

**ENVIRONMENTAL ASSESSMENT
PROPOSED 420-FOOT
SELF-SUPPORT COMMUNICATIONS TOWER**

**5086 HIGHWAY 704 EAST
SANDY RIDGE, NC
(STOKES COUNTY)**

DATE ISSUED: MARCH 4, 2010

Prepared for:

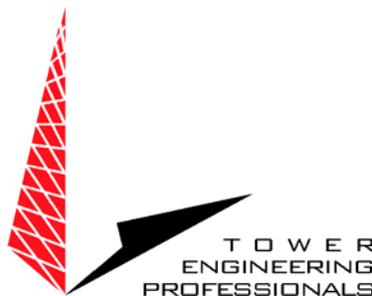


**North Carolina Highway Patrol – Department of Crime and Public Safety
3318 Garner Road
Raleigh, NC 27610**

Prepared by:

George T. Swearingen, III

Of



**3703 Junction Boulevard
Raleigh, NC 27603-5263**



March 4, 2010

Ms. Tanya Luter
VIPER Project Manager
North Carolina State Highway Patrol
3318 Garner Road
Raleigh, NC 27610

**Re: Draft PSIC NEPA - Environmental Assessment
Sandy Ridge 420-ft AGL Emergency Services Communications Tower Facility
5086 NC Highway 704 E Sandy Ridge, NC 27046 (Stokes County)
NCHP Site # 1335**

Dear Ms. Luter,

Tower Engineering Professionals, Inc., (TEP) has completed a National Environmental Policy Act (NEPA)-Environmental Assessment (EA) for the proposed Sandy Ridge Communications Tower facility. The NEPA study was required due to the potential for Federal funding of the proposed facility from grant funds issued by the Public Safety Interoperable Communications (PSIC) Grant Program, administered by the National Telecommunications and Information Administration (NTIA) of the U.S. Department of Commerce. The NEPA-EA was completed for the purpose of addressing the potential environmental impacts associated with the proposed facility. As a condition of the PSIC Grant Program, PSIC grantees must comply with all relevant Federal legislation.

In addition to the PSIC screening, any new tower construction is required to undergo FCC NEPA Land Use screening in accordance with 47 CFR Section 1.1307 (a) (1) through (8), to determine whether any of the listed FCC special interest items would be significantly affected if a tower structure and/or antenna and associated equipment control cabinets were constructed at the proposed site location.

The findings of this PSIC NEPA - Environmental Assessment and FCC NEPA Compliance Checklist are based on the project location, project type and construction plans provided by the North Carolina Highway Patrol – Department of Crime Control and Public Safety. Should the project location, project type and/or construction plans be altered, reevaluation of this project will be required. If there are any questions regarding the information presented in this report, please contact the TEP office at 919-661-6351.

Sincerely,

A handwritten signature in black ink, appearing to read "George T. Swearingen, III", with a stylized flourish at the end.

Tower Engineering Professionals, Inc.
George T. Swearingen, III
Environmental Manager



EXECUTIVE SUMMARY

This executive summary is provided for convenience only and should not substitute review of the complete report, including all figures and appendices.

The Proposed Action is identified as the Sandy Ridge Emergency Services Communication Tower facility. The Sandy Ridge tower is classified as a “New” Transmission and Receiving Site, which consists of the proposed construction of a 420-ft Self-support lattice tower that will be enclosed within a 60-ft x 60-ft fenced compound. The total area of ground-disturbance is anticipated to be less than approximately 0.083-acres. The area surrounding the proposed Sandy Ridge Communications Tower facility consists of low density residential, agricultural, municipal, and commercial land uses. The proposed facility is located south of the community of Sandy Ridge in rural northeastern Stokes County. The parent property is primarily occupied by the Northeast Stokes Volunteer Fire Department. Figure 1 depicts a vicinity map of the area and Appendix A depicts photographs of the site and surrounding area.

The proposed Sandy Ridge Tower site is located at N 36° 29' 37.974” Latitude and W 80° 06' 2.526” Longitude (NAD83), southwest of a portion of NC Hwy 704 E, south of the Community of Sandy Ridge, within northeastern Stokes County, NC as shown on the USGS Ayersville, NC 7.5 Minute Topographic Map depicted in Figure 2. The proposed Communications Tower compound will include: one 11'-6” x 19'-0” equipment shelter and a stand alone 40-80 kW Diesel powered emergency generator will also be installed on a 4'-0” x 8'-0” concrete pad, as shown in Figure 3.

The proposed Sandy Ridge Tower site will be located on an approximately 7.23-acre property, reportedly owned by the Northeast Stokes Volunteer Fire Department. The proposed access easement will utilize a portion of an existing concrete drive that currently provides access to the property. The access will proceed southwest from NC Hwy 704 for approximately 180-ft before turning southeast and continuing for approximately 60-ft on the existing paved surface. The proposed access easement will then continue southeast for an additional 60-ft through a maintained grass lawn, along the proposed 12-ft. wide gravel access drive, before reaching the proposed 60-ft x 60-ft fenced tower compound located within an undeveloped forested portion of the parent property to the southwest of Hwy 704 East. Figure 4 shows the aerial photograph of the project site location.

The proposed Sandy Ridge VIPER Tower site will allow for the following:

- Increased RF coverage area for Federal, State, and local emergency first responders connected through the VIPER network
- Updated equipment to support new frequencies to improve and expand voice and data coverage
- Facilitate reliable interoperable communications among first responder organizations
- Enhanced security and facility control



The Proposed Action will not involve any of the unusual risks or impacts to sensitive areas identified in Section 4 that would require a site-specific EA. Therefore, the Proposed Action warrants the issuance of a FONSI to address those actions for which no significant impact has been determined.

In addition to the required PSIC NEPA Screening an FCC NEPA Checklist is also required for any proposed FCC licensed facility. The FCC NEPA Screening Checklist for the proposed tower facility was completed on May 4, 2009. Based on the results of the FCC NEPA Screening Checklist, no further environmental investigation (NEPA-Environmental Assessment) was warranted. The Public Safety Interoperable Communications (PSIC) Grant Program screening any new tower construction is required to undergo FCC NEPA Land Use screening in accordance with 47 CFR Section 1.1307(a)(1) through (8), to determine whether any of the listed FCC special interest items would be significantly affected if a tower structure and/or antenna and associated equipment control cabinets were constructed at the proposed site location.

Based on the information obtained for this PSIC-Environmental Assessment (EA) and the FCC NEPA Screening Checklist the proposed Sandy Ridge Communication Tower Facility does not appear to pose an adverse effect on any of the NEPA environmental categories. No evidence that would suggest National Environmental Policy Act (NEPA) environmental concerns exist for the Proposed Action. No FCC special interest items were identified that would require a site-specific EA to be prepared.

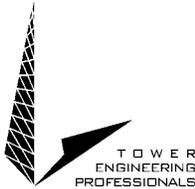


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SECTION 1 – INTRODUCTION

This Environmental Assessment provides a review of the expected environmental impacts associated with the proposed construction of the Sandy Ridge VIPER Communications Tower that will be constructed with grant funds by the Public Safety Interoperable Communications (PSIC) Grant Program, administered by the National Telecommunications and Information Administration (NTIA) of the U.S. Department of Commerce. (The PSIC Grant Program is to assist state, local, tribal and nongovernmental agencies in developing communications as they leverage newly available spectrum in the 800 megahertz (MHz) band.) As a condition of the PSIC Grant Program, PSIC grantees must comply with all relevant Federal legislation, including the National Environmental Policy Act (NEPA).

The NTIA specified that PSIC-funding must be used for projects that would improve communications in areas at high risk for natural disasters and in urban and metropolitan areas at high risk for threats of terrorism, and should include pre-positioning or securing of interoperable communications for immediate deployment during emergencies or major disasters. Investments that received PSIC funding range from large-scale infrastructure build-outs, such as tower construction, to governance-related initiatives.

Stokes County is located in the northwestern portion of North Carolina, north of Forsyth County, which contains the City of Winston-Salem, and northwest of Guilford County, which contains the Greensboro-High Point metropolitan areas. As of 2008, the population of Stokes County was 46,171. The county has a total area of 451.84 square miles. According to the U.S. Census Bureau, Winston-Salem is the fourth largest city in North Carolina and as of 2008, has a population of 468,124. In addition, the Greensboro-High Point area is the third most populated city in North Carolina with a population of 709,751, as estimated by the U.S. Census Bureau in 2008.

The Community of Sandy Ridge, NC has a population estimated at 2,033 according to the 2008 census. Sandy Ridge is located in the northeastern portion of Stokes County, in the Snow Creek Township, approximately 3-miles south of the Virginia border. The proposed Sandy Ridge Tower site is located at N 36° 29' 37.974" Latitude and W 80° 06' 2.526" Longitude (NAD83) at an elevation of 1083.70-ft AMSL (NAVD 88) as shown on the USGS Ayersville, NC 7.5 Minute Topographic Map which is depicted in Figure 2. The Sandy Ridge tower site will consist of a proposed 420-ft AGL Self-support Communications tower, enclosed within a 60-ft x 60-ft fenced tower compound. The proposed fenced compound will include: one 11'-6" x 19'-0" equipment shelter and a stand alone 80 kW Diesel emergency generator mounted on a 4'-0" x 8'-0" concrete foundation pad, as shown in Figure 3.

The proposed Sandy Ridge tower site will be located on an approximately 7.23-acre property, identified by the Stokes County Tax Assessors Office as PIN Number 607004602516. The property is reportedly owned by the Northeast Stokes Volunteer Fire Department. The proposed access drive will utilize an existing concrete drive that currently provides access to the property,



proceeding southwest from NC Hwy 704 for approximately 180-ft until turning southeast and continuing for approximately 60-ft. The proposed access easement will then proceed southeast through a maintained grass lawn for approximately 60-ft, before reaching the proposed 60-ft x 60-ft fenced tower compound located within an undeveloped forested portion of the parent property. Figure 4 depicts the aerial photograph of the project site location.

Purpose and Need

The purpose of the proposed action is to meet current radio frequency coverage needs of the North Carolina Highway Patrol in Stokes County and surrounding areas. The PSIC Grant Program will be utilized to improve interoperability and reliability in the nation's communications and information systems infrastructure by assisting public safety agencies in performing the following:

- Conducting Statewide or regional planning and coordination
- Supporting the design and engineering of interoperable emergency communications systems
- Supporting the acquisition or deployment of interoperable communications equipment or systems
- Establishing and implementing a strategic technology reserve to pre-position or secure interoperable communications in advance so they may be immediately deployed in an emergency or major disaster

SECTION 2 – PROPOSED ACTION

The Proposed Action is to construct a new transmitting and receiving Communications tower facility to accomplish the following goals:

- Increased coverage area for federal, state, and local emergency first responders connected through the VIPER Network
- Facilitate reliable interoperable communications among first responders
- Enhanced security and facility control
- Use cost-effective measures

Project Information

The Proposed Action is identified as the Sandy Ridge Communications tower. The Sandy Ridge tower is a proposed communications tower facility which consists of the construction of a 420-ft Self-support lattice Communications tower enclosed within a 60-ft x 60-ft fenced compound and associated equipment. The total proposed area of construction including the access drive is anticipated to be approximately 0.083-acres. The area surrounding the proposed Sandy Ridge Communications tower facility consists of low density residential, agricultural, municipal, and



commercial land uses in a rural residential community in northeastern Stokes County, North Carolina. The parent property is primarily occupied by the Northeast Stokes Volunteer Fire Department. Figure 1 includes a vicinity map of the area. Photographs of the site are included in Appendix A.

The proposed Sandy Ridge tower site is located at N 36° 29' 37.974" Latitude and W 80° 06' 2.526" Longitude (NAD83), southwest of a portion of NC Hwy 704 E, in the Community of Sandy Ridge, within Stokes County, NC as shown on the USGS Ayersville, NC 7.5 Minute Topographic Map depicted in Figure 2. The proposed Communications tower compound will include: one 11'-6" x 19'-0" equipment shelter and a stand alone 40-80 kW Diesel powered emergency generator which will be mounted on a 4'-0" x 8'-0" concrete pad, as shown in Figure 3.

The proposed Sandy Ridge tower site will be located on an approximately 7.23-acre property, reportedly owned by the Northeast Stokes Volunteer Fire Department. The proposed access drive will utilize an existing concrete drive that currently provides access to the existing improvements on the property. The access drive will proceed southwest from NC Hwy 704 for approximately 180-ft until turning southeast and continuing for approximately 60-ft before continuing southeast through a maintained grass lawn for an additional 60-ft, along the proposed 12-ft wide gravel access drive, before reaching the proposed 60-ft x 60-ft fenced tower compound, located within an undeveloped forested portion of the parent property to the southwest of Hwy 704 East. Figure 4 depicts the Aerial photograph of the project site location.

The proposed Sandy Ridge Tower site will allow for the following:

- Increased Radio Frequency coverage area for Federal, State, and local emergency first responders connected through the VIPER Network
- Facilitate reliable interoperable communications among first responders
- Enhanced security and facility control

Alternatives

Several project alternatives, including the Proposed Action, were investigated during the facility selection process as discussed below:

Proposed Action – Sandy Ridge Tower Site (Preferred Action)

Due to the elevation of the proposed Sandy Ridge Tower site, and the topographic features of the surrounding area, the proposed site would provide radio frequency coverage for northeastern Stokes County as well as increased interoperability network opportunities for similar sites in the region. This proposed Communications tower site will provide reliable interoperable communications and a significantly increased coverage area for emergency first responders.



The elevation and topography of the proposed tower site provides a natural height advantage, resulting in enhanced coverage with the proposed 420-ft Self-support tower. This site is strategically located, expanding the coverage radius for Stokes County as well as portions of the surrounding counties within North Carolina.

No Action

Under the No Action Alternative, the current emergency services radio system coverage requirements will not be met causing serious limitation on emergency response, funding for interoperable communications and information systems infrastructure would not be released, and infrastructure would neither be developed nor enhanced. Ongoing maintenance activities would continue using the current funding sources; however, no new activities would be funded with PSIC grant funding. It is assumed that the project proposed for PSIC grant funding would not go forward with any alternate funding sources.

The No Action Alternative will serve as the baseline for assessing the impacts of the other alternatives. The No Action Alternative would not address the needs for the North Carolina Highway Patrol.

Alternatives Considered But Not Carried Forward

Two alternative sites were examined to determine the range of reasonable alternatives to implement the Proposed Action. Both of the alternate sites examined were located within the 7.23-acre parent property, reportedly owned by the Northeast Stokes Volunteer Fire Department. The first Communications tower and facility alternative was located on the southwestern most portion of the aforementioned property, within an existing maintained grass field. The existing topography and lower elevation of the southwestern portion of the property would require the proposed tower to be increased in height in order to provide the same coverage area as the tower associated with the Proposed Action. In addition, the aforementioned location would also require a significantly larger proposed area of construction to account for the increased length of the access and utilities easement that would be required to access the tower compound. Also, due to the proximity to the existing helipad location, the first alternative site was disregarded as a reasonable alternative to the Proposed Action.

The second alternative site considered was located on the northern portion of the aforementioned 7.23-acre property, among an existing stand of young pine and hardwood trees that serve as the property border. This alternative was located approximately 100-ft northeast of an existing groundwater well and buried propane tank. The proposed area of construction for this alternative would be greater than that of the Proposed Action in order to account for the increased access drive needed to access the tower compound. In addition, this alternative is located at a lower elevation than the Proposed Action and would also require an extension in tower height in order to provide the same coverage area.



SECTION 3 – EXISTING ENVIRONMENT

This section describes the existing environment that may be affected by implementing the Proposed Action and serves as a baseline from which to identify and evaluate potential impacts. The description of the affected environment focuses on those resource areas that are potentially subject to impacts resulting from the Proposed Action. Aspects of the existing environment described in this section focus on eleven major resource areas that encompass the natural, human and built environments.

The eleven resource areas are noise, air quality, geology and soils, water resources, biological resources, historic and cultural, land use, aesthetic and visual, infrastructure, socioeconomic resources, and human health and safety.

Resource 1 – Noise

The traditional definition of noise is “unwanted or disturbing sound.” Under the Clean Air Act, the EPA administrator established the Office of Noise Abatement and Control (ONAC) to carry out investigations and studies on noise and its effect on the public health and welfare. Noise pollution adversely affects the lives of millions of people. Studies have shown that there are direct links between noise and health. Problems related to noise include stress related illnesses, high blood pressure, speech interference, hearing loss, sleep disruption, and lost productivity.

Existing Conditions

The EPA has determined that noise levels in excess of a 24-hour average maximum exposure level of 70 decibels will cause measurable hearing loss over a lifetime. Likewise, levels of 55 decibels outdoors and 45 decibels indoors have been determined not to cause activity interference and annoyance. These levels of noise are considered those which will permit spoken conversation and other activities such as sleeping, working and recreation, which are part of the daily human condition (US EPA, 1974).

The project site exhibits typical traffic patterns associated with a municipal setting. In addition, the parent property is occupied by the Northeast Stokes Volunteer Fire Department. The existing Fire Department facility consists of four bays, currently used to house associated fire trucks, emergency response vehicles and equipment. The facility also includes an exterior siren, used to alert nearby volunteers when help is needed for responding to a fire or other emergency. Also, a helipad is located on the southwestern portion of the parent property, which is used by the Fire Department to transport emergency response victims via helicopter to nearby hospitals and care facilities. The average decibel level associated with a fire truck or ambulance siren is estimated to be 120 dB (HP, 2010). Most exterior-mounted Volunteer Fire department sirens operate at a recommended 70 dB level. Additionally, the average decibel level associated with close proximity to a helicopter is estimated to vary from 120 dB to 160 dB (Dangerous Decibels, 2001).



Resource 2 – Air Quality

The Clean Air Act, which was last amended in 1990, requires the EPA to set National Ambient Air Quality Standards (40 CFR part 50) for pollutants considered harmful to public health and the environment. The Clean Air Act established two types of national air quality standards. Primary standards set limits to protect public health, including the health of "sensitive" populations such as asthmatics, children, and the elderly. Secondary standards set limits to protect public welfare, including protection against decreased visibility, damage to animals, crops, vegetation, and buildings. The EPA Office of Air Quality Planning and Standards (OAQPS) has set National Ambient Air Quality Standards for six principal pollutants, which are called "criteria" pollutants. The six criteria air pollutants include carbon monoxide (CO), nitrogen dioxide (NO₂), ozone (O₃), sulfur dioxide (SO₂), particulate matter (PM₁₀ and PM_{2.5}), and lead (Pb). PM₁₀ and PM_{2.5} are acronyms for particulate matter consisting of particles smaller than 10 and 2.5 micrometers, respectively.

Existing Conditions

Air Quality Index is a numeric score, from 1 to 100, based on annual reports by the Environmental Protection Agency (EPA). A higher score indicates a higher Air Quality Index. The number of ozone alert days is used as an indicator of air quality, as are the amounts of seven pollutants including particulates, carbon monoxide, sulfur dioxide, lead and volatile organic chemicals. According to the U.S. EPA, updated October 2007, the Air Quality Index for Stokes County, NC is 31. Stokes County is one of several counties in the Triad Early Action Compact (EAC) area under the 1997 8-hour ozone standard. The counties in the Triad EAC were designated attainment April 15, 2008. According to the Division of Air Quality, based on 2002 emissions inventories, Stokes County has 21017.08 tons per year of NO_x and the county has 95367.89 tons per year of VOC (anthropogenic only). The large source of NO_x emissions are reportedly from the Duke Energy Belews Creek facility, which is located approximately 14.78-miles to the south-southeast, and has reduced and will continue to reduce the NO_x emissions to about 31 tons per day under the NO_x SIP call (Scorecard, 2005).

The EPA is proposing to designate 13 Early Action Compact (EAC) Areas (including Stokes County, NC) as attainment for the 8-hour ozone National Ambient Air Quality Standard (NAAQS). The EAC areas agreed to reduce ground-level ozone pollution earlier than the Clean Air Act (CAA) required and to demonstrate attainment with the 8-hour ozone NAAQS by December 31, 2007. The States in which these 13 areas are located have submitted quality-assured data indicating that the areas are in attainment for the 8-hour ozone NAAQS based on ambient air monitoring data from 2005, 2006, and 2007.

Resource 3 – Geology and Soils

Geological resources are described as geology, soils, and topography that characterize an area. The geology of an area refers specifically to the surface and near-surface materials of the earth



and to how those materials were formed. Those resources are typically described in terms of regional or local geology, including mineral resources, earth materials, soil resources and topography.

Descriptions of these resource areas include bedrock or sediment type and structure, unique geologic features, depositional or erosion environment, and age or history. Mineral resources include usable geological materials that have some economic or academic value. Soil resources include the unconsolidated, terrestrial materials overlying the bedrock or parent material and are typically described by their complex type, slope and physical characteristics. Topography consists of the geomorphic characteristics of the land, including the change in vertical elevation of the earth's surface across a given area, the relationship with adjacent land features and geographic location (USCG, 2006).

The soil resources of an area, which include prime and unique farmlands, are Federally protected and regulated. The Farmland Protection Policy Act (FPPA) (P.L.97-98, 7 U.S.C. §4201) of 1981 is intended to minimize the impact Federal programs have on the unnecessary and irreversible conversion of farmland to nonagricultural uses. It assures that, to the extent possible, Federal programs are administered to be compatible with state, local units of government, and private programs and policies to protect farmland.

Farmland subject to FPPA requirements does not have to be currently used for cropland and can include forested land, pastureland, cropland, or other land, but not water or urban built-up land. In order for land to be converted to nonagricultural uses under a Federally funded project, a Farmland Conversion Impact Rating form must be completed and reviewed by the local county Natural Resources Conservation Service (NRCS).

Existing Conditions

The Proposed Action is located on the geologic formation identified as Mica Schist, which is described as garnet, staurolite, kyanite or sillimanite occurring locally; lenses and layers of quartz schist, micaceous quartzite, calc-silicate rock, biotite gneiss, amphibolite and phyllite, as shown in Figure 6. Soils at the Sandy Ridge tower site are listed as Fairview-Poplar Forest complex (FpB2), 2 to 8 percent slopes, which consists of: moderately eroded, well drained soils, formed along interfluves and summits, as shown in Figure 7. These soils are convex and found along summits. Slopes range from 2 to 8 percent (Department of Agriculture).

This area of Stokes County lies in the Carolina Slate Belt Ecoregion, within the Piedmont Physiographic Province of North Carolina. The northeast-southwest trending Piedmont ecoregion comprises a transitional area between the mostly mountainous ecoregions of the Appalachians to the northwest and the relatively flat coastal plain to the southeast. It is a complex mosaic of Precambrian and Paleozoic metamorphic and igneous rocks with moderately dissected irregular plains and some hills. Once largely cultivated, much of this region is in



planted pine or has reverted to successional pine and hardwood woodlands. The soils tend to be finer-textured than in coastal plain regions (Griffith, 2009).

Resource 4 – Water Resources

Water resources are streams, lakes, rivers and other aquatic habitats in an area and include surface water, groundwater, wetlands, floodplains, coastal resources and wild and scenic rivers. Water resources such as lakes, rivers, streams, creeks, canals, and drainage ditches make up the surface hydrology of a given watershed. The term “waters of the United States” applies only to surface waters (including rivers, lakes, estuaries, coastal waters and wetlands) used for commerce, recreation, industry, fishing and other purposes.

The Safe Drinking Water Act (SDWA) provides for the protection of public health by regulating the U.S. public drinking water supply (P.L. 93-23, 42 U.S.C. §300f). The SDWA aims to protect drinking water and its sources (rivers, lakes, reservoirs, springs and groundwater wells) and authorizes the EPA to establish national health-based standards for drinking water to protect against naturally occurring and man-made contaminants. Every public water system in the United States is protected by the SDWA. Under Section 1424(e) the SDWA prohibits Federal agencies from funding actions that would contaminate a sole-source aquifer or its recharge area. Any federally funded project with the potential to contaminate a designated sole-source aquifer is subject to review by EPA. EPA’s regulations implementing the SDWA requirements are found in 40 CFR 141-149. Federal SDWA groundwater protection programs are generally implemented at the State level.

The Clean Water Act (CWA), as amended, is the primary Federal law in the United States regulating water pollution (P.L. 92-500, 33 U.S.C. §1251). The CWA regulates water quality of all discharges into “waters of the United States.” Both wetlands and “dry washes” (channels that carry intermittent or seasonal flow) are considered “waters of the United States.” Administered by EPA, the CWA protects and restores water quality using both water quality standards and technology-based effluent limitations. The EPA publishes surface water quality standards and toxic pollutant criteria at 40 Code of Federal Regulations (CFR) Part 131. The CWA also established the National Pollution Discharge Elimination System (NPDES) permitting program (Section 402) to regulate and enforce discharges into waters of the United States. The NPDES permit program focuses on point-source outfalls associated with industrial wastewater and municipal sewage discharges. Congress has delegated to many States the responsibility to protect and manage water quality within their legal boundaries by establishing water quality standards and identifying waters not meeting these standards. States also manage the NPDES system.

The Coastal Zone Management Act of 1972 (CZMA) (16 U.S.C. §1451) provides States with the authority to determine whether activities of governmental agencies are consistent with federally approved State Coastal Zone Management Plans (CZMP). The intent of the CZMA is to prevent



any additional loss of living marine resources, wildlife, and nutrient-enriched areas; alterations in ecological systems; and decreases in undeveloped areas available for public use.

Federal statutes, executive orders (EO), State statutes, and State agency regulations and directives protect water quality and the beneficial uses of water resources. EO 11988 (Floodplain Management) and EO 11990 (Protection of Wetlands) mandate the control of activities that indirectly influence water quality.

EO 11988 (Floodplain Management) requires Federal agencies to determine whether a Proposed Action would occur within a floodplain and to take action to minimize occupancy and modification of floodplains. A floodplain is defined as the lowland and flat areas adjoining inland and coastal waters, including flood-prone areas of offshore islands. At a minimum, areas designated as floodplains are susceptible to 100-year floods.

Existing Conditions

Water resources are inherently site-specific resources. According to the USGS Ayersville, NC 7.5 Minute Topographic Map dated 2002, EPA Region 4 Map of Sole Source Aquifers, and the Federal Emergency Management Agency (FEMA), the Proposed Action is located atop a hill approximately 1,082-feet above mean sea level with no indications of wetlands, floodplains, coastal management zones and wild or scenic rivers noted in the reviewed databases, maps and site reconnaissance. Figures 2, 5, and 6 show the USGS Topographic Map, FEMA Map, and National Wetlands Inventory Map, respectively.

Annual rainfall in this area ranges from approximately 40 and 55 inches per year. The nearest water body is located over 900-feet to the southwest of the proposed tower site and is an intermittent unnamed tributary of Mill Creek.

Since the facility is less than one acre, NPDES permits are not required. Based upon the topography of the area and the distance to the nearest surface water, it is not likely that the Proposed Action has potential to adversely affect this waterbody.

Resource 5 – Biological Resources

Biological resources are Flora, Fauna, and their habitats that are native to an area, including threatened or endangered species. In general, biological resources can include native and introduced flora that comprise the various habitats, fauna present in such habitats, and natural areas that help support these flora and fauna populations. Protected or sensitive biological resources include flora and fauna species listed as threatened or endangered by the U.S. Fish and Wildlife Service (USFWS) or a State and local entity. The following section describes categories of biological resources such as vegetation and associated habitats, wildlife, threatened and endangered species, and wetlands.



The Endangered Species Act (ESA) (16 U.S.C. §1531) requires Federal agencies to conserve endangered species by listing endangered and threatened species of flora and fauna and designating the critical habitat for fauna species. The ESA defines an endangered species as any species in danger of extinction throughout all or a significant area of its range and a threatened species as any species likely to become endangered in the near future. Under Section 7 of the ESA, Federal agencies, in consultation with USFWS, must determine if their proposed actions is likely to jeopardize the continued existence of any threatened or endangered species. In addition, they must also determine if the proposed action will result in the destruction or adverse modification of critical habitat, defined as a specific geographic area that is essential for the conservation of a threatened or endangered species and that may require special management and protection (USFWS, 2007). The USFWS is responsible for compiling official lists of threatened and endangered species. If a Proposed Action may adversely affect a listed species or critical habitat, the Federal agency must prepare a Biological Assessment (BA) and initial a formal consultation with USFWS. After reviewing the BA, USFWS prepares a Biological Opinion stating whether the Proposed Action is likely to jeopardize the continued existence of a listed species or cause the destruction or adverse modification of critical habitat. The purpose of the consultation process is to ensure avoidance and minimization of potential adverse impacts on listed species or critical habitats. Formal consultation is not required if the Federal agency determines, and USFWS concurs in writing, that the Proposed Action is not likely to adversely affect listed species. In addition, the ESA prohibits all persons subject to U.S. jurisdiction, including Federal agencies, from “taking” endangered or threatened species.

The Migratory Bird Treaty Act (MBTA) of 1918 (16 U.S.C. §703) was first enacted to implement the 1916 convention between the United States and Great Britain for the protection of birds migrating between the U.S. and Canada, offering protection to many bird species. The statute makes it unlawful to pursue, hunt, take, capture, kill or sell birds listed in the statute as “migratory birds,” and does not discriminate between live or dead birds and also grants full protection to any bird parts including feathers, eggs and nests. The MBTA is the primary law that affirms or implements the nation’s commitment to four international conventions (with Canada, Japan, Mexico and Russia) for the protection of a shared migratory bird resource. Each convention protects selected species of birds that are common to both countries. The potential impact to property owners can exist when migratory birds seek respite within trees or on structures considered private property.

EO 13186 (Responsibilities of Federal Agencies to Protect Migratory Birds) strengthens the protection of migratory birds and their habitats by directing Federal agencies to take certain actions that implement the MBTA. Specifically, Federal agency actions that have, or are likely to have, a measurable negative effect on migratory bird populations require development and implementation of a Memorandum of Understanding (MOU) of USFWS that promotes the conservation of migratory bird populations. The EO and MOUs are the regulatory basis for conservation actions or renewal of contracts, permits, delegations or other third-party agreements associated with migratory birds. MOUs established under EO 13186 are published in the *Federal Register*.



USFWS's Division of Migratory Bird Management established several initiatives in the past decade to research collisions of birds with communications towers. In 1999, USFWS established the Communication Tower Working Group, composed of government, industry and academic groups to study and determine tower construction approaches that prevent bird strikes.

EO11990 (Protection of Wetlands) requires Federal agencies to provide leadership and take action to minimize the destruction, loss or degradation of wetland habitat and to preserve and enhance the natural and beneficial values of wetland habitats in carrying out the agency's responsibilities. Wetland habitats generally include swamps, marshes, bogs and similar areas such as sloughs, potholes, wet meadows, river overflows, mud flats and natural ponds.

Existing Conditions

The Proposed Action is located on a 7.23-acre parcel that is primarily occupied by the Northeast Stokes Volunteer Fire Department. The proposed project site is occupied by a planted stand of Virginia Pine (*Pinus virginiana*) trees. No burrows, nests, wetlands, coastal areas, or other signs of threatened and endangered species and/or critical habitat were readily observable at the time of TEP's site reconnaissance.

The U.S. Fish and Wildlife Service (USFWS) has listed three endangered species in Stokes County, NC, including the James Spiny mussel (*Pleurobema collina*), Schweinitz's Sunflower (*Helianthus schweinitzii*), and Small-anthered Bittercress (*Cardamine micranthera*). Habitats for these species were compared to the habitat observed at the proposed Site, and none of the habitats were identified with a potential to be found on the Site.

Consequently, it is anticipated that the proposed tower and equipment compound should not have an adverse impact to the listed or proposed protected species or their critical habitats. Coordination of this analysis with the USFWS – Asheville, NC Field Office, resulted in their concurrence with the determination that the proposed action is not likely to adversely affect any federally listed species. See USFWS response dated 4/23/2009 in Appendix B.

Resource 6 – Historic and Cultural Resources

Historic and cultural resources are sites, structures, buildings, districts, or objects associated with important historic events or people, demonstrating design or construction associated with a historically significant movement, or with the potential to yield historic or prehistoric data, that are considered important to a culture, subculture or a community for scientific, traditional, religious, or any other reason (NPS, 2008). Typically, historic and cultural resources are subdivided into the following categories:



- **Archaeological resources:** This includes prehistoric or historic sites where human activity has left physical evidence of that activity but few aboveground structures remain standing.
- **Architectural resources:** This includes buildings or other structures or groups of structures that are of historic or aesthetic significance.
- **Native resources:** These include resources of traditional, cultural or religious significance to a Native American Tribe, Native Hawaiian, or Native Alaskan organization.

There are multiple Federal regulations that protect historic and cultural resources. The National Historic Preservation Act of 1966 (NHPA) (P.L. 89-665, 16 U.S.C. §470) directs the Federal Government to consider the effects of its actions on historic and cultural resources under Section 106 through a four-step compliance process. The four steps of the Section 106 compliance process are the following:

1. **Establish whether the Proposed Action constitutes an undertaking.** Per 36 CFR 800.16, an undertaking is an action funded in whole or in part under the direct or indirect jurisdiction of a Federal agency. If the Proposed Action is an undertaking, the appropriate State Historic Preservation Office (SHPO) or Tribal Historic Preservation Office (THPO) and other consulting parties are identified.
2. **Identify National Register-listed or eligible properties.** Historic resources located within the Proposed Action Area of Potential Effect (APE) are identified and evaluated for significance, including properties potentially eligible or listed in the National Register of Historic Places (NRHP) that may be affected by the Proposed Action.
3. **Assess effects of Proposed Action on eligible historic properties.** If the assessment determines no historic properties or no adverse effect to eligible historic properties, the SHPO/THPO and other consulting parties are informed, and the compliance process stops at this step. If the assessment determines actual or potential adverse effect to eligible historic properties, the SHPO/THPO and other consulting parties are notified through a submission process deemed appropriate by the jurisdictional SHPO/THPO.
4. **Resolve adverse effects to eligible historic properties through consultation with the SHPO/THPO and Advisory Council on Historic Preservation (ACHP), as necessary.**

Existing Conditions

TEP visited the NC State Historic Preservation Office (NC SHPO) and the NC Office of State Archeology to view the pertinent USGS 7.5-minute topographic map (Ayersville) to make an assessment of the potential significant impacts to architectural, historic, or archeological sites in



the vicinity of the tower site. In addition, TEP contracted R.S. Webb & Associates, a cultural resources consulting firm, to perform an Archaeological Evaluation, to make an assessment of the potential direct effects the proposed action may have on archaeological resources. The Archaeological Evaluation concluded that no archaeological resources eligible for inclusion in the National Register of Historic Places will be affected by the proposed Sandy Ridge tower undertaking. In addition, the evaluation concluded that no additional archaeological investigation is recommended for this project. Further, TEP received concurrence from Ms. Renee Gledhill-Earley of NC Dept. of Cultural Resources-Environmental Review Coordinator and Ms. Susan G. Myers of NC Dept. of Cultural Resources: Office of State Archaeology-Project Registrar, regarding the proposed project on 3-19-2009 for FCC requirements that included a 1.5 mile APE. The PSIC APE was determined to be a 2.0 mile radius around the proposed action tower centerline. TEP received an additional concurrence for the PSIC 2.0 mile APE on 2-25-2010. The North Carolina SHPO concurrence form is shown in Figure 9 and Appendix C.

Resource 7 – Aesthetic and Visual Resources

Effects to aesthetic and visual resources deal broadly with the extent to which development contrasts with the existing environment, architecture, historic or cultural setting, or land use, and the determination of effects is a judgment that must be made by a qualified professional. Visual resources are the natural and man-made features that give an area its visual character. Visual resources generally refer to the urban environment, whereas aesthetic resources typically include impacts to natural and scenic areas.

Visual resources are inherently difficult to assess because they involve subjectivity. Often communities, historical societies and their corresponding jurisdictional agencies are the arbiters of visual effects resulting from Proposed Action.

There are no Federal statutory or regulatory requirements for visual resources and aesthetics. State, regional or local requirements may apply. If the landscape were cultural or historic, or part of a National Historic Landmark, the impacts would need to be reviewed under the NHPA Section 106. Similarly, potential visual impacts on scenic byways would need to be assessed under the National Scenic Byways Program (P.L. 105-178, 23 U.S.C. §162) and laws concerning State-designated scenic byways. Consultation with the National Park Service may be required for potential impacts on the visual resources in State and National parks. Potential visual impacts for outdoor recreation sites and facilities covered by Section 6(f) of the Land and Water Conservation Fund Act (LWCFA) (P.L. 88-578, 16 U.S.C. §460) may need to be reviewed.

Existing Conditions

No unique viewsheds related to National or State designated Scenic Byways, National Natural Landmarks, National Scenic Trails, or National Historic Landmarks were identified within 2 miles of the Proposed Action. One potentially eligible property, designated as a “study listed”



(SL) property, was identified while reviewing the pertinent USGS 7.5-minute topographic map during consultation with the offices of the NC State Historic Preservation (NC SHPO) and the NC Office of State Archeology. Further, a determination of “no effect on historic properties” was received from Mrs. Renee Gledhill-Early, Environmental Review Coordinator, regarding the Proposed Action most recently on 2-25-2010, as shown in Figure 9 and Appendix C.

Resource 8 – Land Use

The term “land use” refers to real property classifications that indicate either natural conditions or the types of human activity that occur, or are permitted, on a parcel. There is no nationally recognized convention or uniform terminology for describing land use categories; definitions are typically addressed at the local level in the form of zoning ordinances. As a result, the meanings of land use descriptions and definitions vary among jurisdictions.

Land use plans are usually established to ensure that development proceeds in an orderly fashion, encouraging compatible uses for adjacent land. There are many tools used in the planning process, including master plans, geospatial databases and zoning ordinances. A master plan is generally written by a county or municipality to provide a long-term strategy for growth and development. The foremost factor affecting land use is compliance and compatibility with master plans and zoning regulations. Other relevant factors include existing land use and project sites, the types of land uses on adjacent properties and their proximity to a Proposed Action, the duration of a proposed activity, and project permanence as a change in land use.

The following general land use categories will be used when discussing potential impacts to land use for this document: low, medium and high density residential, commercial, industrial, municipal and institutional, agricultural, and vacant. Areas of particular concern include Coastal Zone Management (CZM) areas and coastal barrier islands.

Residential land use classifications are divided into low, medium, and high, depending on the density of dwellings per acre. Low density residential land is defined as two or fewer single-family homes per acre. Medium density residential land is characterized by three to five residential dwellings per acre. High density residential land includes row houses, apartments, and condominiums with a density of six or more dwellings per acre (Dublin, 2008).

Commercial land uses are characterized by businesses, offices, retail sales and services, restaurants, entertainment venues and other service industry related operations. Commercial land uses are compatible with residential and industrial land uses; however, they have been known to cause adverse impacts on the environment from sources such as commercial dry cleaners, gas stations, automobile repair shops, etc.

