

REQUESTED

1. **Location.** The location is within the **City** of Knoxville in the **North City** District and in the Knox County Register of Deeds Office in **Tax Map: 057** at **Parcel: 12541**.

2. **Zoning.** **RP-1** (Planned Residential)

3. **Tower height.** The requested height is 195 feet above ground level will support up to 4 additional telecommunications carrier antennas for a total of 5 users. Lighting will not be required on this structure.

4. **Variances.** The set back requirements in Article 5 Section 20 B(2) of the Ordinance for Knoxville City for "C" sites requires that the structure be set back a minimum distance of 110% of the structure height or in this case 214.5 feet from the nearest dwelling unit. The proposed site is greater than 214.5 feet from the nearest residential unit,

thus a variance will not be required.

5. **Site.** This application is for the construction of a new monopole to .

6. **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 US Cellular Corporation and there are 4 possible future additional users for the facility.

7. **Setbacks.** The setback requirements are that the facility must be 110% height of the tower from any dwelling unit. A variance will not be required as the site is located more than 214.5 feet from the nearest dwelling unit.

8. **Height.** The proposed structure is for 195 feet.

EVALUATION

The following is a list of items reviewed:

Zoning Ordinance for Knoxville Tennessee by Metropolitan Planning Commission---Telecommunication Facilities Section (as amended thru June 28, 2012)

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

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 and discussed the area with the applicant.

The site elevation at this location is about 1194 feet AMSL. It is located on the east end of a parking lot just off Oaklett Drive in North Knoxville.

The request is for a 195 foot self supported monopole tower of which US Cellular will use the top 15 feet and the additional usable next area is for other carriers' expansion.

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 zoned RP-1 (planned residential) and just off a Church parking lot and across from Sterchi Elementary School.

There are no variances required as the nearest residential home is more than 250 feet from the tower base. The tower will not require lighting.

There are other similar towers located in the area of the proposed location, but all are more than 1 mile away, thus the height required.

The site is a capacity and fill site. This means that there is some coverage at the site at the present, but the capacity of the existing coverage does not provide sufficient signal levels for the new 4G (4th Generation) technology. Further, the site will provide a more stable cellular communications for the immediate Inskip area about a 1/2 mile around the tower.

There are no problems with access to the site as it is proposed on a level parcel adjacent to a paved parking lot that is accessible by EMS personnel easily.

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.

(1) **View Protection**--The structure, 195 foot monopole tower, is to be located at the edge of a parking lot of a church. The local view protection will be provided by landscaping by the applicant that conforms to the MPC recommendations.

(2) **Land Use Compatibility**---The proposed site is on flat area used for a parking lot. The structure and associated building/facilities would be compatible with the local land use. The site will be unmanned and will have no impact on noise, traffic or air pollution.

(3) **Design Compatibility**---The proposed landscaping and facility design would blend in with surrounding agricultural land usage and design. The new structure will be a monopole type structure which is the least obtrusive type antenna support structures.

Sensitive Area---This site is in a discouraged area as it is in a nonresidential property (church parking lot) more than 500 feet from a residential home (across the street to the southwest).

Under the matrix it would be considered a DISCOURAGED Site. However, the immediate area surrounding the proposed site is a church parking lot, and a school (across the street). The area to the north and northwest is a heavily wooded area. The site sits on a slight hill but there are taller hills to the west and north of the site.

SUMMARY

(1) The proposed antenna support structure is a 195 foot monopole including antennas. There are no lighting requirements for this structure required by the FAA.

(2) A review of the structure stress analysis on the proposed structure and specifications support the use of the monopole by possible 4 other potential users in the future.

(3) The structure design meets or exceeds FCC and EIA requirements.

(4) The area surrounding the site is planned residential but is wooded to the north and west. There are no residences within 500 feet of the tower.

(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 5 Section 20 B(2)(e) requires it to be removed.

(6) The proposed equipment housing 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 new landscaping by the applicant.

(7) The applicant has received authorization from the various governmental agencies, including the Federal Communications Commission, and the Federal Aviation Administration to provide communication service to the citizens of Knoxville, Tennessee.

(8) The requested site will have little impact on the community involved when compared with the benefits to be derived from the advanced service offered by the applicant using the 4G technology for the area school and homes.

(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 requested or required.

(11) The proposed site and structure will have no environmental impact within the federal guidelines.

(12) The nature of the development in the surrounding area is not such as to pose a potential hazard to the proposed tower or to create an undesirable environment for the proposed structure.

(13) Assuming that there are 5 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.

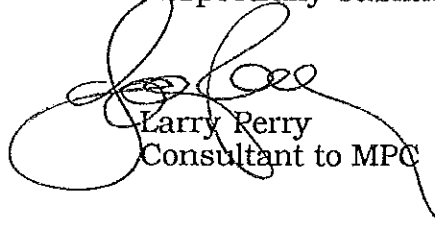
(14) There is a need for the structure in this area to provide for the wide spectrum wireless internet service and for the new 4G data services to be provided under government regulation by the various proposed carriers who plan to use the site. While there is coverage at the site at the present, the present coverage is marginal and not sufficient to support the new 4G data technology transmissions using hand held devices.

(15) The applicant has proven a need for the site and coverage to be provided by this 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 spirit of the Facilities Plan as discussed above and is required for the applicant to meet their coverage requirements for the City of Knoxville.

Respectfully submitted,



Larry Rerry
Consultant to MPC

MEMO TO MPC MEMBERS RE TOWERS

Larry Perry, Consultant to Knoxville MPC

As MPC members and City/County administrators, you are going to see more applications for new structures (towers) from several cellular carriers over the next several months. I think you need to know what this is all about and why they are needed. Let me see if I can explain it in a non technical way for you.

Cellular technologies have always been confusing, but we didn't always have to worry about which technology our cell phone or our cellular provider employed. When cell phones were only used for voice transmissions, we got whatever technology was available and we were pretty happy with it. Of course, times have changed and things have become a bit more complicated.

Now many of us not only talk on a cell phone, we use our cell phones to check email, surf the Web, text our friends, play games, and do many other things with applications called "apps". This means that we transfer both voice and data over the cellular connections. To accommodate our growing need for increased transmissions, cellular technologies have changed considerably. You have probably heard the terms 2G, 3G, and 4G. These are generations that represent the advancements in cellular technology. Although these various technologies are quite complex, I'll give you a brief history, hopefully, without any techno-babble.

Let's start at the beginning when the only cellular technology was 1G, that is first generation. This was actually the equivalent of telephone technology. It was a narrow band (think two lane highway), analog service that only accommodated voice transmissions.

The next generation was 2G. This was the first digital cell service, so it was more efficient. It provided voice transmissions with limited data transmissions.

The big step forward, however, was 3G. This is a digital broadband service that uses packet data transmission. You don't need to understand all the underlying technology. All you need to know is that this makes for much higher data speeds allowing you to surf the Web and get email on your cell phone quickly and easily.

Although 3G was good, the up-and-coming 4G technology is even better. Cellular transmission speeds have a lot of variables like the underlying technology, the carrier, the location of the cell tower, and the amount of congestion on the network, so it is difficult to tell you exactly how speedy 4G will be. You can, however, expect full 4G to be about 10 times faster than 3G, and in the future, it has the possibility of being even faster. At their current speeds, this new technology

has transmission speeds similar to those you get on your PC with a cable or DSL connection. With 4G, unlike 3G, voice and data will be transmitted over the same connection. Also, delays will go down dramatically, so there will be a much faster response time.

In order to accomplish this faster speed, the transmission systems have to be upgraded with a wider bandwidth (think 12 lane highway compared to a 2 lane highway). The faster the data is sent to your hand held device, the wider the road (bandwidth) has to be. But the wider the bandwidth the shorter the coverage area for the most part. Remember in the early 1G voice only cellular days, there was roughly one tower about every two miles. Then along came 2 G (digital telephone) and the towers were about every mile. When 3 G (data and voice) came along, the towers moved even closer because the coverage area was reduced because of the speed with which the information (voice and data) was being sent. Now along comes 4G where you can do about anything with your had held device and the speed has increased many many times over the original 1 G Voice only network and the coverage area is reduced significantly, thus the need for more towers. Many schools are doing away with printed books and going to hand held devices for learning (and texting). So the demand for more and faster service is growing exponentially.

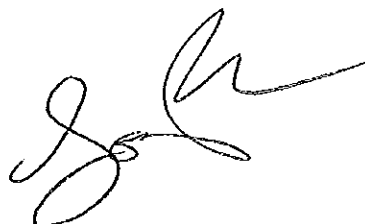
All of the national carriers are working hard to get their 4G networks in place. As a matter of fact, 4G is coming faster than ever expected it. Many large cities already have 4G including parts of Knoxville. You can check out the carrier's websites for details about where each has enabled 4G.

The 4G technology will actually reduce the cost per megabyte for the cellular networks. However, because US Cellular, AT&T, Verizon, and Sprint will all be trying to recoup the investment costs for implementing this new technology, you can expect cellular providers, at least initially, to charge a premium for 4G.

4G phones will be backwardly compatible with the 3G network of the cellular provider that you use. So if you are in an area where 4G is not available, your 4G cell phone will be able to automatically jump on the 3G network.

For those of you who use your cell phone only for voice calls, the upgrade to 4G, won't mean much, but those of you who use a smartphone will see a big change in the near future.

Hopefully this will help you understand the current need for additional towers by the various cellular carriers (incidentally there are now 13 different licensed carriers in the US...not all are in Knoxville yet!!!!)

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**EXHIBIT 7.
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							

	Co-Location	Stealth Structure	Low Monopole Below 90'	Moderate Monopole 90'-150'	Tall Monopole 150'-199'	Lattice Tower	Guyed Tower
Sensitive Areas	Within 500' of a residence						
	Rural Residential						
	Non-residential Properties in a Residential Area (church, cemetery, library, etc.)			*			
	Multi-family Residential						
On Hill Below Ridgeline							

	Co-Location	Stealth Structure	Low Monopole Below 90'	Moderate Monopole 90'-150'	Tall Monopole 150'-199'	Lattice Tower	Guyed Tower
Avoidance Areas	Conservation Open Space						
	Scenic Highway						
	Public Park						
	Ridge Top/Ridge Line						
	Scenic Vista						
	Historic District/Site						
	Single-family Residential						
	Vacant Residential Lot						

Encouraged
 Neutral
 Discouraged

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R.R. KRAMER (1888-1966)
CARTER B. WALL (1915-1968)
ANDREW JOHNSON (1918-1985)
JACKSON C. KRAMER (1921-1993)
R. ARNOLD KRAMER (1918-1993)

July 2, 2012

Metropolitan Planning Commission
City-County Building, Suite 403
400 Main Avenue
Knoxville, Tennessee 37902

**Re: U.S. Cellular Corporation / Inskip Site
Application for Tower Site Use-On-Review**

Dear Sir or Madam:

Please be advised that the undersigned represents U.S. Cellular Corporation ("USCC"). USCC hereby files the enclosed Use-On-Review Application and requests that it be placed on the agenda for the August 9, 2012 Metropolitan Planning Commission meeting. Such Use-On-Review Application requests approval for a proposed cellular communications monopole to be located on property owned by Trinity Chapel, Inc., at 815 Oaklett Drive in the City of Knoxville, Knox County, Tennessee. Accordingly, enclosed herewith please find the following items:

1. Completed Application Form as signed by an authorized representative of USCC and as signed by an authorized representative of Trinity Chapel, Inc., the property owner.
2. Information Summary and Table of Contents.
3. Ten (10) copies of the Development Plan with Exhibits 1 through 14 attached.
4. Our Firm's check in the amount of Two Thousand Four Hundred Dollars (\$2,400.00), made payable to the Metropolitan Planning Commission. This check represents payment of (i) \$900.00, which amount is double the usual \$450.00 fee for filing a Use-On-Review Application for a site in a residential zone that is less

than one (1) acre, and (ii) \$1,500.00 for the escrow deposit relative to the Professional Engineering Consultant's fee.

