CITY OF HIGH POINT AGENDA ITEM



•		munication, Inc.)	
Lee Burn Director	ette, Planning & Development	Meeting Date:	December 3, 2018
earing:	Yes	Advertising Date:	November 21, 2018, and November 28, 2018
		Advertised By:	Planning & Development
ents:	A. Planning and Zoning CommisB. Staff ReportC. Special Use PermitD. Supporting Documents	sion Recommendation	1
	(Faulk & Lee Burn Director earing:	Lee Burnette, Planning & Development Director earing: Yes ents: A. Planning and Zoning Commis B. Staff Report C. Special Use Permit	 (Faulk & Foster, representing Verizon Communication, Inc.) Lee Burnette, Planning & Development Meeting Date: Director earing: Yes Advertising Date: Advertised By: ents: A. Planning and Zoning Commission Recommendation B. Staff Report C. Special Use Permit

PURPOSE:

A request by Faulk & Foster, representing Verizon Communication, Inc., to permit a major wireless telecommunication facility. The site is approximately 8.7 acres and lying along the south side of Skeet Club Road, approximately 800 feet east of Braddock Road (1520 Skeet Club Road).

BACKGROUND:

The staff report and the Planning & Zoning Commission's recommendation are enclosed.

BUDGET IMPACT:

There is no budget impact.

RECOMMENDATION / ACTION REQUESTED:

- A. Staff recommended *approval* of this request, as outlined in the attached staff report.
- B. On November 13, 2018, this request was submitted to the Planning and Zoning Commission to allow the Commission and the public to make comments.

PLANNING AND ZONING COMMISSION COMMENTS

Faulk & Foster

Special Use 18-04

At its November 13, 2018 public hearing, the Planning and Zoning Commission was provided a summary of a request to permit a Major Wireless Telecommunication Facility in a Residential Single Family -3 (R-3) District. All members of the Commission were present except for Ms. Angela McGill, Ms. Marie Stone, Mr. Andrew Putnam and Mr. Ray Wheatley. Mr. Herbert Shannon, Senior Planner, provided a summary of the proposal.

Speaking on the request:

Speaking in favor of the request, on behalf of the applicant, was Mr. James LaPann, attorney and zoning specialist with Faulk & Foster, 584 Laurel Lane, Lancaster, PA. Mr. LaPann provided an overview of the request and explained how this proposal differs from their previous submittal. He also stated that the proposed wireless telecommunication facility is in compliance with the city's Development Ordinance and that this new location on the property was chosen to keep the tower away from adjacent property lines.

Also speaking in favor were Mr. David Cousins, an engineer with Kimley Horn & Associates, 11720 Amber Park Drive, Alpharetta, GA and Mr. Michael Berkowitz, real estate appraiser, 1100 Sundance Drive, Concord, NC. Mr. Cousins spoke to the fact that a sealed geotechnical study has been provided as a part of the supporting documents to address concerns with the soils in this area and that a fall zone letter has been provided noting that in the event of a failure the structure would collapse in a 50-foot fall zone area. Mr. Berkowitz provided an overview of the property impact study he conducted, which is part of the supporting documents in the staff report. He stated that Skeet Club Road is being upgraded to a major 4-lane facility and new utility lines structures associated, with the road improvement project, have more of a visual impact than the proposed tower. Based on his analysis, the requested tower will not negatively impact adjacent property owners.

Planning & Zoning Commission Action

The Commission stated this new submittal better addressed the issues raised during the review of their previous Special Use submittal.

CITY OF HIGH POINT PLANNING AND DEVELOPMENT DEPARTMENT

STAFF REPORT SPECIAL USE PERMIT 18-04 November 13, 2018

Request			
Applicant:		Owner:	
Faulk & Fos	ter Real Estate, Inc., representing	Jeffery Patton and Holly Dee Patton	
Verizon Cor	Verizon Communications, Inc.		
Proposal: A special use request to allow a major wireless telecommunication facility in a Residential Single Family-3 (R-3) District.			

	Site Information
Location:	Lying along the south side of Skeet Club Road, approximately 800 feet
	east of Braddock Road (1520 Skeet Club Road)
Tax Parcel Number:	Guilford County Tax Parcel 0204401
Site Acreage:	Approximately 8.7 acres
Current Land Use:	Single family dwelling
Physical	The site has a moderate to severely sloping terrain and is heavy wooded.
Characteristics:	A perennial stream runs across the southern 1/3 of the property and the
	steeper terrain of the site is along this stream corridor. Additionally,
	there is a 100-foot wide underground telephone line right-of-way running
	across the southern 1/3 of the property.
Water & Sewer	A 12-inch City water line and an 8-inch & 16-inch sewer line lies
Proximity:	adjacent to the site along Skeet Club Road.
General Drainage	The site drains in a southeasterly direction and development is subject to
and Watershed:	the Oak Hollow Lake Watershed Critical Area (WCA) requirements.
	Engineered stormwater treatment measures are required for development
	with a total impervious surface area greater than 24% of the site.
	The southern half of the site is within Tier 3 of this WCA, which only
	permits two-dwelling units per acre for single family development or a
	maximum 35% built-upon area for other permitted uses.
	maximum 55 % bunt upon area for other permitted abos.
	The northern half of the site is within Tier 4 of this WCA, which only
	permits two-dwelling units per acre for single family development or a
	maximum 50% built-upon area for other permitted uses.
Overlay Districts	Oak Hollow Lake Watershed Critical Area (WCA) – Tier 3 and Tier 4

		Adjacent Property Zoning and Curren	t Land Use
North:	R-3	Residential Single Family-3 District	Deep River Recreational Center
			and Park
South:	R-3	Residential Single Family-3 District	Single family dwellings
East:	R-3	Residential Single Family-3 District	Church
West:	R-3	Residential Single Family-3 District	Single family dwelling

Relevant Land Use Policies and Related Zoning History		
Community Growth	This request is not in conflict with the Community Growth Vision	
Vision Statement:	Statement.	
Land Use Plan Map	The site has a Low Density Residential land use classification. This	
Classification:	classification is primarily intended to accommodate single family	
	detached dwellings on individual lots. Development densities in these	
	areas shall not exceed five dwelling units per gross acre.	
Land Use Plan Goals,	This request is neither in conflict with the goals and objectives of the	
Objectives & Policies:	Land Use Plan, nor does it promote those goals and objectives.	
Relevant Area Plan:	Not applicable	
Community Growth	This request is not in conflict with the Community Growth Vision	
Vision Statement:	Statement.	
Zoning History:	A similar request, Special Use 18-01, was submitted for this same site	
	earlier this year. This request was denied by City Council at their May	
	21, 2018 public hearing.	

	Transportation Information				
Adjacent Streets:	Name		Classification	Approx. Frontage	
	Skeet Cl	ub Road		Major Thoroughfare	75 ft.
Vehicular Access:	Via drive	eway acces	s fi	rom Skeet Club Road.	
Traffic Counts:	Skeet Cl	ub Road		15, 000 AADT	(NCDOT 2015 count)
(Average Daily Trips)					
Estimated Trip	Not appl	icable			
Generation:					
Traffic ImpactRequired		T	IA Comment		
Analysis: Yes No		Ν	ot applicable		
		Х			
Pedestrian Access:	ccess: Not applicable				

School District Information

Not applicable to this zoning case.

Details of Proposal

This special use request proposes to allow a 135-foot high telecommunication tower on an 8.7acre residentially zoned parcel. The Development Ordinance permits wireless telecommunication facilities, up to 60 feet in height, by right in all residential zoning districts. A wireless telecommunication facility over 60 feet in height in a residential zoning district is considered a major wireless telecommunication facility and requires special use approval by City Council. Included with this application is a Special Use Permit that outlines site development conditions. A summary of this proposal is as follows:

- <u>Location</u>: The tower structure is proposed to be installed, within a 100-foot by 100-foot special purpose lot, on the northern portion of the site.
- <u>Tower Type and Height:</u> A 135-foot tall monopole style telecommunication tower is proposed to be installed, with four (4) separate antenna arrays.
- <u>Access</u>: There is a gravel access drive from Skeet Club Road that serves the existing single family residence. This same driveway drive will use to access the tower facility.

A similar proposal was submitted earlier this year by this applicant for this same parcel. Because of compatibility concerns, proximity to an adjacent daycare playground area and soil suitability (lack of geotechnical study evidence) the City Council denied this previous request by a vote of 6-3. The applicant took into consideration concerns raised by the abutting church and City Council, and adjusted this new application as follows:

	Previous Application SU-18-01	Current Application SU-18-04	Change
Tower Height	145 ft.	135 ft.	-10 ft. 7% decrease
Tower Fall Zone	15 ft. from northern property line.	50 ft. from northern property line	+35 ft.
	Fall zone went to edge of eastern property line	Fall Zone 45 ft. from eastern property line. (totally within the 100 ft x 100 ft special purpose lot area)	+45 ft.
Distance from abutting church property	North: Approx. 90 ft	North: Approx. 100 ft.	+ 10 ft. 11% increase +20 ft.
	East Approx. 75 feet	East: Approx. 95 feet	+20 ft. 26% increase
Screening Landscaping	Chain link fence (non-opaque fence)	 Wood fence (opaque fence) Approx. 25% more trees will be planted along northern, eastern & southern boundary of tower fence compound (Cherry Laurel to be planted every 10 ft. and Southern Magnolia to be planted every 10 ft) 	

The following documentation is included with this application to support and justify this proposal:

- 1. Ordinance Compliance statement from applicant
- 2. Site plan packet
- 3. Fall Zone letter, seal by structural engineer (Sabre Industries)
- 4. First right of refusal letter to City of High Point (installation of City antenna array)
- 5. Citizens Information Meeting Report
- 6. S&ME, Inc./Geotechnical Exploration Report (cover letter sealed by Engineer)
- 7. Property Impact Study for Cell Tower, sealed by Michael Berkowitz, NC Certified General Real Estate Appraiser
- 8. Balloon Test/Photo Simulation of proposed tower
- 9. Map of Radio Frequency depicting current lack of coverage and coverage with proposed tower

Under the previous application a Determination of No Hazard to Air Navigation letter was provided by the FAA. Because the tower is being moved to a new location, a new FAA letter is required. Since a no hazard letter was received for the previous application, which proposed a taller structure, it is anticipated that a letter will be issues for the application. However, at the time of this report, the applicant has not received the FAA letter.

Findings

A special use is an additional use to those permitted by right in a zoning district. Such a use requires analysis for its potential impact on the proposed site and its impact on surrounding properties. The purpose of the special use process is to allow the Planning and Zoning Commission and City Council an opportunity to perform this analysis.

Section 2.4.11.C of the Development Ordinance requires that certain findings be made before a special use may be approved. Based on the applicant's submittal and proposed conditions, as they existed on the date of this report, the Planning and Development Department offers the following comments relative to these required findings.

Will not mate	rially endanger the public health or safety if located where proposed.
Compliance	The Development Ordinance states that all wireless support structures shall not exceed 200 feet in height and shall be setback a minimum distance necessary to insure the support structure will remain on site following collapse (its fall zone),
	as certified by a licensed professional engineer. Based on the following documentation submitted by the applicant, staff finds the request will not
	endanger the public health or safety:1. A 135-foot tall structure is proposed, which is well under the 200-foot height limit.
	2. The applicant has submitted a letter dated October 16, 2018, sealed by a professional engineer from Sabre Industries Tower and Poles, stating the proposed monopole structure will have a fall zone of less than 50 feet. This is within the 100-foot by 100-foot tower special purpose lot area and
	approximately 45 feet from the abutting church property line.

Complies wit	h all required standards, conditions, and specifications of the Development
Ordinance, in	cluding Chapter 4: Uses.
Compliance	All wireless facilities and support structures shall comply with or exceed current
	standards and regulations of the Federal Aviation Administration (FAA), the
	Federal Communications Commission (FCC) and any other agency of the State or

federal government that regulates telecommunications facilities. Subject to the submittal of a "Determination of No Hazard to Air Navigation" letter from the FAA, the request will be in compliance with standards of the Development Ordinance.

Staff has reviewed the Special Use Permit plans and has determined the request meets or exceeds the standards of the Development Ordinance, except for receipt of the FAA letter.

Will not substantially injure the value of the abutting land, or the special use is a public necessity;

Compliance	The applicant is placing the proposed telecommunication structure in a wooded
	portion of the property approximately 395 feet south of Skeet Club Road and
	more than 500 feet from the nearest residential dwelling. The site abuts an
	existing 31,000-square foot non-residential use (church); however, the proposed
	monopole structure will be to the rear building line of this church structure.

Staff has not identified any evidence that the proposed wireless telecommunication structure will substantially injure the values of abutting properties. Based on its proposed location, distance from adjacent residential dwellings and that fact it abuts an existing non-residential use, staff finds that the request would be in harmony with surrounding uses.

Will be in ha	mony with the area in which it is to be located.
Compliance	The northern portion of the site is at a higher elevation, which reduces the need to apply for a taller tower structure. Also, the existing driveway will be used; thus, lessening environmental impact from grading and paving a longer access drive in this watershed critical area.
	Placement on the southern half of the property, behind the existing dwelling, would be closer to the abutting dwelling on the parcel to the west and be within Tier 3 of the watershed critical area that has more restrictive development standards. Finally, the southern portion of the site is encumbered by a perennial stream that requires a 200-foot wide stream buffer (100 feet on both sides of stream) and a separate 100-foot wide underground telephone easement.

Is in general o	conformity with the City's adopted policy guidance.
Compliance	Wireless communication facilities are permitted in all zoning districts, subject to
_	applicable uses and district standards. The proposal to establish a 135-foot tall
	monopole tower structure at this location does not conflict with adopted policy
	guidance.

Recommendation

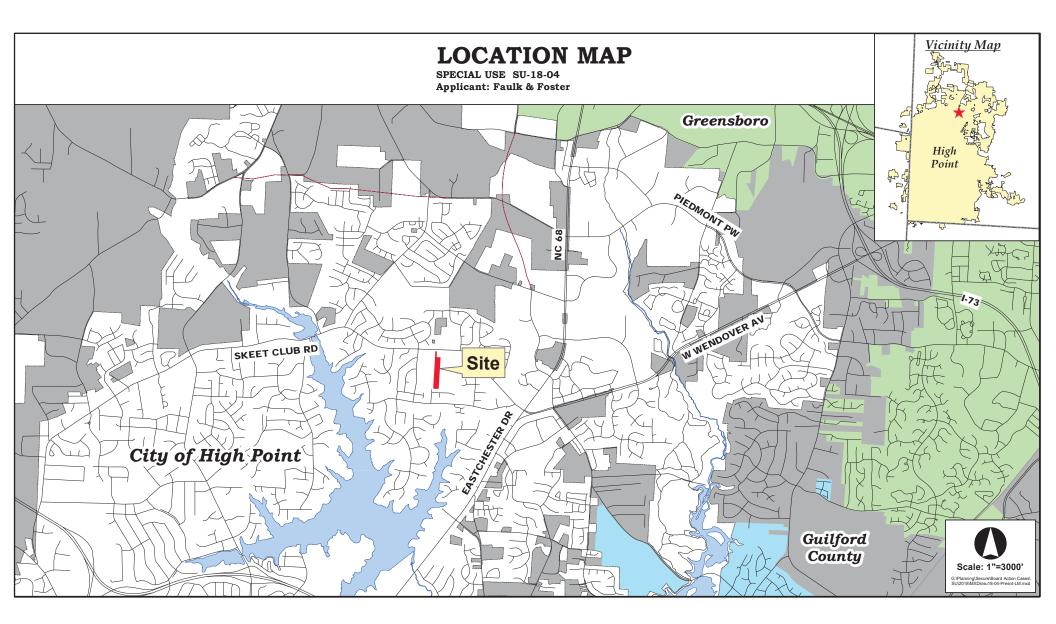
Staff recommends approval

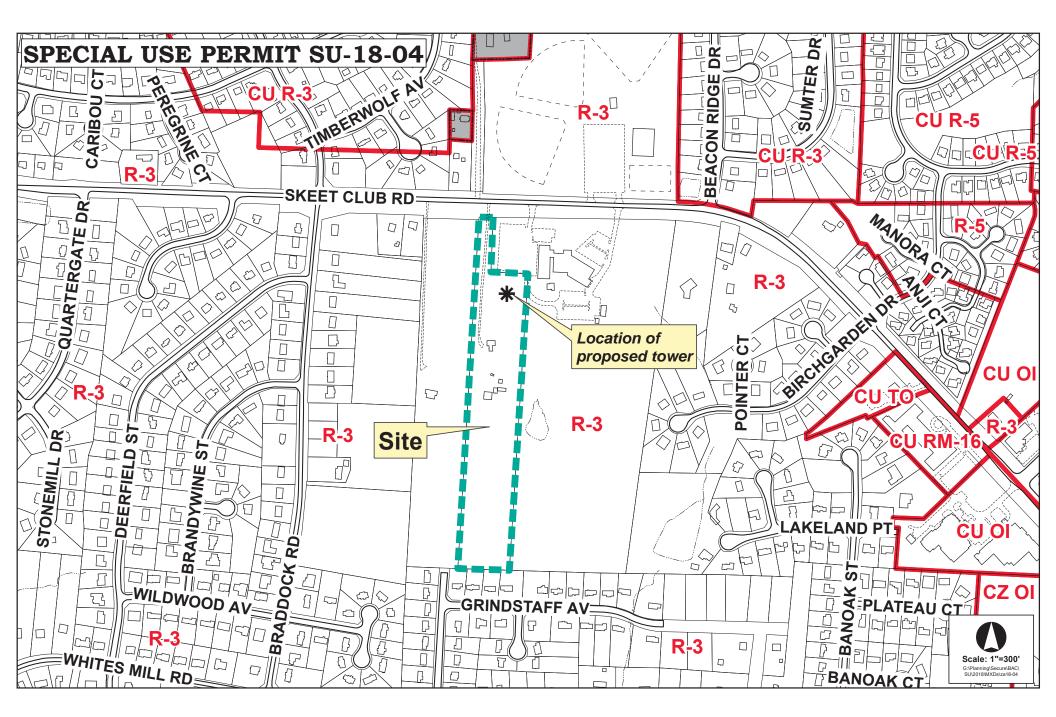
Based upon the conditions in the attached Special Use Permit and the preliminary findings of fact, staff finds that the request will be compatible with the surrounding zoning and in harmony with adjacent development in this area.

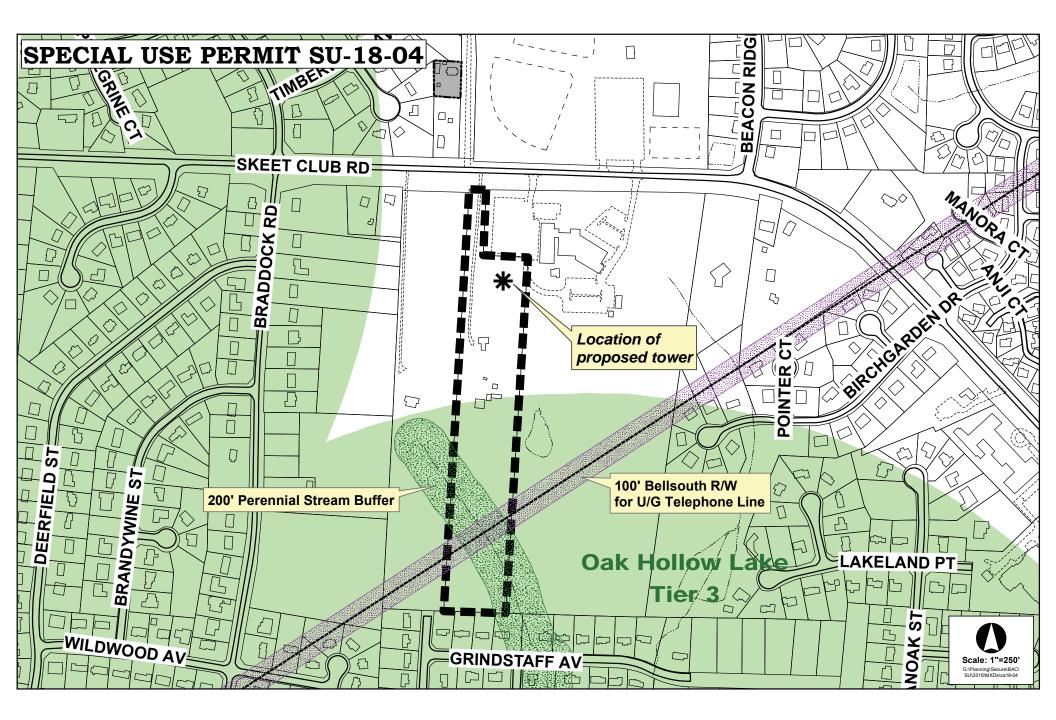
Subject to the submittal of a Determination of No Hazard to Air Navigation letter from the FAA, the Planning and Development Department recommends approval of this Special Use request to allow a 135-foot tall wireless communication facility structure in a Residential Single Family-3 (R-3) District.