Industrial land uses include land occupied by businesses that produce or manufacture a product on-site, including warehousing, manufacturing, industrial processing, and resource and energy production (Dublin, 2008). Industrial land uses are most commonly associated with adverse



impacts to the surrounding environment. Proximity to nearby residential and commercial land uses is highly considered in the assessment of adverse impacts to the environment and health and safety.

Municipal and institutional land uses are defined as public buildings and institutions that are owned and operated by governmental or other public agencies. These buildings include, but are not limited to: schools, government offices, fire and police stations, cemeteries, religious institutions, airports and seaports (Dublin, 2008). Excluding airports and seaports, municipal and institutional land uses are compatible with residential and commercial land uses.

Agricultural land uses include land that has been modified for the cultivation. This includes livestock, pasture land, orchards, cropland, silviculture, etc (IWGSDI, 1996).

Vacant land includes undeveloped forested land, fallow land, and other land that has not been developed, cultivated or significantly altered from its original state. Land is described as vacant land when the aforementioned land uses are not apparent or defined.

Existing Conditions

Based on general land use compatibility, the Proposed Action is to be located adjacent to the Northeast Stokes Volunteer Fire Department Facility local municipal facility. The parent property is zoned RA - residential and agricultural. The adjoining properties consist of low density residential, agricultural, municipal, and undeveloped forested land uses.

Resource 9 – Infrastructure

Infrastructure consists of the systems and physical structures that enable a population in a specified area to function. Infrastructure by definition includes a broad array of facilities including: utility systems, streets, highways, railroads, airports, buildings and structures, and other manmade facilities. Individuals, businesses, governmental entities, and virtually all relationships between these groups depend upon this infrastructure for their most basic needs, as well as for critical and advanced needs such as emergency response and health care.

Infrastructure is entirely man-made, with a high correlation between the type and extent of infrastructure and the degree to which an area is characterized as “developed.” An essential component of economic growth to an area is the availability of infrastructure and its capacity to support growth. The infrastructure components to be discussed in this section include utilities (electricity and communications), solid waste, and the transportation network.

Public utilities can be privately or publicly owned. Public utilities are often governed by a Public Utilities Commission that regulates the rates and services of a public utility. In recent years, several laws have been passed focusing on energy conservation and production. The Energy Policy Act of 2005 (P.L. 109-158) provides tax incentives and loan guarantees for energy



production of various types. The Energy Independence and Security Act of 2007 (P.L. 110-140) expanded the production of renewable fuels and contains provisions for energy efficiency, smart grid technology, and carbon dioxide reduction and incentives for plug-in hybrid electric vehicles to assist the electric power industry's efforts to reduce greenhouse gas emissions.

Regulations governing communications infrastructure include Part 17 Construction, Marking, and Lighting of Antenna Structures of the FCC regulations (47 CFR Chapter 1), which prescribes procedures for antenna structure registration and requires the Federal Aviation Administration (FAA) to conduct an aeronautical study of the navigation air space to determine appropriate tower marking and lighting requirements to achieve safe air space. Before the FCC authorizes the construction of new antenna structures or alteration in the height of existing antenna structures, an FAA determination of "no hazard" may be required. FAA notification is required for any new construction greater than 200 feet above ground level, and near any airport runway (taller than 100:1 for a horizontal distance of 20,000 feet, 50:1 for a horizontal distance of 10,000 feet, and 25:1 for a horizontal distance of 5,000 feet of a heliport). By checking the heights of proposed antennae and their proximity to airports, the FCC's TOWAIR software system assists in determining if FAA notification is required. The FAA can vary marking and lighting recommendations when requested, provided that aviation safety is not compromised. In all cases, safe aviation conditions around the tower are the FCC's primary concern, and safety concerns dictate the marking and lighting requirements. Navigation air space, which starts 200 feet above ground level, decreases in elevation in close proximity to airports; the minimum height for required marking or lighting would decrease in these areas.

Existing Conditions

The Proposed Action area has a combination of utilities (electricity and communications) along Highway 704 East, along with an adequate transportation network of roads available in the area. Potable water is provided to the parent property via a private well that currently provides water to the Northeast Stokes Volunteer Fire Department facility. No airports are located within 0.5-miles of the Proposed Action. However, an emergency helipad is located approximately 350-ft. southwest of the Proposed Action.

Resource 10 – Socioeconomic Resources

Socioeconomics comprise the basic attributes and resources associated with the human environment, including demographic, economic and social assets of a community. Demographics focus on population trends and age. Economic metrics provide information on employment trends and industries. Housing, infrastructure and services are also influenced by socioeconomic factors.

EO12898 (Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations) directs agencies to address environmental and human health conditions in minority and low-income communities. Environmental justice addresses the disproportionate



and adverse effects of a Federal action on low-income or minority populations. The intent of EO 12898 and related directives and regulations is to ensure that low-income and minority populations do not bear a disproportionate burden of negative effects resulting from Federal actions. The general purposes of EO 12898 are the following:

- To focus the attention of Federal agencies on human health and environmental conditions in minority communities and low-income communities, with the goal of achieving environmental justice
- To foster nondiscrimination in Federal programs that substantially affect human health or the environment
- To give minority communities and low-income communities greater opportunities for public participation in, and access to, public information on matters relating to human health and the environment

Existing Conditions

With regard to socioeconomic conditions, the Proposed Action area is not located in a low-income or minority area.

Resource 11 – Human Health and Safety

A safe environment is one in which there is no danger, or an optimally reduced, potential for death, serious bodily injury or illness, or property damage. Human health and safety addresses workers' health and safety, and public safety during demolition and construction activities and during subsequent operations of those facilities. Construction site safety is largely a matter of adherence to regulatory requirements imposed for the benefit of employees and implementation of operational practices that reduce risks of illness, injury, death, and property damage. The health and safety of onsite military and civilian workers are safeguarded by numerous regulations designed to comply with standards issued by Occupational Safety and Health Administration (OSHA), EPA and State agencies. These standards specify the amount and type of training required for industrial workers, the use of protective equipment and clothing, engineering controls and maximum exposure limits for workplace stressors.

Existing Conditions

Safety and accident hazards can often be identified and reduced or eliminated. Elements for an accident-prone situation or environment include the presence of the hazard itself together with the exposed and possibly susceptible population. The degree of exposure depends primarily on the proximity of the hazard to the population. PSIC-funded activities that can be hazardous include transportation, maintenance and repair, radiation exposure and the creation of highly noisy environments.



The proper operation, maintenance and repair of vehicles and equipment carry important safety implications. Any facility or human-use area with a potentially explosive or other rapid oxidation process creates unsafe environments for nearby populations. Extremely noisy environments can also mask verbal or mechanical warning signals such as sirens, bells or horns.

For construction operations associated with any PSIC-funded projects, any waste contaminated with hazardous waste, asbestos-containing material, lead-based paint, or other undesirable components would be disposed of following hazardous waste management procedures.

The Proposed Action would require construction activities within an undeveloped forested portion of an approximately 7.23-acre parcel, adjacent to the Northeast Stokes Volunteer Fire Department Facility. Based on the specified elevation of the proposed antennas (>10 meters AGL) and because the site will be located within a restricted area, no threat to human health and safety is apparent concerning radio frequency emissions.

SECTION 4 – ENVIRONMENTAL CONSEQUENCES

Resource 1 – Noise

Noise analyses typically evaluate potential changes to the existing noise environment that would result from implementation of a Proposed Action.

Proposed Action

Construction-Related Impacts – The construction activities on-site during the tower and tower compound construction will cause a temporary increase in localized noise. The noise generated during construction of the Sandy Ridge tower and compound will vary, depending on the distance from the construction site and source of noise. The amount and type of noise disturbance will vary, depending on the type of machinery used, schedule and duration of construction, and site specific conditions. The use of heavy machinery during specific stages of construction may result in temporary, minor adverse impacts on nearby low-density residences. The nearest residence from the proposed tower location and source of noise is located approximately 230-ft to the northwest. This residence is separated from the proposed tower location by approximately 70-ft of dense Virginia pine trees and a portion of NC Highway 704 E. Construction-related noise will typically occur during normal working hours (7:00 a.m. to 5:00 p.m.), when this noise will be better masked by the ambient noise levels of the project area, caused by the proximity to NC Highway 704 E and the Northeast Stokes Volunteer Fire Department. Noise levels prior to and after construction activities will likely drop to the ambient noise levels of the project area.



It is projected that noise levels occurring from the Proposed Action construction activities will be temporary (lasting no more than a 6-8 hours during the weekdays, and for no longer than a 35 day period). Noise levels at a distance from 50-ft or greater from the proposed construction area should be no greater than 85 dBA. These levels will also be masked by the existing stand of Virginia pine trees that occupies the southern portion of the parent property. The ambient noise levels caused by traffic from NC Highway 704 E and the noise levels from the Northeast Stokes Volunteer Fire Department should also mask the noise levels associated with the proposed construction. Construction-related noise levels from the Sandy Ridge tower and compound construction will not be significant.

Operations-Related Impacts – The ambient noise level of the project area will return to normal levels after construction-related activities have concluded. Temporary operations-related noise increases will be caused by the two air conditioning (A/C) and heating units and the emergency generator associated with the tower facility. The climate control units regulate the internal temperature of the equipment shelter and the emergency diesel powered generator provides electric power to the facility, as needed in emergency situations when the normal supply of electrical power has been interrupted.

The proposed Sandy Ridge tower facility action will include the use of a 40-80 kW Diesel fuel emergency generator. The 40-80 kW generator produces noise levels of 80 dBA measured at 23-ft from the source. The emergency generator at the Sandy Ridge tower site is not anticipated to increase the ambient noise levels on-site due to the nature of the generator use, being only used intermittently during power outages and routine equipment maintenance and testing. The EPA does not have regulatory authority governing noise in local communities. Additionally, federal regulations limit the use of emergency generators to 500-hours per year. Therefore, the emergency generator will not cause long-term adverse impacts to the ambient noise levels, nor cause the ambient noise levels of the Proposed Action to measurably increase. The Proposed Action would not cause any significant long-term noise impacts.

No Action Alternative

Under the No Action Alternative, there would be no new construction in the proposed project area. No adverse impacts on the ambient noise environment would occur under the No Action Alternative.

Resource 2 – Air Quality

Air quality impacts at Communication tower sites can come from sources such as construction and ground-disturbing activities, which release dust and particulate matter, as well as operations-related sources such as emergency Diesel fuel powered generators.



Proposed Action

Construction-Related Impacts – Construction-related air quality impacts can originate from construction vehicle and equipment emissions, as well as dust and particulate matter from ground disturbing activities. These impacts, being temporary and limited in duration, are dependent on the type of construction activity, the location of the activity and the proximity to the source of emissions.

The use of construction equipment and activities, during the normal working hours of 7:00 a.m. to 5:00 p.m., are anticipated to cause short-term negligible adverse impacts on air quality at and around the proposed project site. However, due to the limited duration of construction equipment use and activities, it is anticipated that there will not be increases in the criteria air pollutants to above accepted levels, resulting in no significant impact to air quality from the Proposed Action.

The aforementioned emissions from construction activities and equipment can be reduced at the proposed project site by the use of best management practices (BMPs). Dust and particulate matter emissions can be mitigated in various ways, including the use of water to spray on uncovered soil, the use of soil stabilizers, the use of mulch and gravel to cover exposed areas, and limiting the speed and amount of traffic on uncovered areas. Construction equipment emissions can be mitigated in the following ways: using electric powered rather than fossil fuel powered tools, limiting vehicle idling time, using local materials and products to reduce transportation time, and using more emissions friendly fuels such as low or ultra low sulfur fuel. The Sandy Ridge tower site will utilize the aforementioned BMPs at and around the proposed tower site in order to reduce construction related criteria pollutant emissions.

Additionally, the Proposed Action will require approximately 0.083-acres or less of construction-related ground disturbance, which is unlikely to exceed the emissions limits for criteria pollutants or Hazardous Air Pollutants (HAP). The Proposed Action would have no significant impact to air quality from construction-related activities.

Operations-Related Impacts – After the conclusion of the proposed tower and compound construction activities, ambient air quality at the proposed site will likely return to its previous, normal levels. The Proposed Action will not result in the long-term operation of significant emission-generating sources, nor will it significantly alter the existing ambient air quality. The proposed 40-80kW emergency Diesel powered generator, located within the proposed tower compound, will be an intermittent source of emissions from the Proposed Action. The duration and frequency of emissions from the generator will be limited due to the nature of the generator, only being utilized during power outages and during routine inspections. In addition, Federal regulations limit the use of backup generators to 500-hours per year. The generators used at communication tower sites by the North Carolina Department of Crime Control and Public Safety are between 40-kW to 80-kW Generac® Industrial Diesel Generators. According to the product specification sheets, provided by Generac®, the generators are classified under Tier III



of the EPA Emissions Compliance with an EPA Emissions Engine Reference of JDXL03.0113. Tier III of the EPA Emissions Compliance refers to Non-road diesel engine standards that are met through advanced engine design, with no or only limited use of exhaust gas after treatment (oxidation catalysts). Tier 3 standards for NO_x and hydrocarbons (HC) are similar in stringency to the 2004 standards for highway engines, however Tier 3 standards for Particulate Matter (PM) were never adopted.

Additionally, Brendan Davey of the North Carolina Department of Environment and Natural Resources (NCDENR) regarding emergency use generators regulated under Title II of the Federal Clean Air Act. Mr. Davey's response indicated that there are no Federal Regulations under the Clean Air Act for emergency use generators that have a rated capacity of less than 590-kW for Diesel fired engines. The NCDENR response can be found in Appendix F.

The use of an emergency generator is not expected to cause ambient air quality levels to increase at the proposed tower site, nor any adverse long term impacts on air quality, due to the limited duration and frequency of use of the generator. Therefore, there would be no significant impact to air quality from operations-related activities.

No Action Alternative

Under the No Action Alternative, there would be no new construction to the proposed tower facility. There would be no increase in air quality impacts from the No Action Alternative.

Resource 3 – Geology and Soils

Impacts to geology and soils from transmitting and receiving sites would result from ground disturbing activities, such as excavation, grading, backfilling, trenching and other activities.

Proposed Action

Construction-Related Impacts – Soil erosion and runoff may occur from the Sandy Ridge tower construction site as a result of ground-disturbing activities, such as vegetation clearing, grading and excavation. However, according to the North Carolina Department of Environment and Natural Resources, construction related activities with an area of disturbance less than 1-acre are not required to obtain a National Pollutant Discharge Elimination System (NPDES) Permit.

The Proposed Action is located on the geologic formation identified as Mica Schist, which is described as garnet, staurolite, kyanite or sillimanite occurring locally; lenses and layers of quartz schist, micaceous quartzite, calc-silicate rock, biotite gneiss, amphibolite and phyllite, as shown in Figure 6. Soils at the Sandy Ridge tower site are listed as Fairview-Poplar Forest complex (FpB2), 2 to 8 percent slopes which consists of moderately eroded, well drained soils, as shown in Figure 7. These soils are convex soils formed on uplands. Slopes range from 2 to 8 percent.



Based on the review from the USDA soil classification for the Proposed Action, the soil types at the project site are defined as prime. The Proposed Action is not located on a unique geologic formation. Consultation with Kent Clary, USDA North Carolina Area Research Soil Scientist, was initiated to determine whether mitigation and regulatory requirements would be obligatory. The proposed project site received a total land evaluation score of 109 based upon the Farmland Protection Policy Act (FPPA), Farmland Impact Rating form. The Farmland Impact Rating form uses a land evaluation and site assessment criterion including but not limited to: NRCS land evaluation, relative value of farmland, area of non-urban use, percent of site being farmed, distance to urban support services, effects of conversion, and compatibility with existing agricultural uses, to formulate a farmland impact rating form score for proposed projects. Sites receiving less than 160 points on the Farmland Conversion Impact Rating form, thus, need not be given further consideration for protection due to the lack of potential adverse impacts on the existing land use activities. Due to the proposed area of disturbance less than 1-acre and the Farmland Impact Rating Form score of 109, there would be no significant impact to geology or soil from the construction related activities.

Operations-Related Impacts – The operation of the Sandy Ridge tower site would not involve any ground-disturbing activities that would affect geology and soils. There would be no significant impacts to geology and soils, including prime and unique farmlands associated with the operations of the proposed facility.

No Action Alternative

Under the No Action Alternative, there would be no new construction at the proposed site. There would be no impact to geology and soils as a result of the No Action Alternative.

Resource 4 – Water Resources

Impacts to water resources can result from several types of activities and procedures that would be in use at transmitting and receiving sites. Impacts would typically result from erosion caused by site runoff, direct contamination by chemicals used in the surrounding area that would be washed into a water body or absorbed into the water table, and building directly in or adjacent to a water resource such as a wetland. The use of erosion-control BMPs to reduce impacts is common practice and may improve water quality at a site. Development in floodplains poses a hazard both to human safety from flood events and to natural resources from the disruption of natural hydrologic patterns. Impacts to water resources resulting from the Proposed Action have been evaluated qualitatively.



Proposed Action

Surface Water and Groundwater

Construction-Related Impacts – Water quality impacts during the Sandy Ridge tower and compound construction would come from erosion and runoff resulting from soil disturbance for material storage, site access, site preparation or road and driveway construction. Vehicle and equipment refueling has the potential for spills of petroleum products. All of these activities would be temporary and of limited scope.

Water quality impacts from the Sandy Ridge tower and compound construction activities would vary depending on the construction equipment used, soils where the construction would occur, and the distance between the proposed project site and the receiving waters. Considering the relatively limited size of the Sandy Ridge tower footprint, being 0.083 acres of disturbance, construction of the facility is unlikely to result in a significant amount of erosion. The headwaters of Mill Creek is located approximately 2,300-ft. to west/southwest of the proposed Sandy Ridge tower facility.

The minor erosion and runoff from the Sandy Ridge tower and compound construction can be further reduced or mitigated through the use of BMPs. BMPs for erosion control include silt fencing or straw bales to control erosion, limiting the area of uncovered soil to the minimum needed for each activity, siting of staging areas to minimize erosion, replanting as soon as practicable, mulching, using temporary gravel covers, and limiting the number and speed of vehicles on the site.

Chemical, physical, or biological effects to water resources are not expected to result in the violation of water quality standards and criteria. There would be no significant impact to water quality from construction activities of the Sandy Ridge tower site.

Operations-Related Impacts – Operations related impacts would be limited to erosion that occurs before the site is fully re-vegetated or during refueling of the emergency generator. The use of herbicides also has the potential to contaminate nearby waters when applied to the gravel access road or fenced compound to prevent weed growth.

BMPs from the construction stage would be continued until the site is fully re-vegetated. A spill plan will be developed and followed to guide the required response in the event of a spill, if required. However, under the authority of Section 311 (j)(1)(C) of the Federal Water Pollution Act (Clean Water Act) found at Title 40, Code of Federal Regulations, Part 112 (40 CFR 112) a facility is not regulated under the SPCC Spill Prevention Plan if the aggregate aboveground storage tank capacity does not exceed 1,320-gallons. Chemical, physical, or biological effects to water resources are not expected to result in the violation of water quality standards and criteria. There would be no significant impact to water quality from operations activities.



Floodplains

Stokes County participates in the National Flood Insurance Program (NFIP) and according to the Flood Insurance Rate Map (FIRM), Map #3711506000J, dated December 18, 2007, the proposed site is not located within the limits of a floodplain (See Figure 5).

No Action Alternative

Under the No Action Alternative, there would be no new construction at the proposed tower site. There would be no risk of soil erosion or runoff from construction-related activities, nor would there be a risk of hazardous spills or other consequences from herbicides used to prevent weed growth within the limits of the gravel access road or the graveled fenced compound. Therefore, there would be no increase in impacts to either water resources or floodplains from the No Action Alternative.

Resource 5 – Biological Resources

Impacts to biological resources can result from several activities, including construction activities such as demolition, grading, excavation, and construction that could alter or destroy habitat, either temporarily or permanently. In addition, the continued presence of human activity on a smaller scale could result in behavioral impacts to certain animal species that could affect feeding and reproductive patterns and habits.

Proposed Action

Wildlife, Wildlife Habitat, and Vegetation

Construction-Related Impacts – Short and long-term minor impacts on wildlife, habitats, and vegetation would be expected as a result of construction-related activities for the Sandy Ridge tower under the Proposed Action. Construction activities for new infrastructure result in the disturbance of habitats and wildlife.

Construction-related activities may impact flora and fauna at the Sandy Ridge tower project site due to the clearing and grading of vegetated areas in preparation of new infrastructure construction. Short or long term minor impacts would largely be localized to the immediate project area. The introduction of invasive vegetation into disturbed areas and surrounding areas may result in long-term impacts to the native plant community at the project site and surrounding area. Generally, the extent of vegetation loss associated with the Sandy Ridge project would be less than 0.083-acres and is not considered to be significant. Construction-related activities may reduce, alter, or fragment habitat; introduce invasive species; disrupt natural behavior; and injure or cause mortality to wildlife. The overall impact of construction-related activities on wildlife populations would depend on the type and amount of wildlife habitat that would be disturbed, the nature of the disturbance such as permanent or temporary and the wildlife that occupy the project



site and surrounding area. Construction-related activities may result in mortality of some less mobile species such as reptiles, amphibian, and small mammals. Construction-related activities may affect local wildlife by disturbing normal behavioral activities such as foraging, mating, and nesting. Wildlife will usually not forage, mate, or nest in areas where construction related activities are occurring. These impacts are temporary, as wildlife avoid construction areas and may re-colonize the site when work ends.

The Sandy Ridge tower site is a Self-support lattice tower approximately 420-ft in height contained within a 60-ft x 60-ft fenced tower compound. The area surrounding the proposed Sandy Ridge tower compound and access easement was evaluated for potential occurrences of federally listed threatened or endangered species. TEP completed an informal biological assessment on February 20, 2009. TEP conducted a preliminary review using the US Fish and Wildlife Service Division of Endangered Species website to identify listed and proposed threatened and endangered species, as well as critical habitats that may be located on or near the proposed site. Based on a review of the website, the James Spiny mussel (*Pleurobema collina*), Schweinitz's Sunflower (*Helianthus schweinitzii*), and Small-anthered Bittercress (*Cardamine micranthera*) were listed.

Habitats for the species identified in the threatened and endangered species database were compared to the habitat at the proposed site; none of the habitats were identified with a potential to be found on the Sandy Ridge tower site.

Correspondence with the USFWS determined that the Proposed Action may affect but is not likely to adversely affect biological resources and will not have a significant impact on threatened or endangered species or their critical habitat (See Appendix B-USFWS Concurrence).

Operations-Related Impacts – Routine maintenance activities at the Sandy Ridge tower site would include mowing the existing lawn around the proposed fenced compound and possibly along the access drive. Mowing in these areas would maintain the plants vegetation in early successional stages of community development and may prevent reestablishment of some plant species. Similarly, operations practices at the Sandy Ridge tower site may lead to habitat degradation and mortality of some wildlife species such as amphibians and small mammals.

Following the completion of site development, potentially adverse impacts on wildlife species sensitive to disturbance could result from temporary noise generated by climate control such as heating and air condition equipment or the emergency generator at the project site. This temporary and low level, but recurring, disturbance might exclude wildlife species or promote colonization by tolerant species.

Operations-related activities would be expected to have no significant impact on wildlife, wildlife habitat, and vegetation. Correspondence with the USFWS determined that the Proposed



Action may affect but is not likely to adversely affect biological resources and will not have a significant impact (See Appendix B- USFWS Letter).

Migratory Birds

Construction-Related Impacts – Short and long term minor impacts on migratory birds would be expected as a result of construction-related activities from the Sandy Ridge tower site. Impacts to migratory birds could occur during erection of towers, antennae, ventilation, and air conditioning (HVAC) equipment installed utilizing portable cranes. Construction-related activities occurring along migratory bird pathways would be expected to have more potential for adverse impacts on migratory birds than activities in non-migratory areas.

Construction-related impacts would be expected to have no significant impact on migratory birds as the use of equipment such as cranes to erect towers, install HVAC equipment, and antennae would be used during limited periods and are short-term impacts. Correspondence with the USFWS determined that the Proposed Action may affect but is not likely to adversely affect biological resources and will not have a significant impact (See Appendix B – USFWS Concurrence dated 4-23-2009).

Operations-Related Impacts – Long-term minor impacts on migratory birds may occur as a result of the Sandy Ridge tower site. Impacts on migratory birds may occur as a result of collision with operating towers, antennae, and other tall structures, particularly during periods of low visibility and as a result of tower lightning that might be distracting to some species. The probability of collision is difficult to determine programmatically because of the range of variables that affect the potential for collision and the lack of conclusive data on the causes of collision. However, a study conducted by Joelle Gehring, Central Michigan University-Biology Department, Avian Collision Study Plan for the Michigan Public Safety Communications System (MPSCS), concluded “Though there are fewer tall towers than towers in the 116-146 m AGL height range, towers >305 m AGL are responsible for several times the number of fatalities than shorter towers.”

Adverse impacts on birds resulting from collision generally occur during foggy or low cloud conditions at lighted towers supported by guy wires and present greater collision risk than freestanding towers or buildings. The Sandy Ridge tower is a proposed freestanding Self-support tower approximately 420-ft. in height. Variables such as structure height above surrounding trees, design, lighting, seasons, adjacent land features, and migratory patterns, would affect the potential and degree of adverse impacts on migratory birds.

According to correspondence with the USFWS the Proposed Action would not be expected to minimize the potential hazard to avian species protected by the MBTA due to the height of the structure and the proposed lighting (See Appendix B- USFWS Concurrence 4-23-2009).



Threatened and Endangered Species

Construction-Related Impacts – Construction-related activities would affect threatened, endangered, and sensitive species in the same manner that flora and fauna would be affected. Construction-related activities may potentially adversely affect threatened and endangered species by potentially reducing, altering, or fragmenting available habitat; introducing invasive species; causing injury or mortality to wildlife; noise; and causing behavioral impacts.

The Sandy Ridge tower site is a Self-support lattice tower approximately 420-ft in height and requires less than 0.083-acres in total ground disturbance and was evaluated for potential occurrences of federally protected species. TEP conducted a preliminary review using the US Fish and Wildlife Service Division of Endangered Species website to identify listed and proposed threatened and endangered species, as well as critical habitats that may be located on or near the proposed Site. Based on a review of the website, the James Spiny mussel (*Pleurobema collina*), Schweinitz's Sunflower (*Helianthus schweinitzii*), and Small-anthered Bittercress (*Cardamine micranthera*) were listed.

TEP conducted an informal biological assessment of the property on February 20, 2009. Habitats for the species identified in the threatened and endangered species database were compared to the habitat at the proposed site; none of the habitats were identified with potential to be found at the proposed action location.

According to correspondence with the USFWS, the Proposed Action would be expected to have no significant impact and the Proposed Action may affect but is not likely to adversely affect threatened, endangered, or their designated critical habitat. (See Appendix B- USFWS Concurrence 4-23-2009).

Operations-Related Impacts – Following the completion of site development, operations-related impacts from the Sandy Ridge tower site are not expected to occur. Overall, operations-related impacts would be expected to have no significant impact on threatened and/or endangered species, or their designated critical habitat.

According to correspondence with the USFWS, the Proposed Action would be expected to have no significant impact and the Proposed Action may, but is not likely to, adversely affect federally protected species, or their designated critical habitat (See Appendix B- USFWS Concurrence dated 4-23-2009).

Wetlands

Construction-Related Impacts – Since no wetland habitat was observed at the Proposed Action project site or on the surrounding area, construction-related impacts would be expected to have no impact on wetland habitats.



Operations-Related Impacts – Routine maintenance activities on the Sandy Ridge tower site would include mowing and herbicide treatments around the Sandy Ridge tower infrastructure and possibly along access roads. Since no wetland habitat was observed at the Proposed Action project site, operations-related impacts would be expected to have no impact on wetland habitats.

No Action Alternative

Under the No Action Alternative, there would be no new construction. No significant impacts on vegetation and wildlife, migratory birds, threatened and endangered species, or wetlands would occur under the No Action Alternative, including beneficial impacts of improved emergency services communications utilizing the VIPER network.

Resource 6 – Historic and Cultural Resources

Impacts to historic and cultural resources can occur both from physical disturbance of historic properties and from aesthetic changes to a historic property or its viewshed. To determine the nature of impacts to historic properties, as defined under the NHPA, consultation with the relevant State SHPO, or THPO, is required.

Proposed Action

Construction-Related Impacts – Construction-related impacts to historic and cultural resources at and near the Sandy Ridge tower site could cause temporary impacts to viewsheds and present risk of permanent impact or harm to historic properties, primarily through ground-disturbing activities.

TEP visited the North Carolina State Historic Preservation Office (NC SHPO) and the North Carolina Office of State Archeology to view the pertinent USGS 7.5-minute topographic map (Ayersville) to make an assessment of the potential significant impacts to architectural, historic, or archeological sites in the vicinity of the tower site. R.S. Webb conducted an archeological investigation on 3-25-2009 of the proposed communications facility. No artifacts, features, or structural remains were observed either on the surface or within the six shovel tests conducted. Also, a public notice was issued related to impacts to historic and cultural resources. The Legal Notice was placed in the Stokes News on February 26, 2009. No comments were received to date. Letters were sent to the Stokes County Historical Society and the Stokes County Planning and Inspections Department on April 3, 2009, inviting them to be a consulting party regarding any potential impact to historical or archaeological resources in the area. A response letter was received from the Stokes County Historical Society on April 17, 2009 concurring with the determination that the proposed tower would not impact historical or archaeological resources in the area. In addition, the North Carolina SHPO and the appropriate THPOs of the Federally Recognized Native American Tribes with known ancestral rights to Stokes County were consulted to determine the effect from the Proposed Action. According to the correspondence with the NC SHPO, the Proposed Action will have no effect on historic properties (See



Appendix C- Section 106). Concurrence from all appropriate Native American Tribes was also received regarding the Proposed Action.

Operations-Related Impacts – Operation of the Sandy Ridge tower site does not typically require any ground-disturbing activities; therefore, it is expected that there would be no impact to archaeological resources. Based on correspondence with the SHPO and appropriate THPOs, no adverse impacts were determined.

No Action Alternative

Under the No Action Alternative, there would be no new construction. Therefore, no impact to historic and cultural resources resulting from the No Action Alternative would be anticipated.

Resource 7 – Aesthetic and Visual Resources

Potential impacts on aesthetic and visual resources are likely to be greater in more natural (rural) settings than commercial or residential settings (urban and suburban) where development is more common. Impacts on aesthetic and visual resources may be short or long term, depending on whether the impact is related to construction activities or the feature that is being constructed.

Proposed Action

Construction-Related Impacts – Under the Proposed Action, the Sandy Ridge tower location impacts on aesthetics and visual resources from construction-related activities would include the clearing and grading of approximately 3,600-sq. ft. (0.083-acres) necessary for the proposed access easement and fenced tower compound, the construction of infrastructure necessary to operate the transmitting and receiving site, and the installation of the specific site facilities including a proposed 11’-6” x 19’-0” equipment shelter and a 4’-0” x 8’-0” emergency generator concrete pad. The degree of visual disturbance would depend on the exiting landscape, project-specific construction activities, and each viewer’s perception. The Sandy Ridge tower site short-term impacts on aesthetic and visual resources resulting from construction-related activities would likely have no significant impact.

Operations-Related Impacts – Features that might create a permanent contrast with the existing environment would include communication towers and buildings associated with transmitting and receiving sites. The Proposed Action would include an approximate 420-ft. AGL Self-support communications tower and associated 11’-6” x 19’-0” equipment shelter. If overhead transmission lines (instead of buried lines) were used for power or communication, these lines would also represent a permanent feature. However, the degree of contrast depends on the existing landscape and each viewer’s perception.

The long-term impacts resulting from the permanent placement of the Sandy Ridge tower site would likely have no significant impact.



No Action Alternative

Under the No Action Alternative, there would be no new construction. There would be no impact to aesthetic or visual resources resulting from the No Action Alternative.

Resource 8 – Land Use

Impacts to land use can occur when incompatible land uses are placed adjacent to one another. PSIC-funded transmitting and receiving projects would not be compatible with all land use types and should be carefully sited, in accordance with local master plans, planning initiatives, local zoning, and coastal land use restrictions. Transmitting and receiving sites are most compatible with industrial, commercial, or public and quasi-public land uses, such as utilities, because of the basic intended function of these sites and the associated activities by which their operation is characterized. Compatibility with land use planning is derived from the foundation or purpose such as operation of the site; construction activities do not have any substantive bearing on impacts to land use planning. Therefore, only impacts from operations will be discussed in this section.

Proposed Action

General Land Use Compatibility for the Proposed Action Sandy Ridge tower site would not be compatible with all types of land uses. In general it is expected that siting of PSIC-funded transmitting and receiving sites would be compatible with existing land use plans and zoning at and adjacent to the proposed site and would not impose an incompatible land use on an area. Commercial, industrial, and some municipal and institutional facilities, such as airports and utilities, would be compatible, because infrastructure and activities are similar to that associated with transmitting and receiving sites. The Sandy Ridge tower site is located adjacent to the Northeast Stokes County Volunteer Fire Department municipal facility, within an undeveloped forested portion of the 7.23-acre parcel southwest of Highway 704. The Proposed Action is within the County of Stokes on a parcel zoned RA-residential and agricultural. In addition, a letter was sent to the Stokes County Planning and Inspections Department requesting consultation regarding the Proposed Action. No response has been received to date.

The Proposed Action is located next to the Northeast Stokes Volunteer Fire Department facility southwest of Highway 704. The Proposed Sandy Ridge Tower site is not located in a coastal zone or coastal barrier resource, and no local zoning rules prohibit the Proposed Action. Therefore, no significant impact would occur related to general land use compatibility with the proposed Sandy Ridge tower site.



No Action Alternative

Under the No Action Alternative, there would be no new construction. Therefore, there would be no impacts to general land use compatibility, coastal zone, or coastal barrier resources resulting from the No Action Alternative.

Resource 9 – Infrastructure

Impacts to infrastructure are typically observed as disruptions in service and utilities, either short or long term, resulting from increases in demand that may overwhelm the capacity of the local area to absorb them. Engagement in a planning process to ensure that system capacity will be able to meet projected increases in demand is the most effective way to avoid impacts to infrastructure, although resources may not always be available to implement upgrades.

Proposed Action

Utilities

Construction-Related Impacts – Short-term minor impacts on utility quality and availability would be anticipated for developed areas. In the unlikely event that construction or maintenance activities result in actual damage to a utility system or interruption of services resulting from installation of the Proposed Action, a short-term significant impact may occur. For the Sandy Ridge tower which is located in a rural area involving new construction; construction-related activities would require additional short-term electric and communication services from available utility networks. Construction-related impacts are not expected to lead to major shortages in supply, nor are they expected to require major changes to the system. Impacts to utilities would not be significant.

During construction-related activities related to the Proposed Action, precautions would be taken to avoid damage to existing utility lines. All potential modifications to utility services would be evaluated. Coordination with potentially affected local and regional utility service providers would occur to avoid unnecessary damage or interruption of service. According to the Federal Aviation Administration Aeronautical Study Number 2008-ASO-5329-OE, the Proposed Action was determined to pose “No Hazard to Air Navigation.” The study revealed that the Proposed Action “does not exceed obstruction standards and would not be a hazard to air navigation.” There would be no significant impact to utility services from construction related activities with the Sandy Ridge tower site.

Operations-Related Impacts – The Proposed Action would not be expected to cause noticeable impacts to local utility services across all category types. Operations impacts are not expected to lead to major shortages in supply, nor are they expected to require major changes to the services. According to the Federal Aviation Administration Aeronautical Study Number 2008-ASO-5329-OE, the Proposed Action was determined to pose “No Hazard to Air Navigation.” The study



revealed that the Proposed Action “does not exceed obstruction standards and would not be a hazard to air navigation.” There would be no significant impact to utility services from operations-related activities of the Sandy Ridge tower site.

Transportation Network

Construction-Related Impacts – For the Sandy Ridge tower site construction-related activities, heavy equipment and materials that may be needed for site access and site preparation would not pose a significant impact to the transportation network. Construction of the Proposed Action may require numerous truck trips to haul materials to the project site or to dispose of waste materials. The number of construction-related trips and the frequency involved is anticipated to be minimal for the Sandy Ridge tower site due to the anticipated surface impact of less than 0.083-acres in size, which would not require a significant amount of construction related traffic to complete the project. During the construction period, the movement of heavy equipment and materials to the project site during construction may cause a relatively short-term increase in the level of service along local roadways.

Potential impacts to transportation are expected to be minimal, provided appropriate planning and implementation actions are taken. Existing roads would be used to the maximum extent possible. There would be no significant impact to transportation networks from construction-related activities.

Operations-Related Impacts – Due to the limited footprint of the Sandy Ridge tower site, less than 0.083-acres, only a small number of daily trips by medium-duty vehicles and/or personal vehicles will be required. Transportation activities during operation would not be expected to cause noticeable impacts to local transportation networks. There would be no significant impact to transportation networks from operations-related activities.

No Action Alternative

Under the No Action Alternative, there would be no new construction. There would be no impact to utilities or the transportation network resulting from the No action Alternative.

Resource 10 – Socioeconomic Resources

Impacts to socioeconomic resources are assessed in terms of the effects of expenditures on the overall local economy and the impact of in-migration on demographics, employment, the availability of housing, and the ability of a jurisdiction to provide services such as education and public safety. In addition, disproportionate impacts to low-income or minority populations would result in adverse environmental justice impacts.



Proposed Action

Under the Proposed Action, expenditures associated with the implementation of PSIC-funded grant programs would represent a small portion of overall statewide spending and a small portion of the statewide economy.

The implementation of the PSIC-funded project may result in an increase in jobs as a result of the construction of the Sandy Ridge Communications tower site, but the increase is not expected to be significant in Stokes County, North Carolina.

Although increases in employment would be expected as a result of the implementation of the PSIC-funded project, increases are not expected to be significant. There would be no expected in-migration and therefore no impacts expected to demographics, the supply of housing, or other local entities to provide public services.

The potential for impacts on minority and low-income populations would be based on the evaluation of specific site characteristics. Unless the Proposed Action was disproportionately proposed for low-income or minority areas, no significant impacts to environmental justice would be expected.

No Action Alternative

Under the No Action Alternative, there would be no new construction. Under this alternative, there would be no increase in economic activity and job creation related to implementation of the program. Therefore, there would be no PSIC-related impacts to demographics, the availability of housing, the availability of services, or environmental justice.

Resource 11 – Human Health and Safety

Impacts to human health and safety can come from a wide range of activities. Workplace construction site safety can adversely impact health and safety, as well as the generation, handling, storage, use or disposal of hazardous toxic materials.