As noted, USCC is proposing that a cellular communications monopole be placed on a parcel consisting of approximately ten thousand (10,000) square feet leased from the owner, Trinity Chapel, Inc., and located at 815 Oaklett Drive in the City of Knoxville, Knox County, Tennessee. USCC has entered into a lease with the property owner for the proposed site.

USCC recognizes that pursuant to Article 5.20(B)(1)(f) of the City of Knoxville Zoning Ordinance, a professional engineering consultant qualified in the design and installation of wireless communications facilities may be employed to review its application. Accordingly, the One Thousand Five Hundred Dollar (\$1,500.00) escrow fee specified in the Zoning Ordinance is enclosed. USCC further understands that such fee shall not exceed One Thousand Five Hundred Dollars (\$1,500.00) in total.

USCC proposes to construct a 195 foot monopole. Since the proposed monopole will be less than 200 feet in height, FAA regulations will not require the monopole to be lighted. In addition, as required by Article 5.20(B)(1)(a) of the City of Knoxville Zoning Ordinance, the monopole will be constructed to support at least three (3) antenna arrays for co-location purposes. USCC's letter of intent setting forth its commitment to permit co-location on the proposed monopole is included with the Application as Exhibit 4.

The monopole is proposed for this area in order for USCC to provide additional spectrum capacity for its network. The explosive growth in usage of hand-held devices (*i.e.*, smart phones) requires that USCC significantly increase the capacity of its network to transmit data. New technology known as "4G LTE" supports data transmission and provides the necessary additional capacity. Installation of 4G LTE technology requires that USCC split its current spectrum between its existing CDMA/EVDO network and 4G LTE technology, which necessitates additional antennae. Thus, this tower will provide additional capacity and relieve spectrum usage at USCC's existing I-640 and Sharp's Ridge sites.

Radio frequency coverage maps showing coverage with and without the proposed monopole are attached to the Application as Exhibits 6 and 7.

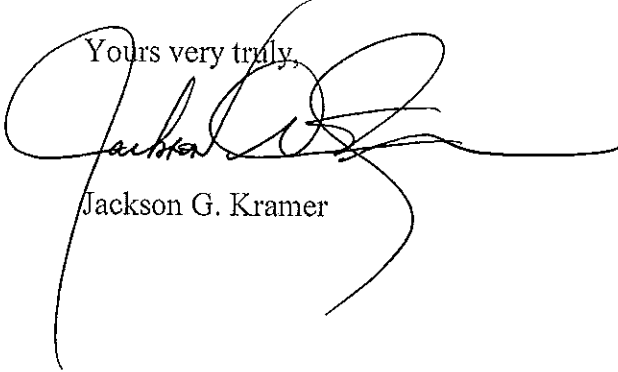
In an effort to address tower proliferation concerns, USCC performed a search in the proposed coverage area for other existing towers on which co-location might be possible. As noted on Exhibit 3, no existing towers or other suitable structures are located within a one-mile search ring.

USCC also searched for other existing structures within the area of the proposed site on which co-location might be feasible. No other suitable existing structures are present in this area.

The proposed monopole meets the Zoning Ordinance requirement of being separated from nearby residentially-zoned property by a distance of at least one hundred ten percent (110%) of the tower height (in this instance, two hundred fourteen and one-half (214.5) feet). As shown by the Zoning Setback Drawing attached as Exhibit 2 to the Application, no residential structures are located within two hundred fourteen and one-half feet (214.5) feet of the proposed site. Further, existing wooded areas which will remain in place will shield the location from many surrounding properties.

Thank you very much for your assistance in this matter. Should you need any additional information, please do not hesitate to contact the undersigned.

Yours very truly,

A handwritten signature in black ink, appearing to read 'Jackson G. Kramer', written over a horizontal line. The signature is fluid and cursive.

Jackson G. Kramer

JGK/tsg
Enclosures

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WILLIAM J. CARVER
J. MATTHEW BROTHERTON
ADAM G. RUSSELL

SPECIAL COUNSEL
GEORGE R. ARRANTS, JR.

OF COUNSEL
DONELSON M. LEAKE
HUGH W. MORGAN
G. WILSON HORDE

OFFICES
FIRST TENNESSEE PLAZA, SUITE 2500
800 SOUTH GAY STREET
KNOXVILLE, TENNESSEE 37929
TELEPHONE 865 525-5134
TELECOPIER 865 522-5723

105 DONNER DRIVE, SUITE A
OAK RIDGE, TENNESSEE 37830
TELEPHONE 865 220-5134
TELECOPIER 865 220-5132

R.R. KRAMER (1888-1966)
CARTER B. WALL (1915-1968)
ANDREW JOHNSON (1918-1985)
JACKSON C. KRAMER (1921-1993)
R. ARNOLD KRAMER (1918-1993)

July 31, 2012

VIA HAND-DELIVERY

Mr. Tom Brechko
Metropolitan Planning Commission
City-County Building, Suite 403
400 Main Avenue
Knoxville, TN 37902

**Re: U.S. Cellular Corporation
Use-On-Review Application No. 8-H-12-UR
Inskip – Site No. 223527**

Dear Mr. Brechko:

In accordance with our conversations at our recent meeting on July 16, 2012, U.S. Cellular Corporation hereby submits five (5) copies of certain revised Construction Drawings as set forth below relative to its pending Use-On-Review Application No. 8-H-12-UR, which is scheduled to be heard on Thursday, August 9, 2012. Such Use-On-Review Application requests approval of a cellular communications monopole at 5830 Haynes Sterchi Road, in the City of Knoxville, Tennessee.

Specifically, please note the following changes to the construction documents:

1. As you will recall, this property is owned by Trinity Chapel, Inc. (the "Church"). U.S. Cellular's original Access Plan called for U.S. Cellular to upgrade the existing gravel driveway running to the proposed site from Oaklett Drive. Upon further review, U.S. Cellular Corporation has redesigned its proposed access to the site. U.S. Cellular will now gain access to the site from Haynes Sterchi Road through the Church's existing driveway and parking lot. I enclose herewith for your review five (5) copies of revised Sheet 1 of the Survey, Sheet C3.01, Access

Plan, Sheet C3.10, Site Plan, and Sheet C3.30, Grading Plan, all of which confirm the revised access route.

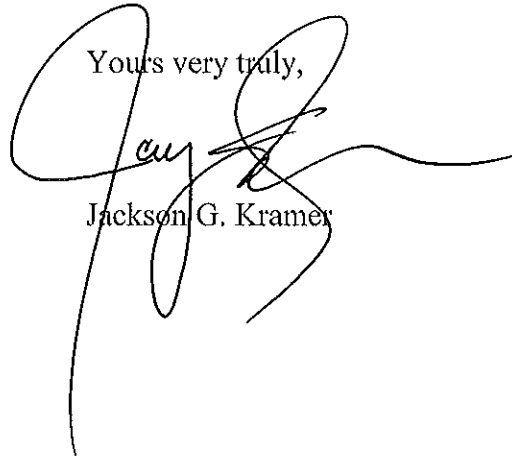
2. As you will recall, the Church owns two (2) adjacent parcels of real property in this location (Tax Parcel 057-12541 and Tax Parcel 057-12542), both of which are zoned RP-1. The proposed monopole is to be placed on Tax Parcel 057-12541, close to the Church's adjacent Tax Parcel 057-12542. Even though the Church owns both parcels, you had requested that U.S. Cellular Corporation submit a revised Site Plan showing the distance of the proposed tower location from the property line of Tax Parcel 057-12542. Accordingly, I enclose five (5) copies of Sheet C3.00, Master Site Plan, showing that the proposed tower location is located approximately 110 feet from the southern property line and approximately 97 feet from the western property line of the Church's adjacent parcel.
3. Article V(20)(B)(2)(a) of the City of Knoxville Zoning Ordinance generally requires that towers be set back from all properties zoned RP-1 a minimum distance equal to 110% of the height of the tower (here, 214.5 feet). Article V(20)(B)(2)(c) of the City's Zoning Ordinance further states that the minimum setback may be reduced to the principal use setback of the RP-1 Zoning District "upon notarized written agreement between the commercial telecommunications tower applicant and all of the property owner(s) whose property lines fall within the setback specified . . ." The location of the proposed monopole exceeds the required 214.5 foot setback from all adjacent property owners, except the adjacent parcel which is also owned by the Church (Tax Parcel 057-12542). In accordance with such provision of the Zoning Ordinance, U.S. Cellular Corporation hereby submits the original notarized agreement from the Church and four (4) copies acknowledging that the setback distance may not be met with respect to the Church's adjacent parcel, and further agreeing to the placement of the monopole in the proposed location.
4. U.S. Cellular Corporation's original filing with regard to this site specified that the Landscape Plan would be submitted at a later date. I enclose herewith five (5) copies of Sheet L1.00, Landscape Plan.
5. Further, it is my understanding that the City Engineering Department requests that a photosimulation be provided for each cellular communications monopole application. Accordingly, I enclose herewith five (5) copies of photosimulations for this site.

Mr. Tom Brechko
Metropolitan Planning Commission
July 31, 2012
Page 3

Thank you for your assistance in this matter. Please do not hesitate to contact me if you have any questions.

With kind regards, I am

Yours very truly,

A handwritten signature in black ink, appearing to read 'JGK', is written over the typed name 'Jackson G. Kramer'. The signature is stylized with large loops and a long horizontal stroke extending to the right.

Jackson G. Kramer

JGK/tsg

Enclosures

cc: Mr. John Locascio
Mr. Charles Burton

*TRINITY CHAPEL, INC.
5830 Haynes-Sterchi Road
Knoxville, TN 37912*

July 23, 2012

Metropolitan/Knox County
Planning Commission
City County Building, 4th Floor
400 Main Avenue
Knoxville, TN 37902

Attn: Tom Brechko

Re: U.S. Cellular Corporation
Use On Review Application for Cellular Communications Monopole
(Inskip Site)
File No. 8-H-12-UR

Dear Mr. Brechko:

As you are aware, U.S. Cellular Corporation has signed a Lease Agreement with Trinity Chapel, Inc. (the "Church") to place a cellular communications monopole 195 feet in height on Church property at 5830 Haynes Sterchi Road in the City of Knoxville, Tennessee. The Church understands that U.S. Cellular has filed the captioned Use on Review Application with the Metropolitan Knoxville/Knox County Planning Commission requesting approval of such monopole.

