

DOCKET NO. 499 – Homeland Towers, LLC and New Cingular } Connecticut
Wireless PCS, LLC d/b/a AT&T application for a Certificate of }
Environmental Compatibility and Public Need for the } Siting
construction, maintenance, and operation of a }
telecommunications facility located at 16 Coote Hill Road, } Council
Sherman, Connecticut.

August 20, 2021

DRAFT Opinion

On March 12, 2021, Homeland Towers LLC (HT) and New Cingular Wireless PCS, LLC (AT&T) (collectively, the Applicants), applied to the Connecticut Siting Council (Council) for a Certificate of Environmental Compatibility and Public Need (Certificate) for the construction, maintenance, and operation of a wireless telecommunications facility located at 16 Coote Hill Road, Sherman, Connecticut. The purpose of the proposed facility is to provide reliable wireless communications services for AT&T customers in southern Sherman.

The United States Congress recognized a nationwide need for high quality wireless services through the adoption of the Federal Telecommunications Act of 1996 and directed the Federal Communications Commission (FCC) to establish a market structure for system development and develop technical standards for network operations. The FCC preempts state or local regulation on matters that are exclusively within the jurisdiction and authority of the FCC, including, but not limited to, network operations and radio frequency emissions. Preservation of state or local authority extends only to placement, construction and modifications of telecommunications facilities based on matters not directly regulated by the FCC, such as environmental impacts. The Council's statutory charge is to balance the need for development of proposed wireless telecommunications facilities with the need to protect the environment.

HT owns and/or operates numerous tower facilities in the state. HT would construct, maintain and own the proposed facility and would be the Certificate Holder. AT&T is licensed by the FCC to provide personal wireless communications service throughout the state and would lease space on the proposed tower for their telecommunications equipment.

AT&T currently has no adequate wireless service in the State Route 37 and State Route 39 area of southern Sherman. AT&T has four existing wireless telecommunications facilities within a four-mile radius of the proposed site but none of these sites provide adequate coverage to the southern Sherman area.

AT&T's radio frequency propagation modeling and a drive test demonstrated a need to provide wireless service to the State Route 37 and State Route 39 area. AT&T proposes to provide wireless service via 700 MHz, 850 MHz, 1900 MHz, and 2100 MHz frequencies for both voice and data. The 700 MHz frequency provides the largest area of service and therefore defines the coverage footprint of the AT&T wireless network. Other higher frequencies (850 MHz, 1900 MHz, 2100 MHz) used in AT&T's network provide smaller coverage footprints and are used to provide additional capacity to the system, reducing the customer load on the 700 MHz system, thereby maintaining customer performance for those farthest away from the facility.

Coverage modeling indicates the proposed site would provide 4.8 square miles of service to the area surrounding the tower (700 MHz at -93 dBm), which includes, but is not limited to, 2.4 miles on State Route 37 and 2.8 miles on State Route 39.

AT&T's deployment would enable customers to make wireless emergency calls within the service area. In addition to wireless call capability, AT&T's deployment would feature emergency communication FirstNet services. These services are provided through a federal program to establish emergency communications to areas with deficient wireless service. FirstNet gives emergency responders on AT&T's 700 MHz 4G LTE network first priority to ensure emergency communications are not interrupted.

The Town would install municipal whip antennas at the top of the tower for Town Public Works and Fire Department communications. The Litchfield County Dispatch (LCD) would install emergency communication equipment on the tower. The Town's and LCD's communication equipment operate independently from First Net.

A search for a facility in the southern Sherman area dates back to 2009 when AT&T secured a site at 32 Leach Hollow Road to develop a tower. Due to opposition to that location, AT&T searched for additional properties and secured a site at 16 Coote Hill Road. AT&T presented a technical report to the Town in 2013. Shortly after concluding the municipal consultation process and prior to filing an application with the Council, AT&T did not pursue the facility due to a business decision.

In 2013, the Town retained RCC Consultants to examine potential wireless service from various locations in Town. The study demonstrated a lack of wireless service in southern Sherman. RCC Consultants produced coverage models of the Coote Hill Road tower site at 170 and 120 feet, which indicated there would be a 3.9 percent loss of service using the lower tower height.

HT began searching for properties suitable for tower development beginning in 2015. HT investigated 42 potential sites in southern Sherman and of that, 11 landowners expressed initial interest in leasing space for a tower. Ten of these sites were ultimately rejected due to the landowners' subsequently deciding against hosting a tower, deficient coverage to the area or the presence of land constraints such as wetlands. HT subsequently obtained a lease with the owners of 16 Coote Hill Road.