Proposed Action

Construction-Related Impacts – Under the Proposed Action, there would be a slight increase in workplace safety hazards during the construction phase of the Sandy Ridge tower site because of the nature of construction work and the increased intensity of work at the proposed tower site. The impact of this increase would not be significant. Work areas surrounding construction activities would be fenced, and appropriate signs would be posted to further minimize safety risks. In addition, implementation of worker safety rules, derived from OSHA safety and health standards, will establish a uniform set of safety practices and procedures to protect workers. Construction-related impacts to human health and safety would not be significant.



Operations-Related Impacts – Under the Proposed Action, fuels needed to power emergency generators would have to be stored on site in above-ground or vaulted tanks, to minimize the risk of soil contamination in the event of a leak. BMPs for the handling, storage, use, and disposal of fuels such as Diesel fuel would include regularly monitoring and inspecting tanks for leaks. Depending on the size of the storage tank, a spill prevention, contingency and countermeasure (SPCC) plan may need to be developed.

The Sandy Ridge tower site would be fenced, and access would be restricted to authorized personnel to minimize risks to human health and safety. Under the authority of Section 311 (j)(1)(C) of the Federal Water Pollution Act (Clean Water Act) found at Title 40, Code of Federal Regulations, Part 112 (40 CFR 112) a facility is not regulated under the SPCC Spill Prevention Plan if the aggregate aboveground storage tank capacity does not exceed 1,320-gallons. Based on the specified elevation of the proposed antennas (>10 meters AGL) and because the site will be located within a restricted area, no threat to human health and safety is apparent concerning radio frequency emissions. There would be no significant adverse impacts to human health and safety resulting from operation of the Sandy Ridge tower site under the Proposed Action.

The implementation of the Proposed Action would enable public safety authorities to improve interoperable communications and communicate more effectively in an emergency or crisis situation. This would result in an operations-related beneficial impact to human health and safety.

No Action Alternative

Under the No Action Alternative, there would be no new construction. Current interoperability communications gaps would continue, compromising the ability of first responders to respond effectively and rapidly to emergency situations. There would be adverse impacts to human health and safety as a result of the No Action Alternative.

SECTION 5 – FINDINGS AND CONCLUSIONS

Findings

The Proposed Action would require construction of a new transmitting and receiving tower involving a Self-support lattice tower over 200-ft AGL, thus requiring a site specific PSIC NEPA-EA.

However, the Proposed Action will not involve any of the unusual risks or impacts to sensitive areas identified in Section 4 that would require a site-specific EA. The No Action Alternative would result in adverse impacts to human health and safety. Therefore, the Proposed Action



would warrant the issuance of a FONSI to cover those actions for which no significant impact has been determined.

In accordance with 47 CFR Section 1.1307 (a)(1) through (8), an evaluation has been made to determine whether any of the listed FCC special interest items would be significantly affected if a tower structure and/or antenna and associated equipment control cabinets were constructed at the proposed site location. No FCC special interest items were identified that would require an EA to be prepared (See Appendix E).

Consequences of the Proposed Action

The Proposed Action would not have a significant impact on any resource area for those projects falling within the eleven resource parameters described in Section 4. The Proposed Action would have a beneficial impact on human health and safety because it would enable countywide improvements to public safety interoperable communications.

Consequences of the No Action Alternative

Under the No Action Alternative, no interoperable communications capability would occur. Existing gaps in public safety interoperable communications would persist, resulting in an adverse impact to human health and safety.



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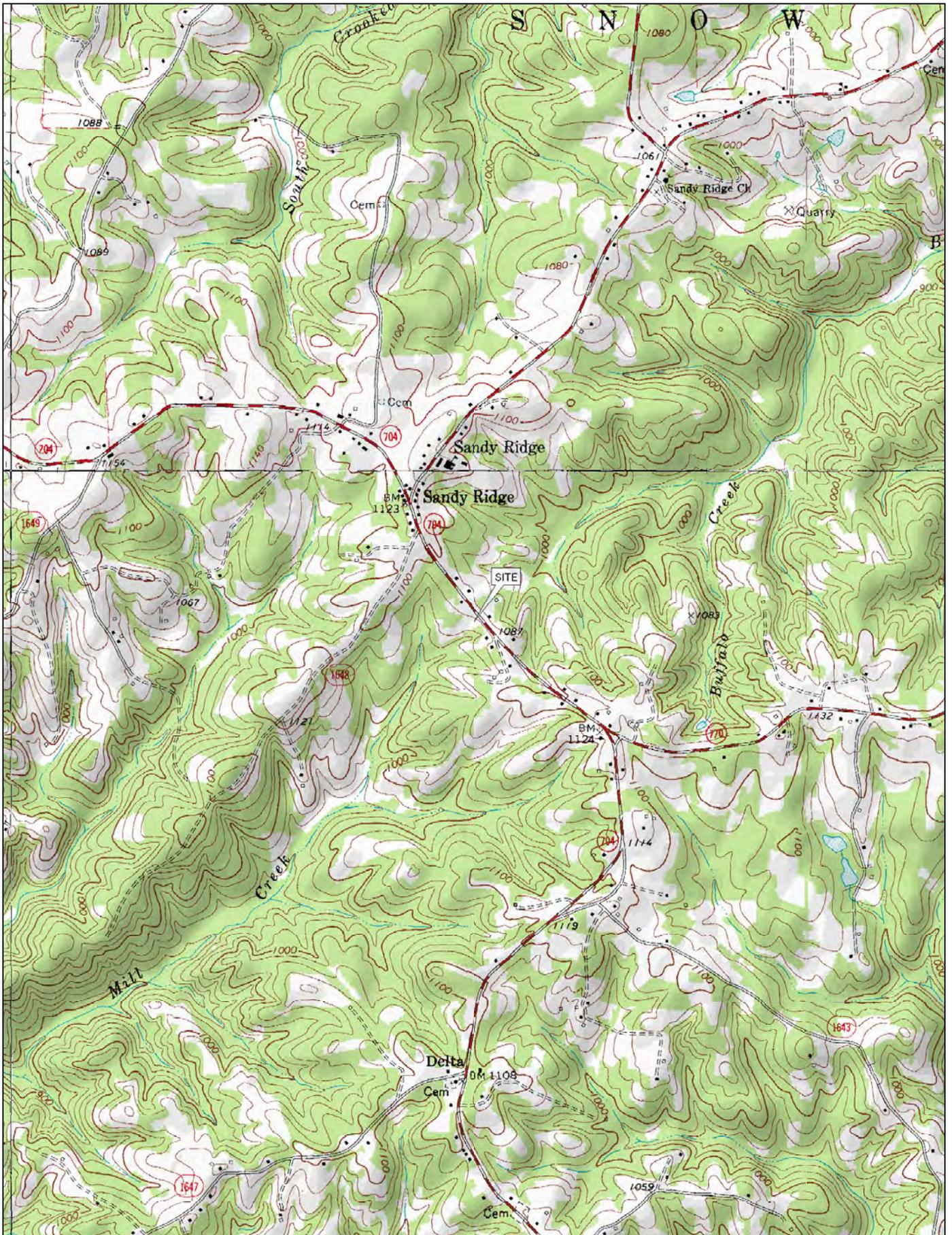
Ryan A. Malek, Tower Engineering Professionals, Inc., Raleigh, NC

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FIGURES

Figure 1: Site Vicinity Map

Figure 2: Topographic Map



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Scale 1:24,000
 4" = 1000'

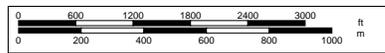


Figure 3: Site Plan

NOTES:

1. THIS PLAN HAS BEEN PREPARED WITHOUT THE BENEFIT OF A REPORT OF TITLE.
2. THIS PLAN DOES NOT REPRESENT A TITLE SURVEY.
3. THE BASIS OF THE MERIDIANS AND COORDINATES FOR THIS PLAN IS THE NORTH CAROLINA STATE PLANE COORDINATE SYSTEM, NORTH AMERICAN DATUM 1983 (NCSPCS NAD 83), BASED ON DIFFERENTIAL GPS OBSERVATIONS PERFORMED ON FEBRUARY 23, 2009.
4. THIS PROPERTY IS LOCATED IN FLOOD ZONE "X," AREAS DETERMINED TO BE OUTSIDE 500-YEAR FLOODPLAIN (FEMA/FIRM MAP NUMBER 3711606000), DATED DECEMBER 18, 2007).
6. SUBJECT PIN: 607004602516
7. PROPERTY OWNER:
NORTHEAST STOKES VOLUNTEER FIRE DEPARTMENT

N/P
JUDY STANLEY
PIN: 607004516068
DB: 539 PG: 1058

N/P
JUDY STANLEY
PIN: 607004504316
DB: 539 PG: 1058

N/P
NORTHEAST STOKES
VOLUNTEER FIRE DEPT.
PIN: 607004602516
DB: 485 PG: 2296
ZONING: RA

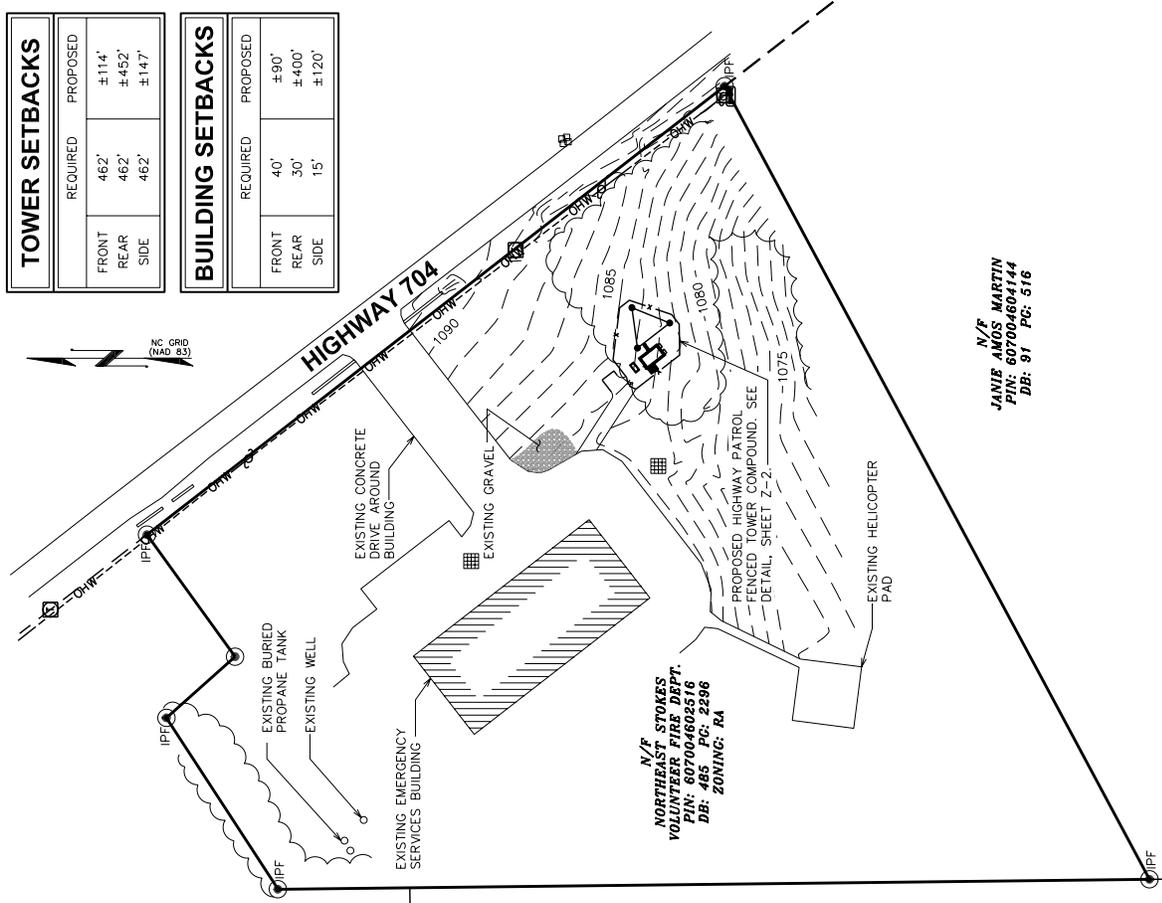
N/P
JANIE AMOS MARTIN
PIN: 607004604144
DB: 91 PG: 516

TOWER SETBACKS

	REQUIRED	PROPOSED
FRONT	462'	±114'
REAR	462'	±452'
SIDE	462'	±147'

BUILDING SETBACKS

	REQUIRED	PROPOSED
FRONT	40'	±90'
REAR	30'	±400'
SIDE	15'	±120'



LEGEND

—	EXIST. PROPERTY LINE
- - -	ADJ. PROPERTY LINE
○	PROPERTY CORNER
●	IRON ROD FOUND
⊞	EXIST. DROP INLET
⊞	EXIST. UTILITY POLE
⊞	EXIST. TELCO PEDESTAL
⊞	EXIST. POWER PEDESTAL
- - - 200 - - -	EXIST. CONTOUR LINE
///	EDGE OF PAVEMENT
- - OHW - - -	OVERHEAD WIRE
X	CHAIN LINK FENCE
⊞	EXISTING TREE LINE
⊞	YARD INLET

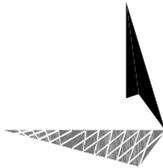
SITE PLAN
SCALE: 1" = 100'

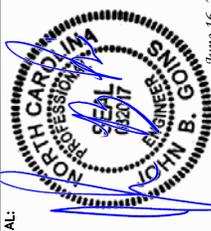
0 100 200
SCALE IN FEET

PLANS PREPARED FOR:

3318 GARNER ROAD, BLDG. 2
RALEIGH, NC 27607
OFFICE: (919) 662-4440

PROJECT INFORMATION:
**SANDY RIDGE
SITE # HP-1335**
5086 HIGHWAY 704 EAST
SANDY RIDGE, NC 27046
(STOKES COUNTY)

PLANS PREPARED BY:

TOWER ENGINEERING PROFESSIONALS
3703 JUNCTION BOULEVARD
RALEIGH, NC 27603-5263
OFFICE: (919) 861-6351
FAX: (919) 861-6350

SEAL:

June 16, 2009

2	06-19-09	FINAL ZONING
1	03-25-09	REVISED ZONING LAYOUT
0	03-04-09	PRELIMINARY ZONING
REV	DATE	ISSUED FOR:

DRAWN BY: TRG CHECKED BY: JBG

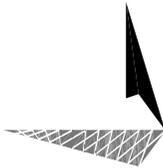
SHEET TITLE:
SITE PLAN

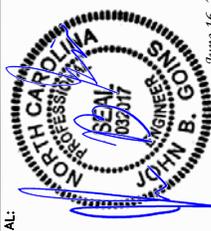
SHEET NUMBER:
Z-1
REVISION: **2**
TEP #: 062377

PLANS PREPARED FOR:

 3318 GARNER ROAD, BLDG. 2
 RALEIGH, NC 27607
 OFFICE: (919) 662-4440

PROJECT INFORMATION:
SANDY RIDGE
SITE # HP-1335
 5086 HIGHWAY 704 EAST
 SANDY RIDGE, NC 27046
 (STOKES COUNTY)

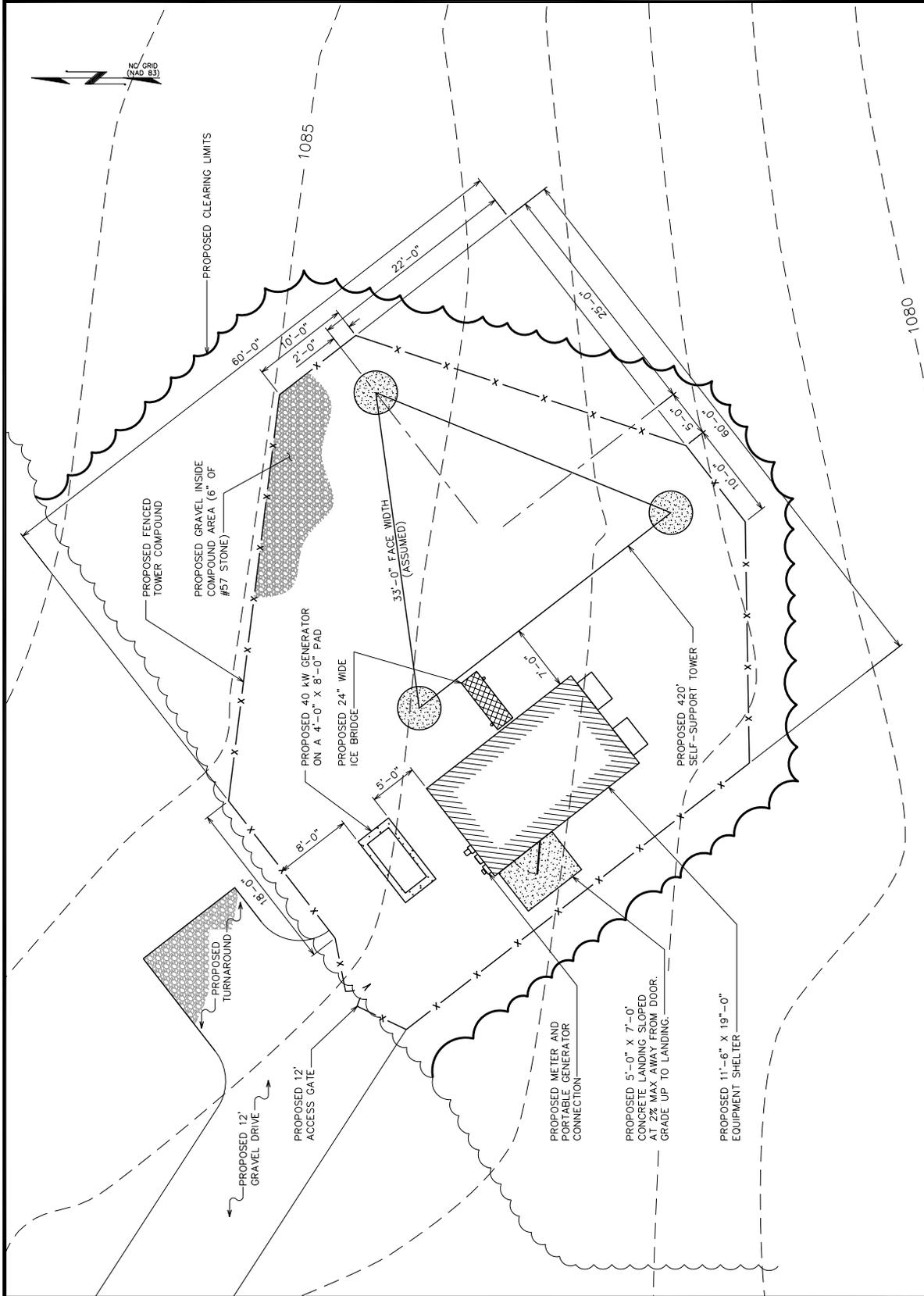
PLANS PREPARED BY:

TOWER ENGINEERING PROFESSIONALS
 3703 JUNCTION BOULEVARD
 RALEIGH, NC 27603-5263
 OFFICE: (919) 861-6351
 FAX: (919) 861-6350

SEAL:

 June 16, 2009

REV	DATE	ISSUED FOR:
2	06-19-09	FINAL ZONING
1	03-25-09	REVISED ZONING LAYOUT
0	05-04-09	PRELIMINARY ZONING

DRAWN BY: TRG CHECKED BY: JBG
 SHEET TITLE:
COMPOUND DETAIL

SHEET NUMBER: **Z-2**
 REVISION: **2**
 TEP #: 062377



COMPOUND DETAIL
 SCALE: 1" = 10'

Figure 4: Aerial Map



Figure 5: FEMA Flood Insurance Rate Map



GRID NORTH

MAP SCALE 1" = 1000' (1 : 12,000)

0 1000 2000 FEET

0 1000 2000 METERS

NFIP NATIONAL FLOOD INSURANCE PROGRAM

PANEL 6060J

FIRM
FLOOD INSURANCE RATE MAP
NORTH CAROLINA

PANEL 6060
(SEE LOCATOR DIAGRAM OR MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:
COMMUNITY STOKES COUNTY
CID No. 370362
PANEL 6060
SUFFIX J

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.

EFFECTIVE DATE MAY 16, 2007
MAP NUMBER 371160600J

State of North Carolina
Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps, check the FEMA Flood Map Store at www.msc.fema.gov

LEGEND



SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A No Base Flood Elevations determined.

ZONE AE Base Flood Elevations determined.

ZONE AH Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.

ZONE AO Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.

ZONE AR Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.

ZONE A99 Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.

ZONE VE Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.



FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.



OTHER FLOOD AREAS

ZONE X Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.



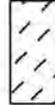
OTHER AREAS

ZONE X Areas determined to be outside the 0.2% annual chance floodplain.

ZONE D Areas in which flood hazards are undetermined, but possible.



COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

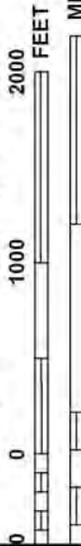


OTHERWISE PROTECTED AREAS (OPAs)



GRID NORTH

MAP SCALE 1" = 1000' (1 : 12,000)



NFIP

PANEL 6060J

FIRM
FLOOD INSURANCE RATE MAP
NORTH CAROLINA

PANEL 6060

(SEE LOCATOR DIAGRAM OR MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY
STONES COUNTRY

CID No. PANEL
377362Z 6060

Notice to User: The Map Number shown below should be used when placing map orders. The Community Number shown above should be used on insurance applications for the subject community.

EFFECTIVE DATE
MAY 16, 2007

MAP NUMBER
371160600J



State of North Carolina
Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

Figure 6: National Wetland Inventory Map

NWI Map



Map center: 36° 29' 42" N, 80° 6' 6" W



Legend

- Ohio_wet_scan
 - 0
 - 1
 - Out of range
- Interstate
- Major Roads
- Other Road
- Interstate
- State highway
- US highway
- Roads
- Lower 48 Wetland Polygons
 - Estuarine and Marine Deepwater
 - Estuarine and Marine Wetland
 - Freshwater Emergent Wetland
 - Freshwater Forested/Shrub Wetland
 - Freshwater Pond
 - Lake
 - Other
 - Riverine
- NHD Streams
- South America
- North America



Scale: 1:12,511

This map is a user generated static output from an Internet mapping site and is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. THIS MAP IS NOT TO BE USED FOR NAVIGATION.

Figure 7: Geologic Map

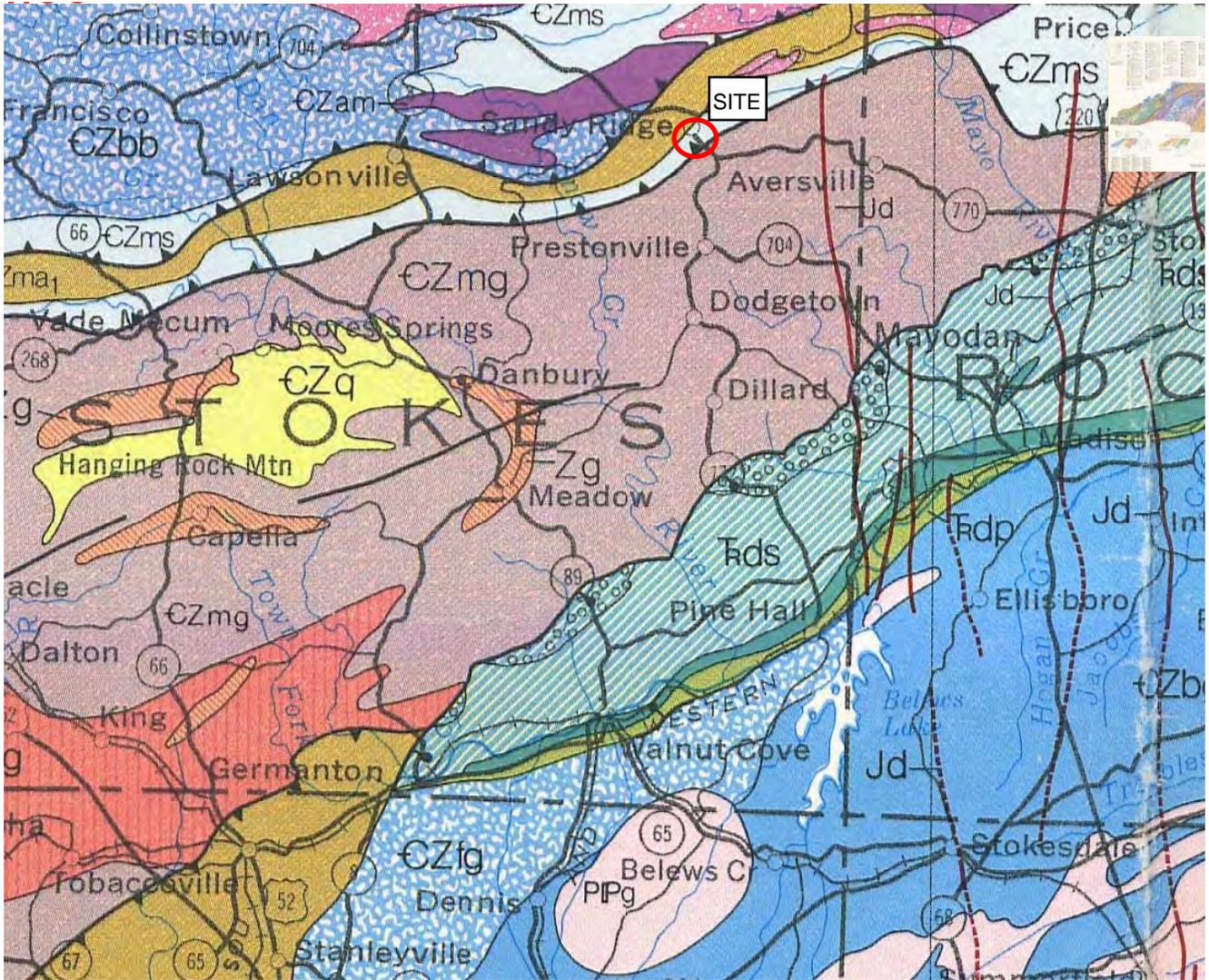
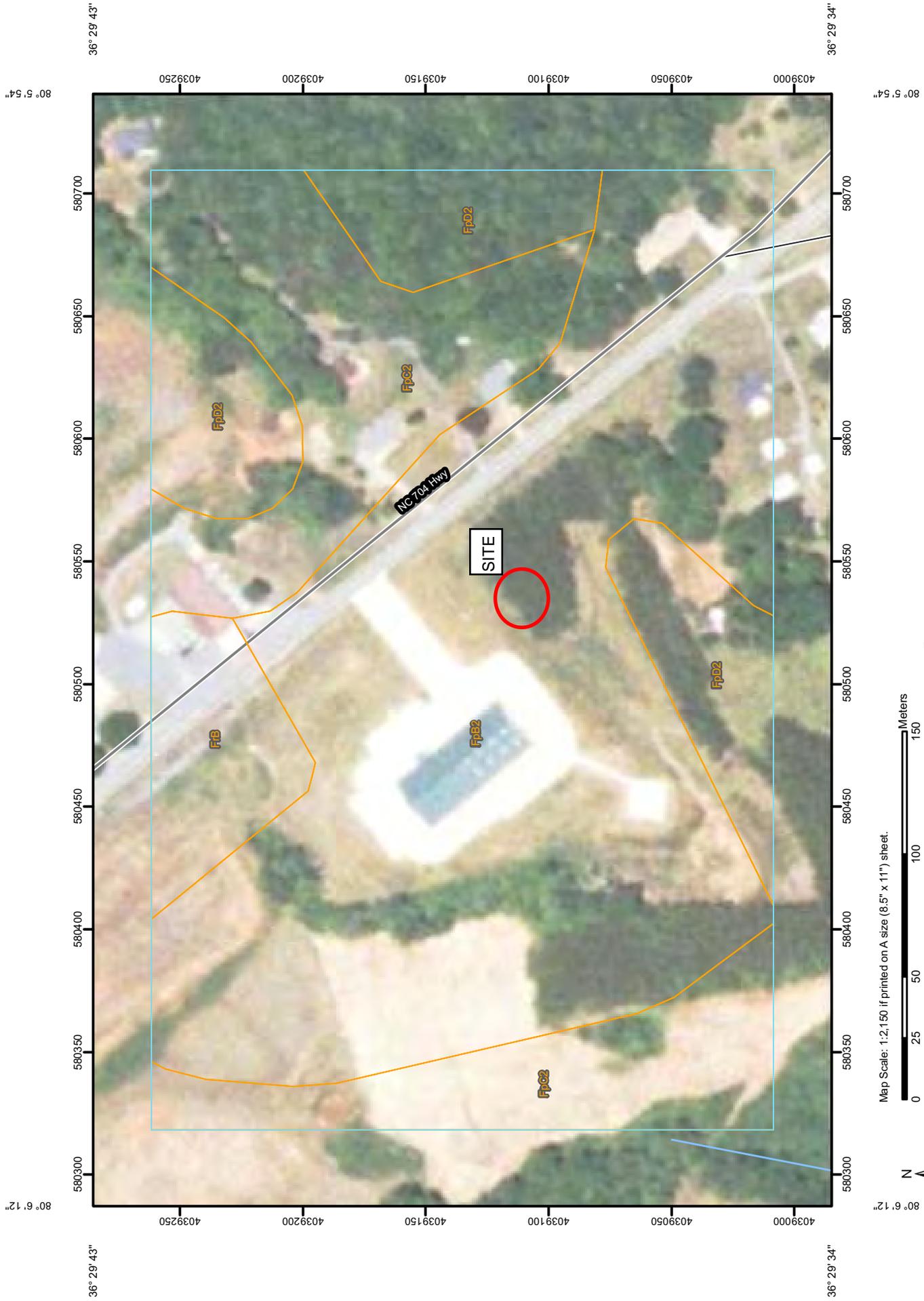
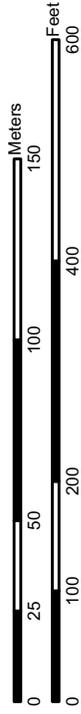


Figure 8: Soils Map

Soil Map—Stokes County, North Carolina



Map Scale: 1:2,150 if printed on A size (8.5" x 11") sheet.



Map Unit Legend

Stokes County, North Carolina (NC169)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
FpB2	Fairview-Poplar Forest complex, 2 to 8 percent slopes, moderately eroded	13.7	56.0%
FpC2	Fairview-Poplar Forest complex, 8 to 15 percent slopes, moderately eroded	6.1	24.8%
FpD2	Fairview-Poplar Forest complex, 15 to 25 percent slopes, moderately eroded	3.4	13.7%
FrB	Fairview-Poplar Forest-Urban land complex, 2 to 8 percent slopes	1.3	5.5%
Totals for Area of Interest		24.5	100.0%

Figure 9: Historic Sites Map



© 2002 DeLorme (www.delorme.com). 3-D TopoQuads ©. Data copyright of content owner.
 Scale: 1 : 28,125 Map Rotation: 0° Magnetic Declination: 0.05°

2,000 ft

Historic Sites Topographic Map Key

SK693 – Robert Payne House

SK696 – Ward Duncan Hawkins House

SK697 – Dodson House

SK714 – John Thomas Kellam House

SK717 – House

SK718 – William Steele Farm

SK719 – S. Houston Steele House

SK720 – Moore Vernon House

SK721 – Will Shelton House

SK722 – Sam Mays House

SK723 – M.L. Hutcherson Store

SK724 – Steele Amos House

SK725 – James E. Shelton House

SK726 – Hutcherson-Amos House

SK727 – Dr. James H. Ellington House (SL)

SK728 – Caleb Hall House

SK729 – Caleb Hall Store and Post Office

SK730 – George Washington Andrews House

SK731 – Tilley House

SK732 – Simmons Pratt House

SK746 – John A. Martin House

SK753 – Nathaniel Hutcherson House

SK754 – Bolie Shaffer House

SK756 – Ziglar Blair House

SK757 – Bud Amos House

SK758 – Elmer Briggs Store

Appendices

Appendix A: Site Photographs



1) View facing east towards road and proposed tower site.



2) View facing west from road towards proposed tower site.



3) View facing south towards proposed tower site.

**Appendix B: Informal Biological Assessment and USFWS
Response**

**COMMUNICATIONS TOWER SITE
EVALUATION FORM**

1. Location (Provide maps if possible):
State: NC County: Stokes Latitude/Longitude/GPS Grid: N 36 29' 37.974" W
80 06' 2.526"
City and Highway Direction (2 miles W on Hwy 20, etc.): Southwest of a portion
of NC Hwy 704 E, south of Sandy Ridge, NC
2. Elevation above mean sea level: 1083.7-ft
3. Will the equipment be co-located on an existing FCC licensed tower or other
existing structure (building, water tank, etc)? Y/N NO If yes, type of structure:

4. If yes, will the compound be expanded: _____
If yes, will the tower be extended: _____
5. If No, provide proposed specifications for the new tower:
Height: 420-ft Construction Type (lattice, monopole, etc.): Self Support
Guyed-Wire? NO No. Bands: _____ Total No. Wires: _____
Lightning (Security and Aviation): _____
6. Area of tower footprint in acres or square feet: ≈ 0.083-acres
7. Length and width of access road in feet: Length: 60-ft Width: 12-ft
8. General description of terrain (mountains, rolling hills, flat, flat in undulating,
etc.). Photographs of the site and surrounding area are beneficial: Rolling hills
9. Meteorological conditions (incidence of fog, low ceilings, rain, etc.): clear, sunny
10. Soil Type(s): Fairview-Poplar Forest Complex
11. Habitat types and land use on and adjacent to the site:

Habitat Type:	Acreage:	Percentage of Total:
<u>Undeveloped forested</u>	<u>≈1.5</u>	<u>20.7%</u>
<u>Maintained lawn</u>	<u>≈4.58</u>	<u>63.3%</u>
<u>Municipal</u>	<u>≈1.15</u>	<u>16%</u>

Adjacent land use: Agricultural, low density residential, commercial
12. Dominant vegetative species in each habitat type: Virginia Pine in undeveloped
forested land

13. Average diameter breast height of dominant tree species in forested areas:
Tree species: Diameter (inches):
Pinus virginiana 3"-6"

14. Will construction at this site cause fragmentation of a larger block of habitat into two or more smaller blocks? Y/N NO If yes, describe: _____
15. Is evidence of bird roosts or rookeries present? Y/N NO If yes, describe: _____
16. Distance to nearest wetland area (forested swamp, marsh, riparian, marine, etc.), and coastline, if applicable: N/A
17. Distance to nearest telecommunications tower:
Unknown- None observed within tower vicinity
18. Potential for co-location of antennas on existing towers or other structures: None
19. Have measures been incorporated for minimizing impacts to migratory birds?
Y/N NO If yes, describe: _____
20. Has an evaluation been made to determine if the proposed facility may affect listed or proposed endangered or threatened species or their habitats as required by FCC regulations at 47 CFR 1.1307(a)(3)? Y/N YES If yes, present findings:
No occurrences of, or potential habitat for, federally listed threatened or endangered species for Stokes County, NC were observed on the parent property
21. Additional information required: _____



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Asheville Field Office
160 Zillicoa Street
Asheville, North Carolina 28801

April 23, 2009

Mr. Ryan A. Malek
Environmental Scientist
Tower Engineering Professionals, Inc.
3703 Junction Boulevard
Raleigh, North Carolina 27603-5263

Dear Mr. Malek:

We have reviewed your letter dated March 30, 2009, concerning the proposed construction of a communications tower on NC 704 Highway East, Stokes County, North Carolina. The following comments are provided in accordance with the provisions of the Fish and Wildlife Coordination Act, as amended (16 U.S.C. 661-667e); the Migratory Bird Treaty Act, as amended (16 U.S.C. 703) (MBTA); and section 7 of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531-1543) (Act).

Proposed Project. As stated in your letter, the proposed tower will be approximately 420 feet high and will be of a lattice design. We presume that no aviation warning light system will be installed. The tower will be placed on an approximately 0.08-acre wooded tract, with a 60-foot access road (your project – “Sandy Ridge”).

Endangered Species. Based on the information provided, we do not believe the proposed communications tower is likely to adversely affect any federally listed endangered or threatened species, any formally designated critical habitat, or any species currently proposed for federal listing under the Act. Therefore, we believe the requirements of section 7 of the Act have been satisfied. We remind you that obligations under section 7 must be reconsidered if: (1) new information reveals impacts of this identified action that may affect listed species or critical habitat in a manner not previously considered, (2) this action is subsequently modified in a manner that was not considered in this review, or (3) a new species is listed or critical habitat is determined that may be affected by the identified action.

Site Clearing and Access Road Construction. We want to emphasize that stringent measures to control sediment and erosion should be implemented prior to any ground disturbance, particularly with regard to the access road, and should be maintained throughout project

construction. Wetland/stream buffers (a minimum of 100 feet on perennial streams and 50 feet on intermittent streams) should be maintained throughout the project area. Additionally, all streams and wetlands should be avoided, and there should be mitigation for any unavoidable impacts. Bridges or other spanning structures should be used for all stream/wetland crossings; culverts should not be used.

Migratory Birds. As you are undoubtedly aware, communications towers (including radio, television, cellular, and microwave) can pose a hazard to both resident and migratory birds, especially birds that migrate at night. We are especially concerned about the cumulative effects to migratory birds, particularly the some 350 species that migrate at night, from the increasing number of towers being built by the communications industry (increasing at an estimated 6 to 8 percent annually). Towers 200 feet high and taller are particularly hazardous, and those with lighting have even higher rates of avian mortality. Estimated mortality rates from communications towers are well over 5 million birds per year nationally, which violates the spirit and intent of the MBTA and the Code of Federal Regulations at Part 50 (designed to implement the MBTA). Some of the species affected are also protected under the Endangered Species Act and the Bald and Golden Eagle Act.

The MBTA (16 U.S.C. 703-712) prohibits the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests, except when specifically authorized by the Department of the Interior. While the MBTA has no provisions for allowing incidental take, we recognize that some migratory birds may be killed at structures such as communications towers even if all reasonable measures to avoid harm to them are implemented.

To minimize avian strikes on this tower, we recommend the following mitigative measures. These guidelines have been developed by U.S. Fish and Wildlife Service (Service) personnel from research conducted in several eastern, midwestern, and southern states and have been refined through regional review. They are based on the best information available at this time and are the most prudent and effective measures for avoiding bird strikes at towers. As new information becomes available, these guidelines will be updated accordingly.

Communications Tower Construction Guidelines to Protect Migratory Birds:

- Collocate equipment on existing towers if at all possible.
- Build the structure less than 199 feet above ground level and without guy wires if at all possible.
- If constructing multiple towers, address the cumulative impacts of all those towers to migratory birds and to endangered and threatened species.
- If at all possible, site new towers within existing “antenna farms” (clusters of towers). Towers should not be sited near wetlands, other known bird concentration areas (e.g., state or federal refuges, staging areas, rookeries), in

known migratory or daily movement flyways, or in the habitat of endangered or threatened species. Towers should not be sited in areas with a high incidence of fog, mist, or low ceilings.