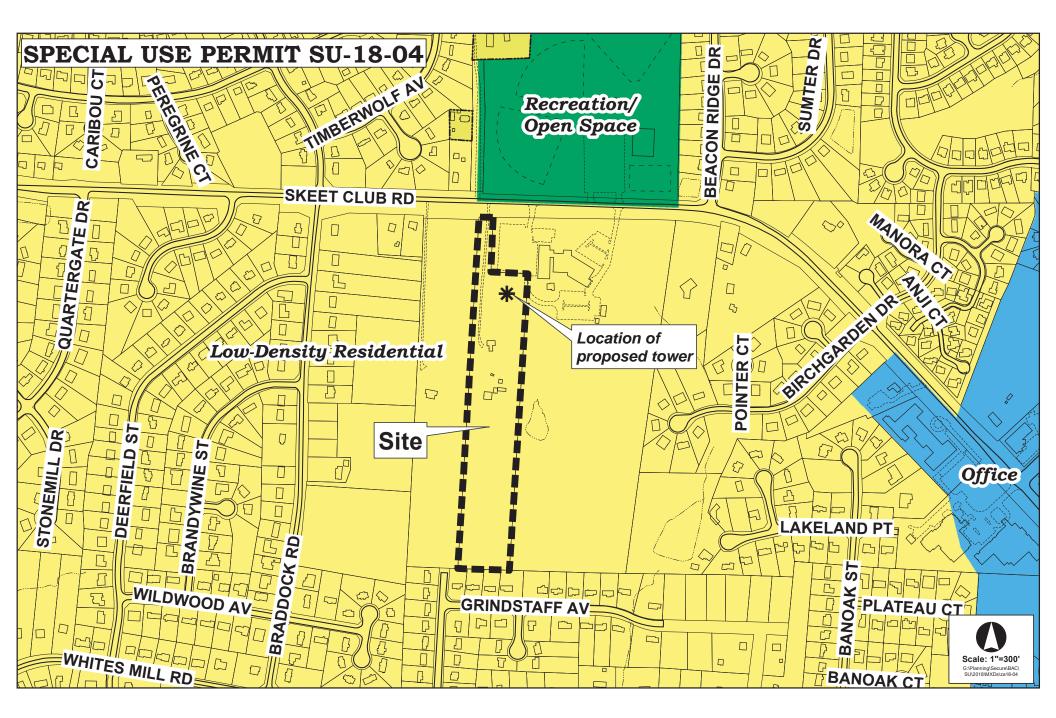
Report Preparation

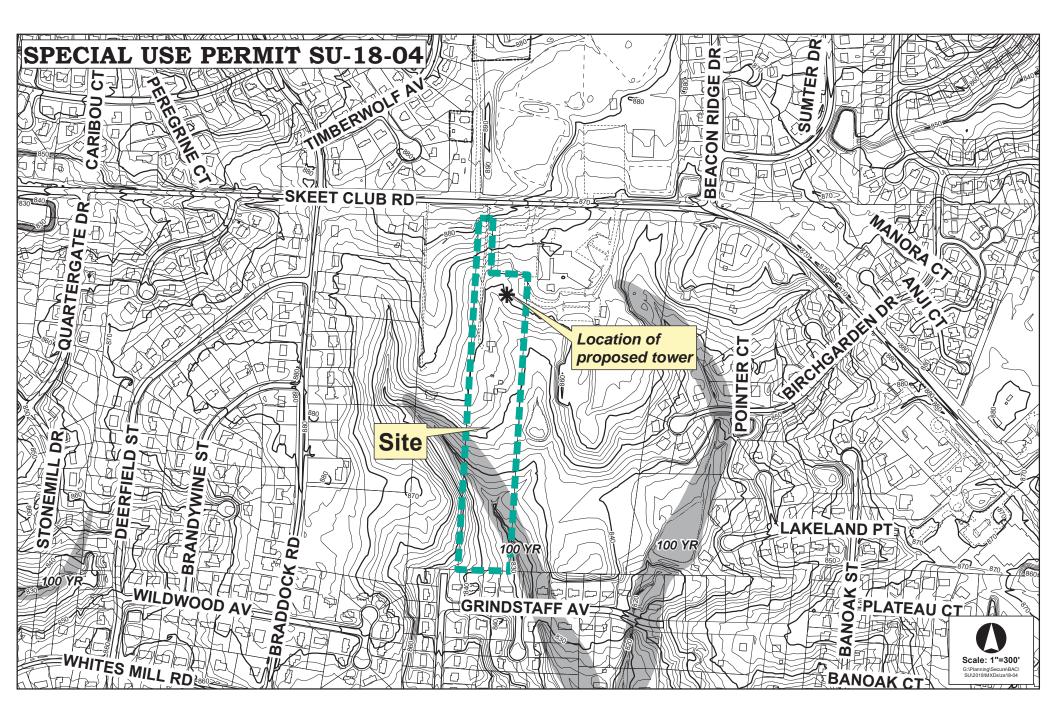
This report was prepared by Planning and Development Department staff member Herbert Shannon Jr. AICP, Senior Planner, and reviewed by Robert Robbins AICP, Development Services Administrator and Lee Burnette AICP, Director.

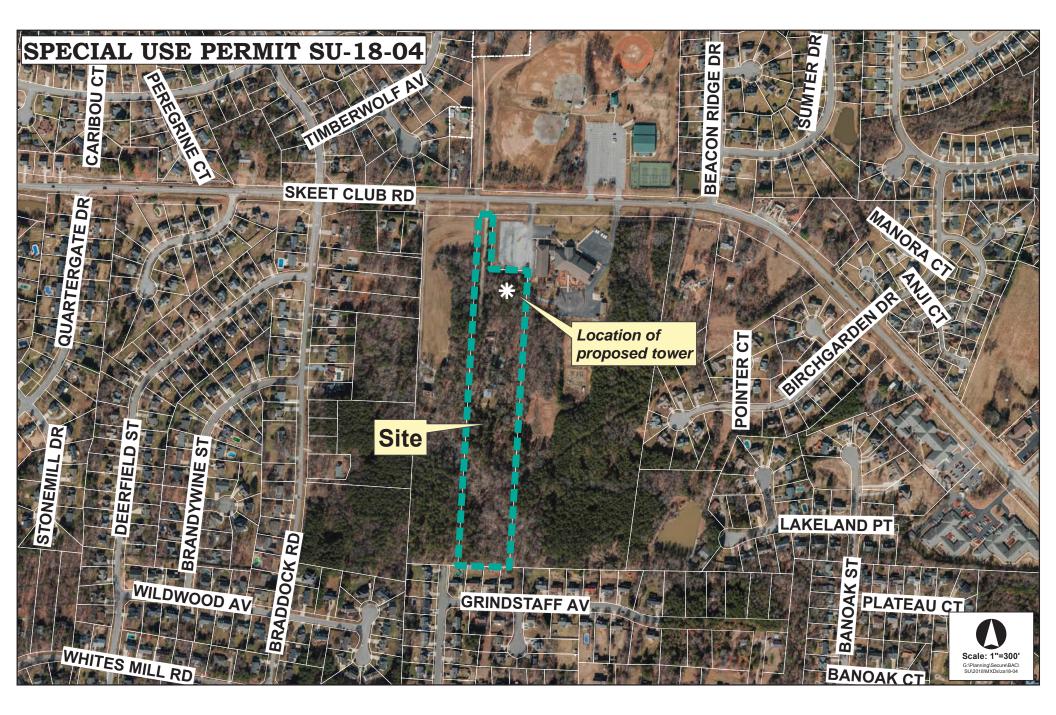












SPECIAL USE 18-04 CITY OF HIGH POINT, NORTH CAROLINA

(Adopted xxxxxx xx, 2018)

SECTION 1

The City of High Point City Council, pursuant to Section 2.4.11, Special Use, of the City of High Point Development Ordinance, approved a Special Use and Site Plan for the following use, subject to the following condition(s):

Part I. <u>USE</u>: Major Wireless Telecommunication Facility

- Part II. Conditions:
 - (a) <u>Type Structure</u> Monopole
 - (b) <u>Maximum Height</u> 135-feet
 - (c) <u>Co-location (shared use of tower)</u>: A minimum of four (4) antenna locations will be made available (see Special Use Permit plan).

SECTION 2

<u>Description of Property</u>: The property is approximately 8.7 acres, lying along the south side of Skeet Club Road, approximately 800 feet east of Braddock Road (1520 Skeet Club Road). The property is also known as Guilford County Tax Parcel 0204401.

SECTION 3

A special use and the associated site plan approval are perpetually binding and run with the land, unless amended. A material change to a special use or to an associated site plan that alters the objectives and purposes of the requirements or conditions of the special use constitute an amendment to the special use.

If development approved as a special use is discontinued for a period exceeding 18 months, or if a special use is replaced by a use otherwise permitted by right in the zoning district, the special use approval is deemed abandoned and the special use approval is null and void.

An action invalidating a special use condition of approval for any reason shall render the special use null and void.

SECTION 4

Special Use 18-04 and the accompanying site plan were approved by the City Council of High Point, North Carolina on the $\underline{xx^{th}}$ Day of $\underline{xxxxxxxx}$, 2018.

Special Use 18-04 Findings of Fact and Conclusion of Law were approved by the City Council of High Point, North Carolina on the $\underline{xx^{th}}$ Day of $\underline{xxxxxxxxx}$, 2018.

Lisa B. Vierling City Clerk Date

Supporting Documentation SU-18-04



October 19, 2018

SENT VIA FED EX

Herbert K. Shannon Jr. AICP Senior Planner/Zoning Coordinator Planning and Development Department 211 S Hamilton, Room 316| High Point, NC 27260

> Re: Proposed Verizon Wireless Telecommunications Tower at 1520 Skeet Club Rd, High Point NC 27265 Tax/Pin: 0204401 Verizon Site Name: Silver Fox

Mr. Shannon:

I am enclosing the following in support of the Verizon Wireless application for a Special Use Permit for the Verizon site identified above:

1. Ordinance Compliance Statement with exhibits:

- A. Stamped engineering drawings of site
- A-1 Engineer letter certifying fall zone.
- B. Letter from Verizon Wireless regarding 1st refusal
- C. Notice of Citizens Information Meeting
- D. Report of Citizens Information Meeting
- E. Report of Geotechnical Exploration
- Letter confirming applicability of previous report
- F. Economic Impact report
- G. Photo Simulations
- H. Radio Frequency Maps.

The original Special Use Permit Application signed by the property owner was sent to you previously. Thank you very much for your help.

Very truly yours. James L. LaPann Zoning Specialist - Faulk & Foster (518) 791-3740

ORDINANCE COMPLIANCE STATEMENT AND NARRATIVE

Application: Application for a Special Use Permit for a proposed Verizon Wireless Communication Tower Site

Verizon Site Name: SILVER FOX

Project Description: Verizon plans to construct a 135' monopole tower with a 4' lightning rod. Verizon will also place a 12' x 30' equipment shelter within a fenced compound area at the tower base on a 100' x 100' leased area. (See enclosed drawings for details (Exhibit A). This tower will have provisions on the tower for multiple carriers.

Parcel Address: Property Owner:	1520 Skeet Club Rd, High Point NC 27265 Jeffrey and Holly Patton, same address

NARRATIVE

Verizon Wireless is continually improving its network to best meet the needs of the community. In the present case, the growth in usage and the exhaustion of capacity at existing locations requires a new location. The purpose of this proposed tower will be to improve coverage to the area of the City of High Point that is north east of the heart of High Point, and south west of Piedmont Triad International Airport.

The area where the tower is proposed is in a wooded area between housing developments and across the main rod from a large park, called Deep River Recreation Center. There is a concentration of residential properties on all sides of the proposed tower. This proposed tower will provide excellent coverage for these properties, as well as for individuals passing through this area on the main east west highway, Skeet Club Road (Rte. 1820).

One of the factors that Verizon has taken into consideration in designing this proposed site is the potential impact that the tower will have on the aesthetics of the area. The drawings (Exhibit A) show that there is a large wooded area to the east, south and west. The Deep River Recreation Center is to the north.

This wooded area will provide a buffer of thick woods to "cushion" the site from the residential areas. The proposed tower will be 135 feet tall with a 4 foot lighting rod. The trees that surround the proposed site, will not shield the full 135 feet of the tower, but they will cover the fenced in compound, outdoor equipment, solid wood fencing and all other equipment from view. These surrounding trees will also cover the lower part of the monopole. In addition,

Verizon will be placing Type B buffer, which includes thick trees and bushes as well as a solid wood fence.

Consideration of this application should not, however, be limited to examining how successfully Verizon Wireless has mitigated any negative impact through design and location. The positive impact of the site should be given full weight as well. We live in a society where the phone has become an essential tool for daily living. Furthermore, the benefits of this site to the community go beyond just convenience for residents and businesses. Quality wireless service is part of the critical infrastructure necessary for public safety in emergency situations such as accidents, crimes, health events and storms. Given the design, location and benefits provided by this proposed site, the lack of significant impacts, and compliance with the requirements of the ordinance as more fully demonstrated below, approval of this application is respectfully requested.

ORDINANCE COMPLIANCE STATEMENT

Verizon Wireless offers this Ordinance Compliance Statement in support of its application for Approval pursuant to the City of High Point Development Ordinance to allow a cellular transmission tower.

Paragraphs followed by an asterisk (*) do not require a response or do not apply to this application.

City of High Point, N.C. Zoning Ordinance

Wireless Telecommunication Facility (Major and Minor)

(a) Purpose This section establishes general standards for the siting of wireless telecommunications facilities that will provide for the public health, safety, and welfare. The standards are intended to ensure that residents, businesses, and public safety operations in the city have reliable access to wireless telecommunications networks and state of the art mobile broadband communications services. More specifically, the provisions of this section are intended to:

 Ensure adequate protection of residential areas and uses from potential adverse impacts of wireless support structures and antennae, and to generally encourage the location of these facilities in areas where adverse impact on the community is minimal;

- (2) Strongly encourage the joint use of new and existing wireless support structures so as to minimize the number of new towers throughout the city, and establish stealth towers as the primary option for single user wireless facilities;
- (3) Enhance the ability of telecommunications services providers to provide services to the community quickly, effectively, and efficiently; and
- (4) Encourage wireless support structures that are carefully engineered, sited, and screened to avoid potential damage to adjacent properties from tower failure, and to minimize adverse visual impact.

*

(b) Applicability A new wireless telecommunications facility, whether considered a principal or accessory use, shall comply with the standards of this section, unless specifically exempted in accordance with subsection (c) below. All wireless facilities and support structures shall comply with or exceed current standards and regulations of the Federal Aviation Administration (FAA), the Federal Communications Commission (FCC) and any other agency of the State or federal government that regulates telecommunications facilities.

*

(c) Exemptions The following shall be exempt from the standards of this section, but shall be required to comply with all other relevant standards in this Ordinance:

- (1) Removal or replacement of transmission equipment on an existing wireless support structure or base station that does not result in a substantial modification.
- (2) Ordinary maintenance of existing wireless facilities and support structures.
- (3) Wireless facilities placed on utility poles or on electric transmission line towers with the permission of the utility owning the pole or tower.
- (4) Temporary wireless communication facilities (or "COWs") in accordance with Section 4.5.4 J, Temporary Wireless Telecommunications Facility.
- (5) Satellite dish antennae, receive-only television or radio antennae for noncommercial use, and antennae legally operated by FCC-licensed amateur radio operators in accordance with Section 4.4, Accessory Structures and Uses.

(d) Facilities Distinguished

(1) Minor Wireless Telecommunications Facility The following uses are considered minor wireless telecommunications facilities that may only be established in accordance with the standards of this section and Section 2.5.14, Site Plan:

- (i) A new wireless support structure of 60 feet in height or less in any zoning district;
- (ii) A concealed or stealth wireless facility of 80 feet in height or less in a residential district;
- (iii) A concealed or stealth wireless facility of 150 feet in height or less in a business, special, or planned development district;
- (iv) A new wireless support structure of 200 feet in height or less in a PNR, I, LI, or HI district;
- (v) Collocation of equipment on an existing wireless telecommunications facility, support structure, or building in any district; or
- (vi) A substantial modification of an existing wireless facility or support structure in any district.

The proposed cell tower does not fall into any of the categories set forth above, and therefore will be a Major Wireless Telecommunications Facility.

(2) Major Wireless Telecommunications Facility Uses that do not meet the criteria for a minor wireless communications facility in subsection (d)(1) above are considered major wireless telecommunications facilities that may only be established in accordance with the standards of this section and Section 2.4.11, Special Use.

The proposed cell tower does not fall into any of the categories set forth above, and therefore will be a Major Wireless Telecommunications Facility and will require compliance with the Special Use ordinance 1.4.11 (Please see below).

(e) <u>General Standards and Design Requirements</u>

- (1) Type of Support Structure Permitted
 - (i) Concealed or Stealth facilities and support structures shall be permitted in any zoning district.
 - *
 - (ii) Monopole support structures shall be permitted in all zoning districts EXCEPT: TO, LB, CB, MS, MX, PD-CC, PD-P, and any Gateway Corridor and Local Historic Overlay Districts.

This proposed project is a stealth facility. Therefore it is permitted in the RS-9 Residential Single Family District.

(iii) Lattice or Guyed support structures shall be permitted ONLY in the EC, LI, HI, AGR and PNR zoning districts.

*

- (2) Collocation New wireless support structures shall be engineered and constructed to accommodate a minimum number of collocations based upon their height.
 - Support structures 60 to 100 feet in height shall support at least 2 additional telecommunications providers.
 - (ii) Support structures greater than 100 feet and less than 150 feet in height shall support at least 3 additional telecommunications providers.
 - (iii) Support structures greater than 150 feet in height shall support at least 4 additional telecommunications providers.
 - (iv) An applicant proposing a new wireless support facility other than a concealed or stealth wireless facility shall demonstrate that no suitable existing wireless support structure, building or other structure within the coverage area is available for the collocation of antennae.
 - (v) The Planning and Development Director, upon request of the applicant, may modify the requirement that new wireless support structures accommodate the collocation of other service providers if it is determined that collocation at the site is not essential to the public interest, or that the construction of a shorter support structure with fewer antennae will promote community compatibility.

<u>Exhibit A</u> Drawing C6 (Antenna and Tower Elevation Details) shows that the proposed site will support three (3) additional telecommunications providers. Drawing C2 (Site Plan) also shows three additional sites for pads for future co-locators.

- (3) Collocation First Right of Refusal
 - (i) The owner of any new telecommunications support structure, except stealth structures, shall offer first right of refusal to the City for purposes of collocation, at least 30 days prior to entering into the first collocation agreement or lease.
 - (ii) The City shall respond in writing within 30 days of its receipt of the offer with either a letter of intent or a waiver of rights. If the City decides to locate facilities on the support structure to enhance public safety communications, the site shall be provided at no cost to the City.
 - (iii) If the City waives its right of first refusal, or fails to respond to the owner's notification with the 30 day period, or has not commenced use of the site as intended and has not made a good faith effort to do so within 180 days of communicating its intent to the owner, the collocation site shall be deemed abandoned by the City and the owner shall be under no further obligation to provide a collocation site to the City on that support structure.

<u>Exhibit B</u> is a letter from Verizon Wireless that certifies that Verizon Wireless shall offer first right of refusal to the City for purposes of collocation, at least 30 days prior to entering into the first collocation agreement or lease, and will comply with the balance of Paragraph e (3) of the Telecom Ordinance for the City of High Point.

- (4) Collocation of Antennae on an Existing Building An antenna may be attached to a nonresidential or multi-family residential building in accordance with the following standards:
 - (i) The antenna height, including any support structure, shall not extend more than 20 percent higher than the height of the building on which it is located.
 - (ii) The antenna and associated equipment shall comply with the applicable provisions of this section.
 - (iii) An antenna visible from an adjacent street shall be omni-directional, and screened or camouflaged to the extent practicable to minimize its appearance.
 - (iv) Equipment shall be located within the building or screened in some other fashion to prevent off-site views.

