

*Draft Environmental Assessment*

**North Carolina Highway Patrol VIPER  
Communications Tower – Fox Mountain (HP-1364)**

*Love Valley, Iredell County, North Carolina*

North Carolina Crime Control and Public Safety/North Carolina Emergency  
Management

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## **Acronym List**

ACHP -	Advisory Council of Historic Preservation
AGL -	Above Ground Level
APE -	Area of Potential Effects
A/C -	Air Conditioning
BMP -	Best Management Practices
CFR -	Code of Federal Regulations
CJIN -	Criminal Justice Information Network
dBA -	Decibels (Acoustic)
DHS -	Department of Homeland Security
EA -	Environmental Assessment
EPA -	Environmental Protection Agency
FAA -	Federal Aviation Administration
FCC -	Federal Communications Commission
FEMA -	Federal Emergency Management Agency
FERC -	Federal Energy Regulatory Commission
FIRM -	Flood Insurance Rate Map
FONSI -	Findings of No Significant Impact
FPPA -	Farmland Protection Policy Act
HAP -	Hazardous Air Pollutants
HP -	Highway Patrol
HSGP -	Homeland Security Grant Program
HVAC -	Heating, Ventilation, and Air Conditioning
kW -	Kilowatt
MPSCS -	Michigan Public Safety Communications System

NAD 83 -	North American Datum (1983)
NAVD 88 -	North American Vertical Datum (1988)
NEPA -	National Environmental Policy Act
NC -	North Carolina
NCDENR -	North Carolina Department of Environment and Natural Resources
NC SHPO -	North Carolina State Historic Preservation Office
NHO -	Native Hawaiian Organizations
NHPA -	National Historic Preservation Act
NO <sub>x</sub> -	Nitrogen Oxide
NPA -	Nationwide Programmatic Agreement
NPDES -	National Pollutant Discharge Elimination System
NPS RTCA -	National Park Service Rivers, Trails and Conservation Assistance
NRHP -	National Register of Historic Places
OSHA -	Occupational Safety and Health Administration
PC -	Public Comment
PIN -	Parcel Identification Number
SPCC -	Spill Prevention, Control, and Countermeasure Plan
TCNS -	Tower Construction Notification System
TEP -	Tower Engineering Professionals, Inc.
THPO -	Tribal Historic Preservation Office
USDA -	United States Department of Agriculture
USFWS -	United States Fish and Wildlife Service
USGS -	United States Geological Survey
USPS -	United State Postal Service
VIPER -	Voice Interoperability Plan for Emergency Responders

VOC - Volatile Organic Compound

## **1.0 INTRODUCTION**

This Draft Environmental Assessment reviews expected environmental impacts associated with the proposed construction of the Fox Mountain VIPER Communications Tower using grant funds from the Homeland Security Grant Program (HSGP), administered by the Federal Emergency Management Agency (FEMA) of the U.S. Department of Homeland Security. (The Homeland Security Grant Program is one of over 20 grant programs authorized by Congress and implemented by the Administration to help strengthen the Nation against risks associated with potential terrorist attacks.) The HSGP requires grantees to comply with all relevant Federal Laws, Executive Orders, and regulations including the National Environmental Policy Act (NEPA).

## **2.0 PURPOSE AND NEED**

The purpose of the Proposed Action is for Iredell County, North Carolina to meet current radio frequency coverage needs of the North Carolina Highway Patrol in Iredell County and parts of adjacent counties while promoting interoperability of federal, state, and local government public safety and first responders. According to the Voice Interoperability Plan for Emergency Responders Legislative Report, dated December 2004; when completed the VIPER communications network would provide federal, state, and local government entities the following benefits, which are currently unattainable using existing communications technologies:

- Seamless statewide voice communications for public safety and first responders
- Seamless interagency communications for public safety and first responders
- Unobstructed flow of criminal information across law enforcement agencies
- Improved safety of public safety officials and first responders
- Improved public safety services for the citizens of North Carolina

## **3.0 ALTERNATIVES CONSIDERED**

### **3.1 NO ACTION**

Under No Action, Iredell County's communications infrastructure would neither be developed nor enhanced, current emergency services radio system network requirements would operate less efficiently, which would limit emergency responses. Current communications systems operated by many North Carolina state agencies as well as local government organizations have many problems associated with the overcrowding of channels, outdated or unserviceable equipment, inadequate vendor support, unavailable replacement parts, and routine system failures that would require extensive amounts of funding for updating the existing equipment to meet federal mandates that require the use of narrower bandwidths to conserve and better use the existing frequency spectrum. Additionally, the existing communications systems in use represent incompatibility between state and local entities and restrict collaborative efforts and interagency operability, resulting in the potential for increased confusion and response times during emergencies. Therefore an increased risk to public safety, first responders, and the general population of the area would continue.

The No Action Alternative serves as the baseline to assess the impacts of the other project alternatives. The No Action Alternative would not address the needs of the Iredell County , North Carolina Highway Patrol, or the citizens of Iredell County.

### **3.2 PROPOSED ACTION**

Iredell County’s proposed Fox Mountain Tower Project would consist of a 150 feet above ground level (AGL) self-supporting communications tower, surrounded by an irregular shaped 14-ft x 36-ft x 6-ft x 28-ft x 21-ft x 40-ft security fenced tower compound. The fenced compound would include: one 11’-7” x 19’-4” equipment shelter and a stand-alone 80 kW diesel emergency generator mounted on a 5’-6” x 9’-6” concrete foundation pad (Figure 3).

The proposed tower site’s elevation and topography provides a natural height advantage, resulting in enhanced coverage with the proposed 150-foot self-supporting tower. This strategically located site significantly expands the coverage radius for Iredell County and parts of surrounding North Carolina counties to provide more reliable interoperable communications for public safety officials and first responders in these areas.

### **3.3 OTHER ALTERNATIVES CONSIDERED AND DISMISSED**

The Criminal Justice Information Network (CJIN) Governing Board considered three project Alternative Actions to determine what communications means would most efficiently address the needs of a statewide system where both state and local governments’ coverage needs would be met.

The first alternative considered was a partnership communications system similar to that used by the State of South Carolina. South Carolina’s current system operates on the same system as the VIPER system (Motorola SmartZone 4.1). However, Motorola, Inc. owns and maintains South Carolina’s system and associated equipment. Due to the privatization of South Carolina’s system and the amount of funding needed to maintain and expand the existing system, Motorola, Inc. required user fees of \$75 per radio. Due to the high user fees, many local government entities do not use the system. Therefore, the CJIN Governing Board dismissed this alternative from further consideration.

The second alternative considered was a commercially based alternative communications system formerly offered by Sprint/Nextel. This system provided users with a commercial handset or radio/phone combination that used a public commercial radio system. The CJIN Governing Board dismissed this alternative from further consideration because it did not provide a viable and efficient statewide communications system.

The third alternative considered was a satellite based communications system. This system proved beneficial over typical trunked style communications systems in that a satellite system is not land based. Therefore, a satellite system is not susceptible to damage or failure due to most dangers on or near the earth’s surface. Although satellite based systems are beneficial because they are not susceptible to most dangers on or near the earth’s surface, they have many drawbacks, including:

lack of operation inside buildings or in densely vegetated areas, lengthy delays associated with long signal travel distances, and routine satellite orbit re-alignments and adjustments. The CJIN Governing Board dismissed this alternative from further consideration because the negatives vastly outweighed the positives.

**4.0 AFFECTED ENVIRONMENT AND POTENTIAL IMPACTS**

Iredell County is in west central North Carolina, covers about 573 square miles, and the City of Statesville is the county seat. Iredell County is north of Mecklenburg County, with the City of Charlotte, and west of Catawba County, with the City of Hickory. In 2010, Iredell County’s population was 159,437; Statesville’s population was 24,532 (U.S. Census Bureau, 2010).

The City of Statesville is near the center of Iredell County, and about 40 miles north of the City of Charlotte. The proposed Fox Mountain Tower site is located at N 35° 59’ 52.693” Latitude and W 80° 59’ 59.792” Longitude (NAD83) at an elevation of 1,751 feet AMSL (NAVD 88) as shown on the USGS Hiddenite, NC 7.5 Minute Topographic Map (Figure 2). The project site is also shown on a Google Earth aerial photograph (Figure 4).

Iredell County’s Proposed Action site is a 319 acre parcel mostly covered by mature deciduous hardwood forest lands. The parent property is identified by the Iredell County Tax Assessor’s Office as PIN Number 4802945532. The property is reportedly owned by Wilson Godfrey. The proposed access road also crosses a 1.62 acre property identified as PIN 4802834340 and a 34.74 acre property identified as PIN 4812030046, as described in a copy of the signed lease agreement, dated June 13, 2011, between William Godfrey and the State of North Carolina (Appendix F). The proposed fenced tower compound would be accessed by an existing 8-foot wide earthen path which spans northeast from Fox Mountain Road for 3,157 feet before reaching the proposed fenced tower compound site. Based on information gathered during an onsite investigation, the project site’s canopy layer vegetation consists of Yellow (Tulip) Poplar (*Liriodendron tulipifera*), Red Maple (*Acer rubrum*), American Beech (*Fagus grandifolia*), Sourwood (*Oxydendrum arboreum*), Eastern Redbud (*Cercis canadensis*), Pignut Hickory (*Carya glabra*), and Black Walnut (*Juglans nigra*). Midstory vegetation consists of Red Maple (*Acer rubrum*) and Pignut Hickory (*Carya glabra*). Understory (groundcover) vegetation consists of, among others: Virginia creeper (*Parthenocissus quinquefolia*), *Microstegium sp.*, Christmas fern (*Polystichum acrostichoides*), Blackberry (*Rubus sp.*), and Poison Ivy (*Toxicodendron radicans*).

Table 1: Summary of Impacts				
Resource	No Impact	No Significant Impact	Significant Impact	Mitigation/Best Management Practices
Geology		X		None
Prime and Unique Farmland		X		According to Mr. Kent Clary, USDA NRCS North Carolina Area 1 Soil Scientist, no prime, unique, statewide, or local significant

				farmlands are present at the Proposed Action Site. Thus no further processing is required.
Air Quality		X		Dust emissions would be controlled by decreasing vehicular traffic speed and wetting exposed soils.
Wild and Scenic Rivers	X			No wild or scenic rivers in Iredell County.
Water Quality		X		Best Management Practices (BMPs), among others, silt fences, covering bare soil with wheat straw, and seeding.
Wetlands	X			None
Floodplains	X			None
Coastal Resources	X			None
Threatened and Endangered Species		X		None. Correspondences with the USFWS Asheville Field Office states two threatened or endangered species, the Bog Turtle ( <i>Clemmys muhlenbergii</i> ) and Dwarf-flowered heartleaf ( <i>Hexastylis naniflora</i> ), are known to occur within Iredell County. However, based on USFWS concurrence dated August 17, 2011, the Proposed Action “will not affect any federally listed endangered or threatened species.”
Migratory Birds		X		None. Tower lighting in accordance with FAA regulations. Tower would be less than 200 feet (45.72 meters) AGL and would not be located near any known rookeries, nesting sites, and/or migratory bird flyways.
Fish and Wildlife		X		No significant impact to wildlife is expected due to the minimal disturbance associated with the Proposed Action. Also, the site is not located in or next to an identified wilderness area, wildlife refuge or wildlife preserve. However minor impacts to

				individual amphibians and small mammals may occur during construction and grounds maintenance.
Vegetation		X		All vegetation disturbing activities would be done within the Proposed Action site clearing limits.
Cultural Resources	X			According to correspondence with NC SHPO, the Proposed Action would have no effect on cultural resources. However, in the event human remains or cultural or archeological materials and/or artifacts are discovered all work will cease, and the applicant will contact appropriate authorities (NC SHPO and FEMA) within one working day.
Socioeconomic Resources		X		None
Human Health and Safety		X		None. The Proposed Action would improve interoperable communications in Iredell County and parts of surrounding counties.
Environmental Justice	X			None. The Proposed Action would benefit all communities in Iredell County and parts of surrounding counties.
Noise		X		All noise producing activities would be done during normal working hours. (7:00 a.m. to 5:00 p.m. local time)
Infrastructure, Utilities, Transportation, and Waste Management		X		None
Aesthetics and Visual Impacts		X		None

## **4.1 EARTH RESOURCES**

### **4.1.1 Geology and Soils**

#### **Existing Conditions**

Iredell County's Proposed Action site is located on the geologic formation known as Biotite Gneiss and Schist Formation (CZbg), which is described as gneiss interlayered and grading into calcsilicate rock, schist, , and amphibolities (Figure 7). Proposed Action site soils include the Evard-Cowee (EvE) complex. Evard-Cowee soils are generally described as well drained soils found on mountain slopes and ridges with surface areas consisting of cobbles, stones, or boulders and formed from creep deposits over residuum weathered from schist and/or gneiss (U.S. Department of Agriculture).

This part of Iredell County is in the Northern Inner Piedmont 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 Atlantic 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). Proposed Action ground disturbing activities (e.g., excavation, grading, backfilling, trenching and other activities) would impact geology and soils.

#### **Proposed Action**

Iredell County's Proposed Action would have "no significant impact" on existing geological or soil conditions at the Proposed Action site. However, minor soil erosion and runoff may occur from Fox Mountain tower construction ground-disturbing activities, such as vegetation clearing, grading and excavation. Best Management Practices (BMP's) would be implemented and followed during tower construction. BMP's may include, among others: wetting soil to reduce erosion/and dust, installation of silt and sediment control fencing, and seeding and wheat straw mulching exposed soil. According to the North Carolina Department of Environment and Natural Resources, construction activities that would disturb less than 1 acre are not required to obtain a National Pollutant Discharge Elimination System (NPDES) Permit.

Based on NRCS review of the Proposed Action, the Propose Action site soil types are not defined as prime. The Proposed Action is not located on a unique geologic formation. Consultation with Kent Clary, NRCS North Carolina Area 1 Soil Scientist, was done to determine if mitigation and regulatory requirements would be required. According to Mr. Clary the Proposed Action site contains no prime, unique, statewide or local significant farmland. Due to the proposed area of disturbance less than 1 acre and the lack of significant farmland, it was determined that project construction would not significantly impact geology or prime or unique soils.

### **4.1.2 Air Quality**

## **Existing Conditions**

Air Quality Index is a numeric score from 1 to 100, based on Environmental Protection Agency (EPA) annual reports. Higher Air Quality Index score indicates lower air quality. 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 April 2012, the Air Quality Index for Iredell County, NC is 45. According to the Division of Air Quality, based on 1999 emissions inventories, Iredell County has 7,680 tons per year of NO<sub>x</sub> and the county has 9,828 tons per year of VOC (anthropogenic only). The large source of NO<sub>x</sub> emissions are reportedly from the Transcontinental Gas Pipe Line Corp., which is located approximately 30-miles to the south-southeast of the Proposed Action (Scorecard, 2005).

## **Proposed Action**

Construction activities and equipment use, during the normal working hours of 7:00 a.m. to 5:00 p.m., are anticipated to cause short-term minor, temporary adverse impacts on air quality at and around the Proposed Action site. However, due to the limited duration of construction activities and equipment use, it is anticipated the Proposed Action would not increase criteria air pollutants above accepted levels, thus, no significant air quality impact. BMPs would be used at and around the Proposed Action site in order to reduce construction related criteria pollutant emissions.

Additionally, the Proposed Action would require about 0.05 acres or less of construction 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 on air quality from construction-related activities.

After tower and compound construction, ambient air quality at the Proposed Action site would likely return to previous, normal levels. The Proposed Action would not result in the long-term operation of significant emission-generating sources, nor would it significantly alter the existing ambient air quality. The proposed 40 to 80kW emergency Diesel powered generator, located within the proposed tower compound, would be an intermittent source of emissions from the Proposed Action. The duration and frequency of emissions from the generator would be limited due to the nature of the generator, only being used during power outages and routine inspections. Also, Federal regulations limit the use of backup generator use to 500 hours per year. The generators used at communication tower sites by the North Carolina Highway Patrol are between 40kW and 80kW Generac® Industrial Diesel Generators. According to 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.

Additionally, Brendan Davey of the North Carolina Department of Environment and Natural Resources (NCDENR) stated that emergency use generators are regulated under Title II of the Federal Clean Air Act. However, Mr. Davey's response also 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 (Appendix F).

The emergency generator use 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 generator use. Therefore, there would be no significant impact to air quality from operations activities.

## **4.2 WATER RESOURCES**

Area annual rainfall is about 46 inches per year.

Water resources are inherently site-specific resources. According to the USGS Hiddenite, NC 7.5 Minute Topographic Quadrangle Map (Figure 2); EPA Region 4 Map of Sole Source Aquifers (<http://www.epa.gov/safewater/sourcewater/pubs/reg4.pdf>); FEMA Flood Insurance Rate Map (FIRM) panel 3710480200J dated 3/18/2008 (Figure 5); USFWS National Wetland Inventory Map (Figure 6), and the [www.rivers.gov](http://www.rivers.gov) website, the Proposed Action site is about 1,750 feet above mean sea level, with no indication of wetlands, floodplains, or wild or scenic rivers in these databases or maps. Site reconnaissance on 5/31/2011 confirmed this information.

The nearest jurisdictional water body, an intermittent and unnamed tributary of Rocky Creek, is located about 1,500 feet southeast of the proposed tower site.

Since the facility is less than one acre, a NPDES permit is not required. Based upon area topography and distance to the nearest surface water, the Proposed Action or operational actions are unlikely to adversely affect any water body.

### **4.2.1 Wild and Scenic Rivers**

#### **Existing Conditions**

TEP personnel completed a review of information available through the [www.rivers.gov](http://www.rivers.gov) website which indicates five Designated Wild and Scenic Rivers are located in North Carolina, but none are within Iredell County. In addition, the National Park Service Rivers, Trails and Conservation Assistance (NPS RTCA) program identified no significant streams within Iredell County. Therefore, the Proposed Action or operational actions are unlikely to impact any Designated Wild and Scenic Rivers.

### **4.2.2 Water Quality**

#### **Existing Conditions**

The nearest water body the Proposed Action site drains into is an intermittent, unnamed tributary of Rocky Creek, about 1,750 feet to the southeast of the site.

Since the facility is less than one acre, a NPDES permit is not required. Based upon area topography and distance to the nearest surface water, the Proposed Action is unlikely to adversely affect any water body.

**Construction Impacts** – Water quality impacts during the Fox Mountain tower and compound construction may originate from erosion and runoff from soil disturbance associated with temporary material staging locations, site preparation, access road improvement, and by daily site access for short periods during construction. In addition, vehicle and equipment refueling has the potential for spills of petroleum products. All of these activities would be minor and temporary.

Considering the 0.05 acres of disturbance associated with the Fox Mountain tower site and the distance to the nearest surface water feature, facility construction is unlikely to result in significant erosion. Any minor erosion and runoff from the tower and compound construction would be further reduced or mitigated through the use of BMPs. BMPs for erosion control for projects like this typically include silt fencing and/or straw bales to control erosion, minimizing exposed soil needed for each activity, siting staging areas to minimize erosion, replanting as soon as practicable, mulching, using temporary and/or permanent 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 violate water quality standards and criteria. Fox Mountain tower site construction would not significantly impact water quality.

**Operations Impacts** – Operations impacts would be limited to erosion before the site is fully revegetated or during emergency generator refueling. Herbicide uses may contaminate nearby waters when applied to the gravel access road or fenced compound to prevent weed growth. However, the potential for water quality impacts from a petroleum spill from emergency generator refueling or from a herbicide spill or application are minimal due to the limited occurrences annually and the small quantity involved.

BMPs during the project construction stage would continue until the site is fully revegetated. If required, “Spill Prevention, Control, and Countermeasure Plan” (SPCC) would be developed and followed to guide the required response in case of spills. However, under the authority of Section 311 (j)(1)(C) of the Federal Water Pollution Act (Clean Water Act) in Title 40, Code of Federal Regulations, Part 112 (40 CFR 112), a facility is not regulated under the SPCC Plan if the aggregate aboveground storage tank capacity is under 1,320 gallons. Chemical, physical, or biological effects to water resources are not expected to violate water quality standards and criteria. There would be no significant impact to water quality from operations activities.

#### **4.2.3 Wetlands**

##### **Existing Conditions**

According to site inspection, the USGS Hiddenite, NC 7.5 Minute Topographic Quadrangle Map (Figure 2) and National Wetlands Inventory Map (Figure 6), the Proposed Action is not located within a wetland.

**Construction and Operations Impacts** – Since no wetland habitat was found at the Proposed Action project site or surrounding area, construction or operations impacts would be expected to have no impact on wetland habitats.

#### 4.2.4 Floodplain Information

##### Existing Conditions

According to the FEMA Flood Insurance Rate Map (FIRM) Panel #3710480200J, dated 3/18/2008 the Proposed Action site is not located in a Special Flood Hazard Area (SFHA). Figure 5 depicts the pertinent FEMA FIRM Panel of the Proposed Action location.

**Construction and Operations Impacts** – The Proposed Action is not located within or near a Special Flood Hazard Area (SFHA). Therefore, construction or operations related impacts would not impact floodplains.

#### 4.3 BIOLOGICAL RESOURCES

##### 4.3.1 Threatened and Endangered Species

##### Existing Conditions

The U.S. Fish and Wildlife Service (USFWS) has identified two endangered species in Iredell County, NC. The Bog Turtle (*Clemmys muhlenbergii*) is a semiaquatic turtle species located within the eastern United States. The Dwarf-flowered heartleaf (*Hexastylis naniflora*) is a low growing evergreen perennial plant that is located within the upper piedmont region of western North Carolina and upstate South Carolina. Habitats for these species were compared to the habitat found at the proposed site. None of these species' habitats were identified at the site.

**Construction and Operations Impacts** - Construction and operation of the proposed tower and fenced compound would not affect the listed or proposed protected species or their designated critical habitats. Coordination of this analysis with the USFWS Asheville, NC Field Office resulted in their concurrence with the determination that the proposed action “will not affect” any federally listed species (USFWS, 8/17/2011, in Appendix B).

##### 4.3.2 Migratory Birds

##### Existing Conditions

No burrows, nests, rookeries, or other signs of migratory bird species and/or critical habitat were readily apparent during TEP's site inspection on 5/31/2011. Also, according to the North American Migration Flyways Map (<http://www.birdnature.com/allflyways.html>), no known migratory bird flyway is located within Iredell County, North Carolina. However, some migratory birds may be outside of known migratory flyways. Therefore, migratory birds may be in or near the Proposed Action site at times.

**Construction Impacts** – Fox Mountain tower construction activities would have short- and long-term minor impacts on migratory birds. Impacts to migratory birds could occur during erection of towers, antennas, ventilation, and air conditioning (HVAC) equipment installed using portable

cranes. Construction-related activities along migratory bird pathways would have more potential to adversely impact migratory birds than activities in non-migratory areas.

Construction-related impacts would have no significant impact on migratory birds as use of equipment such as cranes to erect towers, and installing HVAC equipment and antennas would be done during limited periods and are short-term impacts.

**Operations Impacts** – Iredell County’s proposed Fox Mountain tower would be a self-supporting tower about 150 feet (45.7 m) high. Fox Mountain tower construction activities would have minor long-term impacts on migratory birds.

Impacts on migratory birds may occur as a result of collision with the towers, antennas, guy wires (not applicable for this project). and other tall structures, particularly during periods of low visibility and as a result of tower lightning that may distract or attract some species. The probability of collision is difficult to determine programmatically because of the wide 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 to 146 m AGL height range, towers >305 m (1000.7 feet) AGL are responsible for several times the number of fatalities than shorter towers.”

Adverse impacts on birds resulting from collisions generally during foggy or low cloud conditions at lighted towers supported by guy wires, and present greater collision risk than freestanding towers or buildings. 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.

### **4.3.3 Wildlife and Fish**

#### **Existing Conditions**

Based on information available through Wilderness.net and the U.S. Wilderness Areas Map, North Carolina has 12 “wilderness areas.” According to the U.S. Wilderness Areas Map, the Proposed Action site is not located in or next to any wilderness area. Also, according to correspondence with the USFWS (8/17/2011), the site is not located in or next to an USFWS managed wildlife refuge area. The Proposed Action site is currently covered by mature hardwood forest uses that may be inhabited by small mammals, amphibians, insects, and other fauna species typical in west central North Carolina.

**Construction Impacts** – Fox Mountain tower construction would include clearing the construction area’s existing vegetation using heavy mechanized equipment that could temporarily impact individual small mammals and amphibians in the area. However, based on the limited area of disturbance associated with the proposed construction activities, any impacts to wildlife would be temporary and limited to individuals. Proposed tower facility construction would not significantly impact wildlife species’ overall populations.

**Operations Impacts** – Proposed Action routine operations and maintenance would include mowing vegetation around the fenced compound and along the access road edges. Mowing in these areas would maintain the plants vegetation in early ecological successional stages of community development and may prevent reestablishment of some plant species. Similarly, operations activities at the Fox Mountain tower site may lead to habitat degradation and occasional mortality of some wildlife species (e.g., amphibians and small mammals) individuals on the site or access road.

After 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 recurring, temporary low level disturbance might exclude some wildlife species, or promote colonization by disturbance tolerant wildlife species.

Operations-related activities would not significantly impact wildlife or wildlife habitat.

#### **4.3.4 Vegetation**

##### **Existing Conditions**

Iredell County's Proposed Action site is in a mature deciduous hardwood forest with a canopy layer consisting of Yellow (Tulip) Poplar (*Liriodendron tulipifera*), Red Maple (*Acer rubrum*), American Beech (*Fagus grandifolia*), Sourwood (*Oxydendrum arboreum*), Eastern Redbud (*Cercis canadensis*), Pignut Hickory (*Carya glabra*), and Black Walnut (*Juglans nigra*). Midstory vegetation consists of Red Maple (*Acer rubrum*) and Pignut Hickory (*Carya glabra*). Understory (groundcover) vegetation consists of, among others: Virginia creeper (*Parthenocissus quinquefolia*), *Microstegium sp.*, Christmas fern (*Polystichum acrostichoides*), Blackberry (*Rubus sp.*), and Poison Ivy (*Toxicodendron radicans*).

**Construction and Operations Impacts** – Mechanized clearing of vegetation in the proposed construction site would be done before the tower facility construction. The mechanized clearing of vegetation would be about 0.05 acres and would have no significant impact on vegetation throughout the remainder of the parent property.

Tower facility routine operations and maintenance would include mowing vegetation around the fenced compound and possibly along the access road edges. Operations-related activities would not significantly impact area vegetation.

#### **4.4 CULTURAL RESOURCES**

##### **4.4.1 ACHP Program Comment**

FEMA is required under the National Historic Preservation Act (NHPA) Section 106 to consider the impacts that any FEMA-funded projects may have on historic properties. The Federal Communications Commission (FCC) is also required under the NHPA to consider impacts that

proposed communications tower facilities, operating with a FCC license, may have on historic properties. On October 23, 2009 the Advisory Council on Historic Preservation (ACHP) issued a Program Comment (PC) for “Streamlining the Section 106 Review for Wireless Communications Facilities Construction and Modification Subject to Review Under the FCC National Programmatic Agreement (NPA) and/or the NPA for Collocation of Wireless Antennas.” According to the ACHP PC, FEMA is not required to conduct and complete its own Section 106 review process (no duplication of efforts). Therefore, the Section 106 review conducted as part of the FCC NEPA review is described in this EA and no additional Section 106 review was conducted or required for FEMA.

#### **4.4.2 FCC Nationwide Programmatic Agreement**

In March 2005, the FCC implemented a Nationwide Programmatic Agreement (NPA) that established rules for Section 106 consultation with the State Historic Preservation Officers (SHPOs), Tribes (Tribal Historic Preservation Officers (THPOs) or other appropriate tribal official for tribes without a THPO) and Native Hawaiian Organizations (NHOs) that have been historically located in and/or have indicated interest in proposed communications facility sites; and public and local government involvement. To assist with the Section 106 review process, the FCC developed and instituted the Tower Construction Notification System (TCNS) and the Form(s) 620/621. The Form 620 is for submitting site specific information and records of Tribal and Local government consultations with the SHPO for proposed communications tower facilities. The FCC Form 621 is also associated with submitting site specific information and records of Tribe and Local government consultations with the SHPO for proposed collocations of antennas on existing communications towers or non-tower structures such as buildings, elevated water tanks, and electric transmission towers.

Under the FCC NPA all Tribes and NHOs who have indicated interest in the area are required to respond within 30 days of receiving notification. If a response is not received within that timeframe, then a second “follow-up” notification is done to obtain response. When no response is received after the “follow-up” notification, then the FCC must be notified and interagency consultations are done with the non-responsive Tribe or NHO.

#### **4.4.3 FCC Tower Construction Notification System**

The FCC developed and implemented the TCNS system to assist with notification of a proposed communications facility to SHPOs, Tribes and NHOs. TCNS is available through the Internet at <https://wireless2.fcc.gov/ulsclogin/index.htm> and requires an identification number or FRN. Using TCNS, entities can input site specific information on a proposed communications facility, which includes: location, structure type, and structure height with and without appurtenances. Information inserted into TCNS is then made available to the applicable SHPOs, Tribes, and NHOs that have expressed interest in a specified geographic area.

TEP used the FCC TCNS system to notify Tribes, NHOs and the North Carolina State Historic Preservation Office (SHPO) of the Proposed Action on 6/9/2011 and was assigned TCNS# 77249 for the proposed Fox Mountain tower site. The TCNS system notified five Tribes that expressed interest in Iredell County, North Carolina. The five (5) Tribes notified by the TCNS system were

the Tuscarora Nation, Cherokee Nation, Eastern Shawnee Tribe of Oklahoma, Shawnee Tribe, and Catawba Indian Nation. TEP used the provided TCNS tribe list to contact these Tribes a second time, on 8/9/2011, to obtain additional information on the Proposed Action. All the appropriate Tribes concurred with the Proposed Action (Appendix E).

#### **4.4.4 State Historic Preservation Officer**

TEP visited the NC State Historic Preservation Office (NC SHPO) and the NC Office of State Archeology to view the applicable USGS 7.5-minute topographic quadrangle map (Hiddenite) to assess potential significant impacts on architectural, historic, or archeological sites near the Proposed Action. In addition, TEP contracted Environmental Services, Inc., a cultural resources consulting firm, to perform an archaeological evaluation of the Proposed Action's area of disturbance. This archaeological evaluation was done to assess the Proposed Action's potential direct effects on archaeological resources. The archaeological evaluation concluded that no archaeological resources eligible for inclusion in the National Register of Historic Places (NHRP) would be affected by the Proposed Fox Mountain tower undertaking (action). In addition, the evaluation concluded that no additional archaeological investigation is recommended for the Proposed Action site. 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 8/12/2011 for FCC requirements that included a 0.5 mile visual Area of Potential Effects (APE) (Appendix C).

#### **4.4.5 Indian Tribal Consultation**

TEP sent follow-up notification letters on 8/9/2011 to each Tribe (if required) identified by the TCNS system. Sections 4.4.5.1 through 4.4.5.5 summarize the consultations.

##### **4.4.5.1 Tuscarora Nation**

TEP provided no follow-up notification to the Tuscarora Nation as the TCNS states "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 the 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. On 6/9/2011, the TCNS system notified all Tribes that indicated interest in Iredell County, NC. The 30-day comment period ended on 7/9/2011. No response has been received by TEP personnel before issuance of this Draft EA and no additional consultation was required.

##### **4.4.5.2 Cherokee Nation**

TEP provided a follow-up notification letter to Dr. Richard Allen of the Cherokee Nation on 8/9/2011 by email. No response was received from the Cherokee Nation within the 30-day comment period and TEP referred the Cherokee Nation using the TCNS system on 9/13/2011 (Appendix B). TEP received concurrence from the Cherokee Nation by email on 9/23/2011 that

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

#### **4.4.5.3 Eastern Shawnee Tribe of Oklahoma**

TEP provided no follow-up notification to the Eastern Shawnee Tribe of Oklahoma as the TCNS system states “If you, the Applicant/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))” On 6/9/2011, the TCNS system notified all Tribes that indicated interest in Iredell County. The 30-day comment period ended on 7/9/2011. No response has been received by TEP personnel before the issuance of this Draft EA and no additional consultation was required.

#### **4.4.5.4 Shawnee Tribe**

TEP provided follow-up notification to Ms. Kim Jumper of the Shawnee Tribe on 8/9/2011, by standard U.S. mail. TEP received concurrence from the Shawnee Tribe on 8/26/2011, that stated; “The Shawnee Tribe’s Tribal Historic Preservation Officer concurs that no known historic properties would 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. ....” (Appendix B).

#### **4.4.5.5 Catawba Indian Nation**

TEP provided a follow-up notification to Ms. Wenonah Haire of the Catawba Indian Nation Tribal Historic Preservation Office on 8/9/2011, by standard U.S. mail. TEP received concurrence from the Catawba Indian Nation on 8/19/2011 that stated, “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.**” (Appendix B).

#### **4.4.6 Inadvertent Discovery**

In the event that construction activities result in the inadvertent discovery of human remains, cultural or archeological materials, all ground-disturbing activities will cease operation immediately and the applicant will contact all appropriate agencies, such as FEMA, NC SHPO, and Tribes with an expressed interest in Iredell County, NC.

## 4.5 SOCIOECONOMIC RESOURCES

### 4.5.1 Environmental Justice

Iredell County's Proposed Action would have no disproportionate adverse impact on low-income or minority populations. The Proposed Action is anticipated to have a positive impact on all segments of the population of Iredell County, NC by improving emergency services communications.

### 4.5.2 Noise

#### Existing Conditions

The project site shows traffic patterns typical in rural residential and agricultural areas. The parent property is covered by mature deciduous hardwood forest land. The Proposed Action site is located in a rural portion of Iredell County that has mostly undeveloped forest, agricultural, and low density residential land uses. Ambient noise levels associated with rural residential areas are anticipated to reach up to between 35 and 45 dBA (FERC 2002, EPA 1978).

#### Proposed Action

**Construction Impacts** – Tower and compound construction would temporarily increase local noise. The amount and type of noise disturbance would vary depending on the type of machinery used, distance from the construction site and noise source, construction schedule and duration, weather conditions, and site specific and area specific conditions. Heavy machinery use may result in temporary, minor adverse noise impacts on nearby low-density residences. The nearest residence from the proposed tower site and noise source is about 1,170 feet to the south. This residence is separated from the proposed tower site by about 900 feet of dense hardwood forest and Fox Mountain Road. Construction-related noise would typically occur during normal working hours (7:00 a.m. to 5:00 p.m.), when this noise would be better masked by ambient noise levels of the surrounding project area, caused by proximity to Fox Mountain Road. Noise levels before and after construction would likely drop to the ambient noise levels of the project area.

It is projected that noise levels from construction activities would be temporary (no more than six to eight hours during weekdays and for a total of about five weeks). Noise levels at 50 feet or more from the proposed construction site should be under 85 dBA. These noise levels would be partly masked by trees and other vegetation around the Proposed Action site. The ambient noise levels caused by traffic from Fox Mountain Road should also partly mask the proposed construction's noise levels. Construction noise levels from the Fox Mountain tower and compound construction would not be significant.

**Operations Impacts** – The project area's ambient noise levels would return to normal after the proposed construction is finished. Temporary operations-related noise increases would be caused by the tower facility's two air conditioning (A/C) and heating units and emergency generator. The A/C units regulate the equipment shelter's internal temperature and the diesel fueled emergency

generator provides electric power to the facility, as needed, in emergency situations when the normal supply of electrical power has been interrupted.

The proposed Fox Mountain tower facility would include the use of a 40 to 80 kW diesel fueled emergency generator. The 40 to 80 kW generators produces noise levels of about 80 dBA measured at 23 feet from the source. This emergency generator is not anticipated to increase 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 for noise in local communities. Also, federal regulations limit the use of emergency generators to 500 hours per year. Thus, the emergency generator would neither cause long-term adverse impacts on ambient noise levels, nor cause ambient noise levels of the Proposed Action to measurably increase. The Proposed Action would not cause any significant long-term noise impacts.

#### **4.5.3 Traffic**

Potential impacts on transportation are expected to be minimal, provided appropriate planning and implementation actions are taken. Traffic would occasionally, moderately increase around the project site during project construction. Existing roads would be used as much as possible and applicable traffic best practices would be used. During operations, only a few daily trips by personnel or medium-duty vehicles would be needed. Proposed Action construction and operations traffic would not significantly impact local traffic or transportation networks.

#### **4.5.4 Public Service and Utilities**

##### **Existing Conditions**

The Proposed Action area has a combination of utilities (electricity and communications) along Fox Mountain Road. These existing utilities would be used to provide electrical and telephone services for the finished facility.

**Construction and Operations Impacts** – Construction and operations impacts are not expected to lead to major supply shortages or require major system changes. Impacts on utilities would not be significant.

#### **4.5.5 Public Health and Safety**

The Proposed Action would require construction activities within a mature deciduous hardwood forest portion of an approximately 319-acre parcel. Based on the specified elevation of the proposed antennas (>10 meters AGL), distance to the nearest occupied structure (0.25-miles), and because the site would be located within a restricted area, radio frequency emissions are not expected to threaten human health or safety.

**Construction and Operations Impacts** – Work areas surrounding construction activities would be fenced, and appropriate signs would be posted to further minimize safety risks. Also, implementation of worker safety rules, per OSHA safety and health standards, would establish a

uniform set of safety practices and procedures to protect workers. Construction related impacts to human health and safety would not be significant.

The Fox Mountain tower facility 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) in Title 40, Code of Federal Regulations, Part 112 (40 CFR 112), a facility is not regulated under the SPCC Spill Prevention Plan if the total aboveground storage tank capacity is under 1,320 gallons. Based on the specified elevation of the proposed antennas (>10 meters AGL) and because the site would be located within a restricted area, radio frequency emissions are not expected to threaten human health and safety. There would be no significant adverse impacts to human health and safety resulting from the Proposed Action operations.

Implementation of the Proposed Action would enable public safety authorities to improve interoperable communications and communicate more effectively in an emergency or crisis situation for Iredell County and parts of surrounding counties. The Proposed Action operations would have a substantial positive impact on human health and safety.

#### **4.6 CUMULATIVE IMPACTS**

Cumulative impacts are an individual action's environmental impacts when combined with the environmental impacts of other actions in the past, present, and foreseeable future (about 20 years). Cumulative impacts result from individually less than significant impacts, but collectively significant impacts that occur over time and apply to a given resource type or area of concern.

##### **Existing Conditions**

Currently, the North Carolina Highway Patrol has constructed 63 of the proposed 119 new tower sites associated with complete VIPER Network. According to information available from the FCC Antenna Structure Registration (ASR) System, there are currently 4,550 registered towers in North Carolina, including the 63 "active" VIPER network towers. After VIPER network system completion, with construction of the last 56 new towers, the number of registered communications towers, if no other providers construct new tower sites and no towers are damaged or destroyed, would be 4,606. The proposed 119 VIPER network towers, including the 56 towers remaining to be constructed would result in an increase of about 2.58% in the number of communications towers in the state of North Carolina. Iredell County's Proposed Action's purpose is to meet the North Carolina Highway Patrol's current radio frequency coverage needs in Iredell County and parts of surrounding counties; and the need is to better protect the lives, property, environmental quality, and quality of life for over 150,000 people.

**Construction Impacts** – Construction cumulative impacts should be minimal as no significant impacts are expected on any resource area within the parameters described in Section 4 of this Draft EA. In the event of any construction impacts, these impacts are expected to be minor and temporary.

**Operations Impacts** – Operations cumulative impacts are anticipated to be minor as no significant impacts are expected on any resource area within the parameters described in Section 4 of this Draft EA, during the normal and routine operations.

## **5.0 AGENCY COORDINATION, PUBLIC INVOLVEMENT AND PERMITS**

TEP contacted the Iredell County Commissioner, Iredell County Historic Properties Commission, Iredell County Planning and Development Department, Iredell Museums, and the Statesville Historic District Commission regarding the Proposed Action by USPS mail on 8/9/2011, inviting them to be a consulting party regarding any potential impact to historical or archaeological resources in the area. No response has been received as of the issuance of this Draft EA. TEP also published Public Notice in the “Statesville Record & Landmark” newspaper on 7/15/2011 and 3/4/2012 regarding any impacts the Proposed Action may have on historic resources within the APE. No responses to the Public Notices or letters requesting comments have been received by TEP as of the issuance of this Draft EA (Appendix B).

## **6.0 CONCLUSIONS**

Iredell County’s Proposed Action would be construction of a new radio transmitting and receiving tower involving a 150 feet AGL self-support tower, thus requiring a site specific FEMA HSGP NEPA-EA. The Proposed Action would not involve any unusual risks or impacts to sensitive areas identified in Section 4 that would require a site-specific EA. Under the No Action Alternative, no interoperable communications capability improvements would occur. Existing gaps in public safety interoperable communications would persist, resulting in continuing adverse impact to human health and safety.

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 FCC NEPA EA to be prepared (Appendix E).

If there are no significant, validated negative Public Comments about this Proposed Action’s impacts, as described in this Draft EA, by the end of this Draft EA’s Public Comment Period, then this Draft EA will become the Final Environmental Assessment and FEMA Region IV will issue a “Finding of No Significant Impact” (FONSI) for this Proposed Action.

## **7.0 LIST OF PREPARERS AND REVIEWERS**

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**8.0 REFERENCES**

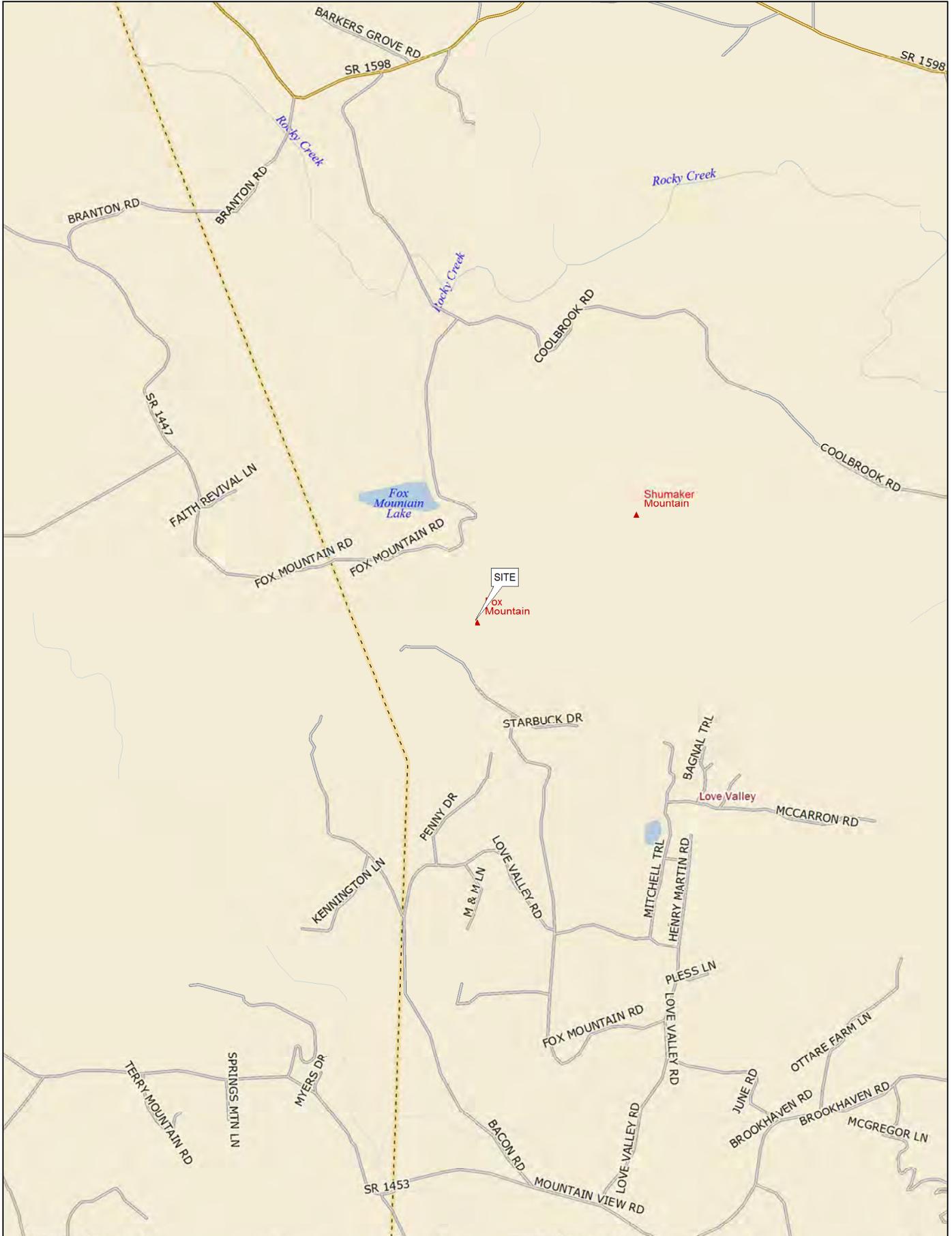
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## **FIGURES**

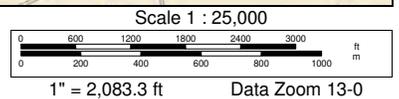
**Figure 1: Site Vicinity Map**



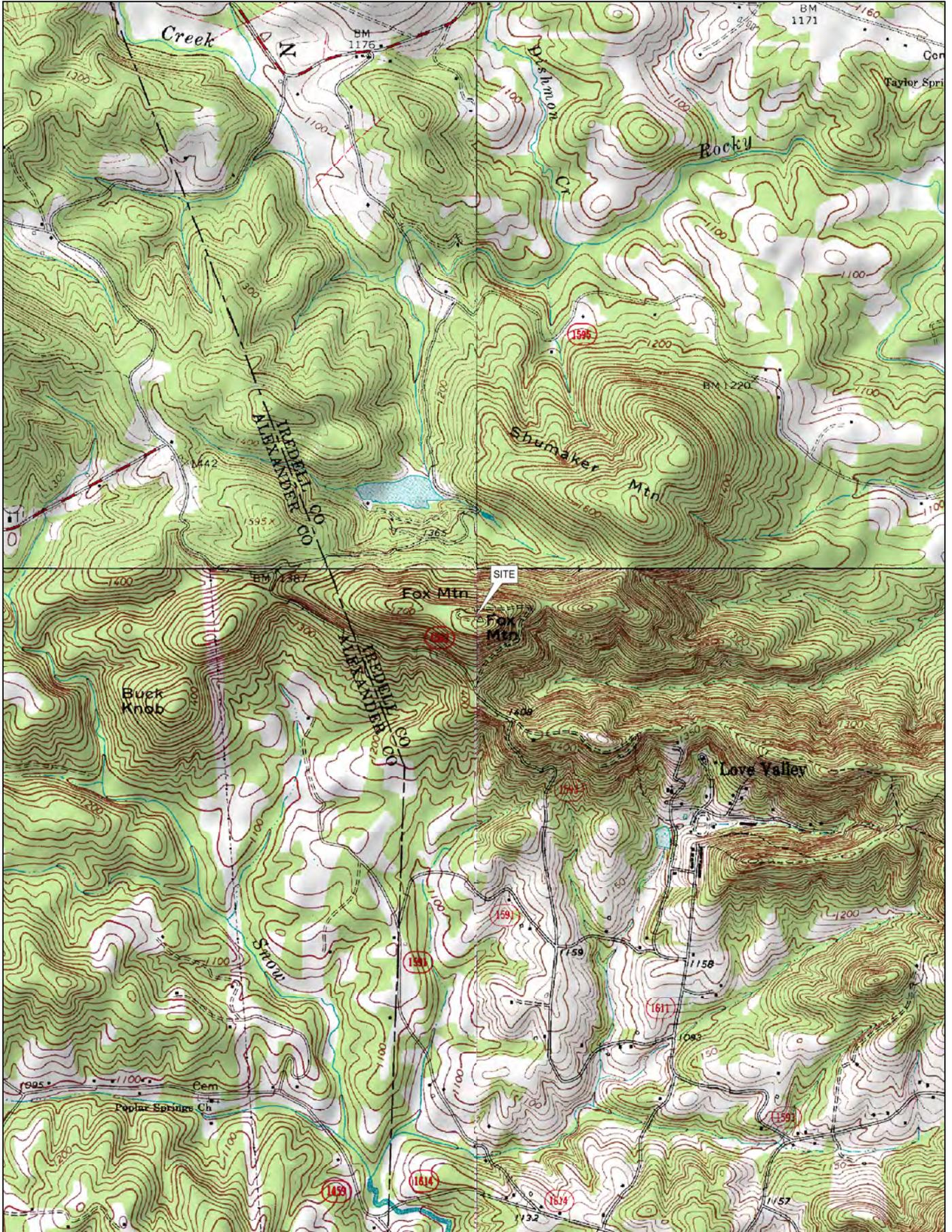
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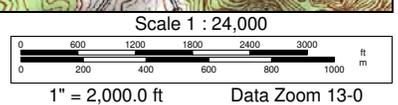
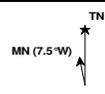
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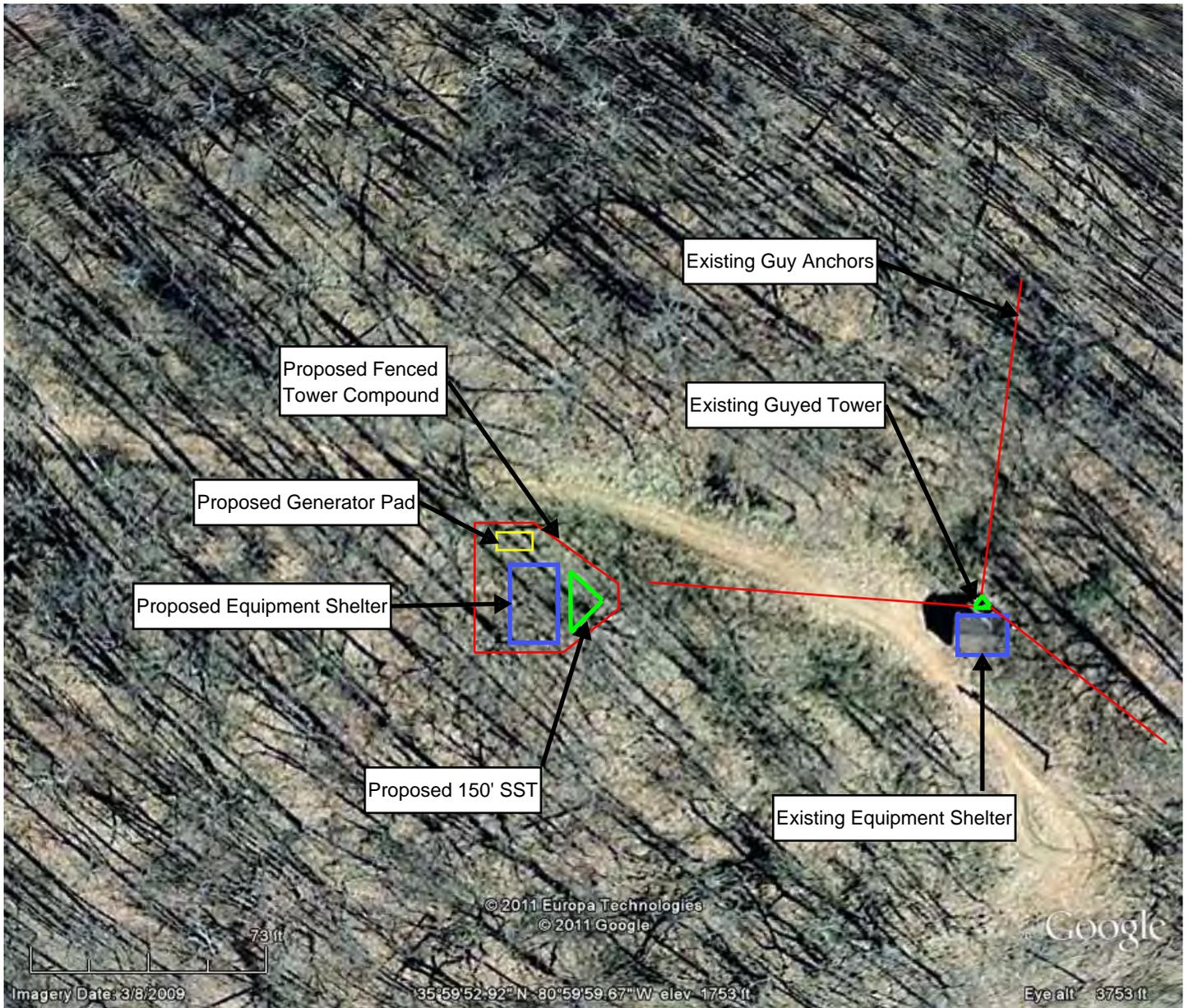
**Figure 2: Topographic Map**

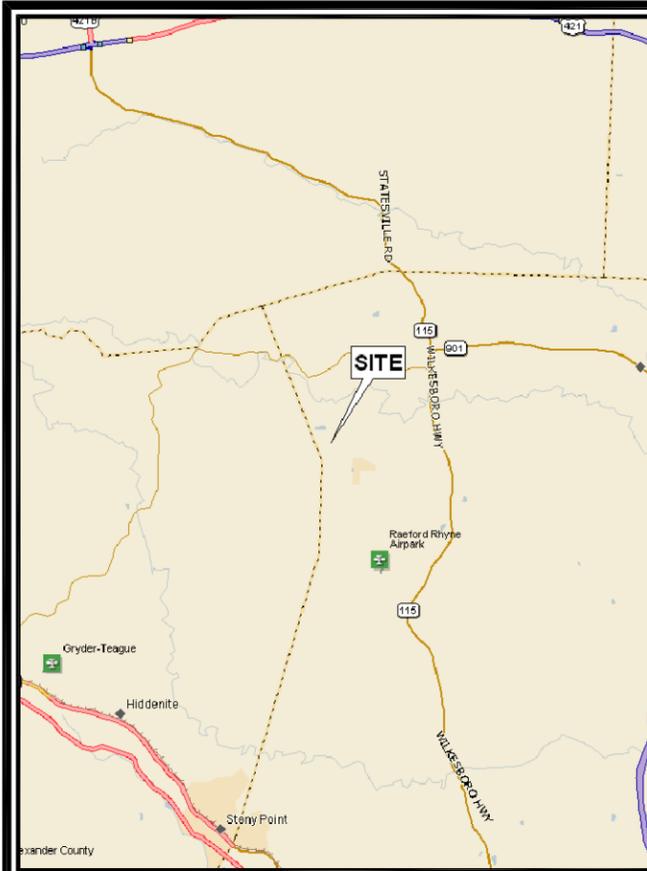


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**Figure 3: Site Plan**





**VICINITY MAP**



**LOCATION MAP**

**DRIVING DIRECTIONS**

FROM RALEIGH, NC, TRAVEL WEST ON I-40. TAKE EXIT 188 ONTO US 421. TRAVEL WEST ON US 421 TO I-77 SOUTH. AFTER 8 MILES TAKE EXIT 65 ONTO E MEMORIAL HIGHWAY (SR 901). AFTER APPROXIMATELY 8 MILES TURN LEFT ONTO WILKESBORO HIGHWAY (SR 115). AFTER 1.5 MILES TURN RIGHT ONTO COOLBROOK ROAD. IN 3 MILES TURN LEFT ONTO FOX MOUNTAIN ROAD. CONTINUE ON FOX MOUNTAIN ROAD INTO ALEXANDER COUNTY, TURN LEFT ONTO SHOEMAKER/FOX MOUNTAIN ROAD, AND RETURN INTO IREDELL COUNTY. THE TOWER ACCESS DRIVE IS ACROSS FROM A RESIDENTIAL CLEARING. THE SITE IS ON THE LEFT SIDE WITH A SMALL SIGN DENOTES THE ACCESS AS "TOWER TRAIL".