- Construct towers so they can accommodate possible future collocations of antennas.
- Use red or white (preferable) strobe lights instead of flashing lights. The use of solid red or pulsating red warning lights at night should be avoided; current research indicates that these lights attract birds at a much higher rate than white strobe lights.
- Use the minimum amount of lighting, the minimum intensity of lighting, and the minimum number of strobe flashes allowed with the minimum strobe flash duration under Federal Communications Commission/Federal Aviation Administration regulations.
- Minimize security lighting for on-ground facilities and ensure that such lighting points downward or is down-shielded.
- Illuminate the tower with additional daytime white strobes (in addition to the tower top) to further increase the visibility of the tower to birds and thereby decrease the potential for blind strikes.

In order to obtain information on the usefulness of these guidelines in preventing bird strikes and to identify any recurring problems with their implementation that may necessitate modifications, please advise us of the final location and specifications of the proposed tower and which of the above recommendations are implemented. If any of the reasonable measures cannot be implemented, please explain why they are not feasible.¹

As mentioned previously, the take of even one bird may constitute a violation of the MBTA. However, issuance of a permit is problematic as the number and species of birds that might be “taken” are unknown and likely inconsistent.² We recommend a monitoring program to examine site-specific avian migration at the tower site as well as the collection of birds from

¹A Communications Tower Working Group composed of government agencies, industry, academic researchers, and environmental organizations has been formed to develop and implement a research protocol to determine the best ways to construct and operate towers to prevent bird strikes. Until the research is completed or until research efforts uncover significant new mitigative measures, the guidelines listed above will be used to mitigate and minimize bird strikes.

²The Service’s Division of Law Enforcement carries out its mission to protect migratory birds not only through investigation and enforcement but also through fostering relationships with individuals and industries who proactively seek to eliminate their impacts on migratory birds. While it is not possible under the MBTA to absolve individuals or companies from liability, if they follow these recommended guidelines, the Division of Law Enforcement and the Department of Justice have used enforcement and prosecutorial discretion in the past regarding individuals or companies who have made good-faith efforts to avoid the take of migratory birds.

tower-induced mortality. This study will help clarify the actual impacts of this and other similar towers to avian mortality and also will help us recommend measures to reduce or eliminate any particular risks identified. Sampling should be focused during times of peak bird migration (April and September) and after significant weather events (storms and fog). We are available to assist in the design of a monitoring plan.

To assist us in assessing the effects of bird strikes to towers of this nature in this area, we request written permission for our employees and/or designees to access the property at the base of the tower to inspect for avian mortality. Access might occur at regular or random intervals and/or following weather events known to induce avian strikes.

Thank you for informing us about this proposed project. If you have any questions about our comments, please contact Mr. Allen Ratzlaff of our staff at 828/258-3939, Ext. 229. In any future correspondence pertaining to this project, please reference our Log Number 4-2-09-253.

Sincerely,

A handwritten signature in cursive script, appearing to read "Brian P. Cole".

Brian P. Cole
Field Supervisor

Appendix C: Section 106 Compliance Documentation

New Tower (“NT”) Submission Packet

FCC FORM 620

Introduction

General Instructions: NT Submission Packet

Fill out the answers to Questions 1-5 on Form 620 and provide the requested attachments. Attachments should be numbered and provided in the order described below.

For ease of processing, provide the Applicant’s Name, Applicant’s Project Name, and Applicant’s Project Number in the lower right hand corner of each page of Form 620 and attachments.³

1. Applicant Information

Full Legal Name of Applicant: North Carolina Highway Patrol - Department of Crime Control and Public Safety

Name and Title of Contact Person: Tanya Luter - VIPER Project Manager

Address of Contact Person (including Zip Code):
3318 Garner Rd, Building Two Raleigh, NC 27610

Phone: 919.662.4440 Fax:

E-mail address:

2. Applicant’s Consultant Information

Full Legal Name of Applicant’s Section 106 Consulting Firm:
R.S. Webb and Associates

Name of Principal Investigator: Robert S. Webb

Title of Principal Investigator: President and Senior Principal Archaeologist

Investigator’s Address: 2800 Holly Springs Parkway, P.O. Drawer 1319

³ Some attachments may contain photos or maps on which this information can not be provided.

Applicant’s Name: NC Highway Patrol
Project Name: Sandy Ridge
Project Number: HP-1335

FCC Form 620
February 2010

NR SUBMISSION PACKET – FCC FORM 620

Approved by OMB

3060-1039

Estimated Time Per Response:

.5 to 10 hours

City: Holly Springs

State: GA

Zip Code: 30142

Phone: 770.345.0706

Fax: 770.345.0707

E-mail address:

Does the Principal Investigator satisfy the Secretary of the Interior’s Professional Qualification Standards?⁴ Yes: No:

Areas in which the Principal Investigator meets the Secretary for the Interior’s Professional Qualification Standards: Archaeology

Other “Secretary of the Interior qualified” staff who worked on the Submission Packet (provide name(s) as well as the area(s) in which they are qualified):

3. Site Information

a. Street Address of Site: 5086 Highway 704 E

City or Township: Sandy Ridge

County/Parish: Stokes

b. Nearest Cross Roads: Highway 704 E/Doug Stanley Rd.

c. NAD 83 Latitude/Longitude coordinates (to tenth of a second):

N36°29’38.14”; W80°06’2.27”

NT SUBMISSION PACKET – FCC FORM 620

⁴ The Professional Qualification Standards are available on the cultural resources webpage of the National Park Service, Department of the Interior: http://www.cr.nps.gov/local-law/arch_stnds_9.htm. The Nationwide Agreement required use of Secretary-qualified professionals for identification and evaluation of historic properties within the APE for direct effects, and for assessment of effect. The Nationwide Agreement encourages, but does not require, use of Secretary-qualified professionals to identify historic properties within the APE for indirect effects. See Nationwide Agreement, §§VI.D.1.d, VI.D.1.e, VI.D.2.b, VI.E.5.

Applicant’s Name: NC Highway Patrol

Project Name: Sandy Ridge

Project Number: HP-1335

FCC Form 620

February 2010

Approved by OMB
3060-1039

Estimated Time Per Response:
.5 to 10 hours

d. Proposed tower height above ground level:⁵420feet; 128.02meters

e. Tower Type:

guyed lattice tower self-supporting lattice monopole

other (briefly describe tower)

4. Project Status:⁶

- a. Construction not yet commenced;
b. Construction commenced on [date] ; or,
c. Construction commenced on [date] and was
completed on [date] .

5. Applicant's Determination of Effect:

a. Direct Effects (check one):

- i. No Historic Properties in Area of Potential Effects ("APE") for direct effects;
ii. "No effect" on Historic Properties in APE for direct effects;
iii. "No adverse effect" on Historic Properties in APE for direct effects;
iv. "Adverse effect" on one or more Historic Properties in APE for direct effects.

b. Visual Effects (check one):

- i. No Historic Properties in Area of Potential Effects ("APE") for visual effects;
ii. "No effect" on Historic Properties in APE for visual effects;
iii. "No adverse effect" on Historic Properties in APE for visual effects;
iv. "Adverse effect" on one or more Historic Properties in APE for visual effects.

NT SUBMISSION PACKET – FCC FORM 620

Approved by OMB

⁵ Include top-mounted attachments such as lightning rods.

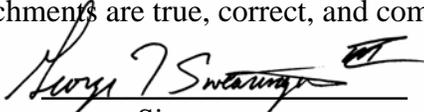
⁶ Failure to provide the Submission Packet and complete the review process under Section 1006 of the NHPA prior to beginning construction may violate Section 110(k) of the NHPA and the Commission's rules. See Section X of the Nationwide Agreement.

Applicant's Name: NC Highway Patrol
Project Name: Sandy Ridge
Project Number: HP-1335
FCC Form 620
February 2010

3060-1039
Estimated Time Per Response:
.5 to 10 hours

Certification and Signature

I certify that all representations on this FCC Form 620 and the accompanying attachments are true, correct, and complete.


Signature

2/10/2010
Date

George T. Swearingen, III
Printed Name

Environmental Division Manager
Title

WILLFUL FALSE STATEMENTS MADE ON THIS FORM OR ANY ATTACHMENTS ARE PUNISHABLE BY FINE AND/OR IMPRISONMENT (U.S. Code, Title 18, Section 1001) AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. Code, Title 47, Section 312(a)(1) AND/OR FORFEITURE (U.S. Code, Title 47, Section 503).

Applicant's Name: NC Highway Patrol
Project Name: Sandy Ridge
Project Number: HP-1335
FCC Form 620
February 2010

NT SUBMISSION PACKET – FCC FORM 620

Attachments

Attachment 1. Résumés/Vitae

See attached resume of Robert S. Webb, Senior Principal Archeologist.

Attachment 2. Additional Site Information

The proposed 420-ft self support tower is located southwest of a portion of NC Highway 704 East, south of the Community of Sandy Ridge, in northeastern Stokes County, NC (Stokes County Parcel #607004602516). The parent property is currently owned by the Northeast Stokes Volunteer Fire Department. The proposed access easement will utilize an existing concrete drive that currently provides access to the property, proceeding southwest from NC Hwy 704 for approximately 180-ft. The proposed access easement will then continue southeast through a maintained grass lawn for approximately 60-ft., along the proposed 12-ft. wide gravel access drive, before reaching the proposed 60-ft x 60-ft fenced tower compound located within an undeveloped forested portion of the parent property to the southwest of Hwy 704 East. The parent property was located in a portion of Stokes County where the surrounding land was primarily occupied by low density residential, agricultural, municipal, commercial and undeveloped forested land uses.

Attachment 3. Tribal and NHO Involvement

Tower Engineering Professionals filed the proposed facility with the FCC – Tower Construction Notification System (TCNS) on 2-19-2009 and was assigned TCNS# 49258. In addition, TEP personnel sent, via email or standard mail, correspondence to all the applicable tribes on 4-2-09.

Attachment 4.

TEP contacted the Stokes County Planning and Inspections Department and on April 3, 2009 and invited them to be a consulting party regarding the proposed Communication Tower.

Attachment 5.

TEP placed a Public Notice in “The Stokes News” newspaper that was advertised on 2/26/09 and has requested any comments be delivered to TEP by March 27, 2009. Please see the attached Public Notice Affidavit.

Attachment 6.

TEP contacted the Stokes County Historical Society on April 3, 2009 requesting any comments they may have regarding the proposed undertaking within 30 days of receipt of the correspondence.

Attachment 7.

- a.** The geographic area, scale and nature of the undertaking and subsequent effects of the proposed project were analyzed to determine the APE for direct effects. The determined APE for direct effects is the proposed tower compound lease area, access easement, and the proposed utility easement. The proposed tower compound will be located entirely within an undeveloped forested portion of the parent property. The proposed access easement will proceed southwest from NC Hwy 704 for approximately 180-ft. The proposed access easement will then continue southeast through a maintained grass lawn for approximately 60-ft., along the proposed 12-ft. wide gravel access drive, before reaching the proposed 60-ft x 60-ft fenced tower compound. The proposed tower compound will occupy 3,600 ft² (0.083 ac.) of potential disturbance area associated with the proposed facility. See attached Construction Drawings.
- b.** The geographic area, scale and nature of the undertaking and subsequent effects of the proposed project were analyzed to determine the APE for visual effects. Further, required background research and suggested standards by the North Carolina-State Historic Preservation Office and the FCC Nationwide Programmatic Agreement were reviewed to determine the APE for visual effects for the proposed project. The APE for visual effects is determined to be a 1.5 mile radius from the proposed 420-ft Self Support Communications tower centerline. The determined APE for visual effects is currently primarily occupied by low density residential, undeveloped forested, commercial, municipal and agricultural land uses.

Attachment 8. Historic Properties Identified in the APE for Visual Effects

- a.** One property pursuant to Section VI.D.1.a. of the Nationwide PA was identified in the determined APE for visual effects. The Dr. James H. Ellington House is listed as a "Study List" property in Stokes County, NC. The Study List is a preliminary step in the review of potential nominations to the National Register of Historic Places. The property is located off of Amostown Road (SR 1625) in Sandy Ridge, NC.
- b.** As of 2/9/2010 TEP has not been made aware of any properties identified by comment in the determined APE for visual effects.

- c. No listed or eligible properties that are no longer eligible were identified in the determined APE for visual effects were identified by TEP during the research at the North Carolina State Historic Preservation Office (SHPO).

Attachment 9. Historic Properties Identified in the APE for Direct Effects

- a. No properties listed on or eligible for listing on the National Register of Historic Places were located within the APE for direct effects. See attached Archeology Field Survey conducted by R.S. Webb and Associates.
- b. N/A
- c. See attached Archeology Field Survey conducted by R.S. Webb and Associates.

Attachment 10. Effects on Identified Properties

- a. **No Adverse Effect** - One Historic Property listed on or eligible for listing on the National Register of Historic Places was identified within the 2-mile APE. A determination of “No Effect” was received from Mrs. Renee Gledhill-Earley, the Environmental Review Coordinator for the North Carolina State Historic Preservation Office (SHPO).
- b. None
- c. This site was the primary candidate identified by the North Carolina Highway Patrol – Department of Crime Control and Public Safety, and the proposed Self Support communications tower will have “no adverse effect” on Historic Properties located within the identified APE.

Attachment 11. Photographs

- a. See attached site photographs and attached Archeology Field Survey conducted by R.S. Webb and Associates.
- b. N/A
- c. N/A
- d. N/A

Attachment 12. Maps

- a. See attached
- b. See attached
- c. N/A

R.S. Webb & Associates

*Cultural Resource Management Consultants
2800 Holly Springs Parkway • P.O. Drawer 1319
Holly Springs, Georgia 30142
Phone: 770-345-0706 • Fax: 770-345-0707*

April 1, 2009

Mr. George Swearingen
Tower Engineering Professionals
3703 Junction Boulevard
Raleigh, North Carolina 27603-5263

**Subject: Results - Archeological Field Survey
Proposed Sandy Ridge Tower Site
Stokes County, North Carolina
R.S. Webb & Associates No. 09-206-019.4**

Dear Mr. Swearingen:

BACKGROUND

R.S. Webb & Associates (RSWA), a professional cultural resources management firm, conducted an archeological field survey of the proposed Sandy Ridge tower site at 5086 Highway 704 East in Sandy Ridge, Stokes County, North Carolina (Figure 1). This survey was conducted at the request of and based upon location information provided by Tower Engineering Professionals. The proposed project's Area of Potential Effects (APE) for direct (or archeological) effects includes a 60 by 60 foot (ft) or 18 by 18 meter (m) tower lease area and an approximately 100 ft proposed access corridor (Figure 2).

METHODS

Field Survey: Screened shovel testing, surface inspection, and landscape scanning techniques were used during the current study to search for archeological deposits and other evidence of human occupation and use. Shovel testing involved the hand excavation of 30 centimeter (cm) diameter pits to sterile subsoil, and passing the fill through 0.64 cm hardware cloth to enhance artifact recovery.

The proposed tower lease area was investigated with six shovel tests; one shovel test was excavated at each corner and at the center of the proposed 60 by 60-foot tower lease area, and one shovel test was excavated in the proposed access corridor. Surface inspection included searching for exposed ground within the proposed lease area, the proposed portion of the access corridor, and scanning exposed areas for artifacts. Landscapes within and around the project area were scanned for historic ornamental vegetation, surface features, and other indications of historic occupation and use.

RESULTS

Field Survey: On March 25, 2009, Mr. Kenneth F. Styer, Senior Archeologist with RSWA, intensively surveyed the proposed tower site. The proposed site is located southeast of a modern fire station building, and the proposed site is located entirely within a stand of young to moderate aged planted pine trees (Figure 3; Photos 1-7).

Figure 2 shows the locations of the six shovel tests excavated within the proposed tower site. The soil profiles at the tower site reveal no top soil over red clay; an indication of severe disturbance of local soils (Photo 5). No artifacts, features, or structural remains were observed either on the surface or in the six shovel tests conducted within the project tract. Figure 3 shows the location of eight photographs of the proposed tower site and existing access.

RECOMMENDATIONS AND CONCLUSION

It is the opinion of RSWA that no archeological resources eligible for inclusion in the National Register of Historic Places will be affected by the proposed Sandy Ridge tower undertaking. No additional archeological work is recommended for this project.

CLOSING COMMENTS

Mr. Swearingen, thank you for the opportunity to work on this project with Tower Engineering Professionals. Please contact Mr. Steve Webb at 770-345-0706 if you have any questions concerning our findings.

Sincerely,
R.S. WEBB & ASSOCIATES

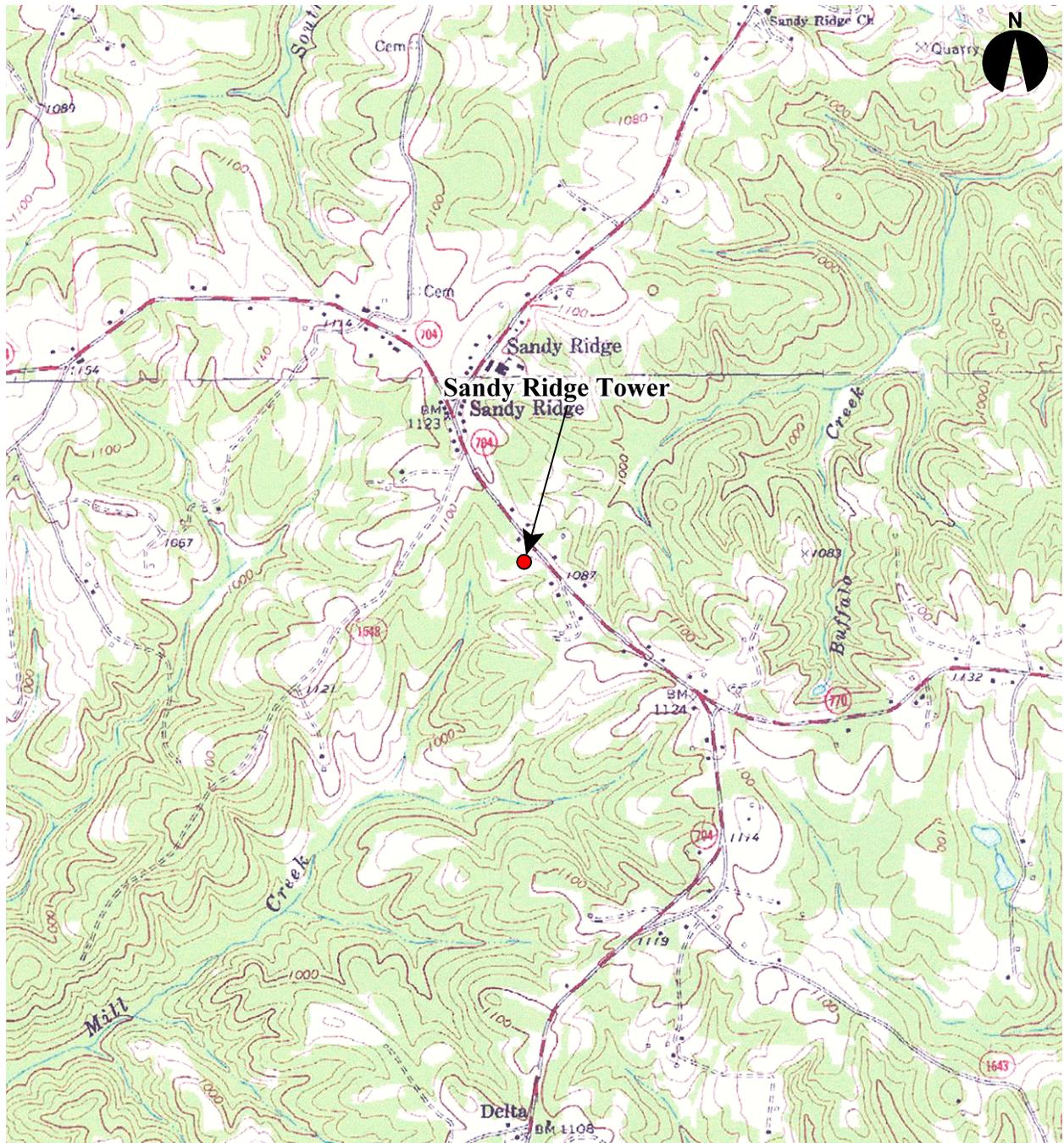


Neil J. Bowen
Historian



Robert S. Webb
President and Senior Principal Archeologist

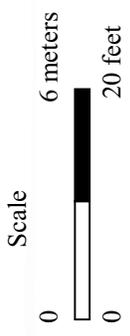
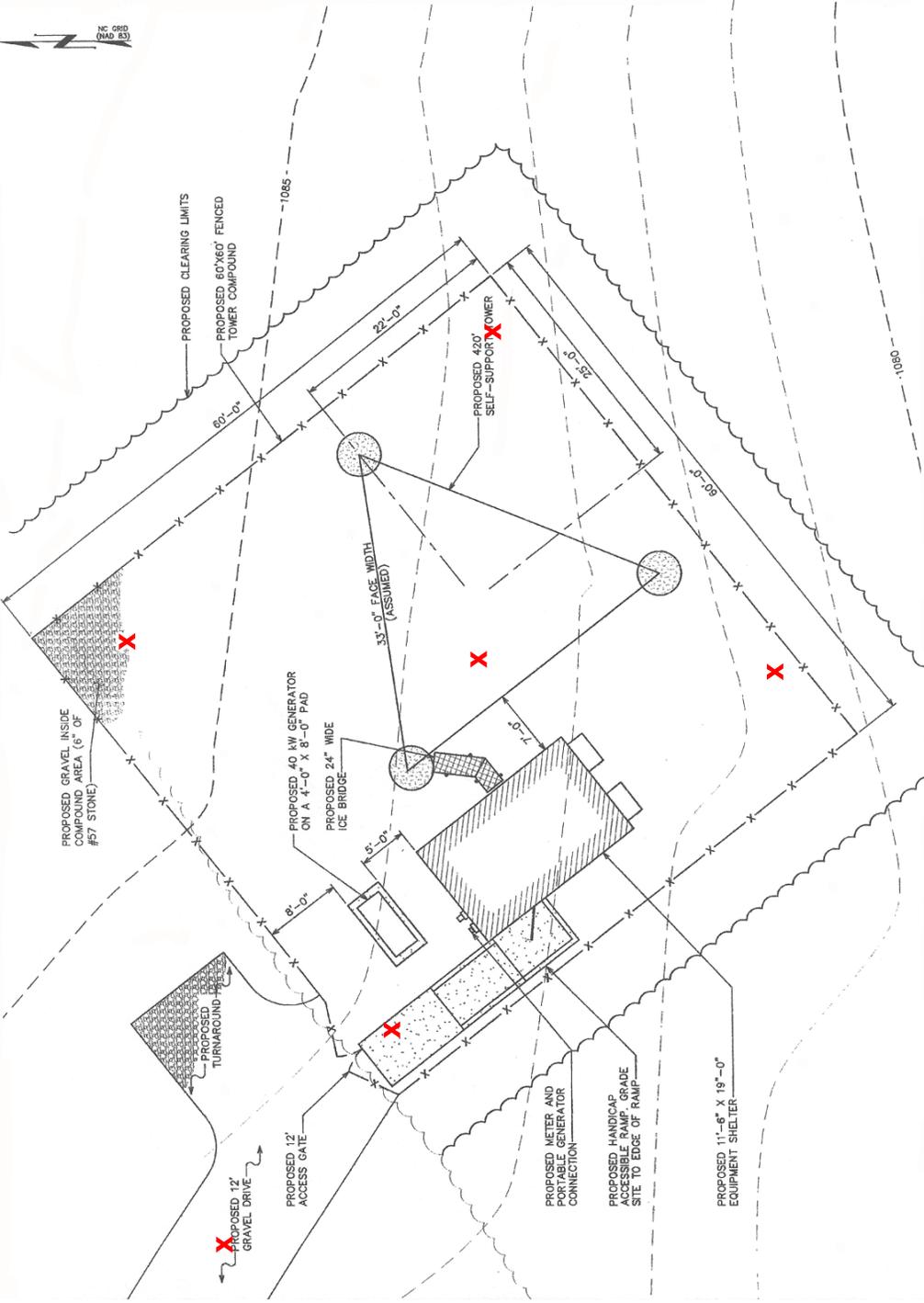
Attachments: Figures 1-3; Photos 1-8



Map Reference: 7.5 Minute USGS Quadrangles
 Ayersville (1971 PI 1984) and
 Spencer, North Carolina

Scale
 0 610 meters
 0 2000 feet

Figure 1 Tower Location Map



X Negative Shovel Test

Figure 2 Archeological Survey Coverage



Figure 3 Photo Location Key



Photo 1- From Proposed Tower Center Looking North



Photo 2 - From Proposed Tower Center Looking East



Photo 3 - From Proposed Tower Center Looking South



Photo 4 - From Proposed Tower Center Looking West



Photo 5 - Shovel Test at Tower Center



Photo 6 - Proposed Access Overview Looking West



Photo 7 - Proposed Tower Site Overview Looking East



Photo 8 - Existing Portion of Access Looking Northeast

ROBERT S. WEBB

*President
Principal Archeologist*

EDUCATION: M.A., Anthropology, University of Tennessee
B.A., Anthropology, University of Tennessee

PROFESSIONAL

MEMBERSHIPS: Southeastern Archeological Conference, Georgia Council of Professional Archeologists

CAREER SUMMARY

Mr. Webb has over 20 years of professional experience in cultural resource management studies. He is the president and principal archeologist of the firm. Mr. Webb has expertise in cultural resources identification, evaluation, data recovery and other areas of resource management. He is also a trained physical anthropologist and bio-statistician. Mr. Webb served as senior archeologist and cultural resources assessment department manager at Law Environmental, Inc. from 1990 through 1993. He owned a cultural resources management firm from 1985 until joining Law Environmental, Inc. in 1990. Mr. Webb established R.S. Webb & Associates in January 1994.

SELECTED PROJECTS

Unless otherwise noted, Mr. Webb served as principal investigator on the selected projects below.

Water Supply Reservoirs

Cultural resources survey, Walton County raw water supply reservoir system, Walton County, Georgia (1,600 acres)

Cultural resources survey, City of Canton raw water supply reservoir system, Cherokee County, Georgia (350 acres)

Cultural resources survey, Henry County raw water supply reservoir system, Henry and Buttes Counties, Georgia (1,650 acres)

Cultural resources survey and testing, City of Griffin raw water supply reservoir system, Pike County, Georgia (450 acres)

Cultural resources survey and testing, Henry County raw water supply reservoir system, Henry and Spalding Counties, Georgia (1,000 acres)

Cultural resources survey and testing, Lake MacIntosh raw water supply reservoir system, Fayette and Coweta Counties, Georgia (650 acres)

Data recovery at nine prehistoric sites, Henry County raw water supply reservoir system, Henry and Spalding Counties, Georgia

Cultural resources survey, Horton Creek raw water reservoir and dam site, Fayette County, Georgia (800 acres)

Cultural resources survey, Town Creek raw water supply reservoir and dam site, Jones County, Georgia (750 acres)

Testing at a Historic Creek village and a late 19th/early 20th century cemetery, Town Creek raw water supply reservoir, Jones County, Georgia

Cultural resources survey and testing, Cornish Creek raw water supply reservoir and dam site, Newton County, Georgia (1,000 acres)

Data recovery at three prehistoric sites, Cornish Creek raw water reservoir and dam site, Newton County, Georgia

Cultural resources survey and testing, Yellow Creek raw water supply reservoir and dam site, Cherokee County, Georgia (330 acres)

Data recovery at an Archaic and Woodland period camp/quarry site, Pates Creek raw water supply reservoir, Henry County, Georgia

Cultural resources survey, Shoal Creek raw water supply reservoir and dam site, Clayton County, Georgia (450 acres)

Cultural resources survey, Ellijay-Gilmer raw water supply reservoir and dam site, Gilmer County, Georgia (300 acres)

Cultural resources survey, Hudson River raw water supply reservoir and dam site, Banks County, Georgia (570 acres)

Cultural resources survey, Rush Creek raw water supply reservoir and dam site, Meriwether County, Georgia (80 acres)

Cultural resources survey and testing, Hazel Creek raw water supply reservoir and dam site, Habersham County, Georgia (350 acres)

Cultural resources literature and records search, water supply reservoir alternatives study, Lamar County, Alabama

Airports

Cultural resources survey, selected airport site, Lumpkin County, Georgia (150 acres)

Cultural resources survey, selected airport site, Upson County, Georgia (220 acres)

Cultural resources survey and testing, Cartersville Airport strip extension project, Bartow County, Georgia (60 acres)

Cultural resources survey, Gwinnett County airport strip replacement project, Lawrenceville, Georgia (250 acres)

Cultural resources survey, Tom B. David Airport strip extension project, Calhoun, Georgia (110 acres)

Development Projects

Cultural resources survey and evaluative testing, Silver Creek development site, Forsyth County, Georgia (700 acres)

Cultural resources survey, Kingswood South development site, Fulton County, Georgia (83 acres)

Cultural resources survey, Abbots Bridge Road development site, Fulton County, Georgia (20 acres)

Archival research and archeological testing, St James Hotel renovation and expansion project, Selma, Alabama (Project Manager)

Cultural resources survey and evaluative testing, Harbor View development site, Cherokee County, Georgia (1,400 acres)

Evaluative testing at two historic house sites, Sugarloaf Farm, Gwinnett County, Georgia

Cultural resources survey and data recovery, Ballantyne golf course community, Mecklenburg County, North Carolina (750 acres)

Archival research, archeological monitoring and archeological data recovery, Atlanta Federal Center (Richs Department Store site), Atlanta, Georgia

Cultural resources survey, (confidential) golf course community, Beaufort County, South Carolina (90 acres)

Cultural resources survey and testing, I-20 mall site, Dekalb and Rockdale Counties, Georgia (1,250 acres)

Cultural resources survey, Columbia County community center, Columbia County, Georgia (50 acres)

Cultural resources survey, Columbia County public school site, Columbia County, Georgia (70 acres)

Cultural resources survey and testing, BMW automobile manufacturing plant site, Spartanburg County, South Carolina (1,500 acres)

Cultural resources reconnaissance surveys, alternative Mercedes-Benz automobile manufacturing plant sites, Alamance County, North Carolina and Berkeley County, South Carolina (2,500 acres)

Cultural resources reconnaissance survey, five Resolution Trust properties, Columbia, South Carolina (15 acres)

Cultural resources reconnaissance survey, American-Italian Pasta Company, Columbia, South Carolina (250 acres)

Cultural resources reconnaissance survey, Bona Allen development project, Buford, Georgia (320 acres)

Cultural resources survey, Union Camp facility, Prattville, Alabama (50 acres)

Cultural resources survey and testing, Technology Parkway development, Floyd County, Georgia (800 acres)

Cultural resources survey and testing, Publix Distribution Center development, Gwinnett County, Georgia (150 acres)

Cultural resources survey, International Paper Facility, Corinth, New York (50 acres)

Cultural resources literature/records review, industrial development site, Texas City, Texas

Cultural resources survey, Sawmill Place development site alternatives study, Columbus, Ohio

Cultural resources reconnaissance survey, Elbow Road development project, Chesapeake, Virginia (150 acres)

Cultural resources survey, Interrose industrial development site, Georgetown County, South Carolina (400 acres)

Cultural resources survey and testing, American Okenite industrial development site, Orangeburg County, South Carolina (250 acres)

Cultural resources survey and testing, Chapel Hill golf course, Douglas County, Georgia (150 acres)

Archeological testing at Crowfield Plantation for Westvaco Development Corporation, Summerville, South Carolina

Cultural resources survey and testing, Vereen Memorial Gardens, Horry County, South Carolina (120 acres)

Cultural resources survey, Tiger Creek stream channelization project, Fort Benning, Georgia (4 acres)

Cultural resources survey, Moccasin Creek lake site, Union County, Georgia (60 acres)

Cultural resources reconnaissance survey, Plantation Centre site, Bibb County, Georgia (90 acres)

Highways

Cultural resources survey, Annistown Road improvements corridor, Gwinnett County, Georgia

Evaluative testing at Site 9GW347, Annistown Road improvements corridor, Gwinnett County, Georgia

Data recovery at a prehistoric quartz quarry site and 19th century farmstead site, Ronald Reagan Parkway, Gwinnett County, Georgia

Cultural resources survey, Old Madison Pike road-widening project, Huntsville, Alabama

Cultural resources survey, Four Mile Post road-improvement project, Huntsville, Alabama

Cultural resources survey, Kentucky Highway 15 road-widening project, Hazard, Kentucky

Cultural resources literature and records search, Valdosta by-pass alternatives study, Valdosta, Georgia

Historic Cemetery Delineations and Relocations

Archival research and delineation of the Farmer Street Cemetery, Newnan, Georgia

Archival research and delineation of the Brooks Family Cemetery, Pickens County, Georgia

Archival research and delineation of the Alexander Family Cemetery, Mecklenburg County, North Carolina

Archival research and delineation at Bethel Baptist Church Cemetery, Cobb County, Georgia

Archival research and delineation of an abandoned cemetery, Anderson County, South Carolina

Archival research and delineation of the Franklin-Hamilton Cemetery, Cobb County, Georgia

Archival research and delineation of the Strickland Cemetery, Forsyth County, Georgia

Archival research and delineation of the Hiram Road Cemetery, Cobb County, Georgia

Archival research and delineation of the Harmony Cemetery, Gwinnett County, Georgia

Archival research and delineation of Thompson Cemetery, Fulton County, Georgia

Archival research and delineation of the McCurdy-Rawlins-Boring Cemetery, Gwinnett County, Georgia

Archival research and delineation of the Barham Cemetery, Henry County, Georgia

Archival research and delineation of the Adams-Adkins Cemetery, Henry County, Georgia

Archival research and delineation of the Woodward-Puch Cemetery, Henry County, Georgia

Archival research and delineation of the Grice Cemetery, Henry County, Georgia

Archival research and delineation of an abandoned 19th century cemetery, Madison County, Alabama

Archival research and delineation of a late 18th century cemetery, Spartanburg, South Carolina

Archival research and delineation of the Lost Mountain Baptist Church Cemetery, Cobb County, Georgia

Archival research and delineation of the Shiloh Church Cemetery, Cobb County, Georgia

Archival research and delineation of the Turner-Sewell Cemetery, Cobb County, Georgia

Archival research and delineation of the Matthew Strickland Gravesite, Gwinnett County, Georgia

Archival research and delineation of the Morris Cemetery and Sarah Webb Gravesite, Fulton County, Georgia

Archival research and delineation of the Moon Cemetery, Cobb County, Georgia

Archival research, delineation and relocation of the Miles Cemetery, Jackson County, Florida

Archival research, delineation and relocation of two 19th century cemeteries, Spartanburg County, South Carolina.

Archival research, delineation and relocation of the Freshwater Resort Cemetery, Calhoun Falls, South Carolina

Archival research, delineation and relocation of the Harris and McClure Cemeteries, Cabarrus County, North Carolina

Archival research, delineation and relocation of the Smithfield Cemetery, Cabarrus County, North Carolina

Archival research, delineation and relocation of the Rock Creek Cemetery, Guilford County, North Carolina

National Priority List Hazardous Waste Sites

Cultural resources survey (Phase 1a), Fort Dix sanitary landfill site, Fort Dix, New Jersey, (126 acres)

Cultural resources survey (Phase 2b), Fort Dix sanitary landfill site, Fort Dix, New Jersey, (1 acre)

Cultural resources literature review, dry cleaning facility, Fort Riley, Kansas

Cultural resources literature and records search, selected sites, Griffiss Air Force Base, New York

Radioactive Waste Facilities (Proposed Locations)

Cultural resources survey and testing, proposed North Carolina Low-Level Radioactive waste disposal facility site, Wake and Chatham Counties, North Carolina (850 acres)

Cultural resources survey and testing, proposed North Carolina Low-Level Radioactive waste disposal facility site, Richmond County, North Carolina (2,000 acres)

State of Georgia

Cultural resources survey and testing, Richard B. Russell State Park golf course, Elbert County, Georgia (430 acres)

Cultural resources survey, Gordonia State Park golf course, Tattnall County, Georgia (90 acres)

Various public outreach site visits for the Georgia Council of American Indian Concerns

More than 20 cultural resources surveys conducted for State agencies under the Georgia Environmental Policy Act

Solid Waste Landfill Sites

Cultural resources survey, solid waste landfill site, Catawba County, North Carolina (350 acres)

Cultural resources survey, two solid waste landfill sites, Chickasaw County, Mississippi (700 acres)

Cultural resources survey, Superior Sanitation solid waste landfill site, Chatham County, Georgia (742 acres)

Cultural resources survey, BFI regional solid waste landfill site, Lawrence County, Alabama (500 acres)

Cultural resources reconnaissance survey, proposed solid waste landfill site, Forsyth County, Georgia (650 acres)

Cultural resources survey and testing, solid waste landfill site, Dekalb County, Georgia (150 acres)

Data recovery at a soapstone quarry site, solid waste landfill site, Dekalb County, Georgia

Cultural resources survey and testing, solid waste landfill site, Spartanburg County, South Carolina (90 acres)

Cultural resources survey, solid waste landfill site, Florence County, South Carolina (600 acres)

Cultural resources survey, solid waste landfill site, Louisville, Kentucky (300 acres)

Cultural resources survey, solid waste landfill site, Mt. Pleasant, Tennessee (15 acres)

Cultural resources survey, solid waste landfill site, Blount County, Tennessee (50 acres)

Cultural resources survey, solid waste landfill site, Johnson City, Tennessee (20 acres)

Cultural resources survey, solid waste landfill site, Jackson County, Florida (2 acres)

Cultural resources survey, solid waste landfill site, Jasper County, South Carolina (250 acres)

Cultural resources survey, solid waste landfill site, Harris County, Texas (500 acres)

U.S. Army Corps of Engineers Waterways

Testing of two prehistoric sites, Tennessee-Tombigbee Waterway, Monroe County, Mississippi

U.S. Forest Service Timber Sale Areas

Cultural resources survey, Chattahoochee National Forest, Georgia (990 acres)

Five cultural resources surveys, Nantahala National Forest, North Carolina (1,667 acres)

Cultural resources survey, Pisgah National Forest, North Carolina (349 acres)

Six cultural resources surveys, Oconee National Forest, Georgia (18,268 acres)

Utilities Projects

Cultural resources survey, proposed Old Atlanta Road transmission line, Oglethorpe Power Corporation, Forsyth County, Georgia

Evaluative testing at Site 9FO218, proposed Old Atlanta Road transmission line, Oglethorpe Power Corporation, Forsyth County, Georgia

More than 20 other cultural resources survey and testing projects, transmission line corridors and substation sites across Georgia, Oglethorpe Power Corporation, Decatur, Georgia

Cultural resources survey and evaluative testing, sewer line extensions, Davidson County, Tennessee

Cultural resources survey, water treatment plant site and water intake corridor, Banks County, Georgia

Cultural resources survey (Phase Ia), proposed Mohawk Power Corporation gas pipeline, Jefferson County, New York

Cultural resources reconnaissance survey, transmission line alternatives study, Curles Neck, Virginia

Cultural resources literature and records search, U.S. Generating Company power facilities alternatives study, various sites across Georgia

Cultural resources survey and testing, Butler Creek sewer line, Richmond County, Georgia

Cultural resources survey, realignment monitoring, in-place preservation planning, public meeting, agency presentation and evaluation of impacts to the Augusta Canal National Historic Landmark and a prehistoric shell midden site, Richmond water line and intake, Richmond and Columbia Counties, Georgia

Cultural resources survey, Proctor Creek MARTA rail line, Atlanta, Georgia

Evaluative testing of a 19th century landfill, Proctor Creek MARTA station, Atlanta, Georgia

Cultural resources survey, north, east and west MARTA rail extensions, Atlanta, Georgia

Cultural resources survey, East Point MARTA rail line, Atlanta, Georgia

Cultural resources survey and testing, Brookhaven MARTA rail line and station, Atlanta, Georgia

Data recovery at historic Johnstown, Lennox Square MARTA station, Atlanta, Georgia

Cultural resources survey, gas pipeline, Big Thicket, Texas (field director)

Cultural resources survey, gas pipeline, Calcasieu Parrish, Louisiana (field director)

Cultural resources survey, Wildwood Park water line and water treatment site, Columbia County, Georgia

Cultural resources surveys, Phases I and II, sewer line improvements, Commerce, Georgia

Cultural resources survey, water system improvements, Senoia, Georgia

Cultural resources survey, sewer and water system improvements, Tallapoosa, Georgia

FCC Checklist Studies (Cultural Resources)

Literature review and field survey of over 4,000 communication tower sites in Georgia, North Carolina, South Carolina, Tennessee, Alabama, Florida and Virginia

Wastewater Treatment Projects

Cultural resources reconnaissance survey, land application site, Spalding County, Georgia (750 acres)

Cultural resources survey and testing, Piedmont Park and White Park CSO projects, Atlanta, Georgia

Cultural resources survey, land application site, Turner County, Georgia (264 acres)

Cultural resources survey, land application site, Rochelle, Georgia (10 acres)

Cultural resources survey, land application site, Blackshear, Georgia (90 acres)



1) View facing east towards road and proposed tower site.