(f) Maximum Height In residential districts, wireless support structures, including stealth support structures, shall not exceed 200 feet in height from the base of the structure to the top of the highest point, including appurtenances. Additional height may be requested as part of a special use, provided the applicant submits technical information or other justification to document the need for the additional height and is in compliance with Section 10.2.6 B, Structure Height Restrictions.

Exhibit A, Drawings C1(Overall Site Plan), C2 (Site Plan) C6 (Antenna and Tower Elevation Details) all indicate that the height of this tower is 135 feet, and therefore well below the 200 feet described in the paragraph above.

- (g) Setbacks
 - (1) Except for roof-mounted antenna, all wireless support structures, including those anchored or attached to existing buildings or other structures, shall be set back from all lot lines a distance greater than or equal to the minimum distance necessary to insure the support structure will remain on its site following collapse (its fall zone) as certified by a licensed professional engineer. In the absence of such certification, the required setback shall be equal to 80 percent of the height of the wireless support structure.

Exhibit A – Drawing C1 (Overall Site Plan) shows a chart of the distances from the tower to the boundary lines. The shortest distance from the tower to a boundary line for the proposed site is 95 feet 2 inches. The engineered fall zone for this proposed tower is fifty (50') feet. The engineered fall zone is 47.5 percent of the distance from the tower to the nearest boundary line. Please see an engineering letter (Exhibit A-1) certifying that the tower will fall within the 50 foot fall zone of the applicant's site.

(2) Roof mounted antennae and stealth facilities located within other structures are exempt from these requirements.

*

(h) Lighting and Marking Wireless telecommunications facilities or support structures shall not be lighted or marked unless required by the FCC or FAA. Strobe lights shall not be used for nighttime lighting unless specifically required by the FCC or FAA.

<u>Exhibit A</u>, Drawings C1 (Overall Site Plan), C2 (Site Plan) C6 (Antenna and Tower Elevation Details) show that the proposed tower will be 135 feet tall. Therefore, under the FAA regulations there is no requirement for lighting, and therefore the proposed site will not have lighting. (i) Color Other than concealed or stealth facilities, wireless support structures shall either maintain a galvanized steel finish or be painted a neutral, matte color designed to blend with its surroundings, unless otherwise required by the FCC or FAA.

<u>Exhibit A</u> – Drawing C6 Note 4 indicates that this proposed tower "Will be galvanized steel – Gray in color.

(j) Signage Signs located at a wireless telecommunications facility shall be limited to ownership and contact information, FCC antenna registration number (if required) and any other information required by government regulation. Commercial advertising is prohibited. Notwithstanding, nothing in this section shall prohibit signage that is legally approved for other uses on the same lot or site on which the wireless facility is located.

<u>Exhibit A</u> – Drawing C5 (Site Signage Details) shows that this proposed site will be in full compliance with the ordinance set forth above.

(k) Fencing

- (1) Ground mounted accessory equipment and wireless support structures shall be secured and enclosed with a fence not less than 8 feet in height, placed between the equipment compound and any required landscaping.
- (2) Fencing shall not be required for concealed or stealth wireless facilities, or for support structures.

<u>Exhibit A</u> – Drawing C3 (Fence, Gate and Compound Details) shows that the proposed fencing is in full compliance at less than 8 feet tall with three strands of barbed wire to secure the facility.

 Landscaping shall be required around the perimeter of the site or equipment compound when ground equipment within the compound is visible from a public street. Landscaping shall be designed to screen such equipment from view in accordance with the ground-based mechanical equipment requirements in Section 5.6, Screening.

<u>Exhibit A</u> – Drawing L1 (Landscaping Plan & Details) shows the landscaping that is in compliance with the ordinance set forth above.

(m) Accessory Equipment Accessory Equipment, including any buildings, cabinets or shelters, shall be used only to house equipment and other supplies in direct support of the operation of the wireless facility or support structure. Any equipment not used in direct support of such operation shall not be stored on the site.

<u>Exhibit A</u> – Drawing C2 (Site Plan) shows that outdoor equipment will be used and there will not be any cabinets.

- (n) Additional Standards for Concealed or Stealth Wireless Facilities A concealed, or stealth, wireless telecommunications facility and support structure shall be designed and located to complement the surrounding landscape in accordance with the following standards:
 - (1) A stealth wireless facility and support structure shall take a form other than that of a typical wireless facility and support structure, including but not limited to; bell towers, clock towers, water towers, silos, chimneys, steeples, evergreen trees, or flag poles. (See Figure 4.3.3.F, Stealth Wireless Telecommunications Facilities).
 - (2) The equipment compound shall be designed, located, and camouflaged in a manner compatible with the support structure portion of the facility. Ground equipment shall be located within a structure or building, to the maximum extent practicable. Antennae, cables, and related appurtenances shall be enclosed, camouflaged, screened, or obscured so that they are not readily apparent to a casual off-site observer.
 - (2) Stealth wireless facilities are encouraged (but not required) to be designed to accommodate the collocation of other antennae whenever technically and economically feasible.

*

- (o) Existing Wireless Facilities and Wireless Support Structures
 - (1) General
 - (i) An existing wireless facility or support structure that was legally permitted on or before the effective date of this Ordinance shall be considered a lawful permitted use if it complies with all applicable provisions of this section, or a nonconforming use if it does not comply with all applicable provisions of this section.
 - (ii) An existing and otherwise lawful facility or support structure that was not permitted by special use that, as a result of this Ordinance, would now require special use approval shall not be considered nonconforming.

- (2) Activities at Nonconforming Wireless Facilities or Support Structures
 - (i) Ordinary maintenance may be performed on a nonconforming wireless facility or support structure.
 - (ii) Collocation of wireless facilities on an existing nonconforming wireless support structure shall not be construed as an expansion, enlargement, or increase of a nonconforming structure and/or use and shall be reviewed and approved in accordance with the site plan process as stated in Section 2.5.14, provided that the collocation is NOT considered a substantial modification of the facility or support structure.
 - (iii) Collocation of wireless facilities on an existing nonconforming wireless support structure shall not be construed as an expansion, enlargement, or increase of a nonconformity and shall be reviewed and approved in accordance with Section 2.5.14, Site Plan.

(Ord. No. 7266/17-08, § 14, 1-17-2017; Ord. No. 7287/17-29, § 6, 4-3-2017)

*

2.4.11. - Special Use

Α.

Applicability Uses identified as requiring a special use in Table <u>4.1.9</u>, Principal Use Table, shall be approved as a special use in accordance with the procedures and standards of this section, prior to <u>development</u>. A special use is a use that may be appropriate in a zoning district, but because of its nature, extent, and external effects, requires special consideration of its location, design, and methods of operation before it can be deemed appropriate in the district and compatible with its surroundings.

2.3.3. - Citizen Information Meeting

A. **Purpose** The purpose of the <u>citizen information meeting</u> is to inform <u>landowners</u> and occupants of nearby lands about a <u>development application</u> that is going to be reviewed under this Ordinance, and to provide the <u>applicant</u> an opportunity to hear comments and concerns about the <u>development</u> proposal as a means of resolving conflicts and outstanding issues, where possible.

B.Favored Practice

1. <u>Citizen information meetings</u> are encouraged and sometimes required as opportunities for informal communication between <u>applicants</u> and the <u>landowners</u> and occupants of nearby lands, and other residents who may be affected by <u>development</u> proposals.

2.If a <u>citizen information meeting</u> is conducted, it is preferable to hold it in close proximity to the proposed <u>development</u>.

C. **Applicability** A <u>citizen information meeting</u> is required for any of the following <u>applications</u> (unless they are initiated by City Council):

1. Conditional zoning;

2. Planned developments;

3.Special uses; and

4.Zoning map amendments that propose to establish a more intense zoning district.

D.**Procedure** If a <u>citizen information meeting</u> is required, it shall comply with the following procedures:

1.**Timing** The <u>applicant</u> shall hold the <u>citizen information meeting</u> at least 23 days prior to consideration of the <u>application</u> by the P&Z.

2.Form The <u>citizen information meeting</u> can take the form of a meeting, gathering, or a telephone communication between the <u>applicant</u> or the <u>applicant's</u>representative and <u>landowners</u> or other interested parties. Nothing shall prohibit multiple meetings or telephone communications from taking place.

3.Notification

(a)Prior to the <u>citizen information meeting</u>, the <u>applicant</u> shall provide notice of the meeting to all <u>landowners</u> of land located within 300 feet of the land subject to the <u>application</u>, as shown on the county tax listing.

(b)Failure of a party to receive notice of the meeting shall not invalidate the application.

4. **Information Provided** The <u>applicant</u> shall provide the following information to those attending a meeting or participating in a telephone call:

(a)A description of the proposed development;

(b)Information provided by the Planning and Development Department that describes: (1)The purpose of the citizen information meeting;

(2)The <u>development</u> review procedure(s) the <u>application</u> will follow;

(3)The potential for changes in the <u>applicant's development proposal</u> as it proceeds through the review process;

(4)Sources of further information about the <u>development</u> review process; and (5)Any additional information that would promote understanding of the <u>development</u> proposal.

<u>Exhibit C</u> is a copy of the Citizens Information Meeting notice that was sent to all of the property owners of land located within 300 feet of the land subject to the application, as shown on the county tax listing.

5.**Conduct of Meeting** At the meeting, the <u>applicant</u> shall explain the development proposal and <u>application</u> inform attendees about the <u>application</u> review process and the potential for change to the proposal as it proceeds through the process, respond to questions and concerns neighbors raise about the <u>application</u> and propose ways to resolve conflicts and concerns.

6. Written Summary At least 22 days before the initial consideration of the <u>application</u> by the P&Z, the <u>applicant</u> shall submit a written summary of the <u>citizen</u> <u>information meeting</u> or telephone call to the Planning and Development Department that includes:

(a)The date, time, and location of the meeting;

(b)The method and date of notification about the meeting;

(c)A list of <u>landowners</u> notified about the meeting;

(d)A list of meeting attendees;

(e)If the meeting was conducted as a series of telephone calls;

(f)The description of the <u>development</u> proposal presented to the attendees; and (gA summary of attendee comments, ideas, and suggestions from citizens to be incorporated into the <u>development</u> proposal.

The written summary shall be included with the <u>application</u> materials and be made available to the public for inspection.

Exhibit D is the written summary of the Citizens Information Meeting.

7.No Meeting Conducted

(a) <u>Applicants</u> subject to the requirement to conduct a <u>citizen information meeting</u> but who choose not to do so shall include, in writing, the reasons for not conducting a meeting or the activities undertaken in-lieu of conducting a meeting.
(b) The City Council shall consider an <u>application</u> regardless of whether a required <u>citizen information meeting</u> is conducted.

*

Β.

Special Use Procedure

1.

Pre-Application Conference Applicable (see <u>Section 2.3.2</u>, Pre-Application Conference).

A pre-application meeting was held on Wednesday, August 15, 2018 at 5:30 pm.

2.

<u>Citizen Information Meeting</u> Applicable (see <u>Section 2.3.3</u>, Citizen Information Meeting).

A Citizen Information Meeting was held on Wednesday, August 15, 2018 at 5:30 pm.

C. **Special Use Review Standards** A special use shall be approved upon a finding that the <u>applicant</u>demonstrates the proposed special use:

1. Will not materially endanger the public health or safety if located where proposed;

The proposed tower will be of no danger to public health or safety. <u>Exhibit A</u> – Drawing C1 (Overall Site Plan) shows a chart of the distances from the tower to the boundary lines. The shortest distance from the tower to a boundary line for the proposed site is 95 feet 2 inches. The engineered fall zone for this proposed tower is fifty (50') feet. The engineered fall zone is 47.5 percent of the distance from the tower to the nearest boundary line.

2. Complies with all required standards, conditions, and specifications of this Ordinance, including Chapter 4: Uses;

The application and the proposed tower fully comply with all required standards, conditions and specifications. <u>Exhibit E</u> is a Report of Geotechnical Exploration for the proposed site as prepared by S&ME, Inc. that proves that the proposed site will be suitable for construction of a 149 foot tall tower. The currently proposed tower is 139 feet tall, so therefore it will be suitable for this shorter tower. An engineer stamped letter is also part of <u>Exhibit E</u>, which states that the earlier report applies to the lower tower.

3. Will not substantially injure the value of the <u>abutting</u> land, or the special use is a public necessity;

<u>Exhibit F</u> is a report prepared by a licensed appraiser who is very familiar with the High Point region that indicates that the proposed tower will not substantially injure the value of the abutting land.

4. Will be in harmony with the area in which it is to be located; and

<u>Exhibit G</u> is a set of photo simulations of the proposed tower, showing the antenna screening that has been added to lessen the aesthetic impact. The proposed tower location has been moved back from the roadway and back from the adjoining Church property. There is an existing berm with trees and bushes on it that is between the proposed site and the roadway (Skeet Club Road).

Skeet Club Road is a major roadway, with two lanes being constructed in each direction. This roadway serves a large commercial area. The property immediately opposite the proposed site, on Skeet Club Road) is a large park, with playing fields.

These photo simulations are clear evidence that this site is in harmony with the area in which it will be located.

5.Is in general conformity with the City's adopted policy guidance.

This Ordinance compliance statement shows that the application for approval of the proposed cell tower is in full conformity with the City's adopted policy guidance.

D.Conditions of Approval Applicable (see Section 2.3.10, Conditions of Approval).

No response is needed to this paragraph.

E.Effect

1.Applicable (see Section 2.3.12, Effect of Development Approval).

2.A special use and the associated site plan approval are perpetually binding and run with the land, unless amended.

3.An action invalidating a special use condition of approval for any reason shall render the special use null and void.

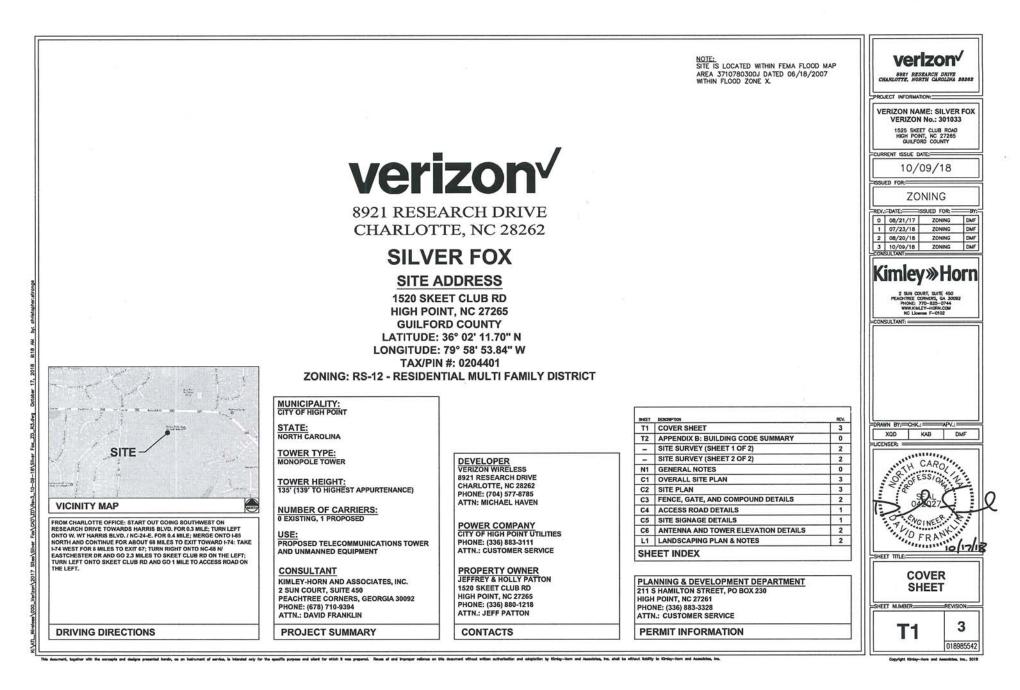
No response is needed to this paragraph.

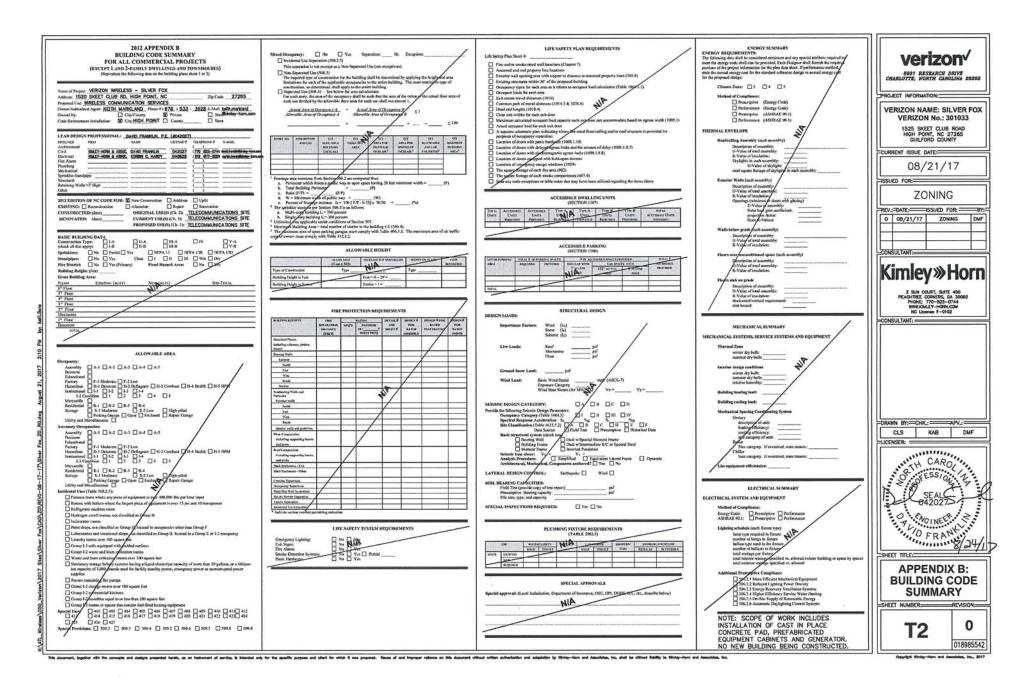
In addition, the applicant has included radio frequency maps which show that there is a substantial need for the propose tower to provide adequate service to the people who live in the region of the tower, and those people and first providers travelling through or working in the region near the tower. Please see <u>Exhibit H.</u>

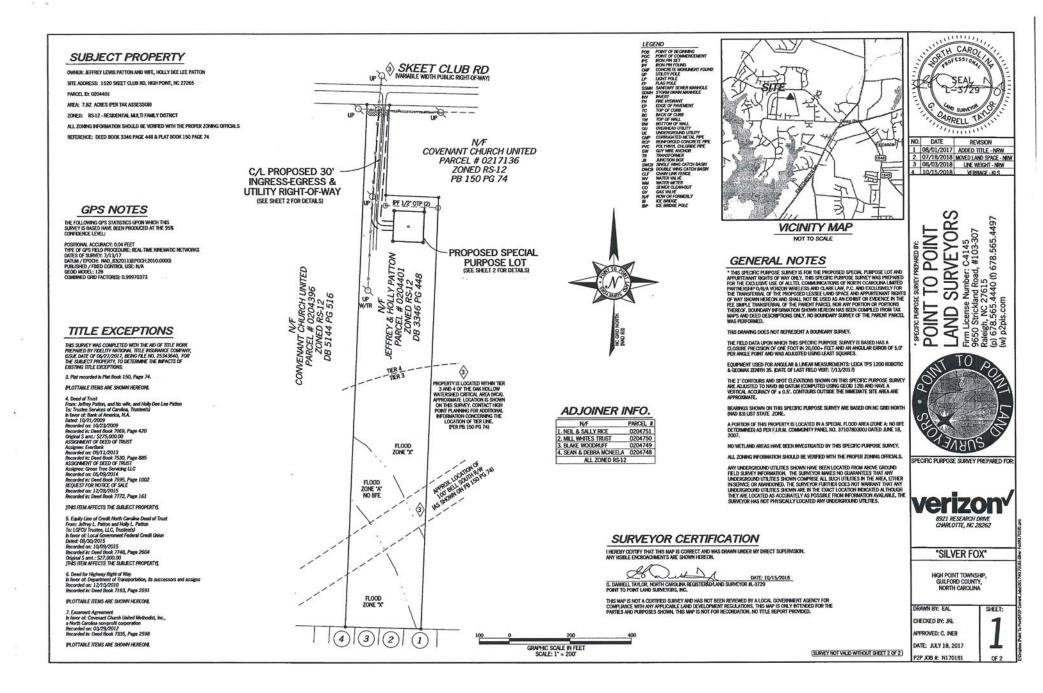
On behalf of Verizon Wireless I respectfully request that the Planning Commission and the City Council of High Point grant the applicants permission to construct and operate a monopole cell tower as set forth in the documents.