**DRIVING DIRECTIONS**

PROJECT INFORMATION:

# PROPOSED TELECOMMUNICATIONS FACILITY

SITE NAME:  
**FOX MOUNTAIN**

SITE NUMBER:  
**HP-1364**

SCO ID NUMBER:  
**10-08449-011**

AERONAUTICAL STUDY NO:  
**2010-ASO-3598-OE**

SITE ADDRESS:  
**426 FOX MOUNTAIN ROAD  
STATESVILLE, NC 28625  
(IREDELL COUNTY)**

LATITUDE N 35° 59' 52.693" \*  
LONGITUDE W 080° 59' 59.792" \*  
GROUND ELEVATION = 1751.0' (AMSL)\*

\* PER 1A CERTIFICATION LETTER BY TOWER ENGINEERING PROFESSIONALS DATED 08-02-11

**1A CERTIFICATION**

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

1. NC BUILDING CODE (2012 EDITION)
2. ANSI/TIA/EIA-222-G
3. NC ELECTRIC CODE (2008 EDITION)
4. LOCAL BUILDING CODE
5. CITY/COUNTY ORDINANCES

**CODE COMPLIANCE**

**TOWER OWNER:**  
NAME NORTH CAROLINA HIGHWAY PATROL  
ADDRESS 3318 GARNER ROAD, BUILDING TWO  
CITY, STATE, ZIP RALEIGH, NC 27610  
CONTACT MARTY RANDALL  
PHONE (919) 662-4440

**APPLICANT / LESSEE:**  
NAME NORTH CAROLINA HIGHWAY PATROL  
ADDRESS 3318 GARNER ROAD, BUILDING TWO  
CITY, STATE, ZIP RALEIGH, NC 27610  
CONTACT MARTY RANDALL  
PHONE (919) 662-4440

**PROPERTY OWNER:**  
NAME WILSON GODFREY, LP  
ADDRESS 4893 WILKESBORO HWY  
CITY, STATE, ZIP STATESVILLE, NC 28625  
CONTACT WILLIAM GODFREY  
PHONE UNKNOWN

AREA OF CONSTRUCTION: 2,250 SQ. FT.±  
PRESENT OCCUPANCY TYPE: TELECOMMUNICATIONS FACILITY  
PROPOSED OCCUPANCY TYPE: TELECOMMUNICATIONS FACILITY  
CURRENT ZONING: RA  
PARCEL ID NUMBER: 4802 94 5532.000  
JURISDICTION: IREDELL COUNTY

**UTILITIES:**  
POWER COMPANY: ENERGY UNITED  
CONTACT: CUSTOMER SERVICE  
PHONE: (800) 522-3793  
METER # NEAR SITE: 82 173 366 (DISCONNECTED)

TELEPHONE COMPANY: UNKNOWN  
CONTACT: UNKNOWN  
PHONE: UNKNOWN  
PEDESTAL # NEAR SITE: 3E1 47B

**PROJECT SUMMARY**

**SURVEYOR:**  
NAME TOWER ENGINEERING PROFESSIONALS, INC.  
ADDRESS 3703 JUNCTION BOULEVARD  
CITY, STATE, ZIP RALEIGH, NC 27603  
CONTACT CLIFFORD C. BYRD, P.L.S.  
PHONE (919) 661-6351

**CIVIL ENGINEER:**  
NAME TOWER ENGINEERING PROFESSIONALS, INC.  
ADDRESS 3703 JUNCTION BOULEVARD  
CITY, STATE, ZIP RALEIGH, NC 27603  
CONTACT JOHN GOINS, P.E.  
PHONE (919) 661-6351

**STRUCTURAL ENGINEER:**  
NAME N/A  
ADDRESS N/A  
CITY, STATE, ZIP N/A  
CONTACT N/A  
PHONE N/A

**ELECTRICAL ENGINEER:**  
NAME TOWER ENGINEERING PROFESSIONALS, INC.  
ADDRESS 3703 JUNCTION BOULEVARD  
CITY, STATE, ZIP RALEIGH, NC 27603  
CONTACT J. RUSSELL HILL, P.E.  
PHONE (919) 661-6351

**GEOTECHNICAL ENGINEER:**  
NAME TOWER ENGINEERING PROFESSIONALS, INC.  
ADDRESS 3703 JUNCTION BOULEVARD  
CITY, STATE, ZIP RALEIGH, NC 27603  
CONTACT JOHN D. LONGEST, P.E.  
PHONE (919) 661-6351

**TOWER MANUFACTURER:**  
NAME T.B.D.  
ADDRESS T.B.D.  
CITY, STATE, ZIP T.B.D.  
CONTACT T.B.D.  
PHONE T.B.D.

**PROJECT TEAM**

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



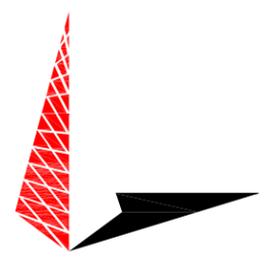
THE UTILITIES SHOWN HEREON ARE FOR THE CONTRACTORS CONVENIENCE ONLY. THERE MAY BE OTHER UTILITIES NOT SHOWN ON THESE PLANS. THE ENGINEER/SURVEYOR ASSUMES NO RESPONSIBILITY FOR THE LOCATIONS SHOWN AND IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL UTILITIES WITHIN THE LIMITS OF THE WORK. ALL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

**UTILITY STATEMENT**

SHEET	DESCRIPTION	REV
T1	TITLE SHEET	1
T2	N.C. APPENDIX B, PART I	1
T3	N.C. APPENDIX B, PART II	1
T4	N.C. APPENDIX B, PART III	1
T5	N.C. APPENDIX B, PART IV	1
N1	PROJECT NOTES	1
C1	SITE PLAN	1
C2	LEGAL DESCRIPTION	1
C3	COMPOUND DETAIL	1
C4	TOWER ELEVATION	1
C5	SHELTER ELEVATIONS	1
C6	SHELTER FOUNDATION DETAILS	1
C7	GENERATOR FOUNDATION DETAILS	1
C8	ICE BRIDGE DETAILS	1
C9	ANTENNA & COAX MOUNTING DETAILS	1
C10	SHELTER ACCESS DETAILS	1
C11	FENCE DETAILS	1
C12	SEDIMENT & EROSION CONTROL PLAN	1
C13	EROSION CONTROL DETAILS	1
E1	ELECTRICAL NOTES	1
E2	SERVICE ROUTING PLAN	1
E3	ONE LINE DIAGRAM, PANEL SCHEDULE & NOTES	1
E4	EQUIPMENT GROUNDING PLAN AND NOTES	1
E5	GROUNDING DETAILS I	1
E6	GROUNDING DETAILS II	1

**INDEX OF SHEETS**

PLANS PREPARED BY:



**TOWER ENGINEERING PROFESSIONALS**  
3703 JUNCTION BOULEVARD  
RALEIGH, NC 27603-5263  
OFFICE: (919) 661-6351  
www.tepgroup.net

N.C. LICENSE # C-1794

REV	DATE	ISSUED FOR:
1	04-19-12	CONSTRUCTION
0	10-13-11	PRELIMINARY CONSTRUCTION

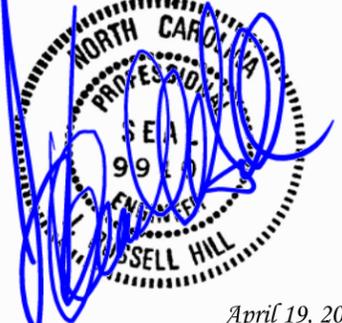
DRAWN BY: TRG CHECKED BY: JBG

SEAL:



April 19, 2012

SEAL:



April 19, 2012

SHEET NUMBER: **T-1** REVISION: **1**  
TEP #: 110516

**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 MAY 12, 2011.
4. THIS PROPERTY IS LOCATED IN FLOOD ZONE "X," AREAS DETERMINED TO BE OUTSIDE 500-YEAR FLOODPLAIN (FEMA/FIRM MAP NUMBER 3710480200J).
6. SUBJECT PIN: 4802 94 5582.000
7. PROPERTY OWNER:  
WILSON GODFREY, LP

**SEDIMENT & EROSION CONTROL NOTE:**

FOR SEDIMENT AND EROSION CONTROL DETAILS, SEE SHEET C-12 & C-13.

**WATER SUPPLY NOTE:**

THE APPROVED WATER SUPPLY PER SECTION 508.1 OF THE NC FIRE CODE HAS BEEN ADDRESSED BY NOTIFYING THE IREDELL COUNTY FIRE MARSHAL OF THE LOCATION OF THE PROPOSED SITE. THE MARSHAL HAS RESPONDED WITH A LETTER THAT STATES THE CENTRAL FIRE DISTRICT'S RESPONSE IN A LETTER ADDRESSED TO THE NORTH CAROLINA DEPARTMENT OF ADMINISTRATION - STATE CONSTRUCTION OFFICE, DATED 03-13-12.

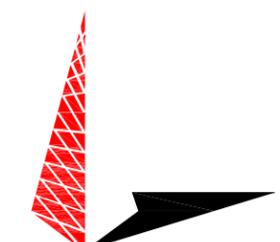
PLANS PREPARED FOR:



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

PROJECT INFORMATION:  
**FOX MOUNTAIN  
SITE # HP-1364  
SCO ID # 10-08449-011**  
426 FOX MOUNTAIN ROAD  
STATESVILLE, NC 28625  
(IREDELL COUNTY)

PLANS PREPARED BY:



**TOWER ENGINEERING PROFESSIONALS**  
3703 JUNCTION BOULEVARD  
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OFFICE: (919) 661-6351  
www.tepgroup.net  
N.C. LICENSE # C-1794

SEAL:



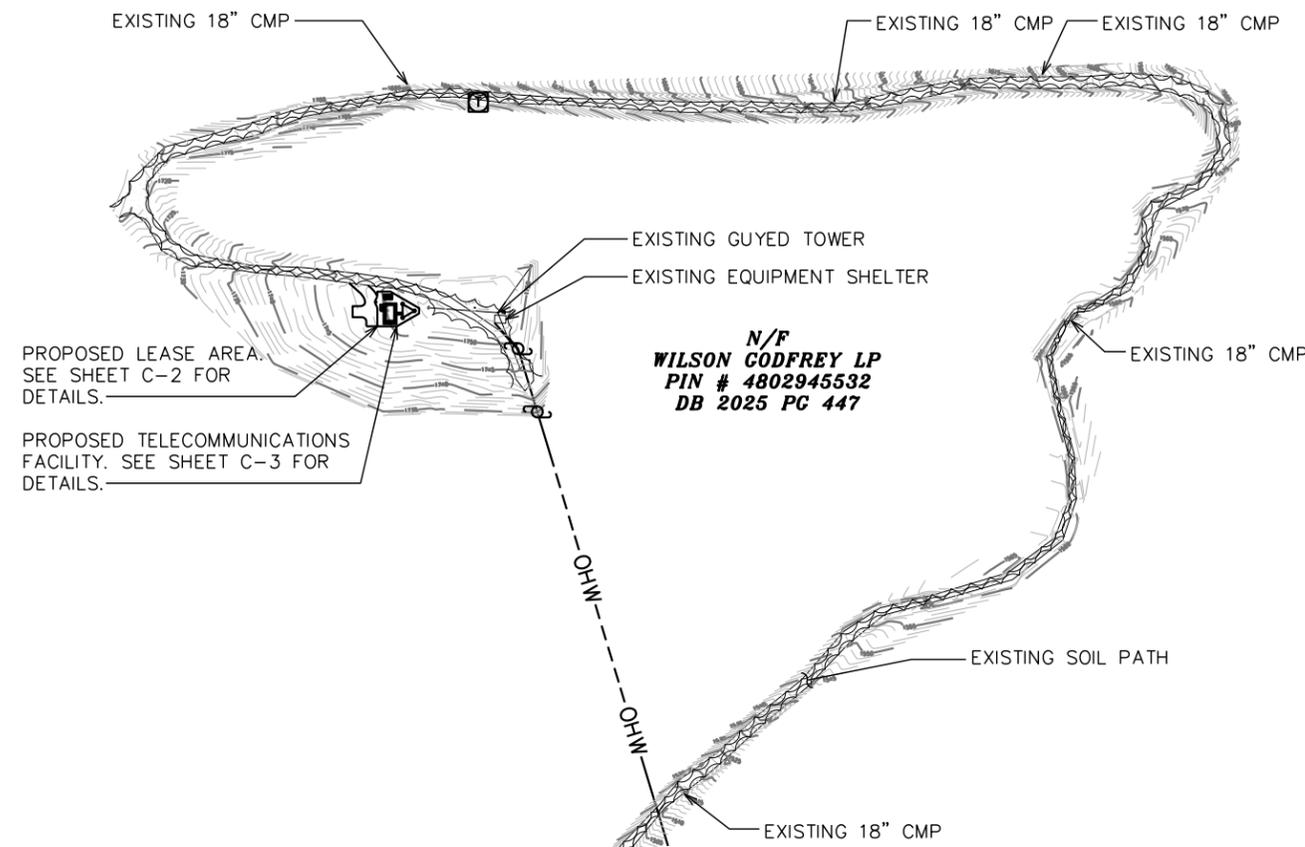
April 19, 2012

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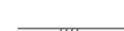
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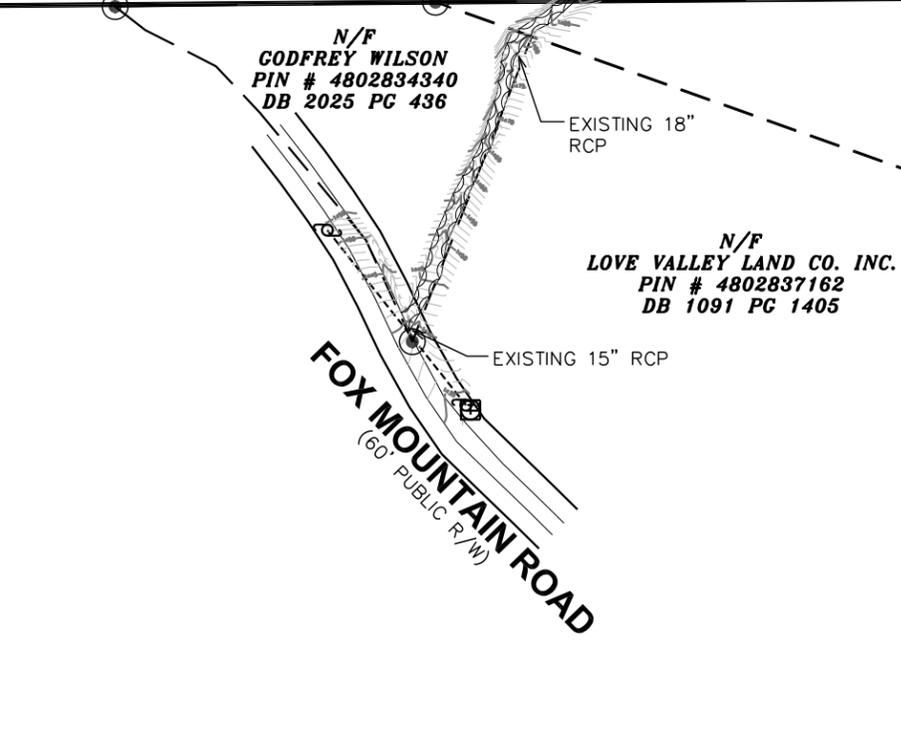
SHEET TITLE:  
**SITE PLAN**

SHEET NUMBER: **C-1** REVISION: **1**  
TEP #: 110516



**LEGEND**

	WATER VALVE
	FIRE HYDRANT
	EXIST. PROPERTY LINE
	ADJ. PROPERTY LINE
	EXIST. UTILITY POLE
	EXIST. TELCO PEDESTAL
	EXIST. MANHOLE COVER
	EXIST. LIGHT POLE
	EXIST. CONTOUR LINE
	EDGE OF PAVEMENT
	OVERHEAD WIRE
	CHAIN LINK FENCE
	EXISTING TREE LINE
	IRON ROD FOUND
	PROPERTY CORNER



**SITE PLAN**

SCALE: 1" = 200'



**PARCEL OVERVIEW**

SCALE: 1" = 2500'

**LEGAL DESCRIPTION 1,289 SQ. FT.**

**LEASE AREA PARCEL "A"**

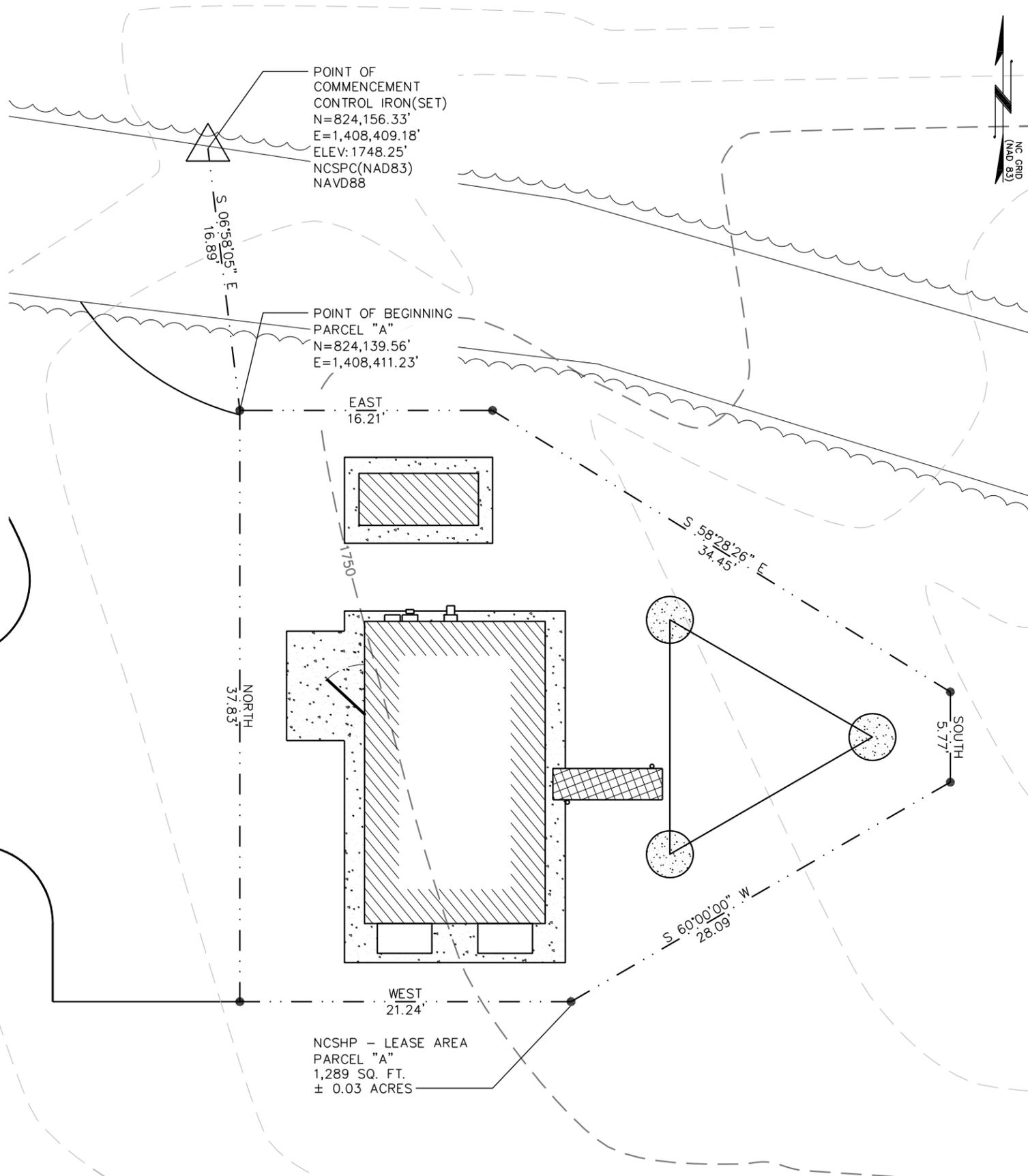
BEING A PORTION OF THE LANDS LYING, SITUATE, AND BEING LOCATED IN IREDELL COUNTY, NORTH CAROLINA, AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS;

COMMENCING AT AN EXISTING IRON ROD SET, SAID IRON HAVING N.C. GRID COORDINATES OF: NORTHING = 824,156.33' AND EASTING = 1,408,409.18'; THENCE FROM THE POINT OF COMMENCEMENT, SOUTH 06°58'05" EAST, A DISTANCE OF 16.89 TO A NEW IRON SET ON THE NORTHWEST CORNER OF DESCRIBED 1,289 SQ. FT. LEASE AREA, SAID IRON BEING THE TRUE POINT OF BEGINNING AND HAVING N.C. GRID COORDINATES OF: NORTHING = 824,139.56, AND EASTING = 1,408,411.23; THENCE FROM THE POINT OF BEGINNING, EAST A DISTANCE OF 16.21' TO A NEW IRON SET; THENCE SOUTH 58°28'26" EAST A DISTANCE OF 34.45' TO A NEW IRON SET; THENCE SOUTH A DISTANCE OF 5.77' TO A NEW IRON SET; THENCE SOUTH 60°00'00" WEST A DISTANCE OF 28.09' TO A NEW IRON SET; THENCE WEST A DISTANCE OF 21.24' TO A NEW IRON SET; THENCE NORTH A DISTANCE OF 37.83' TO THE POINT OF BEGINNING.

SAID SUBJECT PARCEL CONTAINING 1,289 SQUARE FEET OR 0.03 ACRES, MORE OR LESS.

**NOTE:**

INFORMATION TAKEN FROM SURVEY BY TOWER ENGINEERING PROFESSIONALS. ALL INFORMATION SHOWN ON THIS PLAN IS FOR REFERENCE ONLY. ANY DISCREPANCIES SHOWN ON THIS PLAN SHALL BE SUPERCEDED BY ABOVE REFERENCED SURVEY.



LEGEND	
	EXIST. PROPERTY LINE
	EXIST. UTILITY POLE
	EXIST. TELCO PEDESTAL
	EXIST. POWER METER
	EXISTING CONCRETE MONUMENT
	PROPERTY CORNER
	IPF IRON PIPE FOUND
	EXIST. CONTOUR LINE
	EDGE OF PAVEMENT
	RIGHT-OF-WAY
	CHAIN LINK FENCE
	EXISTING TREE LINE
	PROPOSED TREE LINE

**LEGAL DESCRIPTION**

SCALE: 1/8" = 1'-0"



PLANS PREPARED FOR:

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

PROJECT INFORMATION:

**FOX MOUNTAIN**  
**SITE # HP-1364**  
**SCO ID # 10-08449-011**

426 FOX MOUNTAIN ROAD  
STATESVILLE, NC 28625  
(IREDELL COUNTY)

PLANS PREPARED BY:

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3703 JUNCTION BOULEVARD  
RALEIGH, NC 27603-5263  
OFFICE: (919) 661-6351  
www.tepgroup.net

N.C. LICENSE # C-1794

SEAL:

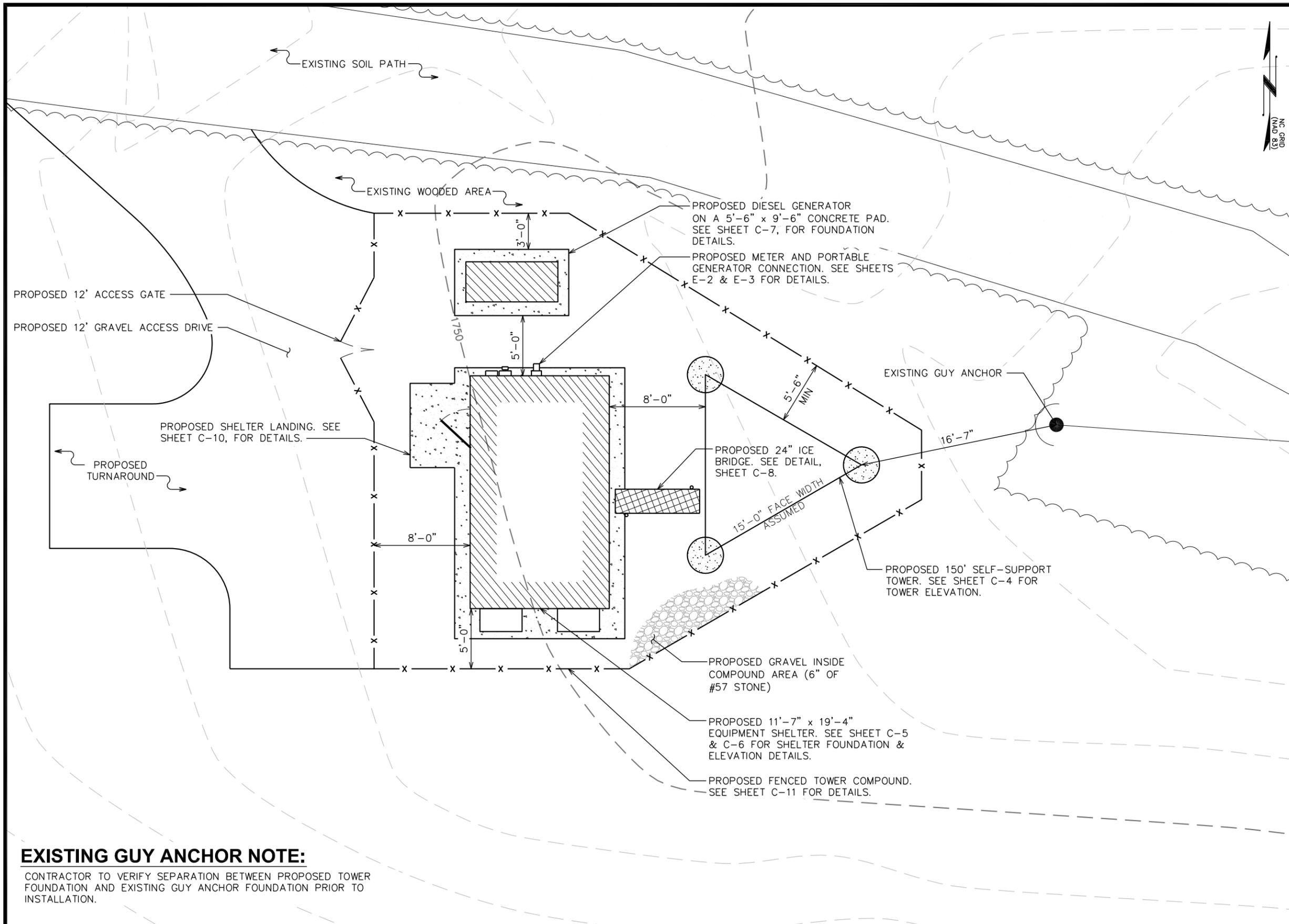
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DRAWN BY: TRG CHECKED BY: JBG

SHEET TITLE:

**LEGAL DESCRIPTION**

SHEET NUMBER:	REVISION:
<b>C-2</b>	<b>1</b>
	TEP #: 110516



PLANS PREPARED FOR:



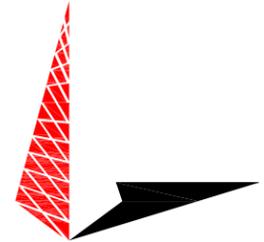
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SHEET TITLE:

**COMPOUND  
DETAIL**

SHEET NUMBER: **C-3**

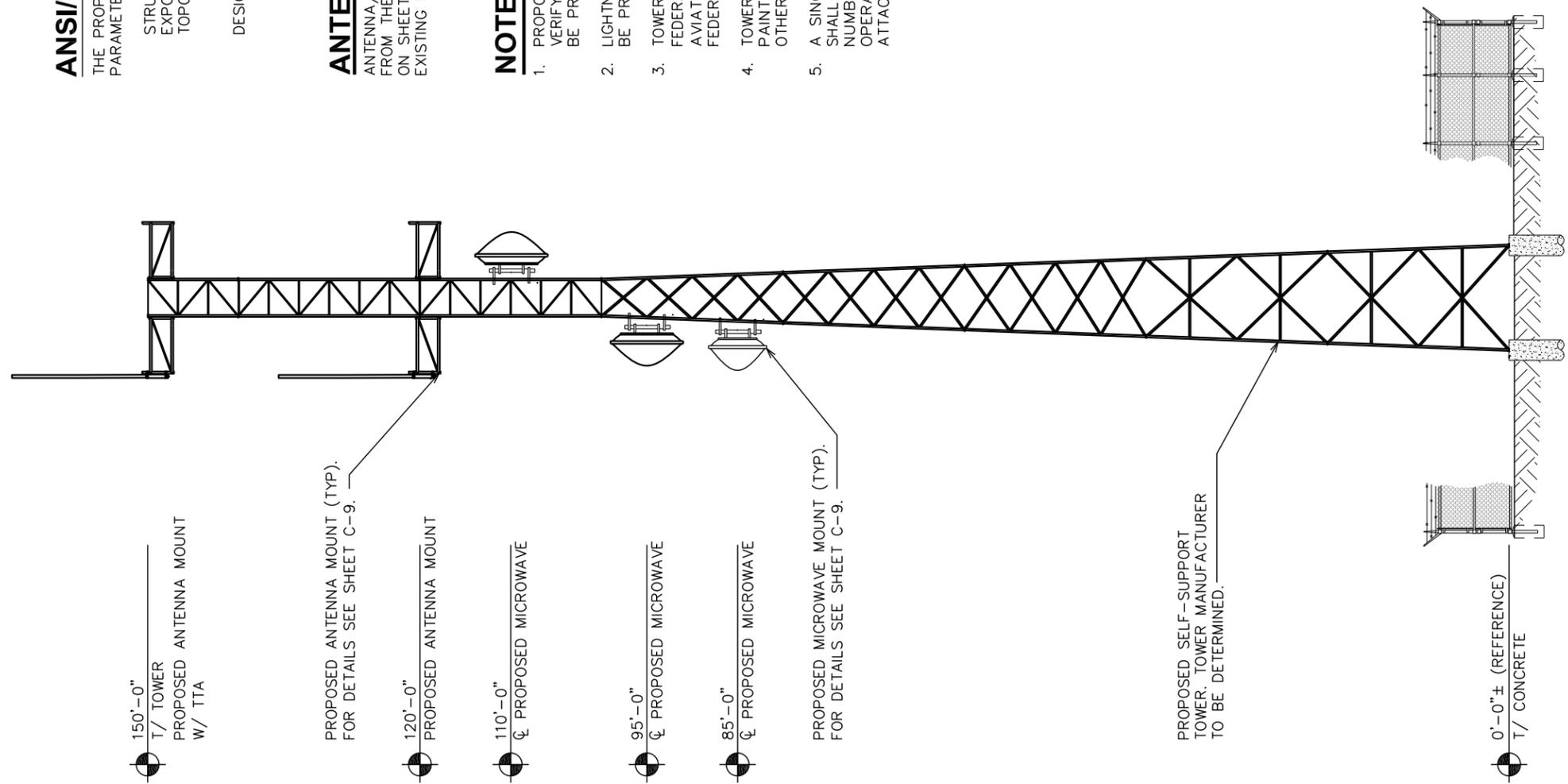
REVISION: **1**

TEP #: 110516

**EXISTING GUY ANCHOR NOTE:**  
CONTRACTOR TO VERIFY SEPARATION BETWEEN PROPOSED TOWER FOUNDATION AND EXISTING GUY ANCHOR FOUNDATION PRIOR TO INSTALLATION.

**COMPOUND DETAIL**  
SCALE: 1/8" = 1'-0"





**ANSI/TIA-222-G DESIGN NOTE:**

THE PROPOSED TOWER SHALL BE DESIGNED PER THE FOLLOWING PARAMETERS:

STRUCTURE CLASSIFICATION: III  
 EXPOSURE CATEGORY: C  
 TOPOGRAPHIC CATEGORY: 3  
 CREST HEIGHT: 720'

DESIGN WIND SPEED: 90mph(3sec GUST), 76mph(FATEST MILE)

PROPOSED ANTENNA MOUNT (TYP).  
 FOR DETAILS SEE SHEET C-9.

120'-0"  
 PROPOSED ANTENNA MOUNT

110'-0"  
 PROPOSED MICROWAVE

95'-0"  
 PROPOSED MICROWAVE

85'-0"  
 PROPOSED MICROWAVE

PROPOSED MICROWAVE MOUNT (TYP).  
 FOR DETAILS SEE SHEET C-9.

PROPOSED SELF-SUPPORT  
 TOWER. TOWER MANUFACTURER  
 TO BE DETERMINED.

0'-0"± (REFERENCE)  
 T/ CONCRETE

**ANTENNA MOUNT NOTE:**

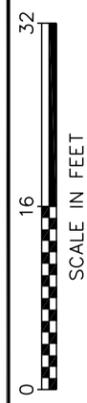
ANTENNA/MICROWAVE MOUNTS HAVE BEEN ORDERED FROM THE TOWER MANUFACTURER. MOUNTS SPECIFIED ON SHEET C-9 SHOULD NOT BE DUPLICATED IF EXISTING MOUNTS ARE PRESENT.

**NOTES:**

1. PROPOSED COAX TO BE MOUNTED TO WAVEGUIDE LADDER. VERIFY WITH TOWER MANUFACTURER THAT THE LADDER WILL BE PROVIDED WITH THE TOWER.
2. LIGHTNING ROD, TOWER LIGHTS, AND CLIMBING LADDER TO BE PROVIDED BY TOWER MANUFACTURER.
3. TOWER SHALL BE ILLUMINATED ONLY AS REQUIRED BY THE FEDERAL COMMUNICATIONS COMMISSION (FCC), THE FEDERAL AVIATION ADMINISTRATION (FAA), OR OTHER STATE OR FEDERAL AGENCY OF COMPETENT JURISDICTION.
4. TOWER SHALL BE CONSTRUCTED OF GALVANIZED STEEL OR PAINTED PER APPLICABLE STANDARDS OF THE FAA OR OTHER APPLICABLE FEDERAL OR STATE AGENCY.
5. A SINGLE SIGN, 2 FEET SQUARE, IN A VISIBLE LOCATION SHALL BE REQUIRED WITH NAME AND EMERGENCY TELEPHONE NUMBER OF THE TOWER OWNER AND ALL COMPANIES OPERATING ON THE TOWER. NO ADVERTISING SHALL BE ATTACHED TO THE TOWER.

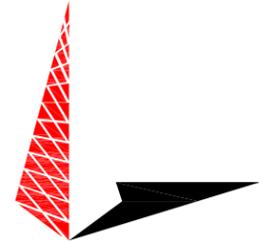
**TOWER ELEVATION**

SCALE: 1/8" = 1'-0"



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

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**SITE # HP-1364**  
**SCO ID # 10-08449-011**  
 426 FOX MOUNTAIN ROAD  
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PLANS PREPARED BY:  
  
**TOWER ENGINEERING PROFESSIONALS**  
 3703 JUNCTION BOULEVARD  
 RALEIGH, NC 27603-5263  
 OFFICE: (919) 661-6351  
 www.tepgroup.net  
 N.C. LICENSE # C-1794

SEAL:  
  
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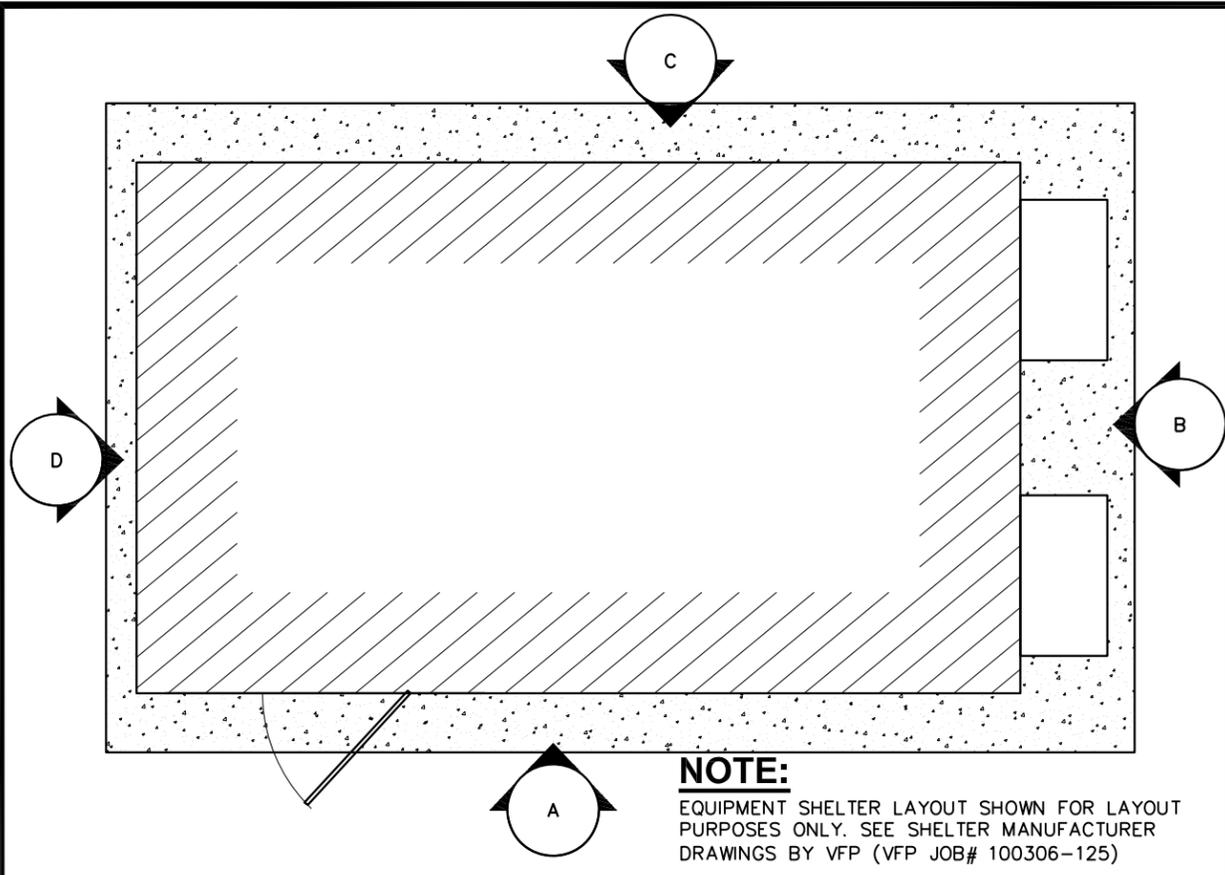
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DRAWN BY: TRG    CHECKED BY: JBG

SHEET TITLE:  
**TOWER ELEVATION**

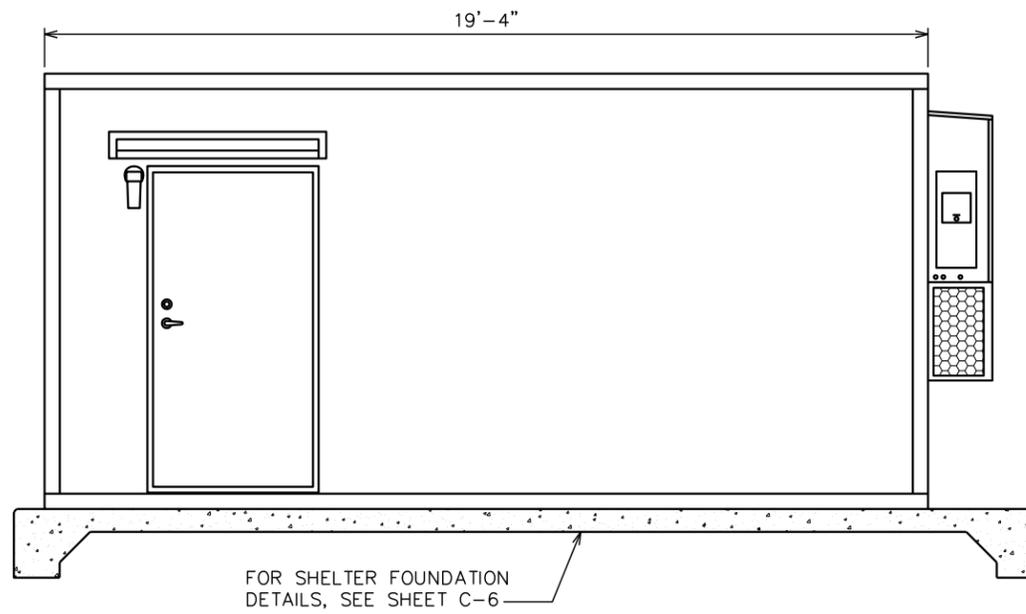
SHEET NUMBER:  
**C-4**

REVISION:  
**1**  
 TEP #: 110516



**NOTE:**  
EQUIPMENT SHELTER LAYOUT SHOWN FOR LAYOUT PURPOSES ONLY. SEE SHELTER MANUFACTURER DRAWINGS BY VFP (VFP JOB# 100306-125)

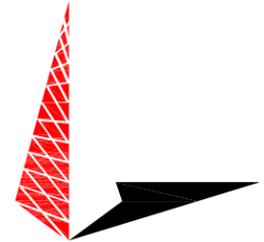
**NOTE:**  
MODULAR SHELTER WAS DESIGNED UNDER THE 2009 NCBC AND MANUFACTURED BEFORE JUNE 1, 2012.