2) View facing west from road towards proposed tower site.



3) View facing south towards proposed tower site.



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Your Notification has been successfully submitted to the FCC. The date for this Notification is 02/19/2009. Your Notification ID number is 49258. Please make a note of this Notification ID — print out this page for your records. A confirmation of this submitted notification will also be emailed to the email address specified in your notification.

This system is intended to facilitate consultation under Section 106 of the National Historic Preservation Act by providing early notification of proposed construction to Tribes and State Historic Preservation officers. This system is not to be used in place of Section 106 consultation, and use of this notification system in itself does not satisfy parties' obligations with respect to historic preservation review under the Commission's rules.

Please note: the submission of this notification is NOT to be considered a submission for Antenna Structure Registration.

Tower Structures that require antenna structure registration based on FCC Rules 47 C.F.R. Part 17 must complete FCC Form 854 after FAA clearance is obtained.

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Ryan Malek

From: towernotifyinfo@fcc.gov
Sent: Thursday, February 19, 2009 2:27 PM
To: Ryan Malek
Subject: Proposed Tower Structure Info - Email ID #2133705

Dear Ryan A Malek,

Thank you for submitting a notification regarding your proposed structure via the Tower Construction Notification Application. Note that the FCC has assigned a unique Notification ID number for this proposed structure.

You will need to reference this Notification ID number when you update your project's Status with us.

Below are the details you provided for the tower you have proposed to construct:

Notification Received: 02/19/2009

Notification ID: 49258

Tower Owner Individual or Entity Name: TEP for NC Highway Patrol

Consultant Name: Ryan A Malek

Street Address: 3703 Junction Blvd.

City: Raleigh

State: NORTH CAROLINA

Zip Code: 27603

Phone: 919-661-6351

Email: rmalek@tepgroup.net

Structure Type: UTOWER - Unguyed - Free Standing Tower

Latitude: 36 deg 29 min 38.1 sec N

Longitude: 80 deg 6 min 6.1 sec W

Location Description: 5086 Highway 704 East

City: Sandy Ridge

State: NORTH CAROLINA

County: STOKES

Ground Elevation: 329.2 meters

Support Structure: 128 meters above ground level

Overall Structure: 128 meters above ground level

Overall Height AMSL: 457.2 meters above mean sea level

Ryan Malek

From: towernotifyinfo@fcc.gov
Sent: Friday, February 27, 2009 3:01 AM
To: Ryan Malek
Cc: kim.pristello@fcc.gov; diane.dupert@fcc.gov
Subject: NOTICE OF ORGANIZATION(S) WHICH WERE SENT PROPOSED TOWER CONSTRUCTION NOTIFICATION INFORMATION - Email ID #2134783

Dear Sir or Madam:

Thank you for using the Federal Communications Commission's (FCC) Tower Construction Notification System (TCNS). The purpose of this electronic mail message is to inform you that the following authorized persons were sent the information you provided through TCNS, which relates to your proposed antenna structure. The information was forwarded by the FCC to authorized TCNS users by electronic mail and/or regular mail (letter).

Persons who have received the information that you provided include leaders or their designees of federally-recognized American Indian Tribes, including Alaska Native Villages (collectively "Tribes"), Native Hawaiian Organizations (NHOs), and State Historic Preservation Officers (SHPOs). For your convenience in identifying the referenced Tribes and in making further contacts, the City and State of the Seat of Government for each Tribe and NHO, as well as the designated contact person, is included in the listing below. We note that Tribes may have Section 106 cultural interests in ancestral homelands or other locations that are far removed from their current Seat of Government. Pursuant to the Commission's rules as set forth in the Nationwide Programmatic Agreement for Review of Effects on Historic Properties for Certain Undertakings Approved by the Federal Communications Commission (NPA), all Tribes and NHOs listed below must be afforded a reasonable opportunity to respond to this notification, consistent with the procedures set forth below, unless the proposed construction falls within an exclusion designated by the Tribe or NHO. (NPA, Section IV.F.4).

The information you provided was forwarded to the following Tribes and NHOs who have set their geographic preferences on TCNS. If the information you provided relates to a proposed antenna structure in the State of Alaska, the following list also includes Tribes located in the State of Alaska that have not specified their geographic preferences. For these Tribes and NHOs, if the Tribe or NHO does not respond within a reasonable time, you should make a reasonable effort at follow-up contact, unless the Tribe or NHO has agreed to different procedures (NPA, Section IV.F.5). In the event such a Tribe or NHO does not respond to a follow-up inquiry, or if a substantive or procedural disagreement arises between you and a Tribe or NHO, you must seek guidance from the Commission (NPA, Section IV.G). These procedures are further set forth in the FCC's Declaratory Ruling released on October 6, 2005 (FCC 05-176).

1. Chief Leo R Henry - Tuscarora Nation - Via: Lewiston, NY - regular mail
Exclusions: If the Applicant/tower builder receives no response from the Tuscarora Nation within 30 days after notification through TCNS, the Tuscarora Nation has no interest in participating in pre-construction review for the site. The Applicant/tower builder, however, must IMMEDIATELY notify the Tuscarora Nation in the event archaeological properties or human remains are discovered during construction.
2. Compliance Review Supervisor Dawn P Hutchins - Seminole Tribe of Florida - Clewiston, FL - electronic mail
Exclusions: The Seminole Tribe of Florida Tribal Historic Preservation Office requests that all correspondence be conducted via email and email attachments. We also would like to request a Form 620 or 621 be provided for every cell tower submitted to us for review. Should you have any questions, please feel free to contact me at dawnhutchins@semtribe.com or 863-983-6549 Ext. 12219. Thank you.

3. Policy Analyst Richard L Allen - Cherokee Nation - Tahlequah, OK - electronic mail
Exclusions: The TCNS Details do not provide me enough information to conduct a proper assessment of the projects on behalf of the Cherokee Nation. Therefore, I request that I be sent a brief summary of the Phase I findings [please try to limit the summary to between 1--10 pages], a topo of the area, and relevant photos. Please send these by email to rallen@cherokee.org. Please treat this request for additional material as a routine supplement to the TCNS Details Notification for each of your projects that fall within our Tribe's areas of geographic interest. Consequently, if you do not receive a response from me within 30 days from the date on which you e-mailed the supplemental items to me, you may move forward with the 20-Day Letter procedures pursuant to the FCC's guidelines. Thank you. -- Dr. Richard L. Allen

4. Administrative Assistant Jo Ann Beckham - Eastern Shawnee Tribe of Oklahoma - Seneca, MO - electronic mail
Exclusions: If you, the Applicant and/or tower constructor, do not receive a response from us, the Eastern Shawnee Tribe of Oklahoma, within 30 days from the date of the TCNS notification, then you may conclude that we do not have an interest in the site. However, if archeological resources or remains are found during construction, you must immediately stop construction and notify us of your findings in accordance with the FCC's rules. (See 47 C.F.R. § 1.1312(d))

5. THPO Belinda Pryor - Shawnee Tribe - Miami, OK - regular mail
Exclusions: THIS IS YOUR OFFICIAL NOTICE THAT THE SHAWNEE TRIBE IS INTERESTED IN CONSULTING ON ALL PROJECTS BUILT IN OUR AREAS OF GEOGRAPHIC INTEREST.

ATTENTION, NEW INFORMATION: Our procedures were updated on 14 January 2008. Please call Belinda Pryor at 918-542-2441 so that she can send you a copy.

If your tower is a co-location, please fax us this information to let us know. We cannot always tell from the TCNS web site that a tower is a co-location. We require a written response from you to let us know that it is a co-location. If a co-location project includes some new ground disturbance (such as from an expanded compound or access road, or construction of an ancillary structure), the Shawnee Tribe treats such a project the same as any other non co-location project.

Our correct mailing/physical address is: 29 South Highway 69A. Our correct phone number is (918-542-2441) and our historic preservation fax line is (918-542-9915). Belinda Pryor, manages all cell tower consultation.

As of 26 June 2006, all of the faxed responses of our final comments on a tower site will contain an original Shawnee Tribe signature. Each final comment fax is signed individually. Copies may be compared, for authentication, against the original in our files. If a final comment fax does not contain a signature, it is not valid. ALL FINAL COMMENTS FROM THE SHAWNEE TRIBE ARE WRITTEN; FINAL COMMENTS ARE NEVER PROVIDED VERBALLY. IF THE SHAWNEE TRIBE IS CREDITED WITH HAVING GIVEN A VERBAL RESPONSE, THAT RESPONSE IS NOT VALID.

If you receive notification through the TCNS listing the Shawnee Tribe, that is an indication that the Shawnee Tribe is interested in consulting on the tower for which that notification was received. Please consider that our official indication of interest to you. The Shawnee Tribe considers the Tower Construction Notification System's weekly e-mail to be the first notification that we receive that a tower will be constructed in an area of our concern. We do not view the TCNS notification as completion of 106 consultation obligations.

The Shawnee Tribe has developed streamlined consultation procedures for cell tower developers and their subcontractors. If you do not have a copy of the procedures - most recently updated on 14 January 2008 - please contact us, as you must follow these procedures to consult with us on cell tower projects. Call us at 918-542-2441 or fax us at 918-542-9915. It is the tower builder's responsibility to make sure that you have our

most recent consultation procedures.

PLEASE DO NOT SEND US INFORMATION, QUERIES, OR COMMENTS ELECTRONICALLY. SINCE 1 DECEMBER 2005, WE HAVE NOT HANDLED ANY CELL TOWER CONSULTATION, INQUIRIES, OR CORRESPONDENCE VIA E-MAIL.

6. THPO and Director Dr. Wenonah G Haire - Catawba Indian Nation Cultural Preservation Project - Rock Hill, SC - electronic mail and regular mail

Exclusions: The Catawba Indian Nation Tribal Historic Preservation Office requests that you send us by regular mail the following information needed to complete our research for the your proposed project:

Project Name _____

Project Number _____

____1. The name, complete address, phone number, fax number and e-mail address of the project manager.

____2. The project location plotted on a topo map.

____3. The project name, address and location; street or highway, city, county, state.

____4. A brief description of the proposed project. Please include the size of the proposed project site and the size of the area where ground-disturbing activities will be taking place and the type of disturbance anticipated.

____5. A brief description of current and former land use. We are primarily interested in ground disturbance and do not need detailed information or photographs of historic structures in the projectarea.

____6. A list of all recorded archaeological sites within one half (1/2) mile of the project area.

____7. A list of all eligible and potentially eligible National Register of Historic Places sites within one half (1/2) mile of the proposed project area.

____8. If there has been an archaeological survey done in the area, a copy of that report.

____9. It is not necessary to send original color photos if you can provide high-resolution color copies.

____10. A letter of concurrence from the appropriate State Historic Preservation Office.

If you use the FCC Form 620, please do not send Attachments 1 through 6. They are not necessary for our determination. We do not have an interest in projects that require no ground disturbance.

Please send these requested materials in hard copy format. Send to:

CIN-THPO
1536 Tom Steven Road
Rock Hill, S.C. 29730

The information you provided was also forwarded to the additional Tribes and NHOs listed below. These Tribes and NHOs have NOT set their geographic preferences on TCNS, and therefore they are currently receiving tower notifications for the entire United States. For these Tribes and NHOs, you are required to use reasonable and good faith efforts to determine if the Tribe or NHO may attach religious and cultural significance to historic properties that may be affected by its proposed undertaking. Such efforts may include, but are not limited to, seeking information from the relevant SHPO or THPO, Indian Tribes,

state agencies, the U.S. Bureau of Indian Affairs, or, where applicable, any federal agency with land holdings within the state (NPA, Section IV.B). If after such reasonable and good faith efforts, you determine that a Tribe or NHO may attach religious and cultural significance to historic properties in the area and the Tribe or NHO does not respond to TCNS notification within a reasonable time, you should make a reasonable effort to follow up, and must seek guidance from the Commission in the event of continued non-response or in the event of a procedural or substantive disagreement. If you determine that the Tribe or NHO is unlikely to attach religious and cultural significance to historic properties within the area, you do not need to take further action unless the Tribe or NHO indicates an interest in the proposed construction or other evidence of potential interest comes to your attention.

None

The information you provided was also forwarded to the following SHPOs in the State in which you propose to construct and neighboring States. The information was provided to these SHPOs as a courtesy for their information and planning. You need make no effort at this time to follow up with any SHPO that does not respond to this notification. Prior to construction, you must provide the SHPO of the State in which you propose to construct (or the Tribal Historic Preservation Officer, if the project will be located on certain Tribal lands), with a Submission Packet pursuant to Section VII.A of the NPA.

7. Environmental Review Coordinator Renee GledhillEarley - NC State Historic Preservation Office - Raleigh, NC - electronic mail

8. Deputy SHPO David Brook - Historic Preservation Office - Raleigh, NC - electronic mail

"Exclusions" above set forth language provided by the Tribe, NHO, or SHPO. These exclusions may indicate types of tower notifications that the Tribe, NHO, or SHPO does not wish to review. TCNS automatically forwards all notifications to all Tribes, NHOs, and SHPOs that have an expressed interest in the geographic area of a proposal, as well as Tribes and NHOs that have not limited their geographic areas of interest. However, if a proposal falls within a designated exclusion, you need not expect any response and need not pursue any additional process with that Tribe, NHO, or SHPO. Exclusions may also set forth policies or procedures of a particular Tribe, NHO, or SHPO (for example, types of information that a Tribe routinely requests, or a policy that no response within 30 days indicates no interest in participating in pre-construction review).

If you are proposing to construct a facility in the State of Alaska, you should contact Commission staff for guidance regarding your obligations in the event that Tribes do not respond to this notification within a reasonable time.

Please be advised that the FCC cannot guarantee that the contact(s) listed above opened and reviewed an electronic or regular mail notification. The following information relating to the proposed tower was forwarded to the person(s) listed above:

Notification Received: 02/19/2009
Notification ID: 49258
Tower Owner Individual or Entity Name: TEP for NC Highway Patrol
Consultant Name: Ryan A Malek
Street Address: 3703 Junction Blvd.
City: Raleigh
State: NORTH CAROLINA
Zip Code: 27603
Phone: 919-661-6351
Email: rmalek@tepgroup.net

Structure Type: UTOWER - Unguyed - Free Standing Tower
Latitude: 36 deg 29 min 38.1 sec N
Longitude: 80 deg 6 min 6.1 sec W
Location Description: 5086 Highway 704 East

City: Sandy Ridge
State: NORTH CAROLINA
County: STOKES
Ground Elevation: 329.2 meters
Support Structure: 128.0 meters above ground level
Overall Structure: 128.0 meters above ground level
Overall Height AMSL: 457.2 meters above mean sea level

If you have any questions or comments regarding this notice, please contact the FCC using the electronic mail form located on the FCC's website at:

<http://wireless.fcc.gov/outreach/notification/contact-fcc.html>.

You may also call the FCC Support Center at (877) 480-3201 (TTY 717-338-2824). Hours are from 8 a.m. to 7:00 p.m. Eastern Time, Monday through Friday (except Federal holidays). To provide quality service and ensure security, all telephone calls are recorded.

Thank you,
Federal Communications Commission

Ryan Malek

From: towernotifyinfo@fcc.gov
Sent: Tuesday, April 07, 2009 11:31 AM
To: Ryan Malek
Cc: towernotifyinfo@fcc.gov; dawnhutchins@semtribe.com
Subject: Reply to Proposed Tower Structure (Notification ID #49258) - Email ID #2164259

Dear Ryan A Malek,

Thank you for using the Federal Communications Commission's (FCC) Tower Construction Notification System (TCNS). The purpose of this email is to inform you that an authorized user of the TCNS has replied to a proposed tower construction notification that you had submitted through the TCNS.

The following message has been sent to you from Compliance Review Supervisor Dawn P Hutchins of the Seminole Tribe of Florida in reference to Notification ID #49258:

To Whom It May Concern,

The Seminole Tribe of Florida Tribal Historic Preservation Office (STOF-THPO) has received your email correspondence concerning the aforementioned project. The STOF-THPO concurs with your findings of "no historic properties". However, the STOF-THPO would like to be informed should any archaeological and/or historic resources be discovered inadvertently during the construction process. We thank you for the opportunity to review the information that has been sent to date regarding this project.

We look forward to working with you in the future.

Sincerely,
Dawn Hutchins
Compliance Review Supervisor
dawnhutchins@semtribe.com

For your convenience, the information you submitted for this notification is detailed below.

Notification Received: 02/19/2009
Notification ID: 49258
Tower Owner Individual or Entity Name: TEP for NC Highway Patrol
Consultant Name: Ryan A Ryan
Street Address: 3703 Junction Blvd.
City: Raleigh
State: NORTH CAROLINA
Zip Code: 27603
Phone: 919-661-6351
Email: rmalek@tepgroup.net

Structure Type: UTOWER - Unguyed - Free Standing Tower
Latitude: 36 deg 29 min 38.1 sec N
Longitude: 80 deg 6 min 6.1 sec W
Location Description: 5086 Highway 704 East
City: Sandy Ridge
State: NORTH CAROLINA
County: STOKES
Ground Elevation: 329.2 meters
Support Structure: 128.0 meters above ground level
Overall Structure: 128.0 meters above ground level
Overall Height AMSL: 457.2 meters above mean sea level

Ryan Malek

From: Richard Allen [Richard-Allen@cherokee.org]
Sent: Monday, April 13, 2009 4:24 PM
To: Ryan Malek
Subject: RE: Review request for TCNS#'s 49258, 49256

The Cherokee Nation has no knowledge of any historic, cultural or sacred sites within the affected area. Should any ground disturbance reveal an archaeological site or human remains, we ask that the all activity cease immediately and the Cherokee Nation and other appropriate agencies be contacted immediately.

Thank you,

Dr. Richard L. Allen
Policy Analyst
Cherokee Nation
P.O. Box 948
Tahlequah, Oklahoma 74465
(918) 453-5466 (office)
(918) 822-2707 (cell)
(918) 458-5898 (fax)

-----Original Message-----

From: Ryan Malek [mailto:rmalek@tepgroup.net]
Sent: Thursday, April 02, 2009 10:37 AM
To: Richard Allen
Subject: Review request for TCNS#'s 49258, 49256

Dr. Allen,
Attached are two pdf documents that include the information for the review of two proposed towers (Sandy Ridge and Barrett Mtn.). Please let me know if you need anything else. Hope all is well.

Thanks,

Ryan A. Malek
Tower Engineering Professionals, Inc.
Environmental Scientist II
3703 Junction Blvd.
Raleigh, NC 27603
(919) 661-6351 Office
(919) 661-6350 Fax
(919) 332-1917 Mobile

Ryan Malek

From: towernotifyinfo@fcc.gov
Sent: Wednesday, February 25, 2009 1:40 PM
To: Ryan Malek
Cc: towernotifyinfo@fcc.gov
Subject: Reply to Proposed Tower Structure (Notification ID #49258) - Email ID #2136947

Dear Ryan A Malek,

Thank you for using the Federal Communications Commission's (FCC) Tower Construction Notification System (TCNS). The purpose of this email is to inform you that an authorized user of the TCNS has replied to a proposed tower construction notification that you had submitted through the TCNS.

The following message has been sent to you from Administrative Assistant Jo Ann Beckham of the Eastern Shawnee Tribe of Oklahoma in reference to Notification ID #49258:

February 25, 2009

To Whom It May Concern:

Thank you for notice of the referenced project(s). The Eastern Shawnee Tribe of Oklahoma is currently unaware of any documentation directly linking Indian Religious Sites to the proposed construction. In the event any items falling under the Native American Graves Protection and Repatriation Act (NAGPRA) are discovered during construction, the Eastern Shawnee Tribe request notification and further consultation.

The Eastern Shawnee Tribe has no objection to the proposed construction. At present, the Eastern Shawnee Tribe does not wish to participate as a consulting party on the above referenced project(s). However, if any human skeletal remains and/or any objects falling under NAGPRA are uncovered during construction, the construction should stop immediately, and the appropriate persons, including state and tribal NAGPRA representatives contacted.

Sincerely,
Jo Ann Beckham, Administrative Assistant Eastern Shawnee Tribe of Oklahoma

For your convenience, the information you submitted for this notification is detailed below.

Notification Received: 02/19/2009
Notification ID: 49258
Tower Owner Individual or Entity Name: TEP for NC Highway Patrol
Consultant Name: Ryan A Malek
Street Address: 3703 Junction Blvd.
City: Raleigh
State: NORTH CAROLINA
Zip Code: 27603
Phone: 919-661-6351
Email: rmalek@tepgroup.net

Structure Type: UTOWER - Unguyed - Free Standing Tower
Latitude: 36 deg 29 min 38.1 sec N
Longitude: 80 deg 6 min 6.1 sec W
Location Description: 5086 Highway 704 East
City: Sandy Ridge
State: NORTH CAROLINA
County: STOKES
Ground Elevation: 329.2 meters

Support Structure: 128.0 meters above ground level
Overall Structure: 128.0 meters above ground level
Overall Height AMSL: 457.2 meters above mean sea level



SHAWNEE TRIBE
HISTORIC PRESERVATION DEPARTMENT
29 SOUTH HIGHWAY 69A
MIAMI, OKLAHOMA 74354
918 ^ 542 ^ 2441 PHONE 918 ^ 542 ^ 9915 FAX

FACSIMILE COVER PAGE

To: Ryan FROM: Kimi Jumper
 FIRM/AGENCY: Tower Eng. DATE/TIME: 4/16/09
 FAX NUMBER: 919-661-6350 NO. OF PAGES, INCLUDING COVER: _____
 PHONE NUMBER: _____ MEMO: 49256, 49258, 50022

Message: The Shawnee Tribe's Tribal Historic Preservation Officer concurs that no known historic properties will be negatively impacted by construction of this tower site (see memo line above for TCNS number/s). The Shawnee Tribe's archives do not reveal any issues of concern at this tower location. In the event that archaeological materials are encountered later during construction, use, or maintenance of this tower location, please re-notify us at that time as we would like to resume consultation under such a circumstance.

The Shawnee Tribe's Environmental and Natural Resources Department takes this opportunity to express its concerns that telecommunication towers can have a potentially destructive impact on bats and migratory birds, particularly those that migrate at night, including species listed as threatened and endangered by both states and the federal government, as well as other species. The Shawnee Tribe suggests that this tower be constructed in accordance with the guidelines available from the US Fish and Wildlife Service to reduce the adverse effects of telecommunications towers on migratory birds; these guidelines may be found at www.fws.gov/migratorybirds/issues/towers/comtow.html.

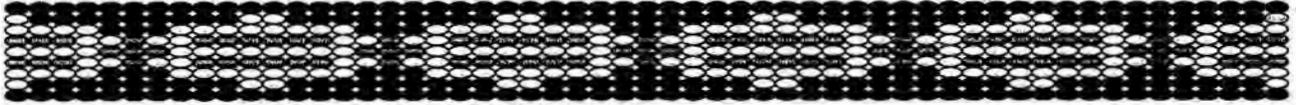
The Shawnee Tribe's Environmental and Natural Resources Department is further concerned that the proliferation of cell towers may play a role in honey bee Colony Collapse Disorder. We acknowledge that cell phone technology may not be to blame, especially by itself, as other potential causative factors for the decline have been noted, such as insecticides, tracheal and varroa mites [an immunosuppressant], other parasites, pesticides used on hives to eliminate parasites, genetically modified plants, *Nosema* fungus, Israeli Acute Paralysis Virus (IAPV) perhaps introduced from Australia in 2004, Kashmir Bee Virus [KBV], climate change, and drought.

Finally, the Shawnee Tribe's Environmental and Natural Resources Department requests that cell tower sites, whenever remotely feasible, be restored to native vegetation. In all cases, habitat restoration can protect a variety of species, even in small project areas. The large number of cell tower sites provides an as yet unrealized opportunity for region-wide habitat restoration. The Tribe urges the cell phone industry to provide a model for native habitat restoration for other industries.

Please do not hesitate to call us for additional comment.

Catawba Indian Nation
Tribal Historic Preservation Office
1536 Tom Steven Road
Rock Hill, South Carolina 29730

Office 803-328-2427
Fax 803-328-5791



April 27, 2009

Attention: Ryan A. Malek
Tower Engineering Professionals
3703 Junction Boulevard
Raleigh, NC 27603-5263

Re. THPO #	TCNS #	Project Description
2009-12-60	49256	Barrett Mountain 253 Harrelson Ridge Road Taylorsville, NC
2009-12-61	49258	Sandy Ridge 5086 Highway 704 East Sandy Ridge, NC
2009-12-62	50022	Whipple Road 937 Whipple Road Mt. Pleasant, SC

Dear Mr. Malek,

The Catawba have no immediate concerns with regard to traditional cultural properties, sacred sites or Native American archaeological sites within the boundaries of the proposed project areas. **However, the Catawba are to be notified if Native American artifacts and / or human remains are located during the ground disturbance phase of this project.**

If you have questions please contact Caitlin Haire at 803-328-2427 ext. 226, or e-mail caitlinh@ccppcrafts.com.

Sincerely,

Wenonah G. Haire
Tribal Historic Preservation Officer

NORTH CAROLINA
STOKES COUNTY

AFFIDAVIT OF PUBLICATION

Before the undersigned, a Notary Public of said County and State, duly commissioned, qualified and authorized by law to administer oaths, personally appeared Ferris W. Simpson who being first duly sworn, deposes and says: that he (she) is Business Manager (Publisher or other officer or employee authorized to make affidavit) of HEARTLAND PUBLICATIONS, LLC, engaged in the publication of a newspaper known as THE STOKES NEWS, published, issued, and entered as periodicals class mail in the city of King in said County and State; that he (she) is authorized to make this affidavit and sworn statement; that the notice or other legal advertisement, a true copy of which is attached hereto, was published in THE STOKES NEWS on the following dates:

Feb. 26, 2009

and that the said newspaper in which such notice, paper, document or legal advertisement was published was, at the time of each and every such publication, a newspaper meeting all of the requirements and qualifications of Section 1-597 of the General Statutes of North Carolina and was a qualified newspaper within the meaning of Section 1-597 of the General Statutes of North Carolina.

This 15th day of April, 2009

Ferris W. Simpson
Signature of person making affidavit

Sworn to and subscribed before me, this 15th day of

April, 2009

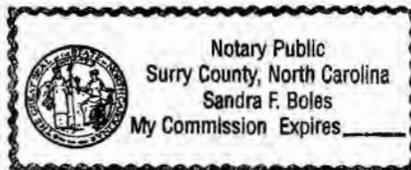
Sandra A. Boles
Notary Public

My Commission expires: November 27, 2012

Public Notice

N.C. Highway Patrol proposes the 420-ft Self Support Communication Tower at 5086 Highway 704 East in Sandy I (607004602516). Please submit comments by 3/27/2009 regarding effects that the proposed tower will have on **Historic Properties that are listed in the National Register of Historic Places to:** Tower Engineering Inc.(Attn:George Swearingen) 370 Raleigh, NC 27603 Telephone: (919) 661-6350 Fax: (919) 661-6350

APR 16 2009



Stokes County Historical Society

Preserving, Collecting, and Displaying History Since 1968

Post Office Box 304
Danbury, N.C. 27016
336-593-9407

April 18, 2009

Tower Engineering Professionals, Inc.
Attn: Ryan A. Malek
3703 Junction Boulevard
Raleigh, N.C. 27603-5263

Dear Mr. Malek:

The Stokes County Historical Society has reviewed the proposal to erect a communications tower at 5086 Highway 704 East, Sandy Ridge (Stokes County), N.C. The Society agrees with the Archeological Field Survey conclusions that erection of the tower would not impact historical or archeological resources in the area. Therefore, the Stokes County Historical Society has no issues with nor objections to the project.

Sincerely,



Charles H. Farlow, President
Stokes County Historical Society

Received

APR 17 2009

PROJECT INFORMATION:

PROPOSED TELECOMMUNICATIONS FACILITY

SITE NAME:
SANDY RIDGE

SITE NUMBER:
HP-1335

SITE ADDRESS:
**5086 HIGHWAY 704 EAST
(E911 TO BE ISSUED)
SANDY RIDGE, NC 27049
(STOKES COUNTY)**



VICINITY MAP



LOCATION MAP

FROM RALEIGH, NC: TRAVEL WEST ON INTERSTATE 40 FOR 62 MILES UNTIL EXIT 131. BEAR RIGHT ONTO I-840. AFTER 1.5 MILES BEAR LEFT ONTO US 70 AND AFTER 6 MILES BEAR RIGHT ONTO US 220. CONTINUE FOR 29 MILES. TURN LEFT ONTO US 770 (CLARENCE STONE HWY). THE FIRE DEPARTMENT WILL BE ON YOUR LEFT AFTER THE JUNCTION WITH HWY 704.

DRIVING DIRECTIONS

APPLICANT/OWNER:

N.C. HIGHWAY PATROL
3318 GARNER ROAD, BLDG. 2
OFFICE: (919) 662-4440

**IF YOU DIG IN
NORTH CAROLINA...
CALL US FIRST!
1-800-632-4949**

NORTH CAROLINA ONE CALL
IT'S THE LAW

THE UTILITIES SHOWN HEREON ARE FOR THE CONTRACTOR'S CONVENIENCE ONLY. THERE MAY BE OTHER UTILITIES NOT SHOWN ON THESE PLANS. THE ENGINEER/SURVEYOR ASSUMES NO RESPONSIBILITY FOR THE LOCATIONS SHOWN AND IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL UTILITIES WITHIN THE LIMITS OF THE PROJECT. THE CONTRACTOR SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

UTILITY STATEMENT

SHEET	DESCRIPTION	REV
T1	TITLE SHEET	2
N1	PROJECT NOTES	2
Z1	SITE PLAN	2
Z2	COMPOUND DETAIL	2

INDEX OF SHEETS

PLANS PREPARED BY:

TOWER ENGINEERING PROFESSIONALS
3703 JUNCTION BOULEVARD
RALEIGH, NC 27605-5063
OFFICE: (919) 661-6351
FAX: (919) 661-6350

REV	DATE	ISSUED FOR	CHECKED BY
2	06-19-09	FINAL ZONING	JBG
1	03-25-09	REVISED ZONING LAYOUT	
0	03-04-09	PRELIMINARY ZONING	

SEAL:

SEAL:

SHEET NUMBER: **T-1**

REVISION: **2**

TEP #: 062377

CODE COMPLIANCE

ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN ACCORDANCE WITH THE LATEST EDITIONS OF THE NATIONAL ELECTRICAL CODE AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSIDERED TO PERMIT WORK NOT CONFORMING TO THE FOLLOWING:

- NORTH CAROLINA BUILDING CODE 4. ANSI/NECA-222-F (2009 EDITION)
- LOCAL BUILDING CODE
- UTILITY/UTILITY ORDINANCES

SURVEYOR:
TOWER ENGINEERING PROFESSIONALS, INC.
3703 JUNCTION BOULEVARD
RALEIGH, NC 27603
CONTACT: CLIFFORD C. BRAD, P.L.L.S.
PHONE: (919) 661-6351

CIVIL ENGINEER:
TOWER ENGINEERING PROFESSIONALS, INC.
3703 JUNCTION BOULEVARD
RALEIGH, NC 27603
CONTACT: CLIFFORD C. BRAD, P.L.L.S.
PHONE: (919) 661-6351

STRUCTURAL ENGINEER:
N/A

ELECTRICAL ENGINEER:
TOWER ENGINEERING PROFESSIONALS, INC.
3703 JUNCTION BOULEVARD
RALEIGH, NC 27603
CONTACT: JUSSELIN BELL, P.E.
PHONE: (919) 661-6351

GEOTECHNICAL ENGINEER:
N/A

TOWER MANUFACTURER:
N/A

1A CERTIFICATION

LATITUDE: N 36° 29' 37.974" (NAD 83)
LONGITUDE: W 080° 06' 02.526" (NAD 83)
GROUND ELEVATION = 1,083.70' (AUSL)(MVD '88)

TOWER OWNER:
NORTH CAROLINA HIGHWAY PATROL
3318 GARNER ROAD, BUILDING TWO
SANDY RIDGE, NC 27049
CONTACT: CHARLES WRIGHT, P.E.
PHONE: (919) 662-4440

APPLICANT / LESSEE:
NORTH CAROLINA HIGHWAY PATROL
3318 GARNER ROAD, BUILDING TWO
SANDY RIDGE, NC 27049
CONTACT: CHARLES WRIGHT, P.E.
PHONE: (919) 662-4440

PROPERTY OWNER:
NORTHEAST STOKES VOLUNTEERS FIRE DEPARTMENT
3061 NC 704 E HWY 704
UNKNOWN
UNKNOWN

AREA OF CONSTRUCTION: 3600 SQ. FT. ±
PRESENT OCCUPANCY TYPE: EMERGENCY SERVICES FACILITY
TELECOMMUNICATIONS FACILITY
CURRENT OCCUPANCY TYPE: RA
PARCEL ID NUMBER: 607004602516
JURISDICTION: STOKES COUNTY

UTILITIES:
NONE
UTILITY COMPANY: EMERGENCY SERVICES FACILITY
CUSTOMER SERVICE PHONE: (800) 777-9888
POLE # NEAR SITE: UNKNOWN
TELEPHONE COMPANY: SPRINT
PHONE: (888) 211-4727
PEDESTAL # NEAR SITE: RT5

PROJECT SUMMARY

PROJECT TEAM

NOTES:

1. THIS PLAN HAS BEEN PREPARED WITHOUT THE BENEFIT OF A REPORT OF TITLE.
2. THIS PLAN DOES NOT REPRESENT A TITLE SURVEY.
3. THE BASIS OF THE MERIDIANS AND COORDINATES FOR THIS PLAT IS THE NORTH CAROLINA STATE PLANE COORDINATE SYSTEM, NORTH AMERICAN DATUM 1983 (NCSPCS NAD 83), BASED ON DIFFERENTIAL GPS OBSERVATIONS PERFORMED ON FEBRUARY 23, 2009.
4. THIS PROPERTY IS LOCATED IN FLOOD ZONE "X," AREAS DETERMINED TO BE OUTSIDE 500-YEAR FLOODPLAIN (FEMA/FIRM MAP NUMBER 3711606000), DATED DECEMBER 18, 2007).
6. SUBJECT PIN: 607004602516
7. PROPERTY OWNER:
NORTHEAST STOKES VOLUNTEER FIRE DEPARTMENT

N/P
JUDY STANLEY
PIN: 607004516068
DB: 539 PG: 1058

N/P
JUDY STANLEY
PIN: 607004504316
DB: 539 PG: 1058

N/P
NORTHEAST STOKES
VOLUNTEER FIRE DEPT.
PIN: 607004602516
DB: 485 PG: 2296
ZONING: RA

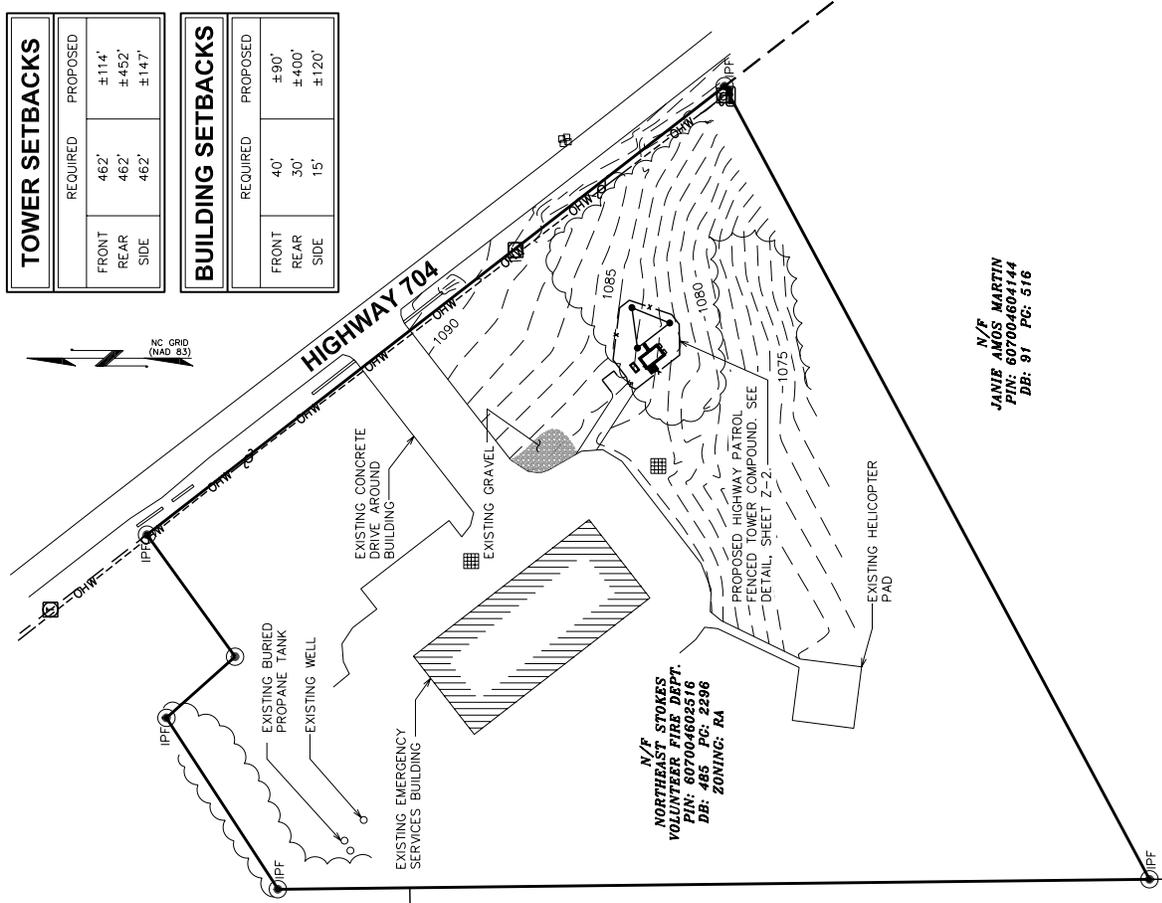
N/P
JANIE AMOS MARTIN
PIN: 607004604144
DB: 91 PG: 516