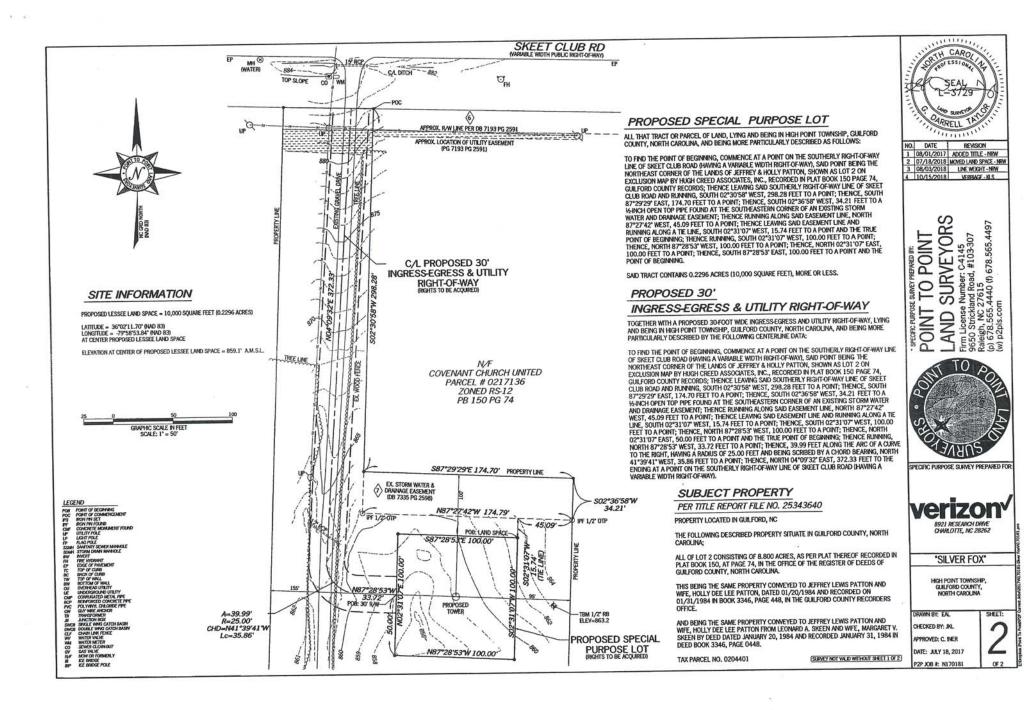
> James L. LaPann – Zoning Specialist Faulk & Foster Real Estate, Inc. 518-791-3740 jim.lapann@faulkandfoster.com

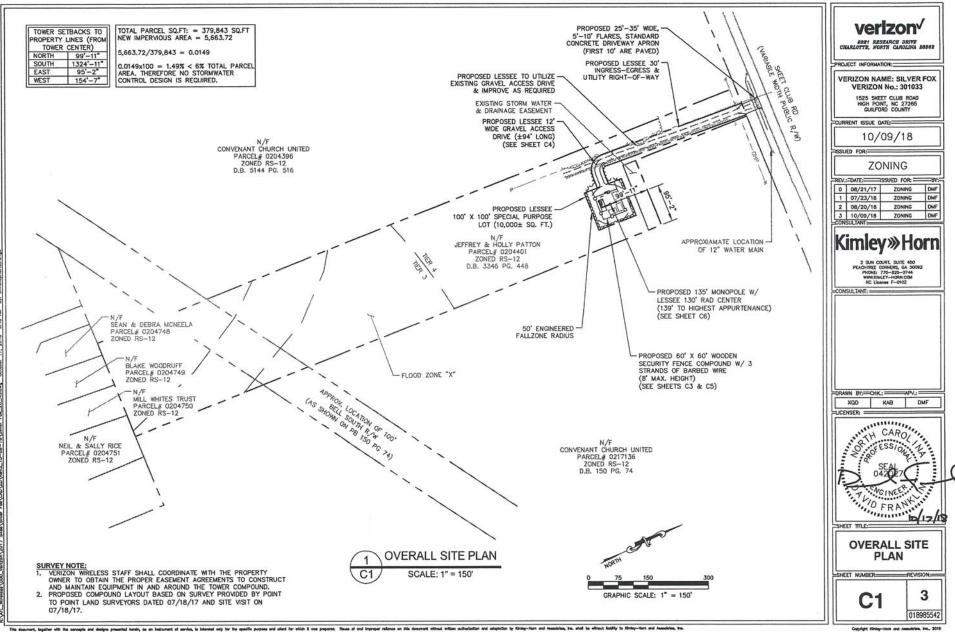
EXHIBIT A



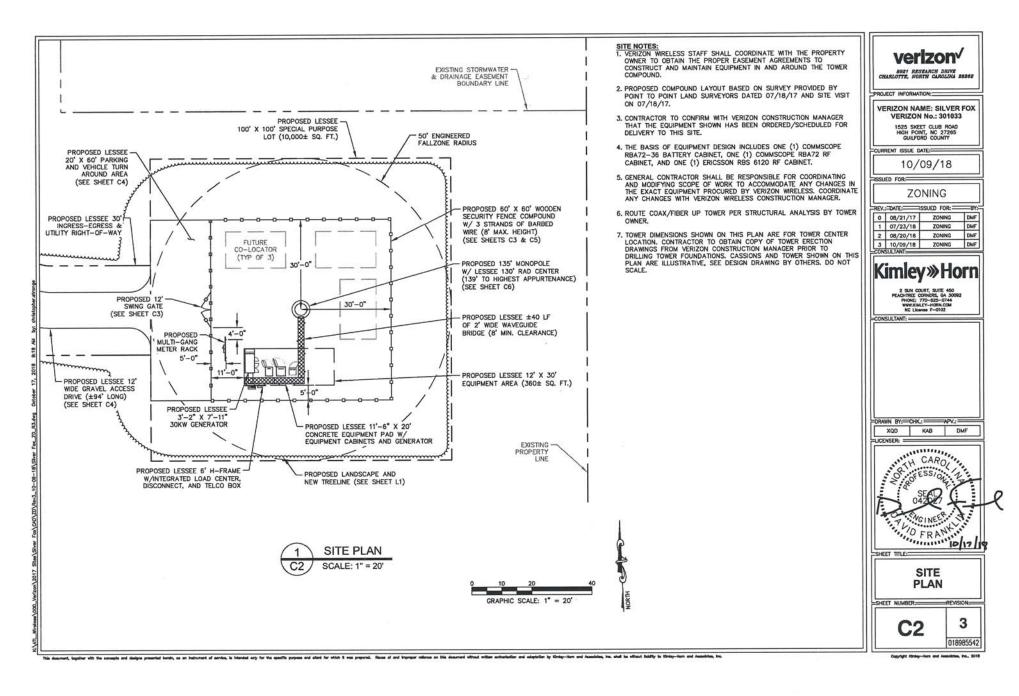


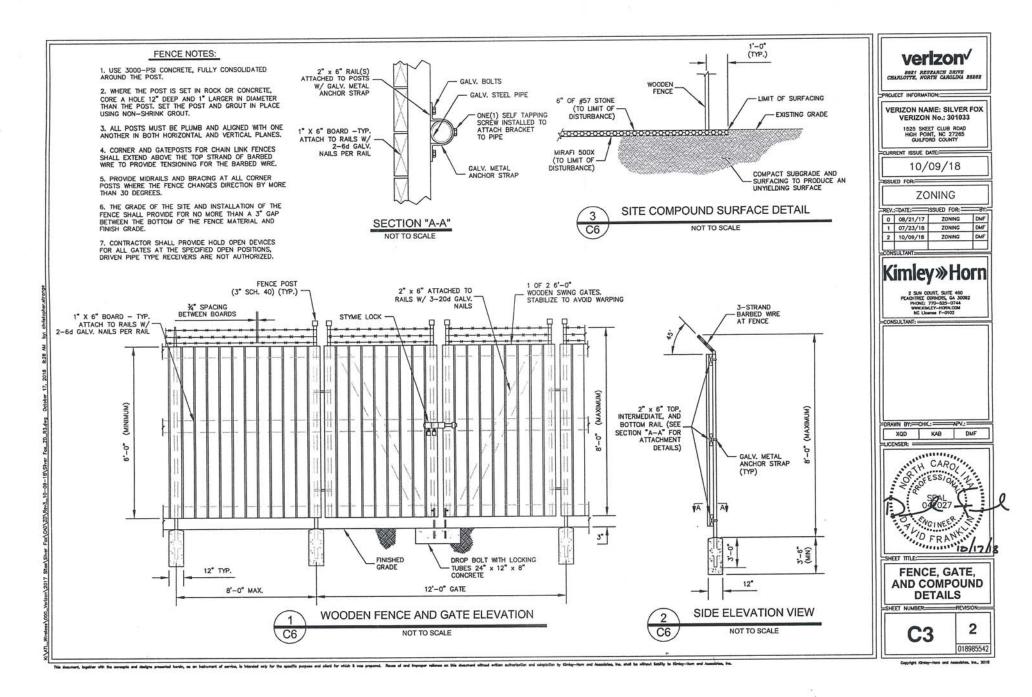


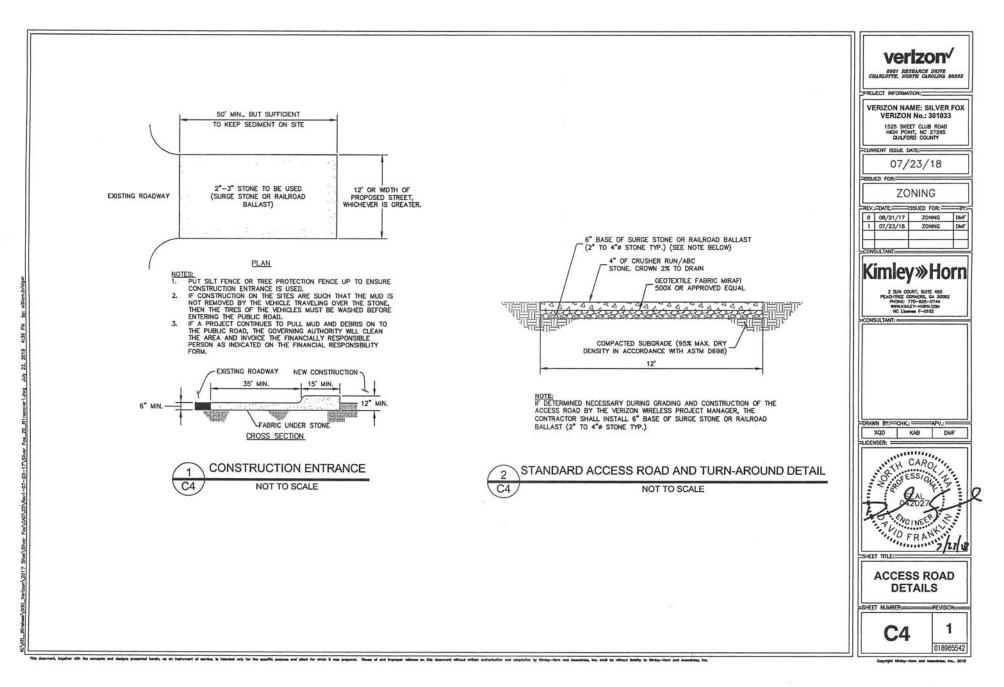


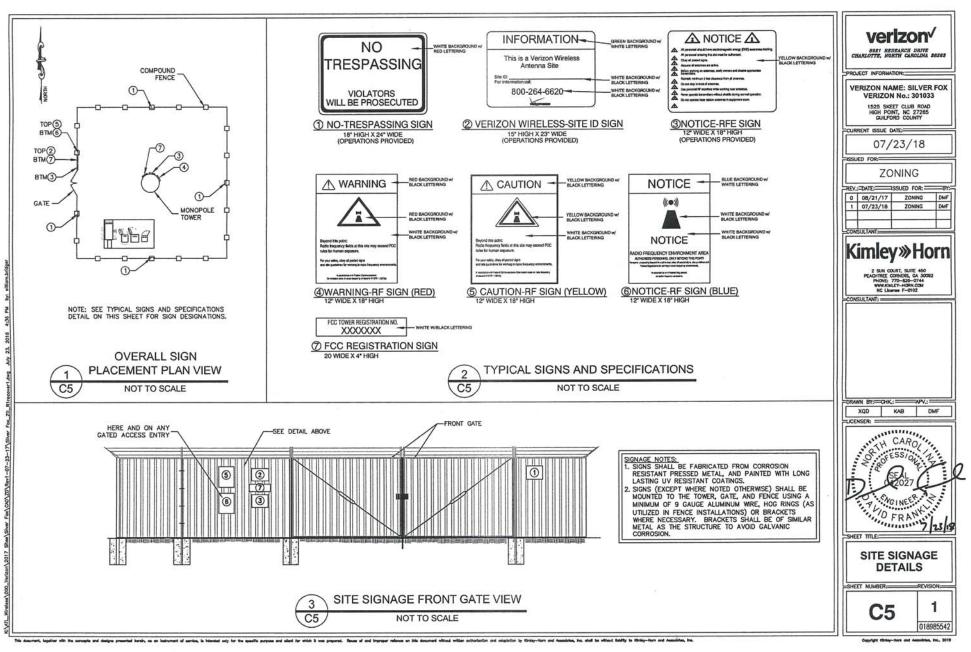


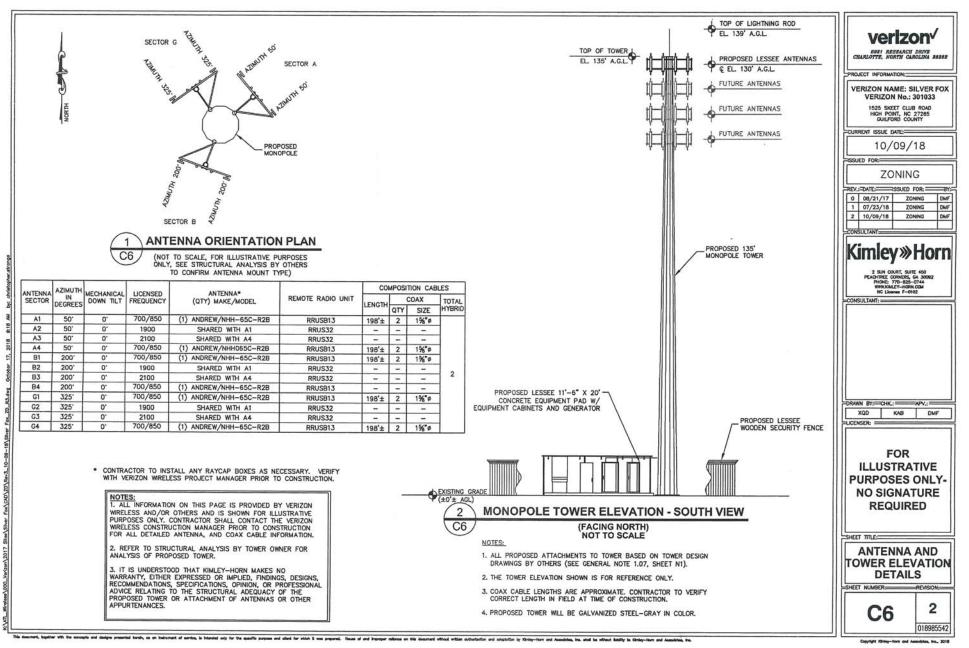
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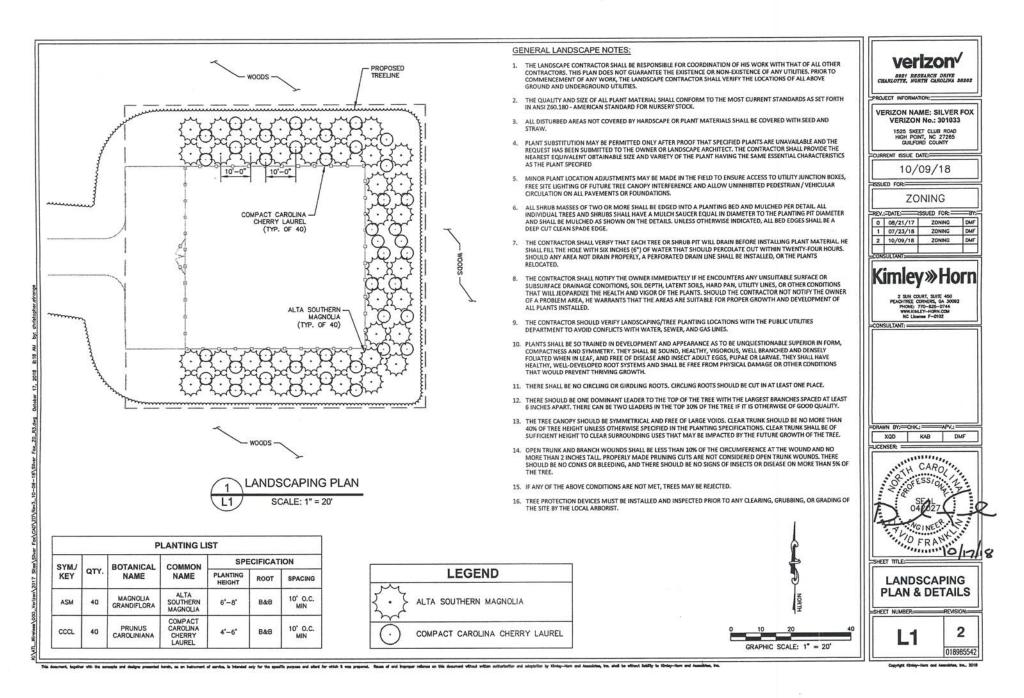


EXHIBIT A-1

October 16, 2018

Mr. Paul Parker 2724 Lakeview Drive Raleigh, NC 27609

RE: 135' Sabre Monopole for Silver Fox, NC

Dear Mr. Parker,

Upon receipt of order, we propose to design and supply the above referenced Sabre monopole for a Basic Wind Speed of 90 mph with no ice and 30 mph + 0.75" ice, Structure Class II, Exposure Category C and Topographic Category 1 in accordance with the Telecommunications Industry Association Standard ANSI/TIA-222-G, "Structural Standard for Antenna Supporting Structures and Antennas".

When designed according to this standard, the wind pressures and steel strength capacities include several safety factors, resulting in an overall minimum safety factor of 25%. Therefore, it is highly unlikely that the monopole will fail structurally in a wind event where the design wind speed is exceeded within the range of the built-in safety factors.

Should the wind speed increase beyond the capacity of the built-in safety factors, to the point of failure of one or more structural elements, the most likely location of the failure would be within the monopole shaft, above the base plate. Assuming that the wind pressure profile is similar to that used to design the monopole, the monopole will buckle at the location of the highest combined stress ratio within the monopole shaft. This is likely to result in the portion of the monopole above leaning over and remaining in a permanently deformed condition. *Please note that this letter only applies to the above referenced monopole designed and manufactured by Sabre Towers & Poles.* The fall radius for the monopole design described above is less than 50 feet.

Sincerely,

Robert E. Beacom, P.E., S.E. Engineering Supervisor



Sabre Industries

Towers and Poles

Sabre Towers and Poles • 7101 Southbridge Drive • P.O. Box 658 • Sioux City, IA 51102-0658 P: 712-258-6690 F: 712-279-0814 W: www.SabreTowersandPoles.com

EXHIBIT B

Network Operations



Verizon Wireless 8921 Research Drive Charlotte, North Carolina 28262

Phone 704 510-8500

August 28, 2018

Herbert K. Shannon Jr. AICP Senior Planner/Zoning Coordinator Planning and Development Department 211 S Hamilton, Room 316| High Point, NC 27260

> Re: Proposed Verizon Wireless Telecommunications Tower at 1520 Skeet Club Rd, High Point NC 27265 Tax/Pin: 0204401 Verizon Site Name: Silver Fox

Mr. Shannon:

I am providing this Letter to comply with the City of High Point Development Ordinance Chapter 4 (Uses), 4.3.3 Institutional Uses, (3) Wireless Telecommunication Facility (Major and Minor).