FOR SHELTER FOUNDATION DETAILS, SEE SHEET C-6

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

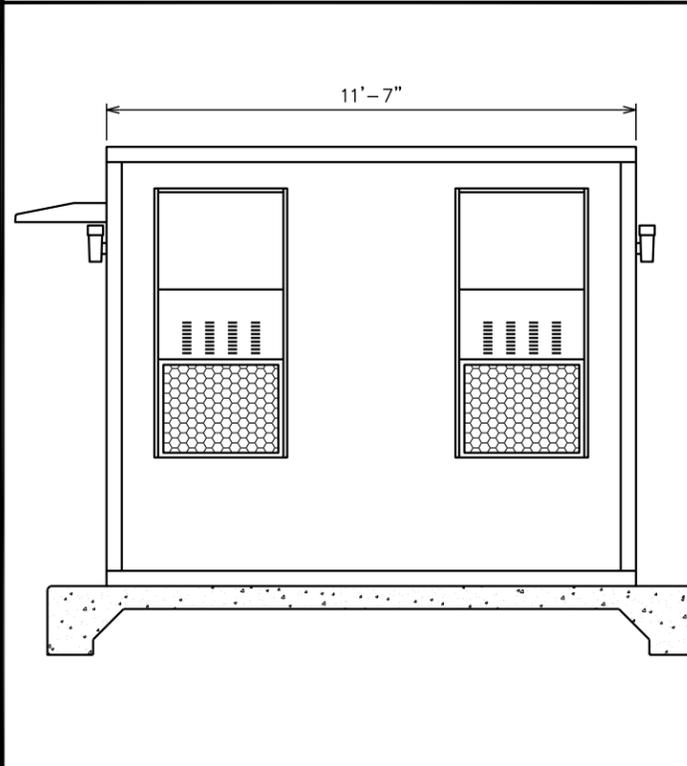
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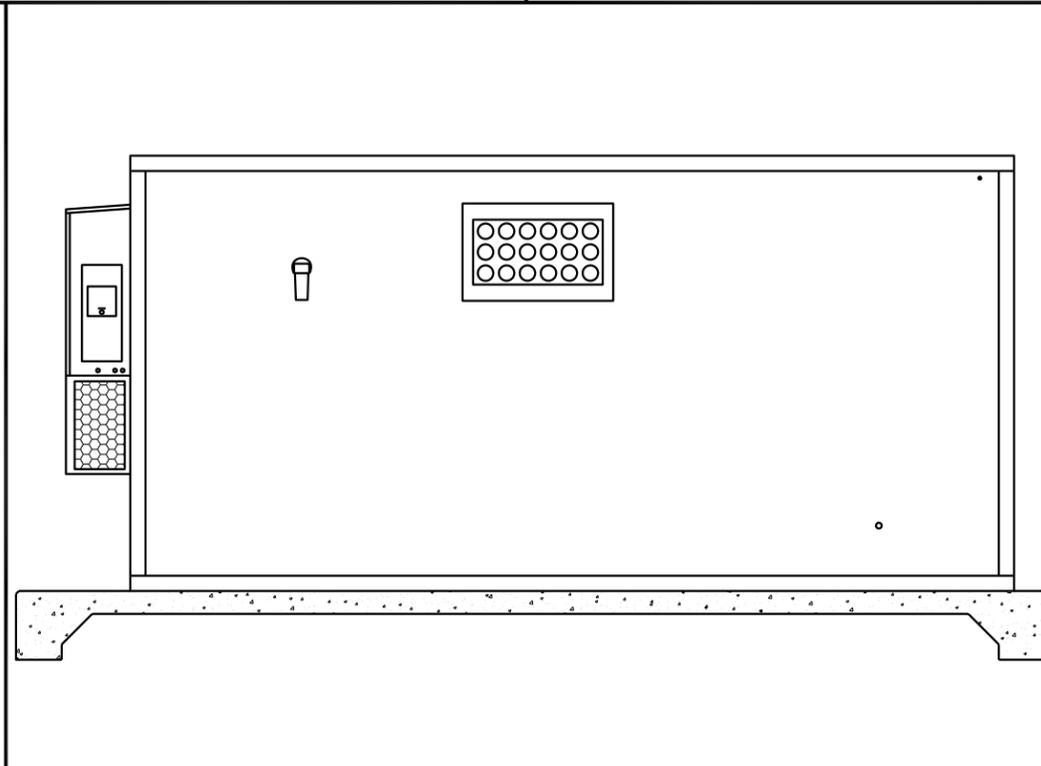
**ELEVATION KEY**  
SCALE: 1/4" = 1'-0"



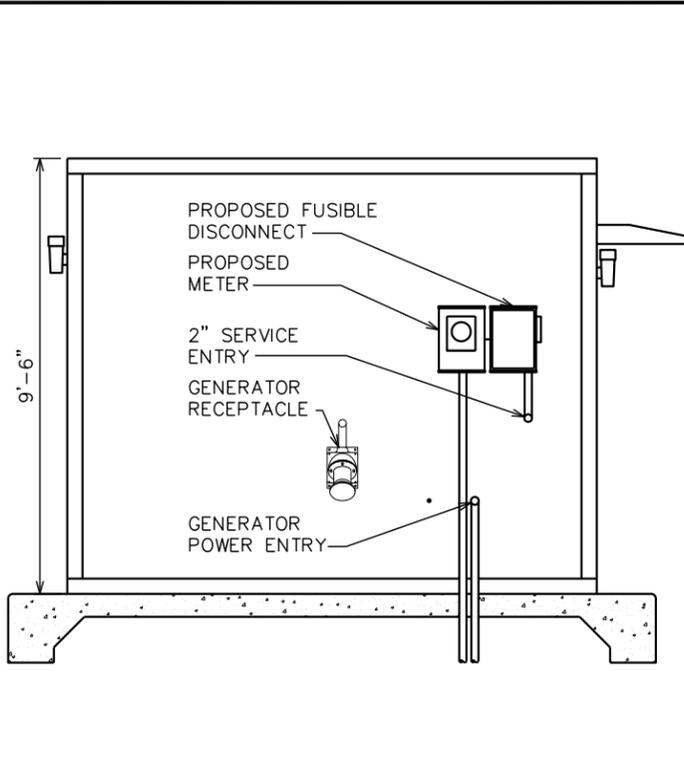
**ELEVATION A**  
SCALE: 1/4" = 1'-0"



**ELEVATION B**  
SCALE: 1/4" = 1'-0"



**ELEVATION C**  
SCALE: 1/4" = 1'-0"



**ELEVATION D**  
SCALE: 1/4" = 1'-0"

SEAL:  
  
 April 19, 2012

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SHEET TITLE:  
**SHELTER ELEVATIONS**

SHEET NUMBER: **C-5** REVISION: **1**  
 TEP #: 110516

**FOUNDATION NOTES:**

1. FOUNDATION DESIGN BASED ON 2000 PSF SOIL BEARING CAPACITY. IF OTHER CONDITIONS EXIST, FOUNDATION SHALL BE REDESIGNED. CONTRACTOR SHALL HAVE SOIL BEARING CAPACITY VERIFIED BY A LICENSED PROFESSIONAL GEOTECHNICAL ENGINEER PRIOR TO INITIATION OF CONSTRUCTION.
2. CONCRETE SHALL BE 3,000 PSI.
3. REINFORCING STEEL  $F_y = 60,000$  PSI
4. ALL BACKFILL SHALL BE THOROUGHLY COMPACTED TO A MINIMUM OF 95% DENSITY USING THE MODIFIED PROCTOR METHOD.
5. SURFACE OF FINISHED SLAB SHALL BE LEVEL AND FLAT WITHIN  $\frac{1}{4}$ ".
6. CONTRACTOR SHALL VERIFY WITH MANUFACTURER ACTUAL DIMENSIONS OF SHELTER PRIOR TO LAYING OUT FOUNDATION.

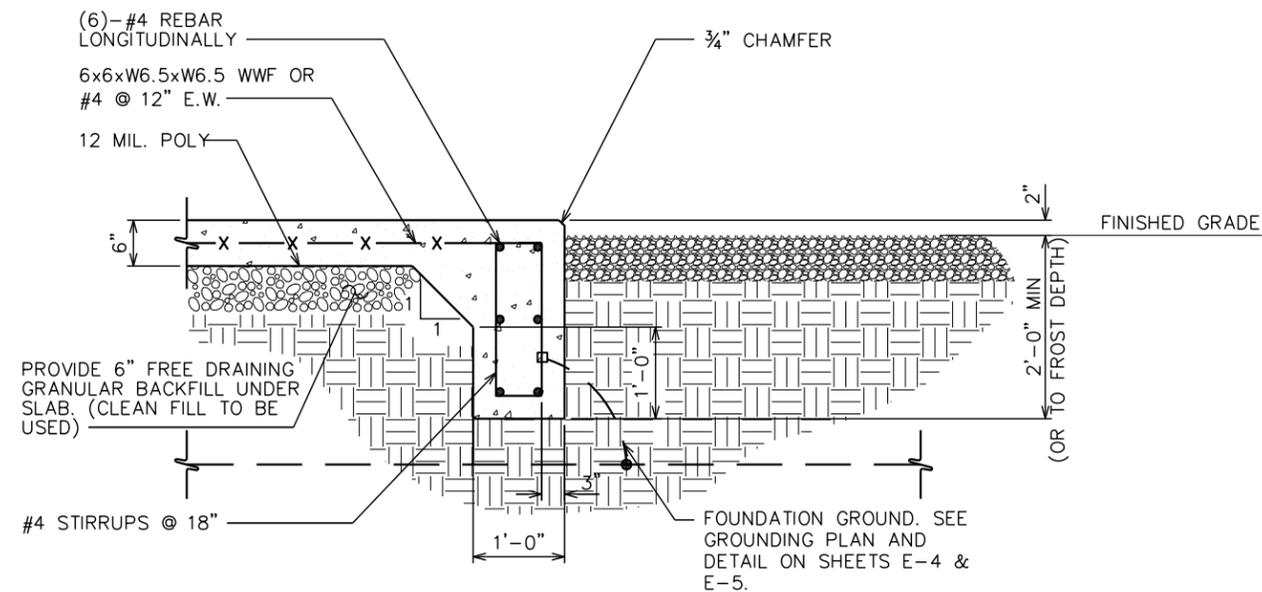
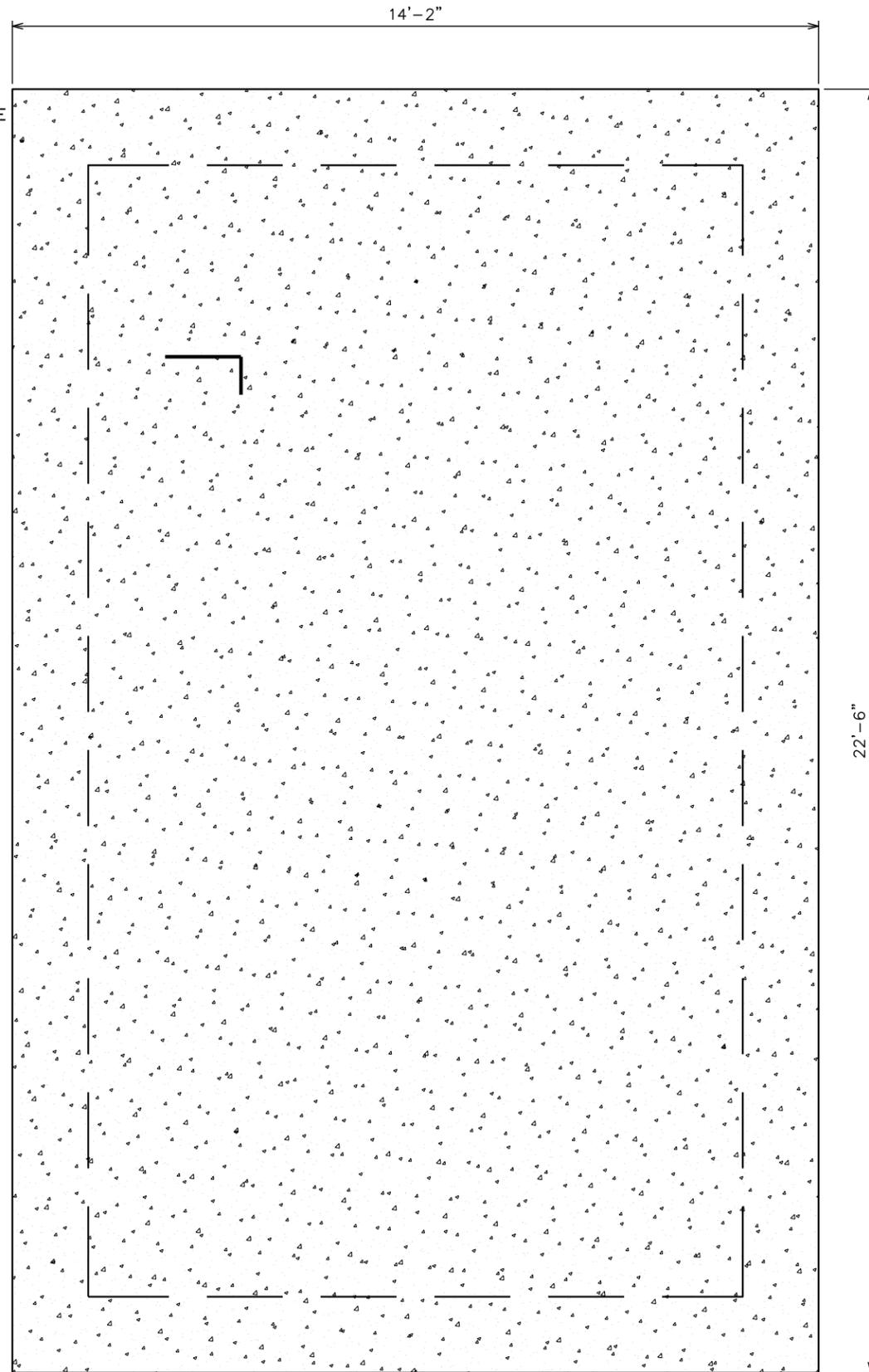
**GENERAL STRUCTURAL NOTES:**

SPECIFICATIONS / CODES:

1. ALL CONCRETE WORK SHALL BE PERFORMED IN ACCORDANCE WITH LATEST EDITION OF THE ACI CODE.
2. STEEL WORK SHALL BE PERFORMED IN ACCORDANCE WITH AISC STEEL CONSTRUCTION MANUAL, 13th EDITION.
3. ALL WELDING SHALL BE PERFORMED IN ACCORDANCE WITH AMERICAN WELDING SOCIETY (AWS) D1.1-04 "STRUCTURAL WELDING CODE-STEEL".
4. REINFORCING STEEL SHALL BE PLACED IN ACCORDANCE WITH THE CONCRETE REINFORCING STEEL INSTITUTE (CRSI) "MANUAL OF STANDARD PRACTICE".

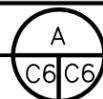
**NOTES:**

1. SHELTER TIE DOWN PLATE AND HARDWARE SUPPLIED BY SHELTER MANUFACTURER.
2. CONTRACTOR TO VERIFY THAT TIE DOWN PLATE LOCATED NEAR SHELTER DOOR DOES NOT INTERFERE WITH ACCESS RAMP. CONTRACTOR TO RELOCATE AS NEEDED.



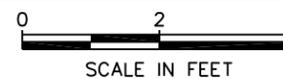
**SECTION**

SCALE:  $\frac{1}{2}$ " = 1'-0"



**FOUNDATION PLAN**

SCALE:  $\frac{3}{8}$ " = 1'-0"



PLANS PREPARED FOR:



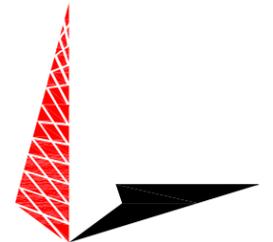
3318 GARNER ROAD, BLDG. 2  
RALEIGH, NC 27607  
OFFICE: (919) 662-4440

PROJECT INFORMATION:

**FOX MOUNTAIN  
SITE # HP-1364  
SCO ID # 10-08449-011**

426 FOX MOUNTAIN ROAD  
STATESVILLE, NC 28625  
(IREDELL COUNTY)

PLANS PREPARED BY:



**TOWER ENGINEERING PROFESSIONALS**  
3703 JUNCTION BOULEVARD  
RALEIGH, NC 27603-5263  
OFFICE: (919) 661-6351  
www.tepgroup.net

N.C. LICENSE # C-1794

SEAL:



REV	DATE	ISSUED FOR:
1	04-19-12	CONSTRUCTION
0	10-13-11	PRELIMINARY CONSTRUCTION

DRAWN BY: TRG CHECKED BY: JBG

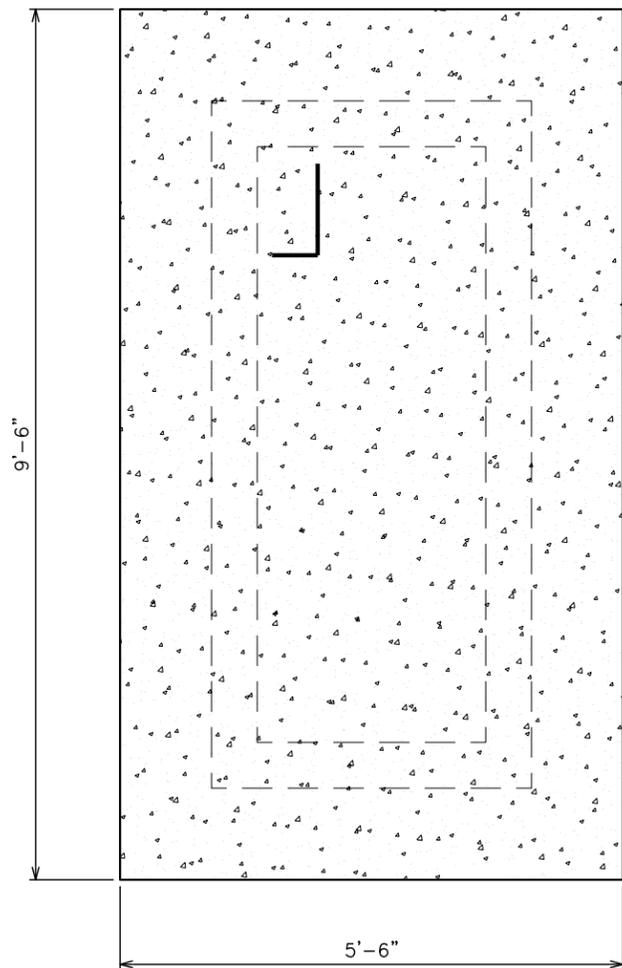
SHEET TITLE:

**FOUNDATION  
DETAILS**

SHEET NUMBER:	REVISION:
<b>C-6</b>	<b>1</b>
	TEP #: 110516

**GENERATOR ANCHORAGE:**

THE GENERATOR CONNECTION TO THE CONCRETE SLAB IS ACHIEVED WITH (8) 1/2"Ø EXPANSION BOLT ASSEMBLIES [(4) BOLTS PER GENERATOR SIDE]. THE CURRENT GENERATOR ATTACHMENT SPECIFICATION IS TO USE (8) 1/2"Ø BOA COIL ANCHORS BY RED HEAD EMBEDDED AT A MINIMUM DEPTH OF 2" OR APPROVED EQUAL. CONTACT TEP FOR APPROVAL OF ALTERNATE ATTACHMENT METHOD.



**SPECIFICATIONS / CODES:**

1. ALL CONCRETE WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF THE AMERICAN CONCRETE INSTITUTE (ACI) BUILDING CODE.
2. ALL STEEL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) MANUAL, 13th EDITION.
3. ALL WELDING SHALL BE PERFORMED IN ACCORDANCE WITH THE AMERICAN WELDING SOCIETY (AWS), D1.1-04 "STRUCTURAL WELDING CODE-STEEL".
4. REINFORCING STEEL SHALL BE PLACED IN ACCORDANCE WITH THE CONCRETE REINFORCING STEEL INSTITUTE (CRSI), "MANUAL OF STANDARD PRACTICE".

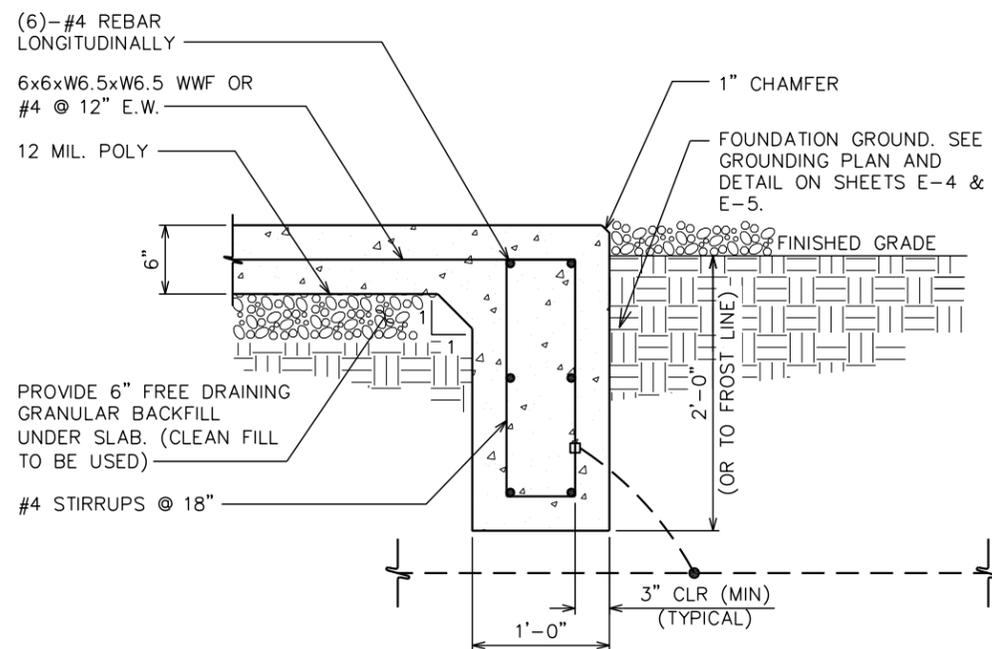
**GENERAL STRUCTURAL NOTES:**

SCALE: N.T.S.

1. FOUNDATION DESIGN IS BASED ON A 2000 PSF SOIL BEARING CAPACITY. IF OTHER CONDITIONS EXIST, FOUNDATION SHALL BE REDESIGNED. CONTRACTOR SHALL HAVE SOIL BEARING CAPACITY VERIFIED BY A LICENSED PROFESSIONAL GEOTECHNICAL ENGINEER PRIOR TO INITIATION OF CONSTRUCTION ACTIVITIES.
2. CONCRETE SHALL BE 3000 PSI @ 28 DAYS.
3. REBAR  $F_y = 60,000$  PSI ASTM A615 GRADE 60
4. ALL BACKFILL SHALL BE THOROUGHLY COMPACTED TO A MINIMUM OF 95% DENSITY USING THE MODIFIED PROCTOR METHOD.
5. SURFACE OF FINISHED SLAB SHALL BE LEVEL AND FLAT WITHIN 1/4".
6. CONTRACTOR SHALL VERIFY WITH THE MANUFACTURER ACTUAL DIMENSIONS OF THE GENERATOR PRIOR TO LAYING OUT FOUNDATION.

**FOUNDATION NOTES:**

SCALE: N.T.S.



PLANS PREPARED FOR:



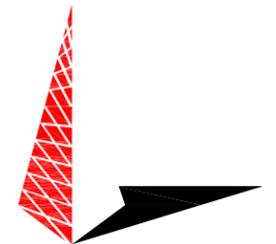
3318 GARNER ROAD, BLDG. 2  
 RALEIGH, NC 27607  
 OFFICE: (919) 662-4440

PROJECT INFORMATION:

**FOX MOUNTAIN  
 SITE # HP-1364  
 SCO ID # 10-08449-011**

426 FOX MOUNTAIN ROAD  
 STATESVILLE, NC 28625  
 (IREDELL COUNTY)

PLANS PREPARED BY:



**TOWER ENGINEERING PROFESSIONALS**  
 3703 JUNCTION BOULEVARD  
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SEAL:



1	04-19-12	CONSTRUCTION
0	10-13-11	PRELIMINARY CONSTRUCTION
REV	DATE	ISSUED FOR:

DRAWN BY: TRG CHECKED BY: JBG

SHEET TITLE:  
**GENERATOR  
 FOUNDATION  
 DETAILS**

SHEET NUMBER: **C-7** REVISION: **1**  
 TEP #: 110516

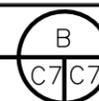
**GENERATOR FOUNDATION PLAN**

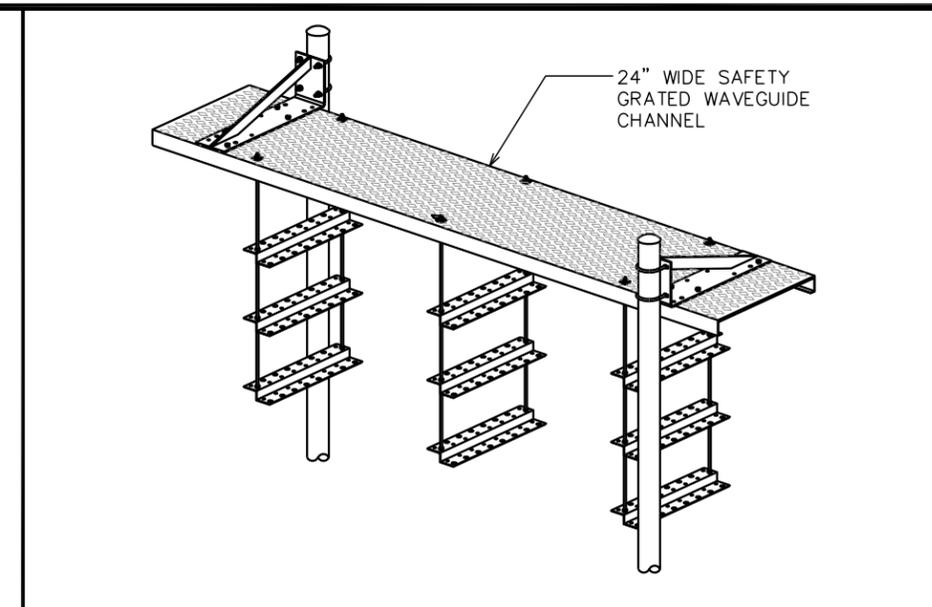
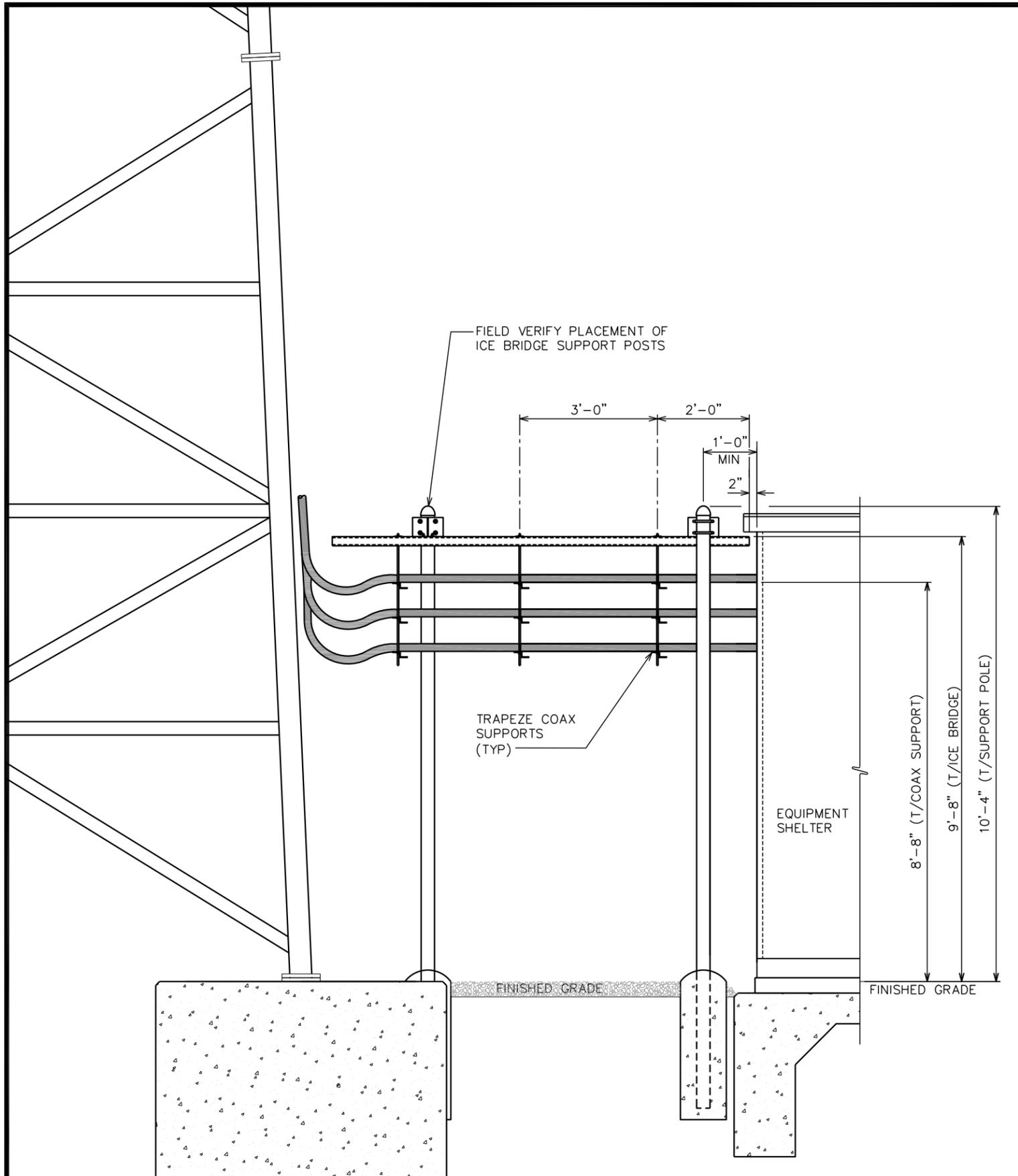
SCALE: 1/2" = 1'-0"



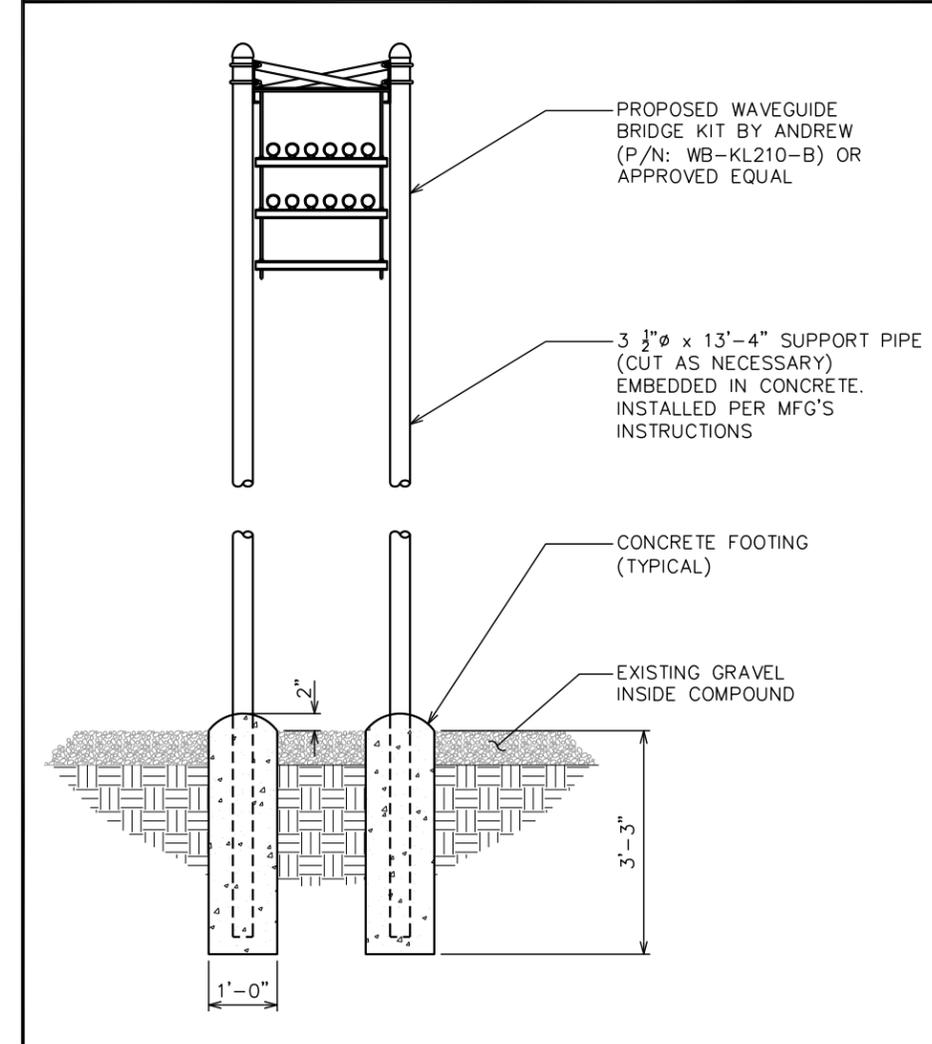
**SECTION**

SCALE: 3/4" = 1'-0"





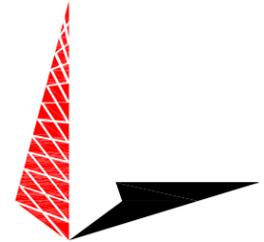
**ISOMETRIC VIEW**  
SCALE: N.T.S.



**SIDE VIEW**  
SCALE: 3/8" = 1'-0"  
SCALE IN FEET

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

PROJECT INFORMATION:  
**FOX MOUNTAIN**  
**SITE # HP-1364**  
**SCO ID # 10-08449-011**  
 426 FOX MOUNTAIN ROAD  
 STATESVILLE, NC 28625  
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PLANS PREPARED BY:  
  
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SEAL:  
  
 JOHN B. GOINS  
 April 19, 2012

REV	DATE	ISSUED FOR:
1	04-19-12	CONSTRUCTION
0	10-13-11	PRELIMINARY CONSTRUCTION

DRAWN BY: TRG CHECKED BY: JBG

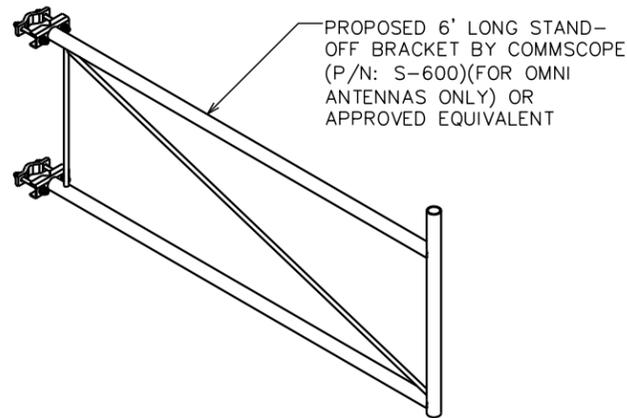
SHEET TITLE:  
**ICE BRIDGE DETAILS**

SHEET NUMBER: **C-8** REVISION: **1**  
 TEP #: 110516

**ICE BRIDGE DETAIL**  
 SCALE: 3/8" = 1'-0"  
 SCALE IN FEET

**NOTE:**

- COORDINATE ORDERING OF MATERIALS WITH COMMSCOPE (800) 255-1479.
- LEG SIZE (VERIFY WITH TOWER MANUFACTURER): T.B.D.



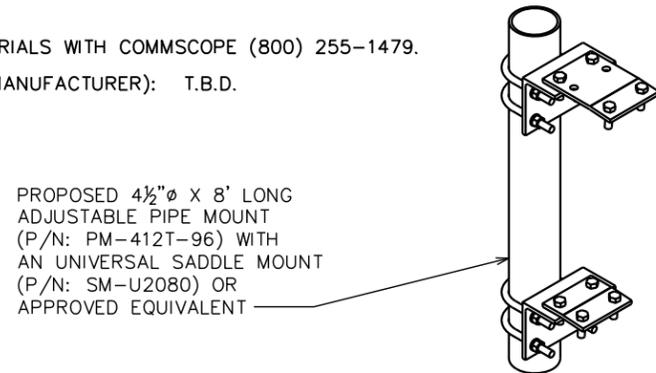
PROPOSED 6' LONG STAND-OFF BRACKET BY COMMSCOPE (P/N: S-600)(FOR OMNI ANTENNAS ONLY) OR APPROVED EQUIVALENT

**TYPICAL OMNI MOUNT DETAIL**

SCALE: N.T.S.

**NOTE:**

- COORDINATE ORDERING OF MATERIALS WITH COMMSCOPE (800) 255-1479.
- LEG SIZE (VERIFY WITH TOWER MANUFACTURER): T.B.D.

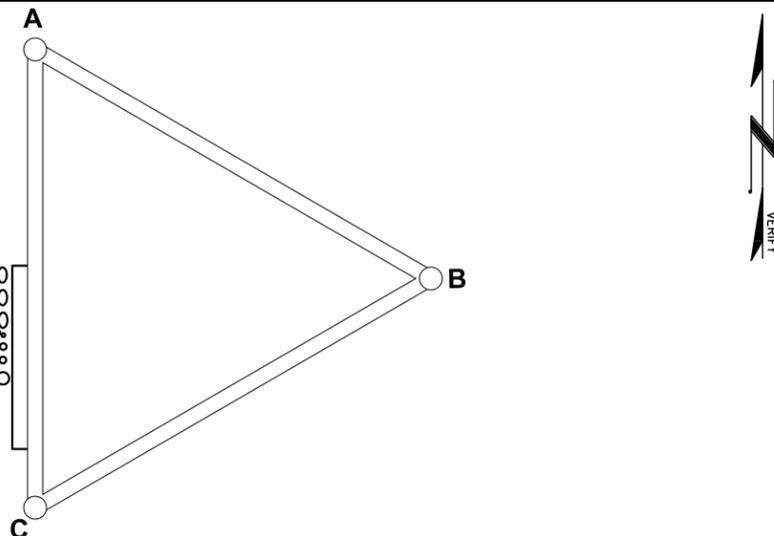


PROPOSED 4 1/2"Ø X 8' LONG ADJUSTABLE PIPE MOUNT (P/N: PM-412T-96) WITH AN UNIVERSAL SADDLE MOUNT (P/N: SM-U2080) OR APPROVED EQUIVALENT

**TYPICAL MICROWAVE MOUNT DETAIL**

SCALE: N.T.S.

- (3) EW63 TO BE ROUTED TO 85', 95', & 110' ON AN PROPOSED WAVEGUIDE
- (1) 1/2 TO BE ROUTED TO 150' ON AN PROPOSED WAVEGUIDE
- (1) 7/8 TO BE ROUTED TO 150' ON AN PROPOSED WAVEGUIDE
- (1) 1 1/8 TO BE ROUTED TO 120' ON AN PROPOSED WAVEGUIDE



**NOTE:**

COAX TO BE PLACED PER STRUCTURAL ANALYSIS BY TOWER MANUFACTURER.

**COAX PLAN**

SCALE: N.T.S.

**ANTENNA / COAX SCHEDULE**

ITEM	MANUFACTURER (MODEL #)	SYSTEM	ITEM DESCRIPTION	AZIMUTH	MOUNTING HEIGHT	CABLE MAKE/MODEL	COAX SIZE	COAX LENGTH
1	DECIBEL DB-810	800 MHz TRUNKING (RX)	OMNI	N/A	150'±	COMMSCOPE CR-1070-PE	7/8	T.B.D.
2	TX/RX CORP	800 MHz TRUNKING (RX)	TMA	N/A	150'±	COMMSCOPE (2)CR-540-PE CR-1070-PE	1/2, 7/8	170'±
3	DECIBEL DB-810	800 MHz TRUNKING (TX)	OMNI	N/A	120'±	COMMSCOPE CR-1873-PE	1 1/8	170'±
4	RFS DB-220-3B	IREDELL COUNTY FIRE	OMNI	N/A	150'±	T.B.D.	T.B.D.	T.B.D.
5	RFS DB-220-3B	IREDELL COUNTY EMS	OMNI	N/A	120'±	T.B.D.	T.B.D.	T.B.D.
6	RFS DB-220-3B	IREDELL COUNTY LOCAL	OMNI	N/A	120'±	T.B.D.	T.B.D.	T.B.D.
7	*RFS 455-7N	IREDELL COUNTY FUTUE	OMNI	N/A	120'±	T.B.D.	T.B.D.	T.B.D.
8	*RFS 455-7N	IREDELL COUNTY FUTUE	OMNI	N/A	T.B.D.±	T.B.D.	T.B.D.	T.B.D.
9	RFS 220-3BN	ALEXANDER COUNTY EMS	OMNI	N/A	150'±	T.B.D.	T.B.D.	T.B.D.
10	RFS 220-3BN	ALEXANDER COUNTY SHERIFF	OMNI	N/A	120'±	T.B.D.	T.B.D.	T.B.D.
11	RFS 220-3BN	ALEXANDER COUNTY FIRE	OMNI	N/A	120'±	T.B.D.	T.B.D.	T.B.D.
12	RFS 220-3BN	ALEXANDER COUNTY RESCUE	OMNI	N/A	120'±	T.B.D.	T.B.D.	T.B.D.
13	RFS 220-3BN	ALEXANDER COUNTY BASE RESCUE	OMNI	N/A	90'±	T.B.D.	T.B.D.	T.B.D.
14	RFS 220-3BN	ALEXANDER COUNTY SHERIFF CH. 7	OMNI	N/A	90'±	T.B.D.	T.B.D.	T.B.D.
15	+ ANDREW PAR8-59F	RIVERBEND ROAD M/W	DISH	216°	95'±	ANDREW EW 63	EW63	115'±
16	+ ANDREW PAR8-59F	I-77 REST AREA M/W	DISH	55°	110'±	ANDREW EW 63	EW63	130'±
17	ANDREW PL6-65F	BARRETT MT M/W	DISH	237.2°	85'±	ANDREW EW 63	EW63	105'±
18	*ANDREW --	IREDELL COUNTY	DISH	T.B.D.	80'±	T.B.D.	T.B.D.	T.B.D.
19	*ANDREW --	IREDELL COUNTY	DISH	T.B.D.	80'±	T.B.D.	T.B.D.	T.B.D.
20	*ANDREW --	IREDELL COUNTY	DISH	T.B.D.	80'±	T.B.D.	T.B.D.	T.B.D.
21	*ANDREW --	ALEXANDER COUNTY	DISH	180°	90'±	T.B.D.	T.B.D.	T.B.D.
22	*ANDREW --	ALEXANDER COUNTY	DISH	213°	90'±	T.B.D.	T.B.D.	T.B.D.
23	*ANDREW --	ALEXANDER COUNTY	DISH	0°	80'±	T.B.D.	T.B.D.	T.B.D.
24	*ANDREW --	ALEXANDER COUNTY	DISH	90°	80'±	T.B.D.	T.B.D.	T.B.D.
25	*ANDREW --	ALEXANDER COUNTY	DISH	180°	80'±	T.B.D.	T.B.D.	T.B.D.
26	*ANDREW --	ALEXANDER COUNTY	DISH	270°	80'±	T.B.D.	T.B.D.	T.B.D.

+ ICE SHIELD TO BE INSTALLED ABOVE ANTENNA

\* FUTURE ANTENNAS TO BE INSTALLED

PLANS PREPARED FOR:



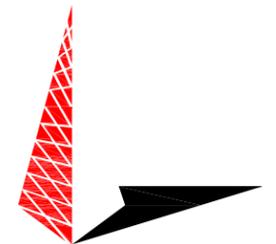
3318 GARNER ROAD, BLDG. 2  
RALEIGH, NC 27607  
OFFICE: (919) 662-4440

PROJECT INFORMATION:

**FOX MOUNTAIN  
SITE # HP-1364  
SCO ID # 10-08449-011**

426 FOX MOUNTAIN ROAD  
STATESVILLE, NC 28625  
(IREDELL COUNTY)

PLANS PREPARED BY:



**TOWER ENGINEERING PROFESSIONALS**  
3703 JUNCTION BOULEVARD  
RALEIGH, NC 27603-5263  
OFFICE: (919) 661-6351  
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N.C. LICENSE # C-1794

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DRAWN BY: TRG CHECKED BY: JBG

SHEET TITLE:

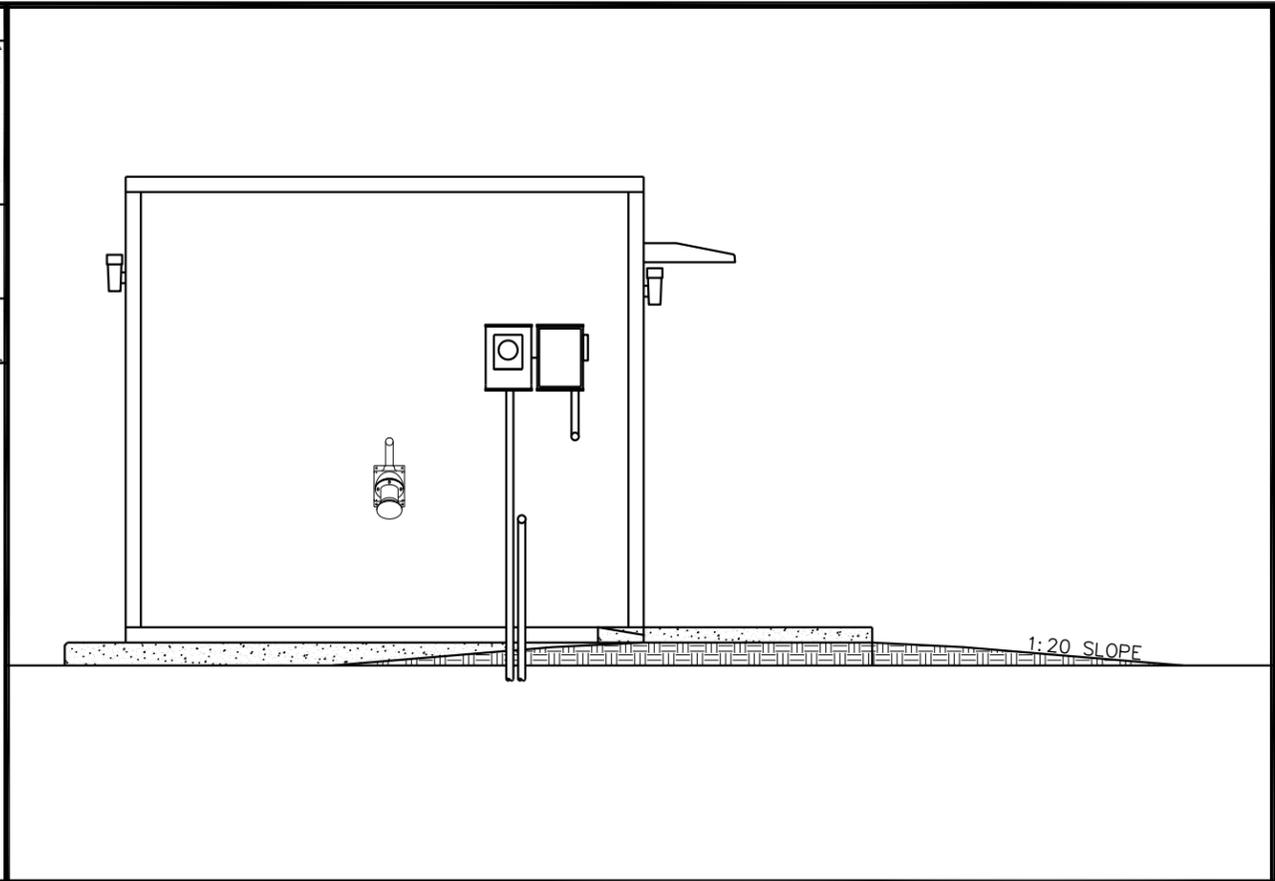
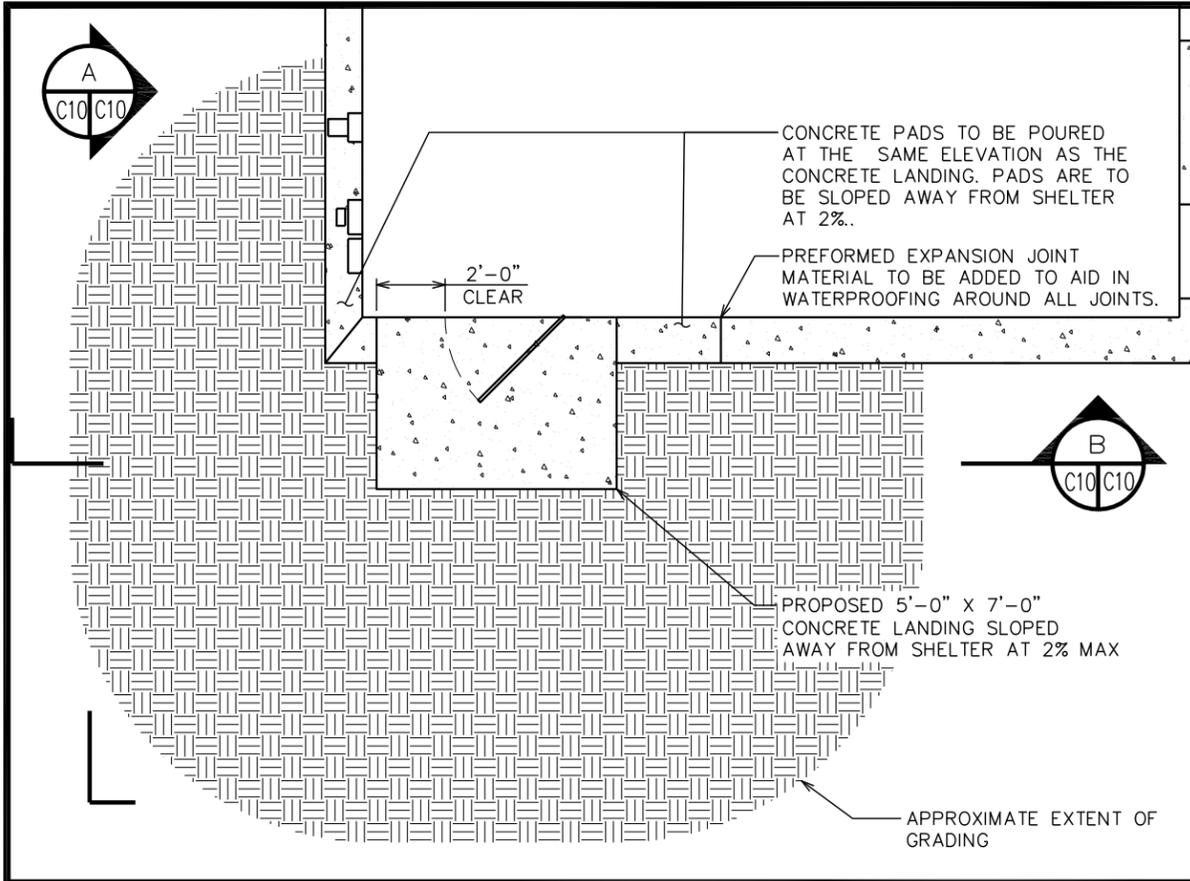
**ANTENNA & COAX  
MOUNTING DETAILS**

SHEET NUMBER: REVISION:

**C-9**

**1**

TEP #: 110516

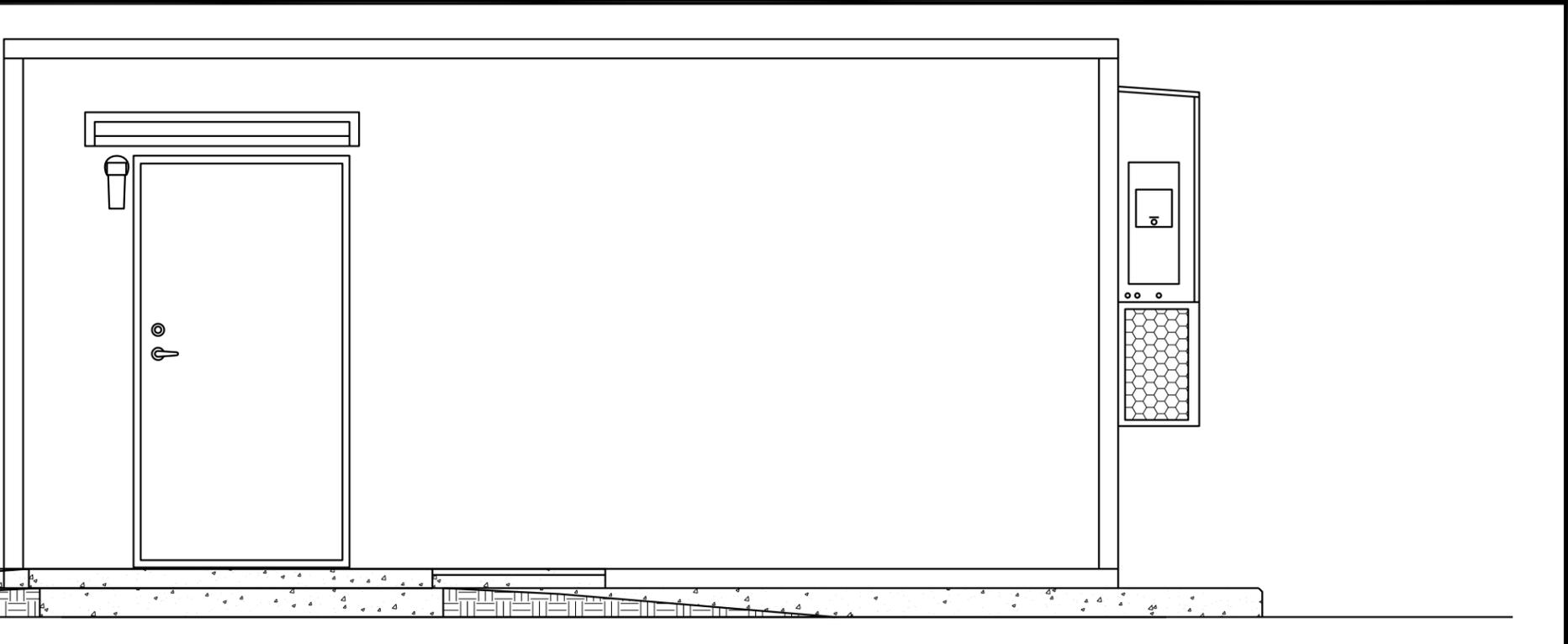


**LANDING OVERVIEW**  
SCALE: 3/16" = 1'-0"

**SECTION** A  
SCALE: 1/4" = 1'-0"

**NOTE:**

1. THE MAXIMUM ELEVATION DIFFERENCE BETWEEN THE LANDING SURFACE AND FINISHED GRADE SHALL BE NO GREATER THAN 1/2"



**SECTION** B  
SCALE: 3/8" = 1'-0"

PLANS PREPARED FOR:

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

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SEAL:

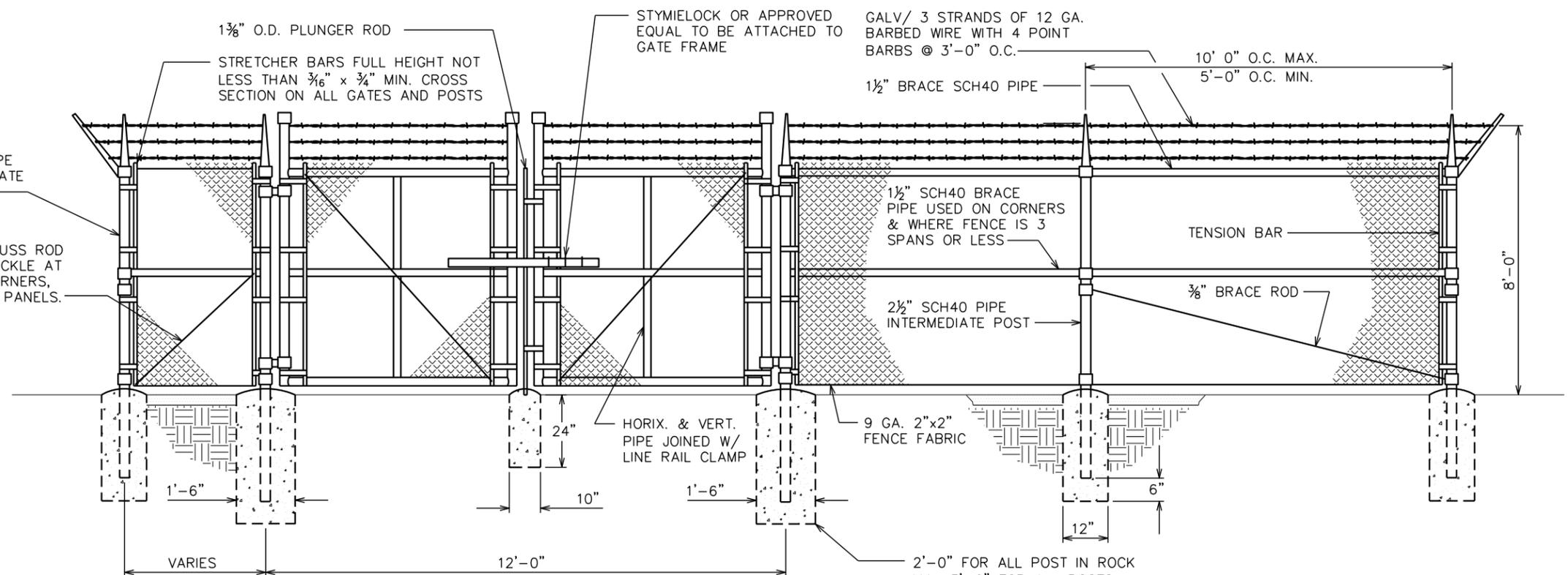
April 19, 2012

REV	DATE	ISSUED FOR:
1	04-19-12	CONSTRUCTION
0	10-13-11	PRELIMINARY CONSTRUCTION

DRAWN BY: TRG CHECKED BY: JBG

SHEET TITLE:  
**SHELTER ACCESS  
DETAILS**

SHEET NUMBER: **C-10** REVISION: **1**  
TEP #: 110516

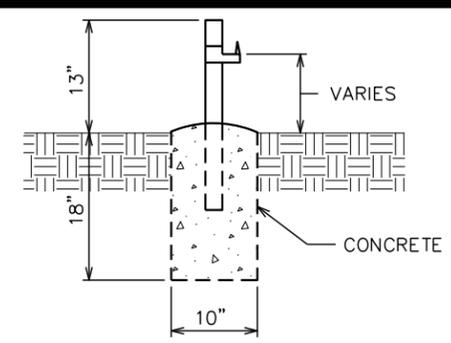


**NOTES:**

1. GATE LATCH: 1- $\frac{3}{8}$ " O.D. PLUNGER ROD WITH MUSHROOM TYPE CATCH AND LOCK, KEYED ALIKE FOR ALL SITES IN A GIVEN MTA.
2. LOCAL ORDINANCE OF BARBED WIRE PERMIT REQUIREMENT SHALL BE COMPLIED IF REQUIRED.
3. HEIGHT = 7' VERTICAL (UNLESS NOTED OTHERWISE) OR MATCH EXISTING FENCE (IF APPLICABLE AND 1' BARBED WIRE VERTICAL DIMENSION).
4. WARNING SIGNS USING THE INTERNATIONAL SYMBOL OF ELECTRICAL SHOCK HAZARD SHALL BE FURNISHED AND INSTALLED ON THE EXTERIOR OF ALL SIDES OF THE MAIN PERIMETER FENCE AND THE GATE. ADDITIONALLY, SIGNS SHALL BE FURNISHED AND INSTALLED THAT STATE "NO TRESPASSING" IN ENGLISH. THE SIGNS SHALL BE IMPERVIOUS TO WEATHERING AND BE MOUNTED TO AVOID EASE OF REMOVAL BY VANDALS.
5. MAXIMUM  $1\frac{1}{2}$ " GAP UNDER FENCE.
6. ALL OPEN POST REQUIRE CAPS.
7. INSTALL DUCK BILL OPEN GATE HOLDER. VERIFY LOCATION IN FIELD PRIOR TO INSTALLATION.
8. TENSION WIRE: 6 GA. MIN. GALVANIZED STEEL, SHOULD BE CONTINUOUS.

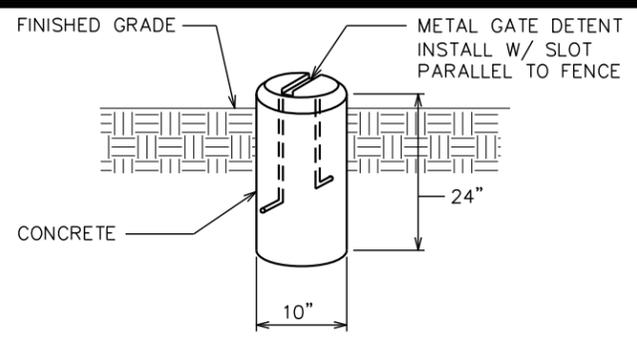
**TYPICAL FENCE ELEVATION**

SCALE: N.T.S.



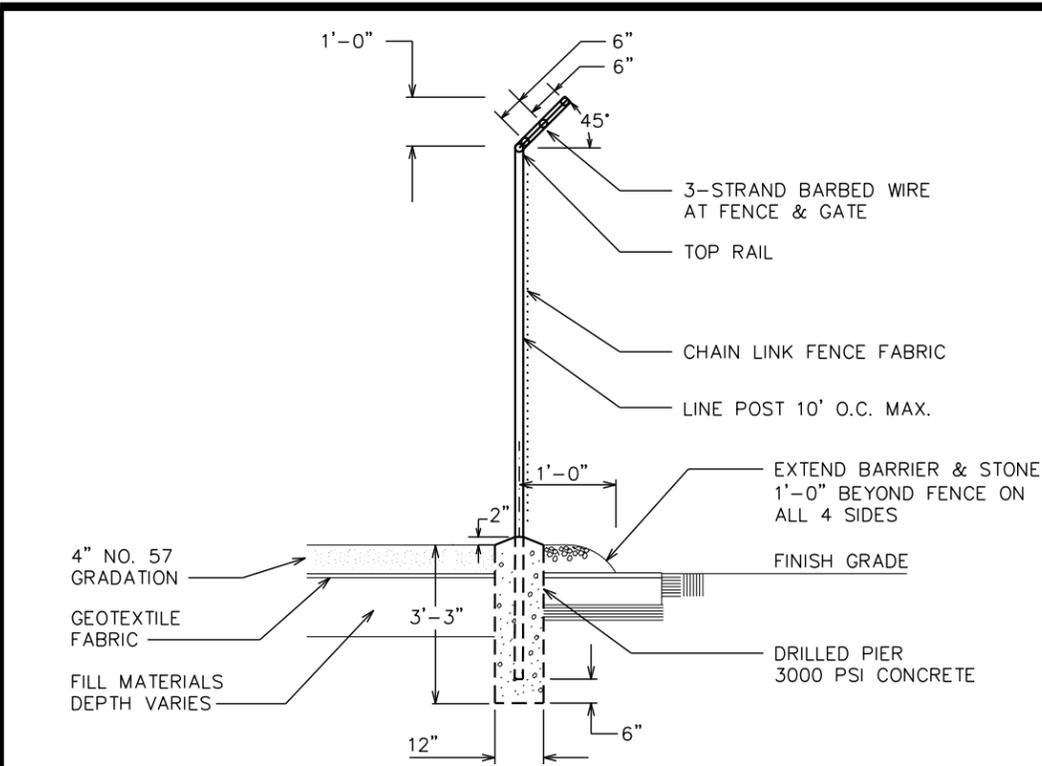
**GATE STOP / KEEPER DETAIL**

SCALE: N.T.S.



**GATE DETENT DETAIL**

SCALE: N.T.S.

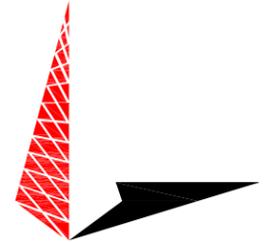


**FENCE / BARBED WIRE ARM DETAIL**

SCALE: N.T.S.

PLANS PREPARED FOR:  
  
 3318 GARNER ROAD, BLDG. 2  
 RALEIGH, NC 27607  
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PROJECT INFORMATION:  
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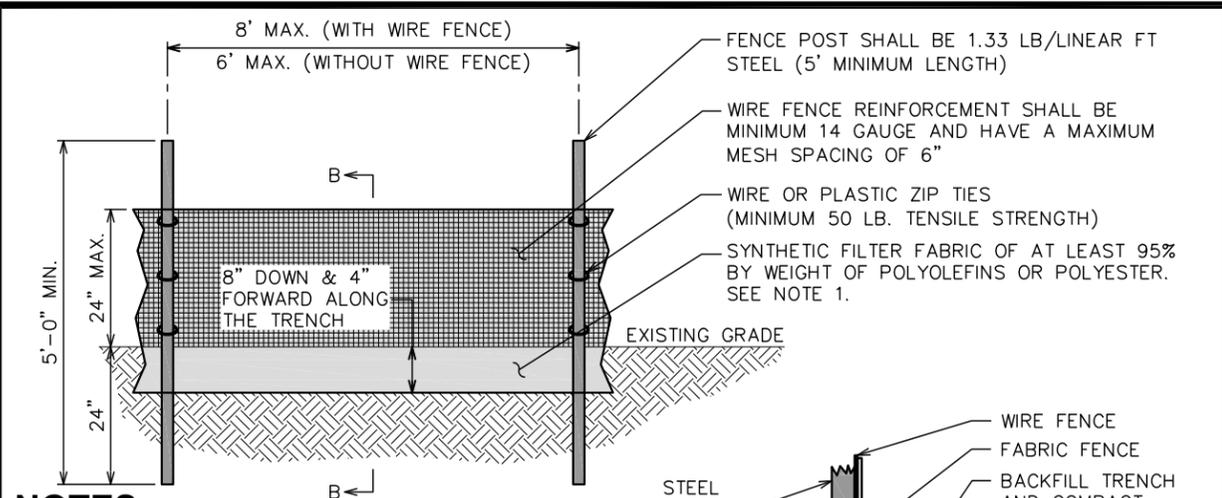
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0	10-13-11	PRELIMINARY CONSTRUCTION

DRAWN BY: TRG CHECKED BY: JBG

SHEET TITLE:  
**FENCE DETAILS**

SHEET NUMBER: **C-11** REVISION: **1**  
 TEP #: 110516





**NOTES:**

FILTER FABRIC SHALL CONFORM TO THE REQUIREMENTS LISTED IN ASTM D 6461.

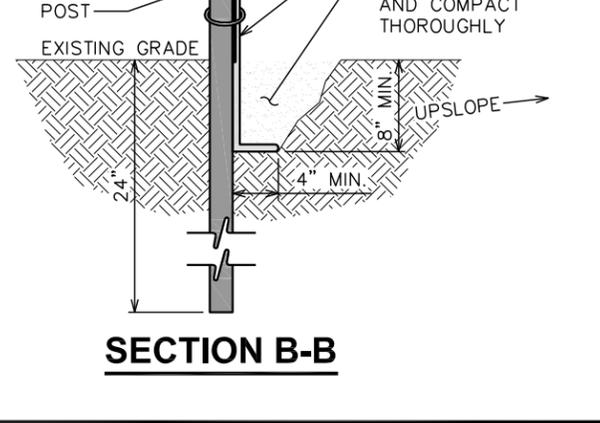
ENDS OF INDIVIDUAL FILTER FABRIC SHALL BE SECURELY FASTENED AT A SUPPORT POST WITH 4 FEET MINIMUM OVERLAP TO THE NEXT POST

PLACE 12 INCHES OF FABRIC ALONG THE BOTTOM AND SIDE OF THE TRENCH.

INSPECT SEDIMENT FENCE(S) AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL.

REMOVE SEDIMENT DEPOSITS AS NECESSARY TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN AND TO REDUCE PRESSURE ON THE FENCE.

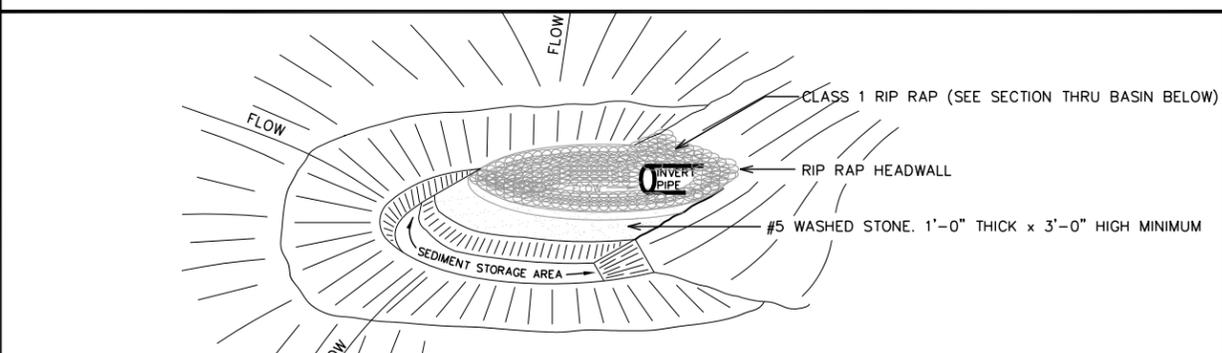
AFTER CONSTRUCTION IS COMPLETE, THE CONTRACTOR SHALL REMOVE ALL FENCING MATERIALS AND UNSTABLE SEDIMENT DEPOSITS, BRING THE AREA TO GRADE AND PROPERLY STABILIZE THE SITE.



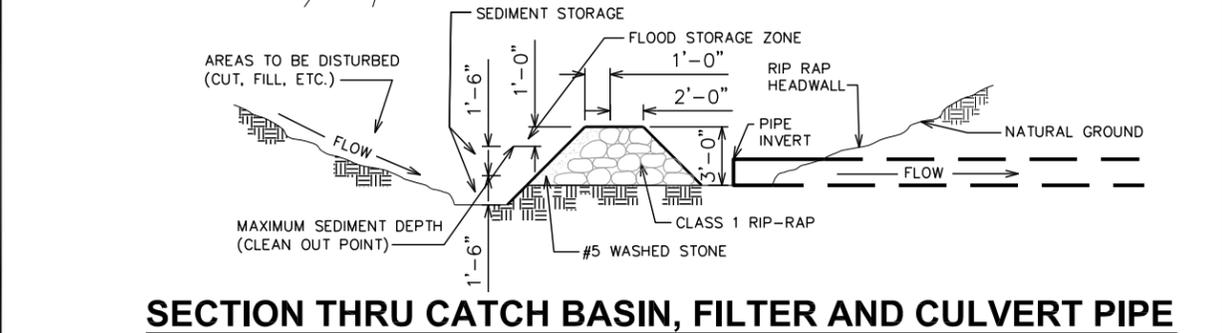
**SECTION B-B**

**SILT FENCE DETAIL**

SCALE: N.T.S.



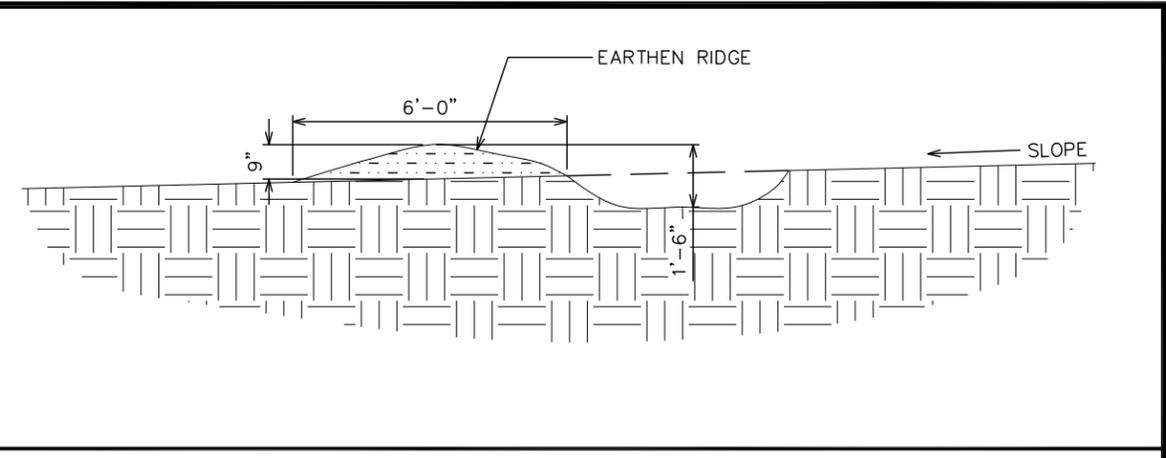
**PERSPECTIVE VIEW**



**SECTION THRU CATCH BASIN, FILTER AND CULVERT PIPE**

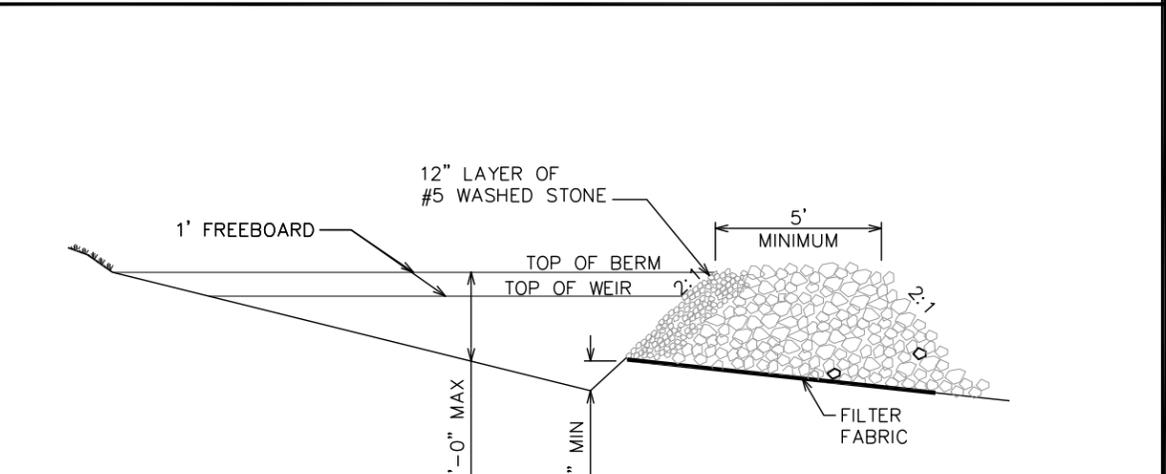
**ROCK PIPE INLET PROTECTION DETAIL**

SCALE: N.T.S.

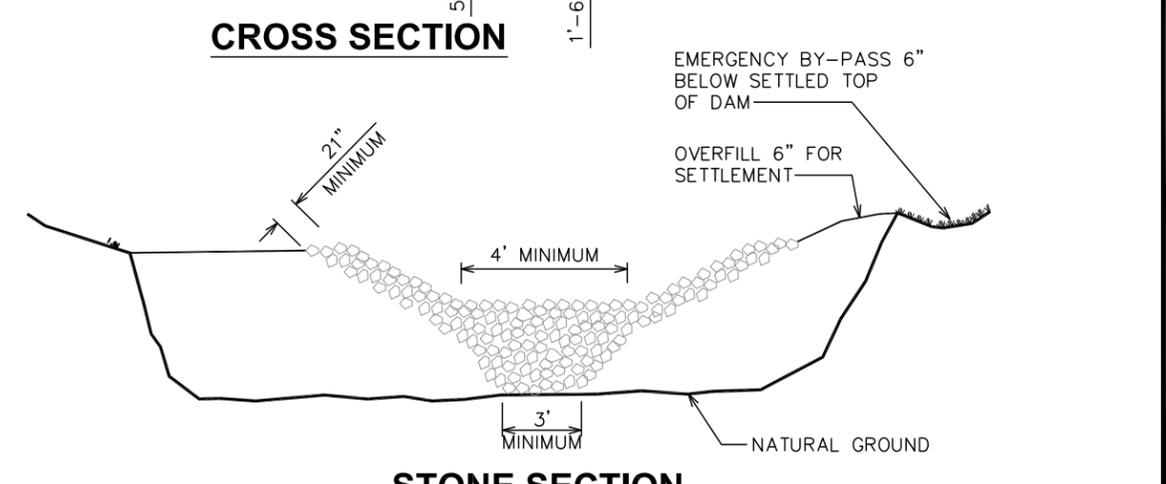


**WATER BAR DETAIL**

SCALE: N.T.S.



**CROSS SECTION**



**STONE SECTION**

**TEMPORARY SEDIMENT TRAP**

SCALE: N.T.S.

PLANS PREPARED FOR:



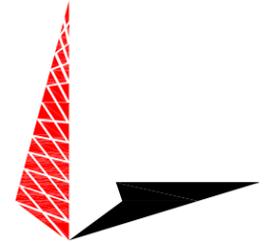
3318 GARNER ROAD, BLDG. 2  
RALEIGH, NC 27607  
OFFICE: (919) 662-4440

PROJECT INFORMATION:

**FOX MOUNTAIN  
SITE # HP-1364  
SCO ID # 10-08449-011**

426 FOX MOUNTAIN ROAD  
STATESVILLE, NC 28625  
(IREDELL COUNTY)

PLANS PREPARED BY:



**TOWER ENGINEERING PROFESSIONALS**  
3703 JUNCTION BOULEVARD  
RALEIGH, NC 27603-5263  
OFFICE: (919) 661-6351  
www.tepgroup.net

N.C. LICENSE # C-1794

SEAL:



April 19, 2012

REV	DATE	ISSUED FOR:
1	04-19-12	CONSTRUCTION
0	10-13-11	PRELIMINARY CONSTRUCTION

DRAWN BY: TRG CHECKED BY: JBG

SHEET TITLE:

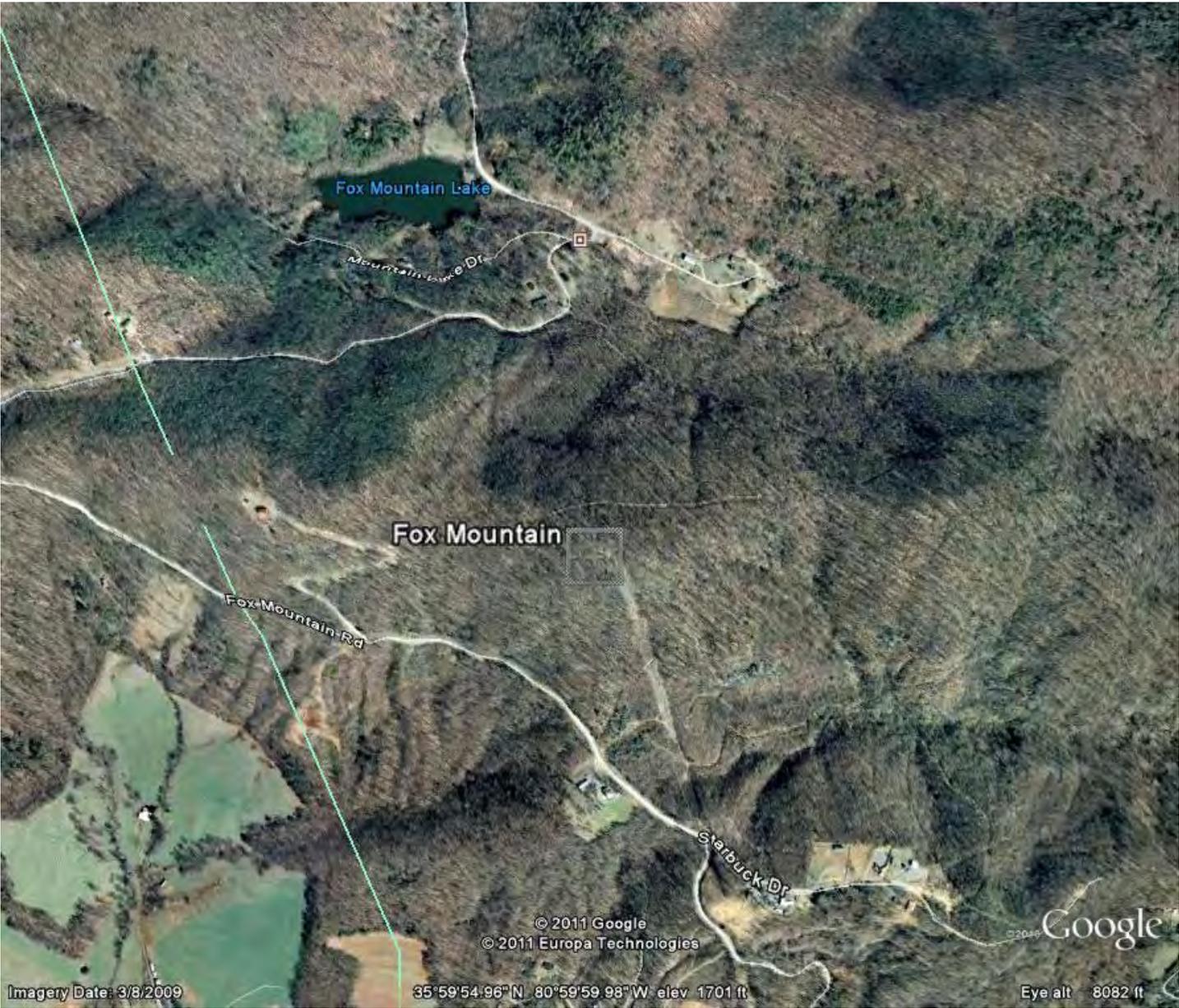
**EROSION CONTROL  
DETAILS**

SHEET NUMBER: **C-13**

REVISION: **1**

TEP #: 110516

**Figure 4: Aerial Photograph**



Fox Mountain Lake

Mountain Lake Dr

Fox Mountain

Fox Mountain Rd

Starbuck Dr

© 2011 Google  
© 2011 Europa Technologies

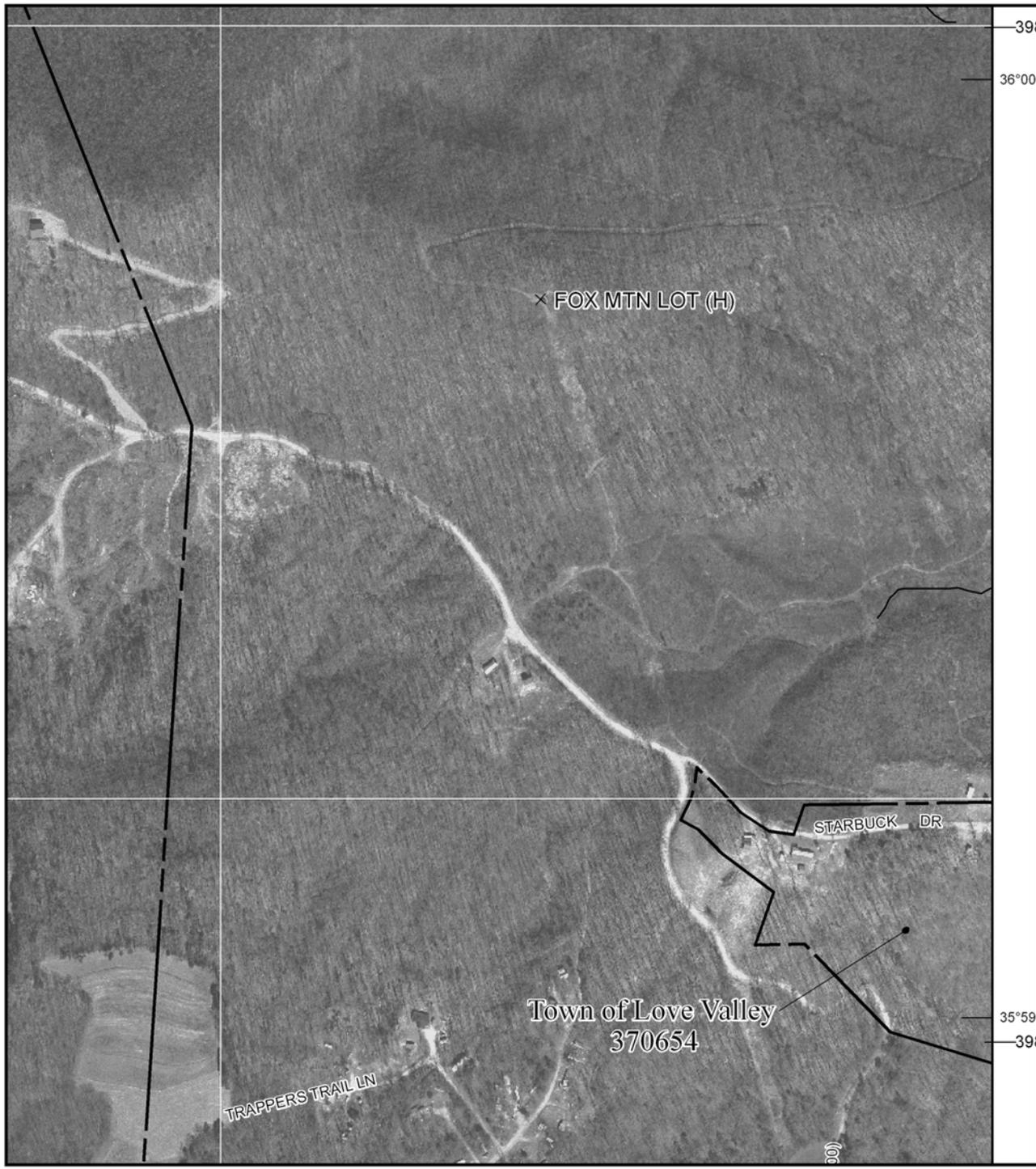
Google

Imagery Date: 3/8/2009

35°59'54.96" N 80°59'59.98" W elev. 1701 ft

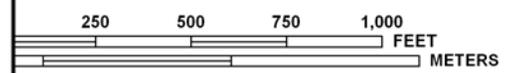
Eye alt 8082 ft

**Figure 5: FEMA Flood Insurance Rate Map**



**GRID NORTH**

**SCALE 1" = 500' (1 : 6,000)**



**PANEL 4802J**

**FIRM**  
**FLOOD INSURANCE RATE MAP**  
**NORTH CAROLINA**

**PANEL 4802**

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

CONTAINS:

<u>COMMUNITY</u>	<u>CID No.</u>	<u>PANEL</u>	<u>SUFFIX</u>
ALEXANDER COUNTY	370398	4802	J
IREDELL COUNTY	370313	4802	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**    **MAP NUMBER**  
**MARCH 18, 2008**    **3710480200J**



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](http://www.msc.fema.gov)

# LEGEND



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

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 Elevation 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** Areas 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.



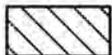
**OTHER FLOOD AREAS**

- 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.

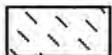


**OTHER AREAS**

- 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)**

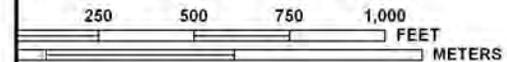
CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- 1% annual chance floodplain boundary
- 0.2% annual chance floodplain boundary



**GRID NORTH**

**SCALE 1" = 500' (1 : 6,000)**



**PANEL 4802J**

## FIRM FLOOD INSURANCE RATE MAP NORTH CAROLINA

**PANEL 4802**

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

**CONTAINS:**

COMMUNITY	CID No.	PANEL	SUFFIX
ALEXANDER COUNTY	370398	4802	J
IREDELL COUNTY	370343	4802	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**    **MAP NUMBER**  
**MARCH 18, 2008**    **3710480200J**



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](http://www.msc.fema.gov)

**Figure 6: National Wetland Inventory Map**



# U.S. Fish and Wildlife Service National Wetlands Inventory

Fox Mountain

Feb 3, 2011



## Wetlands

- Freshwater Emergent
- Freshwater Forested/Shrub
- Estuarine and Marine Deepwater
- Estuarine and Marine
- Freshwater Pond
- Lake
- Riverine
- Other

## Riparian

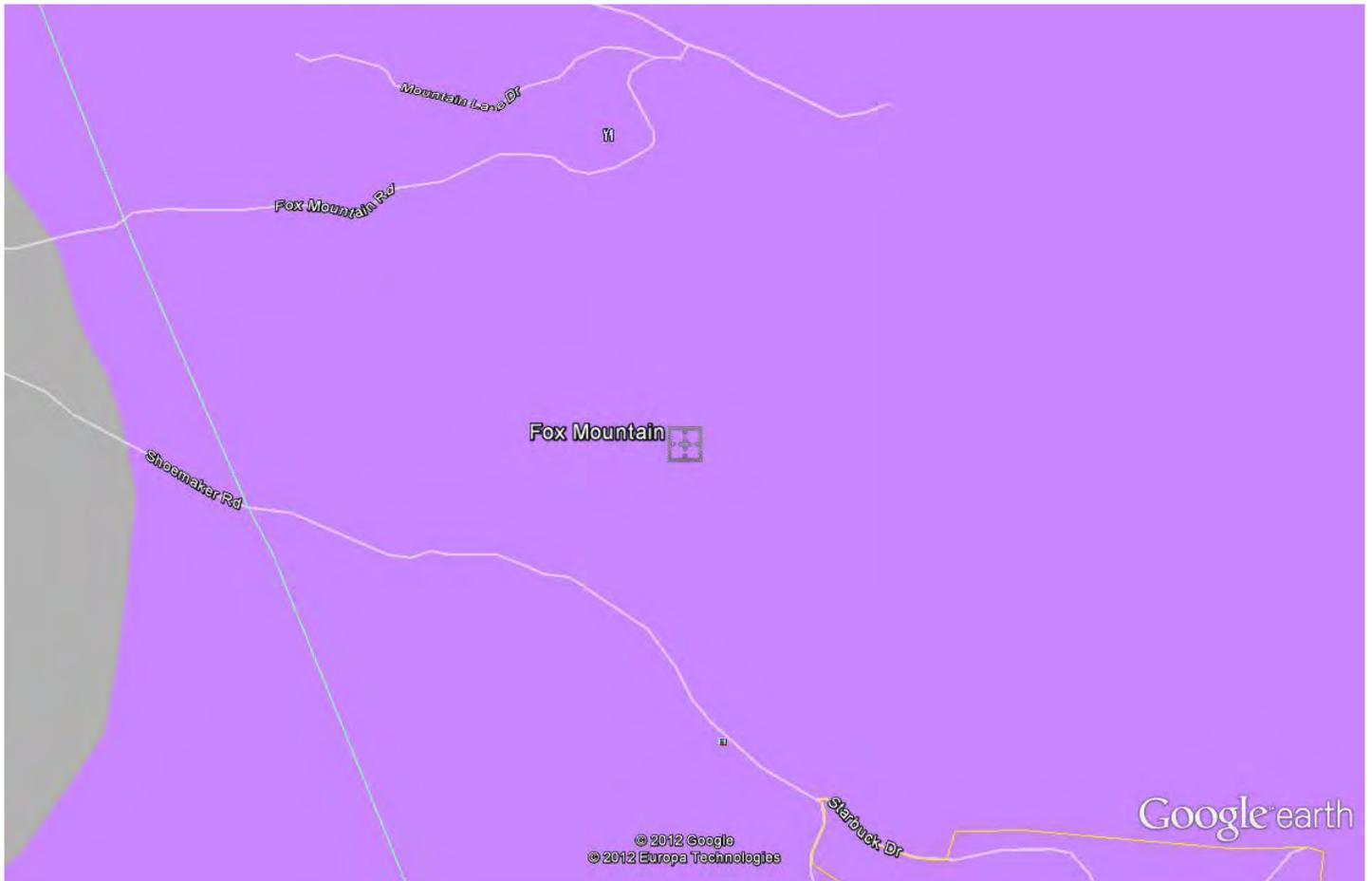
- Herbaceous
- Forested/Shrub

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

## User Remarks:

n 35 59 52.59, w 80 59 58.76

**Figure 7: Geologic Map**



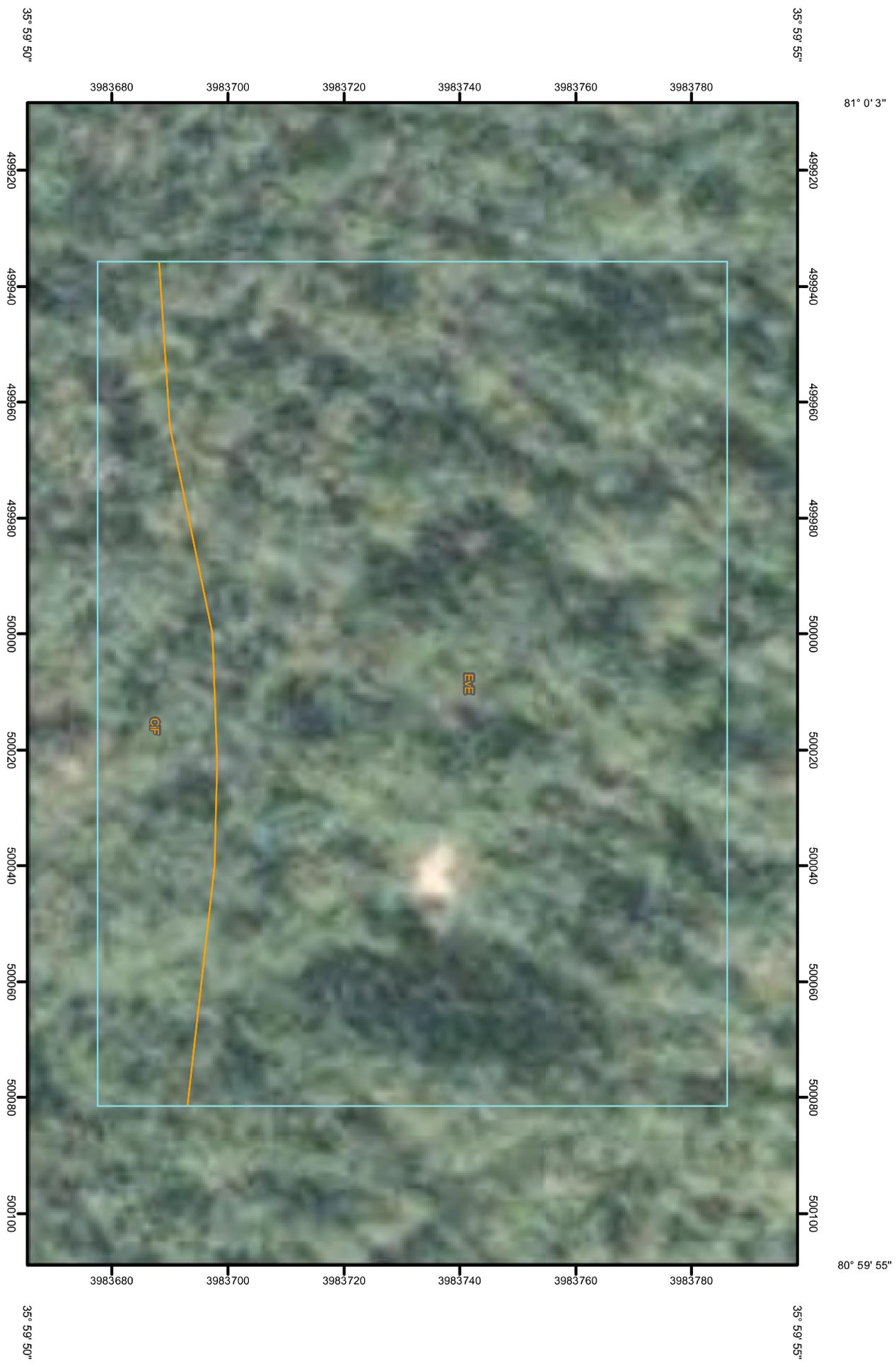
Google earth

feet  
meters



**Figure 8: Soils Map**

Soil Map—Iredell County, North Carolina  
(Fox Mountain)



Map Scale: 1:951 if printed on A size (3.5" x 11") sheet.



## MAP LEGEND

	Area of Interest (AOI)		Very Stony Spot
	Area of Interest (AOI)		Wet Spot
	Soils		Other
	Soil Map Units		Other
	Special Point Features		Other
	Blowout		Cities
	Borrow Pit		Streams and Canals
	Clay Spot		Interstate Highways
	Closed Depression		Rails
	Gravel Pit		US Routes
	Gravelly Spot		Major Roads
	Landfill		Local Roads
	Lava Flow		
	Marsh or swamp		
	Mine or Quarry		
	Miscellaneous Water		
	Perennial Water		
	Rock Outcrop		
	Saline Spot		
	Sandy Spot		
	Severely Eroded Spot		
	Sinkhole		
	Slide or Slip		
	Sodic Spot		
	Spoil Area		
	Stony Spot		

## MAP INFORMATION

Map Scale: 1:951 if printed on A size (8.5" x 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:12,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service  
Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>  
Coordinate System: UTM Zone 17N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Iredell County, North Carolina  
Survey Area Data: Version 17, Mar 18, 2011

Date(s) aerial images were photographed: 7/17/2006

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

## Map Unit Legend

Iredell County, North Carolina (NC097)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
CiF	Cleveland-Rock outcrop complex, 8 to 90 percent slopes	0.6	15.6%
EvE	Evard-Cowee complex, 8 to 25 percent slopes, stony	3.3	84.4%
<b>Totals for Area of Interest</b>		<b>3.9</b>	<b>100.0%</b>

## **Appendices**

## **Appendix A: Site Photographs**



1. View from Fox Mountain Road facing northeast along the existing earthen path.



2. View facing north along existing earthen path.



3. View of existing 18" RCP to be replaced.



4. View facing west along existing earthen path.



5. View of proposed tower compound lease area.



6. View of proposed tower compound lease area.

## **Appendix B: FCC NEPA Land Use Compliance Checklist**



**NEPA COMPLIANCE CHECKLIST  
PROPOSED 150-FOOT SELF-SUPPORT  
COMMUNICATIONS TOWER**

**SITE NAME: FOX MOUNTAIN  
SITE NUMBER: HP-1364**

**FOX MOUNTAIN ROAD  
LOVE VALLEY, NC 28625  
(IREDELL COUNTY)**

**LATITUDE: N 35° 59' 52.693" ±  
LONGITUDE: W 80° 59' 59.792" ±**

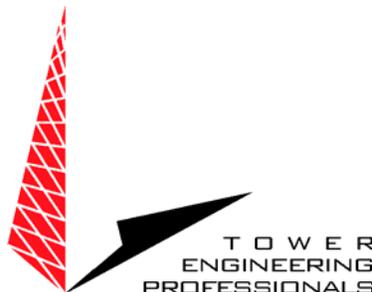
**DATE INSPECTED: MAY 31, 2011  
DATE NEPA ISSUED: SEPTEMBER 23, 2011**



**COMPLETED BY:**

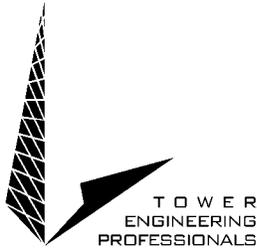
**George T. Swearingen, III**

**Of**



**Project Site Specific  
NEPA Compliance Checklist  
North Carolina Highway Patrol Site  
Fox Mountain  
HP-1364**

September 23, 2011



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

Re: NEPA Checklist  
**NC Highway Patrol Site # HP-1364**  
**Fox Mountain Site**  
**Fox Mountain Road**  
**Love Valley, Iredell County, NC**

Dear Ms. Luter:

Tower Engineering Professionals, Inc. (TEP) conducted a FCC Compliance NEPA Checklist (NEPA) for the proposed lease area associated with the proposed **150-ft (170-ft with appurtenances) AGL Self-Support Lattice Communications Tower** for the site designated as **Fox Mountain (NC Highway Patrol Site # HP-1364)**, and is pleased to submit the findings to the North Carolina Highway Patrol. The proposed site is located on a parcel of real estate in **Iredell County, NC**. The parent property and the adjacent properties were occupied by a mix of low density residential and undeveloped forested 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, with the assistance of Environmental Services, Inc. conducted the Section 106 of the NHPA portion of the NEPA checklist and the Native American consultation. TEP filed the proposed **Fox Mountain** site with the FCC Tower Construction Notification System (TCNS) on **6/9/11** and was assigned TCNS # **77249**. TEP has received correspondence from all of the applicable tribes with known ancestral and/or aboriginal rights to **Iredell County, NC** as identified by the FCC TCNS.

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 **Fox Mountain 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

## **Section I – NEPA Checklist**

# FCC NEPA COMPLIANCE AUDIT CHECKLIST

## FOX MOUNTAIN SITE 150-FT SELF SUPPORT LATTICE TOWER NC HIGHWAY PATROL – DEPARTMENT OF CRIME CONTROL LOVE VALLEY, NC 28625 IREDELL 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 the North Carolina Highway Patrol exceeds the FCC’s exposure limits.