TOWER SETBACKS

	REQUIRED	PROPOSED
FRONT	462'	±114'
REAR	462'	±452'
SIDE	462'	±147'

BUILDING SETBACKS

	REQUIRED	PROPOSED
FRONT	40'	±90'
REAR	30'	±400'
SIDE	15'	±120'



LEGEND

—	EXIST. PROPERTY LINE
- - -	ADJ. PROPERTY LINE
○	PROPERTY CORNER
●	IRON ROD FOUND
■	EXIST. DROP INLET
⊕	EXIST. UTILITY POLE
□	EXIST. TELCO PEDESTAL
⊞	EXIST. POWER PEDESTAL
- - - 200 - - -	EXIST. CONTOUR LINE
///	EDGE OF PAVEMENT
- - OHW - - -	OVERHEAD WIRE
X	CHAIN LINK FENCE
~	EXISTING TREE LINE
⊞	YARD INLET

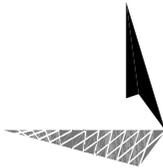
SITE PLAN
SCALE: 1" = 100'

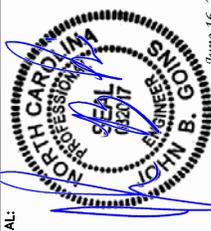
0 100 200
SCALE IN FEET

PLANS PREPARED FOR:

3318 GARNER ROAD, BLDG. 2
RALEIGH, NC 27607
OFFICE: (919) 662-4440

PROJECT INFORMATION:
**SANDY RIDGE
SITE # HP-1335**
5086 HIGHWAY 704 EAST
SANDY RIDGE, NC 27046
(STOKES COUNTY)

PLANS PREPARED BY:

TOWER ENGINEERING PROFESSIONALS
3703 JUNCTION BOULEVARD
RALEIGH, NC 27603-5263
OFFICE: (919) 861-6351
FAX: (919) 861-6350

SEAL:

June 16, 2009

2	06-19-09	FINAL ZONING
1	03-25-09	REVISED ZONING LAYOUT
0	03-04-09	PRELIMINARY ZONING
REV	DATE	ISSUED FOR:

DRAWN BY: TRG CHECKED BY: JBG

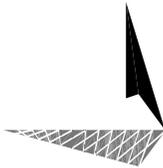
SHEET TITLE:
SITE PLAN

SHEET NUMBER:
Z-1
REVISION: **2**
TEP #: 062377

PLANS PREPARED FOR:

 3318 GARNER ROAD, BLDG. 2
 RALEIGH, NC 27607
 OFFICE: (919) 662-4440

PROJECT INFORMATION:
SANDY RIDGE
SITE # HP-1335
 5086 HIGHWAY 704 EAST
 SANDY RIDGE, NC 27046
 (STOKES COUNTY)

PLANS PREPARED BY:

TOWER ENGINEERING PROFESSIONALS
 3703 JUNCTION BOULEVARD
 RALEIGH, NC 27603-5263
 OFFICE: (919) 861-6351
 FAX: (919) 861-6350

SEAL:

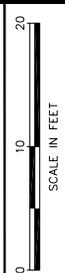
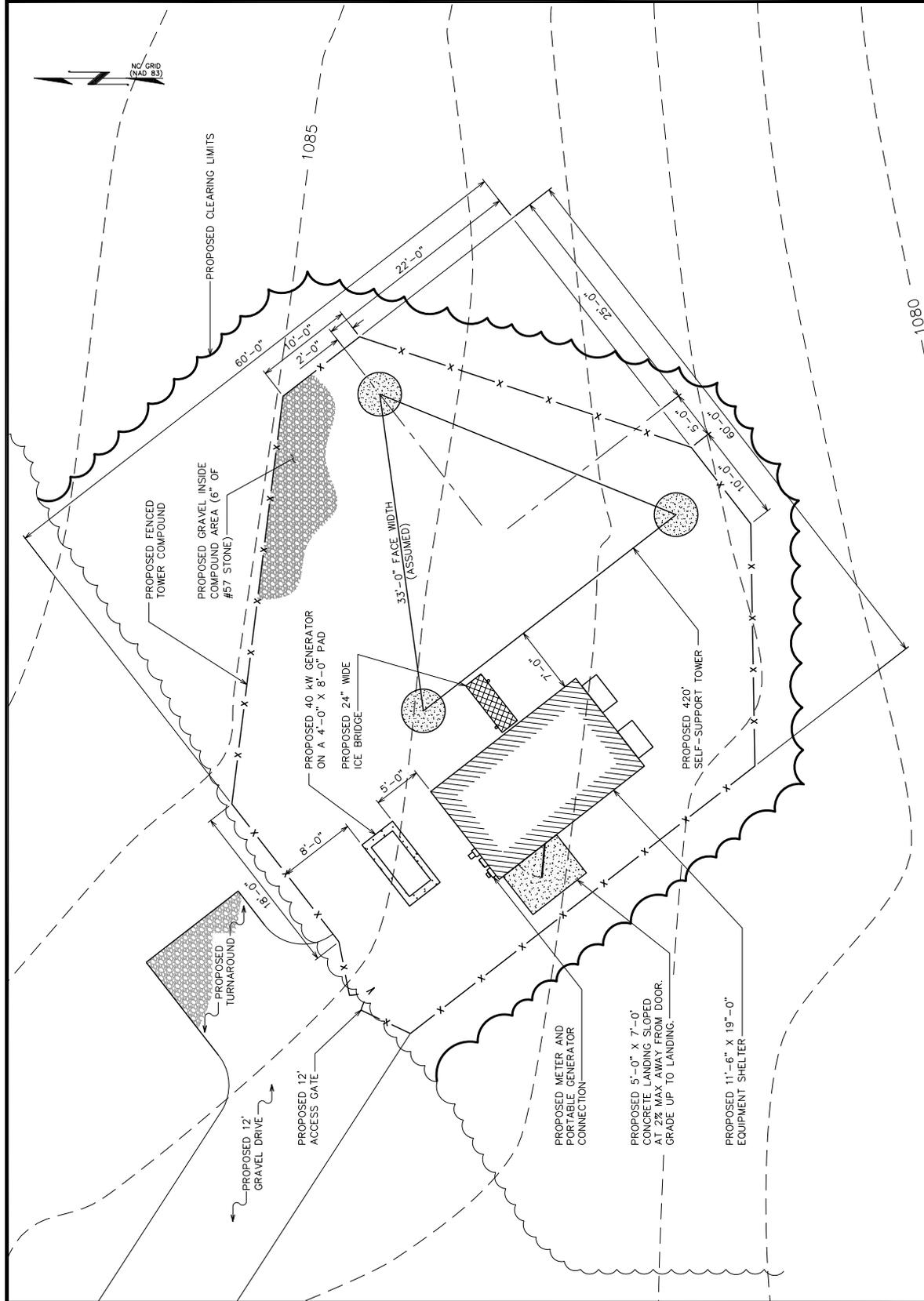
 June 16, 2009

REV	DATE	ISSUED FOR:
2	06-19-09	FINAL ZONING
1	03-25-09	REVISED ZONING LAYOUT
0	05-04-09	PRELIMINARY ZONING

DRAWN BY: TRG CHECKED BY: JBG

SHEET TITLE:
**COMPOUND
 DETAIL**

SHEET NUMBER:
Z-2
 REVISION: **2**
 TEP #: 062377

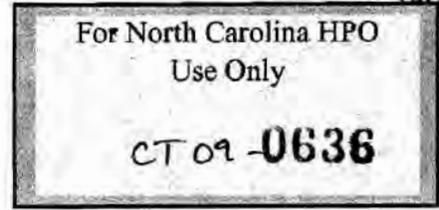


COMPOUND DETAIL
 SCALE: 1" = 10'

RECEIVED
MAR 13 2009

Communications Tower Review Form

HISTORIC PRESERVATION OFFICE



I. Applicant Information:

Preparer/Company: George Swearingen/Tower Engineering Professionals, Inc.
Address: 3703 Junction Blvd Raleigh, NC 27603
Phone/Fax/E-mail: (919) 661-6351/(919) 661-6350/gswearingen@tepgroup.net

II. Tower Information:

 (Attach copy of USGS map or photocopy of quad on reverse; include 1 and 2 mile radius around site)

Raw Land (New) Co-Location Applicant's Identification # _____
Address: 5086 Highway 704E
County: Stokes, NC FCC Registration No. _____
Tower type and height: 420-ft Self Support Quad Name: Ayersville/Spencer

III. Identification of Historic Properties

List sites by site number and status: NR = National Register listed; SL = Study List; DOE = Determination of Eligibility; LD = Local Designation; UA = Unassessed

Archaeology

of recorded sites in immediate area of tower: 0

Architecture

of recorded sites within 1.5-mile radius: _____

- SK 758 Elmer Briggs Stone
- SK 757 Bud Amos House
- SK 756 Ziglar Blair House
- SK 724 Steele Amos House
- SK 725 James E. Shelton House
- SK 726 Hutcherson-Amos House
- SK 727 Dr. James H. Ellington House (SL)
- SK 728 Caleb Hall House
- SK 729 Caleb Hall Stone + Sandy Ridge P.O.
- SK 718 William Steele Farm
- SK 719 S. Houston Steele House
- SK 720 Moore Vernon House
- SK 721 Hill Shelton Stone
- SK 722 Sam May's House
- SK 723 M.L. Hutcherson stone House
- SK 693 Robert Payne House

IV. Additional Information/Investigation Needed:

No Survey
No Testing of sites _____

Recommended by/on: JEM 3/19/09
(Office of State Archaeology)

Photo Reconnaissance _____
Balloon Test _____
Recommended by/on: ok
(Survey & Planning Branch)

V. Recommendations/Final Determination:

_____ Recommendations for additional work are shown above.
 The proposed communication tower will Not Adversely affect historic properties in the area of potential effect.

Renee Gledhill-Earley
Renee Gledhill-Earley, Environmental Review Coordinator

3-19-09
Date

cc: FCC



CIRCA, INC.
CULTURAL RESOURCES CONSULTANTS

February 24, 2010

George Swearingen
Tower Engineering Professionals, Inc.
3703 Junction Blvd.
Raleigh, NC 27603

RE: NC Hwy Patrol Sandy Ridge Tower - 420' (Total Height ~431' w/ appurtenances) Self-support tower located at 5086 Hwy. 704 E., Stokes County, NC, CT 09-0636

Dear Mr. Swearingen:

It is our understanding that the area of potential effect (APE) for the above referenced proposed tower has been increased from 1.5 miles to 2 miles. Renee Gledhill-Earley, Environmental Review Coordinator with the State Historic Preservation Office (SHPO), reviewed the proposed tower on March 19, 2009, and determined that it would not adversely affect historic properties located within 1.5 miles of the proposed tower. It is our understanding that as a result of the 0.5 mile increase of the APE, nine (9) additional structures were determined to be within the 2.0 mile APE. However, none of the nine additional structures is either listed in, or has been determined eligible for listing in the National Register of Historic Places. Given the previous determination by the SHPO and the fact that no additional National Register-listed or eligible structures were identified within the 2.0 mile APE, it is my opinion that properties located between the 1.5 mile and 2 mile APEs would also not be adversely affected by the proposed tower.

As an architectural historian meeting the Secretary of the Interior's Professional Qualifications Standards, I am providing these comments pursuant to Section 106 of the National Historic Preservation Act, as amended.

Sincerely,

Ellen Turco
Principal and Sr. Architectural Historian

NEPA/Section 106 Compliance	Historic Architecture Surveys	Preservation Planning
-----------------------------	-------------------------------	-----------------------

Communications Tower Review Form

I. Applicant Information:

Preparer/Company: George Swearingen/Tower Engineering Professionals, Inc.
Address: 3703 Junction Blvd Raleigh, NC 27603
Phone/Fax/E-mail: (919) 661-6351/(919) 661-6350/gswearingen@tepgroup.net

For North Carolina HPO
Use Only

CT09-0636

II. Tower Information:

 (Attach copy of USGS map or photocopy of quad on reverse; include 1 and 2 mile radius around site)

Raw Land (New) Co-Location Applicant's Identification # NCHwy Patrol Sandy Ridge

Address: 5086 Highway 704E

County: Stokes, NC

FCC Registration No. _____

Tower type and height: 420-ft Self Support (~431 w-appurtenances) Quad Name: Ayersville/Spencer

increased APE to 2 miles for DOC

III. Identification of Historic Properties

List sites by site number and status: NR = National Register listed; SL = Study List; DOE = Determination of Eligibility;
LD = Local Designation; UA = Unassessed

Archaeology

of recorded sites in immediate area of tower: _____

Architecture

of recorded sites within 2 -mile radius: 26

SK693-Robert Payne House
SK696-Ward Duncan Hawkins House SK731-Tilley House
SK697-Dodson House SK732-Simmons Pratt House
SK714-John Thomas Kellam House SK746-John A Martin House
SK717-House SK753-Nathaniel Hutcherson H
SK718-William Steele Farm SK754-Bolie Shaffer House
SK719-S.Houston Steele House SK756-Ziglar Blair House
SK720-Moore Vernon House SK757-Bud Amos House
SK721-Will Shelton Store SK758-Elmer Briggs Store
SK722-Sam Mays House
SK723-M.L. Hutcherson Store
SK724-Steele Amos House
SK725-James E. Shelton House
SK726-Hutcherson-Amos House
SK727-Dr. James H. Ellington House (SL)
SK728-Caleb Hall House
SK729-Caleb Hall Store and Post Office
SK730-G. Washington Andrews House

IV. Additional Information/Investigation Needed:

NO Survey

_____ Testing of sites _____

Recommended by/on: ak
(Office of State Archaeology)

V. Recommendations/Final Determination:

_____ Recommendations for additional work are shown above.

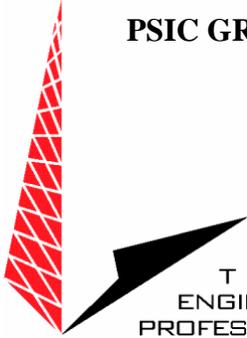
The proposed communication tower will Not affect historic properties in the area of potential effect.

Renee Gledhill-Earley
Renee Gledhill-Earley, Environmental Review Coordinator

2.25.10
Date

cc: FCC

**Appendix D: PSIC Grant Environmental Land Use
Compliance Checklist**



PSIC GRANT ENVIRONMENTAL LAND USE COMPLIANCE CHECKLIST

SANDY RIDGE HP-1335
N 36° 29' 37.9"
W 80° 06' 2.52"

**PROPOSED 420-FT. SELF SUPPORT
 EMERGENCY SERVICES TOWER**

**T O W E R
 E N G I N E E R I N G
 P R O F E S S I O N A L S**

ENVIRONMENTAL LAND USE COMPLIANCE CHECKLIST

	PSIC Grant – NEPA Category	No Impact	No Significant Impact	Significant Impact
1.	Is the proposed action likely to cause significant noise impacts?		X	
2.	Is the proposed action likely to cause significant air quality impacts?		X	
3.	Will the proposed action likely adversely affect geologic and soil resources?		X	
4.	Will the proposed action likely adversely affect water resources such as surface water, sole source aquifers, coastal zones, floodplains, and wild and scenic rivers?		X	
5.	Will the proposed action likely adversely affect biological resources such as wildlife, vegetation, wetlands, threatened and endangered species or designated critical habitats?		X	
6.	Will the proposed action affect districts, sites, buildings, structures, or objects significant in American history, architecture, archeology, engineering, or culture that are listed (or eligible for listing) in the National Register of Historic Places or Indian Religious sites?		X	
7.	Is the proposed action likely to cause significant aesthetic and visual impacts?		X	
8.	Will the proposed action involve significant impacts in land use?		X	
9.	Is the proposed action likely to significantly impact infrastructure?		X	
10.	Is the proposed action likely to significantly impact socioeconomic resources?		X	
11.	Is the proposed action likely to significantly impact human health and safety?		X	

The undersigned has reviewed and approved the completion of this PSIC Grant Environmental Land Use Compliance Checklist for the aforementioned site.

TOWER ENGINEERING PROFESSIONALS, INC.	Date: March 4, 2010
Print Name: George T. Swearingen, III	Signature:

Appendix E: FCC NEPA Land Use Compliance Checklist



**NEPA COMPLIANCE CHECKLIST
PROPOSED 420-FOOT
SELF-SUPPORT LATTICE**

**SITE NAME: SANDY RIDGE
SITE NUMBER: HP-1335**

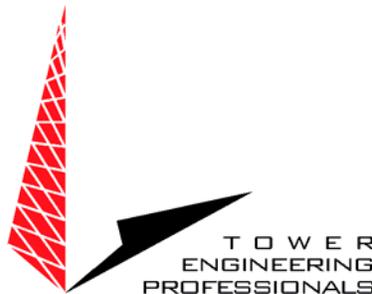
**5086 HIGHWAY 704 EAST
SANDY RIDGE, NC
(STOKES COUNTY)**

**LATITUDE: N 36° 29' 38.14" ±
LONGITUDE: W 80° 06' 2.27" ±**

**DATE INSPECTED: FEBRUARY 20, 2009
DATE NEPA ISSUED: MAY 4, 2009**

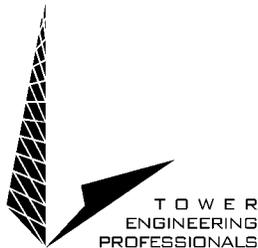


**COMPLETED BY:
George T. Swearingen, III
Of**



**Project Site Specific
NEPA Compliance Checklist
Sandy Ridge
NC Highway Patrol Site# HP-1018**

May 4, 2009



Mr. Chuck Wright
Networking Specialist
North Carolina State Highway Patrol
3318 Garner Road
Raleigh, NC 27610

Re: NEPA Checklist
NC Highway Patrol Site # HP-1335
Sandy Ridge Site
5086 Highway 704 East
Sandy Ridge, Stokes County, NC

Dear Mr. Wright:

Tower Engineering Professionals, Inc. (TEP) conducted a FCC Compliance NEPA Checklist (NEPA) for the proposed lease area associated with the proposed **420-ft AGL Self-Support Lattice Communications Tower** for the site designated as **Sandy Ridge (NC Highway Patrol Site # HP-1335)**, and is pleased to submit the findings to the NC Highway Patrol. The existing site is located on a parcel of real estate in **Stokes County, NC**. (The parent property and the adjacent properties were occupied by a mix of municipal, low density residential, and undeveloped land uses at the time of the site inspection.)

The NEPA Checklist research conducted by TEP indicates that the site is **not**: located in an officially designated wilderness area; located in an officially designated wildlife preserve; located in a floodplain; located in a residential zoned area and required to be equipped with high intensity white lights; and will **not**: affect threatened or endangered species or their designated critical habitats; affect districts, sites, buildings, structures or objects listed or eligible for listing in the National Register of Historic Places; affect Indian religious sites; or involve significant changes to surface features.

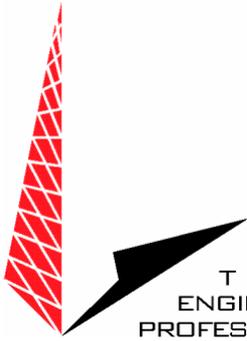
TEP conducted the Section 106 of the NHPA portion of the NEPA checklist and the Native American consultation. TEP filed the proposed **Sandy Ridge** site with the FCC Tower Construction Notification System (TCNS) on **2/19/09** and was assigned TCNS Identification Number **49258**. TEP has received correspondence from all of the applicable tribes with known ancestral and/or aboriginal rights to **Stokes County, NC**.

The results of the NEPA Checklist conducted by TEP conclude that no further investigation (i.e. NEPA Environmental Assessment) is warranted or recommended for the **Sandy Ridge Site**.

Sincerely

A handwritten signature in black ink, appearing to read "George T. Swearingen, III", with a stylized flourish at the end.

Tower Engineering Professionals, Inc.
George T. Swearingen, III
Environmental Manager



TOWER
ENGINEERING
PROFESSIONALS

FCC NEPA COMPLIANCE AUDIT CHECKLIST

**SANDY RIDGE SITE
420-FT SELF-SUPPORT LATTICE TOWER
NC HIGHWAY PATROL SITE # HP-1335
5086 HIGHWAY 704 EAST
SANDY RIDGE, NC
STOKES COUNTY**

- 1. Is the proposed facility located in an officially designated wilderness area? No
- 2. Is the proposed facility located in an officially designated wildlife preserve? No
- 3. Will the proposed facility likely affect threatened or endangered species or designated critical habitats; or likely jeopardize the continued existence of any proposed endangered or threatened species; or likely result in the destruction or adverse modification of proposed critical habitats (as determined by the Endangered Species Act or 1973)? No
- 4. Will the proposed facility affect districts, sites, buildings, structures or objects significant in American history, architecture, archeology, engineering or culture, that are listed (or eligible for listing) in the National Register of Historic Places? No
- 5. Will the proposed facility affect Indian religious sites? No
- 6. Is the proposed facility located in a floodplain? No
- 7. Will construction of the proposed facility involve significant change in surface features (e.g., wetland fill, deforestation or water diversion)? No
- 8. Is the proposed facility located in a residential neighborhood and is required to be equipped with high intensity white lights (as defined by local zoning law)? No

If any of the above questions result in an answer of "yes", then construction may not start on any of these sites prior to receipt of a finding of no significant impact by FCC.

RF Exposure Screening Under NEPA

- 9A. Will the proposed NON-ROOFTOP facility equal or exceed total power (of all channels) of 2000 watts ERP (3280 Watts EIRP) and have antennas located less than 10 meters above ground level? No
- 9B. Will the proposed ROOFTOP facility equal or exceed total power (of all channels) of 2000 watts ERP (3280 Watts EIRP)? N/A

IF "yes" is the answer to either of the two RF exposure questions, an evaluation must be performed to determine if T-Mobile exceeds the FCC's exposure limits.

TOWER ENGINEERING PROFESSIONALS, INC.	Date: May 4, 2009
Print Name: George T. Swearingen, III	Signature:

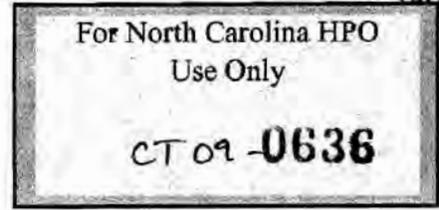
The following provides additional information concerning each item on the checklist.

1. Designated Wilderness Areas – Based on review of available information, the proposed tower site is not located within an officially designated wilderness area.
2. Designated Wildlife Preserve – Based on review of available information, the proposed tower site is not located within an officially designated wildlife preserve.
- 3A. Listed Threatened or Endangered Species or Designated Critical Habitats - Based on review of the listed protected species within the Ayersville & Spencer Quadrangles of Stokes County, North Carolina, as obtained from the North Carolina Department of Environment and Natural Resources: Natural Heritage Program, an on-site investigation, and correspondence with the USFWS-Asheville Field Office, no listed threatened or endangered species occur at the proposed tower site. In addition, no critical habitats were identified on the proposed tower site. Therefore, it is not likely that the construction of the proposed tower will affect threatened or endangered species or their critical habitats.
- 3B. Proposed Threatened or Endangered Species or Proposed Critical Habitats - Based on review of the listed protected species within the Ayersville & Spencer Quadrangles of Stokes County, North Carolina, as obtained from the North Carolina Department of Environment and Natural Resources: Natural Heritage Program, an on-site investigation, and correspondence with the USFWS-Asheville Field Office, none of the proposed threatened or endangered species occur on the proposed tower site. The proposed tower site is not located within an area qualifying as proposed critical habitats. Further, the construction of the proposed tower is not likely to adversely impact proposed threatened or endangered species or their critical habitats.
4. Historical Places – Based on the results of our coordination with Stokes County Planning and Inspections Department, Stokes County Historical Society and the North Carolina Department of Cultural Resources – State Historic Preservation Office (NCDCCR-SHPO), the construction of the proposed tower will “Not Adversely Affect” properties listed on or eligible for listing on the National Register of Historic Places within the 1.5-mile Area of Potential Effect (APE).
5. Indian Religious Sites – Based upon a review of available information obtained from the North Carolina Department of Cultural Resources, the Native American Consultative Database, the Bureau of Indian Affairs-Indian Reservations in the Continental United States, dated 5/96, and the responses to the FCC-Tower Construction Notification ID #49258, no known Indian religious sites will be affected by the proposed tower site.
6. Floodplains – Based on review of the floodplain map of the area (FIRM Community-Panel No. 3711606000J, dated 5/16/2007, the proposed tower site is not located within a special flood hazard area as determined by FEMA.
7. Surface Features – Based on our on-site investigation and a review of the National Wetland Inventory map of the area, the proposed tower is not anticipated to result in a significant change or modification to surface features such as fill in jurisdictional wetlands, deforestation, or water diversion.
8. Zoning/High Intensity White Lights – The proposed tower is 420 feet AGL, the use of high intensity white lights should not be necessary. The proposed tower is anticipated to be equipped with a dual mode lighting system that utilizes medium intensity lights.
- 9A. Radio Frequency Emissions – Based on the specified elevation of the proposed antennas (>10 meters) and because the site will be located within a restricted area, no further study concerning radio frequency emissions is required.

RECEIVED
MAR 13 2009

Communications Tower Review Form

HISTORIC PRESERVATION OFFICE



I. Applicant Information:

Preparer/Company: George Swearingen/Tower Engineering Professionals, Inc.
Address: 3703 Junction Blvd Raleigh, NC 27603
Phone/Fax/E-mail: (919) 661-6351/(919) 661-6350/gswearingen@tepgroup.net

II. Tower Information:

 (Attach copy of USGS map or photocopy of quad on reverse; include 1 and 2 mile radius around site)

Raw Land (New) Co-Location Applicant's Identification # _____
Address: 5086 Highway 704E
County: Stokes, NC FCC Registration No. _____
Tower type and height: 420-ft Self Support Quad Name: Ayersville/Spencer

III. Identification of Historic Properties

List sites by site number and status: NR = National Register listed; SL = Study List; DOE = Determination of Eligibility; LD = Local Designation; UA = Unassessed

Archaeology

of recorded sites in immediate area of tower: 0

Architecture

of recorded sites within 1.5-mile radius: _____

- SK 758 Elmer Briggs Stone
- SK 757 Bud Amos House
- SK 756 Ziglar Blair House
- SK 724 Steele Amos House
- SK 725 James E. Shelton House
- SK 726 Hutcherson-Amos House
- SK 727 Dr. James H. Ellington House (SL)
- SK 728 Caleb Hall House
- SK 729 Caleb Hall Stone + Sandy Ridge P.O.
- SK 718 William Steele Farm
- SK 719 S. Houston Steele House
- SK 720 Moore Vernon House
- SK 721 Hill Shelton Stone
- SK 722 Sam May's House
- SK 723 M.L. Hutcherson stone
- SK 693 Robert Payne House

IV. Additional Information/Investigation Needed:

No Survey
No Testing of sites _____
Recommended by/on: JEM 3/19/09
(Office of State Archaeology)

_____ Photo Reconnaissance
_____ Balloon Test
Recommended by/on: ok
(Survey & Planning Branch)

V. Recommendations/Final Determination:

_____ Recommendations for additional work are shown above.
 The proposed communication tower will Not Adversely affect historic properties in the area of potential effect.

Renee Gledhill-Earley
Renee Gledhill-Earley, Environmental Review Coordinator

3-19-09
Date

cc: FCC

Stokes County Historical Society

Preserving, Collecting, and Displaying History Since 1968

Post Office Box 304
Danbury, N.C. 27016
336-593-9407

April 18, 2009

Tower Engineering Professionals, Inc.
Attn: Ryan A. Malek
3703 Junction Boulevard
Raleigh, N.C. 27603-5263

Dear Mr. Malek:

The Stokes County Historical Society has reviewed the proposal to erect a communications tower at 5086 Highway 704 East, Sandy Ridge (Stokes County), N.C. The Society agrees with the Archeological Field Survey conclusions that erection of the tower would not impact historical or archeological resources in the area. Therefore, the Stokes County Historical Society has no issues with nor objections to the project.

Sincerely,



Charles H. Farlow, President
Stokes County Historical Society

Received

APR 17 2009

R.S. Webb & Associates

*Cultural Resource Management Consultants
2800 Holly Springs Parkway • P.O. Drawer 1319
Holly Springs, Georgia 30142
Phone: 770-345-0706 • Fax: 770-345-0707*

April 1, 2009

Mr. George Swearingen
Tower Engineering Professionals
3703 Junction Boulevard
Raleigh, North Carolina 27603-5263

**Subject: Results - Archeological Field Survey
Proposed Sandy Ridge Tower Site
Stokes County, North Carolina
R.S. Webb & Associates No. 09-206-019.4**

Dear Mr. Swearingen:

BACKGROUND

R.S. Webb & Associates (RSWA), a professional cultural resources management firm, conducted an archeological field survey of the proposed Sandy Ridge tower site at 5086 Highway 704 East in Sandy Ridge, Stokes County, North Carolina (Figure 1). This survey was conducted at the request of and based upon location information provided by Tower Engineering Professionals. The proposed project's Area of Potential Effects (APE) for direct (or archeological) effects includes a 60 by 60 foot (ft) or 18 by 18 meter (m) tower lease area and an approximately 100 ft proposed access corridor (Figure 2).

METHODS

Field Survey: Screened shovel testing, surface inspection, and landscape scanning techniques were used during the current study to search for archeological deposits and other evidence of human occupation and use. Shovel testing involved the hand excavation of 30 centimeter (cm) diameter pits to sterile subsoil, and passing the fill through 0.64 cm hardware cloth to enhance artifact recovery.

The proposed tower lease area was investigated with six shovel tests; one shovel test was excavated at each corner and at the center of the proposed 60 by 60-foot tower lease area, and one shovel test was excavated in the proposed access corridor. Surface inspection included searching for exposed ground within the proposed lease area, the proposed portion of the access corridor, and scanning exposed areas for artifacts. Landscapes within and around the project area were scanned for historic ornamental vegetation, surface features, and other indications of historic occupation and use.

RESULTS

Field Survey: On March 25, 2009, Mr. Kenneth F. Styer, Senior Archeologist with RSWA, intensively surveyed the proposed tower site. The proposed site is located southeast of a modern fire station building, and the proposed site is located entirely within a stand of young to moderate aged planted pine trees (Figure 3; Photos 1-7).

Figure 2 shows the locations of the six shovel tests excavated within the proposed tower site. The soil profiles at the tower site reveal no top soil over red clay; an indication of severe disturbance of local soils (Photo 5). No artifacts, features, or structural remains were observed either on the surface or in the six shovel tests conducted within the project tract. Figure 3 shows the location of eight photographs of the proposed tower site and existing access.

RECOMMENDATIONS AND CONCLUSION

It is the opinion of RSWA that no archeological resources eligible for inclusion in the National Register of Historic Places will be affected by the proposed Sandy Ridge tower undertaking. No additional archeological work is recommended for this project.

CLOSING COMMENTS

Mr. Swearingen, thank you for the opportunity to work on this project with Tower Engineering Professionals. Please contact Mr. Steve Webb at 770-345-0706 if you have any questions concerning our findings.

Sincerely,
R.S. WEBB & ASSOCIATES

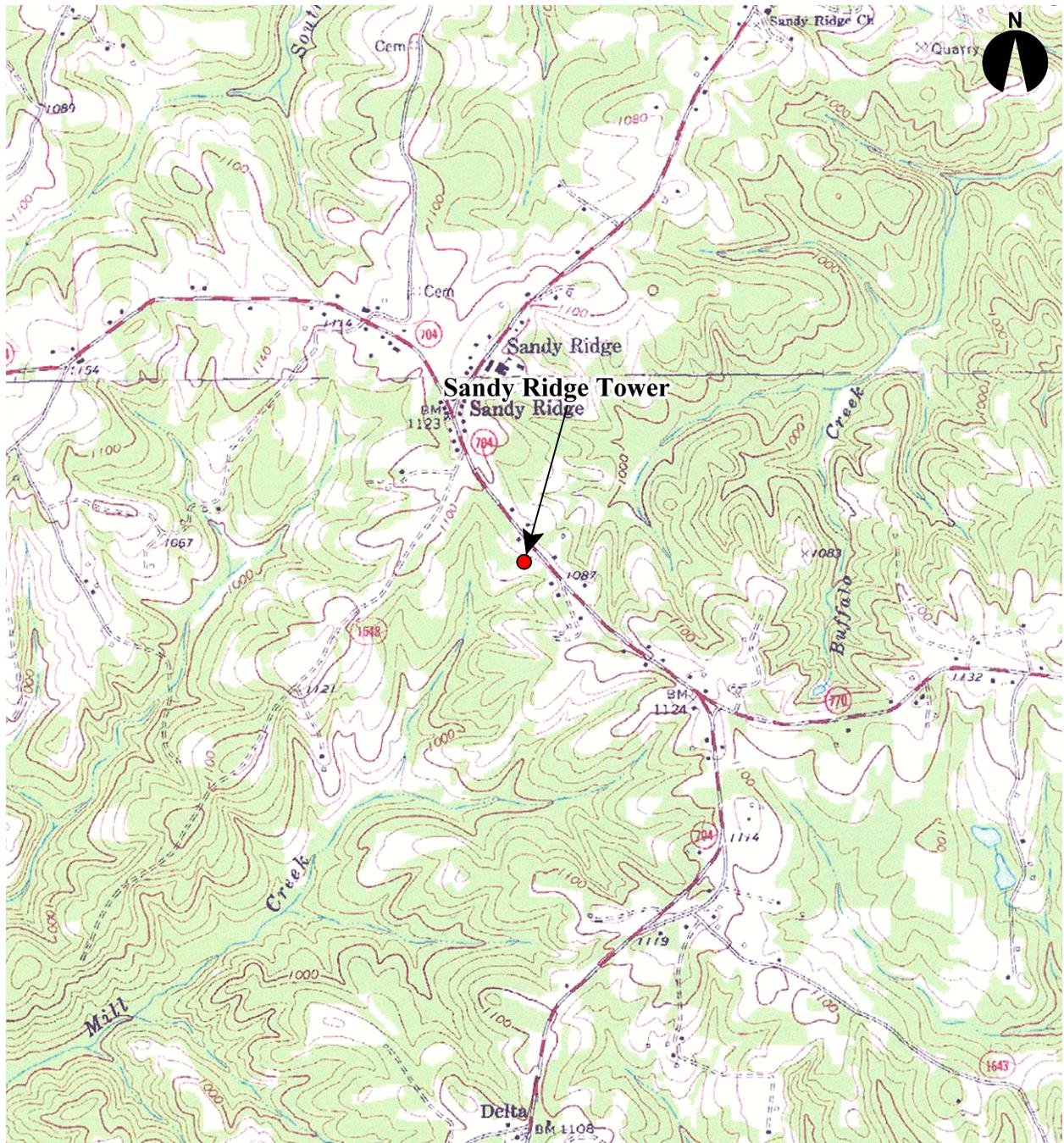


Neil J. Bowen
Historian



Robert S. Webb
President and Senior Principal Archeologist

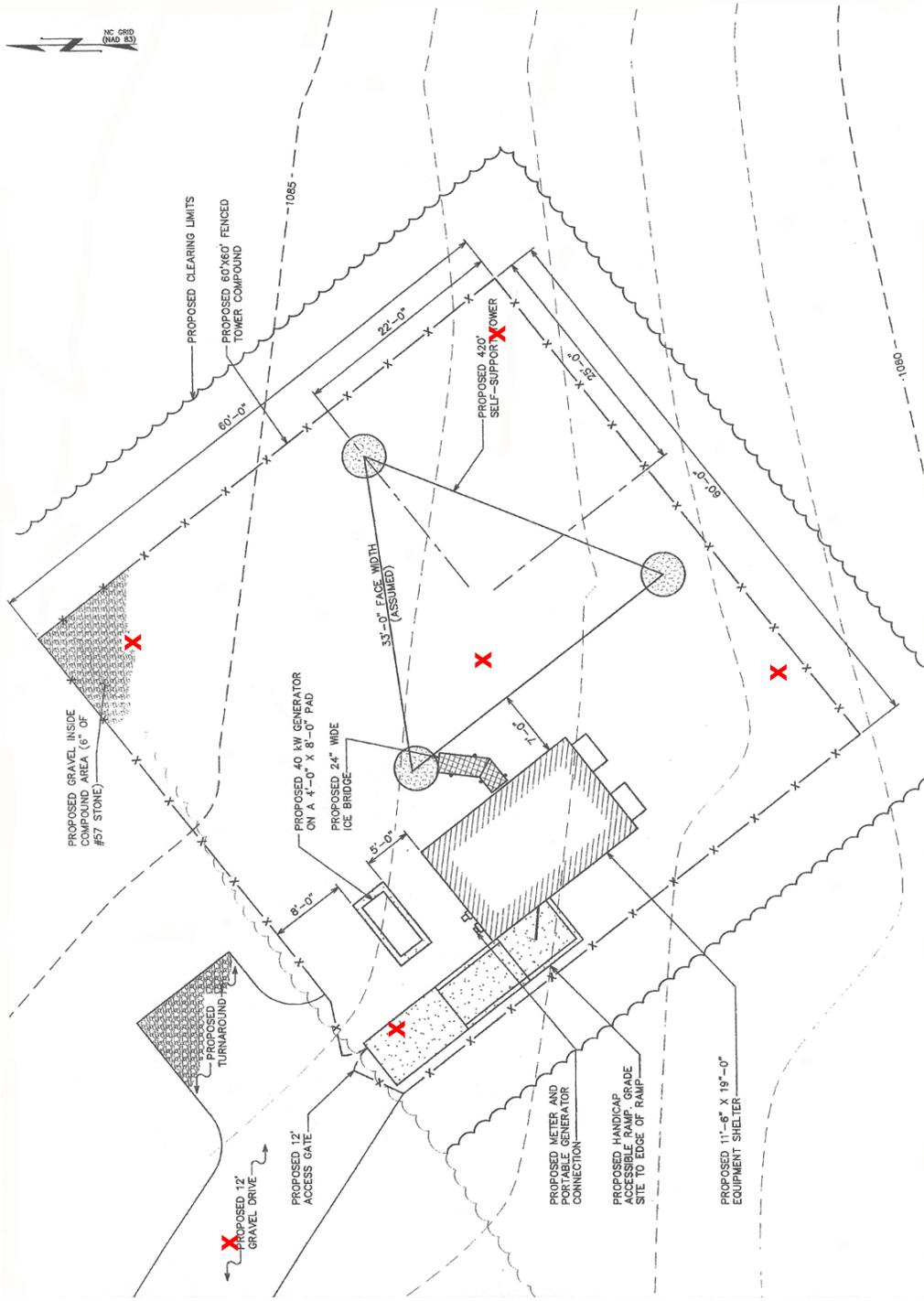
Attachments: Figures 1-3; Photos 1-8



Map Reference: 7.5 Minute USGS Quadrangles
 Ayersville (1971 PI 1984) and
 Spencer, North Carolina

Scale
 0 610 meters
 0 2000 feet

Figure 1 Tower Location Map



X Negative Shovel Test

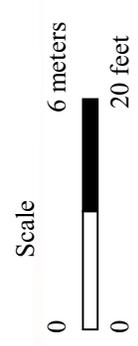


Figure 2 Archeological Survey Coverage



Figure 3 Photo Location Key



Photo 1- From Proposed Tower Center Looking North



Photo 2 - From Proposed Tower Center Looking East



Photo 3 - From Proposed Tower Center Looking South



Photo 4 - From Proposed Tower Center Looking West



Photo 5 - Shovel Test at Tower Center



Photo 6 - Proposed Access Overview Looking West



Photo 7 - Proposed Tower Site Overview Looking East



Photo 8 - Existing Portion of Access Looking Northeast

NORTH CAROLINA
STOKES COUNTY

AFFIDAVIT OF PUBLICATION

Before the undersigned, a Notary Public of said County and State, duly commissioned, qualified and authorized by law to administer oaths, personally appeared Ferris W. Simpson who being first duly sworn, deposes and says: that he (she) is Business Manager (Publisher or other officer or employee authorized to make affidavit) of HEARTLAND PUBLICATIONS, LLC, engaged in the publication of a newspaper known as THE STOKES NEWS, published, issued, and entered as periodicals class mail in the city of King in said County and State; that he (she) is authorized to make this affidavit and sworn statement; that the notice or other legal advertisement, a true copy of which is attached hereto, was published in THE STOKES NEWS on the following dates:

Feb. 26, 2009

and that the said newspaper in which such notice, paper, document or legal advertisement was published was, at the time of each and every such publication, a newspaper meeting all of the requirements and qualifications of Section 1-597 of the General Statutes of North Carolina and was a qualified newspaper within the meaning of Section 1-597 of the General Statutes of North Carolina.