Verizon Wireless will offer first right of refusal to the City for purposes of collocation, at least 30 days prior to entering into the first collocation agreement or lease, and will comply with the balance of Paragraph e (3) of the Telecom Ordinance for the City of High Point.

Very truly yours, Michael Haven

Verizon Wireless Manager RE/ Regulatory

EXHIBIT C

CITIZENS INFORMATION MEETING

Date: Wednesday, August 15, 2018 Place: **Bistro** Area Brookdale Skeet Club Assisted Living 1560 Skeet Club Road High Point, N.C. Time: 5:30 p.m. **Topic:** Telecommunications Tower Proposed for 1520 Skeet Club Road, High Point, N.C. Verizon Site - Silver Fox **Presented By:** James L. LaPann, Zoning Specialist Faulk & Foster Real Estate, Inc. on behalf of Verizon Wireless

A. Purpose of the Meeting

At this meeting all interested citizens will be provided with information about the Telecommunication Tower that is proposed to be constructed at 1520 Skeet Club Road. The presenter will answer any questions you may have about the project.

B. General Description of the tower project

This proposed tower will be approximately 400 feet south of Skeet Club Road, in a forested area. The tower is proposed to be constructed as a monopole tower. This will be a single pole with the antennas attached to the top portion. It will extend 135 feet in the air, and it will have a 4' lightning rod attached to the top. Screening will be placed around the antenna arrays to soften any aesthetic impact. At the base of the tower there will be a small enclosure that will surround the base of the tower and the equipment. The area that will be cleared of trees will be approximately 100' x 100', with a 60' x 60' fenced in secure area that will contain the base of the tower and the equipment on a concrete pad (11'6'' x 20'). The base of the tower and the compound will not be visible due to the solid wood 8' tall fence, the evergreen plantings, the existing trees and a large berm that is on the side toward Skeet Club Road. There will be an access road that will use the existing gravel road that intersects with Skeet Club road, and a short access road will be created from that existing road to the proposed tower compound.

C. Benefits of the Tower

This site would be located in an area of very densely placed housing. The dense housing area extends the almost six miles from the center of High Point up to the area called Deep River (east of Oak Hollow Late, at the intersection of Skeet Club Road (Rt. 1541) and Eastchester Drive (Rt. 68). There are three towers that serve this area that are overwhelmed with demand. This proposed tower will "offload LTE" for the towers and broadcast areas: Penny Rd. -3, Thatcher -2, and Oak Springs -2. The proposed tower will add coverage to the area surrounding the proposed tower, as well as substantially increasing the quality of service to the region. In this time where cell phones are often used to request assistance for emergency services like police, fire, or ambulance, the addition of this site will greatly enhance the safety of individuals who live or travel through that region. The FCC states that 70% of 911 calls are made on cell phones. This tower will greatly improve the safety in this region.

D. Attached Information

- 1. City of High Point Conditional Zoning District Citizen Information Meeting Information (2 pages)
- 2. Survey of site
- 3. Drawing C2- Site Plan
- 4. Drawing C3- Fence, gate and Compound Details
- 5. Drawing C6 Antenna and Tower Elevation Details
- E. Contact Information

If you have any questions or comments before or after the meeting, please contact James L. LaPann at <u>jim.lapann@faulkandfoster.com</u> or (518) 791-3740. He will be happy to speak to you.

EXHIBIT D

CITIZENS INFORMATION MEETING REPORT

VERIZON WIRELESS SITE – SILVER FOX

1520 Skeet Club Rd, High Point, N.C.

(a) The date, time, and location of the meeting;

The meeting was held on Wednesday, August 15, 2018 at 5:30 p.m. at the Bistro Area of the Brookdale Skeet Club Assisted Living, 1560 Skeet Club Road, High Point, N.C.

(b) The method and date of notification about the meeting;

The notification was made by the US mail and was sent on July 31, 2018.

(c) A list of <u>landowners</u> notified about the meeting;

The landowners notified were the land owners listed on the attached mailing list that was provided by the Senior Planner for the City of High Point on July 30, 2018.

(d) A list of meeting attendees;

The only person who attended the meeting was Jeffrey Patton, the land owner of the parcel where the tower will be located.

(e) If the meeting was conducted as a series of telephone calls;

No, it was conducted in person.

(f) The description of the <u>development</u> proposal presented to the attendees; and

There were no attendees so therefore nothing was presented.

(g) A summary of attendee comments, ideas, and suggestions from citizens to be incorporated into the <u>development</u> proposal.

Changes from a previous citizens information meeting that were included in this proposal are:

- 1. Movement of the tower location away from the adjoining parcel of land where a children's day care is located.
- 2. A reduction in the height of the tower
- 3. A reduction in the engineered fall zone of the proposed tower.
- 4. Addition of a sheathing to reduce the aesthetic impact of the tower.

EXHIBIT E



October 9, 2018

Verizon Wireless 8921 Research Drive Charlotte, North Carolina 28262

Attention: Mr. Michael Haven

Reference: Tower Location Change Silver Fox - 139 Foot Monopole Tower Verizon Location Code - 301033 Verizon Project Code - 20141083208 High Point, North Carolina S&ME Project No. 1243-18-001 Phase 015

Dear Mr. Haven:

This letter addresses the change in location of the Verizon Silver Fox tower. On October 2, 2018, Mr. Jim LaPann with Faulk & Foster emailed Ms. Leira Douthat with S&ME regarding the new tower location. The City of High Point has requested a letter indicating the *Report of Geotechnical Exploration* dated May 2, 2018 by S&ME is still applicable to the new location. Included in the email was a set of construction drawings for the tower, prepared by Kimley Horn and dated August 22, 2018.

The tower center has moved approximately 25 feet to the southwest of the location explored on April 20, 2018. The new location is still 1520 Skeet Club Road in High Point, North Carolina, however; the new latitude and longitude is 36.036583, -79.981622. The tower will now be a 139 foot monopole, including the lightning rod. Previously, the tower was a 149 foot monopole, including the lightning rod. A utility building will also be located within the tower compound. We anticipate the utility building will be supported by shallow spread foundations or a mat foundation.

Based on our understanding of the local geology and the relatively short distance to which the tower center has been relocated, S&ME expects relatively similar soil and partially weathered rock will be encountered and the design parameters discussed in our May 2, 2018 report should still apply.

The owner should understand there is the potential the subsurface conditions could change and it is recommended an S&ME geotechnical professional be present at the site during drilling or excavation of the foundation to compare the excavated soil with the soil encountered during the subsurface exploration. If the soil encountered differs from that discussed in the report, the construction should stop until the soil is re-evaluated and the foundation redesigned, if necessary.

S&ME, Inc. is pleased to submit letter regarding the Silver Fox Tower site in High Point, North Carolina. Our services were performed in general accordance with our Work Authorization No. VZW-2018-005, dated March 21, 2018, and as authorized through issuance of Purchase Order No. NCAR441585, dated April 11, 2018. This letter



Tower Location Change Silver Fox - 139 Foot Monopole Tower Verizon Location Code - 301033 Verizon Project Code - 20141083208 High Point, North Carolina S&ME Project No. 1243-18-001 Phase 015

describes our understanding of the project based on the provided information, the subsurface conditions encountered near the tower location, and discusses the application of our conclusions and recommendations to the new tower location. Please contact us with questions regarding this letter or if we may be of further assistance.

Sincerely,

S&ME, Inc.

Daniel R. Boles, P.E. Geotechnical Group Leader Registered, North Carolina 025719

DRB/JHC:drb

Joshua H. Cole, P.E. Senior Geotechnical Engineer Registered, North Carolina 033565



> PREPARED FOR: Verizon Wireless 8921 Research Drive Charlotte, North Carolina 28262

PREPARED BY: S&ME, Inc. 8646 West Market Street, Suite 105 Greensboro, North Carolina 27409

May 2, 2018



May 2, 2018

Verizon Wireless 8921 Research Drive Charlotte, North Carolina 28262

Attention: Mr. Michael Haven

Reference: Report of Geotechnical Exploration Silver Fox - 149 Foot Monopole Tower Verizon Location Code - 301033 Verizon Project Code - 20141083208 High Point, North Carolina S&ME Project No. 1243-18-001 Phase 015

Dear Mr. Haven:

S&ME, Inc. (S&ME) is pleased to submit the following *Report of Geotechnical Exploration* conducted at the Silver Fox Tower site in High Point, North Carolina. Our services were performed in general accordance with our Work Authorization No. VZW-2018-005, dated March 21, 2018, and as authorized through issuance of Purchase Order No. NCAR441585, dated April 11, 2018. This report describes our understanding of the project and the subsurface conditions encountered and presents our conclusions and recommendations. Please contact us with questions regarding this report or if we may be of further assistance.

Sincerely,

S&ME, Inc.

NALL ANYES

Mark Hayes, E.I. Staff Professional

Senior review by: Joshua H. Cole, P.E.

MH/DB/JC/wj

Daniel R. Boles, P.E. Geotechnical Group Leader^O Registered, North Carolina 025719

10 G.



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Appendices

Figure 1 – Site Location Plan Figure 2 – Test Location Plan Legend to Soil Classification and Symbols Boring Log Laboratory Test Results Important Information about your Geotechnical Engineering Report



1.0 Introduction

1.1 Purpose

The purpose of this geotechnical exploration was to evaluate subsurface conditions at the site pursuant to developing earthwork and foundation design recommendations for the planned construction. This report provides the following:

- A summary of surface topographic features and site conditions,
- A summary of area geologic conditions,
- A summary of subsurface soil stratigraphy encountered in our boring with pertinent available physical properties,
- Our foundation recommendations (shallow and deep) which take into consideration the planned construction and encountered subsurface conditions for the new tower and utility building,
- General excavation recommendations,
- Site preparation recommendations, including recommendations for compacted fills or backfills,
- Recommendations for geotechnical and construction related issues, such as lateral earth pressures,
- A Test Location Plan and Boring Log,
- A summary of our laboratory test procedures conducted and results.

1.2 Project Information

Project information was provided by Verizon to Ms. Leira Douthat of S&ME via email correspondence. The email included the SCIP dated April 25, 2017 by Verizon; a set of preliminary construction drawings approved August 1, 2017 and prepared by Kimley-Horn and Associates; an FAA 1A letter dated July 18, 2017 by Point to Point Land Surveyors, Inc.; and the Right of Entry Agreement dated July 10, 2017.

Based on the provided information, we understand a new 149 foot tall monopole tower, including the four foot lightning rod, is to be constructed at 1520 Skeet Club Road in High Point, North Carolina (latitude 36.036608, longitude -79.981553). A utility building will also be located within the tower compound. We anticipate the utility building will be supported by shallow spread foundations or a mat foundation.

No tower loads have been provided at the time of this report. The tower will likely be constructed at or near existing grade, given the site's topography. Based on our experience with similar towers, we have assumed structural loading at the base of the tower will have the following range of values:

- Maximum Shear 20 to 50 kips
- Maximum Compression Load 20 to 50 kips
- Maximum Overturning Moment 4,000 to 8,000 kip-feet



Please have the project information and assumptions described previously reviewed and confirmed by the appropriate project members. Modifications to our recommendations may be required if the actual conditions vary from the aforementioned information and/or assumptions.

1.3 Scope of Study and Report Format

This geotechnical exploration involved a site reconnaissance, drilling one soil test boring near the tower center, laboratory testing, and engineering analysis. The following sections of this report present discussions of the field exploration, site conditions, and conclusions and recommendations. Following the text of this report, figures, a boring log, and laboratory results are provided in the Appendix.

Our scope of services did not include an environmental assessment for determining the presence or absence of wetlands, or hazardous or toxic materials in the soil, air, surface water, or subsurface water. Any statements in this report or on the boring log regarding odors, colors, and unusual or suspicious items or conditions are strictly for informational purposes.

2.0 Exploration and Testing Programs

2.1 Field Exploration

2.1.1 Test Boring

The subsurface conditions at the site were explored on April 20, 2018 with one test boring, labeled B-1. The boring was located by Mr. Mark Hayes of S&ME using a handheld GPS unit with the coordinates provided. Please refer to Figure 2: Test Location Plan in the Appendix for the approximate boring location.

Based on the methods used to establish the location of the soil test boring, this information should be considered approximate. If more precise location information is required, a professionally licensed surveyor should be retained to obtain that information.

The test boring was advanced by mechanically turning a 2-15/16-inch diameter tricone bit using wash rotary drilling techniques into the soil with a Diedrich D-50 drill rig operated by an S&ME drilling crew. Standard Penetration Testing (SPT) and split spoon sampling was performed in the boring at regular intervals in general accordance with ASTM D1586.

Boring B-1 was advanced to a drilling depth of 49.8 feet below the existing ground surface. Soil samples were stored in glass jars and transported to our laboratory for visual classification by a member of our engineering staff. The boring log includes interpreted strata of soil between sample locations, SPT resistance values, soil consistency, and soil descriptions.

A bulk sample was collected from a depth of 2 to 7 feet.



Water level reading was taken approximately 24 hours after drilling completion. Upon completion of water level reading, the borehole was backfilled with soil cuttings and a borehole closure device.

2.2 Laboratory Testing Program

Selected site soils were returned to our laboratory for moisture content, Atterberg limits, grain size distribution, and standard Proctor moisture-density testing. The laboratory test results are discussed later in this report and individual test reports are included in the Appendix.

3.0 Site, Geologic, and Subsurface Conditions

3.1 Site Conditions

The site is located in a moderately dense wooded area on the property at 1520 Skeet Club Road in High Point, North Carolina (latitude 36.036608, longitude -79.981553). The site slopes gently down from north to south. A drainage feature was present within the west side of the planned lease area.

3.2 Geologic Conditions

The Geologic Map of North Carolina (1985) indicates the site is in the Piedmont Physiographic Province. The soils in the vicinity of the subject site have formed as a mantle of soil that has weathered in-place from the parent bedrock. These soils have variable thicknesses and are referred to as residuum or residual soils. The residuum is typically fine grained and has a higher clay content near the surface because of advanced weathering. The soils generally become less clayey and more sandy with depth because of less advanced weathering.

The boundary between soil and rock is not sharply defined. This transitional zone, termed partially weathered rock (PWR), is normally found overlying the parent bedrock. Partially weathered rock is defined for engineering purposes as residual material that can be penetrated by the drilling equipment and has standard penetration test blow counts in excess of 50 blows for six inches or less of sampler penetration. Weathering is facilitated by fractures, joints, and by the presence of less resistant rock types. Consequently, the profile of the partially weathered rock and hard rock is quite irregular and erratic, even over short horizontal distances. Also, it is not unusual to find lenses and boulders of hard rock and zones of partially weathered rock within the soil mantle, well above the general bedrock level.

3.3 Subsurface Conditions

3.3.1 Surface Cover

The boring encountered approximately 4 inches of topsoil at the ground surface.



3.3.2 Residual Soil

Residual soil was encountered underlying the topsoil to the boring termination depth. Residual soil is weathered in place from the underlying parent bedrock. The residual soil generally consisted of tan, gray, and brown silty sand (Unified Soil Classification of SM) and sandy lean clays (CL). The SPT N-values used to evaluate the coarse grained soils ranged from 8 to 52 blows per foot (bpf), indicating a loose to very dense relative density and a firm to very hard soil consistency.

3.3.3 Partially Weathered Rock and Refusal

PWR is defined for engineering purposes as residual material that can be penetrated with drill rig tooling and has standard penetration resistance values in excess of 50 blows for 6 inches of penetration. PWR was encountered at an approximate depth of 33.5 feet below the ground surface and extending to boring termination. N-values within the PWR ranged from 50 blows for 4 inches of penetration to 50 blows for 2 inches of penetration.

Refusal was not encountered in the boring to the depths explored. Refusal is a designation applied to material that cannot be penetrated by the power of the drilling equipment. Refusal discussed herein is based on conditions impenetrable to the drilling equipment used in this exploration (i.e., Diedrich D-50 track-mounted drill). Refusal conditions with a Diedrich D-50 do not necessarily indicate conditions impenetrable to other equipment.

3.3.4 Subsurface Water

Subsurface water was encountered at a depth of 8.5 feet approximately 24 hours after drilling completion. We note subsurface water levels fluctuate with seasonal and cyclical temperature and precipitation, and may be higher or lower at other times of the year. Additionally, subsurface water can be transported along the soil/rock interface and through joints/fractures in the rock.

3.3.5 General

The previously discussed subsurface description is of a generalized nature to highlight the major subsurface stratification features and material characteristics. The boring log included in the Appendix should be reviewed for specific information at the boring location. The depth and thickness of the subsurface strata indicated on the boring log was estimated based on the drill cuttings and the samples recovered. The transition between materials may be more gradual than indicated on the boring log. Information on actual subsurface conditions exists only at the specific boring location and is relevant to the time the exploration was performed. Variations may occur and should be expected at locations remote from the boring. The stratification lines were used for our analytical purposes and, unless specifically stated otherwise, should not be used as the basis for design or construction cost estimates.

3.4 Laboratory Test Results

Atterberg limits tests on the bulk sample indicated the sample was a low plasticity clay with a liquid limit of 46 percent, a plastic limit of 19 percent, and a plastic index of 27 percent. Grain size testing of bulk sample indicated



the sample was coarse grained with approximately 56 percent finer than the No. 200 size sieve, 44 percent sand, and no gravel. Standard Proctor moisture-density testing on the bulk sample indicated a maximum dry density of 112.0 pounds per cubic foot at an optimum moisture content of 16.2 percent. The laboratory testing indicated the natural moisture content of the samples tested ranged from approximately 13.1 to 25.9 percent.

4.0 Conclusions and Recommendations

4.1 General

The conclusions and recommendations presented in this report are based on the preceding project information, the results of this exploration, and our experience. If it becomes apparent during construction the encountered conditions vary substantially from those presented herein, we should be notified at once. At that time, the conditions can be evaluated and the recommendations of this report modified, in written form, if necessary. Also, if the scope of the project should change significantly from that described herein, we should be notified and these recommendations should be reevaluated.

4.2 Site Assessment

Based on the subsurface data collected during this geotechnical exploration and our experience with similar projects, it is our opinion the site is adaptable for the proposed construction. Below are recommendations for site preparation, excavation conditions, earthwork, and foundation construction.

Boring B-1 indicates generally loose to very dense residual soil present at the site beneath the topsoil layer. Given the subsurface conditions encountered, the proposed tower may be supported using either a mat foundation or a drilled shaft. Excavations in the residual soils can typically be performed using conventional earthwork equipment.

4.3 Earthwork

Existing vegetation, topsoil, rock fragments greater than 6 inches, and other debris should be removed from the proposed construction areas. Once cuts are made to final grade and before the placement of new fill, the exposed subgrade should be evaluated for stability. Proofrolling is a commonly utilized method to evaluate soil subgrades. Proofrolling should be performed using a loaded dump truck or other similar heavy, rubber-tire equipment. Our geotechnical engineer should observe the subgrade and/or proofrolling operations and provide recommendations for treatment if unstable materials are encountered.

Material considered suitable for use as structural soil fill should be clean soil, free of organics, trash, and other deleterious material, and containing no rock fragments greater than 6 inches in any one dimension. Preferably, structural soil fill should have a maximum dry density of 90 pounds per cubic foot (pcf) or greater, a PI of 35 percent or less, and an organic content of less than 5 percent.

Visual and manual classification of the near-surface on-site residuum indicated the material appears to meet the requirements for re-use as new fill. We recommend additional laboratory testing at the time of construction to



confirm the PI value of the on-site residuum is within the recommended range if this material is to be used as structural fill. Material to be used as structural soil fill should be evaluated by S&ME personnel prior to placement.

Structural soil fill should be placed in loose, horizontal lifts not exceeding 8 inches in thickness and should be compacted to at least 98 percent of the soil's maximum dry density per ASTM D698 and within the range of minus 3 percent to plus 3 percent of its optimum moisture content. Moisture conditioning of the fill either by drying or wetting may be required based upon conditions at the time of construction. Each lift should be tested and observed by S&ME geotechnical personnel before placing additional lifts to confirm the contractor's method is capable of achieving the specified compaction and stability. In addition, any areas which have become soft or frozen should be removed or remediated before additional structural soil fill is placed.