<b>TOWER ENGINEERING PROFESSIONALS, INC.</b>	Date: September 23, 2011
Print Name: George T. Swearingen, III	Signature:

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

1. Designated Wilderness Areas – Based on a review of the National Wilderness Institute Map of Wilderness Areas, Wild & Scenic Rivers, National Natural Landmarks and UN Biosphere Reserves, dated 1995, and the Wilderness.net - U.S. National Wilderness Preservation System Map, the proposed tower site is not located within an officially designated wilderness area.
2. Designated Wildlife Preserves – Based on a review of the US Fish and Wildlife Service: National Wildlife Refuge System Map, dated September 30, 2004, 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 a review of the element occurrences of federally listed threatened and endangered species and their critical habitats within a 2-mile radius of the proposed tower site, as obtained from the North Carolina Department of Environment and Natural Resources: Natural Heritage Program Online Virtual Workroom, 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 a review of the element occurrences of federally listed threatened and endangered species and their critical habitats within a 2-mile radius of the proposed tower site, as obtained from the North Carolina Department of Environment and Natural Resources: Natural Heritage Program Online Virtual Workroom, 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 the Iredell County Commissioners, Iredell County Planning and Development Department, Iredell County Historic Properties Commission, Iredell County Museums, Statesville Historic District Commission, and the North Carolina Department of Cultural Resources – State Historic Preservation Office (NCDCCR-SHPO), the construction of the proposed tower will “Not Affect” properties listed on or eligible for listing on the National Register of Historic Places within the 0.5-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 #77249 filed 6/9/11, no known Indian religious sites will be affected by the proposed tower site.
6. Floodplains – Based on a review of the floodplain map of the area (FIRM Community-Panel No. 3710480200J, dated March 18, 2008), 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 150-feet (170-ft with appurtenances) AGL and the use of high intensity white lights should not be necessary. The proposed tower is anticipated to be an unlit structure.
- 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.

## **Section II - FCC 620**

Notification Date:

File Number:

## General Information

1) (Select only one) ( <b>NE</b> ) <b>NE</b> – New <b>UA</b> – Update of Application <b>WD</b> – Withdrawal of Application	
2) If this application is for an Update or Withdrawal, enter the file number of the pending application currently on file.	File Number:

## Applicant Information

3) FCC Registration Number (FRN): <b>0001913888</b>
4) Name: <b>North Carolina Highway Patrol - Department of Crime Control and Public Safety</b>

## Contact Name

5) First Name: <b>Tanya</b>	6) MI:	7) Last Name: <b>Luter</b>	8) Suffix:
9) Title: <b>VIPER Project Manager</b>			

## Contact Information

10) P.O. Box:	And /Or	11) Street Address: <b>3318 Garner Rd. Building Two</b>	
12) City: <b>Raleigh</b>		13) State: <b>NC</b>	14) Zip Code: <b>27610</b>
15) Telephone Number: <b>(919)662-4440</b>		16) Fax Number: <b>(919)662-4444</b>	
17) E-mail Address: <b>tluter@NCSHP.org</b>			

## Consultant Information

18) FCC Registration Number (FRN): <b>0018456939</b>
19) Name: <b>Environmental Services, Inc.</b>

## Principal Investigator

20) First Name: <b>Terri</b>	21) MI:	22) Last Name: <b>Russ</b>	23) Suffix:
24) Title: <b>Senior Scientist III</b>			

## Principal Investigator Contact Information

25) P.O. Box:	And /Or	26) Street Address: <b>524 South New Hope Road</b>	
27) City: <b>Raleigh</b>		28) State: <b>NC</b>	29) Zip Code: <b>27610</b>
30) Telephone Number: <b>(919)212-1760</b>		31) Fax Number: <b>(919)212-1707</b>	
32) E-mail Address: <b>truss@ESINC.CC</b>			

**Professional Qualification**

33) Does the Principal Investigator satisfy the Secretary of the Interior's Professional Qualification Standards?	<input checked="" type="checkbox"/> <u>Yes</u> <input type="checkbox"/> <u>No</u>
34) Areas of Professional Qualification: <input checked="" type="checkbox"/> Archaeologist <input type="checkbox"/> Architectural Historian <input type="checkbox"/> Historian <input type="checkbox"/> Architect <input type="checkbox"/> Other (Specify) _____	

**Additional Staff**

35) Are there other staff involved who meet the Professional Qualification Standards of the Secretary of the Interior?	<input type="checkbox"/> <u>Yes</u> <input checked="" type="checkbox"/> <u>No</u>
--	---

If "YES," complete the following:

36) First Name:	37) MI:	38) Last Name:	39) Suffix:
40) Title:			
41) Areas of Professional Qualification: <input type="checkbox"/> Archaeologist <input type="checkbox"/> Architectural Historian <input type="checkbox"/> Historian <input type="checkbox"/> Architect <input type="checkbox"/> Other (Specify) _____			

### Site Information

#### Tower Construction Notification System

1) TCNS Notification Number: **77249**

#### Site Information

2) Site Name: **Fox Mountain**

3) Site Address: **Fox Mountain Road**

4) City: **Love Valley**

5) State: **NC**

6) Zip Code: **28625**

7) County/Borough/Parish: **IREDELL**

8) Nearest Crossroads: **Fox Mountain Road/Starbuck Drive**

9) NAD 83 Latitude (DD-MM-SS.S): **35-59-52.6**

(  ) N or (    ) S

10) NAD 83 Longitude (DD-MM-SS.S): **080-59-59.7**

(    ) E or (  ) W

#### Tower Information

11) Tower height above ground level (include top-mounted attachments such as lightning rods): **51.8** \_\_\_\_\_ (    ) Feet (  ) Meters

12) Tower Type (Select One):

(    ) Guyed lattice tower

(  ) Self-supporting lattice

(    ) Monopole

(    ) Other (Describe):

#### Project Status

13) Current Project Status (Select One):

(  ) Construction has not yet commenced

(    ) Construction has commenced, but is not completed

Construction commenced on: \_\_\_\_\_

(    ) Construction has been completed

Construction commenced on: \_\_\_\_\_

Construction completed on: \_\_\_\_\_

**Determination of Effect**

14) Direct Effects (Select One):

- (  ) No Historic Properties in Area of Potential Effects (APE)
- (  ) No Effect on Historic Properties in APE
- (  ) No Adverse Effect on Historic Properties in APE
- (  ) Adverse Effect on one or more Historic Properties in APE

15) Visual Effects (Select One):

- (  ) No Historic Properties in Area of Potential Effects (APE)
- (  ) No Effect on Historic Properties in APE
- (  ) No Adverse Effect on Historic Properties in APE
- (  ) Adverse Effect on one or more Historic Properties in APE

### Tribal/NHO Involvement

1) Have Indian Tribes or Native Hawaiian Organizations (NHOs) been identified that may attach religious and cultural significance to historic properties which may be affected by the undertaking within the APEs for direct and visual effects?	<input checked="" type="checkbox"/> Yes ( ) No
2a) Tribes/NHOs contacted through TCNS Notification Number: <u>77249</u>	Number of Tribes/NHOs: <u>5</u>
2b) Tribes/NHOs contacted through an alternate system:	Number of Tribes/NHOs: <u>0</u>

#### Tribal/NHO Contacted Through TCNS

3) Tribe/NHO FRN:
4) Tribe/NHO Name: <b>Catawba Indian Nation Cultural Preservation Project</b>

#### Contact Name

5) First Name: <b>Dr. Wenonah</b>	6) MI: <b>G</b>	7) Last Name: <b>Haire</b>	8) Suffix:
9) Title: <b>THPO and Executive Director</b>			

#### Dates & Response

10) Date Contacted <u>06/16/2011</u>	11) Date Replied _____
<input checked="" type="checkbox"/> No Reply <input type="checkbox"/> Replied/No Interest <input type="checkbox"/> Replied/Have Interest <input type="checkbox"/> Replied/Other	

#### Tribal/NHO Contacted Through TCNS

3) Tribe/NHO FRN:
4) Tribe/NHO Name: <b>Cherokee Nation</b>

#### Contact Name

5) First Name: <b>Richard</b>	6) MI: <b>L</b>	7) Last Name: <b>Allen</b>	8) Suffix:
9) Title: <b>Policy Analyst</b>			

#### Dates & Response

10) Date Contacted <u>06/15/2011</u>	11) Date Replied _____
<input checked="" type="checkbox"/> No Reply <input type="checkbox"/> Replied/No Interest <input type="checkbox"/> Replied/Have Interest <input type="checkbox"/> Replied/Other	

### Tribal/NHO Involvement

1) Have Indian Tribes or Native Hawaiian Organizations (NHOs) been identified that may attach religious and cultural significance to historic properties which may be affected by the undertaking within the APEs for direct and visual effects?	<input checked="" type="checkbox"/> Yes ( ) No
2a) Tribes/NHOs contacted through TCNS Notification Number: <u>77249</u>	Number of Tribes/NHOs: <u>5</u>
2b) Tribes/NHOs contacted through an alternate system:	Number of Tribes/NHOs: <u>0</u>

#### Tribal/NHO Contacted Through TCNS

3) Tribe/NHO FRN:
4) Tribe/NHO Name: <b>Eastern Shawnee Tribe of Oklahoma</b>

#### Contact Name

5) First Name: <b>Jo Ann</b>	6) MI:	7) Last Name: <b>Beckham</b>	8) Suffix:
9) Title: <b>Administrative Assistant</b>			

#### Dates & Response

10) Date Contacted <u>06/15/2011</u>	11) Date Replied _____
<input checked="" type="checkbox"/> No Reply <input type="checkbox"/> Replied/No Interest <input type="checkbox"/> Replied/Have Interest <input type="checkbox"/> Replied/Other	

#### Tribal/NHO Contacted Through TCNS

3) Tribe/NHO FRN:
4) Tribe/NHO Name: <b>Shawnee Tribe</b>

#### Contact Name

5) First Name: <b>Kim</b>	6) MI:	7) Last Name: <b>Jumper</b>	8) Suffix:
9) Title: <b>THPO</b>			

#### Dates & Response

10) Date Contacted <u>06/16/2011</u>	11) Date Replied <u>06/23/2011</u>
<input type="checkbox"/> No Reply <input type="checkbox"/> Replied/No Interest <input type="checkbox"/> Replied/Have Interest <input checked="" type="checkbox"/> Replied/Other	

### Tribal/NHO Involvement

1) Have Indian Tribes or Native Hawaiian Organizations (NHOs) been identified that may attach religious and cultural significance to historic properties which may be affected by the undertaking within the APEs for direct and visual effects?	( <input checked="" type="checkbox"/> ) Yes ( <input type="checkbox"/> ) No
2a) Tribes/NHOs contacted through TCNS Notification Number: <u>77249</u>	Number of Tribes/NHOs: <u>5</u>
2b) Tribes/NHOs contacted through an alternate system:	Number of Tribes/NHOs: <u>0</u>

#### Tribe/NHO Contacted Through TCNS

3) Tribe/NHO FRN:
4) Tribe/NHO Name: <b>Tuscarora Nation</b>

#### Contact Name

5) First Name: <b>Leo</b>	6) MI: <b>R</b>	7) Last Name: <b>Henry</b>	8) Suffix:
9) Title: <b>Chief</b>			

#### Dates & Response

10) Date Contacted <u>06/16/2011</u>	11) Date Replied _____
( <input checked="" type="checkbox"/> ) No Reply	
( <input type="checkbox"/> ) Replied/No Interest	
( <input type="checkbox"/> ) Replied/Have Interest	
( <input type="checkbox"/> ) Replied/Other	

## Other Tribes/NHOs Contacted

### Tribe/NHO Information

1) FCC Registration Number (FRN):
2) Name:

### Contact Name

3) First Name:	4) MI:	5) Last Name:	6) Suffix:
7) Title:			

### Contact Information

8) P.O. Box:	<b>And /Or</b>	9) Street Address:		
10) City:		11) State:	12) Zip Code:	
13) Telephone Number:		14) Fax Number:		
15) E-mail Address:				
16) Preferred means of communication:  (    ) E-mail  (    ) Letter  (    ) Both				

### Dates & Response

17) Date Contacted _____	18) Date Replied _____
(    ) No Reply  (    ) Replied/No Interest  (    ) Replied/Have Interest  (    ) Replied/Other	

## Historic Properties

### Properties Identified

1) Have any historic properties been identified within the APEs for direct and visual effect?	( ) <u>Y</u> es ( <b>X</b> ) <u>N</u> o
2) Has the identification process located archaeological materials that would be directly affected, or sites that are of cultural or religious significance to Tribes/NHOs?	( ) <u>Y</u> es ( <b>X</b> ) <u>N</u> o
3) Are there more than 10 historic properties within the APEs for direct and visual effect? If "Yes", you are required to attach a Cultural Resources Report in lieu of adding the Historic Property below.	( ) <u>Y</u> es ( <b>X</b> ) <u>N</u> o

### Historic Property

4) Property Name:
5) SHPO Site Number:

### Property Address

6) Street Address:		
7) City:	8) State:	9) Zip Code:
10) County/Borough/Parish:		

### Status & Eligibility

11) Is this property listed on the National Register?  Source: _____	( ) <u>Y</u> es ( ) <u>N</u> o
12) Is this property eligible for listing on the National Register?  Source: _____	( ) <u>Y</u> es ( ) <u>N</u> o
13) Is this property a National Historic Landmark?	( ) <u>Y</u> es ( ) <u>N</u> o

14) Direct Effects (Select One):  <input type="checkbox"/> No Effect on this Historic Property in APE <input type="checkbox"/> No Adverse Effect on this Historic Property in APE <input type="checkbox"/> Adverse Effect on this Historic Property in APE
15) Visual Effects (Select One):  <input type="checkbox"/> No Effect on this Historic Property in APE <input type="checkbox"/> No Adverse Effect on this Historic Property in APE <input type="checkbox"/> Adverse Effect on this Historic Property in APE

## Local Government Involvement

### Local Government Agency

1) FCC Registration Number (FRN):
2) Name: <b>Iredell County Planning and Development Department</b>

### Contact Name

3) First Name: <b>William</b>	4) MI:	5) Last Name: <b>Allison</b>	6) Suffix:
7) Title:			

### Contact Information

8) P.O. Box:	And /Or	9) Street Address: <b>349 North Center Street Building Standards Center</b>	
10) City: <b>Statesville</b>		11) State: <b>NC</b>	12) Zip Code: <b>28677</b>
13) Telephone Number: <b>(704)878-3121</b>		14) Fax Number: <b>(111)111-1111</b>	
15) E-mail Address: <b>wallison@co.iredell.nc.us</b>			
16) Preferred means of communication: <input type="checkbox"/> E-mail <input checked="" type="checkbox"/> Letter <input type="checkbox"/> Both			

### Dates & Response

17) Date Contacted <b>08/09/2011</b>	18) Date Replied _____
<input checked="" type="checkbox"/> No Reply <input type="checkbox"/> Replied/No Interest <input type="checkbox"/> Replied/Have Interest <input type="checkbox"/> Replied/Other	

### Additional Information

19) Information on local government's role or interest (optional): <b>No reply has been received to date</b>
---

## Local Government Involvement

### Local Government Agency

1) FCC Registration Number (FRN):
2) Name: <b>Iredell County Commissioners</b>

### Contact Name

3) First Name: <b>Larry</b>	4) MI:	5) Last Name: <b>Hedrick</b>	6) Suffix:
7) Title: <b>County Commissioner</b>			

### Contact Information

8) P.O. Box: <b>788</b>	And /Or	9) Street Address:	
10) City: <b>Statesville</b>		11) State: <b>NC</b>	12) Zip Code: <b>28687</b>
13) Telephone Number: <b>(704)878-3058</b>		14) Fax Number: <b>(704)878-3053</b>	
15) E-mail Address: <b>jmoore@co.iredell.nc.us</b>			
16) Preferred means of communication: <input type="checkbox"/> E-mail <input checked="" type="checkbox"/> Letter <input type="checkbox"/> Both			

### Dates & Response

17) Date Contacted <b>08/09/2011</b>	18) Date Replied _____
<input checked="" type="checkbox"/> No Reply <input type="checkbox"/> Replied/No Interest <input type="checkbox"/> Replied/Have Interest <input type="checkbox"/> Replied/Other	

### Additional Information

19) Information on local government's role or interest (optional): <b>No reply has been received to date</b>
---

## Other Consulting Parties

### Other Consulting Parties Contacted

1) Has any other agency been contacted and invited to become a consulting party?	( <input checked="" type="checkbox"/> ) Yes ( <input type="checkbox"/> ) No
--	---

### Consulting Party

2) FCC Registration Number (FRN):
3) Name: <b>Iredell Historic Properties Commission</b>

### Contact Name

4) First Name: <b>Mildred</b>	5) MI:	6) Last Name: <b>Miller</b>	7) Suffix:
8) Title:			

### Contact Information

9) P.O. Box: <b>788</b>	And /Or	10) Street Address:
11) City: <b>Statesville</b>	12) State: <b>NC</b>	13) Zip Code: <b>28687</b>
14) Telephone Number: <b>(704)878-5384</b>	15) Fax Number: <b>(111)111-1111</b>	
16) E-mail Address: <b>unknown@unknown.com</b>		
17) Preferred means of communication:  ( <input type="checkbox"/> ) E-mail ( <input checked="" type="checkbox"/> ) Letter ( <input type="checkbox"/> ) Both		

### Dates & Response

18) Date Contacted <u>08/09/2011</u>	19) Date Replied _____
( <input checked="" type="checkbox"/> ) No Reply	
( <input type="checkbox"/> ) Replied/No Interest	
( <input type="checkbox"/> ) Replied/Have Interest	
( <input type="checkbox"/> ) Replied/Other	

### Additional Information

20) Information on other consulting parties' role or interest (optional): <b>No reply has been received to date</b>
--

### Other Consulting Parties

#### Other Consulting Parties Contacted

1) Has any other agency been contacted and invited to become a consulting party?	<input checked="" type="checkbox"/> Yes ( ) No
--	--

#### Consulting Party

2) FCC Registration Number (FRN):
3) Name: <b>Statesville Historic District Commission</b>

#### Contact Name

4) First Name: <b>Gary</b>	5) MI:	6) Last Name: <b>Huss</b>	7) Suffix:
8) Title:			

#### Contact Information

9) P.O. Box: <b>1111</b>	And /Or	10) Street Address:		
11) City: <b>Statesville</b>		12) State: <b>NC</b>	13) Zip Code: <b>28687</b>	
14) Telephone Number: <b>(704)878-3578</b>		15) Fax Number: <b>(704)878-3464</b>		
16) E-mail Address: <b>gary_huss@ci.statesville.nc.us</b>				
17) Preferred means of communication: ( ) E-mail ( <input checked="" type="checkbox"/> ) Letter ( ) Both				

#### Dates & Response

18) Date Contacted <u>08/09/2011</u>	19) Date Replied _____
( <input checked="" type="checkbox"/> ) No Reply	
( ) Replied/No Interest	
( ) Replied/Have Interest	
( ) Replied/Other	

#### Additional Information

20) Information on other consulting parties' role or interest (optional): <b>No reply has been recieved to date</b>
--

Other Consulting Parties

Other Consulting Parties Contacted

1) Has any other agency been contacted and invited to become a consulting party?	( <input checked="" type="checkbox"/> ) Yes ( <input type="checkbox"/> ) No
--	---

Consulting Party

2) FCC Registration Number (FRN):
3) Name: <b>Iredell Museums</b>

Contact Name

4) First Name: <b>Teresa</b>	5) MI:	6) Last Name: <b>Golas</b>	7) Suffix:
8) Title: <b>Exevutive Director</b>			

Contact Information

9) P.O. Box: <b>223</b>	And /Or	10) Street Address: <b>134 Court Street</b>	
11) City: <b>Statesville</b>		12) State: <b>NC</b>	13) Zip Code: <b>28687</b>
14) Telephone Number: <b>(704)873-4734</b>		15) Fax Number: <b>(704)873-4407</b>	
16) E-mail Address: <b>tgolas@iredellmuseums.org</b>			
17) Preferred means of communication: <input type="checkbox"/> E-mail <input checked="" type="checkbox"/> Letter <input type="checkbox"/> Both			

Dates & Response

18) Date Contacted <u>08/09/2011</u>	19) Date Replied _____
<input checked="" type="checkbox"/> No Reply <input type="checkbox"/> Replied/No Interest <input type="checkbox"/> Replied/Have Interest <input type="checkbox"/> Replied/Other	

Additional Information

20) Information on other consulting parties' role or interest (optional): <b>No reply has been received to date</b>
--

### Designation of SHPO/THPO

1) Designate the Lead State Historic Preservation Officer (SHPO) or Tribal Historic Preservation Officer (THPO) based on the location of the tower.

**SHPO/THPO**

Name: <u>NC Historic Preservation Office (Deputy SHPO)</u>
--

2) You may also designate up to three additional SHPOs/THPOs if the APEs include multiple states. If the APEs include other countries, enter the name of the National Historic Preservation Agency and any state and provincial Historic Preservation Agency.

SHPO/THPO Name: _____
SHPO/THPO Name: _____
SHPO/THPO Name: _____

### Certification

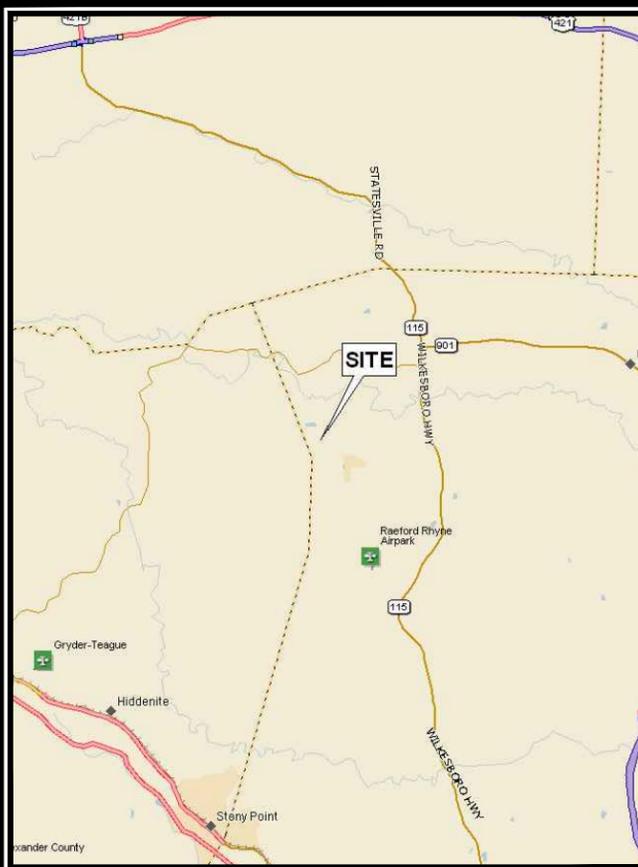
I certify that all representations on this FCC Form 620 Submission Packet and the accompanying attachments are true, correct, and complete.			
<b>Party Authorized to Sign</b>			
First Name: <u>Kyle</u>	MI: <u>W</u>	Last Name: <u>Crawford</u>	Suffix:
Signature: <u>[Handwritten Signature]</u>		Date: <u>8-10-11</u>	
<b>FAILURE TO SIGN THIS APPLICATION MAY RESULT IN DISMISSAL OF THE APPLICATION AND FORFEITURE OF ANY FEES PAID.</b>			
<b>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).</b>			

**Attachments :**

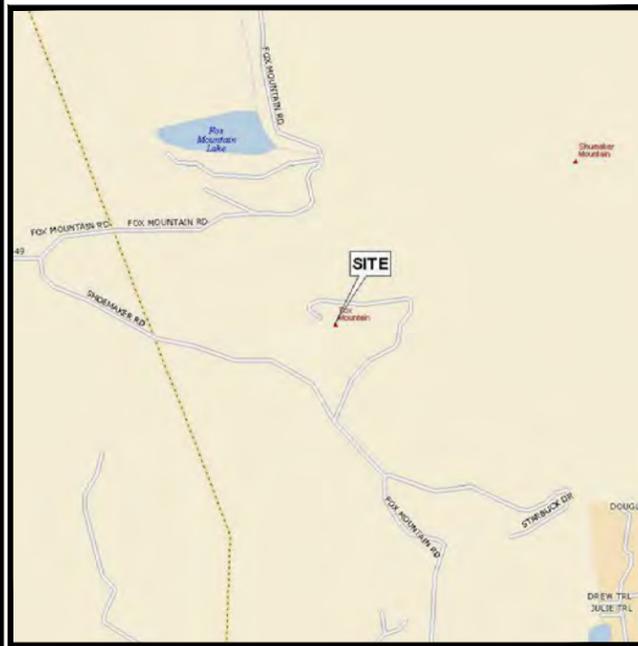
Type

Description

Date Entered



**VICINITY MAP**



**LOCATION MAP**

FROM RALEIGH, NC, TRAVEL WEST ON I-40. TAKE EXIT 188 ONTO US 421. TRAVEL WEST ON US 421 TO I-77 SOUTH. AFTER 8 MILES TAKE EXIT 65 ONTO E MEMORIAL HIGHWAY (SR 901). AFTER APPROXIMATELY 8 MILES TURN LEFT ONTO WILKESBORO HIGHWAY (SR 115). AFTER 1.5 MILES TURN RIGHT ONTO COOLBROOK ROAD. IN 3 MILES TURN LEFT ONTO FOX MOUNTAIN ROAD. CONTINUE ON FOX MOUNTAIN ROAD INTO ALEXANDER COUNTY, TURN LEFT ONTO SHOEMAKER/FOX MOUNTAIN ROAD, AND RETURN INTO IREDELL COUNTY. THE TOWER ACCESS DRIVE IS ACROSS FROM A RESIDENTIAL CLEARING. THE SITE IS ON THE LEFT SIDE WITH A SMALL SIGN DENOTES THE ACCESS AS "TOWER TRAIL".

**DRIVING DIRECTIONS**

PROJECT INFORMATION:

# PROPOSED TELECOMMUNICATIONS FACILITY

SITE NAME:  
**FOX MOUNTAIN**

SITE NUMBER:  
**HP-1364**

SCO ID NUMBER:  
**10-08449-011**

AERONAUTICAL STUDY NO:  
**2010-ASO-3598-OE**

SITE ADDRESS:  
**FOX MOUNTAIN ROAD  
LOVE VALLEY, NC 28625  
(IREDELL COUNTY)**

LATITUDE N 35° 59' 52.693" \*  
LONGITUDE W 080° 59' 59.792" \*  
GROUND ELEVATION = 1751.0' (AMSL)\*

\* PER 1A CERTIFICATION LETTER BY TOWER ENGINEERING PROFESSIONALS DATED 08-02-11

**1A CERTIFICATION**

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

1. NC BUILDING CODE (2009 EDITION)
2. ANSI/TIA/EIA-222-G
3. NC ELECTRIC CODE (2008 EDITION)
4. LOCAL BUILDING CODE
5. CITY/COUNTY ORDINANCES

**CODE COMPLIANCE**

**TOWER OWNER:**  
NAME: NORTH CAROLINA HIGHWAY PATROL  
ADDRESS: 3318 GARNER ROAD, BUILDING TWO  
CITY, STATE, ZIP: RALEIGH, NC 27610  
CONTACT: MARTY RANDALL  
PHONE: (919) 662-4440

**APPLICANT / LESSEE:**  
NAME: NORTH CAROLINA HIGHWAY PATROL  
ADDRESS: 3318 GARNER ROAD, BUILDING TWO  
CITY, STATE, ZIP: RALEIGH, NC 27610  
CONTACT: MARTY RANDALL  
PHONE: (919) 662-4440

**PROPERTY OWNER:**  
NAME: WILSON GODFREY, LP  
ADDRESS: 4893 WILKESBORO HWY  
CITY, STATE, ZIP: STATESVILLE, NC 28625  
CONTACT: WILLIAM GODFREY  
PHONE: UNKNOWN

AREA OF CONSTRUCTION: 2,250 SQ. FT.±  
PRESENT OCCUPANCY TYPE: TELECOMMUNICATIONS FACILITY  
PROPOSED OCCUPANCY TYPE: TELECOMMUNICATIONS FACILITY  
CURRENT ZONING: RA  
PARCEL ID NUMBER: 4802 94 5532.000  
JURISDICTION: IREDELL COUNTY

**UTILITIES:**  
POWER COMPANY: ENERGY UNITED  
CONTACT: CUSTOMER SERVICE  
PHONE: (800) 522-3793  
METER # NEAR SITE: 82 173 366 (DISCONNECTED)

TELEPHONE COMPANY: UNKNOWN  
CONTACT: UNKNOWN  
PHONE: UNKNOWN  
PEDESTAL # NEAR SITE: 3E1 47B

**PROJECT SUMMARY**

**SURVEYOR:**  
NAME: TOWER ENGINEERING PROFESSIONALS, INC.  
ADDRESS: 3703 JUNCTION BOULEVARD  
CITY, STATE, ZIP: RALEIGH, NC 27603  
CONTACT: CLIFFORD C. BYRD, P.L.S.  
PHONE: (919) 661-6351

**CIVIL ENGINEER:**  
NAME: TOWER ENGINEERING PROFESSIONALS, INC.  
ADDRESS: 3703 JUNCTION BOULEVARD  
CITY, STATE, ZIP: RALEIGH, NC 27603  
CONTACT: JOHN GOINS, P.E.  
PHONE: (919) 661-6351

**STRUCTURAL ENGINEER:**  
NAME: N/A  
ADDRESS: N/A  
CITY, STATE, ZIP: N/A  
CONTACT: N/A  
PHONE: N/A

**ELECTRICAL ENGINEER:**  
NAME: TOWER ENGINEERING PROFESSIONALS, INC.  
ADDRESS: 3703 JUNCTION BOULEVARD  
CITY, STATE, ZIP: RALEIGH, NC 27603  
CONTACT: J. RUSSELL HILL, P.E.  
PHONE: (919) 661-6351

**GEOTECHNICAL ENGINEER:**  
NAME: TOWER ENGINEERING PROFESSIONALS, INC.  
ADDRESS: 3703 JUNCTION BOULEVARD  
CITY, STATE, ZIP: RALEIGH, NC 27603  
CONTACT: JOHN D. LONGEST, P.E.  
PHONE: (919) 661-6351

**TOWER MANUFACTURER:**  
NAME: T.B.D.  
ADDRESS: T.B.D.  
CITY, STATE, ZIP: T.B.D.  
CONTACT: T.B.D.  
PHONE: T.B.D.

**PROJECT TEAM**

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

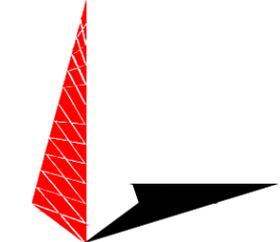
THE UTILITIES SHOWN HEREON ARE FOR THE CONTRACTORS CONVENIENCE ONLY. THERE MAY BE OTHER UTILITIES NOT SHOWN ON THESE PLANS. THE ENGINEER/SURVEYOR ASSUMES NO RESPONSIBILITY FOR THE LOCATIONS SHOWN AND IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL UTILITIES WITHIN THE LIMITS OF THE WORK. ALL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

**UTILITY STATEMENT**

SHEET	DESCRIPTION	REV
T1	TITLE SHEET	0
T2	N.C. APPENDIX B, PART I	0
T3	N.C. APPENDIX B, PART II	0
T4	N.C. APPENDIX B, PART III	0
T5	N.C. APPENDIX B, PART IV	0
N1	PROJECT NOTES	0
C1	SITE PLAN	0
C2	COMPOUND DETAIL	0
C3	TOWER ELEVATION	0
C4	SHELTER ELEVATIONS	0
C5	SHELTER FOUNDATION DETAILS	0
C6	GENERATOR FOUNDATION DETAILS	0
C7	ICE BRIDGE DETAILS	0
C8	ANTENNA & COAX MOUNTING DETAILS	0
C9	SHELTER ACCESS DETAILS	0
C10	FENCE DETAILS	0
C11	SEDIMENT & EROSION CONTROL PLAN	0
C12	EROSION CONTROL DETAILS	0
E1	ELECTRICAL NOTES	0
E2	SERVICE ROUTING PLAN	0
E3	ONE LINE DIAGRAM, PANEL SCHEDULE & NOTES	0
E4	EQUIPMENT GROUNDING PLAN AND NOTES	0
E5	GROUNDING DETAILS I	0
E6	GROUNDING DETAILS II	0

**INDEX OF SHEETS**

PLANS PREPARED BY:



**TOWER ENGINEERING PROFESSIONALS**  
3703 JUNCTION BOULEVARD  
RALEIGH, NC 27603-5263  
OFFICE: (919) 661-6351  
www.tepgroup.net

N.C. LICENSE # C-1794

REV	DATE	ISSUED FOR:
0	08-01-11	PRELIMINARY CONSTRUCTION

DRAWN BY: TRG CHECKED BY: JBG

SEAL:



SEAL:

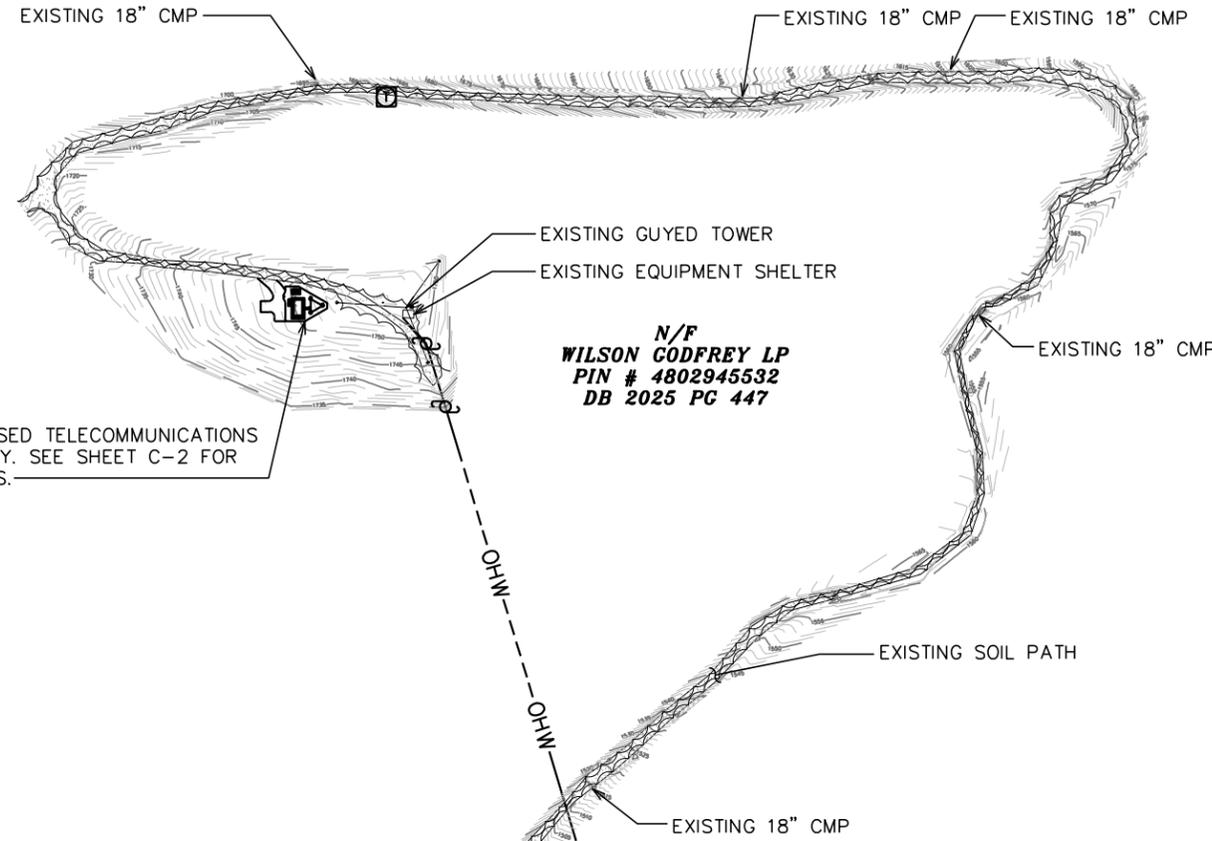
SHEET NUMBER: **T-1** REVISION: **0**  
TEP #: 110516

**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 MAY 12, 2011.
4. THIS PROPERTY IS LOCATED IN FLOOD ZONE "X," AREAS DETERMINED TO BE OUTSIDE 500-YEAR FLOODPLAIN (FEMA/FIRM MAP NUMBER 3710480200J).
6. SUBJECT PIN: 4802 94 5582.000
7. PROPERTY OWNER:  
WILSON GODFREY, LP

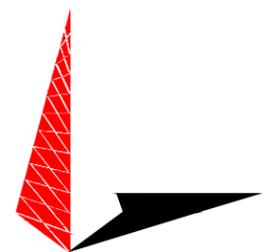
**SEDIMENT & EROSION CONTROL NOTE:**

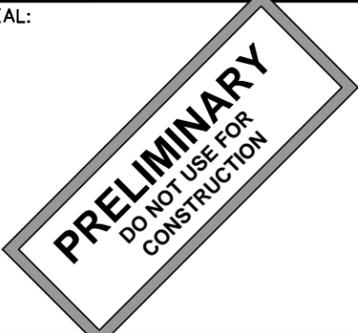
FOR SEDIMENT AND EROSION CONTROL DETAILS, SEE SHEET C-11 & C-12.



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

PROJECT INFORMATION:  
**FOX MOUNTAIN**  
**SITE # HP-1364**  
**SCO ID # 10-08449-011**  
 FOX MOUNTAIN ROAD  
 LOVE VALLEY, NC 28625  
 (IREDELL COUNTY)

PLANS PREPARED BY:  
  
**TOWER ENGINEERING PROFESSIONALS**  
 3703 JUNCTION BOULEVARD  
 RALEIGH, NC 27603-5263  
 OFFICE: (919) 661-6351  
 www.tepgroup.net  
 N.C. LICENSE # C-1794

SEAL:  


**LEGEND**

-  WATER VALVE
-  FIRE HYDRANT
-  EXIST. PROPERTY LINE
-  ADJ. PROPERTY LINE
-  EXIST. UTILITY POLE
-  EXIST. TELCO PEDESTAL
-  EXIST. MANHOLE COVER
-  EXIST. LIGHT POLE
-  EXIST. CONTOUR LINE
-  EDGE OF PAVEMENT
-  OVERHEAD WIRE
-  CHAIN LINK FENCE
-  EXISTING TREE LINE
-  IRF
-  PROPERTY CORNER

**SITE PLAN**

SCALE: 1" = 200'



**PARCEL OVERVIEW**

SCALE: 1" = 2500'

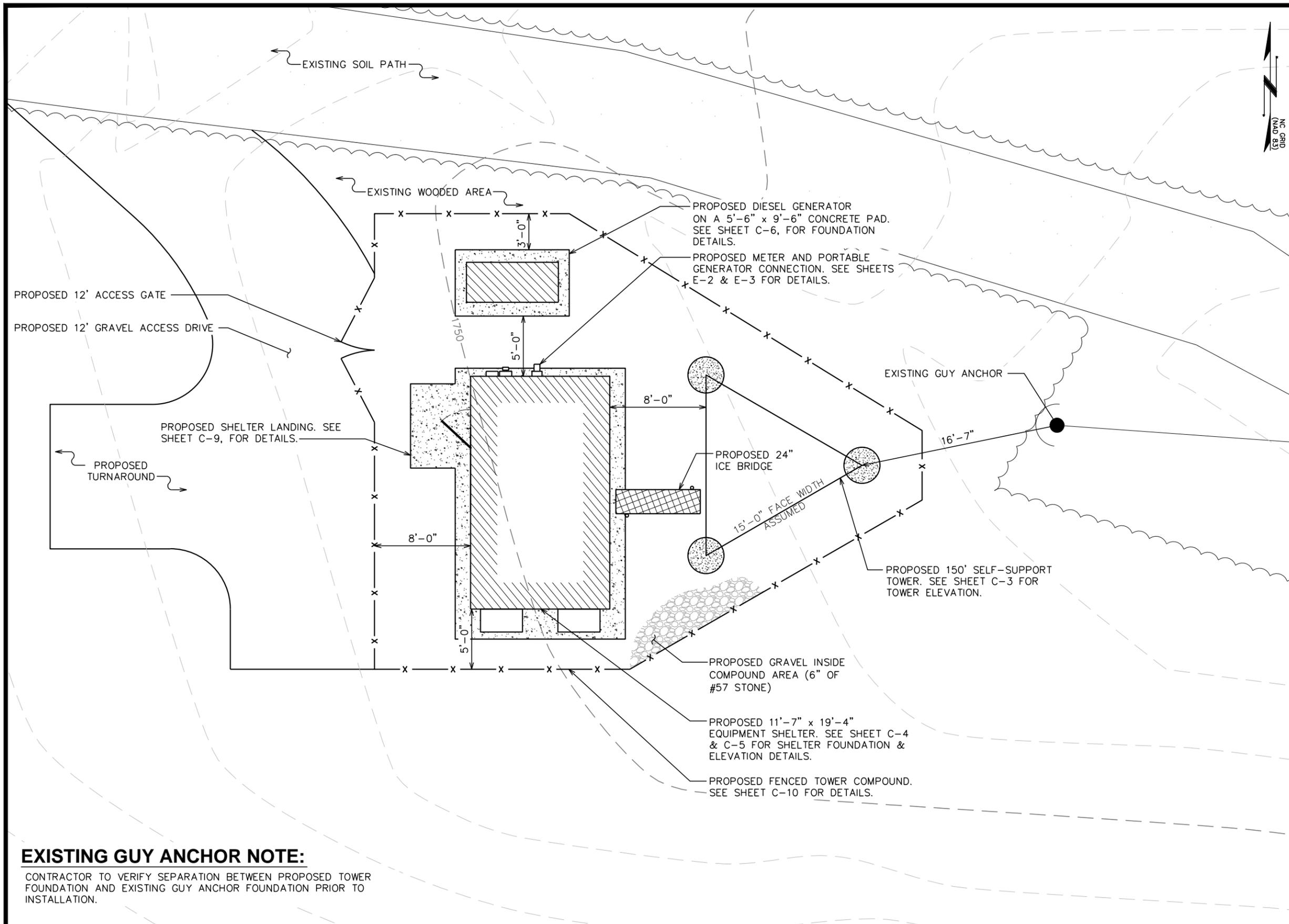
REV	DATE	ISSUED FOR:
0	08-01-11	PRELIMINARY CONSTRUCTION

DRAWN BY: TRG | CHECKED BY: JBG

SHEET TITLE:  
**SITE PLAN**

SHEET NUMBER:  
**C-1**

REVISION:  
**0**  
 TEP #: 110516



PLANS PREPARED FOR:



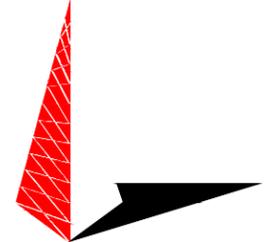
3318 GARNER ROAD, BLDG. 2  
 RALEIGH, NC 27607  
 OFFICE: (919) 662-4440

PROJECT INFORMATION:

**FOX MOUNTAIN**  
**SITE # HP-1364**  
**SCO ID # 10-08449-011**

FOX MOUNTAIN ROAD  
 LOVE VALLEY, NC 28625  
 (IREDELL COUNTY)

PLANS PREPARED BY:



**TOWER ENGINEERING PROFESSIONALS**  
 3703 JUNCTION BOULEVARD  
 RALEIGH, NC 27603-5263  
 OFFICE: (919) 661-6351  
 www.tepgroup.net

N.C. LICENSE # C-1794

SEAL:

**PRELIMINARY**  
 DO NOT USE FOR  
 CONSTRUCTION

0	08-01-11	PRELIMINARY CONSTRUCTION
REV	DATE	ISSUED FOR:

DRAWN BY: TRG | CHECKED BY: JBG

SHEET TITLE:

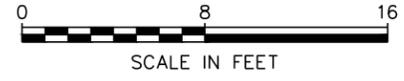
**COMPOUND  
 DETAIL**

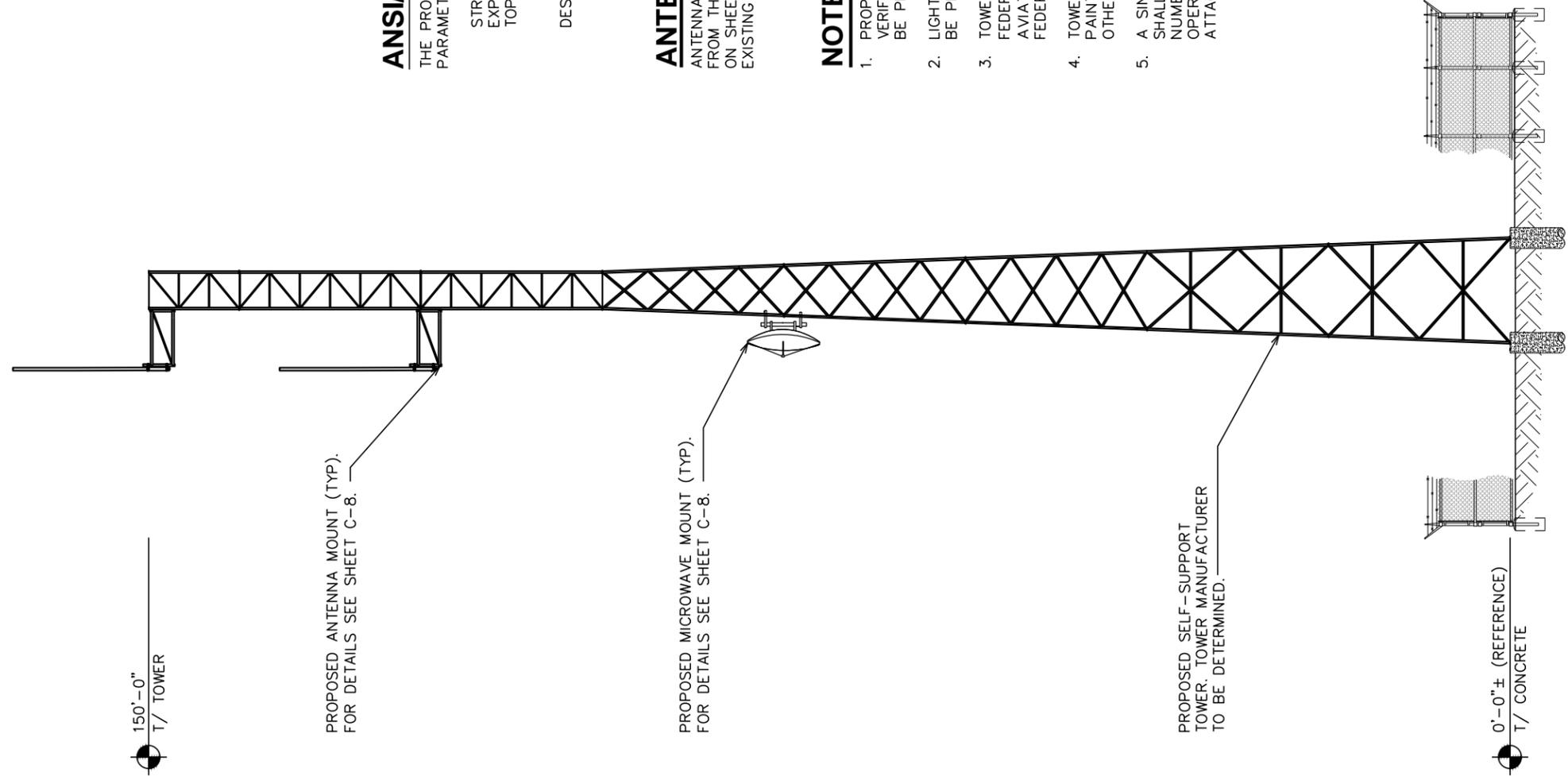
SHEET NUMBER: **C-2** | REVISION: **0**

TEP #: 110516

**EXISTING GUY ANCHOR NOTE:**  
 CONTRACTOR TO VERIFY SEPARATION BETWEEN PROPOSED TOWER FOUNDATION AND EXISTING GUY ANCHOR FOUNDATION PRIOR TO INSTALLATION.

**COMPOUND DETAIL**  
 SCALE: 1/8" = 1'-0"





**ANSI/TIA-222-G DESIGN NOTE:**

THE PROPOSED TOWER SHALL BE DESIGNED PER THE FOLLOWING PARAMETERS:

STRUCTURE CLASSIFICATION: III  
 EXPOSURE CATEGORY: C  
 TOPOGRAPHIC CATEGORY: 3  
 CREST HEIGHT: 720'

DESIGN WIND SPEED: 90mph(3sec GUST), 76mph(FATEST MILE)

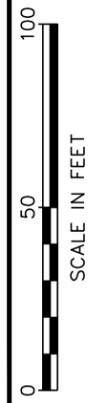
**ANTENNA MOUNT NOTE:**

ANTENNA/MICROWAVE MOUNTS HAVE BEEN ORDERED FROM THE TOWER MANUFACTURER. MOUNTS SPECIFIED ON SHEET C-8 SHOULD NOT BE DUPLICATED IF EXISTING MOUNTS ARE PRESENT.

**NOTES:**

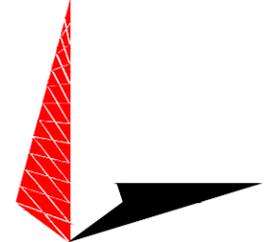
1. PROPOSED COAX TO BE MOUNTED TO WAVEGUIDE LADDER. VERIFY WITH TOWER MANUFACTURER THAT THE LADDER WILL BE PROVIDED WITH THE TOWER.
2. LIGHTNING ROD, TOWER LIGHTS, AND CLIMBING LADDER TO BE PROVIDED BY TOWER MANUFACTURER.
3. TOWER SHALL BE ILLUMINATED ONLY AS REQUIRED BY THE FEDERAL COMMUNICATIONS COMMISSION (FCC), THE FEDERAL AVIATION ADMINISTRATION (FAA), OR OTHER STATE OR FEDERAL AGENCY OF COMPETENT JURISDICTION.
4. TOWER SHALL BE CONSTRUCTED OF GALVANIZED STEEL OR PAINTED PER APPLICABLE STANDARDS OF THE FAA OR OTHER APPLICABLE FEDERAL OR STATE AGENCY.
5. A SINGLE SIGN, 2 FEET SQUARE, IN A VISIBLE LOCATION SHALL BE REQUIRED WITH NAME AND EMERGENCY TELEPHONE NUMBER OF THE TOWER OWNER AND ALL COMPANIES OPERATING ON THE TOWER. NO ADVERTISING SHALL BE ATTACHED TO THE TOWER.