Some of the sites that were examined included seven properties on land owned by the Northwest Connecticut Land Conservancy (formerly known as Naromi Land Trust), including two properties on Wagon Wheel Road near the proposed site. Although there was initial interest, the Land Trust ultimately decided not to enter into a lease agreement on any of their properties for a tower.

Although many sites were examined and many landowners did not respond to HT's solicitation, the Council has no authority to compel a parcel owner to sell or lease property, or portions thereof, for the purpose of siting a facility.

Intervenor Greenbaum suggested that a tower could be located on the summit of nearby Wanzer Mountain, on property owned by Timber Trails Associates. HT investigated Wanzer Mountain with a representative from Timber Trails Associates in 2015; however, due to steep slopes, HT determined construction of a tower at this location was not feasible. HT also attempted to negotiate with Timber Trails Associates to develop a tower in another location on their property but no agreement was ever reached.

Intervenor Greenbaum suggested that AT&T could locate on an existing tower on Tower Hill Road in Patterson, New York, approximately 2.4 miles west of the proposed site, in conjunction with a shorter tower at the proposed site, but the Tower Hill Road site is not tall enough to provide substantial coverage along State Route 37 which extends along a deep, narrow valley southeast of the existing tower.

Subsequent modeling of the proposed site by Allegiant, a wireless consultant for Intervenor Greenbaum, indicated a reduction of the tower from 170 feet to 120 feet would cause coverage gaps to occur on State Route 37 northwest and west of the site, and on State Route 39 southeast of the site. Although Allegiant did model the proposed site at 120 feet supplemented with coverage from the Tower Hill Road site at 60 feet, this analysis demonstrates no substantial improvement to service along State Routes 37 and 39. AT&T's modeling indicates that a reduction in AT&T's antenna height from 170 feet to 120 feet would cause an approximate 0.8 mile coverage gap on State Route 39 southeast of the site and two 0.25 mile gaps on Route 37 west of the site.

The Council finds that lowering the proposed tower height to 120 feet would reduce coverage to the area, especially along roadways which is one of the main objectives of this site; and therefore, is not feasible to provide adequate wireless service and public safety benefits to the area.

The proposed site consists of a 170-foot monopole facility located on a 19.7-acre parcel at 16 Coote Hill Road, a private road extending generally southeast from State Route 37. The parcel, zoned Farm Residence, is developed with a residence. The tower site, at an elevation of 878 feet above ground level, is on a forested hillside in the southern portion of the property. The proposed facility would consist of a 170-foot monopole within a 48-foot by 50-foot, fenced compound. The tower and compound would be designed to support AT&T and three other wireless carriers as well as emergency communication antennas.

AT&T proposes to install 9 panel antennas and 15 remote radio heads on an antenna platform at a tower centerline height of 166 feet. Two 22-foot tall municipal whip antennas and a microwave dish would be installed at the top of the tower for Town Public Works and Fire Department communications. Two whip antennas for use by the Litchfield County Dispatch would be installed at the 100 foot level of the tower.

The compound would be accessed from a new 12-foot wide, 1,625-foot gravel driveway extending from the existing driveway on the property. The new access drive would extend northeast along the property line before turning southeast along an existing logging path to an interior portion of the parcel to the tower site. The access drive would cross two intermittent watercourses using pipe culverts. Utilities to the compound would be installed underground along the access road from connection points near the landlord's residence and Coote Hill Road.

HT would utilize Coote Hill Road, a private road, to access the site pursuant to a private agreement with the owner. Under the agreement with the owner of Coote Hill Road, HT will contribute to a Road Maintenance Fund and accept responsibility for repair of any damage to the road caused by HT and/or its agents.

Due to concerns related to potential traffic issues from construction equipment accessing Coote Hill Road from State Route 37, the Council will order HT to develop a Traffic Management Plan to establish safety protocols for access to and from State Route 37. Use of Coote Hill Road by the Applicants to access the site is not within the jurisdiction of the Council. However, the Council will require HT to submit a Traffic Management Plan in the Development and Management (D&M) Plan, including details of any provisions for traffic management in the agreement with the owner of Coote Hill Road.

In the event an outage of commercial power occurs at the proposed site, AT&T would rely on a 15-kW propane-fueled generator and an associated 500 gallon propane tank that would provide approximately 4.7 days of run time before refueling is necessary.