The Church owns two adjacent parcels of real property in this location (Tax Parcel 057-12541 and Tax Parcel 057-12542), both of which are zoned RP-1. The proposed monopole is to be placed on Tax Parcel 057-12541, approximately 100 feet from the property line of Tax Parcel 057-12542. The Church understands that Article 5(B)(2)(a) of the City of Knoxville's Zoning Ordinance requires that towers be set back from all properties zoned RP-1 a minimum distance equal to 110% of the height of the tower, or the minimal principal use setback of the zoning district in which the tower is located, whichever is greater. The Church also understands that the setback distance of 110% of the height of the proposed monopole exceeds the minimum principal use setback of the RP-1 district, and thus the applicable setback is 110% of the proposed monopole height (in this instance, 214.5 feet). The Church recognizes that the proposed monopole (to be located on Tax Parcel 057-12541, owned by the Church) may not meet the requirement of being a distance of 110% of the proposed monopole's height from the property line of Tax Parcel 057-12542 (also owned by the Church).

The Church further understands that Article 5(B)(2)(c) of the City's Zoning Ordinance states that the minimum setback may be reduced to the principal use setback of the RP-1 zoning district "upon notarized written agreement between the commercial telecommunications tower applicant and all of the property owner(s) whose property lines fall within the setback specified..." Please accept this letter as proof of such Agreement. Further, and notwithstanding that the proposed monopole may not meet the minimum setback distance of 100% of the tower height from the Church's adjacent Tax Parcel 057-12542, please be advised that the Church agrees to the placement of the monopole on the Church's Tax Parcel 057-12541 in the location specified in U.S. Cellular Corporation's Use on Review Application and fully supports such Application.

Thank you for your attention to this matter.

Yours very truly,

Trinity Chapel, Inc.

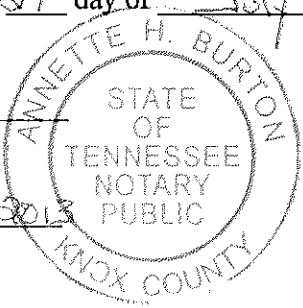
By: Mark H. Medley
Name: Mark H. Medley
Title: Secretary

STATE OF TENNESSEE)
COUNTY OF KNOX)

Before me, the undersigned authority, a Notary Public in and for said County and State, personally appeared Mark H. Medley, with whom I am personally acquainted, or proved to me on the basis of satisfactory evidence, and who, upon oath, acknowledged himself to be the Secretary of TRINITY CHAPEL, INC., the within named bargainer, a Tennessee corporation, and that he as such Secretary, being authorized to do so, executed the foregoing instrument for the purpose therein contained, by signing the name of the corporation by himself as Mark H. Medley.

Witness my hand and seal at office this 24th day of July, 2012.

Annette H. Burton
Notary Public



My Commission Expires: 4-1-2013

INFORMATION SUMMARY AND TABLE OF CONTENTS

USE ON REVIEW APPLICATION FOR

U. S. CELLULAR'S INSKIP SITE NUMBER 223527

1. Site Plan – Construction Drawings, attached as Exhibit 1
2. Zoning Setback Drawing attached as Exhibit 2
3. No towers registered with the FCC as telecommunications towers were found on the FCC Data Base within a one-mile search ring (See Exhibit 3).
4. & 5. Application is made directly by the carrier -

U. S. Cellular Corporation
9731 Cogdill Road, Suite 200
Knoxville, Tennessee 37932

Contact: John Locascio, Senior Project Manager
Telephone: (865) 777-7039
Facsimile: (865) 777-7012

6. Basic Tower Information:
 - (a) U. S. Cellular Corporation ("USCC") proposes a monopole one hundred ninety-five (195) feet in height. The monopole will be located on property owned by Trinity Chapel, Inc. at 815 Oaklett Drive, in the City of Knoxville, Knox County, Tennessee. The equipment compound and the base of the pole will be enclosed within a chain link fence six (6) feet in height.
 - (b) The monopole will be one hundred ninety-five (195) feet in height.
 - (c) Since the monopole will be less than 200 feet in height, no FAA lighting will be necessary.
 - (d) The specifications for an almost identical tower are provided in Exhibit 4. The monopole is designed and will be constructed to permit co-location for at least three (3) additional carriers.
 - (e) The leasehold area is one hundred (100) feet by one hundred (100) feet. An area approximately fifty (50) feet by fifty (50) feet will be enclosed by a chain link fence six (6) feet in height and topped with three (3) strands of barbed wire. See Construction Drawings, p. C4.30. The monopole and all ancillary equipment will be located within this fenced compound.

7. USCC's Letter of Intent committing itself to allow shared use of the proposed monopole is attached as Exhibit 5. Other likely candidates for co-location:

AT&T
Verizon
Sprint/Nextel
T-Mobile
Cricket (Leap Wireless)

8. Zoning Map:

Proposed site and adjacent properties are zoned RP-1. Site zoning and zoning of adjacent parcels are shown on Exhibit 6. Map of larger area within one mile of proposed site to be provided by the Metropolitan Planning Commission. General map of area attached as Exhibit 7.

9. Coverage Map without proposed site - Exhibit 8.
10. Coverage Map with proposed site - Exhibit 9.
11. Proposed landscaping – Pursuant to Section 5.20(B)(4)(b) of the City of Knoxville, Tennessee Zoning Ordinance, a landscape plan for the proposed site will be prepared and filed.
12. Technical Justifications Narrative - Exhibit 10.
13. Variances or Waivers from Ordinance - Exhibit 11.
14. Photographs of proposed site – Collective Exhibit 12.
15. Google Earth photographs showing approximate locations from which photographs in Collective Exhibit 12 were taken – Collective Exhibit 13
16. Safety Statements - Exhibit 14.



Metropolitan Planning Commission
of Knoxville/Knox County
4th Floor, City-County Building
400 Main Avenue
Knoxville, Tennessee 37902

June 26, 2012

**Re: U.S. Cellular Corporation
Proposed Inskip Site**

Dear Sir or Madam:

This letter is written to confirm U.S. Cellular Corporation's ("USCC") commitment to shared use of its proposed cellular communications monopole site at 5830 Haynes Sterchi Road in the City of Knoxville, Tennessee.

As you are aware, City of Knoxville Zoning Ordinance Article 5.20(B)(1)(a) requires that any proposed communications tower 130 feet in height or greater be built to accommodate at least three antenna arrays for co-location purposes. USCC is proposing that the monopole on Haynes Sterchi Road be 199 feet in height. USCC hereby states that it will construct the monopole to accommodate the required three antenna arrays.

Furthermore, please accept this letter as confirmation that pursuant to City of Knoxville Zoning Ordinance Article 5.20(B)(1)(b), USCC and its successors are committed to allowing shared use of the monopole at rental rates commensurate to those being charged in similar situations, so long as any additional user agrees in writing to meet reasonable terms and conditions concerning use of USCC=s monopole and so long as space on such monopole remains available.

I trust that this letter is sufficient to address the inquiries posed concerning shared use. However, should you need additional information, please do not hesitate to contact either the undersigned at (865) 777-7039 or USCC=s attorney, Jackson G. Kramer, at (865) 525-5134.

Yours very truly,

A handwritten signature in black ink that reads "John Locascio".

John Locascio
Senior Project Manager

Pellissippi Office Center
9751 Cogdill Road, Suite 200
Knoxville, TN 37932
www.uscellular.com

TECHNICAL JUSTIFICATION FOR PROPOSED NEW TOWER

U.S. CELLULAR SITE NAME: INSKIP

U.S. CELLULAR SITE: 223527

Prepared by: Isaac Ndiaye

Sr. RF Engineer

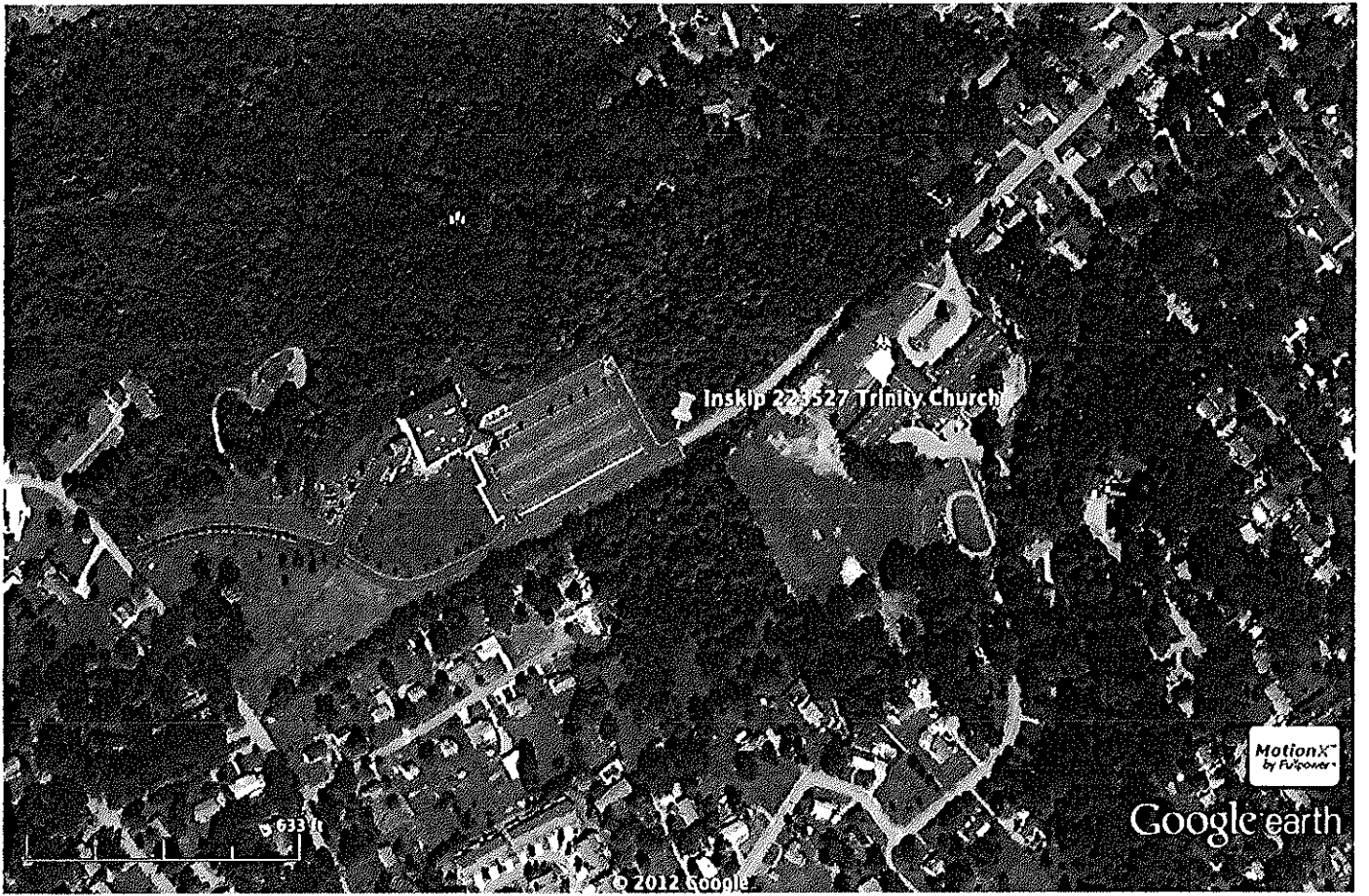
U.S. Cellular®

Proposal: Install CDMA Spectrum Relief Antennae on a new monopole to be constructed on a site located at 815 Oaklett Drive, Knoxville, Tennessee on a ten thousand (10,000) square foot parcel, more or less, leased from the property owner, Trinity Chapel, Inc.