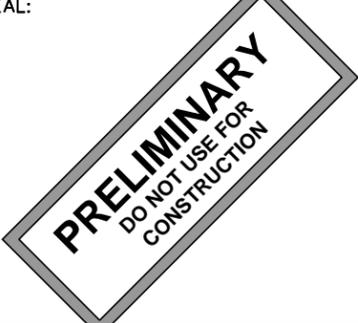
**TOWER ELEVATION**  
 SCALE: 1" = 50'



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

PROJECT INFORMATION:  
**FOX MOUNTAIN**  
**SITE # HP-1364**  
**SCO ID # 10-08449-011**  
 FOX MOUNTAIN ROAD  
 LOVE VALLEY, NC 28625  
 (IREDELL COUNTY)

PLANS PREPARED BY:  
  
**TOWER ENGINEERING PROFESSIONALS**  
 3703 JUNCTION BOULEVARD  
 RALEIGH, NC 27603-5263  
 OFFICE: (919) 661-6351  
 www.tepgroup.net  
 N.C. LICENSE # C-1794

SEAL:  


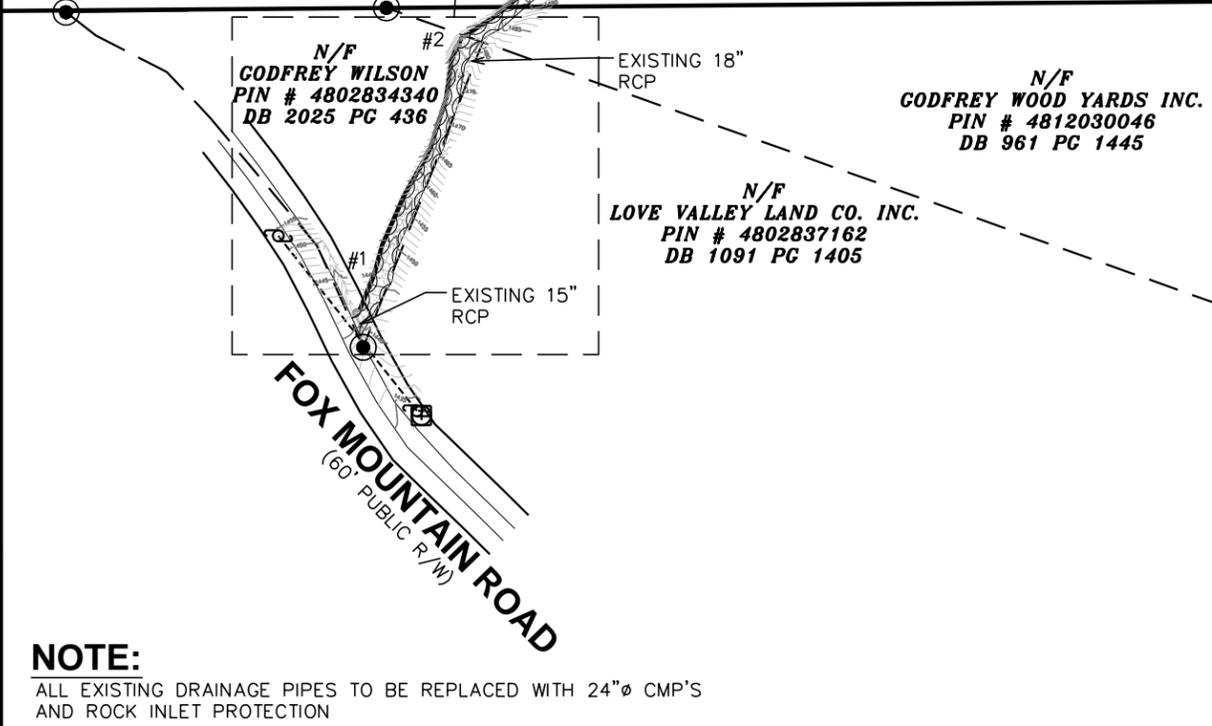
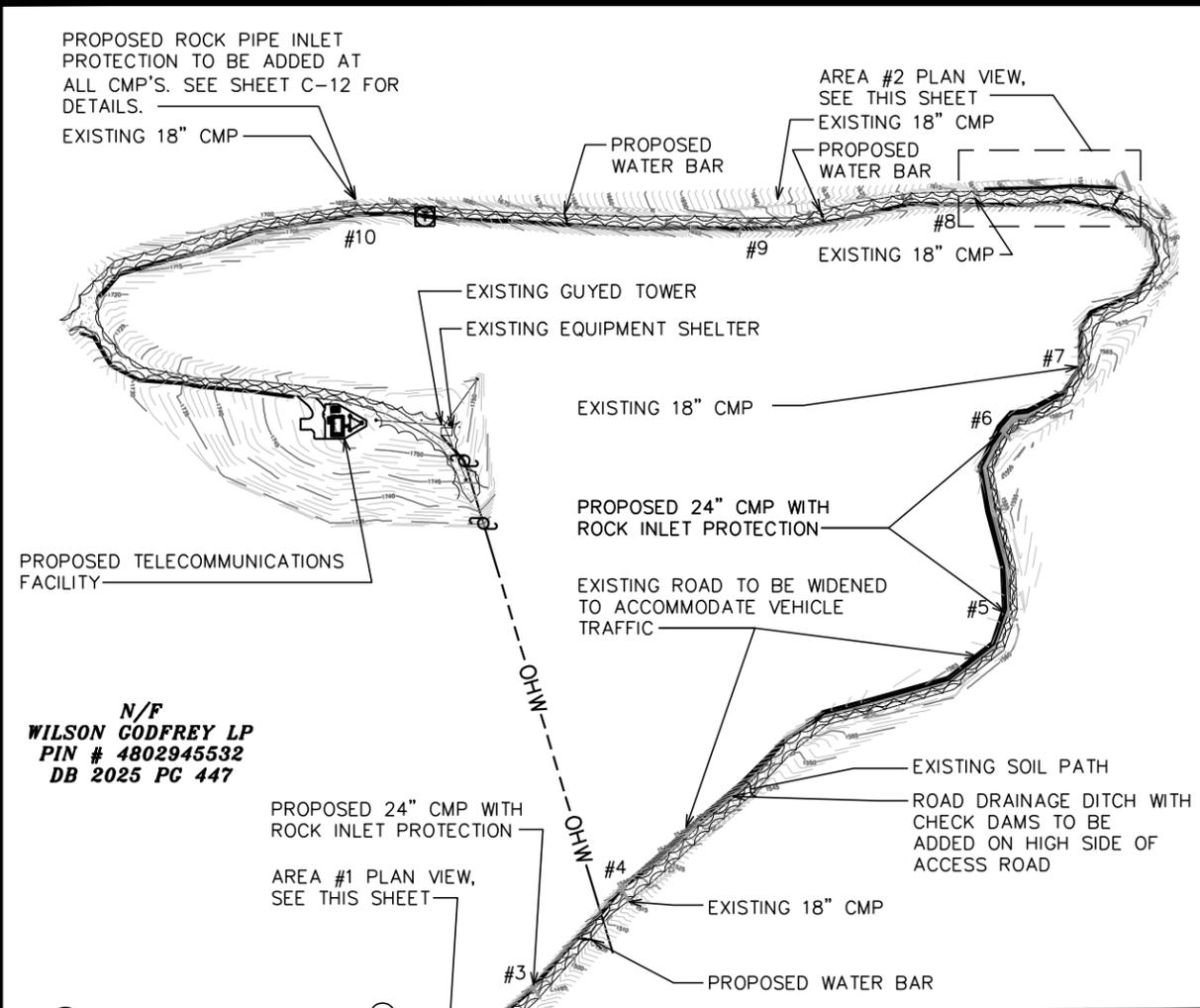
0	08-01-11	PRELIMINARY CONSTRUCTION
REV	DATE	ISSUED FOR:

DRAWN BY: TRG | CHECKED BY: JBG

SHEET TITLE:  
**TOWER ELEVATION**

SHEET NUMBER:  
**C-3**

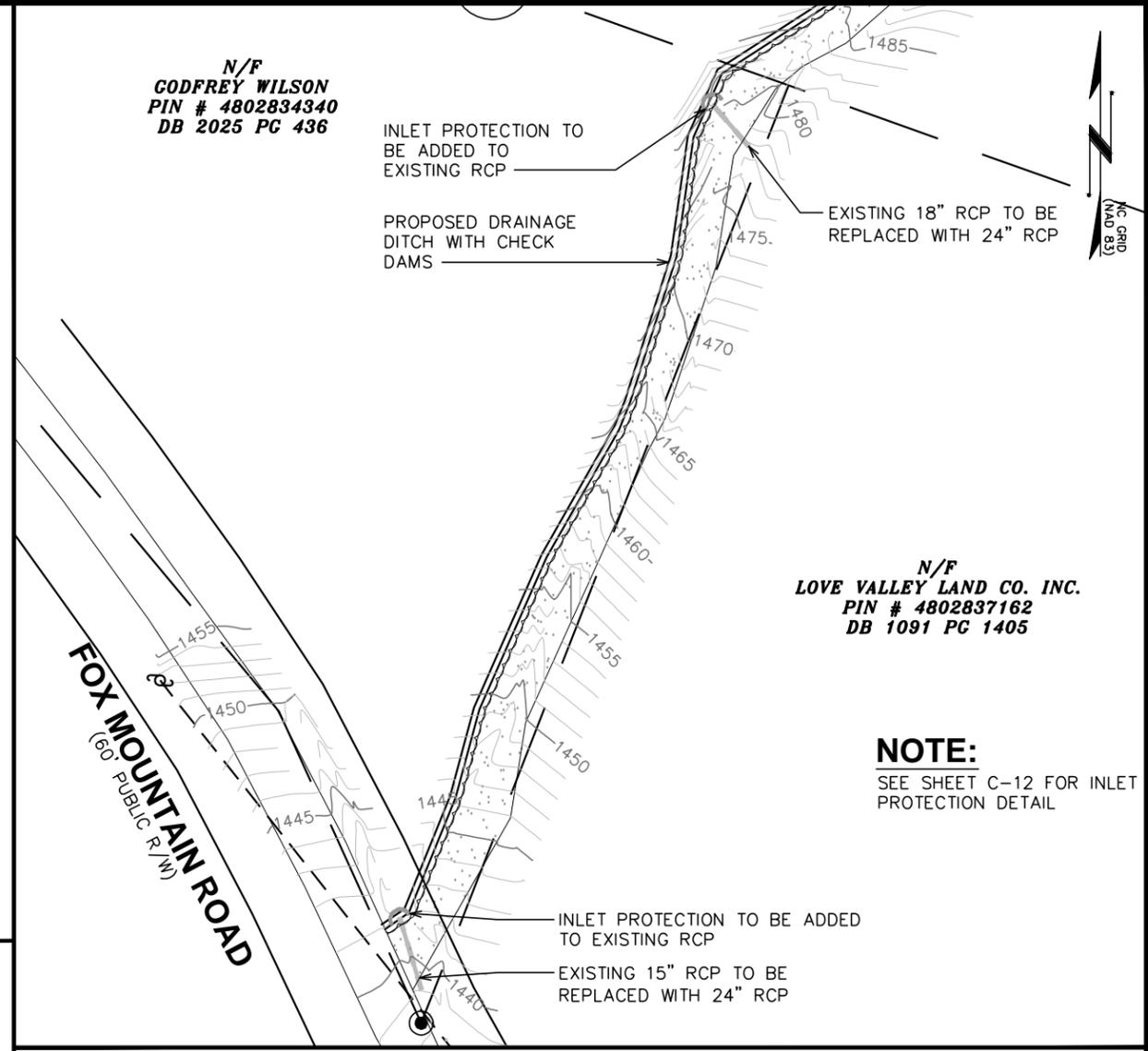
REVISION:  
**0**  
 TEP #: 110516



**SEDIMENT & EROSION CONTROL PLAN**

SCALE: 1" = 200'

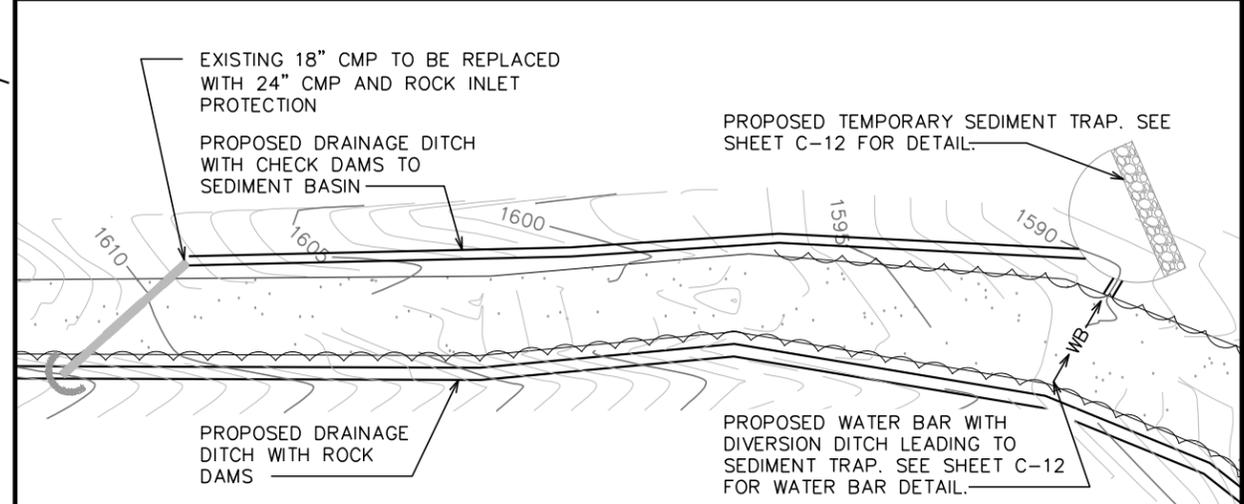
0 200 400  
SCALE IN FEET



**AREA #1 PLAN**

SCALE: 1" = 60'

0 60 120  
SCALE IN FEET



**AREA #2 PLAN**

SCALE: 1" = 30'

0 30 60  
SCALE IN FEET

PLANS PREPARED FOR:

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

PROJECT INFORMATION:

**FOX MOUNTAIN  
SITE # HP-1364  
SCO ID # 10-08449-011**

FOX MOUNTAIN ROAD  
LOVE VALLEY, NC 28625  
(IREDELL COUNTY)

PLANS PREPARED BY:

**TOWER ENGINEERING PROFESSIONALS**  
3703 JUNCTION BOULEVARD  
RALEIGH, NC 27603-5263  
OFFICE: (919) 661-6351  
www.tepgroup.net

N.C. LICENSE # C-1794

SEAL:

**PRELIMINARY**  
DO NOT USE FOR  
CONSTRUCTION

0	08-01-11	PRELIMINARY CONSTRUCTION
REV	DATE	ISSUED FOR:

DRAWN BY: TRG | CHECKED BY: JBG

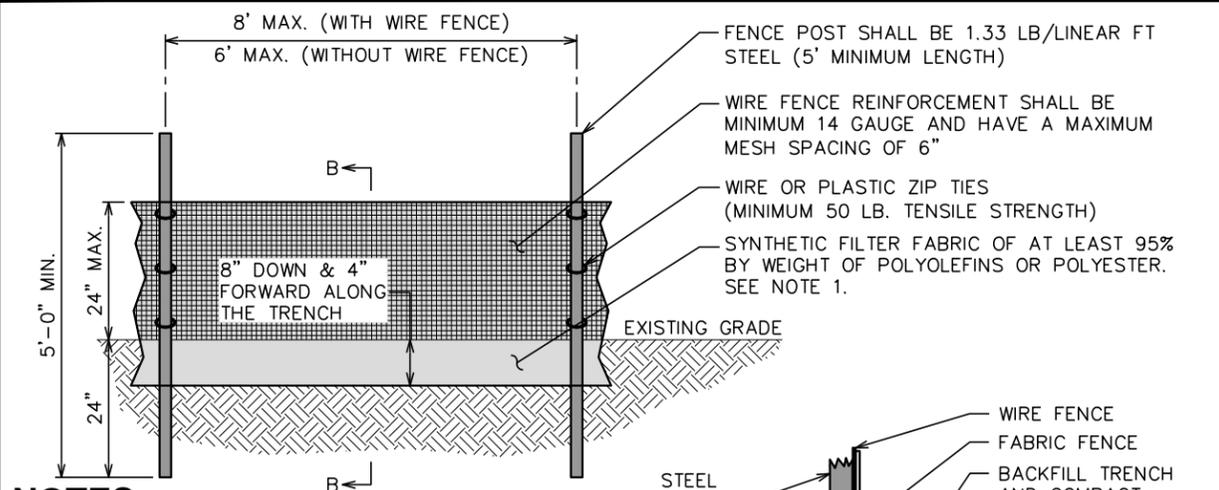
SHEET TITLE:

**SEDIMENT & EROSION CONTROL PLAN**

SHEET NUMBER:  
**C-11**

REVISION:  
**0**

TEP #: 110516



**NOTES:**

FILTER FABRIC SHALL CONFORM TO THE REQUIREMENTS LISTED IN ASTM D 6461.

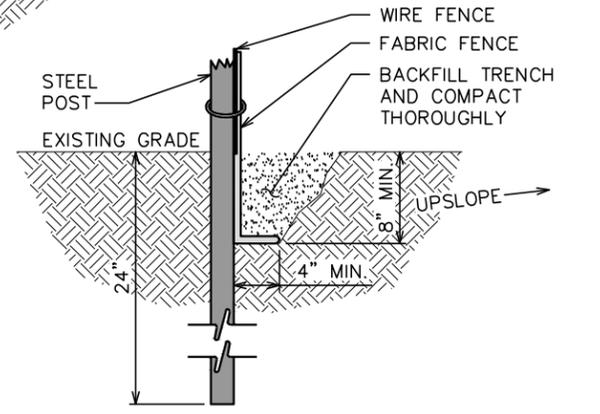
ENDS OF INDIVIDUAL FILTER FABRIC SHALL BE SECURELY FASTENED AT A SUPPORT POST WITH 4 FEET MINIMUM OVERLAP TO THE NEXT POST

PLACE 12 INCHES OF FABRIC ALONG THE BOTTOM AND SIDE OF THE TRENCH.

INSPECT SEDIMENT FENCE(S) AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL.

REMOVE SEDIMENT DEPOSITS AS NECESSARY TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN AND TO REDUCE PRESSURE ON THE FENCE.

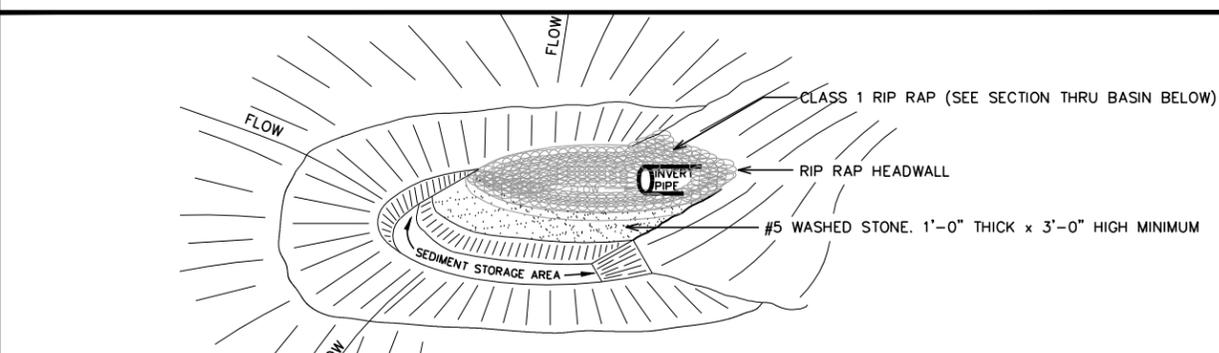
AFTER CONSTRUCTION IS COMPLETE, THE CONTRACTOR SHALL REMOVE ALL FENCING MATERIALS AND UNSTABLE SEDIMENT DEPOSITS, BRING THE AREA TO GRADE AND PROPERLY STABILIZE THE SITE.



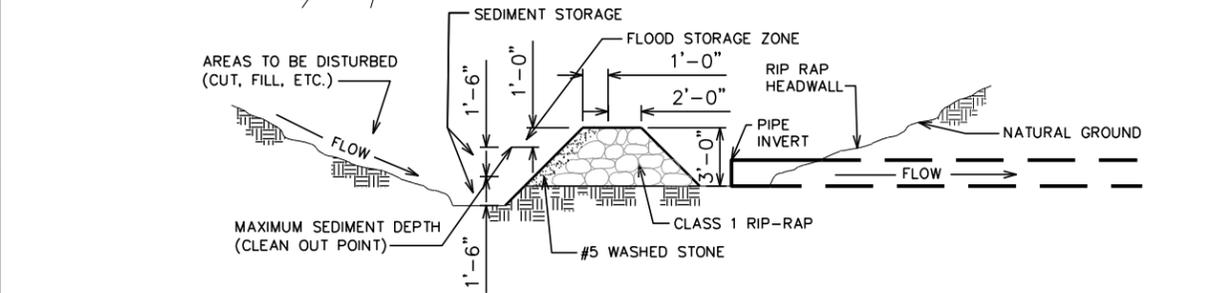
**SECTION B-B**

**SILT FENCE DETAIL**

SCALE: N.T.S.



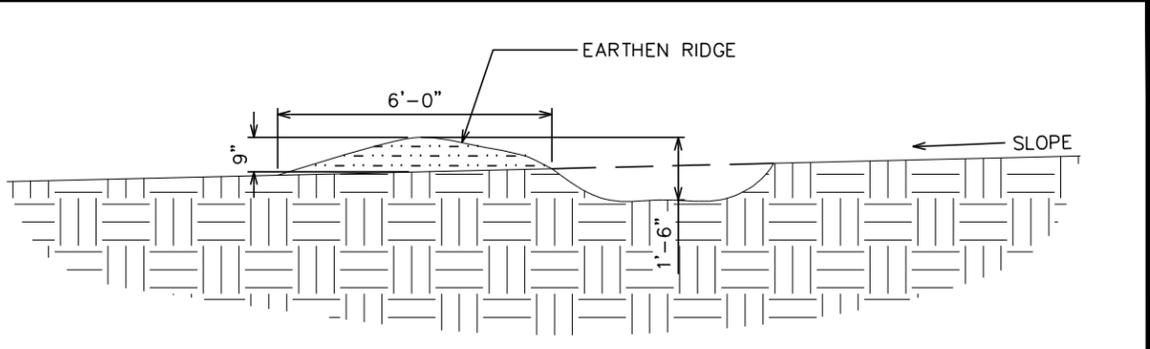
**PERSPECTIVE VIEW**



**SECTION THRU CATCH BASIN, FILTER AND CULVERT PIPE**

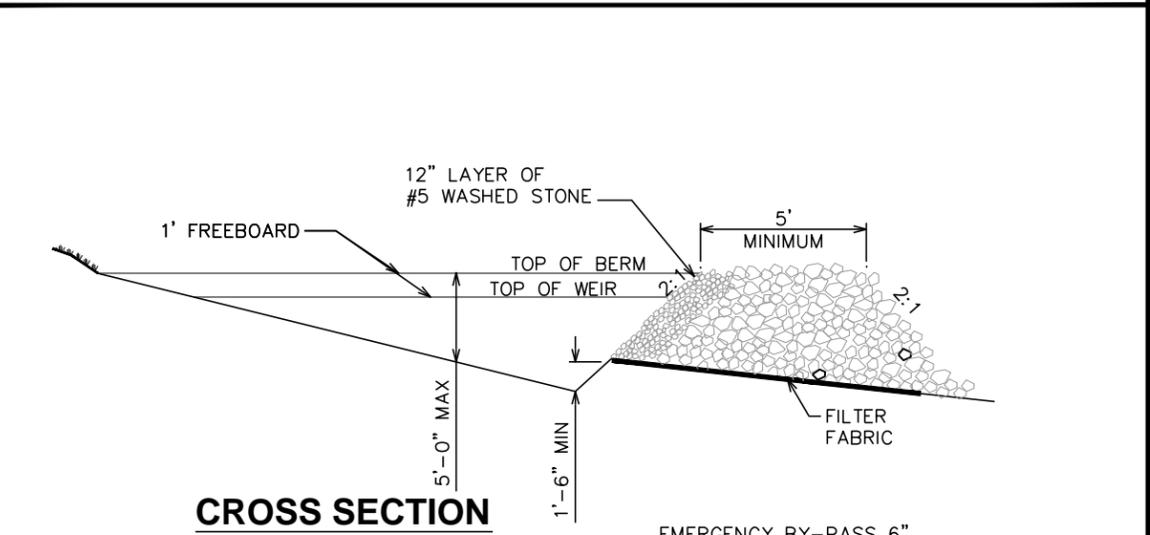
**ROCK PIPE INLET PROTECTION DETAIL**

SCALE: N.T.S.

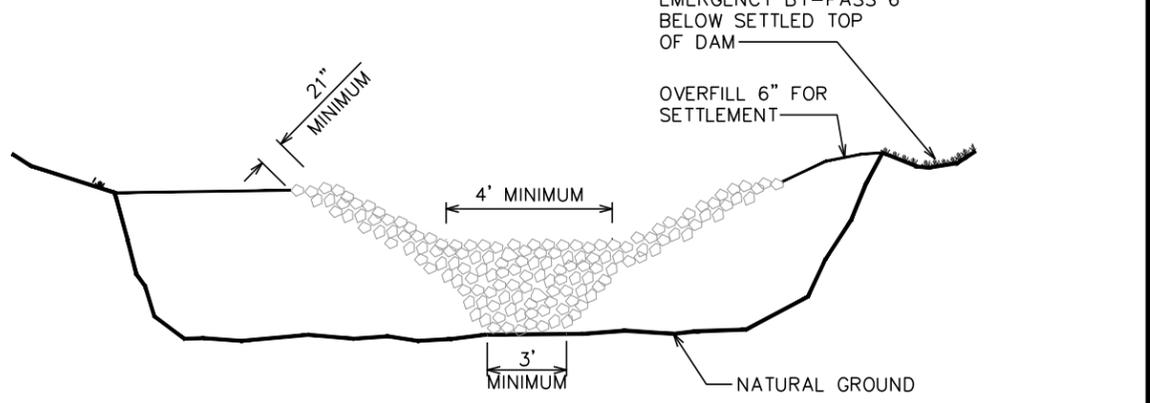


**WATER BAR DETAIL**

SCALE: N.T.S.



**CROSS SECTION**



**STONE SECTION**

**TEMPORARY SEDIMENT TRAP**

SCALE: N.T.S.

PLANS PREPARED FOR:

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

PROJECT INFORMATION:

**FOX MOUNTAIN  
SITE # HP-1364  
SCO ID # 10-08449-011**

FOX MOUNTAIN ROAD  
LOVE VALLEY, NC 28625  
(IREDELL COUNTY)

PLANS PREPARED BY:

**TOWER ENGINEERING PROFESSIONALS**  
3703 JUNCTION BOULEVARD  
RALEIGH, NC 27603-5263  
OFFICE: (919) 661-6351  
www.tepgroup.net

N.C. LICENSE # C-1794

SEAL:

**PRELIMINARY  
DO NOT USE FOR  
CONSTRUCTION**

0	08-01-11	PRELIMINARY CONSTRUCTION
REV	DATE	ISSUED FOR:

DRAWN BY: TRG | CHECKED BY: JBG

SHEET TITLE:

**EROSION CONTROL  
DETAILS**

SHEET NUMBER: **C-12**

REVISION: **0**

TEP #: 110516

**FOX MOUNTAIN TOWER, IREDELL COUNTY, NORTH CAROLINA  
ARCHAEOLOGICAL SURVEY LETTER REPORT**

**By: Terri Russ, RPA  
Environmental Services, Inc.  
524 South New Hope Road  
Raleigh, NC 27610**

Tower Engineering Professionals, Inc., (TEP) is assisting in the development of a telecommunications facility in Iredell County, North Carolina. The project area consists of the proposed 150 foot self-supported tower, proposed tower compound, which measures approximately 1,275 square feet in size, and approximately 3,100 feet of access road and utility easement. The access road and utility easement follow an existing dirt path; however, the road will be widened and improved to accommodate vehicle traffic. The proposed compound and access road and utility easement are accessed from Fox Mountain Road in the community of Love Valley, Iredell County, North Carolina (**Figure 1**).

TEP requested that Environmental Services, Inc., (ESI) conduct an archaeological survey of the proposed tower site to meet the requirements of Section 106 of the *National Historic Preservation Act* (NHPA) and the Federal Communications Commission (FCC) Cell Tower Programmatic Agreement of 5 October 2004. This letter report summarizes the results of ESI's archaeological survey.

### **Environmental Setting**

Vegetation at the proposed tower compound is hardwood forest, accessed by a winding unpaved road leading up the steep slope of Fox Mountain. Elevations at the tower location are approximately 1,750 feet above mean sea level (amsl). In contrast, the beginning of the access road (at the intersection of Fox Mountain Road) is approximately 1,400 feet amsl in elevation. The project area is located approximately 1,000 feet northeast of an unnamed tributary of Rocky Creek, which eventually drains into the South Yadkin River. Map units (soil series) are named for the major soil or soils within the unit, but may have minor inclusions of other soils (NRCS 2011). The three soil units mapped in the project area are listed in **Table 1**.

**Table 1: Project Area Soils**

<b>Soil Name</b>	<b>Code</b>	<b>Slope</b>	<b>Drainage</b>	<b>Location</b>
Cleveland-Rock outcrop complex	CiF	8-90%	Somewhat excessively	Mountain slopes, ridges
Cowee-Saluda complex, stony	CwF	25-60%	Well	Mountain slopes, ridges
Evard-Cowee complex, stony	EvE	8-25%	Well	Mountain slopes, ridges

### **Background Research**

Research at the North Carolina Office of State Archaeology (OSA) revealed that no previously recorded archaeological sites were located within or immediately adjacent to the project area.

## Results of the Present Investigation

ESI archaeologist Terri Russ conducted an archaeological survey of the project area on 3 August 2011. This included pedestrian inspection and shovel testing of the project area. Photos of the project area are shown as **Figures 2-3**.

Pedestrian inspection found that the existing access road was an unimproved soil path. Surface visibility along the approximately 3,100-foot road was excellent. No cultural materials were observed. The narrow path was cut into the steep slope of Fox Mountain. No shovel tests were excavated due to the steep slope of the area, with the exception of the upper section of the access road and tower location, which leveled out onto the ridgetop of Fox Mountain. The entire access road was subjected to an intensive surface inspection. No prehistoric or historic cultural materials were observed on the ground surface within the project area.

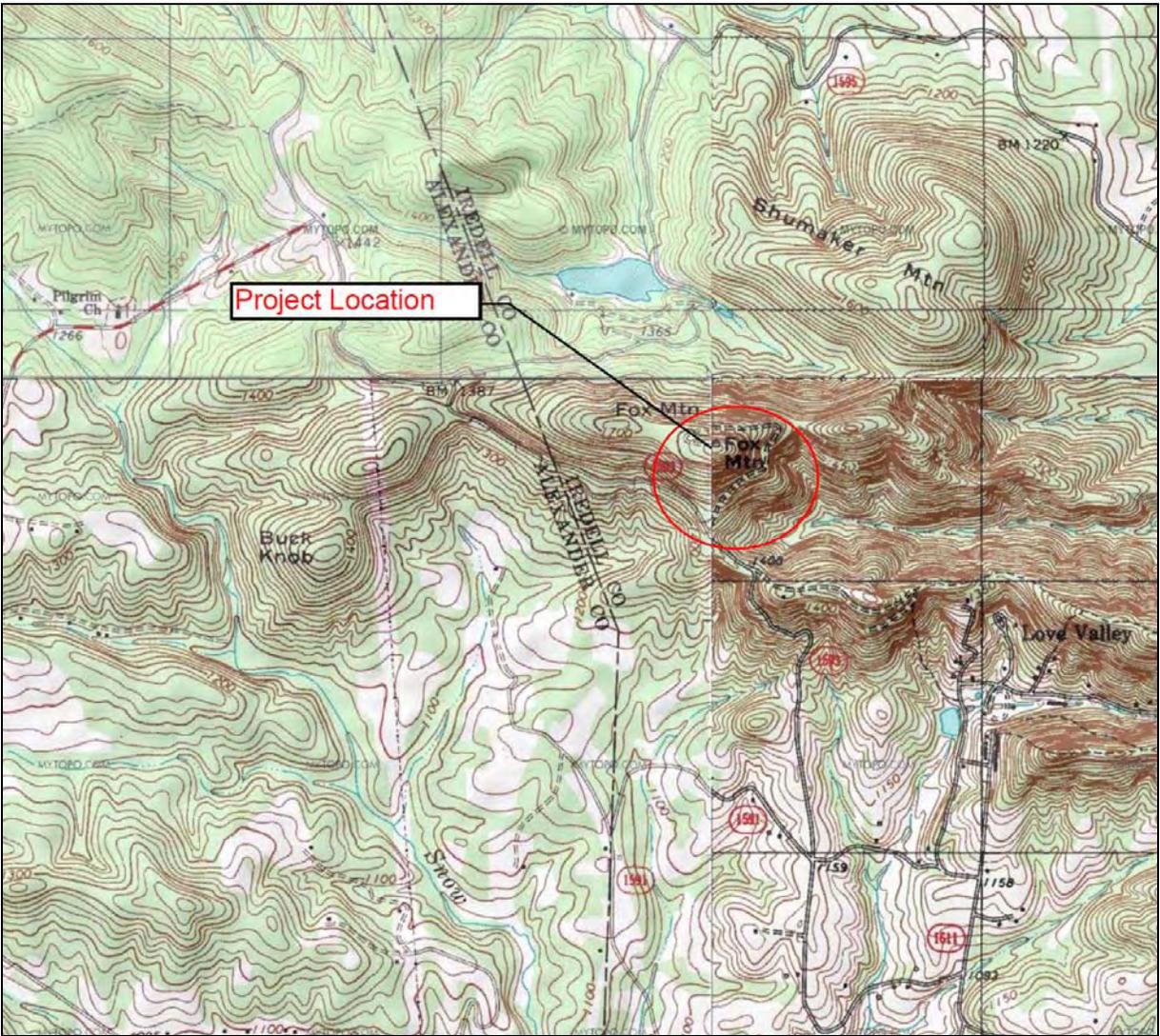
Three shovel tests were placed at the location of the proposed compound. Two shovel tests were placed at the approximate location of the tower access driveway and turnaround area. An additional shovel test was placed west of the tower area along a fairly level section of the existing access road (STs 1-6; **Figures 4-5**). Soils throughout the project area consisted of 10 to 15 centimeters of dark brown gravelly sandy loam over reddish brown to strong brown clay loam to loamy clay subsoil. No cultural materials were recovered from any of the shovel tests.

## Summary and Conclusions

ESI conducted an archaeological survey of the proposed tower compound and access road and utility easement off of Fox Mountain Road in Love Valley, Iredell County, North Carolina, for TEP in August 2011. No archaeological sites were documented within the proposed cell tower compound or within the access and utility easement. It is recommended that this project be allowed to proceed without concern for impacts to significant cultural resources. Should the boundary of the proposed tower site be expanded or moved, additional archaeological investigation may be necessary, as determined in consultation with the North Carolina State Historic Preservation Office (SHPO) or per the FCC Programmatic Agreement.

## References Cited

Natural Resources Conservation Services (NRCS)  
2011 <http://websoilsurvey.nrcs.usda.gov/app/> Accessed 6 August 2011.



**Figure 1: Project Location (Hiddenite, NC USGS 7.5 minute quadrangle).**



**Figure 2: View of proposed tower compound, facing West.**



**Figure 3: View of existing access road, facing East.**

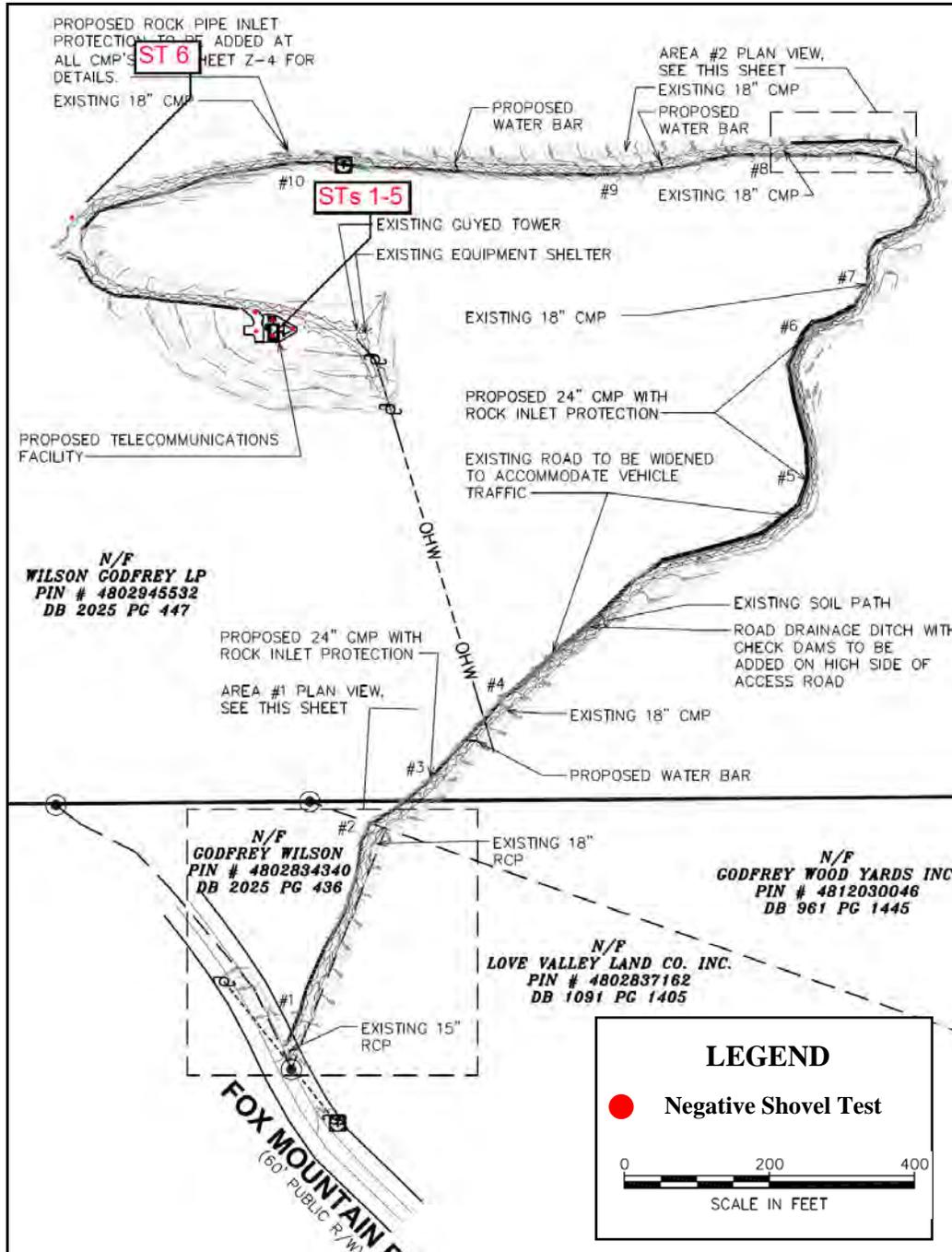


Figure 4: Shovel Test Plan

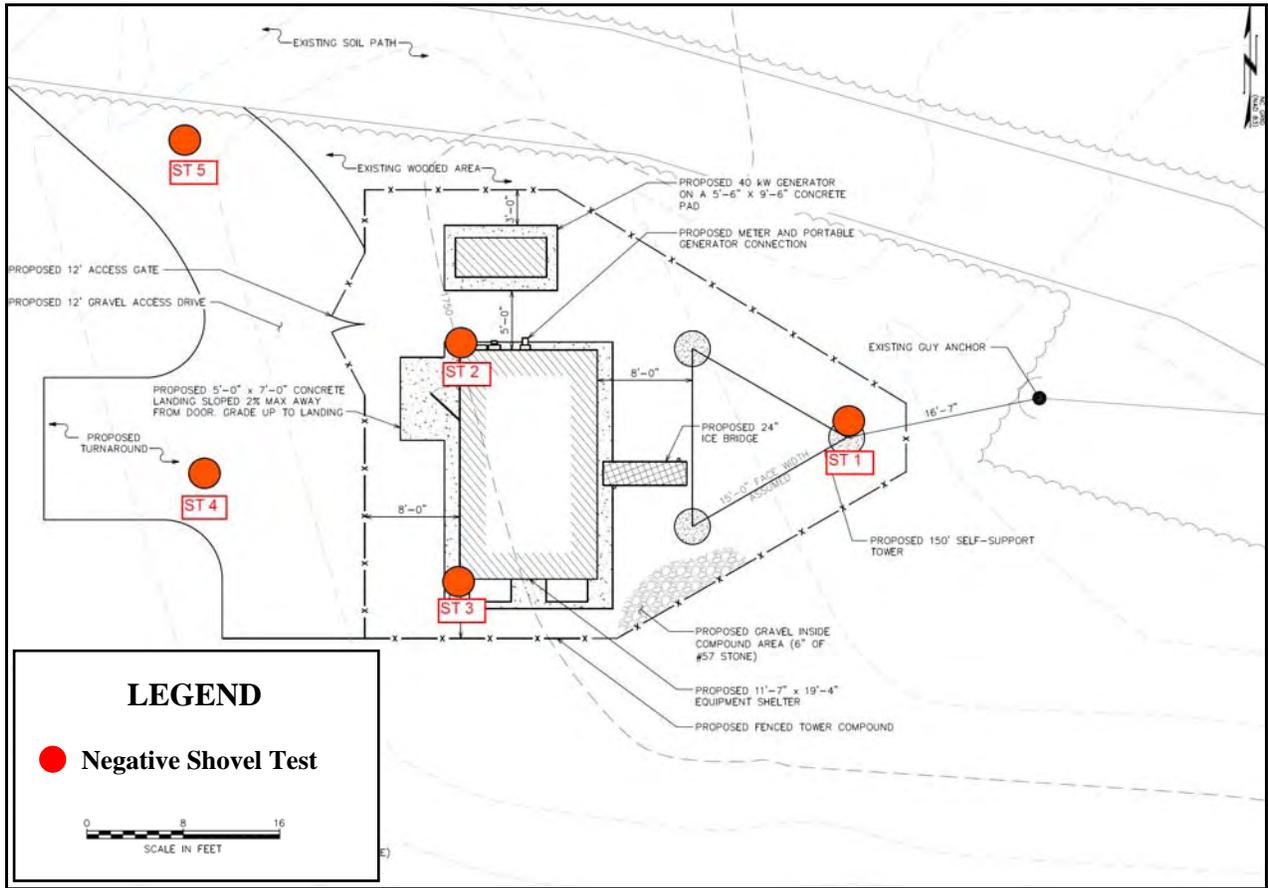


Figure 5: Shovel Test Plan (Detail)



# ENVIRONMENTAL SERVICES, INC.

## TERRI RUSS, RPA – SENIOR SCIENTIST III

### Education Level:

M.A. Anthropology.  
East Carolina University.  
2002

A.A.S. Archaeology/  
Historic Preservation.  
Randolph Community  
College.  
1999

B.A. Anthropology.  
University of North  
Carolina at Chapel Hill.  
1995

### Years Experience:

14

### ESI Office:

Raleigh

### PROFESSIONAL EXPERIENCE SUMMARY

Ms. Russ is an archaeologist with over fourteen years experience in cultural resource management and academic archaeology. Previous cultural resource management projects include Phase I archaeological surveys, Phase II archaeological test investigations, and Phase III site mitigation for private, municipal, state, and federal clients.

### RESPONSIBILITIES WITH ENVIRONMENTAL SERVICES, INC.

Ms. Russ is responsible for all phases of cultural resource projects management including background research, field investigations, artifact analysis and curation, and the preparation of final reports. Specialties include Phase I archaeological survey and site assessment, Phase II testing of archaeological sites, and Phase III mitigation and data recovery of archaeological sites.

### PRIOR EXPERIENCE

2004-Present	ENVIRONMENTAL SERVICES, INC.
1998-2004	TRC GARROW ASSOCIATES, INC.
2003	LOUIS BERGER GROUP.
2002	COASTAL CAROLINA RESEARCH.
2000-2002	PHELPS ARCHAEOLOGY LABORATORY, EAST CAROLINA UNIVERSITY.
1997	U.S. FOREST SERVICE

### PROFESSIONAL AFFILIATIONS

Registered Professional Archaeologist (RPA)  
Southeastern Archaeological Conference (SEAC)  
Society for Historical Archaeology (SHA)  
North Carolina Archaeological Council (NCAC)  
North Carolina Archaeological Society (NCAS)  
NCAS President (2007-2009)  
NCAS Board of Directors (2001-2003, 2005-2007)  
NCAS Coastal Plains Chapter Secretary (2000-2002)

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## REPRESENTATIVE PROJECT EXPERIENCE

Archaeological Survey, US 17 Jacksonville to New Bern, Jones and Onslow counties, North Carolina  
Archaeological Survey, Catawba River WTP and Reservoir, Lancaster County, South Carolina  
Archaeological Survey, Honey Hill Analysis Area, Francis Marion National Forest, Berkeley and Charleston counties, South Carolina  
Archaeological Survey of the K&M Landfill, Pickens and Gilmer Counties, Georgia  
Archaeological Testing and Data Recovery of 38LA560, Edenmoor, Lancaster County, South Carolina  
Archaeological Data Recovery of the Windsor Site (31BR201/201\*\*), US 17 Windsor Bypass, Bertie County, North Carolina  
Archaeological Data Recovery of 9BI132, 9BI133, and 9BI134, Cherokee Brick and Tile Company, Bibb County, Georgia  
Archaeological and Architectural Survey and Site Relocation: ENCNG Distribution Lines. Multiple counties, North Carolina.  
Architectural Survey, Saluda Tower. Polk and Henderson counties, North Carolina.

## REPRESENTATIVE PUBLICATIONS

### Selected Technical Reports

- 2010 *Archaeological Survey and Evaluation of the US 17 Improvements from Jacksonville to New Bern, Jones and Onslow Counties, North Carolina.* Environmental Services, Inc. Report of Investigations No.1358, Raleigh, North Carolina.
- 2008 *Archaeological Data Recovery of the Windsor Site (31BR201/201\*\*), US 17 Windsor Bypass, Bertie County, North Carolina.* Environmental Services, Inc., Raleigh, North Carolina.
- 2006 *An Intensive Cultural Resource Investigation Arlington Shores, Pamlico County, North Carolina.* Environmental Services, Inc. Report of Investigations No. 899, Raleigh, North Carolina.

### Other Papers and Conference Presentations

- 2008 Sandy Point: A Changing Historical Landscape. Poster Presented at the 65th Annual Meeting of the Southeastern Archaeological Conference, Charlotte, North Carolina.
- 2006 Review of Grave Intentions: A Comprehensive Guide to Preserving Historic Cemeteries in Georgia. Christine Van Voorhies, Georgia Department of Natural Resources. Historical Archaeology, Vol. 40, No. 2.
- 2006 Review of Mortuary Monuments and Burial Grounds of the Historic Period. Harold Mytum, Kluwer/Plenum Publishers. Historical Archaeology, Vol. 40, No. 2.
- 2002 *Uwharrie Ceramic Distribution in the Piedmont.* Unpublished M.A. Thesis. Department of Anthropology. East Carolina University. Greenville, North Carolina.



1. View from Fox Mountain Road facing northeast along the existing earthen path.



2. View facing north along existing earthen path.



3. View of existing 18" RCP to be replaced.



4. View facing west along existing earthen path.



5. View of proposed tower compound lease area.



6. View of proposed tower compound lease area.



## 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 06/09/2011. Your Notification ID number is **77249**. 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.

<b>ASR Help</b>	<a href="#">ASR License Glossary</a> - <a href="#">FAQ</a> - <a href="#">Online Help</a> - <a href="#">Documentation</a> - <a href="#">Technical Support</a>
<b>ASR Online Systems</b>	<a href="#">TOWAIR- CORES/ASR Registration</a> - <a href="#">ASR Online Filing</a> - <a href="#">Application Search</a> - <a href="#">Registration Search</a>
<b>About ASR</b>	<a href="#">Privacy Statement</a> - <a href="#">About ASR</a> - <a href="#">ASR Home</a>

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](#)

## Kyle Crawford

---

**From:** towernotifyinfo@fcc.gov  
**Sent:** Thursday, June 09, 2011 4:11 PM  
**To:** Kyle Crawford  
**Subject:** Proposed Tower Structure Info - Email ID #2822151

Dear Kyle W Crawford,

Thank you for submitting a notification regarding your proposed construction via the Tower Construction Notification System. Note that the system has assigned a unique Notification ID number for this proposed construction. 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 construction you have proposed:

Notification Received: 06/09/2011

Notification ID: 77249

Tower Owner Individual or Entity Name: TEP for the North Carolina Highway Patrol

Consultant Name: Kyle W Crawford

Street Address: 3703 Junction Blvd.