The nearest property boundary from the proposed tower is approximately 102 feet to the southwest. The nearest off site residence is located approximately 809 feet to the east of the tower site. No other off-site residences are located within 1,000 feet of the tower. The tower/compound cannot be re-located on the parcel due to the landlords' use of the property and the presence of critical habitat for a State-listed species. HT would design a yield point on the tower that will allow the tower to collapse upon itself rather than fall over lengthwise onto adjacent property in the unlikely event of a structure failure.

Although ledge is present, HT does not anticipate the need for blasting to construct the site. Ledge and rock would be removed by mechanical methods. The project would require approximately 1,663 cubic yards of fill, of which, approximately 970 cubic yards would come from excavations at the site. Additional fill would be brought into the site as necessary. Approximately 712 cubic yards of crushed stone would be used to surface the compound and access drive. Extensive grading would primarily occur in the compound area and the adjacent access road. Grading would also occur to develop the access drive and associated drainage swales.

Post-construction drainage along the access drive would either sheet flow across the drive and drain overland or would be controlled by a series of grass-lined swales with check dams to control water velocity. The swales would discharge on splash pads before flowing into the downgradient wetlands.

Given that the total area of disturbance is approximately 1.53 acres, HT would be required to obtain a DEEP-issued Stormwater Permit prior to commencement of construction, pursuant to CGS Section 22a-430b. The permit requires implementation of a Stormwater Pollution Control Plan to prevent the movement of sediments off of construction sites into nearby water bodies and to address the impacts of stormwater discharges from a project after construction is complete. The plan would contain a detailed erosion and sedimentation control plan that is consistent with the *2002 Connecticut Guidelines for Soil Erosion and Sedimentation Control*.

The site property contains a forested hillside seep wetland system that is composed of two larger areas connected by two narrow seasonal intermittent watercourses in the central portion of the property. A forested upland area is surrounded by the wetlands and intermittent watercourses. The proposed access drive would cross the two intermittent watercourses at their narrowest points. There are no other alternative routes on the property that would avoid the watercourse crossings.

The crossings would utilize 24-inch culverts installed in accordance with natural stream crossing design standards/guidelines from the U.S. Army Corps of Engineers (USACE) and DEEP. Approximately 1,545 square feet of wetlands would be impacted to construct the access drive crossings (360 square feet for the western crossing and 1,185 square feet for the eastern crossing). HT would examine the feasibility of installing open bottom box culverts to span each watercourse entirely thus reducing or preventing permanent wetland impacts. The Council will require HT to examine the feasibility of installing open bottom box culverts in the D&M Plan.

HT would develop a wetland protection plan for construction that includes an independent environmental compliance monitor to ensure erosion and sedimentation control measures are installed and maintained. Additionally, given the lack of invasive species within the wetlands and adjacent forested area, HT would incorporate an Invasive Species Plan. The Council will require HT to submit a Wetland/Watercourse

Protection Plan and an Invasive Species Plan with provisions for the use of clean imported fill in the D&M Plan.

Approximately 90 trees that are six inches in diameter at breast height or greater would be removed to develop the site. HT does not anticipate tree die off from access drive construction or trenching where roots from trees adjacent to the drive would be impacted. Approximately 1.1 acres of core forest would be directly impacted by the project.

The site is not located within a flood zone, an aquifer protection area, or in an area with mapped prime farmland soils. Operation of the facility would comply with DEEP Noise Control Standards.

The DEEP Natural Diversity Database Program identified five state listed species known to occur in the area of the site property: Northern slimy salamander, little brown bat, red bat, eastern box turtle, and eastern hognose snake. The Applicants performed a field survey for the slimy salamander which determined the original tower site on the host property was within a critical habitat zone. The Applicants subsequently relocated the tower approximately 185 feet to the northwest, and 24 feet lower in elevation to avoid any potential impacts to the critical habitat zone. The Applicants would implement a Species Protection Plan in accordance with DEEP's recommendations that would include contractor education, site inspections, isolation barriers, and a tree clearing restriction to ensure none of the listed species are impacted during site construction. Tree clearing would be performed from November 1 and March 30 which would also be protective of the Federally-listed northern long-eared bat. The Council will require HT to submit the Species Protection Plan in the D&M Plan.

The site is approximately 7.7 miles from a National Audubon Society designated Important Bird Area (Shepaug Forest block). The proposed towers would comply with the United States Fish and Wildlife Service guidelines for minimizing the potential for telecommunications towers to impact bird species.