Aggregate Base Course (ABC) Stone may also be used as fill at this site. The ABC Stone should conform to the NCDOT *Standard Specifications for Roads and Structures* (January 2012, Section 520 and 1008). The ABC Stone should be placed in loose, horizontal lifts not exceeding 10 inches in thickness. Each lift should be compacted to at least 95 percent of the aggregate's maximum dry density per ASTM D698 (standard method). Each lift should be compacted, tested, and observed by S&ME geotechnical personnel before placing any subsequent lifts.

4.4 Foundation Recommendations

4.4.1 Shallow Foundations

4.4.1.1 <u>Tower</u>

The proposed tower construction may be supported using a mat type spread footing bearing on the medium dense to dense residual soil. We recommend the foundation be designed using an allowable bearing pressure of up to 3,000 pounds per square foot (psf) for bearing in the recommended materials. Assuming the tower mat is designed as a beam on elastic subgrade where soil reaction is modeled using soil-supported springs, a Winkler modulus of 21 pounds per cubic inch may be assumed.

The foundation should bear at least 18 inches below existing grade, or in accordance with local building code, to protect against frost heave. Foundations may be required to be embedded deeper to resist overturning and/or uplift or to bear in the recommended materials. The design embedment depth should be determined by the structural engineer following load development and analysis.

Friction between the dense silty sand residuum and cast-in-place concrete at the mat base may be used to resist shear. An ultimate friction coefficient between the dense silty sand residuum and mass concrete can be assumed to be 0.35.

4.4.1.2 Equipment Shelter

We recommend using an allowable bearing pressure of 3,000 psf for design of the equipment shelter foundations. This allowable bearing pressure assumes the footings will bear on approved excavations bearing on newly placed



compacted fill or residual dense silty sands. Some undercutting and replacement may be required if lower consistency soils are encountered in foundation excavations. Undercut excavations may be backfilled using structural soil fill or aggregate base course stone compacted as recommended herein, or lean concrete. Foundations should be at least 18 inches wide for ease of construction and to protect against punching shear failure. Exterior foundations should bear at least 18 inches below adjacent grade to protect against frost heave.

4.4.2 Deep Foundations

A drilled shaft foundation may be used to support the proposed tower. The tower drilled shaft foundation is primarily designed to resist overturning moments due to lateral loading. One type of analysis that can be performed for lateral loading is using the commercially available computer program LPile. We should be contacted if additional parameters are desired. We have been asked to recommend lateral analysis parameters (presumably LPile or equivalent). The recommended lateral analysis parameters are provided below.

5 to 33.5 feet medium dense to very dense residual silty sand

p-y Curve Type Unit Weight Friction Angle (φ') Soil Modulus, k Ultimate End Bearing Capacity Nominal Side Resistance Sand (Reese) 120 pcf 38 degrees 90 pci 9,000 psf 600 psf

33.5+ feet PWR

p-y Curve Type	Stiff Clay without Free Water						
Unit Weight	120 pcf						
Undrained Shear Strength, cu	5,700 psf						
Soil Strain Factor, ɛ50	0.012						
Ultimate End Bearing Capacity	15,000 psf						
Nominal Side Resistance	1,200 psf						

We recommend the upper zone of soil encountered to a depth of 5 feet below the ground surface be conservatively neglected in the lateral loading analysis due to the potential disturbance of the upper soils during the construction process. Please note the End Bearing Capacity and Nominal Unit Side Resistance values are unfactored. Typically a safety factor of 3.0 is applied to these values to determine allowable capacities.

The foundation analyses are sensitive to the parameters listed above, magnitude of loading, distribution of loading, and allowable movement. We should be given the opportunity to review the foundation design to check whether the above recommendations are consistent and compatible with the actual foundation design.

Additional recommendations for drilled shaft foundation construction are presented below:



- The drilling equipment used in the drilled shaft construction should have the capacity to produce a downward force of at least 35,000 pounds.
- We expect temporary steel casing will be required during the shaft excavation to prevent the sidewalls from caving when advanced through the residual soils. Additionally, if personnel entry is expected, casing should be installed to allow safe worker entry. Casing should be installed in accordance with OSHA guidelines. We are not responsible for job site safety, which is the sole responsibility of the contractor.
- Pumps should be used to maintain less than 2 inches of water in the opened shafts during cleaning, evaluation, and concrete placement. If water is flowing into the hole at a rate greater than the capacity of the pumps, the concrete should be placed by tremie methods.
- The concrete used to fill the drilled shafts should be designed with a slump between 4 and 7 inches to allow the concrete to fill irregularities along the sides of the drilled shafts.
- If the excavations cannot be dewatered by conventional pumps, then concrete placement into the drilled holes should be accomplished by tremie methods. This methodology is especially needed if the shaft is drilled by rotary wash drilling methods. This procedure will reduce contamination of the concrete by mud intrusion.
- If steel casing is used, it should be extracted as the concrete is placed. Care should be taken to prevent concrete from hanging up inside the casing and water/mud intrusion from outside the casing.

5.0 Limitations

This report has been prepared in accordance with generally accepted geotechnical engineering practice for specific application to this project. The conclusions and recommendations contained in this report are based upon applicable standards of our practice in this geographic area at the time this report was prepared. No other representation or warranty either express or implied, is made.

We relied on project information given to us to develop our conclusions and recommendations. If project information described in this report is not accurate, or if it changes during project development, we should be notified of the changes so that we can modify our recommendations based on this additional information if necessary.

Our conclusions and recommendations are based on limited data from a field exploration program. Subsurface conditions can vary widely between explored areas. Some variations may not become evident until construction. If conditions are encountered which appear different than those described in our report, we should be notified. This report should not be construed to represent subsurface conditions for the entire site.

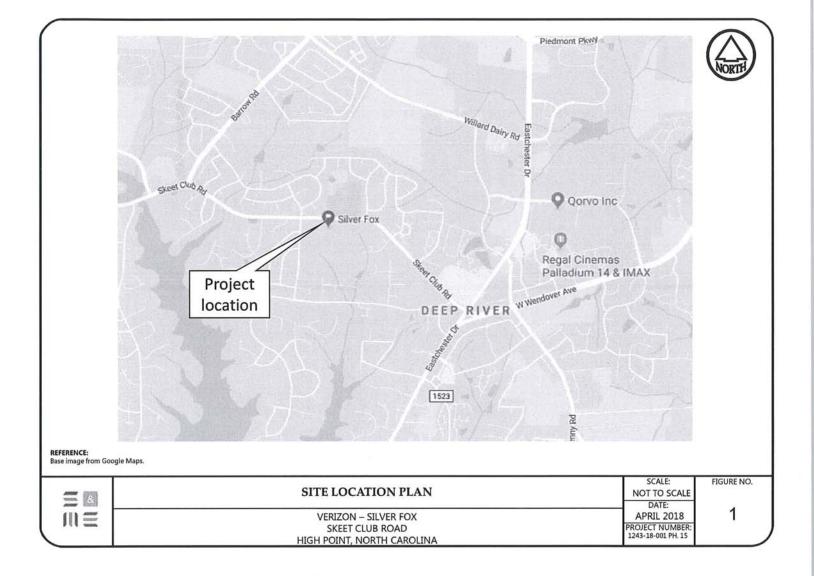
S&ME should be provided the opportunity to review final plans and specifications to confirm our recommendations are properly interpreted and implemented. The recommendations in this report are contingent on S&ME's review of final plans and specifications followed by observation and testing of construction.

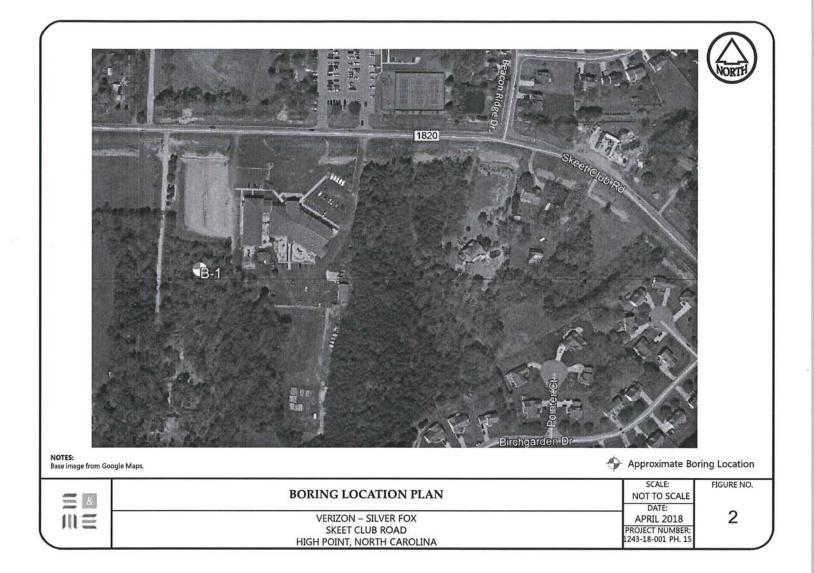
For additional information regarding the use and limitations of this report, please read the Important Information about your Geotechnical Engineering Report document located at the end of this report.

Appendices

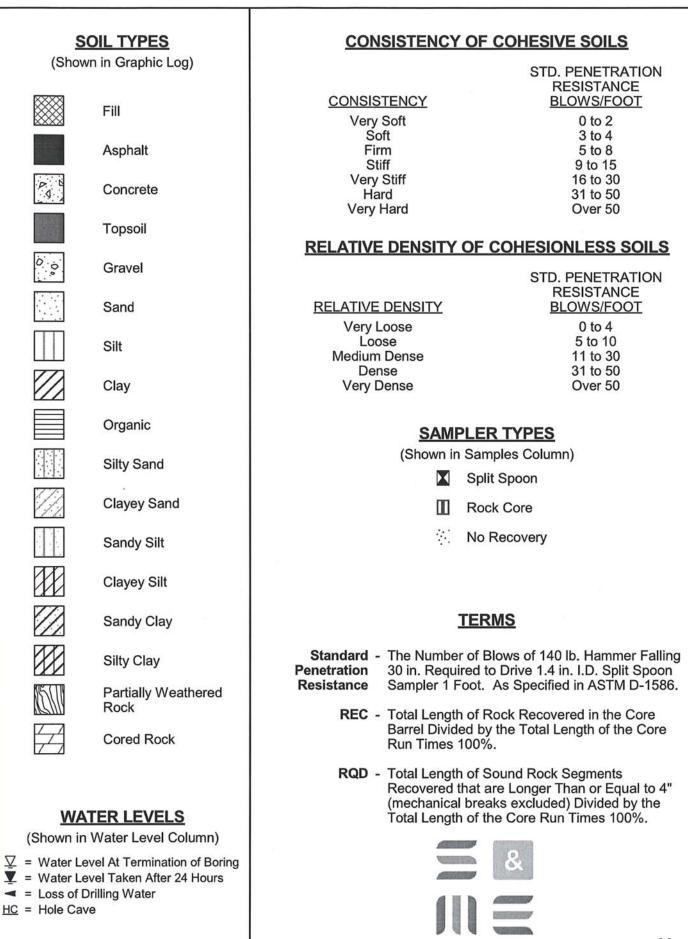
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Figure 1 – Site Location Plan Figure 2 – Test Location Plan Legend to Soil Classification and Symbols Boring Log Laboratory Test Results Important Information about your Geotechnical Engineering Report





LEGEND TO SOIL CLASSIFICATION AND SYMBOLS



PROJECT:	Verizon Silver High Point, North S&ME Project No. 1243-18-0	Carolina						вс	ORIN	IG LOG B	8-1			
CLIENT: Ve	rizon Wireless	ELEVATION: 860.3 ft								rehole backfilled				
DATE DRILL	BORING DEPTH: 49.8	ft							hole closure dev ta from a FAA 1-					
DRILL RIG:	Diedrich D-50	WATER LEVEL: Water	@8	.5 ft @:	24 hrs	6	100			Surveors, Inc.		, ,		
DRILLER: T	J Williams	CAVE-IN DEPTH: 22 ft												
HAMMER TY	YPE: 140-lb Automatic	LOGGED BY: M. Steph	nenso	on			L	AT.:	36.03	86608	LON	G.: -79.9 8	1553	
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DRILLING M	ETHOD: Wash Drill 2-15/16 tricone													
DEPTH (feet) GRAPHIC LOG	MATERIAL DES			WATER LEVEL ELEVATION (feet) SAMPLE NO. SAMPLE TYPE			1st 6in / RUN # / B	2nd 6in / RQD 2nd 6in / RQD 3rd 7n		FIN	/alue (bpf) ● ES % ▲ M LL 50 60 70 80 90		Pocket Pen (tsf)	N VALUE
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	SILTY SAND (SM) - brown RESIDUUM: SANDY CLAY (C	/ CL) - firm, gray,												8
5-	fine to medium, moist SILTY SAND (SM) - dense, g medium, moist, slightly clayey	ray tan, fine to		855.3-	2	X	9	14	18	ò				32
	SILTY SAND (SM) - medium dense, light tan light gray, fine trace mica at 9.5 ft.	dense to very to medium, moist,			3	X	9	11	13	0.		-		24
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S&ME BORING LOG - SPT AND PPQ NM 1243-18-001 VERIZON GEOTECHNICAL SERVICES PHASE 015 VERIZON SILVER FOX.GPJ S&ME 2011, 03, 09.GDT 5/2/18

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PROJECT:	Verizon Silve High Point, North S&ME Project No. 1243-18	Carolina						BC	RIN	IG LOG B	-1		
CLIENT: Ver	rizon Wireless	ELEVATION: 860.3 ft									with auger cutting		
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B-1	3	6.0'-7.5'	39	9.37	201.78	175.30	26.48	16.0%	
B-1	4	8.5'-10.0'	E	9.23	228.41	194.10	34.31	18.6%	
B-1	5	13.5'-15.0'	A	8.91	263.23	223.50	39.73	18.5%	
B-1	6	18.5'-20.0'	42	7.86	268.16	227.30	40.86	18.6%	1
B-1	7	23.5'-25.0'	н	9.32	237.06	206.60	30.46	15.4%	13
B-1	8	28.5'-30.0'	1	7.69	256.72	215.60	41.12	19.8%	
B-1	9	33.5'-35.0'	10	7.62	205.76	180.00	25.76	14.9%	
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3201 Spring Forest Road Raleigh, NC. 27616 Form No. TR-D4318-T89-90 Revision No. 1 Revision Date: 7/26/17

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LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX



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Jimmy Thomasson	4/25/2018	Steve Lacz, PE	4/30/2018
Technician Name	Date	Technical Responsibility	Date

MOISTURE - DENSITY REPORT

Form No. TR-D698-2 Revision No. : 1 Revision Date: 07/25/17

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&ME Project #:	1243-18-001	Pha	se 15	Report Date:	4-25-1	18
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B-1	3	6.0'-7.5'	39	9.37	201.78	175.30	26.48	16.0%	13
B-1	4	8.5'-10.0'	E	9.23	228.41	194.10	34.31	18.6%	
B-1	5	13.5'-15.0'	A	8.91	263.23	223.50	39.73	18.5%	
B-1	6	18.5'-20.0'	42	7.86	268.16	227.30	40.86	18.6%	
B-1	7	23.5'-25.0'	н	9.32	237.06	206.60	30.46	15.4%	
B-1	8	28.5'-30.0'	1	7.69	256.72	215.60	41.12	19.8%	
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	Steve Lacz,			Signature	_	Group Lead	ler	4/30/201	8

Technical Responsibility

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Position

Signature

Date

EXHIBIT F

IMPACT STUDY

Impact Study - Cell Tower 1520 Skeet Club Road High Point, Guilford County, North Carolina 27265

Type Report: Impact Study

Effective Date July 21, 2018



October 15, 2018

James LaPann Faulk & Foster Zoning Specialist 584 Laurel Lane Lancaster, PA 17601

RE: Impact Study for Proposed Telecommunications Facility located at 1520 Skeet Club Road, High Point, Guilford County, North Carolina.

Dear Mr. LaPann:

I have completed a study of the proposed tower. The scope of the assignment is to provide an analysis and conclusions addressing items within my field of expertise associated with the issuance of a special use permit for the proposed development. A special use permit includes five findings of fact, of which two are addressed in this analysis. Details of these items are contained within this report.

The impact study is intended to conform to the Uniform Standards of Professional Appraisal Practice (USPAP), the Code of Professional Ethics and Standards of Professional Appraisal Practice of the Appraisal Institute. The impact study is not an appraisal as it does not report a value of any property; however, the study employs appraisal methodology to reach our conclusions of the impact of the proposed development.

The proposed development is a communication tower to be located on a property owned by Jeffrey and Holly Dee Patton. The siting of the proposed tower is a wooded area in the northern portion of an 8.72 acre site. The subject is improved with a single family dwelling. The location substantially lowers the visual impact of the proposed tower. The abutting land uses include residential dwellings and institutional uses. The surrounding land uses are contributing factors in the development of conclusion regarding the potential impact of the tower.

The conclusions of this study are supported by the data and reasoning set forth in the attached narrative. Your attention is invited to the Assumptions and Limiting Conditions section of this report. The analysts certify that we have no present or contemplated future interest in the proposed development, and that our fee for this assignment is in no way contingent upon the conclusions of this study.

EXTRAORDINARY ASSUMPTIONS AND HYPOTHETICAL CONDITIONS:

Jim LaPann October 18, 2018 Page 2

It is an extraordinary assumption of this report that the proposed development will be constructed as detailed in the report. Further, it is an assumption of the study that the maintenance will occur through a non-exclusive right-of-way that we assume is a legal access.

The content and conclusions of this report are intended for our client and for the specified intended uses only. They are also subject to the assumptions and limiting conditions as well as the specific extraordinary assumption set forth in this report.

It is our opinion that the proposed development will not substantially injure the values of adjacent or abutting properties and that the proposed development is in harmony with the area in which it is to be located.

Thank you for the opportunity to be of service. If you have any questions or comments, please contact our office.

Sincerely yours,

MICHAEL P. BERKOWITZ MPB REAL ESTATE, LLC

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SCOPE OF THE ASSIGNMENT

In accordance with our agreement with the client, this impact study is specific to the needs of our client as part of an application for a special use permit to be considered by City of High Point Officials. Our study and the reporting of our study is in agreement with our client as follows:

The proposed development requires a Special Use Permit. The report is intended to address items relevant to the issuance of a special use permit. The following 'Findings of Fact" was extracted from the High Point Zoning Ordinance.

- C. Special Use Review Standards A special use shall be approved upon a finding that the applicant demonstrates the proposed special use:
 - Will not materially endanger the public health or safety if located where proposed;
 - Complies with all required standards, conditions, and specifications of this Ordinance, including Chapter 4: Uses:
 - Will not substantially injure the value of the abutting land, or the special use is a public necessity;
 - Will be in harmony with the area in which it is to be located; and
 - Is in general conformity with the City's adopted policy guidance.

Page 7 of 39

The scope of the assignment includes research of existing towers in High Point and the surrounding area. The neighborhoods and their surrounding developments are researched to determine whether the proposed development, referred to as the "Silver Fox Site", is consistent with the location of other towers in the area and their impact, if any, on neighborhood development patterns and property values.

The impact study provides an analysis of the surrounding properties. The analysis includes existing improvements, zoning designations and likely development patterns. The existing uses as of the effective date of this report in concert with the market data provided are contributing factors to the conclusions of this study.

Since the initial study, the site plan has altered slightly to accommodate a storm drainage easement on the property. The location of the proposed tower has not significantly changed and the analysis performed based on the previous location is applicable. Further, the

PREMISES OF THE STUDY

Identification of Subject Silver Fox Site

1520 Skeet Club Road High Point, Guilford County, NC 27265

Guilford County Tax Parcel: 0204401

Client, Purpose, and Intended Use and Intended Users

(HP-001A)

James LaPann Faulk & Foster Zoning Specialist 584 Laurel Lane Lancaster, PA 17601 IMPACT STUDY 1520 SKEET CLUB ROAD, HIGH POINT, GUILFORD COUNTY, NC

Page 8 of 39

The client and intended user is Mr. Jim LaPann. The intended use is as an aid to assist High Point officials in rendering a decision regarding the issuance of a special use permit for the proposed development. The study is not intended for any other use or users.