This 15th day of April, 2009

Ferris W. Simpson
Signature of person making affidavit

Sworn to and subscribed before me, this 15th day of

April, 2009

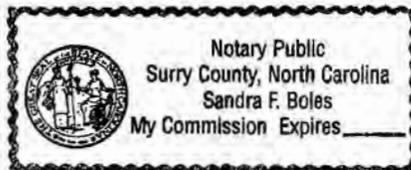
Sandra A. Boles
Notary Public

My Commission expires: November 27, 2012

Public Notice

N.C. Highway Patrol proposes the 420-ft Self Support Communication Tower at 5086 Highway 704 East in Sandy I (607004602516). Please submit comments by 3/27/2009 regarding effects that the proposed tower will have on **Historic Properties that are listed in the National Register of Historic Places to:** Tower Engineering, Inc.(Attn:George Swearingen) 370 Raleigh, NC 27603 Telephone: (919) 661-6350 Fax: (919) 661-6350

APR 16 2009





United States Department of the Interior

FISH AND WILDLIFE SERVICE

Asheville Field Office
160 Zillicoa Street
Asheville, North Carolina 28801

April 23, 2009

Mr. Ryan A. Malek
Environmental Scientist
Tower Engineering Professionals, Inc.
3703 Junction Boulevard
Raleigh, North Carolina 27603-5263

Dear Mr. Malek:

We have reviewed your letter dated March 30, 2009, concerning the proposed construction of a communications tower on NC 704 Highway East, Stokes County, North Carolina. The following comments are provided in accordance with the provisions of the Fish and Wildlife Coordination Act, as amended (16 U.S.C. 661-667e); the Migratory Bird Treaty Act, as amended (16 U.S.C. 703) (MBTA); and section 7 of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531-1543) (Act).

Proposed Project. As stated in your letter, the proposed tower will be approximately 420 feet high and will be of a lattice design. We presume that no aviation warning light system will be installed. The tower will be placed on an approximately 0.08-acre wooded tract, with a 60-foot access road (your project – “Sandy Ridge”).

Endangered Species. Based on the information provided, we do not believe the proposed communications tower is likely to adversely affect any federally listed endangered or threatened species, any formally designated critical habitat, or any species currently proposed for federal listing under the Act. Therefore, we believe the requirements of section 7 of the Act have been satisfied. We remind you that obligations under section 7 must be reconsidered if: (1) new information reveals impacts of this identified action that may affect listed species or critical habitat in a manner not previously considered, (2) this action is subsequently modified in a manner that was not considered in this review, or (3) a new species is listed or critical habitat is determined that may be affected by the identified action.

Site Clearing and Access Road Construction. We want to emphasize that stringent measures to control sediment and erosion should be implemented prior to any ground disturbance, particularly with regard to the access road, and should be maintained throughout project

construction. Wetland/stream buffers (a minimum of 100 feet on perennial streams and 50 feet on intermittent streams) should be maintained throughout the project area. Additionally, all streams and wetlands should be avoided, and there should be mitigation for any unavoidable impacts. Bridges or other spanning structures should be used for all stream/wetland crossings; culverts should not be used.

Migratory Birds. As you are undoubtedly aware, communications towers (including radio, television, cellular, and microwave) can pose a hazard to both resident and migratory birds, especially birds that migrate at night. We are especially concerned about the cumulative effects to migratory birds, particularly the some 350 species that migrate at night, from the increasing number of towers being built by the communications industry (increasing at an estimated 6 to 8 percent annually). Towers 200 feet high and taller are particularly hazardous, and those with lighting have even higher rates of avian mortality. Estimated mortality rates from communications towers are well over 5 million birds per year nationally, which violates the spirit and intent of the MBTA and the Code of Federal Regulations at Part 50 (designed to implement the MBTA). Some of the species affected are also protected under the Endangered Species Act and the Bald and Golden Eagle Act.

The MBTA (16 U.S.C. 703-712) prohibits the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests, except when specifically authorized by the Department of the Interior. While the MBTA has no provisions for allowing incidental take, we recognize that some migratory birds may be killed at structures such as communications towers even if all reasonable measures to avoid harm to them are implemented.

To minimize avian strikes on this tower, we recommend the following mitigative measures. These guidelines have been developed by U.S. Fish and Wildlife Service (Service) personnel from research conducted in several eastern, midwestern, and southern states and have been refined through regional review. They are based on the best information available at this time and are the most prudent and effective measures for avoiding bird strikes at towers. As new information becomes available, these guidelines will be updated accordingly.

Communications Tower Construction Guidelines to Protect Migratory Birds:

- Collocate equipment on existing towers if at all possible.
- Build the structure less than 199 feet above ground level and without guy wires if at all possible.
- If constructing multiple towers, address the cumulative impacts of all those towers to migratory birds and to endangered and threatened species.
- If at all possible, site new towers within existing “antenna farms” (clusters of towers). Towers should not be sited near wetlands, other known bird concentration areas (e.g., state or federal refuges, staging areas, rookeries), in

known migratory or daily movement flyways, or in the habitat of endangered or threatened species. Towers should not be sited in areas with a high incidence of fog, mist, or low ceilings.

- Construct towers so they can accommodate possible future collocations of antennas.
- Use red or white (preferable) strobe lights instead of flashing lights. The use of solid red or pulsating red warning lights at night should be avoided; current research indicates that these lights attract birds at a much higher rate than white strobe lights.
- Use the minimum amount of lighting, the minimum intensity of lighting, and the minimum number of strobe flashes allowed with the minimum strobe flash duration under Federal Communications Commission/Federal Aviation Administration regulations.
- Minimize security lighting for on-ground facilities and ensure that such lighting points downward or is down-shielded.
- Illuminate the tower with additional daytime white strobes (in addition to the tower top) to further increase the visibility of the tower to birds and thereby decrease the potential for blind strikes.

In order to obtain information on the usefulness of these guidelines in preventing bird strikes and to identify any recurring problems with their implementation that may necessitate modifications, please advise us of the final location and specifications of the proposed tower and which of the above recommendations are implemented. If any of the reasonable measures cannot be implemented, please explain why they are not feasible.¹

As mentioned previously, the take of even one bird may constitute a violation of the MBTA. However, issuance of a permit is problematic as the number and species of birds that might be “taken” are unknown and likely inconsistent.² We recommend a monitoring program to examine site-specific avian migration at the tower site as well as the collection of birds from

¹A Communications Tower Working Group composed of government agencies, industry, academic researchers, and environmental organizations has been formed to develop and implement a research protocol to determine the best ways to construct and operate towers to prevent bird strikes. Until the research is completed or until research efforts uncover significant new mitigative measures, the guidelines listed above will be used to mitigate and minimize bird strikes.

²The Service’s Division of Law Enforcement carries out its mission to protect migratory birds not only through investigation and enforcement but also through fostering relationships with individuals and industries who proactively seek to eliminate their impacts on migratory birds. While it is not possible under the MBTA to absolve individuals or companies from liability, if they follow these recommended guidelines, the Division of Law Enforcement and the Department of Justice have used enforcement and prosecutorial discretion in the past regarding individuals or companies who have made good-faith efforts to avoid the take of migratory birds.

tower-induced mortality. This study will help clarify the actual impacts of this and other similar towers to avian mortality and also will help us recommend measures to reduce or eliminate any particular risks identified. Sampling should be focused during times of peak bird migration (April and September) and after significant weather events (storms and fog). We are available to assist in the design of a monitoring plan.

To assist us in assessing the effects of bird strikes to towers of this nature in this area, we request written permission for our employees and/or designees to access the property at the base of the tower to inspect for avian mortality. Access might occur at regular or random intervals and/or following weather events known to induce avian strikes.

Thank you for informing us about this proposed project. If you have any questions about our comments, please contact Mr. Allen Ratzlaff of our staff at 828/258-3939, Ext. 229. In any future correspondence pertaining to this project, please reference our Log Number 4-2-09-253.

Sincerely,

A handwritten signature in cursive script that reads "Brian P. Cole".

Brian P. Cole
Field Supervisor

U.S. Fish & Wildlife Service

Endangered Species, Threatened Species, Federal Species of Concern, and Candidate Species,

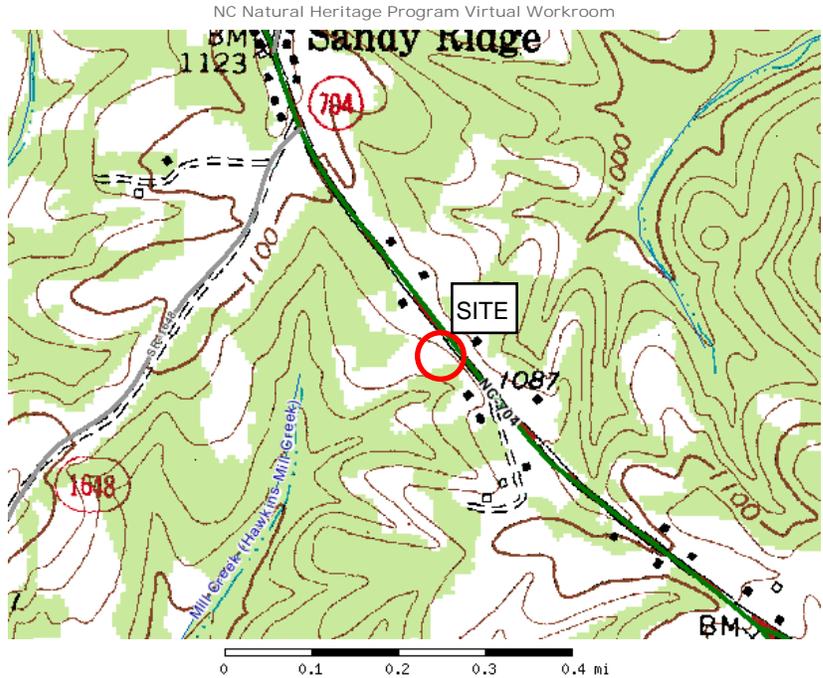
Stokes County, North Carolina



Updated: 01-31-2008

Common Name	Scientific name	Federal Status	Record Status
Vertebrate:			
Orangefin madtom	<i>Noturus gilberti</i>	FSC	Current
Rustyside sucker	<i>Thoburnia hamiltoni</i>	FSC	Current
Invertebrate:			
Diana fritillary (butterfly)	<i>Speyeria diana</i>	FSC	Current
Green floater	<i>Lasmigona subviridis</i>	FSC	Current
James (=Virginia) spinymussel	<i>Pleurobema collina</i>	E	Current
Margarita River skimmer	<i>Macromia margarita</i>	FSC	Current
Vascular Plant:			
Butternut	<i>Juglans cinerea</i>	FSC	Historic
Cuthbert turtlehead	<i>Chelone cuthbertii</i>	FSC	Current
Schweinitz's sunflower	<i>Helianthus schweinitzii</i>	E	Current
Small-anthered bittercress	<i>Cardamine micranthera</i>	E	Current
Sweet pinesap	<i>Monotropsis odorata</i>	FSC	Current
Nonvascular Plant:			
Lichen:			

- Legend
- Element Occurrences
 - Significant Natural Heritage Areas
 - Managed Areas
 - Primary Roads
 - Secondary Roads
 - Municipalities
 - Rivers and Lakes (Lines)
 - Rivers and Lakes (Polygons)
 - Topo Maps
 - Aerial Photos
 - Topo Boundaries
 - County Boundaries
 - Redraw Map



GIS Data Sources: NCNHP, CGIA, NCDOT, USGS. NCNHP data updated on: 2009-Feb-19

Home Help

Locator Map



Map Size: 600 x 450

Functions

- Zoom In
- Zoom Out
- Pan
- Identify
- Clear Selection

Quick View

--Select Region--

[Problems or Questions?](#)

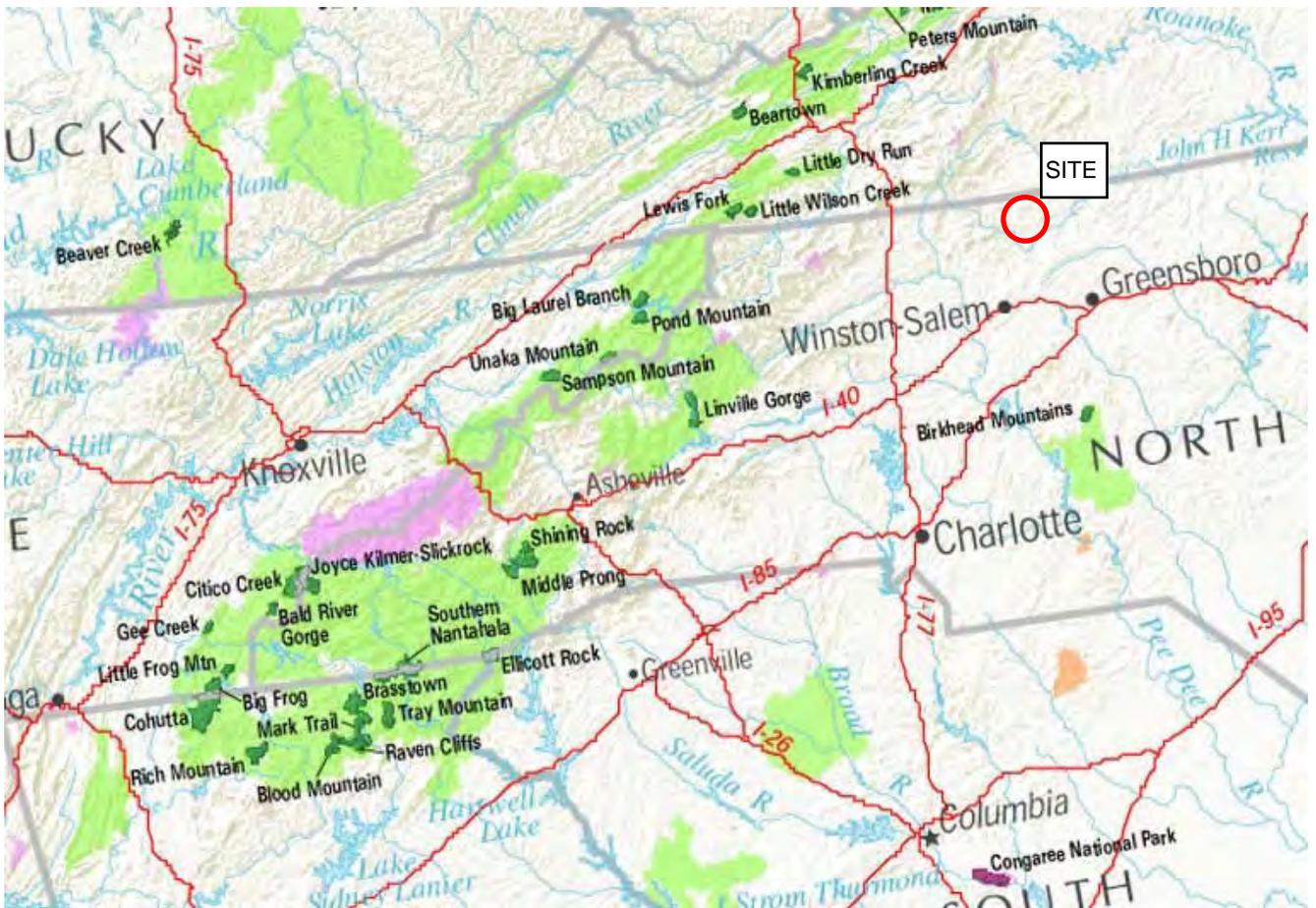
Powered By: WebGD DM Solutions MapServer PHP PostgreSQL PostGIS

Element Occurrence(s)

Found 0 Element Occurrence(s) within 2 miles of selected point

Scientific Name	EO Nb	Common Name	Date Last Observed	EO Rank	EO Accuracy	State Protection Status	Federal Protection Status	State Rank	Global Rank	Habitat Comments
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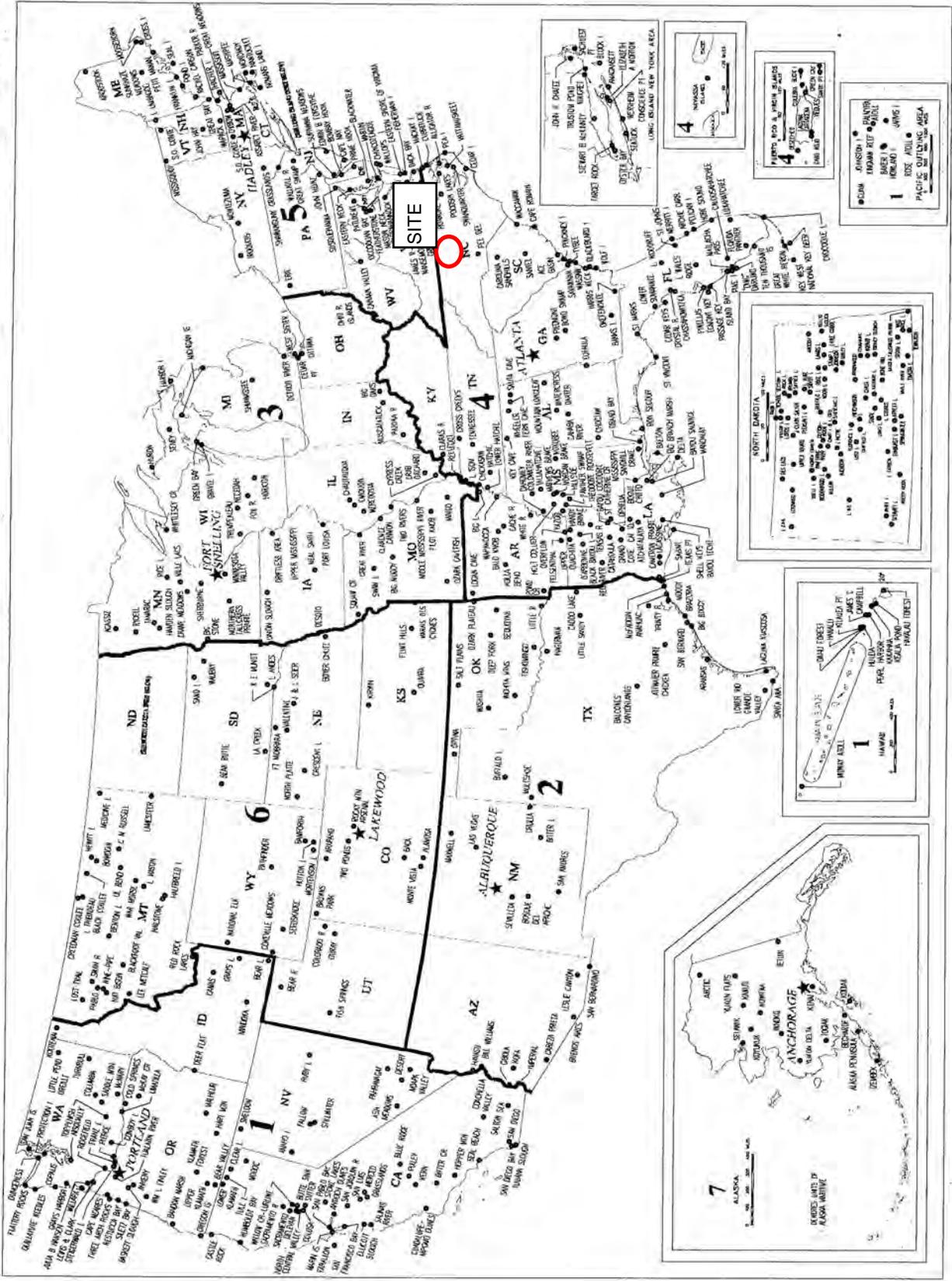
No Records



NATIONAL WILDLIFE REFUGE SYSTEM

UNITED STATES
FISH AND WILDLIFE SERVICE

UNITED STATES
DEPARTMENT OF THE INTERIOR



UNITED STATES
FISH AND WILDLIFE SERVICE

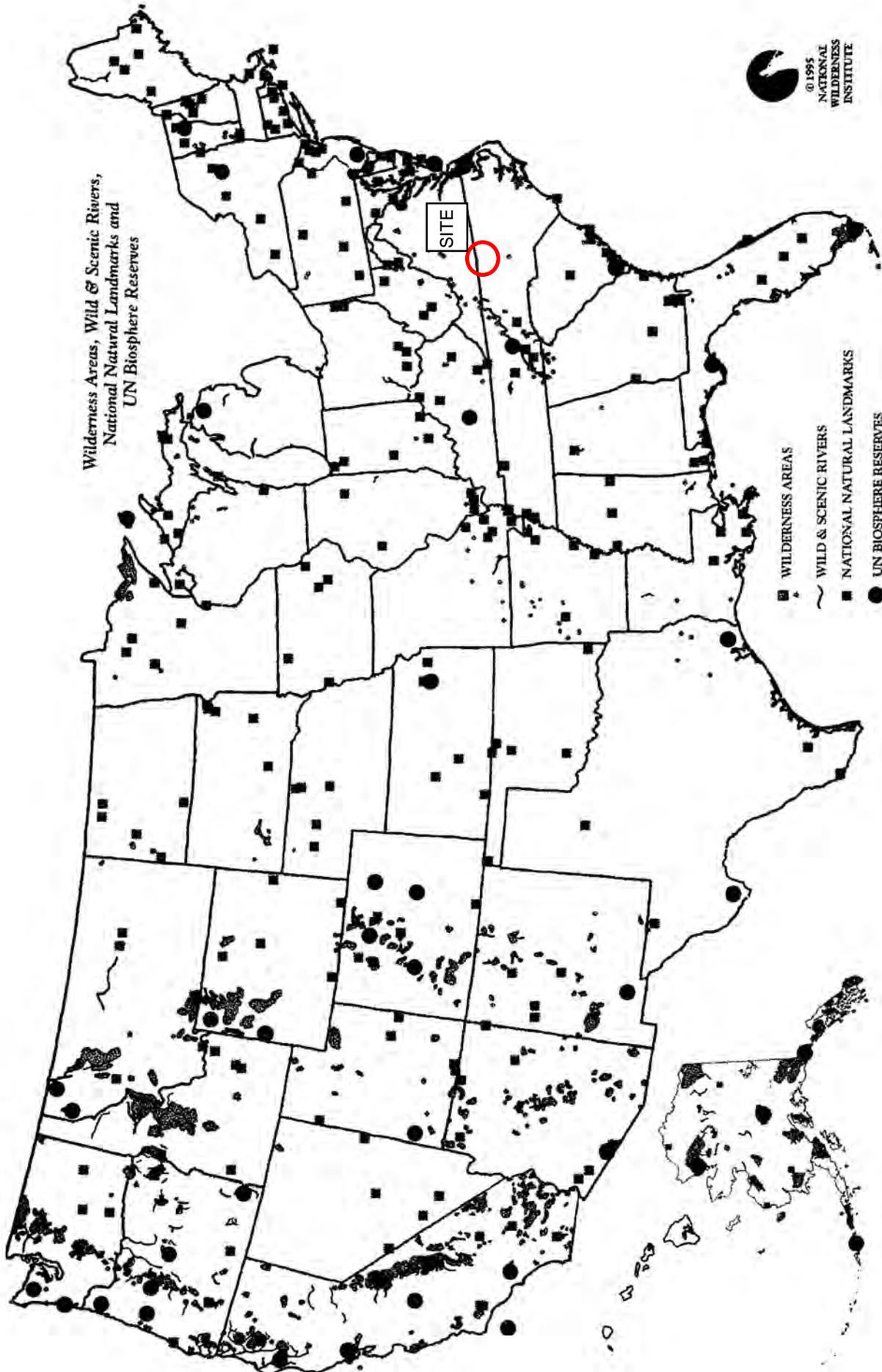
UNITED STATES
DEPARTMENT OF THE INTERIOR

COMPILED IN THE DIVISION OF REALTY
WASHINGTON, DC SEPTEMBER 30, 2004



★ REGIONAL OFFICE

— REGIONAL BOUNDARY



Wilderness Areas, Wild & Scenic Rivers,
National Natural Landmarks and
UN Biosphere Reserves

- WILDERNESS AREAS
- ~ WILD & SCENIC RIVERS
- NATIONAL NATURAL LANDMARKS
- UN BIOSPHERE RESERVES



Tower Construction Notification

[FCC](#) > [WTB](#) > Tower Construction Notification

[FCC Site Map](#)

Logged In: ([Log Out](#)) [Section 106](#)

Tower Construction Notification New Notification

[Notifications Home](#)

Your Notification has been successfully submitted to the FCC. The date for this Notification is 02/19/2009. Your Notification ID number is 49258. Please make a note of this Notification ID — print out this page for your records. A confirmation of this submitted notification will also be emailed to the email address specified in your notification.

This system is intended to facilitate consultation under Section 106 of the National Historic Preservation Act by providing early notification of proposed construction to Tribes and State Historic Preservation officers. This system is not to be used in place of Section 106 consultation, and use of this notification system in itself does not satisfy parties' obligations with respect to historic preservation review under the Commission's rules.

Please note: the submission of this notification is NOT to be considered a submission for Antenna Structure Registration.

Tower Structures that require antenna structure registration based on FCC Rules 47 C.F.R. Part 17 must complete FCC Form 854 after FAA clearance is obtained.

ASR Help	ASR License Glossary - FAQ - Online Help - Documentation - Technical Support
ASR Online Systems	TOWAIR- CORES/ASR Registration - ASR Online Filing - Application Search - Registration Search
About ASR	Privacy Statement - About ASR - ASR Home

Federal Communications Commission
445 12th Street SW
Washington, DC 20554
[More FCC Contact Information...](#)

Phone: 1-877-480-3201
TTY: 1-717-338-2824
Fax: 1-866-418-0232
[Submit Help Request](#)

- [Web Policies & Privacy Statement](#)
- [Required Browser Plug-ins](#)
- [Customer Service Standards](#)
- [Freedom of Information Act](#)

Ryan Malek

From: towernotifyinfo@fcc.gov
Sent: Friday, February 27, 2009 3:01 AM
To: Ryan Malek
Cc: kim.pristello@fcc.gov; diane.dupert@fcc.gov
Subject: NOTICE OF ORGANIZATION(S) WHICH WERE SENT PROPOSED TOWER CONSTRUCTION NOTIFICATION INFORMATION - Email ID #2134783

Dear Sir or Madam:

Thank you for using the Federal Communications Commission's (FCC) Tower Construction Notification System (TCNS). The purpose of this electronic mail message is to inform you that the following authorized persons were sent the information you provided through TCNS, which relates to your proposed antenna structure. The information was forwarded by the FCC to authorized TCNS users by electronic mail and/or regular mail (letter).

Persons who have received the information that you provided include leaders or their designees of federally-recognized American Indian Tribes, including Alaska Native Villages (collectively "Tribes"), Native Hawaiian Organizations (NHOs), and State Historic Preservation Officers (SHPOs). For your convenience in identifying the referenced Tribes and in making further contacts, the City and State of the Seat of Government for each Tribe and NHO, as well as the designated contact person, is included in the listing below. We note that Tribes may have Section 106 cultural interests in ancestral homelands or other locations that are far removed from their current Seat of Government. Pursuant to the Commission's rules as set forth in the Nationwide Programmatic Agreement for Review of Effects on Historic Properties for Certain Undertakings Approved by the Federal Communications Commission (NPA), all Tribes and NHOs listed below must be afforded a reasonable opportunity to respond to this notification, consistent with the procedures set forth below, unless the proposed construction falls within an exclusion designated by the Tribe or NHO. (NPA, Section IV.F.4).

The information you provided was forwarded to the following Tribes and NHOs who have set their geographic preferences on TCNS. If the information you provided relates to a proposed antenna structure in the State of Alaska, the following list also includes Tribes located in the State of Alaska that have not specified their geographic preferences. For these Tribes and NHOs, if the Tribe or NHO does not respond within a reasonable time, you should make a reasonable effort at follow-up contact, unless the Tribe or NHO has agreed to different procedures (NPA, Section IV.F.5). In the event such a Tribe or NHO does not respond to a follow-up inquiry, or if a substantive or procedural disagreement arises between you and a Tribe or NHO, you must seek guidance from the Commission (NPA, Section IV.G). These procedures are further set forth in the FCC's Declaratory Ruling released on October 6, 2005 (FCC 05-176).

1. Chief Leo R Henry - Tuscarora Nation - Via: Lewiston, NY - regular mail
Exclusions: If the Applicant/tower builder receives no response from the Tuscarora Nation within 30 days after notification through TCNS, the Tuscarora Nation has no interest in participating in pre-construction review for the site. The Applicant/tower builder, however, must IMMEDIATELY notify the Tuscarora Nation in the event archaeological properties or human remains are discovered during construction.
2. Compliance Review Supervisor Dawn P Hutchins - Seminole Tribe of Florida - Clewiston, FL - electronic mail
Exclusions: The Seminole Tribe of Florida Tribal Historic Preservation Office requests that all correspondence be conducted via email and email attachments. We also would like to request a Form 620 or 621 be provided for every cell tower submitted to us for review. Should you have any questions, please feel free to contact me at dawnhutchins@semtribe.com or 863-983-6549 Ext. 12219. Thank you.

3. Policy Analyst Richard L Allen - Cherokee Nation - Tahlequah, OK - electronic mail
Exclusions: The TCNS Details do not provide me enough information to conduct a proper assessment of the projects on behalf of the Cherokee Nation. Therefore, I request that I be sent a brief summary of the Phase I findings [please try to limit the summary to between 1--10 pages], a topo of the area, and relevant photos. Please send these by email to rallen@cherokee.org. Please treat this request for additional material as a routine supplement to the TCNS Details Notification for each of your projects that fall within our Tribe's areas of geographic interest. Consequently, if you do not receive a response from me within 30 days from the date on which you e-mailed the supplemental items to me, you may move forward with the 20-Day Letter procedures pursuant to the FCC's guidelines. Thank you. -- Dr. Richard L. Allen

4. Administrative Assistant Jo Ann Beckham - Eastern Shawnee Tribe of Oklahoma - Seneca, MO - electronic mail
Exclusions: If you, the Applicant and/or tower constructor, do not receive a response from us, the Eastern Shawnee Tribe of Oklahoma, within 30 days from the date of the TCNS notification, then you may conclude that we do not have an interest in the site. However, if archeological resources or remains are found during construction, you must immediately stop construction and notify us of your findings in accordance with the FCC's rules. (See 47 C.F.R. § 1.1312(d))

5. THPO Belinda Pryor - Shawnee Tribe - Miami, OK - regular mail
Exclusions: THIS IS YOUR OFFICIAL NOTICE THAT THE SHAWNEE TRIBE IS INTERESTED IN CONSULTING ON ALL PROJECTS BUILT IN OUR AREAS OF GEOGRAPHIC INTEREST.

ATTENTION, NEW INFORMATION: Our procedures were updated on 14 January 2008. Please call Belinda Pryor at 918-542-2441 so that she can send you a copy.

If your tower is a co-location, please fax us this information to let us know. We cannot always tell from the TCNS web site that a tower is a co-location. We require a written response from you to let us know that it is a co-location. If a co-location project includes some new ground disturbance (such as from an expanded compound or access road, or construction of an ancillary structure), the Shawnee Tribe treats such a project the same as any other non co-location project.

Our correct mailing/physical address is: 29 South Highway 69A. Our correct phone number is (918-542-2441) and our historic preservation fax line is (918-542-9915). Belinda Pryor, manages all cell tower consultation.

As of 26 June 2006, all of the faxed responses of our final comments on a tower site will contain an original Shawnee Tribe signature. Each final comment fax is signed individually. Copies may be compared, for authentication, against the original in our files. If a final comment fax does not contain a signature, it is not valid. ALL FINAL COMMENTS FROM THE SHAWNEE TRIBE ARE WRITTEN; FINAL COMMENTS ARE NEVER PROVIDED VERBALLY. IF THE SHAWNEE TRIBE IS CREDITED WITH HAVING GIVEN A VERBAL RESPONSE, THAT RESPONSE IS NOT VALID.

If you receive notification through the TCNS listing the Shawnee Tribe, that is an indication that the Shawnee Tribe is interested in consulting on the tower for which that notification was received. Please consider that our official indication of interest to you. The Shawnee Tribe considers the Tower Construction Notification System's weekly e-mail to be the first notification that we receive that a tower will be constructed in an area of our concern. We do not view the TCNS notification as completion of 106 consultation obligations.

The Shawnee Tribe has developed streamlined consultation procedures for cell tower developers and their subcontractors. If you do not have a copy of the procedures - most recently updated on 14 January 2008 - please contact us, as you must follow these procedures to consult with us on cell tower projects. Call us at 918-542-2441 or fax us at 918-542-9915. It is the tower builder's responsibility to make sure that you have our

most recent consultation procedures.

PLEASE DO NOT SEND US INFORMATION, QUERIES, OR COMMENTS ELECTRONICALLY. SINCE 1 DECEMBER 2005, WE HAVE NOT HANDLED ANY CELL TOWER CONSULTATION, INQUIRIES, OR CORRESPONDENCE VIA E-MAIL.

6. THPO and Director Dr. Wenonah G Haire - Catawba Indian Nation Cultural Preservation Project - Rock Hill, SC - electronic mail and regular mail

Exclusions: The Catawba Indian Nation Tribal Historic Preservation Office requests that you send us by regular mail the following information needed to complete our research for the your proposed project:

Project Name _____

Project Number _____

____1. The name, complete address, phone number, fax number and e-mail address of the project manager.

____2. The project location plotted on a topo map.

____3. The project name, address and location; street or highway, city, county, state.

____4. A brief description of the proposed project. Please include the size of the proposed project site and the size of the area where ground-disturbing activities will be taking place and the type of disturbance anticipated.

____5. A brief description of current and former land use. We are primarily interested in ground disturbance and do not need detailed information or photographs of historic structures in the projectarea.

____6. A list of all recorded archaeological sites within one half (1/2) mile of the project area.

____7. A list of all eligible and potentially eligible National Register of Historic Places sites within one half (1/2) mile of the proposed project area.

____8. If there has been an archaeological survey done in the area, a copy of that report.

____9. It is not necessary to send original color photos if you can provide high-resolution color copies.

____10. A letter of concurrence from the appropriate State Historic Preservation Office.

If you use the FCC Form 620, please do not send Attachments 1 through 6. They are not necessary for our determination. We do not have an interest in projects that require no ground disturbance.

Please send these requested materials in hard copy format. Send to:

CIN-THPO
1536 Tom Steven Road
Rock Hill, S.C. 29730

The information you provided was also forwarded to the additional Tribes and NHOs listed below. These Tribes and NHOs have NOT set their geographic preferences on TCNS, and therefore they are currently receiving tower notifications for the entire United States. For these Tribes and NHOs, you are required to use reasonable and good faith efforts to determine if the Tribe or NHO may attach religious and cultural significance to historic properties that may be affected by its proposed undertaking. Such efforts may include, but are not limited to, seeking information from the relevant SHPO or THPO, Indian Tribes,

state agencies, the U.S. Bureau of Indian Affairs, or, where applicable, any federal agency with land holdings within the state (NPA, Section IV.B). If after such reasonable and good faith efforts, you determine that a Tribe or NHO may attach religious and cultural significance to historic properties in the area and the Tribe or NHO does not respond to TCNS notification within a reasonable time, you should make a reasonable effort to follow up, and must seek guidance from the Commission in the event of continued non-response or in the event of a procedural or substantive disagreement. If you determine that the Tribe or NHO is unlikely to attach religious and cultural significance to historic properties within the area, you do not need to take further action unless the Tribe or NHO indicates an interest in the proposed construction or other evidence of potential interest comes to your attention.

None

The information you provided was also forwarded to the following SHPOs in the State in which you propose to construct and neighboring States. The information was provided to these SHPOs as a courtesy for their information and planning. You need make no effort at this time to follow up with any SHPO that does not respond to this notification. Prior to construction, you must provide the SHPO of the State in which you propose to construct (or the Tribal Historic Preservation Officer, if the project will be located on certain Tribal lands), with a Submission Packet pursuant to Section VII.A of the NPA.