City: Raleigh

State: NORTH CAROLINA

Zip Code: 27603-5263

Phone: 919-661-6351

Email: [kcrawford@tepgroup.net](mailto:kcrawford@tepgroup.net)

Structure Type: UTOWER - Unguyed - Free Standing Tower

Latitude: 35 deg 59 min 52.6 sec N

Longitude: 80 deg 59 min 59.7 sec W

Location Description: Fox Mountain Road

City: Love Valley

State: NORTH CAROLINA

County: IREDELL

Ground Elevation: 533.7 meters

Support Structure: 45.7 meters above ground level

Overall Structure: 51.8 meters above ground level

Overall Height AMSL: 585.5 meters above mean sea level

## Kyle Crawford

---

**From:** towernotifyinfo@fcc.gov  
**Sent:** Friday, June 17, 2011 3:01 AM  
**To:** Kyle Crawford  
**Cc:** kim.pristello@fcc.gov; diane.dupert@fcc.gov  
**Subject:** NOTICE OF ORGANIZATION(S) WHICH WERE SENT PROPOSED TOWER CONSTRUCTION NOTIFICATION INFORMATION - Email ID #2823004

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  
Details: 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. Policy Analyst Richard L Allen - Cherokee Nation - Tahlequah, OK - electronic mail

Details: 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

3. Administrative Assistant Jo Ann Beckham - Eastern Shawnee Tribe of Oklahoma - Seneca, MO - electronic mail

Details: 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))

4. THPO Kim Jumper - Shawnee Tribe - Miami, OK - regular mail

Details: 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 Kim Jumper, THPO, 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). THPO Kim Jumper 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.

5. THPO and Executive Director Dr. Wenonah G Haire - Catawba Indian Nation Cultural Preservation Project - Rock Hill, SC - electronic mail and regular mail  
Details: 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 project area.
- \_\_\_\_ 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 note: Our research/processing fee is currently \$150. This fee will be changing effective January 1, 2011 to \$250.

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.

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

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

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: 06/09/2011  
Notification ID: 77249  
Tower Owner Individual or Entity Name: TEP for the North Carolina Highway Patrol  
Consultant Name: Kyle W Crawford  
Street Address: 3703 Junction Blvd.

City: Raleigh  
State: NORTH CAROLINA  
Zip Code: 27603-5263  
Phone: 919-661-6351  
Email: kcrawford@tepgroup.net

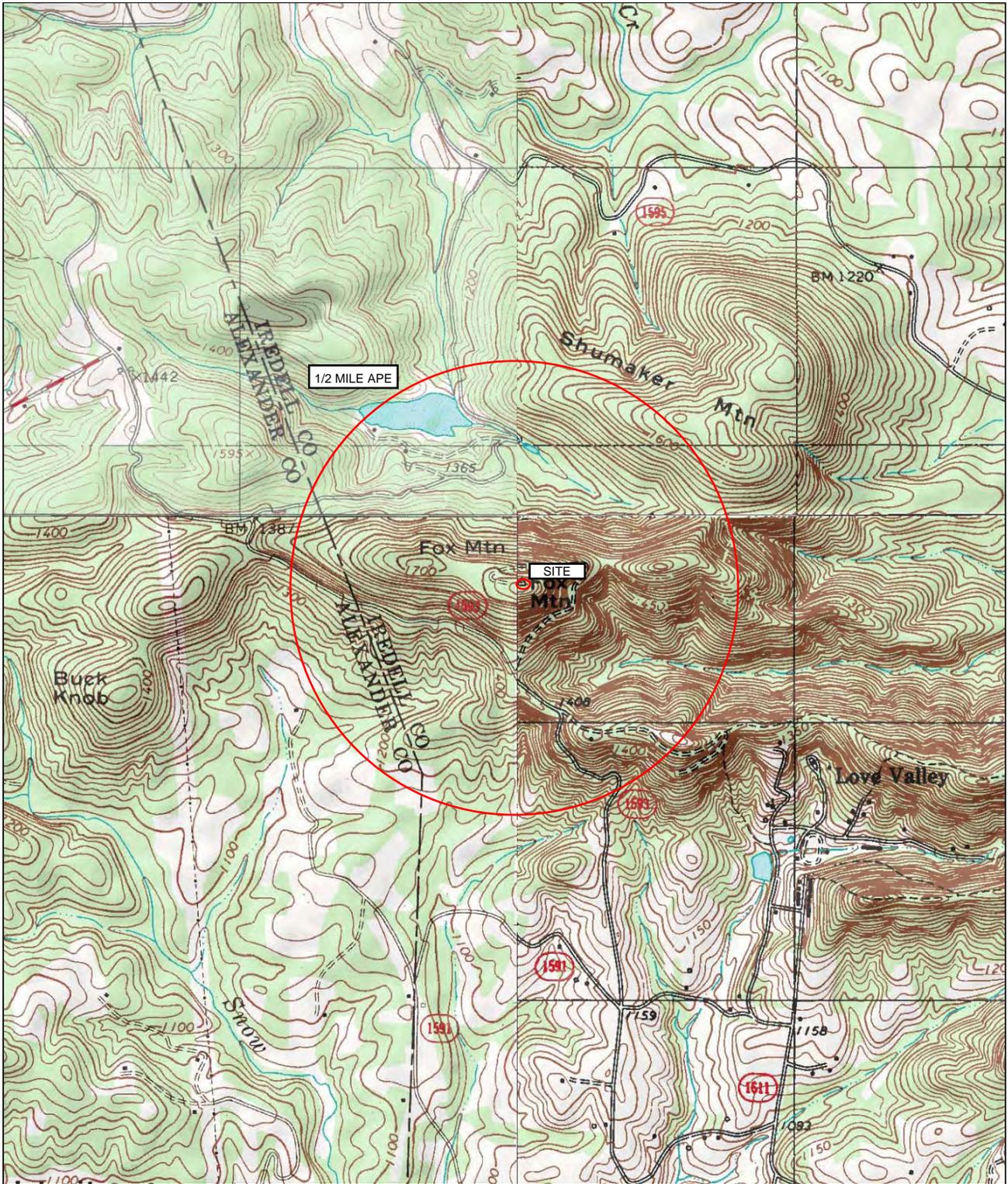
Structure Type: UTOWER - Unguyed - Free Standing Tower  
Latitude: 35 deg 59 min 52.6 sec N  
Longitude: 80 deg 59 min 59.7 sec W  
Location Description: Fox Mountain Road  
City: Love Valley  
State: NORTH CAROLINA  
County: IREDELL  
Ground Elevation: 533.7 meters  
Support Structure: 45.7 meters above ground level  
Overall Structure: 51.8 meters above ground level  
Overall Height AMSL: 585.5 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>.

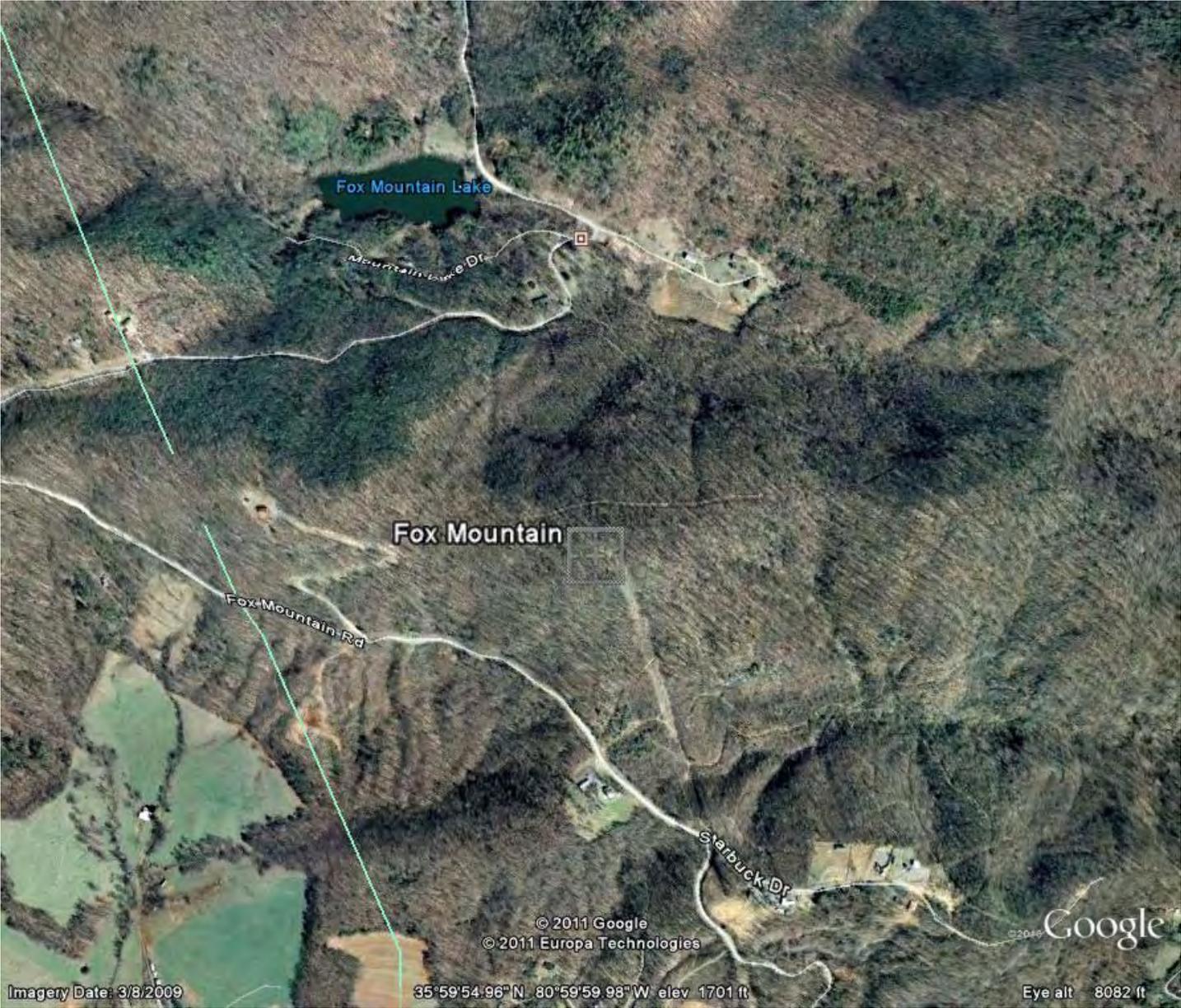
You may also call the FCC Support Center at (877) 480-3201 (TTY 717-338-2824). Hours are from 8 a.m. to 7:00 p.m. Eastern Time, Monday through Friday (except Federal holidays). To provide quality service and ensure security, all telephone calls are recorded.

Thank you,  
Federal Communications Commission



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0 2000 Ft

Map provided by MyTopo.com



Fox Mountain Lake

Mountain Lake Dr

Fox Mountain

Fox Mountain Rd

Starbuck Dr

© 2011 Google  
© 2011 Europa Technologies

Google

Imagery Date: 3/8/2009

35°59'54.96" N 80°59'59.98" W elev 1701 ft

Eye alt 8082 ft

### **Section III – Informal Biological Assessment**

**COMMUNICATIONS TOWER SITE**  
**EVALUATION FORM**

1. Location (Provide maps if possible):  
State: NC  
County: Iredell  
Latitude/Longitude/GPS Grid: N 35° 59' 52.693" W 80° 59' 59.792"  
City and Highway Direction (2 miles W on Hwy 20, etc.): northwest of the town of Love Valley in northwestern Iredell County, NC
2. Elevation above mean sea level: ~1,750-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: 150-ft (170-ft with appurtenances)  
Construction Type (lattice, monopole, etc.): Self Support Lattice  
Guyed-Wire? NO No. Bands: N/A Total No. Wires: N/A  
Lightning (Security and Aviation): anticipated to be an unlit structure.
6. Area of tower footprint in acres or square feet: According to preliminary zoning drawings the area of construction is anticipated to total ~39,396-sq. ft. (0.9-acres)
7. Length and width of access road in feet:  
Length: ~3,177-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: semi-isolated mountain summit in the foothills, sloping to the west in the vicinity of the proposed tower compound
9. Meteorological conditions (incidence of fog, low ceilings, rain, etc.): sunny
10. Soil Type(s): Evard-Cowee complex, 8-25% slopes (EvE), stony; consists of well drained creep deposits over residuum weathered from schist and/or gneiss and found on mountain slopes and ridges
11. Habitat types and land use on and adjacent to the site:

Habitat Type:                      Acreage:                      Percentage of Total:  
Undeveloped Forested                      100 %

Adjacent land use: undeveloped forested, agricultural and low density residential

12. Dominant vegetative species in each habitat type:  
Upland hardwood forest, primarily dominated by poplar and maple
13. Average diameter breast height of dominant tree species in forested areas:  
Tree species:  
Yellow Poplar (*Liriodendron tulipifera*)  
American Beech (*Fagus grandifolia*)  
Red Maple (*Acer rubrum*)  
Sourwood (*Oxydendrum arboretum*)  
Pignut Hickory (*Carya glabra*)  
Eastern Redbud (*Cercis canadensis*)  
Black Walnut (*Juglans nigra*)
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: According to the National Wetlands Inventory Map the nearest wetland is located approximately 1-mile to the northwest.
17. Distance to nearest telecommunications tower: less than 5-miles. According to the FCC ASR Search, the nearest FCC licensed tower is a 36.6 meter guyed tower located approximately 100-ft east of the proposed tower
18. Potential for co-location of antennas on existing towers or other structures: No
19. Have measures been incorporated for minimizing impacts to migratory birds? Y/N YES If yes, describe: Tower is less than 200-ft AGL, does not involve the use of guyed wires, and is anticipated to be an unlit structure.
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                      If yes, present findings:  
During the on-site investigation, TEP observed no occurrences of Federally Listed Threatened or Endangered Species for Iredell County. It is the opinion of TEP that the proposed facility may affect but is not likely to adversely affect threatened or endangered species.

## U.S. Fish & Wildlife Service

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

## Iredell County, North Carolina



Updated: 09-22-2010

Common Name	Scientific name	Federal Status	Record Status
<b>Vertebrate:</b>			
Allegheny woodrat	<i>Neotoma magister</i>	FSC	Current
<a href="#">Bog turtle</a>	<i>Clemmys muhlenbergii</i>	T (S/A)	Current
<b>Invertebrate:</b>			
<b>Vascular Plant:</b>			
<a href="#">Dwarf-flowered heartleaf</a>	<i>Hexastylis naniflora</i>	T	Current
Prairie birdsfoot-trefoil	<i>Lotus unifoliolatus</i> var. <i>helleri</i>	FSC	Historic
<b>Nonvascular Plant:</b>			
<b>Lichen:</b>			

### Definitions of Federal Status Codes:

E = endangered. A taxon "in danger of extinction throughout all or a significant portion of its range."

T = threatened. A taxon "likely to become endangered within the foreseeable future throughout all or a significant portion of its range."

C = candidate. A taxon under consideration for official listing for which there is sufficient information to support listing. (Formerly "C1" candidate species.)

BGPA = Bald and Golden Eagle Protection Act. See below.

FSC = federal species of concern. A species under consideration for listing, for which there is insufficient information to support listing at this time. These species may or may not be listed in the future, and many of these species were formerly recognized as "C2" candidate species.

T(S/A) = threatened due to similarity of appearance. A taxon that is threatened due to similarity of appearance with another listed species and is listed for its protection. Taxa listed as T(S/A) are not biologically endangered or threatened and are not subject to Section 7 consultation. See below.

EXP = experimental population. A taxon listed as experimental (either essential or nonessential).

Experimental, nonessential populations of endangered species (e.g., red wolf) are treated as threatened species on public land, for consultation purposes, and as species proposed for listing on private land.

P = proposed. Taxa proposed for official listing as endangered or threatened will be noted as "PE" or "PT", respectively.

**Bald and Golden Eagle Protection Act (BGPA):**

In the July 9, 2007 Federal Register (72:37346-37372), the bald eagle was declared recovered, and removed (de-listed) from the Federal List of Threatened and Endangered wildlife. This delisting took effect August 8, 2007. After delisting, the Bald and Golden Eagle Protection Act (Eagle Act) (16 U.S.C. 668-668d) becomes the primary law protecting bald eagles. The Eagle Act prohibits take of bald and golden eagles and provides a statutory definition of "take" that includes "disturb". The USFWS has developed National Bald Eagle Management Guidelines to provide guidance to land managers, landowners, and others as to how to avoid disturbing bald eagles. For more information, visit <http://www.fws.gov/migratorybirds/baldeagle.htm>

**Threatened due to similarity of appearance(T(S/A)):**

In the November 4, 1997 Federal Register (55822-55825), the northern population of the bog turtle (from New York south to Maryland) was listed as T (threatened), and the southern population (from Virginia south to Georgia) was listed as T(S/A) (threatened due to similarity of appearance). The T(S/A) designation bans the collection and interstate and international commercial trade of bog turtles from the southern population. The T(S/A) designation has no effect on land management activities by private landowners in North Carolina, part of the southern population of the species. In addition to its official status as T(S/A), the U.S. Fish and Wildlife Service considers the southern population of the bog turtle as a Federal species of concern due to habitat loss.

**Definitions of Record Status:**

Current - the species has been observed in the county within the last 50 years.

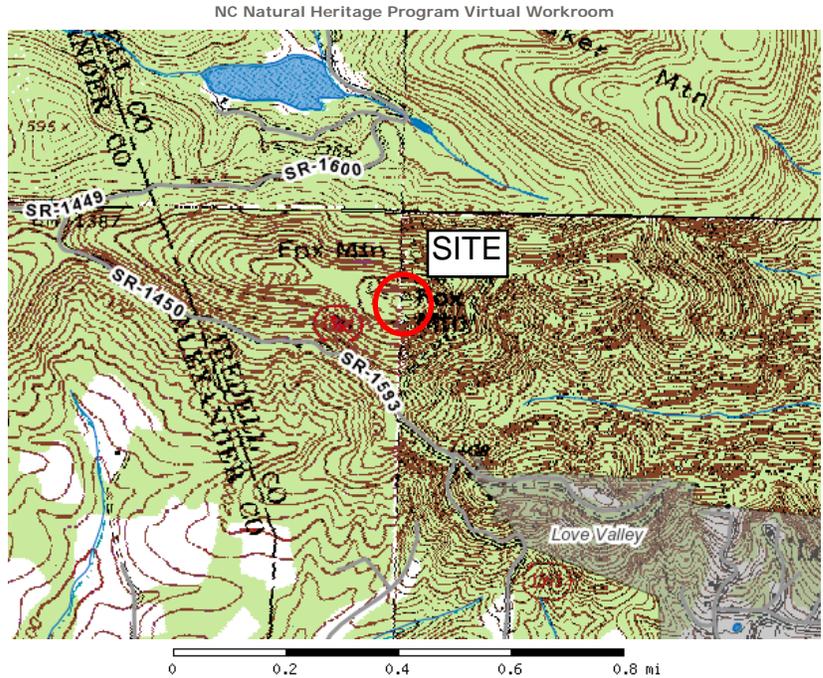
Historic - the species was last observed in the county more than 50 years ago.

Obscure - the date and/or location of observation is uncertain.

Incidental/migrant - the species was observed outside of its normal range or habitat.

Probable/potential - the species is considered likely to occur in this county based on the proximity of known records (in adjacent counties), the presence of potentially suitable habitat, or both.

- Legend**
- Element Occurrences (not displayed)
  - Significant Natural Heritage Areas
  - Managed Areas
  - Roads
  - Municipalities
  - Rivers and Lakes
  - Topo Maps
  - Aerial Images (2010)
  - Topo Boundaries
  - County Boundaries
  - Redraw Map



GIS Data Sources: NCNHP, CGIA, NCDOT, USGS. NCNHP data updated on: 2011-Jun-15

[Home](#) [Help](#)

Locator Map



Map Size:  
600 x 450

Functions

- Zoom In
- Zoom Out
- Pan
- Identify

Quick View

--Choose Region--

[Problems or Questions?](#)

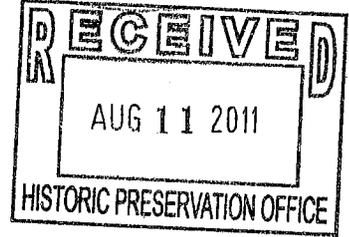
Powered By: [MapServer](#) [PHP](#) [PostgreSQL](#) [PostGIS](#)

**0 record(s) found within 2 miles of the 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**

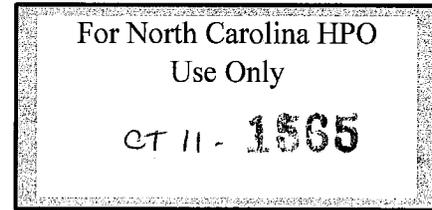
## **Section IV - NEPA Supporting Documentation**



### 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



#### 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 # HP-1364  
 Address: Fox Mountain Road, Love Valley 28625  
 County: Iredell, NC      FCC Registration No. \_\_\_\_\_  
 Tower type and height: 150-ft SST (170-ft with appurt.)      Quad Name: Hiddenite Central

#### 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 0.5-mile radius: 0

#### IV. Additional Information/Investigation Needed:

No Survey  
No Testing of sites \_\_\_\_\_  
 Recommended by/on: JSM 8/12/11  
 (Office of State Archaeology)

\_\_\_\_\_ Photo Reconnaissance  
 \_\_\_\_\_ Balloon Test  
 Recommended by/on: ak  
 (Survey & Planning Branch)

#### 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.

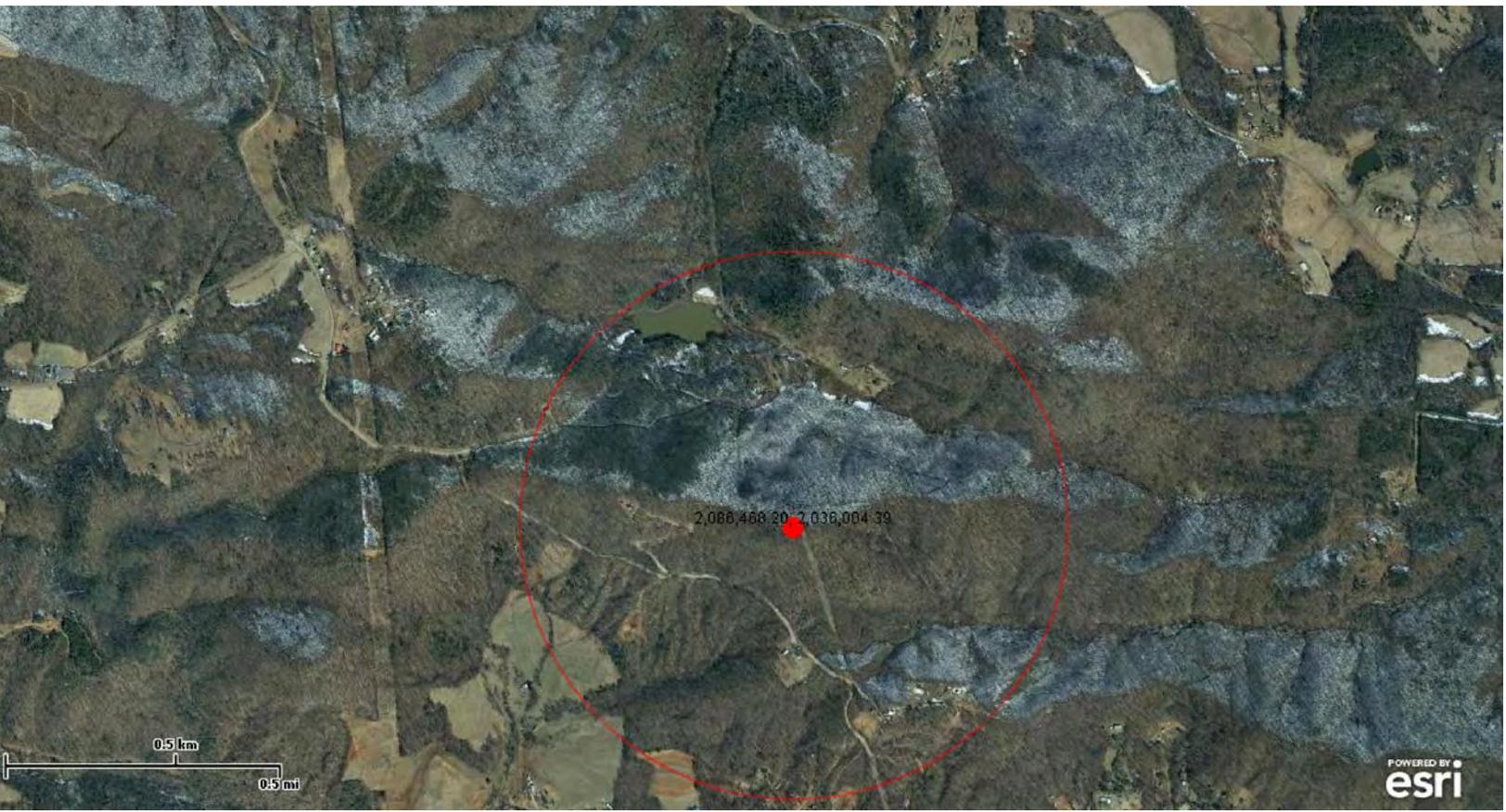
Renee Gledhill-Earley  
 Renee Gledhill-Earley, Environmental Review Coordinator

8-12-11  
 Date

cc: FCC

# SHPO

Fox Mountain



Copyright 2010 Esri. All rights reserved. Tue Aug 9 2011 08:29:38 AM.

Statesville Record & Landmark

Advertising Affidavit

RECEIVED  
JUL 21 2011

Account Number  
3127987

BY: .....  
North Carolina Community Newspapers  
PO Box 968  
Hickory, NC 28603

Date  
July 15, 2011

TOWER ENGINEERING PROFES  
3703 JUNCTION BLVD  
RALEIGH, NC 27603

Date	Category	Description	Ad Number	Ad Size
07/15/2011	Legal Notices	Public Notice: The North Carolina Depart	0002360441	1 x 16 L

**Public Notice:** The North Carolina Department of Crime Control and Public Safety proposes the construction of a 150-ft (170-ft with appurtenances) Self Support Emergency Services Tower east of Fox Mountain Road, south of Coolbrook Road, northwest of the Community of Love Valley, in northwestern Iredell County, NC (PIN# 4802945532). Please submit any written comments by 8/15/11 regarding the potential effects that the proposed tower may have on Historic Properties that are listed or eligible for inclusion in the National Register of Historic Places to: Tower Engineering Professionals, Inc. (Attn: George Swearingen) 3703 Junction Blvd. Raleigh, NC 27603 Telephone: (919) 661-6351 Fax: (919) 661-6350  
**PUBLISH: July 15, 2011**

**Media General Operations, Inc.**  
**Publisher of**  
**Statesville Record & Landmark**  
**Iredell County**

Before the undersigned, a Notary Public of Catawba County, North Carolina, duly commissioned, qualified, and authorized by law to administer oaths, 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 copy of which is attached hereto, was published in the Statesville Record & Landmark on the following dates:

07/15/2011

and that the said newspaper in which such notice, or legal advertisement was published, was a newspaper meeting all the requirements and qualifications of Section 1-597 of the General Statutes of North Carolina.

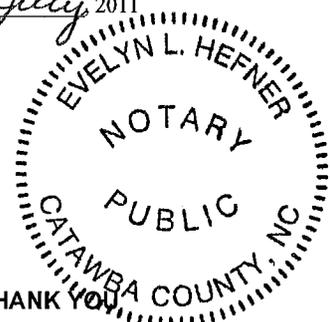
*George Swearingen*  
Assistant Bookkeeper

Newspaper reference: 0002360441

Sworn to and subscribed before me, this 19th day of July, 2011

*Evelyn L. Hefner*  
Notary Public

My Commission expires: March 11, 2014.



## Andrew Blake

---

**From:** Alison Adams [aadams@statesvillenc.net]  
**Sent:** Friday, August 12, 2011 10:07 AM  
**To:** Andrew Blake  
**Subject:** Fox Mountain Tower TCNS# 77249

Mr. Blake,

I received your packet of information this morning for Fox Mountain. I will not be reviewing the packet due to the property being outside the City of Statesville's jurisdiction. Iredell County Planning Department shall review the application to determine if the request shall be permitted.

Thank you,

*Alison Adams*

Planner II, Historic Preservation  
PO Box 1111  
Statesville, NC 28687  
704-878-3578 (phone)  
704-878-3464 (fax)





# United States Department of the Interior

## FISH AND WILDLIFE SERVICE

Asheville Field Office  
160 Zillicoa Street  
Asheville, North Carolina 28801

August 17, 2011

Mr. Kyle W. Crawford  
Tower Engineering Professionals  
3703 Junction Boulevard  
Raleigh, NC 27603-5263

Dear Mr. Crawford:

We have reviewed your letter dated August 3, 2011 (received August 8, 2011), concerning the proposed construction of communications tower on Fox Mountain Road, Love Valley, Iredell County, North Carolina (Fox Mountain Tower). The following comments are provided in accordance with the National Environmental Policy Act (42 U.S.C. §4321 et seq.); the Migratory Bird Treaty Act (16 U.S.C. 703, et seq.) (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 about 170 feet high (with appurtenances) and will be of a self-supporting design. The tower is anticipated to be an unlit structure. The tower will be placed in a wooded area in a 0.29 acre compound. An existing dirt road will be rehabilitated for access to the site.

**Endangered Species.** Based on the information provided in your letter, we concur with your conclusion that the proposed communications tower will not 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.

**Migratory Birds.** We are concerned about the potential hazard this tower could pose to migratory birds. We would prefer that you collocate an antenna on an existing tower instead of constructing a new tower. However, if you choose to construct this tower as proposed, 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. Limited data exist for bird strikes to towers of this

nature in this area, and one important way your company can greatly assist in improving our knowledge base is by working with us through cooperative agreements that include permission to gain access to standing towers of this type. Our access would occur at regular or random intervals and/or following weather events that are known to induce avian strikes.

If you have any questions regarding this matter, please contact Mr. Allen Ratzlaff of our staff at 828/258-3939, Ext. 229. Please reference our log number 4-2-11-305 in any correspondence pertaining to this matter.

**Beverly Eaves Perdue**  
Governor  
**Reuben F. Young**  
Secretary  
**Michael W. Gilchrist**  
Colonel



North Carolina  
Department of Crime Control and Public Safety  
**State Highway Patrol**

**Location:**  
512 N. Salisbury Street  
Raleigh, NC 27604  
(919) 733-7952

**Mailing Address:**  
4702 Mail Service Center  
Raleigh, NC 27699-4702

August 17, 2011

Mr. Allen Ratzlaff  
U.S. Fish & Wildlife Service  
160 Zillicoa Street  
Asheville, NC 28801

Re: Log Number 4-2-11-305  
North Carolina Department of Crime Control and Public Safety allowing the United States Department of Interior: Fish and Wildlife Service (USFWS) access to the 170-ft Self Supporting Communications Tower in Iredell County, NC

Dear Mr. Ratzlaff:

The North Carolina Department of Crime Control & Public Safety will allow the U.S. Fish and Wildlife Service (USFWS) to access the restricted area surrounding the proposed Fox Mt. tower site upon the completion of proposed tower construction for the sole purpose of avian mortality surveys. Due to the USFWS concerns expressed in a letter dated 08/17/2011 regarding the proposed 170-ft self-supporting tower's potential effect on Migratory birds; the N.C. Dept. of Crime Control and Public Safety will grant the USFWS permission to conduct surveys for dead birds within the Communications tower property. The Communications tower property will be restricted to the fenced compound surrounding the aforementioned tower and the necessary ground equipment.

Access to the property for the purpose of conducting the avian mortality surveys will be restricted to USFWS personnel. In addition, the N.C. Dept. of Crime Control and Public Safety will also require that Tanya Luter of the N.C. Dept. of Crime Control and Public Safety be informed of any proposed surveys at least 72 hours in advance of any surveys conducted. She can be reached via phone at 919-662-4440 or email [tluter@ncshp.org](mailto:tluter@ncshp.org). N.C. Dept. of Crime Control and Public Safety personnel will accompany USFWS personnel to the site for the purpose of providing access to restricted areas.

Sincerely,

A handwritten signature in cursive script that reads "Captain Robert V. West".

Captain R.V. West  
N.C. State Highway Patrol

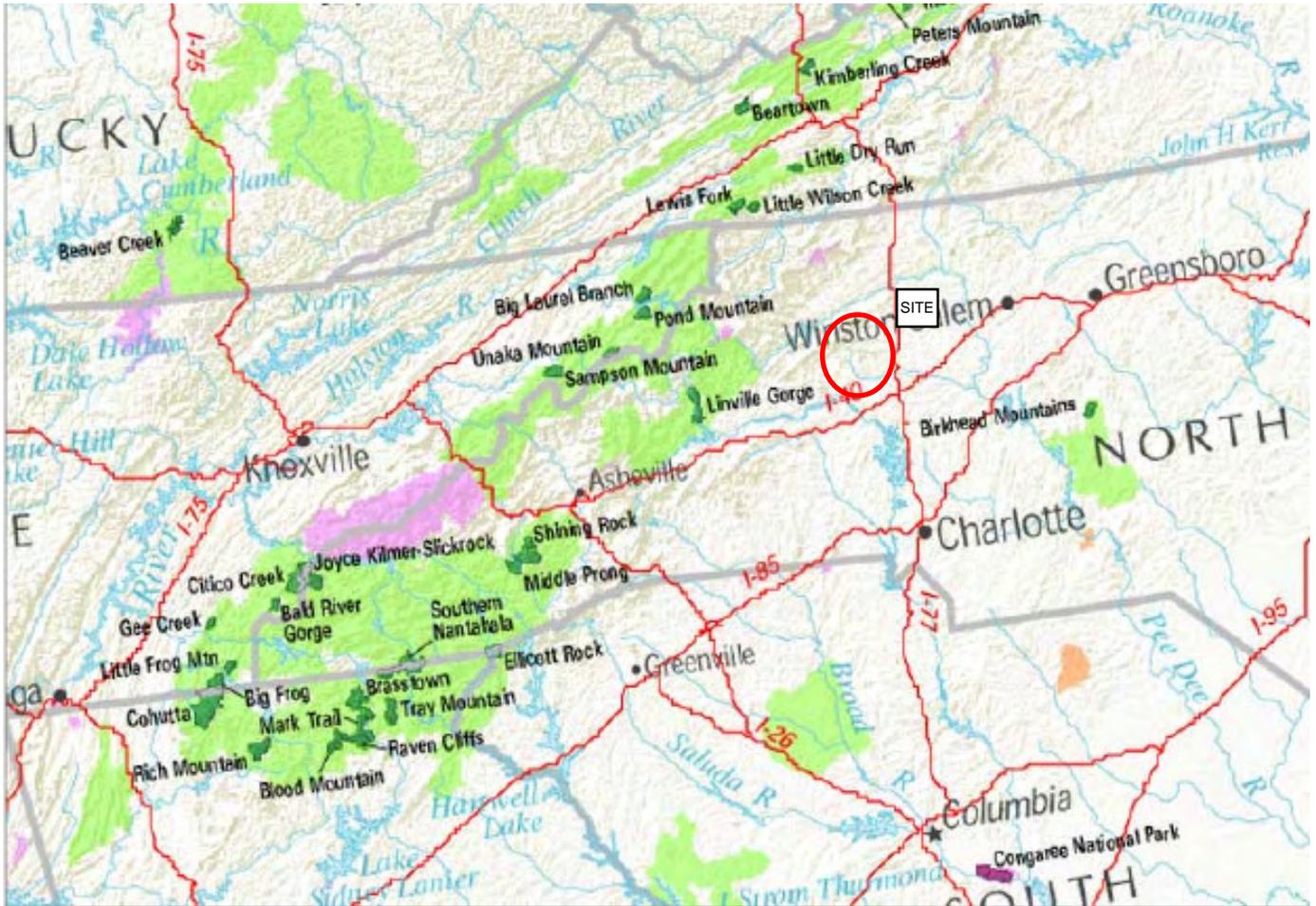


An Internationally  
Accredited Agency

**Law Enforcement Oath of Honor**

On my honor, I will never betray my badge, my integrity, my character, or the public trust. I will always have the courage to hold myself and others accountable for our actions. I will always uphold the constitution, my community, and the agency I serve.

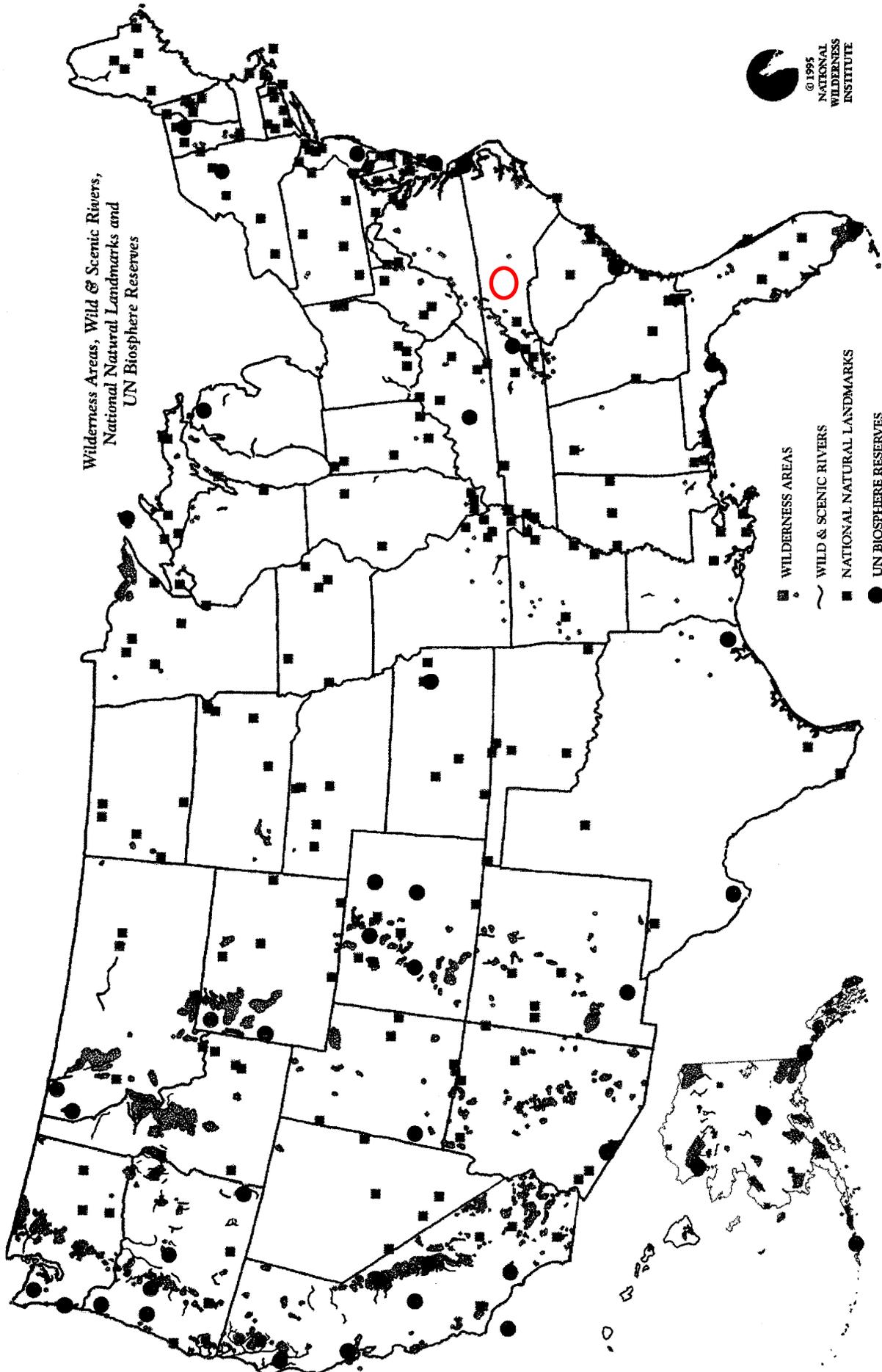
## U.S. National Wilderness Preservation System Map



### Map Legend

- Bureau of Land Management Wilderness
- Bureau of Land Management NON-Wilderness
- Fish & Wildlife Service Wilderness
- Fish & Wildlife Service NON-Wilderness
- Forest Service Wilderness
- Forest Service NON-Wilderness
- National Park Service Wilderness
- National Park Service NON-Wilderness
- Major Roads
- Ferry Routes (AK)





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

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

[Links to descriptions of places on map.](#) [Wilderness Areas](#) / [Wild and Scenic Rivers](#) / [UN Biosphere Reserves](#) / [National Natural Landmarks](#)

© 1995 by National Wilderness Institute.

For a full resolution 11" x17" version of this map with source information order the "This Land Is Whose Land?" issue of the NWI Resource from NWI. Contact us for details.

# NORTH CAROLINA NATIONAL NATURAL LANDMARKS MAP





NATIONAL REGISTRY  
OF NATURAL LANDMARKS  
JUNE 2009

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**Wayne County**

**ZURICH BOG**

Zurich Bog is a good example of northern sphagnum bog and bog forest vegetation, both of which are uncommon in north-central New York. Designated: 1973. Ownership: Private.

**Westchester County**

**MIANUS RIVER GORGE**

The Mianus River Gorge contains an excellent climax hemlock forest and presents an exceptional illustration of piedmont physiography and geomorphology. Designated: 1964. Ownership: Private.

**NORTH CAROLINA (13)**

**Alleghany County**

**STONE MOUNTAIN**

(extends into Wilkes County) Stone Mountain, located within Stone Mountain State Park, is the best example of a monadnock in massive granite in North Carolina. Unique, endemic plants persist on the granite outcrops. Designated: 1974. Ownership: State.

**Ashe County**

**LONG HOPE CREEK  
SPRUCE BOG**

(extends into Watauga County) Long Hope Creek Spruce Bog is one of the rarest plant communities in North Carolina and the Southeast, including plant species such as American yew and buckbean. Designated: 1974. Ownership: Private.

**MOUNT JEFFERSON  
STATE NATURAL AREA**

Mount Jefferson State Natural Area contains virtually undisturbed northern red oak forests, and represents one of the best remaining examples of oak-chestnut forest in the Southeast. Designated: 1974. Ownership: State.

**Beaufort County**

**GOOSE CREEK STATE  
PARK NATURAL AREA**

Goose Creek State Park Natural Area is an excellent example of a gently sloping mainland undergoing rapid ocean transgression. The site contains several diverse ecological communities including: brackish creeks and marshes, marsh transition areas, river swamp forest, and pine forest. Designated: 1980. Ownership: State.



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OF NATURAL LANDMARKS  
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**Brunswick County**

**GREEN SWAMP**

Green Swamp is the largest and most unique mosaic of wetland communities in the Carolinas and is a refuge for rare plant and animal species. Designated: 1974. Ownership: Private.

**SMITH ISLAND**

(extends into New Hanover County) Smith Island, located within Fort Fisher State Recreation Area, is a barrier island complex representing one of the least disturbed areas remaining on the Atlantic Coast. The site contains one of the best unaltered examples of sand strand forest in existence, and a system of sand dunes. Salt marshes, tidal creeks, bays, and mudflats are used extensively by aquatic birds, and island beaches provide breeding habitat for loggerhead turtles. Designated: 1967. Ownership: State.

**Dare County**

**NAGS HEAD WOODS  
AND JOCKEY'S RIDGE**

Nags Head Woods and Jockey's Ridge illustrates the entire series of dune development and plant succession, from shifting open dunes to forested stabilized dunes. Designated: 1974. Ownership: State, county, municipal, private.

**Davie County**

**ORBICULAR DIORITE**

The Orbicular Diorite site contains an unusual plutonic igneous rock consisting of hornblende, pyroxene, and feldspars. Designated: 1980. Ownership: Private.

**Hyde County**

**SALYER'S RIDGE  
NATURAL AREA**

Salyer's Ridge Natural Area, located within the Mattamuskeet National Wildlife Refuge, contains a rare example of mature loblolly pine forest in process of succession towards a deciduous forest. Designated: 1983. Ownership: Federal.

**New Hanover County**

**SMITH ISLAND**

(see Brunswick County)

**Onslow County**

**BEAR ISLAND**

Bear Island, located within Hammocks Beach State Park, contains one of the largest and best examples of coastal eolian landforms in the Atlantic Coastal Plain biophysiological province. Dune movement has created a dynamic landscape of outstanding scenic beauty. Designated: 1980. Ownership: State.



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OF NATURAL LANDMARKS  
JUNE 2009

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**Surry County**

**PILOT MOUNTAIN**

Pilot Mountain, located within Pilot Mountain State Park, is a classic monadnock that harbors disjunct vegetation from the Blue Ridge region. Designated: 1974. Ownership: State.

**Wake County**

**PIEDMONT BEECH  
NATURAL AREA**

Piedmont Beech Natural Area, located within William B. Umstead State Park, is one of the best examples of mixed mesophytic forest in the eastern Piedmont of North Carolina. Portions of the site contain unusual examples of good, maturing stands of beech. Designated: 1974. Ownership: State.

**Watauga County**

**LONG HOPE CREEK  
SPRUCE BOG**

(see Ashe County)

**Wilkes County**

**STONE MOUNTAIN**

(see Alleghany County)

**Yancey County**

**MOUNT MITCHELL STATE  
PARK**

Mount Mitchell, located within Mount Mitchell State Park, is the highest mountain in the eastern half of the United States at 6,684 feet. The site supports the most extensive stand of Fraser fir remaining in the country. Designated: 1974. Ownership: State.

**NORTH DAKOTA (4)**

**Billings County**

**TWO-TOP MESA AND BIG  
TOP MESA**

Located one mile apart, Two-Top Mesa and Big Top Mesa are in a badlands terrain of sandstones, siltstones and clay. The mesas are characterized by an unbroken cover of grass on flat relief. Designated: 1965. Ownership: Federal.

**Cavalier County**

**RUSH LAKE**

A large shallow, essentially undisturbed prairie pothole lake, Rush Lake is an important staging area for waterfowl. Designated: 1975. Ownership: Private.



## 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 06/09/2011. Your Notification ID number is **77249**. 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.

<b>ASR Help</b>	<a href="#">ASR License Glossary</a> - <a href="#">FAQ</a> - <a href="#">Online Help</a> - <a href="#">Documentation</a> - <a href="#">Technical Support</a>
<b>ASR Online Systems</b>	<a href="#">TOWAIR- CORES/ASR Registration</a> - <a href="#">ASR Online Filing</a> - <a href="#">Application Search</a> - <a href="#">Registration Search</a>
<b>About ASR</b>	<a href="#">Privacy Statement</a> - <a href="#">About ASR</a> - <a href="#">ASR Home</a>

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](#)

## Kyle Crawford

---

**From:** towernotifyinfo@fcc.gov  
**Sent:** Thursday, June 09, 2011 4:11 PM  
**To:** Kyle Crawford  
**Subject:** Proposed Tower Structure Info - Email ID #2822151

Dear Kyle W Crawford,

Thank you for submitting a notification regarding your proposed construction via the Tower Construction Notification System. Note that the system has assigned a unique Notification ID number for this proposed construction. 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 construction you have proposed:

Notification Received: 06/09/2011

Notification ID: 77249

Tower Owner Individual or Entity Name: TEP for the North Carolina Highway Patrol

Consultant Name: Kyle W Crawford

Street Address: 3703 Junction Blvd.

City: Raleigh

State: NORTH CAROLINA

Zip Code: 27603-5263

Phone: 919-661-6351

Email: [kcrawford@tepgroup.net](mailto:kcrawford@tepgroup.net)

Structure Type: UTOWER - Unguyed - Free Standing Tower

Latitude: 35 deg 59 min 52.6 sec N

Longitude: 80 deg 59 min 59.7 sec W

Location Description: Fox Mountain Road

City: Love Valley

State: NORTH CAROLINA

County: IREDELL

Ground Elevation: 533.7 meters

Support Structure: 45.7 meters above ground level

Overall Structure: 51.8 meters above ground level

Overall Height AMSL: 585.5 meters above mean sea level

## Kyle Crawford

---

**From:** towernotifyinfo@fcc.gov  
**Sent:** Friday, June 17, 2011 3:01 AM  
**To:** Kyle Crawford  
**Cc:** kim.pristello@fcc.gov; diane.dupert@fcc.gov  
**Subject:** NOTICE OF ORGANIZATION(S) WHICH WERE SENT PROPOSED TOWER CONSTRUCTION NOTIFICATION INFORMATION - Email ID #2823004

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  
Details: 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. Policy Analyst Richard L Allen - Cherokee Nation - Tahlequah, OK - electronic mail

Details: 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

3. Administrative Assistant Jo Ann Beckham - Eastern Shawnee Tribe of Oklahoma - Seneca, MO - electronic mail

Details: 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))

4. THPO Kim Jumper - Shawnee Tribe - Miami, OK - regular mail

Details: 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 Kim Jumper, THPO, 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). THPO Kim Jumper 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.

5. THPO and Executive Director Dr. Wenonah G Haire - Catawba Indian Nation Cultural Preservation Project - Rock Hill, SC - electronic mail and regular mail  
Details: 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 project area.
- \_\_\_\_ 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 note: Our research/processing fee is currently \$150. This fee will be changing effective January 1, 2011 to \$250.

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.

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

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

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: 06/09/2011  
Notification ID: 77249  
Tower Owner Individual or Entity Name: TEP for the North Carolina Highway Patrol  
Consultant Name: Kyle W Crawford  
Street Address: 3703 Junction Blvd.