Analyst Michael P. Berkowitz

MPB Real Estate, LLC 1100 Sundance Drive Concord, NC 28027

Property InspectionMichael Berkowitz inspected the property and neighborhood
surrounding the proposed development. Details of
surrounding land uses and observations are provided
throughout the report. I also performed off site visual
inspections of several towers located in and around High
Point. I consider my observations in the context of the market
data. They are a contributing factor to my conclusions.
Photographs of the property were taken during Mr.
Berkowitz's inspection.

Extraordinary Assumptions of Report It is an extraordinary assumption of this report that the improvements as described within this report are compliant with the appropriate ordinance regarding items including but not necessarily limited to setbacks, landscaping, access and other items outside our field of expertise for this assignment. These items will be addressed as part of the application by others with expertise within the respective fields.

Should the extraordinary assumptions not exist, we reserve the right to amend this study.

Effective Date of StudyJuly 21, 2018Date of ReportOctober 18, 2018Type ReportImpact Study ReportStudy Development andIn preparing this study, the analyst:

Reporting Process

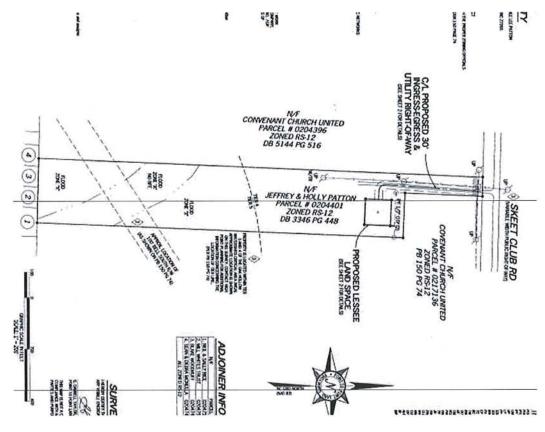
MPB REAL ESTATE, LLC

- Analyzes physical affects, if any, of the proposed construction on properties in the immediate area as well as the neighborhood;
- Reviews plans for the proposed development to determine whether it is in compliance with the High Point Zoning Ordinance with respect to items within my field of expertise;
- Reviews site plan provided by our client with respect to the physical characteristics of the proposed development;
- Researches market data around existing cell towers in the High Point area to determine whether the proposed development is in accordance with the other similar developments in the area.

PROPOSED FACILITY

Tower

Based on information provided to the analyst, the proposed tower will consist of a 135-foot "monopole" communications tower. The height of the tower was reduced 10 feet as part of the revisions to the sight plan. The survey appears to show that access to the proposed tower will be provided by the existing driveway for the property with a small addition off the driveway to access the site. The following site plan shows the proposed site.



SITE PLAN

Site Improvements

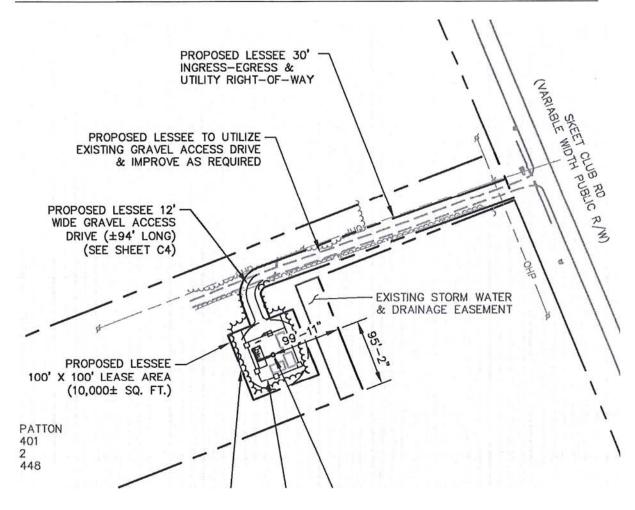
Access

The site improvements include an eight-foot chain link fence with three strands of barbed wire. As we will detail throughout this report, the existing vegetation provides a strong buffer that will obscure a significant portion of the proposed development.

According to the site plan, the access to the site will be via a 30-foot wide utility/access easement extending from Skeet Club Road, which runs along the western boundary of the subject. The following exhibit was extracted from the site plan. Skeet Club Road is a secondary road connecting residential and institutional developments to the commercial node located east of the subject.

IMPACT STUDY 1520 SKEET CLUB ROAD, HIGH POINT, GUILFORD COUNTY, NC

Page 11 of 39



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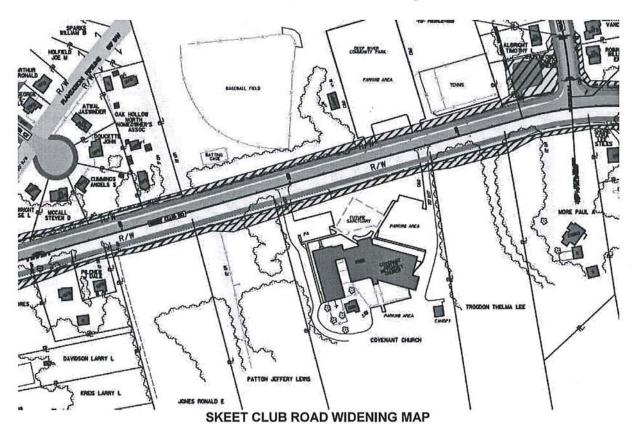
IMPACT STUDY 1520 SKEET CLUB ROAD, HIGH POINT, GUILFORD COUNTY, NC Page 12 of 39



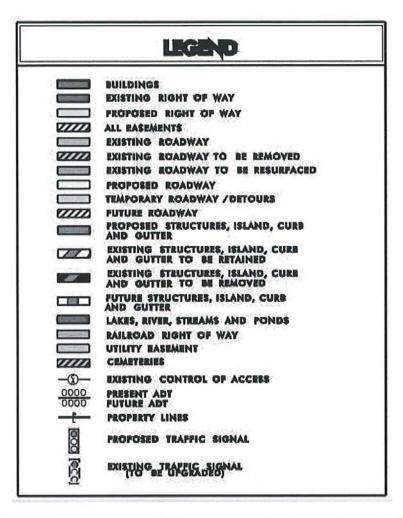
Location

The proposed tower is proposed to be located in a wooded area near the limited frontage of the subject along Skeet Club Road. The location in a wooded area close to Skeet Club Road reduces the visual impact of the tower for residential properties in the area. The most significant developments along this section of Skeet Club Road are Covenant United Methodist Church and Deep River Recreation Center.

The subject has a zoning designation of RS-12, Residential Single Family. In the High Point Zoning Ordinance, we found that this designation is no longer a current designation. The designation is identified as one of the old designation that will transfer to the current R-3 designation. The majority of the properties in the immediate area including the park and church have similar residential designations.



IMPACT STUDY 1520 SKEET CLUB ROAD, HIGH POINT, GUILFORD COUNTY, NC



A significant factor in the analysis is the current road widening project of Skeet Club Road. The 3.4 mile project will widen Skeet Club Road from two to four lanes. The widening of the road in front of the subject property will influence the corridor. Road widenings are performed because of increased traffic and population. The impact of the road widening is more influential on property values as it could impact development patterns along the corridor.

SURROUNDING LAND USES

The proposed development is located on an 8.72-acre tract of land off of Skeet Club Road. To the east of the subject is a commercial node that includes a variety of commercial developments including Walmart, movie theaters and neighborhood oriented retail. To the west, Skeet Club Road extends to and crosses Deep River. The majority of developments along the corridor include institutional uses and tertiary streets extending into residential developments.

The subject abuts two properties owned by the church. The property immediately to the west is improved with a single family dwelling situated on 9.73 acres. The property immediately to the east is the church, which is situated on 25.45 acres. These two properties will have the highest level of visual impact from the proposed development.

To the south of the subject is the Whites Mill Estates subdivision. Several of the properties abut the southern boundary of the parent parcel of the proposed development. The distance and existing trees between the proposed tower and these properties minimizes or eliminates the visual impact of the tower on these properties.

The following exhibit is a topographical map of the proposed site as well as surrounding properties. The proposed tower will be located in a wooded area near Skeet Club Road. The elevations are considered in the analysis of potential visual impact of the tower on abutting properties.



As we will discuss in the following section, the scope of the assignment is to determine whether the proposed development is in accordance with the High Point zoning ordinance regarding the issuance of a special use permit and the development of wireless telecommunications facilities. The items within our field of expertise are detailed in the following section.

HIGH POINT ZONING ORDINANCE

As part of the assignment, I reviewed Chapter 2 Section 4.11 of the High Point Zoning Ordinance regarding the findings of fact associated with the approval or denial of a special use permit. The following was extracted from the ordinance.

- Will not materially endanger the public health or safety if located where proposed;
- Complies with all required standards, conditions, and specifications of this Ordinance, including Chapter 4: Uses;
- Will not substantially injure the value of the abutting land, or the special use is a public necessity;
- Will be in harmony with the area in which it is to be located; and
- 5. Is in general conformity with the City's <u>adopted policy</u> guidance.

Item 1 – This item is outside my field of expertise.

Item 2 – It is our understanding, this will be performed and reviewed by local officials in concert with our client.

Item 3 - The development, if completed as proposed, will not substantially injure the value of abutting land. This is the focal point of the remainder of the study.

Item 4 – The development, if completed as proposed, from an appraiser's perspective is in harmony with the area in which it is to be located. This item is addressed in concert with the analysis from Item 3.

Item 5 – Consistent with Item 2, this item will be addressed by local planning officials in concert with our client.

Based on our review of the ordinance, the remainder of the study focuses on abutting properties and potentially injurious effect of the special use on value. The land uses for the area include single family residential and institutional uses. The following analysis is based on the potential visual impact of the proposed development on the respective abutting



properties. The following aerial provides and overview of the immediate area.

Single Family Residential (South) – The single family residential properties abutting the southern boundary of the subject parcel include some of the residences along Grindstaff Avenue in the White Mills Estates subdivision. We toured this subdivision during our inspection. There are several factors that lead me to conclude that the proposed development will not have a significant visual impact on these properties. These items include:

- The distance to the proposed tower is approximately 1,300 feet from any of these properties.
- The elevations of these properties is significantly lower than the elevation of the proposed tower site.

This in conjunction with the trees indicates that these properties would have little to no visual impact from the proposed tower.

• The subdivision includes street lights that pose a higher level of visual impact than the proposed tower.

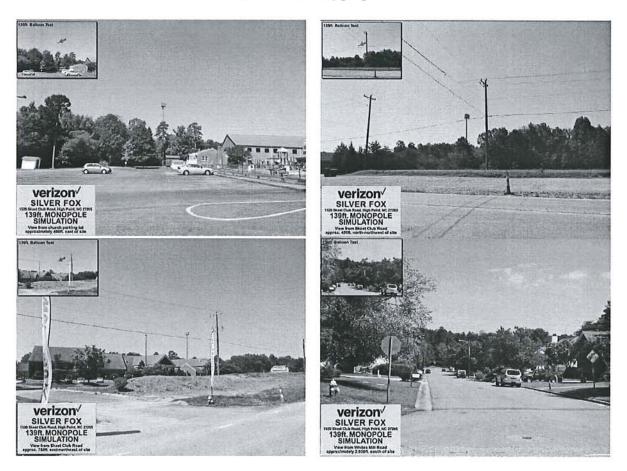
Single Family Residential (West) – As noted earlier, this property is a single family dwelling situated on 9.73 acres. The improvements for this property are nestled amongst the woods on the property. The visual impact on this property is considered nominal for several factors including but not necessarily limited to:

- The existing trees on the subject as well as the adjacent property will obscure the majority of the tower.
- Existing power lines are visible on this property and pose a more significant visual impact on the dwelling than the proposed tower.

Church – To the east of the proposed development is Covenant Church. This property will have the highest level of visibility of the tower based on the location and tree cover. The church property has significant frontage and much of the site is cleared for parking. Again, the widening of Skeet Club Road and the existing power lines and lighting for the parking have similar is not ore visual impact on the property. Institutional uses like a church are common locations for towers as they have minimal impact on the utility provided by the property. Special purpose properties like a church are typically valued by a cost approach that addresses the utility of the improvements for their intended use. The proposed tower will not impact the intended use of Covenant Church.

Deep River Recreation Center – Across Skeet Club Road is the Deep River Recreation Center. The center includes athletic fields, activity rooms, kitchen and gymnasium. The center provides a summer camp as well. As with the church, this property provides comparable utility to many churches and is a special purpose property. As with schools and other institutional uses, cell towers serve to provide cell service in areas of congregation. Again, the visual influence from the existing power lines and road widening are more significant factors with respect a valuation of this property.

The following simulated photographs were provided as a tool to show the visual impact of the proposed tower on adjacent/abutting properties.



Again, we will discuss property values later in the report. We acknowledge that the proposed 135-foot tower will have a height in excess of any structure in the immediate area. The visual impact is minimized by the trees on the subject property as well as the trees on the majority of the adjacent or abutting properties. The proposed tower will be located near Skeet Club Road near other above ground infrastructure.

Summary

The items within our field of expertise focus on the aesthetic impact of the proposed development. This is based on the existing developments as detailed earlier in the study. The existing infrastructure, location and existing trees reduces the visual footprint of the proposed tower.

MARKET RESEARCH

A potential issue associated with the impact of the proposed development is on property values in the immediate vicinity and the neighborhood. We researched towers in High Point and the surrounding area and identify the development patterns around these towers. After analyzing the market data, we compare this information to the proposed site and the physical characteristics and development patterns surrounding the proposed development.

High Point Area Towers During our research, we observed several towers in and around High Point. Most of the towers found were located in established commercial or industrial areas. Towers are classified as comparable for a variety of reasons including but not necessarily limited to:

- Location The proposed location is along a welltraveled road adjacent to Covenant Church. Schools and other institutional properties are common locations for wireless towers.
- Surrounding Developments The surrounding developments along Skeet Club Road include residential and institutional uses.
- Construction Type/Height The proposed tower is a monopole tower with a proposed height of 135 feet.

For the research of towers, we rely on information from antennasearch.com, which we consider a reliable source of information. Our search revealed 84 towers within a four mile radius of the proposed tower. However, most of the towers were under 100 feet, which are not comparable to the subject. We also excluded towers listed that were part of electrical transmission lines, which is inconsistent with the proposed tower. The final filter was the exclusion of towers located on commercial or industrial properties. The following chart provides a summary of the comparable towers studied in the area.

a statistical of	Tower Summary										
Tower Type	Year Built	Address	Tower Height								
Monopole	1997	7814 Woodpark Dr.	216								
Monopole	2015	3929 Johnson Street	165								
Monopole	NA	Off Penny Road	200								
Monopole	NA	1141 Enterprise Drive	193								
Lattice	NA	Off Johnson St	193								



The first tower located on Woodpark Drive provided some data for surrounding properties. The monopole tower is larger than the proposed tower. The surrounding developments are townhomes that provide adequate quantity of data to develop an opinion of whether this tower influences value. The townhomes in the development have varying levels of visual influence from the tower. The sales highlighted in yellow have

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S. Bernie		Castle	e Pines at	Hickswo	od Town	homes	1.21.11	alla Gora
ID	Address	Size SF	Bedrooms	Bathrooms	Sale Price	Price/Sq. Ft.	Sale Date	Deed Book Page
196643	7836 WOODPARK DR	1,264	3	2	\$100,000	\$79.11	7/5/2018	8065-0590
196633	7820 WOODPARK DR	1,266	3	2	\$137,000	\$108.21	7/27/2016	7837-2933
196634	7822 WOODPARK DR	1,266	3	2	\$122,000	\$96.37	5/28/2015	7704-3038
196637	7828 WOODPARK DR	1,266	3	2	\$114,000	\$90.05	8/22/2014	7626-0825
196644	7846 WOODPARK DR	1,264	3	2	\$135,000	\$106.80	10/5/2017	7982-1602
196645	7844 WOODPARK DR	1,152	2	2	\$98,000	\$85.07	7/23/2014	7617-0256
196645	7844 WOODPARK DR	1,152	2	2	\$104,500	\$90.71	8/12/2016	7844-0746
196652	7871 WOODPARK DR	1,264	3	2	\$115,000	\$90.98	10/14/2014	7641-1701
196656	7859 WOODPARK DR	1,264	3	2	\$125,000	\$98.89	4/13/2017	7923-1098
196658	7855 WOODPARK DR	1,264	3	2	\$106,000	\$83.86	5/14/2015	7700-2575

the highest level of visual influence from the tower as the tower is located in view of their front door.

While this market data is for townhomes that inherently have less privacy than detached dwellings, the sales directly across the street from the tower, shown in yellow, do not show any influence from the tower. In fact, the sale across the street is the highest sale found within the past several years. This data provides no evidence of influence on prices paid based on the visual influence from the tower.

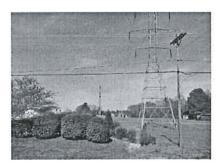




This tower was selected for comparison despite its lattice construction, which poses a higher level of visual impact than the proposed monopole. The tower was constructed in 2015; however, under the premise of a knowledgeable buyer, the sales should reflect the impact of the tower. The only sale with a high level of visual influence is highlighted in yellow.

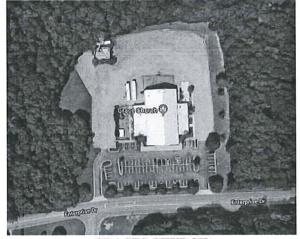
		I State	6.7	Meado	w Creek	West	19.00	den i la		and the second second
ID	Address	Year Built	Size SF	Bedrooms	Bathrooms	Style	Sale Price	Price/SF	Sale Date	Deed Book Page
212515	4374 KELSO DR	2003	3,345	3	2.5	2 Story	\$235,000	\$70.25	3/31/2017	7919-0195
212518	4293 KELSO DR	2005	2,000	4	2.5	2 Story	\$185,500	\$92.75	8/29/2014	7629-0947
212520	4373 KELSO DR	2002	2,695	3	2.5	2 Story	\$190,000	\$70.50	8/22/2016	7847-1010
212524	4512 GARDEN CLUB ST	2003	1,782	3	2	1 Story	\$171,000	\$95.96	11/21/2016	7878-1020
212527	4505 GARDEN CLUB ST	2003	2,651	3	2.5	2 Story	\$167,000	\$63.00	3/24/2015	7685-1156
212534	4464 GARDEN CLUB ST	2003	2,328	4	2.5	2 Story	\$205,000	\$88.06	2/26/2018	8023-2557
212536	4479 GARDEN CLUB ST	2003	2,182	4	2.5	2 Story	\$184,000	\$84.33	5/12/2017	7932-2934
212537	4475 GARDEN CLUB ST	2003	1,798	3	2	1 Story	\$169,000	\$93.99	3/30/2017	7918-0976
212540	4469 GARDEN CLUB ST	2003	2,025	4	2.5	2 Story	\$178,500	\$88.15	8/30/2017	7969-2938
212542	4461 GARDEN CLUB ST	2003	2,248	3	2.5	2 Story	\$170,000	\$75.62	7/21/2014	7616-1308
212545	4453 GARDEN CLUB ST	2004	3,378	5	3	2 Story	\$235,000	\$69.57	8/3/2017	7961-0615
212558	4448 GARDEN CLUB ST	2003	2,506	3	2.5	2 Story	\$222,500	\$88.79	10/20/2017	7987-1012

Despite consideration of adjustments to the data set for a variety of physical and market variances, the single family dwelling with the highest level of visual impact from the tower lies within the range of the data set presented. This analysis indicates that the visual impact of this tower, which is significantly higher than the proposed development, does not substantially impact property values.



The third tower considered in the analysis is adjacent to the Eagle Glen development off Penny Road. However, upon visiting this property, we discovered that there are electrical transmission lines including iron maidens that are in proximity to the tower. Therefore, any analysis of market data could not isolate the influence of the tower.

The last two towers presented in the previous chart were selected as they are located on properties improved with churches. These towers are presented as they are reflective of cell tower developments in the area. While there was no empirical data around these two properties, the fact that the subject presents a similar location is reflective of the



consistency of the proposed development with other cell towers in the area.



TABERNACLE BAPTIST CHURCH

GRACES CHURCH Other Considerations

Other potential impacts to the surrounding area include noise, traffic and lighting. The operation of a cell tower is essentially silent and would not influence the surrounding developments. The additional traffic caused by the proposed development includes two to three trips a month for routine maintenance. Any increases in traffic are considered nominal and does not impact the abutting properties.