7. Environmental Review Coordinator Renee GledhillEarley - NC State Historic Preservation Office - Raleigh, NC - electronic mail

8. Deputy SHPO David Brook - Historic Preservation Office - Raleigh, NC - electronic mail

"Exclusions" above set forth language provided by the Tribe, NHO, or SHPO. These exclusions may indicate types of tower notifications that the Tribe, NHO, or SHPO does not wish to review. TCNS automatically forwards all notifications to all Tribes, NHOs, and SHPOs that have an expressed interest in the geographic area of a proposal, as well as Tribes and NHOs that have not limited their geographic areas of interest. However, if a proposal falls within a designated exclusion, you need not expect any response and need not pursue any additional process with that Tribe, NHO, or SHPO. Exclusions may also set forth policies or procedures of a particular Tribe, NHO, or SHPO (for example, types of information that a Tribe routinely requests, or a policy that no response within 30 days indicates no interest in participating in pre-construction review).

If you are proposing to construct a facility in the State of Alaska, you should contact Commission staff for guidance regarding your obligations in the event that Tribes do not respond to this notification within a reasonable time.

Please be advised that the FCC cannot guarantee that the contact(s) listed above opened and reviewed an electronic or regular mail notification. The following information relating to the proposed tower was forwarded to the person(s) listed above:

Notification Received: 02/19/2009
Notification ID: 49258
Tower Owner Individual or Entity Name: TEP for NC Highway Patrol
Consultant Name: Ryan A Malek
Street Address: 3703 Junction Blvd.
City: Raleigh
State: NORTH CAROLINA
Zip Code: 27603
Phone: 919-661-6351
Email: rmalek@tepgroup.net

Structure Type: UTOWER - Unguyed - Free Standing Tower
Latitude: 36 deg 29 min 38.1 sec N
Longitude: 80 deg 6 min 6.1 sec W
Location Description: 5086 Highway 704 East

City: Sandy Ridge
State: NORTH CAROLINA
County: STOKES
Ground Elevation: 329.2 meters
Support Structure: 128.0 meters above ground level
Overall Structure: 128.0 meters above ground level
Overall Height AMSL: 457.2 meters above mean sea level

If you have any questions or comments regarding this notice, please contact the FCC using the electronic mail form located on the FCC's website at:

<http://wireless.fcc.gov/outreach/notification/contact-fcc.html>.

You may also call the FCC Support Center at (877) 480-3201 (TTY 717-338-2824). Hours are from 8 a.m. to 7:00 p.m. Eastern Time, Monday through Friday (except Federal holidays). To provide quality service and ensure security, all telephone calls are recorded.

Thank you,
Federal Communications Commission

Ryan Malek

From: towernotifyinfo@fcc.gov
Sent: Tuesday, April 07, 2009 11:31 AM
To: Ryan Malek
Cc: towernotifyinfo@fcc.gov; dawnhutchins@semtribe.com
Subject: Reply to Proposed Tower Structure (Notification ID #49258) - Email ID #2164259

Dear Ryan A Malek,

Thank you for using the Federal Communications Commission's (FCC) Tower Construction Notification System (TCNS). The purpose of this email is to inform you that an authorized user of the TCNS has replied to a proposed tower construction notification that you had submitted through the TCNS.

The following message has been sent to you from Compliance Review Supervisor Dawn P Hutchins of the Seminole Tribe of Florida in reference to Notification ID #49258:

To Whom It May Concern,

The Seminole Tribe of Florida Tribal Historic Preservation Office (STOF-THPO) has received your email correspondence concerning the aforementioned project. The STOF-THPO concurs with your findings of "no historic properties". However, the STOF-THPO would like to be informed should any archaeological and/or historic resources be discovered inadvertently during the construction process. We thank you for the opportunity to review the information that has been sent to date regarding this project.

We look forward to working with you in the future.

Sincerely,
Dawn Hutchins
Compliance Review Supervisor
dawnhutchins@semtribe.com

For your convenience, the information you submitted for this notification is detailed below.

Notification Received: 02/19/2009
Notification ID: 49258
Tower Owner Individual or Entity Name: TEP for NC Highway Patrol
Consultant Name: Ryan A Ryan
Street Address: 3703 Junction Blvd.
City: Raleigh
State: NORTH CAROLINA
Zip Code: 27603
Phone: 919-661-6351
Email: rmalek@tepgroup.net

Structure Type: UTOWER - Unguyed - Free Standing Tower
Latitude: 36 deg 29 min 38.1 sec N
Longitude: 80 deg 6 min 6.1 sec W
Location Description: 5086 Highway 704 East
City: Sandy Ridge
State: NORTH CAROLINA
County: STOKES
Ground Elevation: 329.2 meters
Support Structure: 128.0 meters above ground level
Overall Structure: 128.0 meters above ground level
Overall Height AMSL: 457.2 meters above mean sea level

Ryan Malek

From: Richard Allen [Richard-Allen@cherokee.org]
Sent: Monday, April 13, 2009 4:24 PM
To: Ryan Malek
Subject: RE: Review request for TCNS#'s 49258, 49256

The Cherokee Nation has no knowledge of any historic, cultural or sacred sites within the affected area. Should any ground disturbance reveal an archaeological site or human remains, we ask that the all activity cease immediately and the Cherokee Nation and other appropriate agencies be contacted immediately.

Thank you,

Dr. Richard L. Allen
Policy Analyst
Cherokee Nation
P.O. Box 948
Tahlequah, Oklahoma 74465
(918) 453-5466 (office)
(918) 822-2707 (cell)
(918) 458-5898 (fax)

-----Original Message-----

From: Ryan Malek [mailto:rmalek@tepgroup.net]
Sent: Thursday, April 02, 2009 10:37 AM
To: Richard Allen
Subject: Review request for TCNS#'s 49258, 49256

Dr. Allen,
Attached are two pdf documents that include the information for the review of two proposed towers (Sandy Ridge and Barrett Mtn.). Please let me know if you need anything else. Hope all is well.

Thanks,

Ryan A. Malek
Tower Engineering Professionals, Inc.
Environmental Scientist II
3703 Junction Blvd.
Raleigh, NC 27603
(919) 661-6351 Office
(919) 661-6350 Fax
(919) 332-1917 Mobile

Ryan Malek

From: towernotifyinfo@fcc.gov
Sent: Wednesday, February 25, 2009 1:40 PM
To: Ryan Malek
Cc: towernotifyinfo@fcc.gov
Subject: Reply to Proposed Tower Structure (Notification ID #49258) - Email ID #2136947

Dear Ryan A Malek,

Thank you for using the Federal Communications Commission's (FCC) Tower Construction Notification System (TCNS). The purpose of this email is to inform you that an authorized user of the TCNS has replied to a proposed tower construction notification that you had submitted through the TCNS.

The following message has been sent to you from Administrative Assistant Jo Ann Beckham of the Eastern Shawnee Tribe of Oklahoma in reference to Notification ID #49258:

February 25, 2009

To Whom It May Concern:

Thank you for notice of the referenced project(s). The Eastern Shawnee Tribe of Oklahoma is currently unaware of any documentation directly linking Indian Religious Sites to the proposed construction. In the event any items falling under the Native American Graves Protection and Repatriation Act (NAGPRA) are discovered during construction, the Eastern Shawnee Tribe request notification and further consultation.

The Eastern Shawnee Tribe has no objection to the proposed construction. At present, the Eastern Shawnee Tribe does not wish to participate as a consulting party on the above referenced project(s). However, if any human skeletal remains and/or any objects falling under NAGPRA are uncovered during construction, the construction should stop immediately, and the appropriate persons, including state and tribal NAGPRA representatives contacted.

Sincerely,
Jo Ann Beckham, Administrative Assistant Eastern Shawnee Tribe of Oklahoma

For your convenience, the information you submitted for this notification is detailed below.

Notification Received: 02/19/2009
Notification ID: 49258
Tower Owner Individual or Entity Name: TEP for NC Highway Patrol
Consultant Name: Ryan A Malek
Street Address: 3703 Junction Blvd.
City: Raleigh
State: NORTH CAROLINA
Zip Code: 27603
Phone: 919-661-6351
Email: rmalek@tepgroup.net

Structure Type: UTOWER - Unguyed - Free Standing Tower
Latitude: 36 deg 29 min 38.1 sec N
Longitude: 80 deg 6 min 6.1 sec W
Location Description: 5086 Highway 704 East
City: Sandy Ridge
State: NORTH CAROLINA
County: STOKES
Ground Elevation: 329.2 meters



SHAWNEE TRIBE
HISTORIC PRESERVATION DEPARTMENT
29 SOUTH HIGHWAY 69A
MIAMI, OKLAHOMA 74354
918 ^ 542 ^ 2441 PHONE 918 ^ 542 ^ 9915 FAX

FACSIMILE COVER PAGE

To: Ryan FROM: Kimi Jumper
 FIRM/AGENCY: Tower Eng. DATE/TIME: 4/16/09
 FAX NUMBER: 919-661-6350 NO. OF PAGES, INCLUDING COVER: _____
 PHONE NUMBER: _____ MEMO: 49256, 49258, 50022

Message: The Shawnee Tribe's Tribal Historic Preservation Officer concurs that no known historic properties will be negatively impacted by construction of this tower site (see memo line above for TCNS number/s). The Shawnee Tribe's archives do not reveal any issues of concern at this tower location. In the event that archaeological materials are encountered later during construction, use, or maintenance of this tower location, please re-notify us at that time as we would like to resume consultation under such a circumstance.

The Shawnee Tribe's Environmental and Natural Resources Department takes this opportunity to express its concerns that telecommunication towers can have a potentially destructive impact on bats and migratory birds, particularly those that migrate at night, including species listed as threatened and endangered by both states and the federal government, as well as other species. The Shawnee Tribe suggests that this tower be constructed in accordance with the guidelines available from the US Fish and Wildlife Service to reduce the adverse effects of telecommunications towers on migratory birds; these guidelines may be found at www.fws.gov/migratorybirds/issues/towers/comtow.html.

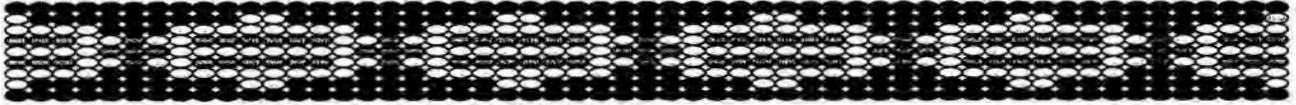
The Shawnee Tribe's Environmental and Natural Resources Department is further concerned that the proliferation of cell towers may play a role in honey bee Colony Collapse Disorder. We acknowledge that cell phone technology may not be to blame, especially by itself, as other potential causative factors for the decline have been noted, such as insecticides, tracheal and varroa mites [an immunosuppressant], other parasites, pesticides used on hives to eliminate parasites, genetically modified plants, *Nosema* fungus, Israeli Acute Paralysis Virus (IAPV) perhaps introduced from Australia in 2004, Kashmir Bee Virus [KBV], climate change, and drought.

Finally, the Shawnee Tribe's Environmental and Natural Resources Department requests that cell tower sites, whenever remotely feasible, be restored to native vegetation. In all cases, habitat restoration can protect a variety of species, even in small project areas. The large number of cell tower sites provides an as yet unrealized opportunity for region-wide habitat restoration. The Tribe urges the cell phone industry to provide a model for native habitat restoration for other industries.

Please do not hesitate to call us for additional comment.

Catawba Indian Nation
Tribal Historic Preservation Office
1536 Tom Steven Road
Rock Hill, South Carolina 29730

Office 803-328-2427
Fax 803-328-5791



April 27, 2009

Attention: Ryan A. Malek
Tower Engineering Professionals
3703 Junction Boulevard
Raleigh, NC 27603-5263

Re. THPO #	TCNS #	Project Description
2009-12-60	49256	Barrett Mountain 253 Harrelson Ridge Road Taylorsville, NC
2009-12-61	49258	Sandy Ridge 5086 Highway 704 East Sandy Ridge, NC
2009-12-62	50022	Whipple Road 937 Whipple Road Mt. Pleasant, SC

Dear Mr. Malek,

The Catawba have no immediate concerns with regard to traditional cultural properties, sacred sites or Native American archaeological sites within the boundaries of the proposed project areas. **However, the Catawba are to be notified if Native American artifacts and / or human remains are located during the ground disturbance phase of this project.**

If you have questions please contact Caitlin Haire at 803-328-2427 ext. 226, or e-mail caitlinh@ccppcrafts.com.

Sincerely,

Wenonah G. Haire
Tribal Historic Preservation Officer



NACD Query Results

Full Data Report

Query input:

State = North Carolina

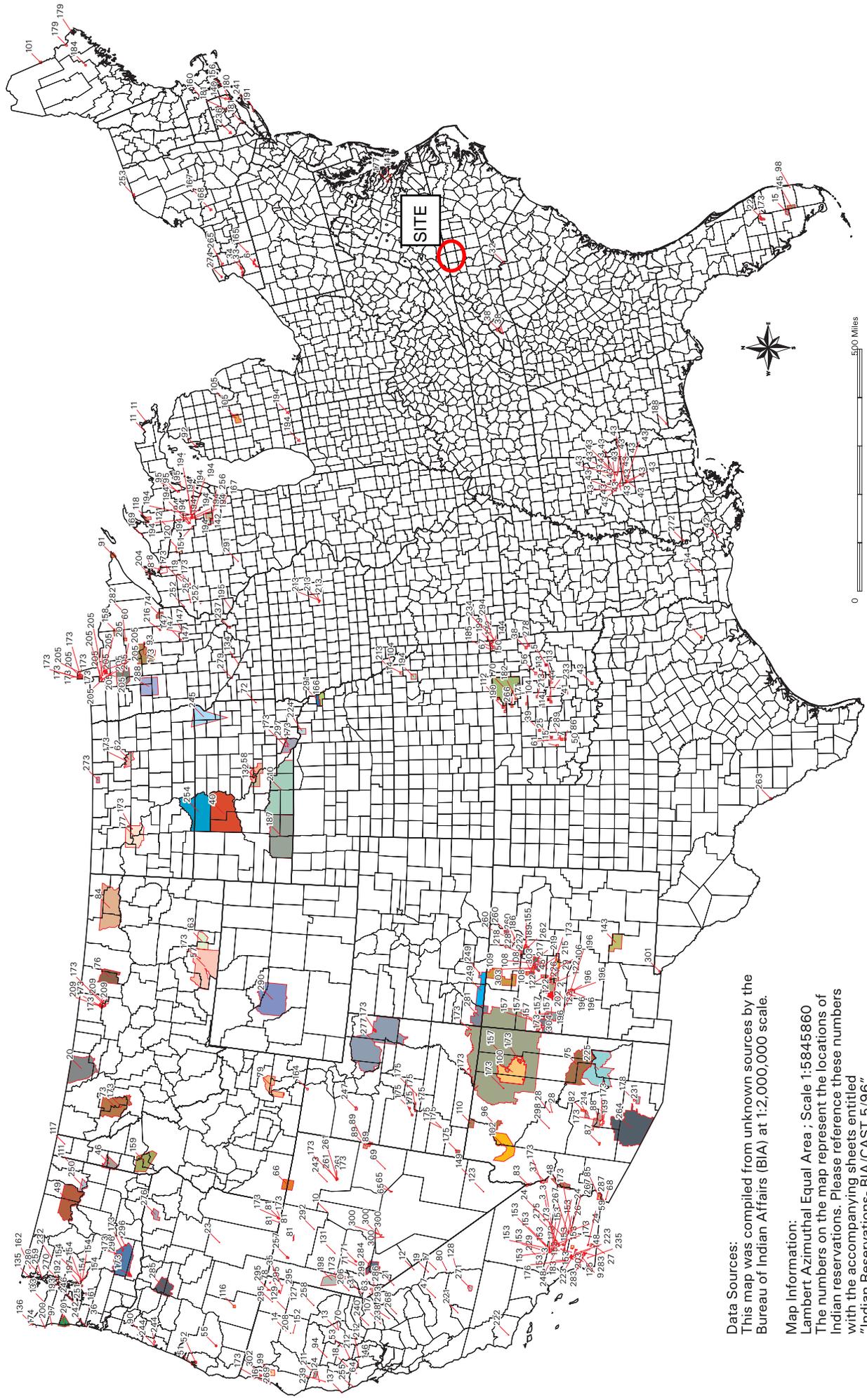
County = Stokes

NO RECORDS FOUND MATCHING SEARCH CRITERIA

[Return to top of page](#)

[Return to Query Page](#)

Indian Reservations in the Continental United States



Data Sources:
This map was compiled from unknown sources by the
Bureau of Indian Affairs (BIA) at 1:2,000,000 scale.

Map Information:
Lambert Azimuthal Equal Area ; Scale 1:5845860
The numbers on the map represent the locations of
Indian reservations. Please reference these numbers
with the accompanying sheets entitled
"Indian Reservations- BIA/CAST 5/96".

National Park Service
U.S. Department of the Interior



National NAGPRA



Resources for [Tribes](#) | [Museums](#) | [Agencies](#) | [Public](#) | [Press](#)

Indian Reservations in the Continental United States MAP INDEX

[Full Size Map \(PDF\)](#)

0 No Data	102. HUALAPAI	204. RED CLIFF
1. ABSENTEE SHAWNEE *	103. INAJA	205. RED LAKE
2. ACOMA	104. IOWA *	206. RENO-SPARKS
3. AGUA CALIENTE	105. ISABELLA	207. RINCON
4. ALABAMA-COUSHATTA	106. ISLETA	208. ROARING CREEK
5. ALABAMA-QUASSARTE CREEKS *	107. JACKSON	209. ROCKY BOYS
6. ALLEGANY	108. JEMEZ	210. ROSEBUD
7. APACHE *	109. JICARILLA	211. ROUND VALLEY
8. BAD RIVER	110. KAIBAB	212. RUMSEY
9. BARONA RANCH	111. KALISPEL	213. SAC AND FOX #
10. BATTLE MOUNTAIN	112. KAW *	214. SALT RIVER
11. BAY MILLS	113. KIALEGEE CREEK *	215. SANDIA
12. BENTON PAIUTE	114. KICKAPOO *	216. SANDY LAKE
13. BERRY CREEK	115. KIOWA *	217. SANTA ANA
14. BIG BEND	116. KLAMATH *	218. SANTA CLARA
15. BIG CYPRESS	117. KOOTENAI	219. SANTA DOMINGO
16. BIG LAGOON	118. L'ANSE	220. SANTA ROSA
17. BIG PINE	119. LAC COURTE OREILLES	221. SANTA ROSA (NORTH)
		222. SANTA YNEZ

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[Review Committee](#)

[Special Topics](#)

[Contact National NAGPRA](#)

18. BIG VALLEY	120. LAC DU FLAMBEAU	223. SANTA YSABEL
19. BISHOP	121. LAC VIEUX DESERT	224. SANTEE
20. BLACKFEET	122. LAGUNA	225. SAN CARLOS
21. BRIDGEPORT	123. LAS VEGAS	226. SAN FELIPE
22. BRIGHTON	124. LAYTONVILLE	227. SAN ILDEFONSO
23. BURNS PAIUTE COLONY	125. LA JOLLA	228. SAN JUAN
24. CABEZON	126. LA POSTA	229. SAN MANUAL
25. CADDO *	127. LIKELY	230. SAN PASQUAL
26. CAHUILLA	128. LONE PINE	231. SAN XAVIER
27. CAMPO	129. LOOKOUT	232. SAUK SUIATTLE
28. CAMP VERDE	130. LOS COYOTES	233. SEMINOLE *
29. CANONCITO	131. LOVELOCK COLONY	234. SENECA-CAYUGA *
30. CAPITAN GRANDE	132. LOWER BRULE	235. SEQUAN
31. CARSON	133. LOWER ELWAH	236. SHAGTICOKE +
32. CATAWBA	134. LOWER SIOUX	237. SHAKOPEE
33. CATTARAUGUS	135. LUMMI	238. SHEEP RANCH
34. CAYUGA *	136. MAKAH	239. SHERWOOD VALLEY
35. CEDARVILLE	137. MANCHESTER	240. SHINGLE SPRING
36. CHEHALIS	138. MANZANITA	241. SHINNECOCK +
37. CHEMEHUEVI	139. MARICOPA	242. SHOALWATER
38. CHEROKEE * #	140. MASHANTUCKET PEQUOT	243. SHOSHONE
39. CHEYENNE-ARAPAHOE*	141. MATTAPONI +	244. SILETZ
40. CHEYENNE RIVER	142. MENOMINEE	245. SISSETON
41. CHICKASAW *	143. MESCALERO	246. SKOKOMISH
42. CHITIMACHA	144. MIAMI *	247. SKULL VALLEY
43. CHOCTAW * #	145. MICCOSUKEE	248. SOBOBA
44. CITIZEN BAND OF POTAWATOMI *	146. MIDDLETOWN	249. SOUTHERN UTE
45. COCHITI	147. MILLE LACS	250. SPOKANE
46. COEUR D'ALENE	148. MISSION	251. SQUAXON ISLAND

47. COLD SPRINGS	149. MOAPA	252. ST. CROIX
48. COLORADO RIVER	150. MODOC *	253. ST. REGIS
49. COLVILLE	151. MOLE LAKE	254. STANDING ROCK
50. COMANCHE *	152. MONTGOMERY CREEK	255. STEWARTS POINT
51. COOS, LOWER UMPQUA & SIUSLAW	153. MORONGO	256. STOCKBRIDGE MUNSEE
52. COQUILLE *	154. MUCKLESHOOT	257. SUMMIT LAKE
53. CORTINA	155. NAMBE	258. SUSANVILLE
54. COUSHATTA	156. NARRAGANSETT	259. SWINOMISH
55. COW CREEK	157. NAVAJO	260. TAOS
56. CREEK *	158. NETT LAKE	261. TE-MOAK
57. CROW	159. NEZ PERCE	262. TESUQUE
58. CROW CREEK	160. NIPMOC- HASSANAMISCO +	263. TEXAS KICKAPOO
59. CUYAIPAPE	161. NISQUALLY	264. TOHONO O'ODHAM
60. DEER CREEK	162. NOOKSACK	265. TONAWANDA
61. DELAWARE *	163. NORTHERN CHEYENNE	266. TONIKAWA *
62. DEVILS LAKE	164. NORTHWESTERN SHOSHONE	267. TORRES MARTINEZ
63. DRESSLERVILLE COLONY	165. OIL SPRINGS	268. TOULUMNE
64. DRY CREEK	166. OMAHA	269. TRINDAD
65. DUCKWATER	167. ONEIDA #	270. TULALIP
66. DUCK VALLEY	168. ONONDAGA	271. TULE RIVER
67. EASTERN SHAWNEE *	169. ONTONAGON	272. TUNICA-BILOXI
68. EAST COCOPAH	170. OSAGE	273. TURTLE MOUNTAINS
69. ELY COLONY	171. OTOE-MISSOURI *	274. TUSCARORA
70. ENTERPRISE	172. OTTAWA *	275. TWENTYNINE PALMS
71. FALLON	173. OUT	276. UMATILLA
72. FLANDREAU INDIAN SCHOOL	174. OZETTE	277. UINTAH AND OURAY
73. FLATHEAD	175. PAIUTE	278. UNITED KEETOOWAH BAND OF CHEROKEE *
74. FOND DU LAC	176. PALA	279. UPPER SIOUX

75. FORT APACHE	177. PAMUNKEY +	280. UPPER SKAGIT
76. FORT BELKNAP	178. PASCUA YAQUI	281. UTE MOUNTAIN
77. FORT BERTHOLD	179. PASSAMAQUODDY	282. VERMILION LAKE
78. FORT BIDWELL	180. PAUCATAUK PEQUOT +	283. VIEJAS
79. FORT HALL	181. PAUGUSETT +	284. WALKER RIVER
80. FORT INDEPENDENCE	182. PAWNEE *	285. WARM SPRINGS
81. FORT MCDERMITT	183. PECHANGA	286. WASHOE
82. FORT MCDOWELL	184. PENOBSCOT	287. WEST COCOPAH
83. FORT MOHAVE	185. PEORIA *	288. WHITE EARTH
84. FORT PECK	186. PICURIS	289. WICHITA *
85. FORT YUMA	187. PINE RIDGE	290. WIND RIVER
86. FT. SILL APACHE *	188. POARCH CREEK	291. WINNEBAGO #
87. GILA BEND	189. POJOAQUE	292. WINNEMUCCA
88. GILA RIVER	190. PONCA *	293. WOODFORD INDIAN COMMUNITY
89. GOSHUTE	191. POOSEPATUCK +	294. WYANDOTTE *
90. GRANDE RONDE	192. PORT GAMBLE	295. XL RANCH
91. GRAND PORTAGE	193. PORT MADISON	296. YAKAMA
92. GRAND TRAVERSE	194. POTAWATOMI #	297. YANKTON
93. GREATER LEECH LAKE	195. PRAIRIE ISLE	298. YAVAPAI
94. GRINDSTONE	196. PUERTOCITO	299. YERINGTON
95. HANNAHVILLE	197. PUYALLUP	300. YOMBA
96. HAVASUPAI	198. PYRAMID LAKE	301. YSLETA DEL SUR
97. HOH	199. QUAPAW *	302. YUROK
98. HOLLYWOOD	200. QUILLAYUTE	303. ZIA
99. HOOPA VALLEY	201. QUINAULT	304. ZUNI
100. HOPI	202. RAMAH	
101. HOULTON MALISEETS	203. RAMONA	

GRID NORTH

MAP SCALE 1" = 1000' (1 : 12,000)

0 1000 2000 FEET

0 300 600 METERS

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 6060J

FIRM
FLOOD INSURANCE RATE MAP
NORTH CAROLINA

PANEL 6060
 (SEE LOCATOR DIAGRAM OR MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:
 COMMUNITY STOKES COUNTY
 C/D NO. 370362
 PANEL 6060
 SUFFIX J

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.

EFFECTIVE DATE **MAY 16, 2007**

MAP NUMBER **371160600J**

State of North Carolina
 Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps, check the FEMA Flood Map Store at www.msc.fema.gov



8.0° 6.3' 0" 580 000 M

LEGEND



SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A No Base Flood Elevations determined.

ZONE AE Base Flood Elevations determined.

ZONE AH Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.

ZONE AO Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.

ZONE AR Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.

ZONE A99 Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.

ZONE VE Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.



FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.



OTHER FLOOD AREAS

ZONE X Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

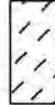


OTHER AREAS

ZONE X Areas determined to be outside the 0.2% annual chance floodplain.
ZONE D Areas in which flood hazards are undetermined, but possible.



COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

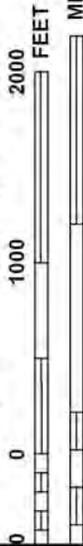


OTHERWISE PROTECTED AREAS (OPAs)



GRID NORTH

MAP SCALE 1" = 1000' (1 : 12,000)



NFIP

PANEL 6060J

FIRM
FLOOD INSURANCE RATE MAP
NORTH CAROLINA

PANEL 6060

(SEE LOCATOR DIAGRAM OR MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY
 STONES COUNTRY

CID No. PANEL SUFFIX
 377362Z 6060 J

Notice to User: The Map Number shown below should be used when placing map orders. The Community Number shown above should be used on insurance applications for the subject community.

EFFECTIVE DATE
MAY 16, 2007

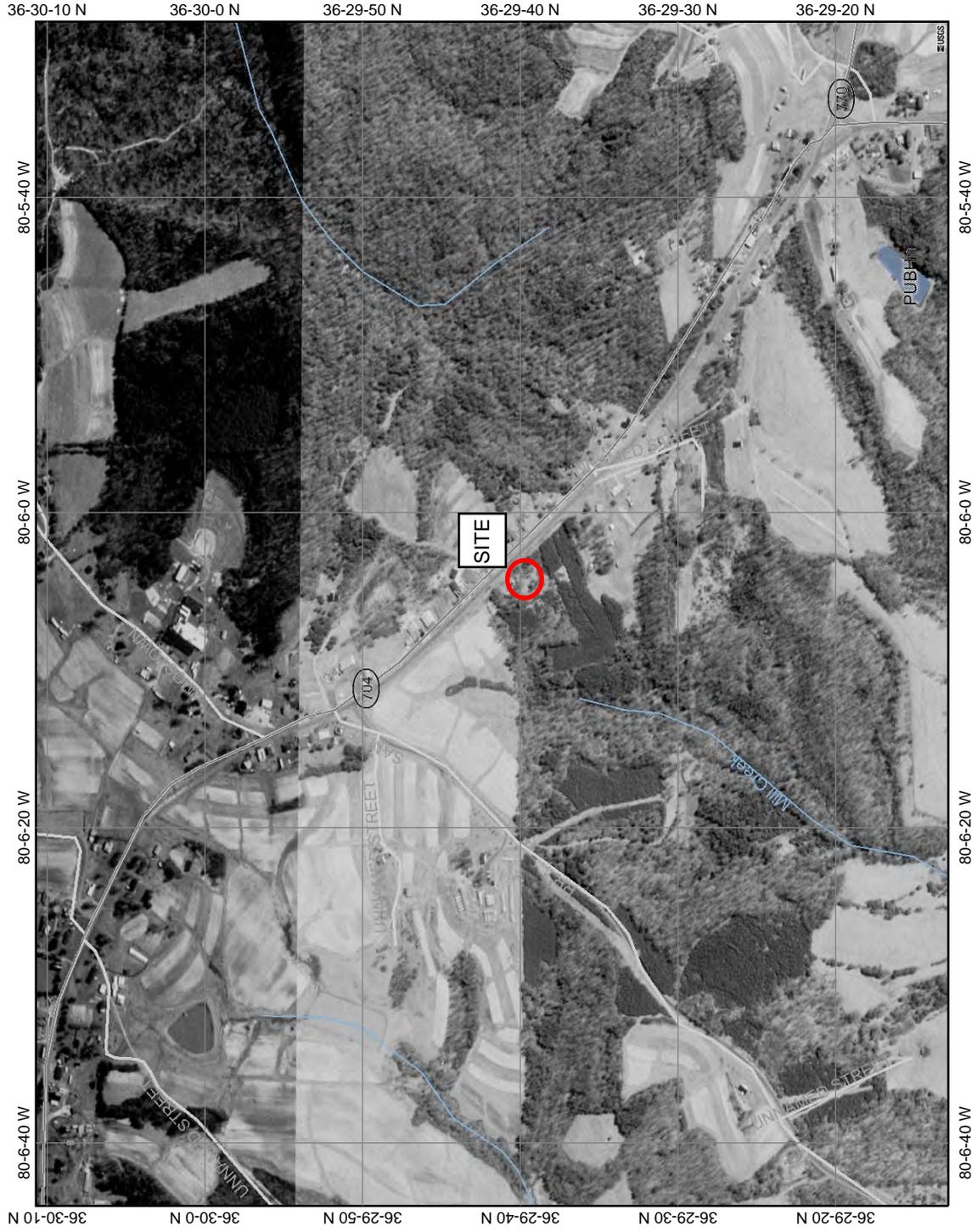
MAP NUMBER
371160600J



State of North Carolina
 Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

NWI Map



Map center: 36° 29' 42" N, 80° 6' 6" W



Legend

- Ohio_wet_scan
 - 0
 - 1
 - Out of range
- Interstate
- Major Roads
- Other Road
- Interstate
- State highway
- US highway
- Roads
- Lower 48 Wetland Polygons
 - Estuarine and Marine Deepwater
 - Estuarine and Marine Wetland
 - Freshwater Emergent Wetland
 - Freshwater Forested/Shrub Wetland
 - Freshwater Pond
 - Lake
 - Other
 - Riverine
- NHD Streams
- South America
- North America



Scale: 1:12,511

This map is a user generated static output from an Internet mapping site and is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. THIS MAP IS NOT TO BE USED FOR NAVIGATION.

APPENDIX F: NC DENR Air Pollution Response

Kyle Crawford

From: Davey, Brendan [brendan.davey@ncdenr.gov]
Sent: Tuesday, February 02, 2010 1:48 PM
To: Kyle Crawford
Cc: DENR.DAQ.Permit_Coordinators; Muller, Paul
Subject: RE: Emergency Generator Permit Exemption
Attachments: SD 60 Generator Spec Sheet Generac.pdf; SD 40 Generator Spec Sheet Generac.pdf
Mr. Crawford,

In the attached email you requested NC Air Permitting exemption for a 40 or 60 kW diesel fuel-fired emergency generator to be installed at several VIPER Emergency Services tower sites throughout North Carolina within the next year. You also indicated the generator would be the only expected source of air emissions at each project site.

15A NCAC 2D .0102(c)(2)(B)(v) specifically exempts the following from NC Air Permitting:

(v) emergency use generators and other internal combustion engines not regulated by rules adopted under Title II of the Federal Clean Air Act, except self-propelled vehicles, that have a rated capacity of no more than:

- (I) 680 kilowatts (electric) or 1000 horsepower for natural gas-fired engines;*
- (II) 1800 kilowatts (electric) or 2510 horsepower for liquefied petroleum gas fired engines;*
- (III) 590 kilowatts (electric) or 900 horsepower for diesel-fired or kerosene fired engines; or***
- (IV) 21 kilowatts (electric) or 31 horsepower for gasoline-fired engines;*

It appears your proposed project meets this exemption and an air quality permit is not necessary at this time. I have copied the other NCDQA Regional Offices to make them aware of these projects. Please note there are three local air quality programs that may have different requirements in Buncombe, Forsyth, and Mecklenburg Counties. The following webpage provides information about the local air programs: <http://daq.state.nc.us/about/local/>

If you have any further questions, please call me at the number below or call the applicable regional office.

- Brendan Davey

Brendan Davey - Brendan.Davey@ncdenr.gov
North Carolina Dept. of Environment and Natural Resources
Asheville Regional Office
Division of Air Quality
2090 U.S. 70 Highway
Swannanoa, NC 28778
Tel: 828-296-4500
Fax: 828-299-7043
www.ncair.org

Notice: E-mail correspondence to and from this address may be subject to the North Carolina Public Records Law and therefore may be disclosed to third parties.

From: Kyle Crawford [mailto:kccrawford@tepgroup.net]
Sent: Tuesday, February 02, 2010 11:31 AM
To: Davey, Brendan
Subject: Emergency Generator Permit Exemption

Mr. Davey,

Thank you for speaking with me this morning regarding exemptions for emergency generators. Our original conversation was in regards to the proposed emergency services generator to be placed atop Bearwallow Mountain, in Henderson County, NC. However, TEP anticipates working on at least 10-20 VIPER Emergency Services tower sites throughout North Carolina within the next year. In an attempt to expedite the work for all parties involved perhaps a blanket exemption response from your office may benefit all parties involved.

All emergency services generators will be located atop a concrete pad foundation and used for emergency power for the necessary radio equipment to allow the VIPER Emergency Services system to operate when the primary power source fails.

All generators placed within VIPER facilities are anticipated to be either 40 kW or 60 kW diesel emergency services generators with a fuel capacity not to exceed 465-gallons (which is the maximum tank size specified in the Generac SD-40 and SD-60 Industrial Diesel Generator Specifications, attached herein).

The placement of emergency services generators on the proposed VIPER Emergency Services tower facilities will be the only anticipated source of air emissions from the project site.

I look forward to hearing from you regarding this matter. If you have any additional questions or need further information to be able to make an informed decision regarding this matter, please do not hesitate to contact me at your earliest convenience. Thank you again for your time.

Thank you,
Kyle Crawford

Kyle W. Crawford
Environmental Scientist II
Tower Engineering Professionals, Inc.
3703 Junction Boulevard
Raleigh, NC, 27603-5263
919-661-6351 office
919-661-6350 fax
919-880-3446 mobile

**APPENDIX G: Unique and Prime Farmland Impact Rating
Form**

U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

PART I (To be completed by Federal Agency)		Date Of Land Evaluation Request	2/2/10
Name Of Project	NC Highway Patrol Site: Sandy Ridge	Federal Agency Involved	NC Dept. of Crime Control and Public Safety
Proposed Land Use	420-ft. SST Communications Tower	County And State	Stokes, North Carolina

PART II (To be completed by NRCS)		Date Request Received By NRCS	2/3/10
Does the site contain prime, unique, statewide or local important farmland? (If no, the FPPA does not apply - do not complete additional parts of this form).		Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Acres Irrigated - Average Farm Size 95 ac.
Major Crop(s)	Farmable Land In Govt. Jurisdiction Acres: 208,119 % 71	Amount Of Farmland As Defined In FPPA Acres: 64,682 % 22	
Name Of Land Evaluation System Used	Name Of Local Site Assessment System	Date Land Evaluation Returned By NRCS	
STOKES CALES		2/4/10	

	Alternative Site Rating			
	Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly	0.1			
B. Total Acres To Be Converted Indirectly	0.0			
C. Total Acres In Site	0.1	0.0	0.0	0.0

PART IV (To be completed by NRCS) Land Evaluation Information				
A. Total Acres Prime And Unique Farmland	0.1			
B. Total Acres Statewide And Local Important Farmland	-			
C. Percentage Of Farmland In County Or Local Govt. Unit To Be Converted	0.0001			
D. Percentage Of Farmland In Govt. Jurisdiction With Same Or Higher Relative Value	14.1			

PART V (To be completed by NRCS) Land Evaluation Criterion Relative Value Of Farmland To Be Converted (Scale of 0 to 100 Points)	63	0	0	0
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PART VI (To be completed by Federal Agency) Site Assessment Criteria (These criteria are explained in 7 CFR 658.5(b))	Maximum Points	Alternative Site Rating			
		Site A	Site B	Site C	Site D
1. Area In Nonurban Use		14			
2. Perimeter In Nonurban Use		3			
3. Percent Of Site Being Farmed		0			
4. Protection Provided By State And Local Government		0			
5. Distance From Urban Builtup Area		15			
6. Distance To Urban Support Services		10			
7. Size Of Present Farm Unit Compared To Average		0			
8. Creation Of Nonfarmable Farmland		0			
9. Availability Of Farm Support Services		4			
10. On-Farm Investments		0			
11. Effects Of Conversion On Farm Support Services		0			
12. Compatibility With Existing Agricultural Use		0			
TOTAL SITE ASSESSMENT POINTS	160	0 46	0	0	0

PART VII (To be completed by Federal Agency)					
Relative Value Of Farmland (From Part V)	100	0 63	0	0	0
Total Site Assessment (From Part VI above or a local site assessment)	160	0 46	0	0	0
TOTAL POINTS (Total of above 2 lines)	260	0 109	0	0	0

Site Selected: Baswell Sandy Ridge	Date Of Selection	2/5/10	Was A Local Site Assessment Used?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Reason For Selection: Site will provide suitable radio frequency coverage for the statewide public safety (VIPER) communications network.				