The Applicants prepared a visual impact assessment of the site utilizing a two-mile radius study area and computer modeling that was supplemented with in-field studies. These analyses were used by the Applicants to generate photo-simulations of the proposed towers. Intervenor Greenbaum also conducted a visual analysis using a crane that was set up approximately 400 feet north of the proposed site.

Based on a visual impact assessment within a two-mile radius of the site (Study Area-8,042 acres), the proposed tower would be visible year-round from approximately 5 acres (<1%) and seasonally visible (leaf-off conditions) from approximately 29 acres (<1%) of the Study Area.

Generally, year-round and seasonal views of portions of the facility would occur primarily from two areas, the Route 37 area approximately 0.6 to 0.8-mile northwest of the site and the Route 39 area, approximately 0.8 to 1.0-mile northeast of the site. Residences in the Route 37/Leach Hollow Road/Lake Mauweehoo area and in the Route 37/Memory Lane area would have year-round views of the tower. The west shore of Lake Mauweehoo and adjacent Lake Mauweehoo Club property would also have year-round views of the tower.

Two Town-designated scenic roads, Leach Hollow Road and Cozier Hill Road, are located approximately 0.6-mile northwest and 1.3 miles north of the proposed site, respectively. Year-round and seasonal views of the upper portion of the tower would occur from Leach Hollow Road in the Route 37/Lake Mauweehoo area. No visibility would occur from Cozier Hill Road.

The tower would not be visible from hiking trails in Pootatuck State Forest, located approximately 0.6 miles south of the site at its closest point.

No public schools or commercial child day care facilities are located within 250 feet of the proposed site. Furthermore, no such facilities are within two-miles of the proposed site.

No historic resources were identified within 0.5 miles of the site. The Applicants would request a review of the project from the State Historic Preservation Office prior to construction of the facility.

A two-tone facility painting scheme with a brown color on the lower portion and a blue color on the upper portion of the tower would not be more effective in reducing visibility when compared to a galvanized tower finish due to its height above the tree line when viewed from nearby areas. Reducing the antenna profile by using flush-mount antennas would require a taller tower as the number of antennas per tower level would be limited.

According to a methodology prescribed by the FCC Office of Engineering and Technology Bulletin No. 65E, Edition 97-01 (August 1997), the combined radio frequency power density levels of the antennas proposed to be installed on the tower have been calculated to amount to 6.6% of the FCC's General Public/Uncontrolled Maximum Permissible Exposure, taking into account a 10 dB off-beam pattern loss for panel antennas and a 20 dB off-beam pattern loss for the highly focused microwave dish. This is conservatively based on all antennas of a given sector emitting maximum power. This is conservatively based on all antennas of a given sector pointing down to the ground and emitting maximum power. This percentage is well below federal standards established for the frequencies used by wireless companies. If federal standards change, the Council will require that the tower be brought into compliance with such standards. The Council will require that the power densities be recalculated in the event other carriers add antennas to the tower. The Telecommunications Act of 1996 prohibits any state or local agency from regulating telecommunications towers on the basis of the environmental effects of radio frequency emissions to the extent that such towers and equipment comply with FCC's regulations concerning such emissions. Regarding potential harm to wildlife from radio emission; this, like the matter of potential hazard to human health, is a matter of federal jurisdiction. The Council's role is to ensure that the tower meets federal permissible exposure limits.

After considering the record in this matter, the Council finds a need for a new tower to provide necessary wireless coverage to an underserved area. A 20-foot or more reduction in tower height would negatively impact coverage to the State Routes 37 and 39 corridors which have heavy traffic volumes and minimal service to make emergency calls. The site would also offer FirstNet emergency communication service allowing for dedicated on-demand first responder communication to service subscribers.

The Council finds that the proposal would not cause unreasonable pollution, impairment or destruction of the public trust in the air, water or other natural resources of the state. The Council has considered all reasonable alternatives and finds that the proposal represents the best alternative consistent with the reasonable requirements of the public health, safety and welfare.

Based on the record in this proceeding, the Council finds that the effects associated with the construction, operation, and maintenance of the telecommunications facility at the proposed site, including effects on the natural environment, ecological balance, public health and safety, scenic, historic, and recreational values, agriculture, forests and parks, air and water purity, and fish, aquaculture and wildlife are not disproportionate either alone or cumulatively with other effects when compared to need, are not in conflict with policies of the State concerning such effects, and are not sufficient reason to deny this application. Therefore, the Council will issue a Certificate for the construction, maintenance, and operation of a 170-foot galvanized steel monopole telecommunications facility at the proposed site located at 16 Coote Hill Road, Sherman, Connecticut.