Tower: U.S. Cellular Corporation ("USCC") proposes to construct a 195 ft. above ground level monopole. The height of 195 ft. is necessary in order for signals to carry over the surrounding terrain and connect with USCC's existing network. Because the height of the monopole is less than 200 feet above ground level, FAA regulations do not require any lighting.

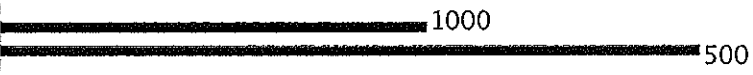
RF Justification: USCC proposes to build this facility in this area to provide additional capacity to its existing customers. With the explosive growth in usage of handheld devices (i.e., smart phones), the need for increased capacity to transmit data has grown tremendously. The newest technology which supports data transmission and provides the requisite capacity is known as "4G LTE" technology. To facilitate the rollout of 4G LTE in USCC's local network, USCC is splitting its current spectrum between the existing network (CDMA/EVDO) and the future 4G LTE network. Such "spectrum splitting" requires additional antennae to address the increased demand for spectrum usage. Specifically, this proposed tower will relieve spectrum usage on adjacent USCC antennae at USCC's I-640 and Sharp's Ridge sites, thus providing sufficient spectrum to install LTE 4G technology. This necessary spectrum relief, as shown by USCC's coverage maps, can be efficiently corrected by a full cell site at this proposed location.

Co-location: The alternatives of co-locating USCC's equipment and antennae on existing structures in the surrounding area were considered. In accordance with the Knox County Zoning Ordinance, a search was performed to identify any existing registered structures within one mile of the proposed site. No towers are located within one mile of the proposed site.



Google earth

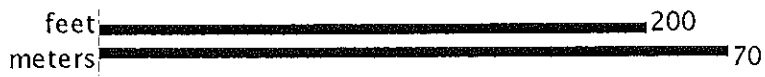
feet
meters



INSKIP: PHOTO PERSPECTIVES

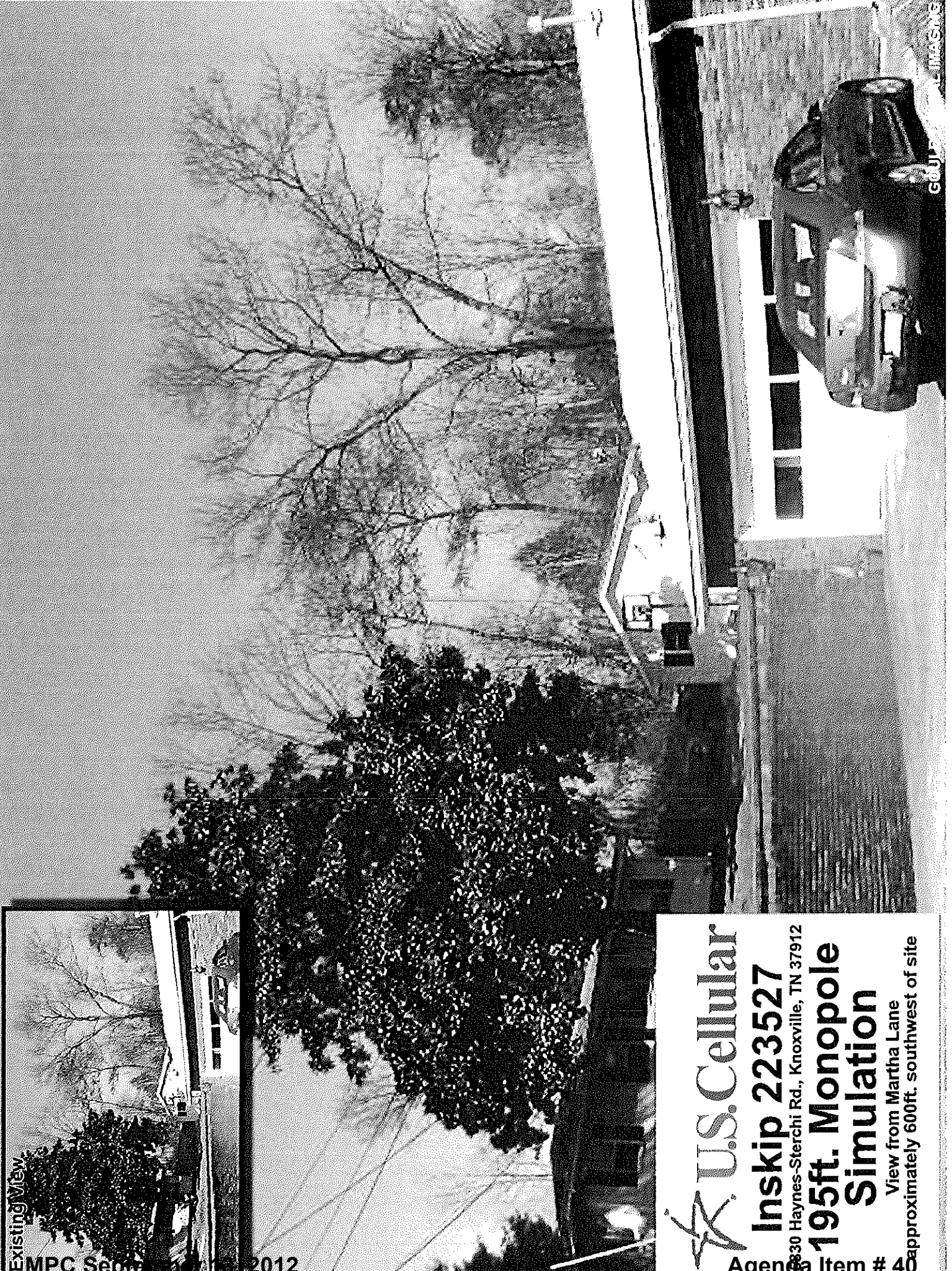



Google earth



Existing View

MPC Sept 2012



 U.S. Cellular

Inskip 223527

830 Haynes-Sterchi Rd., Knoxville, TN 37912

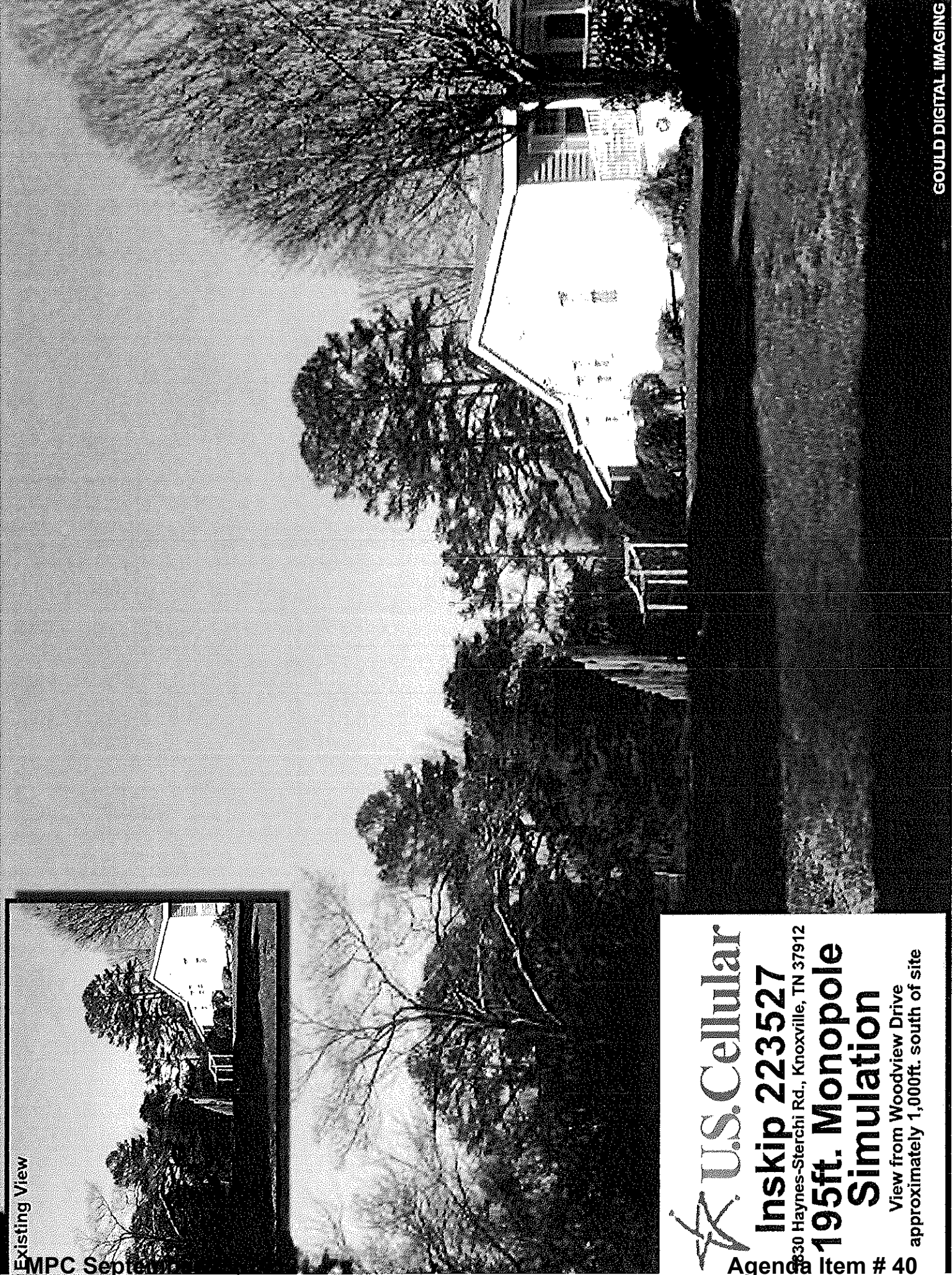
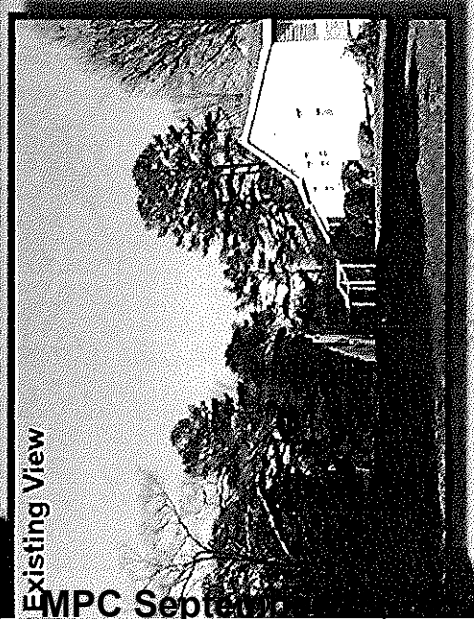
**195ft. Monopole
Simulation**