Conclusions

The market activity around cell towers indicates that the visual impact of the proposed tower is not reflected in the prices paid. In other words, if I were to appraise any of the abutting properties of the proposed development, the market data does not support and adjustments for the visual impact of the tower. Therefore, I conclude that the proposed development of a cell tower will not substantially injure the value of abutting properties.

Subject Neighborhood In addition to the market activity for existing towers, we also consider the surrounding developments for the subject. The question posed for this study is "would the development of the telecommunications support structure warrant a downward neighborhood properties?" The information from the previous analysis indicates that there is no empirical evidence to support a quantitative adjustment. The following analysis is

MPB REAL ESTATE, LLC

intended to determine whether a qualitative adjustment is warranted.

When considering qualitative adjustments in an appraisal, the appraiser must consider all factors that could contribute to an adjustment. The aesthetics and location of the proposed development as well as the existing developments are a factor in developing our opinion. The factors considered in developing our opinion include but are not necessarily limited to:

- The market has not shown a detrimental impact on development patterns in areas with visual influence from a tower.
- The existing infrastructure includes above ground electrical transmission lines that pose a higher level of visual impact than the proposed tower despite its proposed height.
- The proposed development is located within the existing tree line that will screen a significant portion of the tower in all directions.
- Many of the adjacent or abutting properties include visual impact from existing infrastructure.
- The church represents the most intensive development in the area and generates higher levels of traffic and aesthetic influence than the proposed tower.
- The road widening project will pose a significantly higher level of influence on development patterns along the corridor than the proposed tower.

A previous study performed in Matthews, North Carolina indicates that institutional properties and properties surrounding these properties are common sites for cell tower development. Previous experience reflects the demand for additional capacity for areas that attract large numbers of users. The proposed tower is adjacent to a church that is consistent with the development of numerous towers throughout North Carolina including High Point.

All of these factors would contribute to the aesthetic appeal and a hypothetical valuation of properties in the neighborhood. The multitude of factors would indicate that multicollinearity for aesthetics exists along the Skeet Club Road corridor. Multicollinearity arises when multiple items correlate with each other. The multiple factors can cause a distortion of the impact of any of the factors individually without consideration for all of the factors that contribute to the common issue.

The following provides a summary of our conclusions regarding the items for a special use permit. We reiterate these items for reference purposes.

- Will not materially endanger the public health or safety if located where proposed;
- Complies with all required standards, conditions, and specifications of this Ordinance, including Chapter 4: Uses;
- Will not substantially injure the value of the abutting land, or the special use is a public necessity;
- Will be in harmony with the area in which it is to be located; and
- Is in general conformity with the City's <u>adopted policy</u> <u>guidance</u>.

Item 3

Cell towers are essentially silent and the existing traffic for the school would indicate that the incremental increase in traffic would not interfere with the use and enjoyment of properties in the area. Based on the market data presented and the siting of the proposed tower, we conclude that the proposed tower will not substantially diminish or impair properties in the neighborhood. The proposed location is consistent with other developments in the High Point area. Item 4

We conclude that the proposed development will be in harmony with the area. The development of the area includes above ground infrastructure, which is typical for well-traveled corridors. Further, the adjacent church includes lighting and other improvements that pose a significantly higher impact on surrounding properties than the proposed tower.

Again, based on studies performed in areas with similar development patterns, we conclude that the proposed development will not substantially injure the value of abutting land. In fact, the market shows no empirical evidence that an adjustment for a cell tower is warranted or credible.

Therefore, it is our opinion that the proposed development in accordance with the proposed conditions will not substantially injure the value of neighborhood properties. We recognize that the aesthetics of the area certainly contribute to the overall appeal, the proposed development has siting and existing buffers to minimize to the extent possible the visual impact of the proposed tower. It is my opinion that the proposed development will not substantially detract from the aesthetics or character of the neighborhood because of its location and existing above ground infrastructure and location adjacent to a site improved with a church.

Miller

Michael P. Berkowitz

ADDENDA

Page 30 of 39

Certifications

(HP-001A)

CERTIFICATION OF THE ANALYST

I, Michael P. Berkowitz, certify that, to the best of my knowledge and belief,

- 1. The statements of fact contained in this report are true and correct.
- 2. The reported analyses, opinions, and conclusions are limited only by the reported assumptions and limiting conditions and are my personal, impartial, and unbiased professional analyses, opinions, and conclusions.
- 3. I have no present or prospective interest in the property that is the subject of this report and no personal interest with respect to the parties involved.
- 4. I have performed no services, as an appraiser or in any other capacity, regarding the property that is the subject of this report within the three-year period immediately preceding acceptance of this assignment.
- 5. I have no bias with respect to the property that is the subject of this report or to the parties involved with this assignment.
- 6. My engagement in this assignment was not contingent upon developing or reporting predetermined results.
- 7. My compensation for completing this assignment is not contingent upon the development or reporting of a predetermined value or direction in value that favors the cause of the client, the amount of the value opinion, the attainment of a stipulated result, or the occurrence of a subsequent event directly related to the intended use of this study.
- 8. The reported analyses, opinions, and conclusions were developed, and this report has been prepared, in conformity with the *Uniform Standards of Professional Appraisal Practice*.
- 9. The use of this report is subject to the requirements of the Appraisal Institute relating to review by its duly authorized representatives.
- 10. I have made a personal inspection of the property that is the subject of this report.
- 11. No one provided significant real property appraisal assistance to the person(s) signing this certification other than those individuals having signed the attached report.



NUPNA

Michael P. Berkowitz (NC State Certified General Real Estate Appraiser #A6169) (SC State Certified General Real Estate Appraiser #CG6277)

October 18, 2018

Date

(Rev: 06/18/12)

(HP-001A)

ASSUMPTIONS AND LIMITING CONDITIONS

ASSUMPTIONS AND LIMITING CONDITIONS

Limit of Liability

The liability of MPB REAL ESTATE, LLC and employees is limited to the client only and to the fee actually received by our firm. Further, there is no accountability, obligation, or liability to any third party. If this report is placed in the hands of anyone other than client, the client shall make such party aware of all limiting conditions and assumptions of the assignment and related discussions. Further, client will forever indemnify and hold MPB REAL ESTATE, LLC, its officers, and employees harmless from any claims by third parties related in any way to the appraisal or study which is the subject of the report. Third parties shall include limited partners of client if client is a partnership and stockholders of client if client is a corporation, and all lenders, tenants, past owners, successors, assigns, transferees, and spouses of client. MPB REAL ESTATE, LLC will not be responsible for any costs incurred to discover or correct any deficiencies of any type present in the property, physically, financially, and/or legally.

Copies, Distribution, Use of Report

Possession of this report or any copy of this report does not carry with it the right of publication, nor may it be used for other than its intended use; the physical report remains the property of MPB REAL ESTATE, LLC for the use of the client, the fee being for the analytical services only.

The bylaws and regulations of the Appraisal Institute require each member and candidate to control the use and distribution of each report signed by such member or candidate; except, however, the client may distribute copies of this report in its entirety to such third parties as he may select; however, selected portions of this report shall not be given to third parties without the prior written consent of the signatories of this report. Neither all nor any part of this report shall be disseminated to the general public by the use of advertising media, public relations, news, sales or other media for public communication without the prior written consent of MPB REAL ESTATE, LLC.

Confidentiality

This report is to be used only in its entirety and no part is to be used without the whole report. All conclusions and opinions concerning the analysis as set forth in the report were prepared by MPB REAL ESTATE, LLC whose signatures appear on the report. No change of any item in the report shall be made by anyone other than MPB REAL ESTATE, LLC. MPB REAL ESTATE, LLC shall have no responsibility if any such unauthorized change is made.

MPB REAL ESTATE, LLC may not divulge the material contents of the report, analytical findings or conclusions, or give a copy of the report to anyone other than the client or his designee as specified in writing except as may be required by the Appraisal Institute as they may request in confidence for ethics enforcement, or by a court of law or body with the power of subpoena.

Trade Secrets

This report was obtained from MPB REAL ESTATE, LLC and consists of "trade secrets and commercial or financial information" which is privileged and confidential and exempted from disclosure under 5 U.S.C. 552 (b) (4) of the Uniform Commercial Code. MPB REAL ESTATE, LLC shall be notified of any request to reproduce this report in whole or in part.

Information Used

No responsibility is assumed for accuracy of information furnished by or work of others, the client, his designee, or public records. We are not liable for such information or the work of subcontractors. The comparable data relied upon in this report has been confirmed with one or more parties familiar with the transaction or from affidavit or other sources thought reasonable; all are considered appropriate for inclusion to the best of our factual judgment and knowledge. An impractical and uneconomic expenditure of time would be required in attempting to furnish unimpeachable verification in all instances, particularly as to engineering and market-related information. It is suggested that the client consider independent verification as a prerequisite to any transaction involving sale, lease, or other significant commitment of funds for the subject property.

Financial Information

Our value opinion(s) have been based on unaudited financials, and other data provided to us by management and/or owners. If these reports are found to be inaccurate, we reserve the right to revise our value opinion(s). It is noted we are depending on these accounting statements as being accurate and our interpretation of these statements as being accurate as well. If these assumptions later prove to be false, we reserve the right to amend our opinions of value.

Testimony, Consultation, Completion of Contract for Report Services

The contract for report, consultation, or analytical service is fulfilled and the total fee payable upon completion of the report, unless otherwise specified. MPB REAL ESTATE, LLC or those assisting in preparation of the report will not be asked or required to give testimony in court or hearing because of having made the report, in full or in part, nor engage in post report consultation with client or third parties except under separate and special arrangement and at an additional fee. If testimony or deposition is required because of any subpoena, the client shall be responsible for any additional time, fees, and charges, regardless of issuing party.

Exhibits

The illustrations and maps in this report are included to assist the reader in visualizing the property and are not necessarily to scale. Various photographs, if any, are included for the same purpose as of the date of the photographs. Site plans are not surveys unless so designated.

Legal, Engineering, Financial, Structural or Mechanical Nature, Hidden Components, Soil No responsibility is assumed for matters legal in character or nature, nor matters of survey, nor of any architectural, structural, mechanical, or engineering nature. No opinion is rendered as to the title, which is presumed to be good and marketable. The property is appraised as if free and clear, unless otherwise stated in particular parts of the report. The legal description is assumed to be correct as used in this report as furnished by the client, his designee, or as derived by MPB REAL ESTATE, LLC.

MPB REAL ESTATE, LLC has inspected as far as possible, by observation, the land and the improvements; however, it was not possible to personally observe conditions beneath the soil, or hidden structural, mechanical or other components, and MPB REAL ESTATE, LLC shall not be responsible for defects in the property which may be related.

The report is based on there being no hidden, unapparent, or apparent conditions of the property site, subsoil or structures or toxic materials which would render it more or less valuable. No

responsibility is assumed for any such conditions or for any expertise or engineering to discover them. All mechanical components are assumed to be in operable condition and status standard for properties of the subject type. Conditions of heating, cooling, ventilation, electrical, and plumbing equipment are considered to be commensurate with the condition of the balance of the improvements unless otherwise stated. We are not experts in this area, and it is recommended, if appropriate, the client obtain an inspection of this equipment by a qualified professional.

If MPB REAL ESTATE, LLC has not been supplied with a termite inspection, survey or occupancy permit, no responsibility or representation is assumed or made for any costs associated with obtaining same or for any deficiencies discovered before or after they are obtained. No representation or warranties are made concerning obtaining the above mentioned items.

MPB REAL ESTATE, LLC assumes no responsibility for any costs or consequences arising due to the need, or the lack of need, for flood hazard insurance. An agent for The Federal Flood Insurance Program should be contacted to determine the actual need for Flood Hazard Insurance.

Legality of Use

The report is based on the premise that there is full compliance with all applicable federal, state and local environmental regulations and laws unless otherwise stated in the report; further, that all applicable zoning, building and use regulations, and restrictions of all types have been complied with unless otherwise stated in the report. Further, it is assumed that all required licenses, consents, permits, or other legislative or administrative authority, local, state, federal and/or private entity or organization have been or may be obtained or renewed for any use considered in the value estimate.

Component Values

The distribution of the total valuation in this report between land and improvements applies only under the existing program of utilization. The separate valuations for land and building must not be used in conjunction with any other report and are invalid if so used.

Auxiliary and Related Studies

No environmental or impact studies, special market study or analysis, highest and best use analysis, study or feasibility study has been required or made unless otherwise specified in an agreement for services or in the report.

Dollar Values, Purchasing Power

The market value estimated and the costs used are as of the date of the estimate of value, unless otherwise indicated. All dollar amounts are based on the purchasing power and price of the dollar as of the date of the value estimate.

Inclusions

Furnishings and equipment or personal property or business operations, except as specifically indicated and typically considered as a part of real estate, have been disregarded with only the real estate being considered in the value estimate, unless otherwise stated. In some property types, business and real estate interests and values are combined.

Proposed Improvements, Special Value

Improvements proposed, if any, onsite or offsite, as well as any repairs required, are considered for purposes of this report to be completed in a timely, good and workmanlike manner, according to information submitted and/or considered by MPB REAL ESTATE, LLC. In cases of proposed construction, the report is subject to change upon inspection of property after construction is completed.

Value Change, Dynamic Market, Influences, Alteration of Estimate

The estimated value, which is defined in the report, is subject to change with market changes over time. Value is highly related to exposure, time, promotional effort, terms, motivation, and conditions surrounding the offering. The value estimate considers the productivity and relative attractiveness of the property physically and economically in the marketplace.

In cases of reports involving the capitalization of income benefits, the estimate of market value or investment value or value in use is a reflection of such benefits and MPB REAL ESTATE, LLC' interpretation of income and yields and other factors derived from general and specific client and market information. Such estimates are as of the date of the estimate of value; thus, they are subject to change as the market and value is naturally dynamic.

The "estimate of market value" in the report is not based in whole or in part upon the race, color, or national origin of the present owners or occupants of the properties in the vicinity of the property appraised.

Report and Value Estimate

Report and value estimate are subject to change if physical or legal entity or financing differ from that envisioned in this report.

Management of the Property

It is assumed that the property which is the subject of this report will be under prudent and competent ownership and management.

Hazardous Materials

Unless otherwise stated in this report, the existence of hazardous substances, including without limitation, asbestos, polychlorinated biphenyls, petroleum leakage, or agricultural chemicals, which may or may not be present on the property, or other environmental conditions, were not called to the attention of nor did MPB REAL ESTATE, LLC become aware of such during their inspection. MPB REAL ESTATE, LLC had no knowledge of the existence of such materials on or in the property unless otherwise stated. MPB REAL ESTATE, LLC, however, is not qualified to test such substances or conditions. If the presence of such substances such as asbestos, urea formaldehyde foam insulation, or other hazardous substances or environmental conditions, may affect the value of the property, the value estimate is predicated on the assumption that there is no such condition on or in the property or in the proximity that it would cause a loss in value. No responsibility is assumed for any such conditions, nor for any expertise or engineering knowledge required to discover them.

Soil and Subsoil Conditions

Unless otherwise stated in this report, MPB REAL ESTATE, LLC does not warrant the soil or subsoil conditions for toxic or hazardous waste materials. Where any suspected materials might

be present, we have indicated in the report; however, MPB REAL ESTATE, LLC are not experts in this field and recommend appropriate engineering studies to monitor the presence or absence of these materials.

Americans with Disabilities Act (ADA)

"MPB REAL ESTATE, LLC has not made a specific compliance survey and analysis of this property to determine whether or not it is in conformity with the various detailed requirements of the Americans with Disabilities Act (ADA), which became effective January 26, 1992. It is possible that a compliance survey of the property together with a detailed analysis of the requirements of the ADA could reveal that the property is not in compliance with one or more of the requirements of the Act. If so, this fact could have a negative effect upon the value of the property. Since MPB REAL ESTATE, LLC has no direct evidence relating to this issue, we did not consider possible non-compliance with the requirements of ADA in estimating the value of the property."

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Qualifications of the Analyst

(HP-001A)

MPB REAL ESTATE, LLC

QUALIFICATIONS OF THE ANALYST

Michael P. Berkowitz MPB Real Estate, LLC, Inc. 1430 South Mint Street, Suite 102 Charlotte, North Carolina 28203 (704) 334-4686 FAX (704) 334-2759

EDUCATION AND CREDENTIALS

 Duke University Major: Economics 1985-1989

Central Piedmont Community College

- R-1 -
- R-2 -
- R-3 -
- G-1 -
- Bob Ipock and Associates G-2 - Ac
- G-3 -

Introduction to Real Estate Appraisal, 2002 Valuation Principles and Procedures, 2002 Applied Residential Property Valuation, 2002 Introduction to Income Property Appraisal, 2003

Advanced Income Capitalization Procedures, 2003 Applied Property Income Valuation 2004

Appraisal Institute520Highest and Best Use and Market Analysis, 2004SeminarRates, Multipliers and Ratios 2005530Advanced Sales Comparison and Cost Approaches 2006SeminarApartment Appraisal, Concepts & Applications 2009SeminarAppraising Distresses Commercial Real Estate 2009SeminarAppraising Convenience Stores 2011SeminarAnalyzing Operating Expenses 2011

AFFILIATIONS AND ACTIVITIES

 Association Memberships North Carolina State Certified General Real Estate Appraiser, October 2006, Certificate No. A6169

RELATED EXPERIENCE

- Provided real estate consulting services for a variety of clients including real estate brokers, property owners and financial planners
- Performed financial feasibility studies for multiple property types including golf communities, and renovation projects.
- Developed plan for self-contained communities.
- Race Track expertise

APPRAISAL EXPERIENCE

A partial list of types of properties appraised include: Retail Properties, Single and Multi-Tenant, Proposed and Existing Office Single and Multi-Tenant Proposed and Existing Mixed-Use Properties, Proposed and Existing Industrial Properties, Warehouse, Flex and Manufacturing Vacant Land Condemnation C-Stores Race Tracks

CLIENTELE

Bank of America Transylvania County **Cabarrus** County Mecklenburg County City of Statesville NC Department of Transportation Henry County, GA Town of Loudon, NH First Citizens Bank City of Charlotte City of Concord Union County BB & T Aegon USA Realty Advisors Sun Trust Bank First Charter Bank **Regions Bank** Charlotte Housing Authority Alliance Bank and Trust **Broadway Bank Duke Energy Corporation** Jim R. Funderburk, PLLC Hamilton, Fay, Moon, Stephens, Steele & Martin Senator Marshall A. Rauch Perry, Bundy, Plyler & Long, LLP Robinson, Bradshaw & Hinson CSX Real Property Baucom, Clayton, Burton, Morgan & Wood, PA City of Mount Holly Our Towns Habitat for Humanity Parker, Poe, Adams & Bernstein, LLP Central Carolina Bank Southern Community Bank and Trust

EXHIBIT G













ALC: NOT THE REAL PROPERTY OF

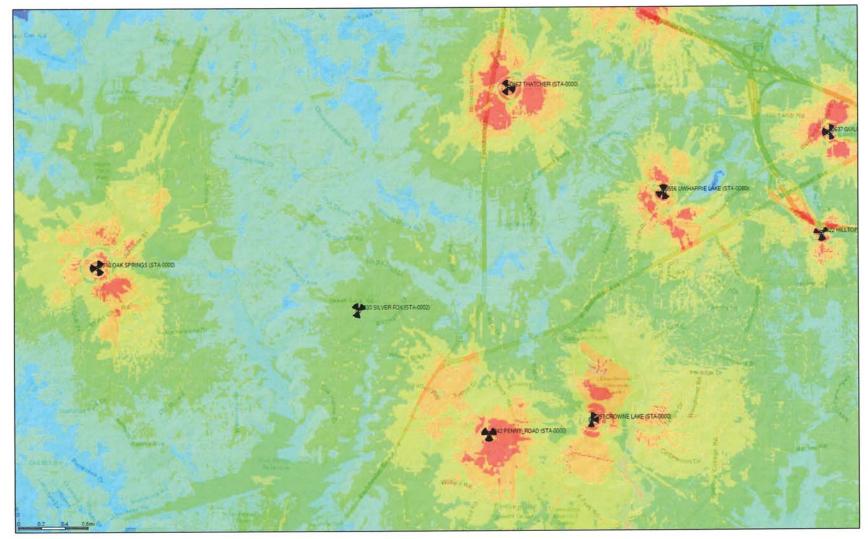
139ft. Balloon Test

122

EXHIBIT H

RSRP - Before

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RSRP - After