City: Raleigh  
State: NORTH CAROLINA  
Zip Code: 27603-5263  
Phone: 919-661-6351  
Email: kcrawford@tepgroup.net

Structure Type: UTOWER - Unguyed - Free Standing Tower  
Latitude: 35 deg 59 min 52.6 sec N  
Longitude: 80 deg 59 min 59.7 sec W  
Location Description: Fox Mountain Road  
City: Love Valley  
State: NORTH CAROLINA  
County: IREDELL  
Ground Elevation: 533.7 meters  
Support Structure: 45.7 meters above ground level  
Overall Structure: 51.8 meters above ground level  
Overall Height AMSL: 585.5 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

## Andrew Blake

---

**From:** Richard Allen [Richard-Allen@cherokee.org]  
**Sent:** Thursday, September 22, 2011 5:30 PM  
**To:** Andrew Blake  
**Subject:** RE: Proposed NC Highway Patrol Site: Fox Mountain TCNS# 77249

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)

---

**From:** Andrew Blake [<mailto:ablake@tepgroup.net>]  
**Sent:** Tuesday, August 09, 2011 12:41 PM  
**To:** Richard Allen; Richard Allen  
**Subject:** Proposed NC Highway Patrol Site: Fox Mountain TCNS# 77249

Dr. Allen,

Attached is information concerning a proposed communications tower located in Iredell County, North Carolina and identified by the North Carolina Highway Patrol as Fox Mountain. In the attachment you will find a letter, a portion of the pertinent 7.5-minute topographic map that depicts the proposed tower location, Cultural Resources Assessment, site plan, and site photographs.

It is the position of TEP that the proposed tower site does not appear to pose a threat to affect Native American sites of religious or cultural significance; however; we are requesting a letter from the Cherokee Nation to confirm our findings.

If there are any questions, or if any additional information is needed, please do not hesitate to call. Thank you for your assistance and cooperation.

Drew Blake

**Environmental Scientist | Tower Engineering Professionals, Inc.** ([www.tepgroup.net](http://www.tepgroup.net))

3703 Junction Boulevard | Raleigh, NC 27603-5263 | Office: (919) 661-6351 | Fax: (919) 661-6350 | Mobile: (919) 610-1274



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

FACSIMILE COVER PAGE

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To: Andrew FROM: Kimi Jumper  
 FIRM/AGENCY: TEP DATE/TIME: 8/25/11  
 FAX NUMBER: 919-661-6350 NO. OF PAGES, INCLUDING COVER: 1  
 PHONE NUMBER: \_\_\_\_\_ MEMO: 78862, 77249

-----

**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](http://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.

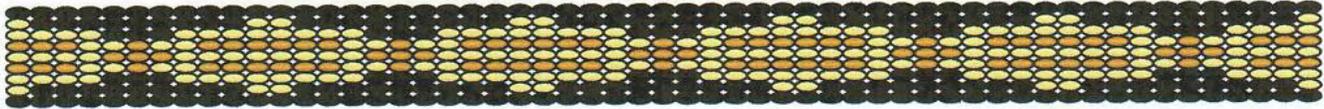
Finally, the Shawnee Tribe's Environmental and Natural Resources Department requests that cell tower sites, whenever remotely feasible, be restored to native vegetation. In all cases, habitat restoration can protect a variety of species, even in small project areas. The large number of cell tower sites 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



August 18, 2011

Attention: Andrew B. Blake  
Tower Engineering Professionals  
3703 Junction Blvd.  
Raleigh, NC 27603-5263

Re. THPO #	TCNS#	Project Description
2011-12-39	78368	Proposed 250ft Tower Appletree Drive Williston, SC
2011-12-40	78585	Proposed 350ft Tower Dekalb Kershaw Highway Camden, SC
2011-12-41	77249	Proposed 150ft Tower Fox Mountain Fox Mountain Road Love Valley, NC

Dear Mr. Blake,

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 Totherow at 803-328-2427 ext. 226, or e-mail [caitlinh@ccppcrafts.com](mailto:caitlinh@ccppcrafts.com).

Sincerely,

Wenonah G. Haire  
Tribal Historic Preservation Officer



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## NACD Query Results

### Full Data Report

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Query input:

State = North Carolina

County = Iredell

---

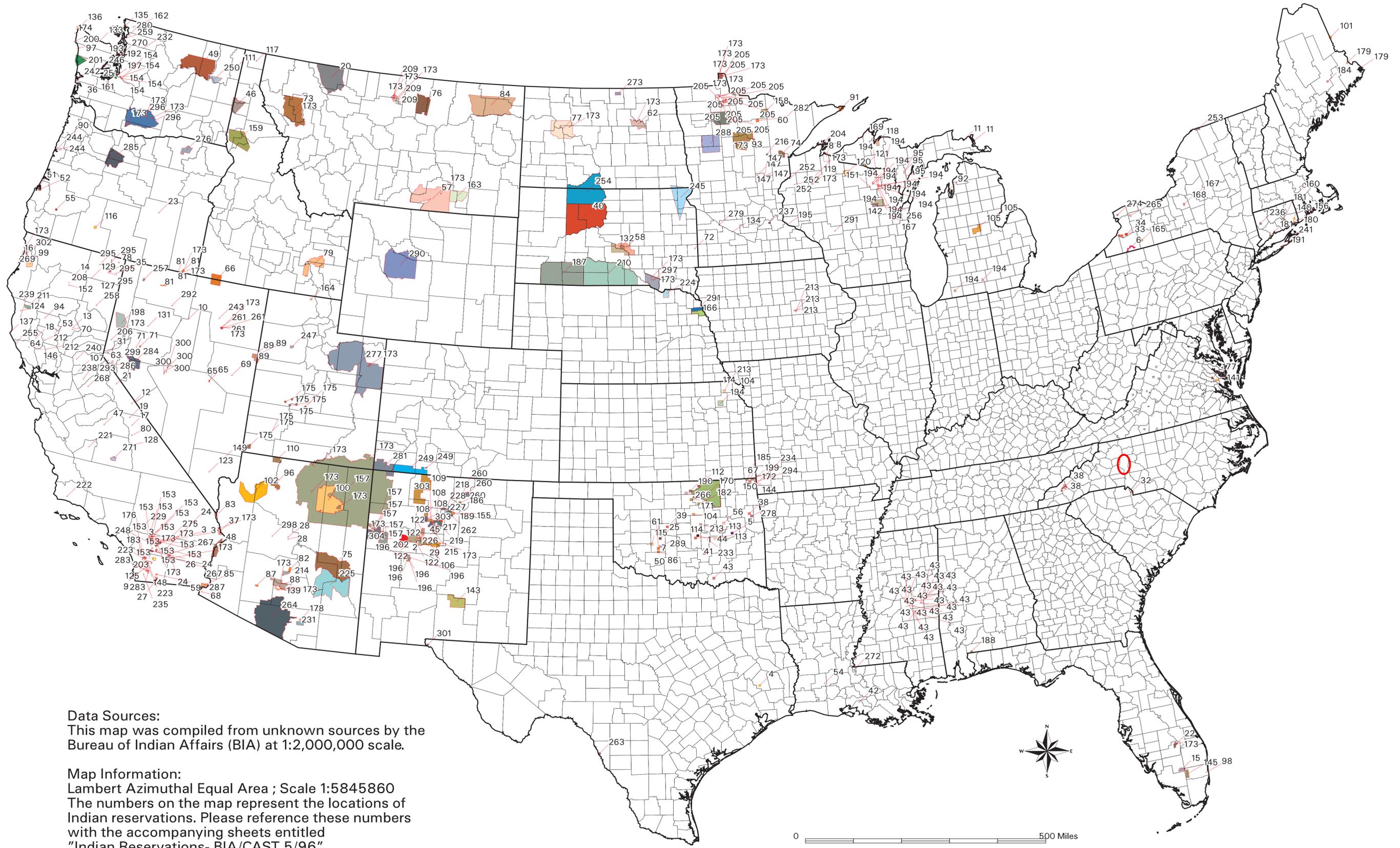
**NO RECORDS FOUND MATCHING SEARCH CRITERIA**

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[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 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)
18. BIG VALLEY	120. LAC DU FLAMBEAU	222. SANTA YNEZ

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[Review Committee](#)

[Special Topics](#)

[Contact National NAGPRA](#)

19. BISHOP	121. LAC VIEUX DESERT	223. SANTA YSABEL
20. BLACKFEET	122. LAGUNA	224. SANTEE
21. BRIDGEPORT	123. LAS VEGAS	225. SAN CARLOS
22. BRIGHTON	124. LAYTONVILLE	226. SAN FELIPE
23. BURNS PAIUTE COLONY	125. LA JOLLA	227. SAN ILDEFONSO
24. CABEZON	126. LA POSTA	228. SAN JUAN
25. CADDO *	127. LIKELY	229. SAN MANUAL
26. CAHUILLA	128. LONE PINE	230. SAN PASQUAL
27. CAMPO	129. LOOKOUT	231. SAN XAVIER
28. CAMP VERDE	130. LOS COYOTES	232. SAUK SUIATTLE
29. CANONCITO	131. LOVELOCK COLONY	233. SEMINOLE *
30. CAPITAN GRANDE	132. LOWER BRULE	234. SENECA-CAYUGA *
31. CARSON	133. LOWER ELWAH	235. SEQUAN
32. CATAWBA	134. LOWER SIOUX	236. SHAGTICOKE +
33. CATTARAUGUS	135. LUMMI	237. SHAKOPEE
34. CAYUGA *	136. MAKAH	238. SHEEP RANCH
35. CEDARVILLE	137. MANCHESTER	239. SHERWOOD VALLEY
36. CHEHALIS	138. MANZANITA	240. SHINGLE SPRING
37. CHEMEHUEVI	139. MARICOPA	241. SHINNECOCK +
38. CHEROKEE * #	140. MASHANTUCKET PEQUOT	242. SHOALWATER
39. CHEYENNE-ARAPAHOE*	141. MATTAPONI +	243. SHOSHONE
40. CHEYENNE RIVER	142. MENOMINEE	244. SILETZ
41. CHICKASAW *	143. MESCALERO	245. SISSETON
42. CHITIMACHA	144. MIAMI *	246. SKOKOMISH
43. CHOCTAW * #	145. MICCOSUKEE	247. SKULL VALLEY
44. CITIZEN BAND OF POTAWATOMI *	146. MIDDLETOWN	248. SOBOBA
45. COCHITI	147. MILLE LACS	249. SOUTHERN UTE
46. COEUR D'ALENE	148. MISSION	250. SPOKANE
47. COLD SPRINGS	149. MOAPA	251. SQUAXON ISLAND
		252. ST. CROIX

48. COLORADO RIVER  
49. COLVILLE  
50. COMANCHE \*  
51. COOS, LOWER UMPQUA  
& SIUSLAW  
52. COQUILLE \*  
53. CORTINA  
54. COUSHATTA  
55. COW CREEK  
56. CREEK \*  
57. CROW  
58. CROW CREEK  
59. CUYAPAIPE  
60. DEER CREEK  
61. DELAWARE \*  
62. DEVILS LAKE  
63. DRESSLERVILLE  
COLONY  
64. DRY CREEK  
65. DUCKWATER  
66. DUCK VALLEY  
67. EASTERN SHAWNEE \*  
68. EAST COCOPAH  
69. ELY COLONY  
70. ENTERPRISE  
71. FALLON  
72. FLANDREAU INDIAN  
SCHOOL  
73. FLATHEAD  
74. FOND DU LAC  
75. FORT APACHE

150. MODOC \*  
151. MOLE LAKE  
152. MONTGOMERY CREEK  
153. MORONGO  
154. MUCKLESHOOT  
155. NAMBE  
156. NARRAGANSETT  
157. NAVAJO  
158. NETT LAKE  
159. NEZ PERCE  
160. NIPMOC-  
HASSANAMISCO +  
161. NISQUALLY  
162. NOOKSACK  
163. NORTHERN CHEYENNE  
164. NORTHWESTERN  
SHOSHONE  
165. OIL SPRINGS  
166. OMAHA  
167. ONEIDA #  
168. ONONDAGA  
169. ONTONAGON  
170. OSAGE  
171. OTOE-MISSOURI \*  
172. OTTAWA \*  
173. OUT  
174. OZETTE  
175. PAIUTE  
176. PALA  
177. PAMUNKEY +  
178. PASCUA YAQUI

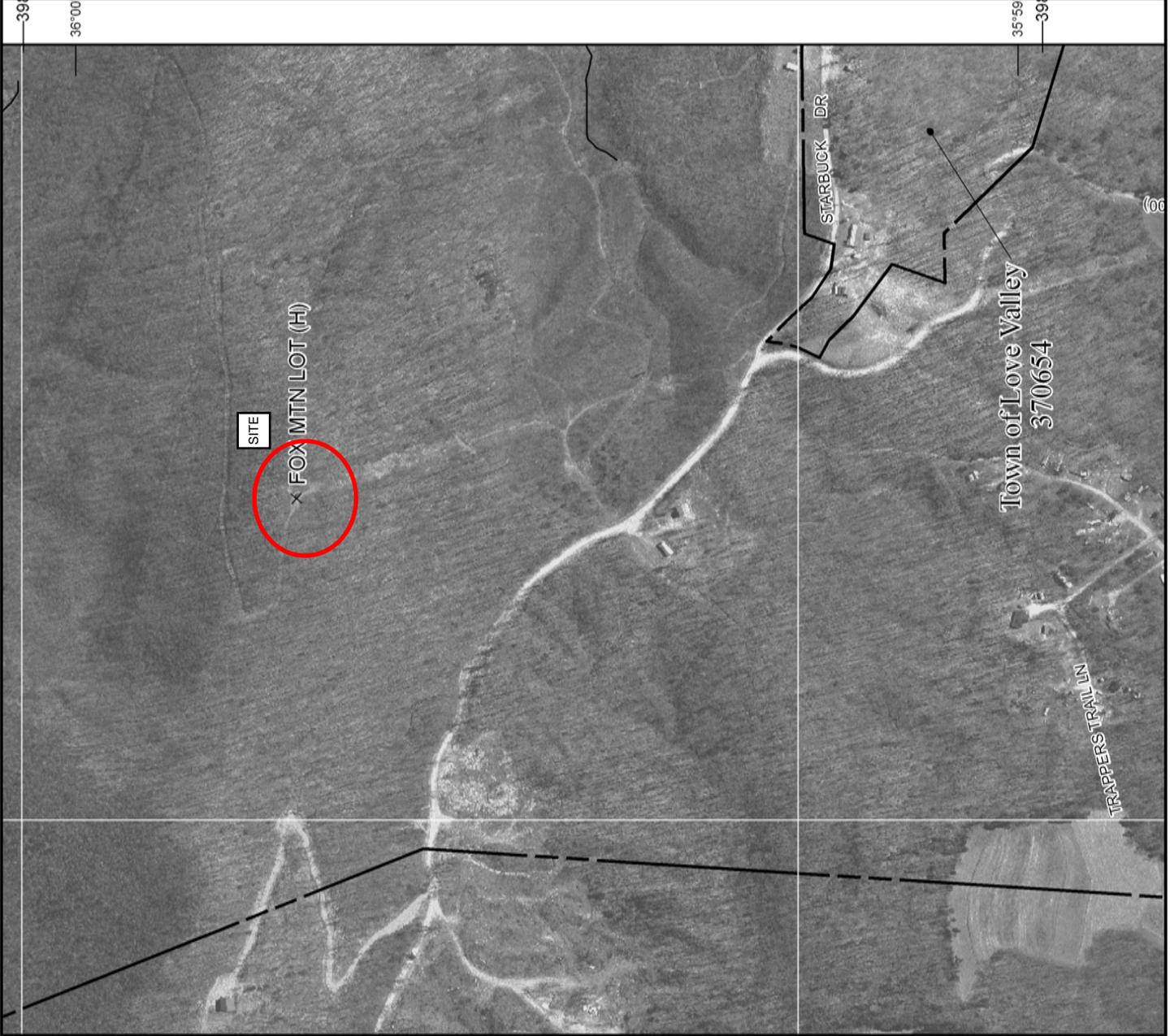
253. ST. REGIS  
254. STANDING ROCK  
255. STEWARTS POINT  
256. STOCKBRIDGE  
MUNSEE  
257. SUMMIT LAKE  
258. SUSANVILLE  
259. SWINOMISH  
260. TAOS  
261. TE-MOAK  
262. TESUQUE  
263. TEXAS KICKAPOO  
264. TOHONO O'ODHAM  
265. TONAWANDA  
266. TONIKAWA \*  
267. TORRES MARTINEZ  
268. TOULUMNE  
269. TRINDAD  
270. TULALIP  
271. TULE RIVER  
272. TUNICA-BILOXI  
273. TURTLE MOUNTAINS  
274. TUSCARORA  
275. TWENTYNINE PALMS  
276. UMATILLA  
277. UNITAH AND OURAY  
278. UNITED KEETOOWAH  
BAND OF CHEROKEE \*  
279. UPPER SIOUX  
280. UPPER SKAGIT  
281. UTE MOUNTAIN

76. FORT BELKNAP	179. PASSAMAQUODDY	282. VERMILION LAKE
77. FORT BERTHOLD	180. PAUCATAUK PEQUOT +	283. VIEJAS
78. FORT BIDWELL	181. PAUGUSETT +	284. WALKER RIVER
79. FORT HALL	182. PAWNEE *	285. WARM SPRINGS
80. FORT INDEPENDENCE	183. PECHANGA	286. WASHOE
81. FORT MCDERMITT	184. PENOBSCOT	287. WEST COCOPAH
82. FORT MCDOWELL	185. PEORIA *	288. WHITE EARTH
83. FORT MOHAVE	186. PICURIS	289. WICHITA *
84. FORT PECK	187. PINE RIDGE	290. WIND RIVER
85. FORT YUMA	188. POARCH CREEK	291. WINNEBAGO #
86. FT. SILL APACHE *	189. POJOAQUE	292. WINNEMUCCA
87. GILA BEND	190. PONCA *	293. WOODFORD INDIAN COMMUNITY
88. GILA RIVER	191. POOSEPATUCK +	294. WYANDOTTE *
89. GOSHUTE	192. PORT GAMBLE	295. XL RANCH
90. GRANDE RONDE	193. PORT MADISON	296. YAKAMA
91. GRAND PORTAGE	194. POTAWATOMI #	297. YANKTON
92. GRAND TRAVERSE	195. PRAIRIE ISLE	298. YAVAPAI
93. GREATER LEECH LAKE	196. PUERTOCITO	299. YERINGTON
94. GRINDSTONE	197. PUYALLUP	300. YOMBA
95. HANNAHVILLE	198. PYRAMID LAKE	301. YSLETA DEL SUR
96. HAVASUPAI	199. QUAPAW *	302. YUOK
97. HOH	200. QUILLAYUTE	303. ZIA
98. HOLLYWOOD	201. QUINAULT	304. ZUNI
99. HOOPA VALLEY	202. RAMAH	
100. HOPI	203. RAMONA	
101. HOULTON MALISEETS		



GRID NORTH

SCALE 1" = 500' (1 : 6,000)



PANEL 4802J

# FIRM

## FLOOD INSURANCE RATE MAP

### NORTH CAROLINA

**PANEL 4802**

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

CONTAINS:

COMMUNITY	CID No.	PANEL	SUFFIX
ALEXANDER COUNTY	370398	4802	J
IREDELL COUNTY	370313	4802	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** MAP NUMBER  
**MARCH 18, 2008** 3710480200J



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](http://www.msc.fema.gov)

# LEGEND

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

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.

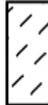
- ZONE A** No Base Flood Elevation determined.
- ZONE AE** Base Flood Elevations determined.
- ZONE AH** Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
- ZONE AO** Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. 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** Areas 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)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

1% annual chance floodplain boundary

0.2% annual chance floodplain boundary

## GRID NORTH

SCALE 1" = 500' (1 : 6,000)



PANEL 4802J

# FIRM

## FLOOD INSURANCE RATE MAP

### NORTH CAROLINA

**PANEL 4802**

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

CONTAINS:

COMMUNITY	CID No.	PANEL	SUFFIX
ALEXANDER COUNTY	370398	4802	J
IREDELL COUNTY	370313	4802	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** MAP NUMBER  
**MARCH 18, 2008** 3710480200J



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](http://www.msc.fema.gov)



U.S. Fish and Wildlife Service

# National Wetlands Inventory

Fox Mountain

Feb 3, 2011



## Wetlands

- Freshwater Emergent
- Freshwater Forested/Shrub
- Estuarine and Marine Deepwater
- Estuarine and Marine
- Freshwater Pond
- Lake
- Riverine
- Other

## Riparian

- Herbaceous
- Forested/Shrub

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

### User Remarks:

n 35 59 52.59, w 80 59 58.76

## **Appendix C: 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 NCDAQ 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](mailto: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](http://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 D: Unique & 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 4/4/12

Name Of Project NC Highway Patrol Site: Fox Mountain Federal Agency Involved NC Dept. of Crime Control and Public Safety

Proposed Land Use 150-ft. SST Communications Tower County And State Iredell County, North Carolina

**PART II (To be completed by NRCS)** Date Request Received By NRCS 4/4/2012

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  No  Acres Irrigated \_\_\_\_\_ Average Farm Size \_\_\_\_\_

Major Crop(s) \_\_\_\_\_ Farmable Land In Govt. Jurisdiction Acres: \_\_\_\_\_ % \_\_\_\_\_ Amount Of Farmland As Defined in FPPA Acres: \_\_\_\_\_ % \_\_\_\_\_

Name Of Land Evaluation System Used \_\_\_\_\_ Name Of Local Site Assessment System \_\_\_\_\_ Date Land Evaluation Returned By NRCS 4/5/2012

**PART III (To be completed by Federal Agency)**

	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				
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				

**PART V (To be completed by NRCS) Land Evaluation Criterion**  
Relative Value Of Farmland To Be Converted (Scale of 0 to 100 Points)

	0	0	0	0
--	---	---	---	---

**PART VI (To be completed by Federal Agency)**  
Site Assessment Criteria (These criteria are explained in 7 CFR 658.5(b))

Site Assessment Criteria	Maximum Points				
1. Area In Nonurban Use					
2. Perimeter In Nonurban Use					
3. Percent Of Site Being Farmed					
4. Protection Provided By State And Local Government					
5. Distance From Urban Builtup Area					
6. Distance To Urban Support Services					
7. Size Of Present Farm Unit Compared To Average					
8. Creation Of Nonfarmable Farmland					
9. Availability Of Farm Support Services					
10. On-Farm Investments					
11. Effects Of Conversion On Farm Support Services					
12. Compatibility With Existing Agricultural Use					
<b>TOTAL SITE ASSESSMENT POINTS</b>	160	0	0	0	0

**PART VII (To be completed by Federal Agency)**

Relative Value Of Farmland (From Part V)	100	0	0	0	0
Total Site Assessment (From Part VI above or a local site assessment)	160	0	0	0	0
<b>TOTAL POINTS (Total of above 2 lines)</b>	260	0	0	0	0

Site Selected: Fox Mountain Date Of Selection \_\_\_\_\_ Was A Local Site Assessment Used? Yes  No

Reason For Selection: Site will provide suitable radio frequency coverage for the statewide public safety (VIPER) communications network.

## **Appendix E: DHS Public Notice**

Statesville Record & Landmark

Advertising Affidavit

MAR - 7 2012

Account Number

3127987

BY: \_\_\_\_\_

North Carolina Community Newspapers  
PO Box 968  
Hickory, NC 28603

Date

March 04, 2012

TOWER ENGINEERING PROFES  
3703 JUNCTION BLVD  
RALEIGH, NC 27603

RETURN TO ACCOUNTING/ CORPORATE			
GL/JOB# _____	COST CODE _____	TYPE <small>Sub / Ref / Eq</small> _____	
APPROVAL _____	DATE _____		
<small>(Circle One)</small>	DENIED	ON HOLD	PAY ON PAY
			PAY ON _____

Date	Category	Description	Ad Number	Ad Size
03/10/2012	Legal Notices	Public Notice: The North Carolina Department of Crime Control	0002584072	1 x 28 L

**Public Notice:** The North Carolina Department of Crime Control and Public Safety, the North Carolina State Highway Patrol and the Federal Emergency Management Agency (FEMA) - U.S. Department of Homeland Security (DHS) are requesting comment regarding the construction of a proposed 150-ft (170-ft with appurtenances) AGL Self Support Lattice Emergency Services Tower to be located at 426 Fox Mountain Road, Statesville, Iredell County, NC, 28625, at latitude: N 35° 59' 52.693", longitude: W 80° 59' 59.792" (NAD '83), and (Iredell County PIN 4802945532). We are also requesting comment, in accordance with Section 106 of the National Historic Preservation Act (NHPA), regarding the potential impacts to historical or archaeological properties listed on, or eligible for listing on the National Register of Historic Places (NRHP), by the proposed emergency services tower. All comments should be submitted within 30 days of the publication of this notice referencing project: (Fox Mountain HP-1364, 2010-SS-T0-0075 PIMS 10430) and sent to the attention of George Swearingen, Tower Engineering Professionals, Inc., 3703 Junction Blvd. Raleigh, NC 27603. Mr. Swearingen may also be reached via email at gswearingen@tepgroup.net via telephone at (919) 661-6351 or via facsimile at (919) 661-6350.  
**PUBLISH: March 4, 2012**

**Media General Operations, Inc.**  
**Publisher of**  
**Statesville Record & Landmark**  
**Iredell County**

Before the undersigned, a Notary Public of Catawba County, North Carolina, duly commissioned, qualified, and authorized by law to administer oaths, 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 copy of which is attached hereto, was published in the Statesville Record & Landmark on the following dates:

03/04/2012

and that the said newspaper in which such notice, or legal advertisement was published, was a newspaper meeting all the requirements and qualifications of Section 1-597 of the General Statutes of North Carolina.

*Rachael Church*  
Assistant Bookkeeper

Newspaper reference: 0002584072

Sworn to and subscribed before me, this 6th day of March, 2012

*Evelyn L. Hefner*  
Notary Public

My Commission expires: March 11, 2014



## **APPENDIX F: Signed Lease Agreement**



State of North Carolina

Department of Justice  
PO Box 629  
Raleigh, North Carolina  
27602

Reply to: Mark Teague  
Property Control Section  
Telephone: (919) 733-7408  
FAX: (919) 733-2947  
[mteague@ncdoj.gov](mailto:mteague@ncdoj.gov)

ROY COOPER  
ATTORNEY GENERAL

June 13, 2011

Godfrey Management, LLC  
Attn: William Godfrey  
48936 Wilkesboro Highway  
Statesville, North Carolina 28625

**RE: Ground Lease Agreement - Godfrey Management, LLC  
Our File No. 049-L**

Dear Mr. Godfrey:

For your records, please find enclosed the properly executed Lease Agreement with the State of North Carolina.

If you have any questions, please do not hesitate to call.

Very truly yours,

Mark Teague  
Assistant Attorney General

GMT/dp

Enclosure

cc: CC & PS, Tanya Luter

STATE OF NORTH CAROLINA

**GROUND LEASE AGREEMENT**

COUNTY OF IREDELL

THIS GROUND LEASE AGREEMENT ("Lease"), made and entered into as of the last date set forth in the notary acknowledgements below by and between the **GODFREY MANAGEMENT, LLC**, a North Carolina limited liability company, hereinafter referred to as "Lessor"; and the **STATE OF NORTH CAROLINA**, a body politic and corporate, hereinafter referred to as "Lessee" (Lessor and Lessee each individually referred to herein as a "Party" and collectively referred to herein as the "Parties");

**WITNESSETH:**

THAT WHEREAS, the North Carolina Department of Crime Control and Public Safety, Division of the State Highway Patrol, has requested and approved the execution of this instrument for the purposes herein specified; and,

WHEREAS, the execution of this Lease for and on behalf of the State of North Carolina has been duly approved by the Governor and Council of State at a meeting held in the City of Raleigh, North Carolina, on the 8<sup>th</sup> day of June, 2010; and,

NOW THEREFORE, in consideration of the Premises, as described herein, and the promises and covenants contained in the terms and conditions hereinafter set forth, Lessor does hereby rent, lease and demise unto Lessee for and during the term and under the terms and conditions hereinafter set forth, the Premises with all rights, privileges and appurtenances thereto belonging, lying and being in the City of Statesville, Iredell County, North Carolina, and being more particularly described herein.

The terms and conditions of this Lease are as follows:

1. **Premises.** Lessor hereby leases to Lessee and Lessee hereby leases from Lessor a parcel of land containing 0.129 acres, more or less, having a physical street address of 426 Fox Mountain Road, Statesville, Iredell County, North Carolina (the "Premises"), in order for Lessee to construct a 150' self-supported communications tower (the "Tower") and related accessories, as described herein, on the Premises.
2. **Term.** The initial term of this Lease shall be for a period of twenty (20) years, commencing on the 1<sup>st</sup> day of May, 2011 and terminating on the 30<sup>th</sup> day of April, 2031 (the "Initial Term"). Upon the expiration of the Initial Term, this Lease shall automatically be renewed for an additional twenty (20) year period (the "Renewal Term"); provided that Lessee, in its sole discretion, may elect not to renew this Lease by giving Lessor not less than sixty (60) days advance written notice prior to the end of the Initial Term. Any renewal or extension of the Initial Term shall be upon all of the terms and conditions set forth in this Lease. The Initial Term and the Renewal Term are collectively referred to herein as the "Term."

3. **Rent.** Lessee shall pay to Lessor as rental for the Premises, the sum of FIVE HUNDRED DOLLARS (\$500.00) per year during the Initial Term. During the Renewal Term, annual rental shall be ONE THOUSAND DOLLARS (\$1,000.00).

4. **Equipment / Use / Fixtures.** Lessee shall use the Premises for the purpose of constructing, installing, maintaining, repairing, replacing, removing and operating the Tower, a communications equipment building (the "Building"), intellirepeaters, microwave, batteries, chargers, UPS, generator transfer switch, antennas, transmission lines, microwave dishes, waveguide, cables, wires and receivers (all such equipment whether located in the Building or on the Tower is collectively referred to herein as the "Communications Equipment"). Lessee intends to use the Tower and the Communications Equipment to support its Voice Interoperability Plan for Emergency Responders ("VIPER"), strategic communications system. Lessor agrees that the Tower, the Building, the Communications Equipment and any other items belonging to Lessee on the Premises, shall remain the property of Lessee and shall not be, become, or be deemed by Lessor to be fixtures upon the Premises.

5. **Utilities / Maintenance.** Lessee shall be responsible for the maintenance and operation of the Tower, the Building and the Communications Equipment, including, but not limited to all utility charges attributable to Lessee's use of the Premises. Lessee shall repair at its own expense damage to the Premises, the Tower, the Building or the Communications Equipment, which is the result of Lessee's use of the Premises except if such cost arises out of the negligent or wrongful acts or omissions of Lessor, its contractors or agents.

6. **Access.** Lessor grants to Lessee the non-exclusive right of ingress and egress to the Premises during the Term for the purpose of installing, maintaining, operating, repairing, replacing, upgrading and removing the Tower, Building and Communications Equipment. Lessor represents and warrants to Lessee that Lessor has the right to grant such easement for ingress and egress for the purposes set forth herein. During the Term, Lessee shall repair and maintain said ingress and egress easement only to the extent that any repair or maintenance is necessitated by the use of the easement by Lessee or its agents. Lessor's grant of ingress and egress shall not be interpreted as a guarantee of Lessee's ability to access the Premises when weather conditions, road conditions and other elements outside of Lessor's control might affect Lessee's ability to access the Premises.

7. **Insurance & Liability.**

(a) Lessor agrees that Lessee's decision to self insure satisfies all insurance requirements of this Lease applicable to Lessee.

(b) As between Lessor and Lessee, Lessee, subject to the terms of this Lease, will be primarily liable for the negligent or intentional acts or omissions of its agents, contractors or employees. As to third parties, Lessee is an immune sovereign and is not ordinarily subject to suit. However, Lessee has enacted Chapter 143, Article 31, of the North Carolina General Statutes (the "Tort Claims Act"), pursuant to which the Lessee may be liable for the torts of its officers and employees, within the terms of the Tort

Claims Act, and accordingly, Lessee will be primarily liable for any claims within the coverage of the Tort Claims Act.

(c) Lessor shall be liable to Lessee for any loss or damages suffered by Lessee which are a direct result of the failure of Lessor to perform an act required by this Lease, provided that Lessor could reasonably have complied with said requirement.

8. **Governmental Approvals & Compliance.** During the Term, Lessee shall comply with all applicable State and Federal laws and regulations applicable to the Premises. Lessee shall obtain any necessary State or Federal licenses or authorizations required for the installation and construction of the Tower, the Building or the Communications Equipment and shall comply with government regulations applicable to its operations, including those of the Federal Aviation Administration ("FAA") and the Federal Communications Commission ("FCC").

9. **Interference.** The Communications Equipment and any other equipment used by Lessee or Lessor on the Tower or in the Building shall be designed, constructed, installed, maintained, and operated in compliance with the applicable rules and regulations of the FCC and good engineering practices.

10. **Condition of Tower.** Lessee has the right and responsibility to repair and maintain the Tower. Subject to other provisions contained in this Lease, Lessee, at its sole cost, except if such cost arises out of a negligent or wrongful acts or omissions of Lessor, its contractors or agents, shall maintain and repair the Tower including, without limitation, the Tower lighting system and markings and the structural integrity of the Tower. Installation, maintenance and repair of the Tower must comply with all State and Federal, ordinances, rules and regulations, applied in a manner consistent with standard industry practices. Such duties include, without limitation, but subject to the other provisions contained in this Lease, the maintenance of appropriate records and notifications to the FAA of any failure on Lessee's part and repairs and correction of the same. Subject to the terms of this Paragraph, Lessee assumes all responsibility for any fines, levies and /or other penalties imposed as a result of non-compliance with said requirements of said authorities.

11. **Security.** Lessor agrees and acknowledges that the Tower and the Building will be secured by a locked fenced.

12. **Taxes.** If applicable, Lessee will pay any personal property taxes assessed on, or any portion of the taxes attributable to its interest in the Tower, the Building or the Communications Equipment.

13. **Right to Terminate.** Lessee may terminate this Lease, at its option, after giving not less than thirty (30) days notice to Lessor, if:

- (a) Any governmental agency denies a request by Lessee for or revokes a permit, license or approval, which is required for Lessee to install or

operate the Tower, the Building or the Communications Equipment on the Premises; or

- (b) Lessee determines that technical problems or radio interference problems from other antennas or from nearby radio transmitting facilities, which problems cannot reasonably be corrected, preclude Lessee from using the Premises for its intended purpose; or
- (c) Utilities necessary for Lessee's use of the Premises are not available to the Premises; or
- (d) The Premises are damaged or destroyed to an extent, which prohibits or materially interferes with Lessee's use of the Premises; or
- (e) Lessee determines, in its sole discretion, that the Premises is no longer needed.

14. **Termination.** Upon termination of this Lease, Lessee will peaceably surrender the Premises in as good order and condition as when received, reasonable use and wear and damage by fire, war, riots, insurrection, public calamity, by the elements, by act of God, or by circumstances over which Lessee had no control or for which Lessor is responsible pursuant to this Lease, excepted. It is understood and agreed that Lessee shall have the right to remove from the Premises: (i) the Tower; (ii) the Building and (iii) the Communications Equipment and any other items belonging to Lessee. Lessee hereby agrees to repair to the reasonable satisfaction of Lessor any portion of the Premises damaged by the removal of the Tower, the Building or the Communications Equipment.

15. **Title & Quiet Possession.** Lessor agrees that Lessee, upon keeping and performing the covenants and agreements herein contained, shall at all times during the existence of this Lease peaceably and quietly have, hold, and enjoy the Premises free from the adverse claims of any person. Lessor represents and warrants to Lessee that Lessor has the full right to make this Lease and that Lessee shall have quiet and peaceful possession of the Premises and throughout the Term.

16. **Holdover.** Any hold over after the expiration of the Term, shall be construed to be a tenancy from month to month, and shall otherwise be on the terms and conditions herein specified, so far as applicable; however, either Party shall give not less than sixty (60) days written notice to terminate the tenancy.

17. **Environmental Laws.** Lessee represents, warrants and agrees that it will conduct its activities on the Premises in compliance with all applicable environmental laws. As between Lessor and Lessee, Lessee, subject to the terms of this Lease and to the extent permitted by the Tort Claims Act, will be primarily liable for the existence or discovery of any hazardous substance on the Premises or for the migration of any hazardous substance to other properties or for the release of any hazardous substance into the environment in violation of applicable environmental laws, arising solely from Lessee's use of the Premises. Lessor represents warrants and agrees that it has in the past and will

in the future conduct its activities on the Premises in compliance with all applicable environmental laws and that the Premises is free of hazardous substances as of the date of this Lease. Lessor shall be responsible for, and promptly conduct any investigation and remediation as required by any environmental law or common law, of all spills or other release of hazardous substances, not caused solely by Lessee, that have occurred or which may occur on the Premises. Lessor agrees, to indemnify Lessee and hold Lessee harmless from and against any and all liens, demands, defenses, suits, proceedings, disbursements, liabilities, losses, litigation, damages, judgments, obligations, penalties, injuries, costs, expenses (including, without limitation, attorneys' and experts' fees) and claims of any and every kind whatsoever paid, incurred, suffered by, or asserted against Lessee with respect to, or as a direct or indirect result of the violation of any environmental laws applicable to the Premises, caused by or within the control of Lessor. Lessor's indemnification of Lessee specifically includes cost incurred in connection with any investigation of site conditions or any cleanup, remedial, removal, or restoration work required by any governmental authority.

18. **Availability of Funds.** Lessor and Lessee agree and understand that the continuation of this Lease for the Term, is dependent upon and subject to the appropriation, allocation or availability of funds for this purpose to the agency of Lessee responsible for payment of said rental. Lessor and Lessee also agree that in the event the agency of Lessee or that body responsible for the appropriations of said funds, in its sole discretion, determines, in view of its total local operations that available funding for the payment of rents are insufficient to continue the operation of its local operations on the Premises, it may choose to terminate this Lease by giving Lessor written notice of said termination, and this Lease shall terminate immediately without any further liability to Lessee.

19. **Assignment and Subletting.** Lessee shall not assign this Lease without the prior written consent of Lessor, which consent shall not be unreasonably withheld or delayed. Lessee, in its sole and absolute discretion, shall have the right to sublet the Premises in whole or in part.

20. **Prohibition on Gifts.** North Carolina General Statute §133-32 and Executive Order 24 prohibit the offer to, or acceptance by, any employee of Lessee of any gift from anyone with a contract with Lessee, or from any person seeking to do business with Lessee. By execution of this Lease, Lessor attests, for its entire organization, including its employees or agents, that it is not aware that any such gift has been offered, accepted, or promised by any employees of its organization.

21. **Modification.** No modification of any provision hereof and no cancellation or surrender hereof shall be valid unless made in writing and signed and agreed to by both Parties.

22. **Binding Effect.** Subject to the provisions herein, this Lease shall extend to and bind the Parties and their heirs, executors, administrators, successors and assigns.

23. **Applicable Law.** This Lease shall be governed by, construed under and interpreted and enforced in accordance with the laws of the State of North Carolina, regardless of conflict of law principles.

24. **Effect of Waiver.** The failure of either Party to insist in any instance upon strict performance of any of the terms and conditions set forth in this Lease shall not be construed as a waiver of the same in any other instance.

25. **Complete Agreement.** This Lease represents the entire agreement between the Parties covering everything agreed upon or understood in this transaction. There are no oral promises, conditions, representations, understandings, interpretations or terms of any kind as conditions or inducements to the execution hereof or in effect between the Parties.

26. **Severability.** In case any one or more of the provisions contained in this Lease shall for any reason be held to be invalid, illegal, or unenforceable in any respect, such invalidity, illegality or unenforceability shall not affect any other provision hereof and this Lease shall be construed as if such invalid, illegal, or unenforceable provision had never been contained herein.

27. **Construction.** No provision of this Lease shall be construed against or interpreted to the disadvantage of any Party by any court or other governmental or judicial authority by reason of such Party's having or being deemed to have prepared or imposed such provision.

28. **Interpretation.** The use of headings, captions and numbers in this Lease is solely for the convenience of identifying and indexing the various provisions in this Lease and shall in no event be considered otherwise in construing or interpreting any provision in this Lease. Feminine or neuter pronouns shall be substituted for those of the masculine form, and the plural may be substituted for the singular number in any place or places herein in which the context may require such substitution or substitutions.

29. **Terms.** Capitalized terms used in this Lease shall have the meanings ascribed to them at the point where first defined, irrespective of where their use occurs, with the same effect as if the definitions of such terms were set forth in full and at length every time such terms are used.

30. **Counterparts.** This Lease may be executed in two or more counterparts, each of which shall be deemed an original, and all of such counterparts together shall constitute one and the same instrument.

31. **Memorandum of Lease for Recording.** At the request of either Party, Lessor and Lessee shall execute a memorandum of this Lease for recording in the public records at the requesting Party's sole cost and expense. The memorandum of Lease shall set forth the Parties, provide a description of the Site, specify the Term and incorporate this Lease by reference.

32. **Notices.** All notices herein provided to be given, or which may be given by either Party to the other, shall be deemed to have been fully given when made in writing and deposited in the United States mail, certified and postage prepaid and addressed as follows:

to Lessor: Godfrey Management, LLC  
Attn: William Godfrey  
4893 Wilkesboro Highway  
Statesville, North Carolina 28625

to Lessee: North Carolina Department of Crime Control and Public Safety  
Attn: Lease Coordinator  
4701 Mail Service Center  
Raleigh, North Carolina 27699-4701

with copy to: State Property Office  
Attn: Space Planning and Leasing Manager  
1321 Mail Service Center  
Raleigh, North Carolina 27699-1321

Nothing herein contained shall preclude the giving of such notice by personal service. The address to which notices shall be mailed as aforesaid to either Party may be changed by written notice.

**[signatures begin on following page]**

IN TESTIMONY WHEREOF, this Lease has been executed by the Parties, in duplicate originals, as of the dates set forth in the notary acknowledgements below.

**LESSOR:**

GODFREY MANAGEMENT, LLC,  
a North Carolina limited liability company

By: William C. Godfrey  
William Godfrey, Manager

STATE OF NORTH CAROLINA

COUNTY OF Stoddell

I, Patricia D Woodie, a Notary Public in and for the County and State aforesaid, do hereby certify that William Godfrey, Manager of Godfrey Management, LLC, a North Carolina limited liability company, personally came before me this day and acknowledge the due execution of the foregoing instrument on behalf of the company.

IN WITNESS WHEREOF, I have hereunto set my hand and Notarial Seal, this the 21 day of April, 2011.

Patricia D Woodie  
Notary Public  
Print Name: PATRICIA D Woodie

My Commission Expires: 2-13-2016

LESSEE:

STATE OF NORTH CAROLINA

By: Beverly E. Perdue  
Governor

ATTEST:

By: Elaine F. Marshall  
Secretary of State

APPROVED AS TO FORM:  
ROY COOPER, Attorney General

By: Roy Cooper  
Assistant Attorney General

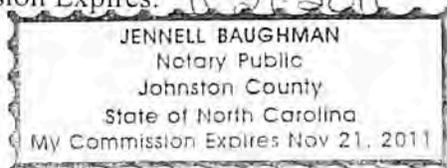
STATE OF NORTH CAROLINA  
COUNTY OF WAKE

I, Jennell Baughman, a Notary Public in and for the County of Johnston and State of North Carolina, do hereby certify that ELAINE F. MARSHALL, Secretary of State of North Carolina, personally came before me this day and acknowledged that she is Secretary of State of North Carolina, and that by authority duly given and as the act of the State, the foregoing instrument was signed in its name by BEVERLY E. PERDUE, Governor of the State of North Carolina, sealed with the Great Seal of the State of North Carolina, and attested by herself as Secretary of State of North Carolina.

IN WITNESS WHEREOF, I have hereunto set my hand and Notarial Seal, this the 11<sup>th</sup> day of May, 2011.

Jennell Baughman  
Notary Public  
Print Name: Jennell Baughman

My Commission Expires: 11-21-2011



## **Appendix G: Preparer's Resume**



## **George T. Swearingen, III**

### **Environmental Division Manager**

#### **EDUCATION**

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North Carolina State University, Raleigh, NC

Degree: Bachelor of Science (1996)

Major: School of Forest Resources - Natural Resources: Ecosystem Assessment

#### **WORK SUMMARY**

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##### Tower Engineering Professionals, Inc. Raleigh, NC (December 1, 1999 – present)

- Environmental Division Manager

- Managed the completion of ~1000+/- Phase I Environmental Site Assessments (ESA) throughout the United States (NC, SC, GA, FL, VA, TN, KY, NJ, MA, OH, IL, TX, NM, CO, WY, MT, AZ, UT, NV).
- Managed the completion of ~1000+/- National Environmental Policy Act (NEPA) (FCC Compliance Checklists).
- Wetland Delineations, Federal & State Wetland Impact Permits, Endangered Species surveys, Section 106 Compliance surveys, Native American Consultation, etc.
- Supervised the completion of ~100+/- Phases II ESA's for Communications towers in the United States.
- Managed the completion of ~50 NEPA Environmental Assessments (NEPA – EA) due to issues discovered during the initial NEPA Checklist screening process.
- Restored and/or stabilized ~3+/- miles of perennial streams in North Carolina as a Licensed North Carolina General Contractor with the City of Raleigh, NC, and as a contractor for the NC Dept. Environment & Natural Resources – Ecosystem Enhancement Program (formerly the NCDENR – Wetlands Restoration Program).

##### KCI Associates of NC, Raleigh, NC (May 30, 1996 – November 30, 1999)

- Environmental Scientist I & II

- Conducted and supervised the completion of Phase I - Environmental Site Assessments (ESA) for proposed Telecommunication tower projects and various commercial real-estate transactions for numerous banks.
- Conducted and supervised the completion of National Environmental Policy Act (NEPA) Checklist documents for proposed and existing Telecommunication tower projects and stream restoration projects.
- Assisted in the completion of Phase II – ESA sampling for various proposed Communications tower facilities in North Carolina, Maryland, and Virginia.
- Project Manager for NCDOT Stream & Wetland Mitigation watershed searches for the Catawba, Neuse, and Yadkin River Watersheds. Completed the field work, research, and GIS analysis necessary to provide suitable properties for the restoration of former wetland sites for the purpose of mitigation.
- Assisted in the design and construction of numerous stream restoration and stabilization sites in North Carolina and Maryland.
- Supervised and assisted in the completion of on-site wastewater disposal soil analysis for residential and commercial development.
- Supervised and assisted in the completion of wetland boundary surveys for various types commercial development



## **Ryan Adam Malek**

### **Environmental Division – Environmental Scientist III**

#### **EDUCATION**

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North Carolina State University  
Raleigh, NC – College of Natural Resources  
Degree: Bachelor of Science (2008)  
Major: Environmental Technology  
OSHA 40-hr HAZWOPER Certification

#### **WORK SUMMARY**

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##### Tower Engineering Professionals, Inc. Raleigh, NC (**January 2009 – present**)

- Environmental Scientist III
- Assisted with the completion of Phase I - Environmental Site Assessments (ESA) for proposed telecommunication tower projects throughout the United States (NC, SC, GA, VA, OH, MA, MT, WY, CO, NM, UT, NV) and Canada.
- Assisted with the completion of National Environmental Policy Act (NEPA) Checklist documents (FCC Compliance) for proposed and existing telecommunications tower projects throughout the United States (NC, SC, GA, VA, OH, MA, MT, WY, CO, NM, UT, NV).
- Assisted with the completion of NEPA Environmental Assessments (NEPA – EA) due to issues discovered during the initial NEPA Checklist screening process
- Assisted in Phase II Environmental Site Assessment soil sampling and temporary groundwater monitoring well installation and sampling
- Completed Informal Biological Assessments for Rare, Threatened and Endangered Species
- Completed Native American Consultation for proposed telecommunication tower structures as per FCC-TCNS guidelines.
- Conducted the completion of perennial stream restoration and/or stabilizations for the City of Raleigh, NC
- Assisted with wetland delineations for projects in southeastern NC
- Assisted with the completion of Civil and Structural Engineering Construction and Zoning Drawings using AutoCAD

##### The Nature Conservancy Wilmington, NC (**May 2008-August 2008**)

- Environmental Intern
- Conducted Pine and Hardwood Forest inventory with geospatial technologies (GPS, ArcGIS)
- Assisted with Endangered and Federally Concerned species habitat management (Red Cockaded Woodpecker, Pitcher Plant, Venus Flytrap)



## **Andrew B. Blake**

### **Environmental Division – Environmental Scientist II**

#### **EDUCATION**

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North Carolina State University  
Raleigh, NC – College of Natural Resources  
Degree: Bachelor of Science (2011)  
Major: Environmental Technology and Management  
OSHA 40-hr HAZWOPER Certification

#### **WORK SUMMARY**

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##### Tower Engineering Professionals, Inc. Raleigh, NC (December 2010 – present)

- Environmental Scientist II
- Assisted with the completion of Phase I - Environmental Site Assessments (ESA) for proposed Telecommunication tower projects throughout the southeastern United States (NC, SC, VA, GA, WV, TX IL, OH, FL, MD, UT, NV, AZ, WY, NM, CO and Canada).
- Assisted with the completion of National Environmental Policy Act (NEPA) Checklist (FCC Compliance Checklists) documents for proposed and existing Telecommunications tower projects.
- Assisted with the completion of NEPA Environmental Assessments (NEPA – EA) due to issues discovered during the initial NEPA Checklist screening process
- Completed Biological Assessments for Rare, Threatened and Endangered Species
- Assisted with Section 106 Compliance Surveys
- Completed Native American Consultation for proposed Telecommunication tower structures as per FCC-TCNS guidelines.
- Conducted the completion of perennial stream restoration and/or stabilizations for the City of Raleigh, NC

##### North Carolina State University Raleigh, NC (June 2010 – November 2010)

- Progress Energy/Environmental Technology Intern
- Assisted two graduate students in the Natural Resources - Ecological Restoration program at North Carolina State University evaluate and assess stream restoration projects throughout the Piedmont Region of North Carolina.
- Collected and assessed 1,000+ soil samples for chemical analysis and Bulk Density analysis
- Assessed the condition and installation of in-stream structures in previous stream restoration projects.
- Presented results of soil chemical analysis and bulk density testing at the North Carolina undergraduate research symposium at Meredith College in the November of 2010.