View from Martha Lane
Approximately 600ft. southwest of site

Agenda Item # 4

GOJUR.COM/IMAGING

Existing View



 U.S. Cellular

Inskip 223527

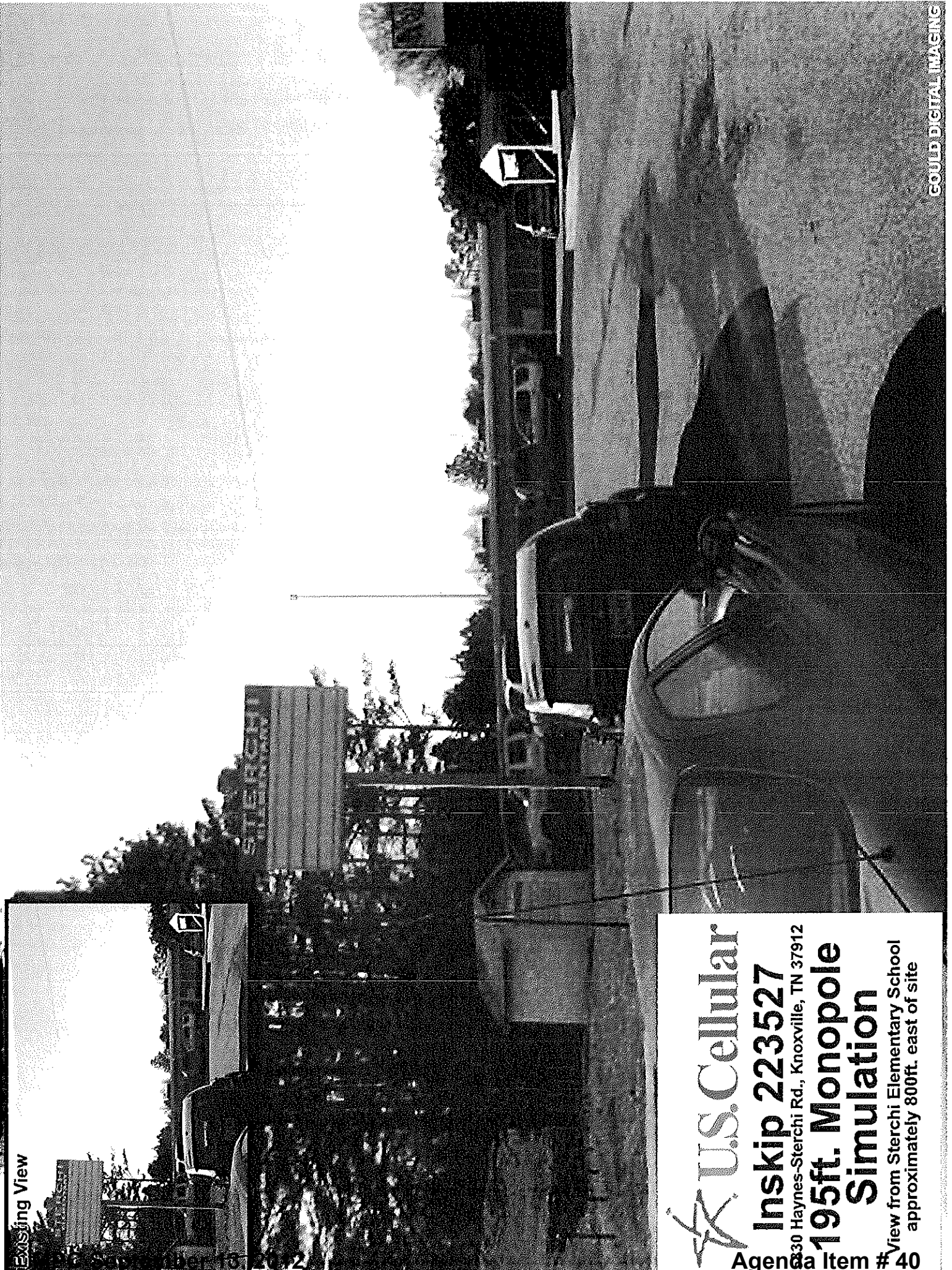
830 Haynes-Sterchi Rd., Knoxville, TN 37912

**195ft. Monopole
Simulation**

View from Woodview Drive
approximately 1,000ft. south of site

Agency Item # 40

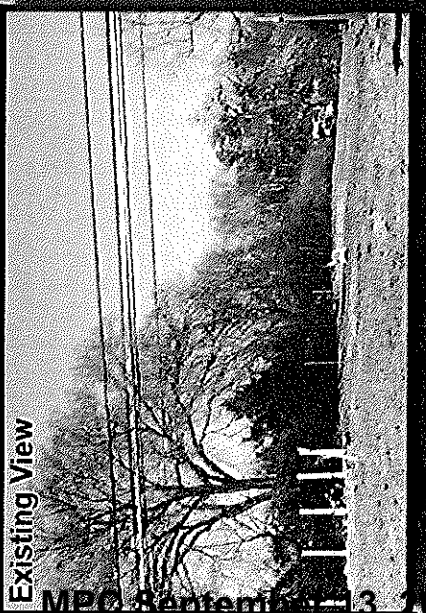
Existing View



COULD DIGITAL IMAGING

U.S. Cellular
Inskip 223527
 30 Haynes-Sterchi Rd., Knoxville, TN 37912
195ft. Monopole Simulation
 View from Sterchi Elementary School
 approximately 800ft. east of site
 Agenda Item # 40

Existing View



MPC September 13, 2012



 U.S. Cellular

Inskip 223527

830 Haynes-Sterchi Rd., Knoxville, TN 37912

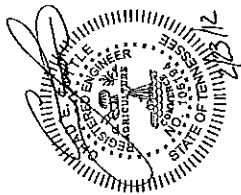
**195ft. Monopole
Simulation**

View from Haynes-Sterchi Road
approx. 1,280ft. west-southwest of site

Agency Item # 40



**9731 COGDILL ROAD,
SUITE 200
KNOXVILLE, TN 37932
(865) 777-7039**



**U.S. CELLULAR
RAW LAND**

**INSKIP
223527**

**195' MONOPOLE
TELECOMMUNICATIONS TOWER
WITH MULTIPLE CARRIERS**

SITE NAME:

INSKIP

SITE NUMBER:

223527

SITE ADDRESS:

5830 HAYNES STERCHI RD
KNOXVILLE, TN 37912

SITE OWNER:

TRINITY CHAPEL, INC
5830 Haynes Sterchi Rd
Knoxville, TN 37912

APPLICANT:

U.S. CELLULAR CORPORATION
9731 COGDILL ROAD, SUITE 200
KNOXVILLE, TN 37932

ZONING JURISDICTION:

CITY OF KNOXVILLE

ZONING:

RP-1

AREA OF LEASE:

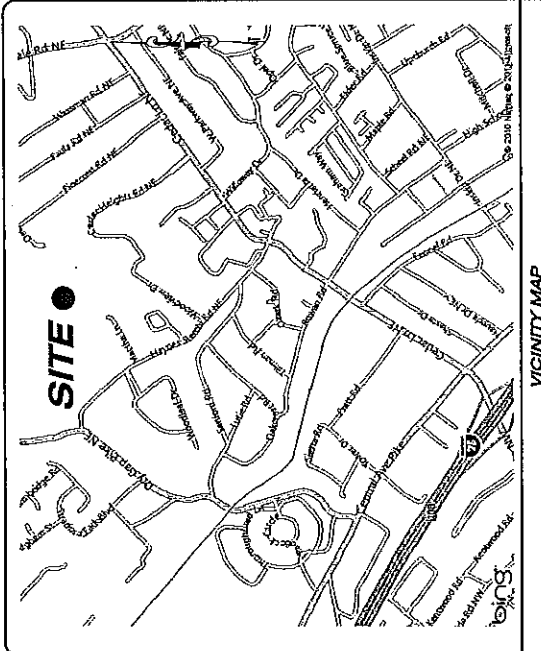
0.230 ACRES
10,000 SQ. FT.

PARCEL NUMBER(S):

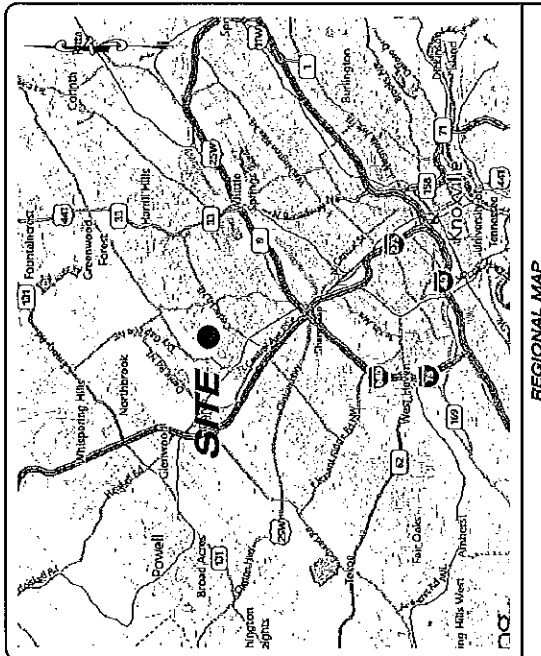
057 12541

SITE SUMMARY

SHEET NO.	TITLE SHEET/SITE INFORMATION
T1.00	TITLE SHEET/SITE INFORMATION
C1.00	GENERAL NOTES
C1.10	SITE WORK NOTES
1 OF 3	SITE SURVEY
2 OF 3	SITE SURVEY
3 OF 3	SITE SURVEY
C2.00	MASTER SITE PLAN
C2.10	ACCESS PLAN
C2.20	ELEVATION AND PLATFORM DETAIL
C2.30	GRADING PLAN
C3.00	SITE WORK DETAILS
C3.10	SITE WORK DETAILS
C3.20	SITE WORK DETAILS
C3.30	SITE WORK DETAILS
E1.00	UTILITIES SERVICE PLAN
E1.10	UTILITIES PLAN
E1.20	ELECTRIC SPECIFICATIONS
E2.00	GROUNDING PLAN
E2.10	GROUNDING NOTES
E2.20	ELECTRICAL DETAILS
E3.00	ELECTRICAL NOTES
E3.10	ELECTRICAL DETAILS



VICINITY MAP



REGIONAL MAP

POINT TO POINT LAND SURVEYORS
810 JACKSON GROVE,
GEORGIA 30248
(P) 678.565.4440

B&T ENGINEERING
1717 S. BOULDER, SUITE 300
TULSA, OK 74119
(P) 918.587.4630

8-H-12-UR

CONSULTANTS

DIRECTIONS TO SITE

FROM PELLISSIPPI PARKWAY & I-40 IN WEST KNOXVILLE:
TAKE I-40E TO I-75N, TAKE EXIT 108 (MERCHANTS DRIVE). TURN RIGHT ON
MERCHANTS DR, FOLLOW 1 MILE TO LEFT ON PINECREST RD, FOLLOW 0.5 MILE TO
LEFT ON OAKLETT RD TO GATE AT END OF ROAD, IMMEDIATELY TO THE RIGHT OF
ENTRANCE FOR STERCHI ELEMENTARY SCHOOL.

DIRECTIONS TO SITE

U.S. Cellular
6711 COGDILL ROAD
KNOXVILLE, TN 37912
(865) 777-7039

WIRELESS VISION I.L.C.
Site Development Services

SCALE: UNDESIGNATED
DRAWN BY: ONE RICH ON ORIGINAL DRAWING.
IF NOT ONE RICH ON THIS SHEET, SCALE IS NOT GUARANTEED.
SCALE: N.T.S.

THIS DRAWING MAY NOT BE COPIED OR REPRODUCED WITHOUT THE EXPRESS WRITTEN CONSENT OF B&T ENGINEERING, INC.
THOMAS B. BRYAN, P.E.

REVISIONS

NO.	DATE	DESCRIPTION

DESIGNED BY: JAC
DRAWN BY: GPH
DATE: 2-06-12
JOB NUMBER: 27410-00

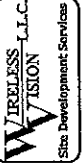
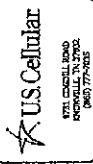
B&T ENGINEERING
1717 S. BOULDER
SUITE 300 TULSA, OK 74119
PH: (918) 587-4630

CHAD TUTTLE
PROFESSIONAL ENGINEER
REGISTRATION NO.: 160304

U.S. CELLULAR
INSKIP
SITE NUMBER:
223527
SITE ADDRESS:
5830 HAYNES STERCHI RD,
KNOXVILLE, TN 37912

SHEET TITLE:
TITLE SHEET
SITE INFORMATION

SHEET NUMBER:
T1.00



Scale: 1"=250'
 THIS DRAWING MAY NOT BE COPIED OR REPRODUCED WITHOUT THE WRITTEN PERMISSION OF THE DESIGNER.

DATE: 3-24-12
 DRAWN BY: JAC
 CHECKED BY: GJM

1727 S BOULDER
 SUITE 300 TULSA, OK 74119
 PH: (918) 587-4630



CHAD TUTTLE
 PROFESSIONAL ENGINEER
 REGISTRATION NO.: 30038A

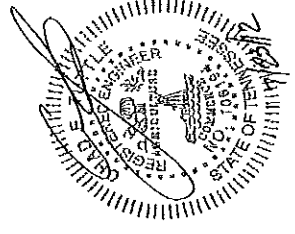
US CELLULAR
 INSKIP
 2232577

8-KNOXVILLE, TN 37922

MASTER SITE PLAN

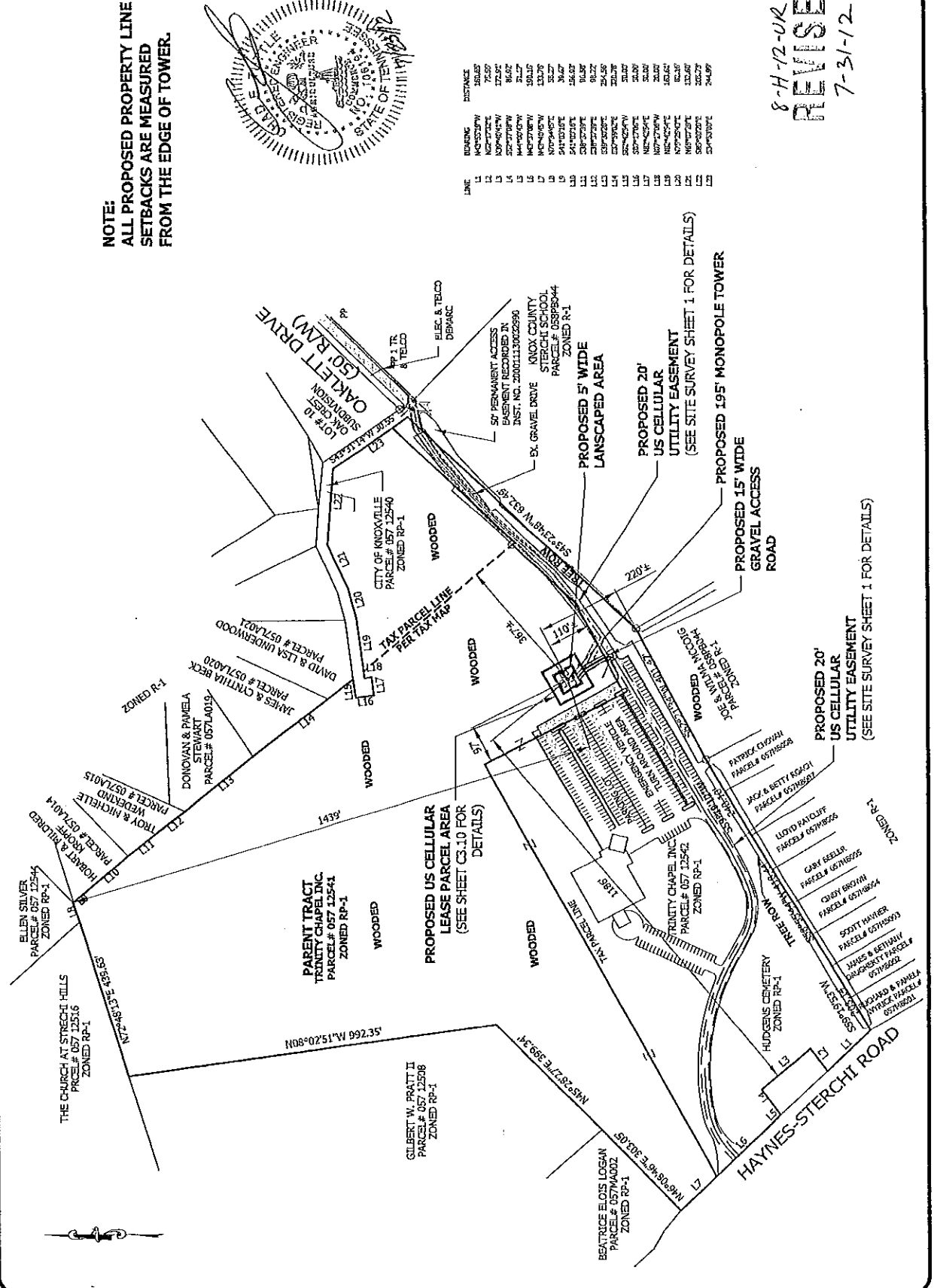
C3.00

NOTE:
 ALL PROPOSED PROPERTY LINE
 SETBACKS ARE MEASURED
 FROM THE EDGE OF TOWER.



LINE	MARKING	DISTANCE
L1	MCH-057074V	180.85
L2	MCH-057074V	74.87
L3	MCH-057074V	272.82
L4	MCH-057074V	200.00
L5	MCH-057074V	31.75
L6	MCH-057074V	133.79
L7	MCH-057074V	33.27
L8	MCH-057074V	39.67
L9	MCH-057074V	256.87
L10	MCH-057074V	161.87
L11	MCH-057074V	244.56
L12	MCH-057074V	200.00
L13	MCH-057074V	31.75
L14	MCH-057074V	133.79
L15	MCH-057074V	33.27
L16	MCH-057074V	39.67
L17	MCH-057074V	256.87
L18	MCH-057074V	161.87
L19	MCH-057074V	244.56
L20	MCH-057074V	200.00
L21	MCH-057074V	31.75
L22	MCH-057074V	133.79
L23	MCH-057074V	33.27
L24	MCH-057074V	39.67
L25	MCH-057074V	256.87
L26	MCH-057074V	161.87
L27	MCH-057074V	244.56
L28	MCH-057074V	200.00
L29	MCH-057074V	31.75
L30	MCH-057074V	133.79
L31	MCH-057074V	33.27
L32	MCH-057074V	39.67
L33	MCH-057074V	256.87
L34	MCH-057074V	161.87
L35	MCH-057074V	244.56
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L37	MCH-057074V	31.75
L38	MCH-057074V	133.79
L39	MCH-057074V	33.27
L40	MCH-057074V	39.67
L41	MCH-057074V	256.87
L42	MCH-057074V	161.87
L43	MCH-057074V	244.56
L44	MCH-057074V	200.00
L45	MCH-057074V	31.75
L46	MCH-057074V	133.79
L47	MCH-057074V	33.27
L48	MCH-057074V	39.67
L49	MCH-057074V	256.87
L50	MCH-057074V	161.87
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L55	MCH-057074V	33.27
L56	MCH-057074V	39.67
L57	MCH-057074V	256.87
L58	MCH-057074V	161.87
L59	MCH-057074V	244.56
L60	MCH-057074V	200.00
L61	MCH-057074V	31.75
L62	MCH-057074V	133.79
L63	MCH-057074V	33.27
L64	MCH-057074V	39.67
L65	MCH-057074V	256.87
L66	MCH-057074V	161.87
L67	MCH-057074V	244.56
L68	MCH-057074V	200.00
L69	MCH-057074V	31.75
L70	MCH-057074V	133.79
L71	MCH-057074V	33.27
L72	MCH-057074V	39.67
L73	MCH-057074V	256.87
L74	MCH-057074V	161.87
L75	MCH-057074V	244.56
L76	MCH-057074V	200.00
L77	MCH-057074V	31.75
L78	MCH-057074V	133.79
L79	MCH-057074V	33.27
L80	MCH-057074V	39.67
L81	MCH-057074V	256.87
L82	MCH-057074V	161.87
L83	MCH-057074V	244.56
L84	MCH-057074V	200.00
L85	MCH-057074V	31.75
L86	MCH-057074V	133.79
L87	MCH-057074V	33.27
L88	MCH-057074V	39.67
L89	MCH-057074V	256.87
L90	MCH-057074V	161.87
L91	MCH-057074V	244.56
L92	MCH-057074V	200.00
L93	MCH-057074V	31.75
L94	MCH-057074V	133.79
L95	MCH-057074V	33.27
L96	MCH-057074V	39.67
L97	MCH-057074V	256.87
L98	MCH-057074V	161.87
L99	MCH-057074V	244.56
L100	MCH-057074V	200.00

8-H-12-UK
 REVISION
 7-31-12



US Cellular
1717 S BOULDER
SUITE 300 TULSA, OK 74119
PH: (918) 587-4000

Wireless Vision LLC
Site Development Services

SCALE: 1"=100'

IF ANY DIMENSIONS ON THIS PLAN DO NOT MATCH THE ORIGINAL DRAWING, THE ORIGINAL DRAWING SHALL CONTROL.

SCALE: 1"=100'

THIS DRAWING MAY NOT BE COPIED OR REPRODUCED WITHOUT THE WRITTEN CONSENT OF THE ENGINEER.

B&B Engineering
1717 S BOULDER
SUITE 300 TULSA, OK 74119
PH: (918) 587-4000

CHAD TUTTLE
PROFESSIONAL ENGINEER
REGISTRATION NO. 100594

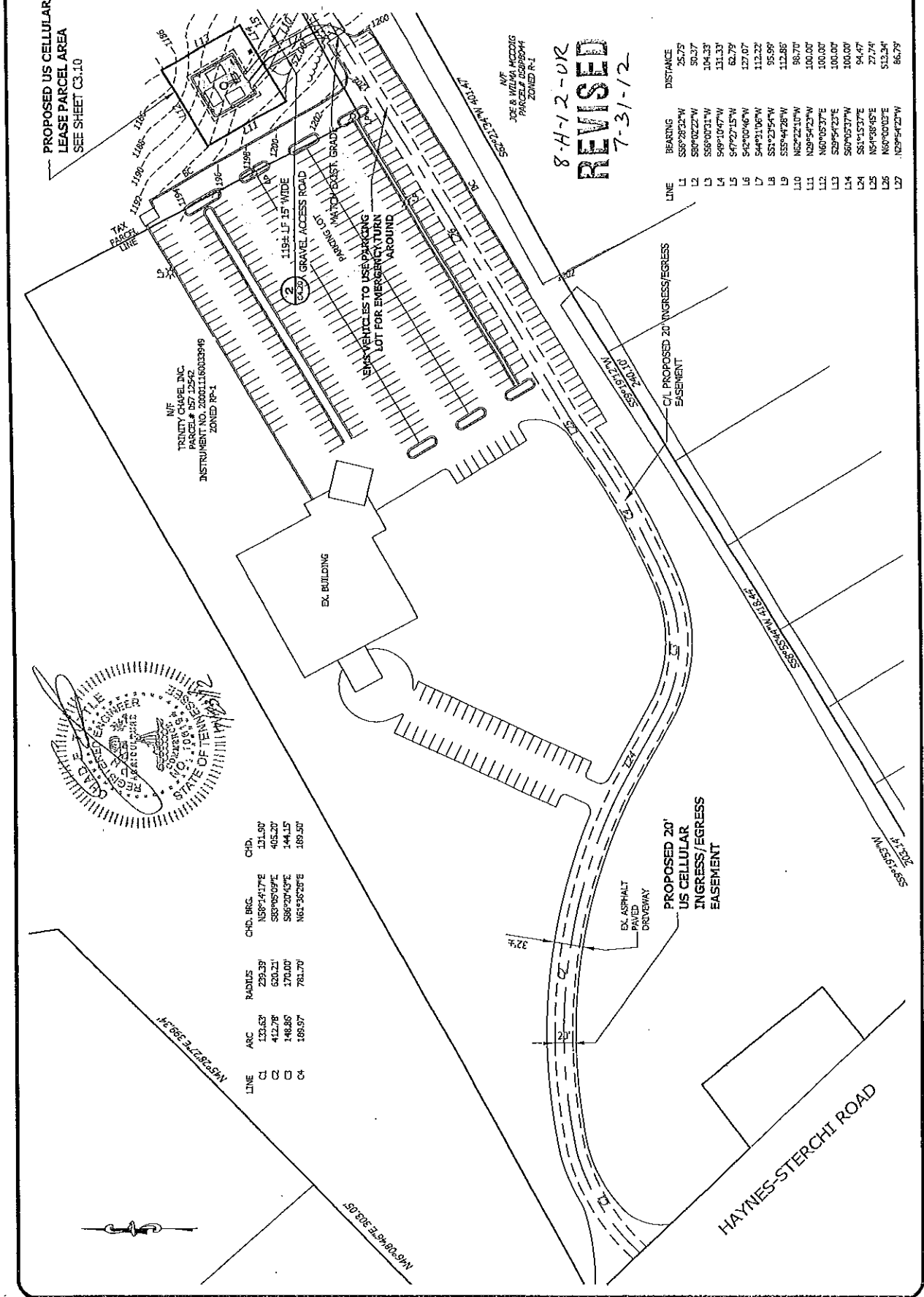
SITE NAME:
**US CELLULAR
INSKOP**

APR. NUMBER:
223527

SITE ADDRESS:
1717 S BOULDER STREET RD.
HARDYVILLE, TN 37033

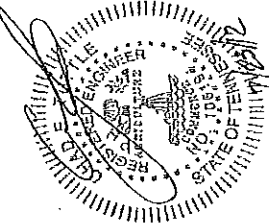
SHEET TITLE:
**ACCESS
PLAN**

SHEET NUMBER:
C3.01

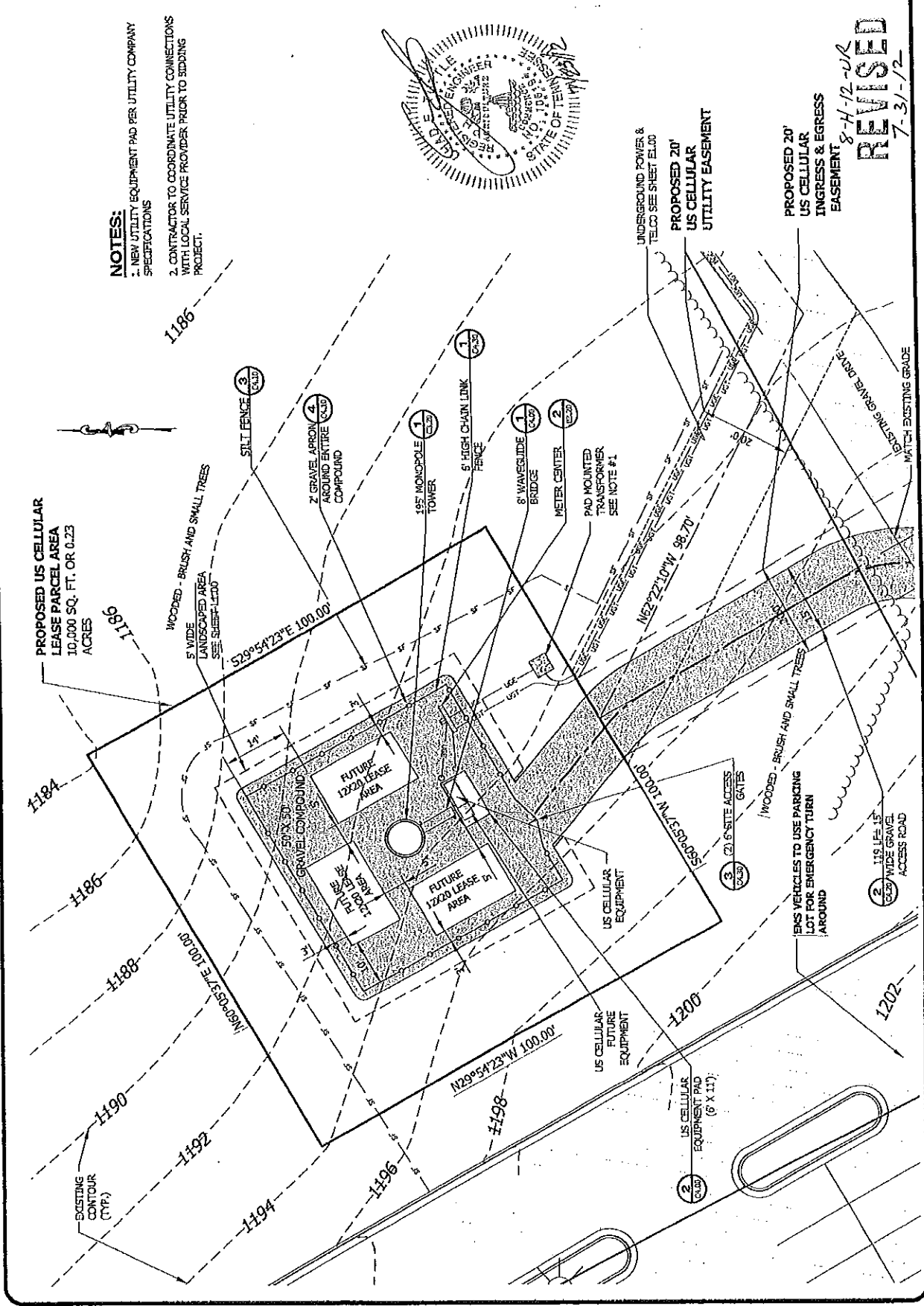


<p>US Cellular 974 COWLEY BLVD KNOXVILLE, TN 37922 615-777-9825</p>	<p>WIRELESS VISION, LLC Site Development Services</p>	<p>SCALE: 1"=20' THIS DRAWING IS NOT TO BE USED FOR CONSTRUCTION WITHOUT THE WRITTEN CONSENT OF THE ORIGINAL DESIGNER.</p>	<p>REVISIONS</p> <table border="1"> <tr><td>NO.</td><td>DATE</td><td>DESCRIPTION</td></tr> <tr><td>1</td><td>11/03/11</td><td>ISSUED FOR PERMITS</td></tr> <tr><td>2</td><td>11/03/11</td><td>ISSUED FOR PERMITS</td></tr> <tr><td>3</td><td>11/03/11</td><td>ISSUED FOR PERMITS</td></tr> </table>	NO.	DATE	DESCRIPTION	1	11/03/11	ISSUED FOR PERMITS	2	11/03/11	ISSUED FOR PERMITS	3	11/03/11	ISSUED FOR PERMITS	<p>DESIGNED BY: JAC DRAWN BY: JAC CHECKED BY: JAC DATE: 11/03/11 JOB NUMBER: 223527</p>	<p>B&B ENGINEERING 1779 S. BUCKLEY SUITE 250 KNOX, TN 37922 PH: 615-556-4200</p>	<p>CHAD TUTTLE PROFESSIONAL ENGINEER REGISTRATION NO. 34934</p>	<p>SITE NAME: US CELLULAR INSKUP</p> <p>SITE NUMBER: 223527</p> <p>SITE ADDRESS: 5200 HAYNES STRASBURG RD. KNOXVILLE, TN 37922</p>	<p>SHEET TITLE: SITE PLAN</p>	<p>SHEET NUMBER: C3.10</p>
NO.	DATE	DESCRIPTION																			
1	11/03/11	ISSUED FOR PERMITS																			
2	11/03/11	ISSUED FOR PERMITS																			
3	11/03/11	ISSUED FOR PERMITS																			

NOTES:
1. NEW UTILITY EQUIPMENT PAD PER UTILITY COMPANY SPECIFICATIONS
2. CONTRACTOR TO COORDINATE UTILITY CONNECTIONS WITH LOCAL SERVICE PROVIDER PRIOR TO BIDDING PROJECT.



PROPOSED 20' US CELLULAR UTILITY EASEMENT
UNDERGROUND POWER & TELCO SEE SHEET EL00
PROPOSED 20' US CELLULAR UTILITY EASEMENT
INGRESS & EGRESS EASEMENT
8-11-12-UK
REVISED
7-31-12



U.S. Cellular
 6711 CANTON ROAD
 MEMPHIS, TN 38115
 (901) 777-7000

WIRELESS VISION L.L.C.
 Site Development Services

SCALE: VERTICAL 1" = 10'
 HORIZONTAL 1" = 10'
 3/16" NET ON THIS SCALE
 3/32" NET ON THIS SCALE
 1/8" NET ON THIS SCALE

SCALE: N.T.S.
 THIS DRAWING IS NOT TO BE USED FOR CONSTRUCTION WITHOUT THE EXPRESS WRITTEN CONSENT OF B&B ENGINEERING, INC.

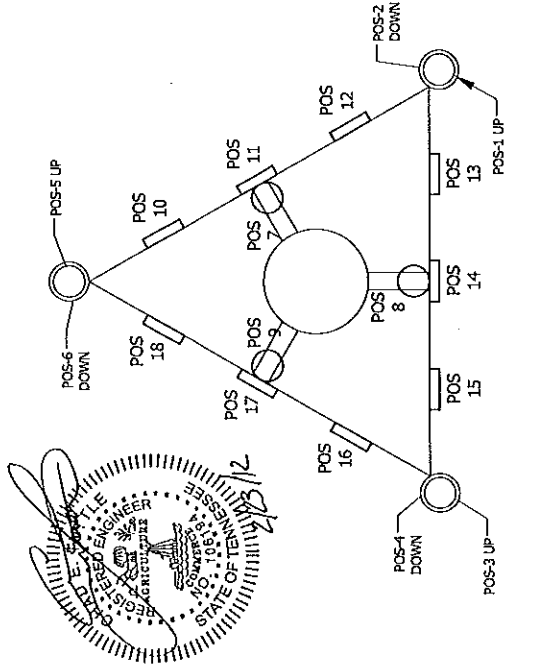
DESIGNED: JAK
 DRAWN: JAK
 CHECKED: GAK
 DATE: 2-04-11
 JOB NUMBER: 22-048-00

B&B ENGINEERING
 1377 S HENDER
 SUITE 300 TULSA, OK 74119
 PH: (918) 587-4600

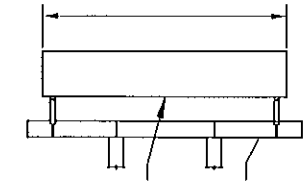
CHAD TUTTLE
 PROFESSIONAL ENGINEER
 REGISTRATION NO. 11624

SITE NAME: US CELLULAR
 INSKIP
 SITE NUMBER: 223527
 SITE ADDRESS: 5308 HAYNES STRICH RD. KNOXVILLE, TN 37912

SHEET TITLE: ELEVATION AND PLATFORM DETAIL
 SHEET NUMBER: C3.20



3 ANTENNA PLATFORM ASSIGNMENT
 N.T.S.



2 ANTENNA SECTION
 N.T.S.

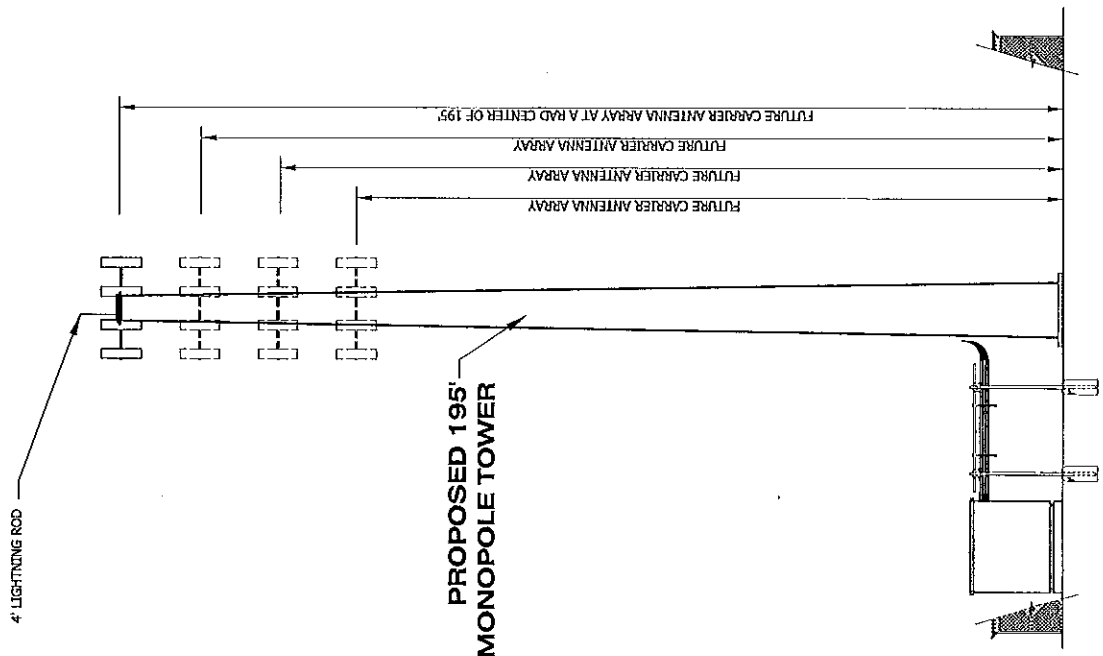
SECTOR	COLOR	# DF STRIPES	
		TX	RX2
ALPHA X	RED	1	2
BETA Y	WHITE	1	2
GAMMA Z	BLUE	1	2

REV #3 INFORMATION
 STRUCTURE CLASS II
 EXPOSURE CATEGORY B
 TOPOGRAPHIC CATEGORY 3 (HILL TOP)

PO S #	ANTENN A ID	ANTENNA MODEL	GAIN	ANT. ERP	PA SETTIN G	MECH DT	ELEC DT	ANT. HEIGHT	AZMUT H	CABLE LENGTH	CABLE SIZE
1											
2											
3											
4											
5											
6											
7											
8											
9											
0											
11											
12											

NO RF PROVIDED TO ENGINEER

4 ANTENNA SCHEDULE
 N.T.S.



1 PROPOSED 195' MONOPOLE TOWER
 N.T.S.

1 TOWER ELEVATION
 N.T.S.

US Cellular
 875 FEDERAL ROAD
 KNOXVILLE, TN 37903
 (615) 777-9822

WIRELESS VISION-LLC.
 Site Development Services

SCALE: 1" = 20'
 THIS DRAWING MAY NOT BE COPIED
 OR REPRODUCED WITHOUT WRITTEN CONSENT OF
 WIRELESS VISION-LLC.

DATE: 5-20-12
 DRAWN BY: DAK
 CHECKED BY: DAK
 DATE: 5-20-12
 JOB NUMBER: 127-010-00

B&B PLANTING
 177 S BOWLER
 SUITE 200 TULLA OK 74119
 PH: (918) 381-6624

CHAD TUTTLE
 PROFESSIONAL ENGINEER
 REGISTRATION NO. 12619A

SITE NAME:
**US CELLULAR
 INSKIP**
 SITE NUMBER:
223527
 SITE ADDRESS:
 1200 HAYNES STRONG RD.
 KNOXVILLE, TN 37912

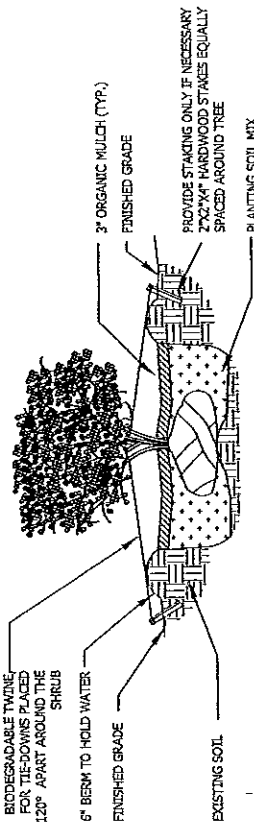
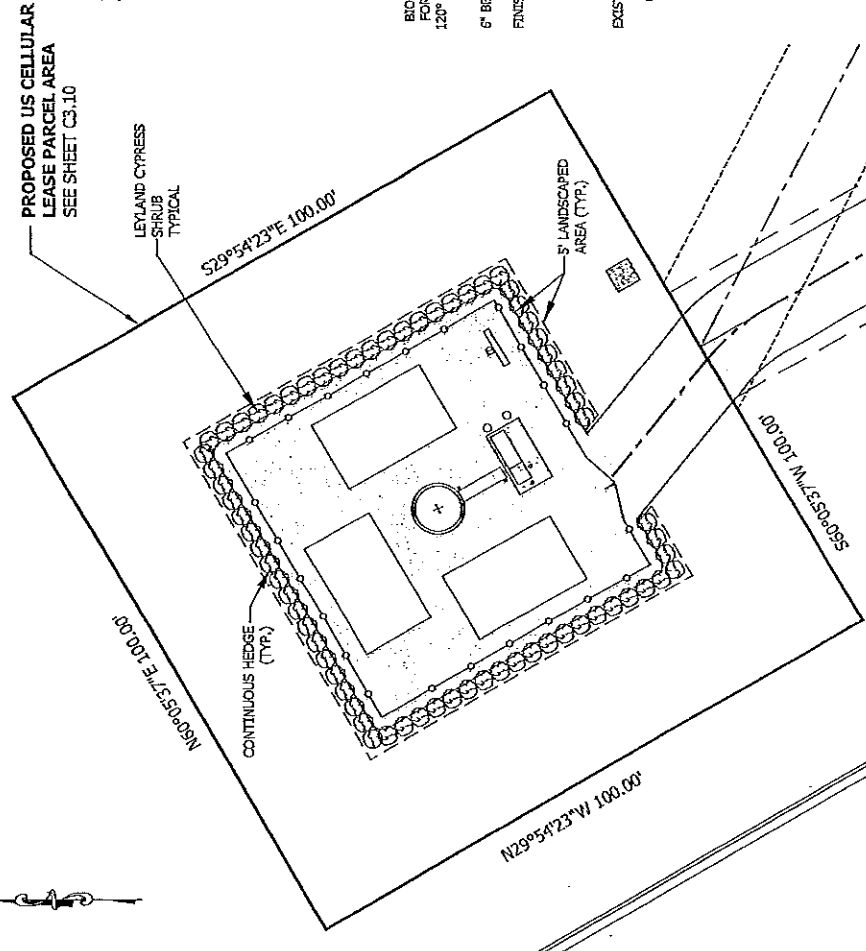
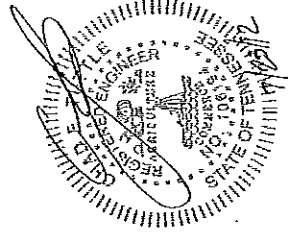
SHEET TITLE:
**LANDSCAPE
 PLAN &
 DETAILS**
 SHEET NUMBER:
L1.00

- NOTES:**
- TREES TO BE PROTECTED DURING AND AFTER CONSTRUCTION.
 - SEE SHEET L2.00 FOR PLANTING DETAILS.
 - THE CONTRACTOR SHALL PROVIDE A WATERING PROGRAM FOR UP TO 180 DAYS AFTER PLANTING TO ENSURE THE HEALTHY VITALITY OF ALL PLANT MATERIAL.

LANDSCAPE NOTES:

- THE FOLLOWING PLANT MATERIAL STANDARDS SHALL BE CONSIDERED THE MINIMUM REQUIREMENTS FOR COMPLYING WITH THE LANDSCAPE REGULATIONS.
- SHRUB MATERIALS TO BE PLANTED AT THE EXCLUDED MINIMUM HEIGHT; CONTAINER SIZE DOES NOT QUALIFY FOR FINAL ACCEPTANCE.
 - BALLED AND BURLAPPED STRAPPING WIRE AND ANY SYNTHETIC MATERIAL SHALL BE REMOVED PRIOR TO FINAL INSPECTION. WIRE BASKETS SHOULD BE CUT 6" BELOW THE TOP OF THE ROOTBALL.
 - MULCH SHALL BE PROVIDED A MINIMUM OF FOUR (4) INCHES IN DEPTH AROUND ALL NEWLY PLANTED LANDSCAPE.
 - THE GENERAL CONTRACTOR AND/OR LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE TO MAKE ANY AND ALL NECESSARY REPAIRS TO DAMAGE CAUSED BY HIS WORK AT NO ADDITIONAL COST TO THE OWNER OR LANDSCAPE ARCHITECT.

- PLANTING NOTES:**
- MULCH WITH 4" MULCH ORGANIC MULCH
 - LANDSCAPE CONTRACTOR TO GUARANTEE AND MAINTAIN TREES AND SHRUBS FOR 180 DAYS.
 - ALL TREEMING OF EXISTING TREES TO BE PERFORMED BY LICENSED TREEMING.
 - ALL NEW PLANT MATERIAL WILL BE FLORIDA GRADE #1 OR BETTER, HEALTHY, DISEASE FREE, AND PEST FREE.
 - ALL PROPOSED LANDSCAPE MATERIALS SHALL BE PROPERLY IDENTIFIED AND LABELLED WITH A VITALITY.
 - SHRUBS, MULCH AND FERTILIZERS ALL DISTRIBUTED AHEAD.
 - REFER TO LANDSCAPE PLAN, SHEET L1.00 FOR PLANTING LOCATION.



8-H-12-VK
REVISED
 7-31-12

PLANT SCHEDULE					
QTY.	SYM.	COMMON NAME	BOTANICAL NAME	SIZE	REMARKS
69	⊙	SHRUB LEYLAND CYPRESS	<i>Cupressus leylandii</i>	5' CAN. HEIGHT 3.0' MAX SPACING D.I.C.	PLANT 3" FROM FINISH IN CONTINUOUS HEDGE