

DOCKET NO. 488 – Homeland Towers, LLC and New Cingular Wireless PCS, LLC d/b/a AT&T application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance, and operation of a telecommunications facility located at one of two sites: Kent Tax Assessor ID #M10, Block 22, Lot 38 Bald Hill Road or 93 Richards Road, Kent, Connecticut.	} Connecticut
	} Siting
	} Council

November 27, 2020

DRAFT – SITE A

Opinion

On February 28, 2020, 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 to be located at one of two proposed sites in Kent: Site A located at Kent Tax Assessor ID #M10, Block 22, Lot 38 Bald Hill Road or Site B located at 93 Richards Road. The purpose of the proposed facility is to provide reliable wireless communications services to the central-eastern portion of Kent.

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 central-eastern section of Kent, particularly along the Route 341 corridor which is the main road through this portion of Kent. There are four existing wireless telecommunications facilities within a four-mile radius of the proposed sites. None of these sites currently, or could, provide adequate coverage to the central-eastern section of Kent. AT&T is currently located on two of these existing facilities which provide wireless service to the southwest section of Kent, including Kent village.

AT&T's radio frequency propagation modeling and a drive test of the areas demonstrated a need to provide wireless service to the Route 341 corridor. 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 increasing the data speeds available to users that only have 700 MHz coverage.

AT&T proposes to install 9 panel antennas and 18 remote radio heads on an antenna platform at a tower centerline height of 150 feet at either proposed site.

Coverage modeling indicates Site A would provide 6.7 square miles of service to the area with 1.7 miles of new coverage to Route 341 whereas Site B would provide 15.5 square miles of coverage to the area with 1.5 miles of new coverage to Route 341 (at a threshold of -93 dBm).

As discussed by the Town, the lack of service to the Route 341 corridor creates unnecessary delays in making emergency calls and for first responder communication and response within the area. 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.

A reduction in AT&T's antenna height from 150 feet to 131 feet at both sites would reduce the coverage footprints at both sites by approximately 9 to 10 percent. Lower antenna heights would further shrink the coverage footprint to an area that has no existing reliable service.

HT began searching for properties suitable for tower development beginning in 2012. HT identified and investigated 28 locations, ultimately selecting the two proposed sites as potential candidates for a tower facility. Many other properties were examined along the Route 341 corridor including larger parcels that host summer camps and a site suggested by the Town. None of the other parcels could host a potential tower facility because they were either not available or would not be able to provide sufficient coverage to the proposed service area. 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.

Although the Intervenor Planned Development Alliance of Northwest Connecticut, LLC presented a conceptual small-cell system design alternative, prepared by Isotrope, LLC (Isotrope), for the Route 341 area in central Kent, the Council finds such a small cell system in lieu of a tower would not be feasible due to the limited service area of a small cell deployment and the topography of the proposed service area, which can limit the effectiveness of service. For this area, a macrosite deployment is the most efficient and cost effective approach to provide the current wireless service need in the Kent area. Small cells are utilized by AT&T in Connecticut to provide capacity relief to targeted areas, typically in urban settings. The only small cell system Isotrope has knowledge of is a distributed antenna system (DAS) that was constructed in Martha's Vineyard in 2012 for use by AT&T with a later expansion to accommodate Verizon. Isotrope knows of no other constructed, operable small cell system similar in kind. In 2007, the Council approved a DAS system proposed to be installed along the Merritt Parkway but that project never reached the development stage.

A macrosite deployment at either site furthers the Council's charge of promoting tower sharing to avoid the unnecessary proliferation of towers in the state as it would be designed to support the co-location of three additional telecommunication carriers, local and regional emergency service equipment, and to accommodate a 20-foot extension if there is a future need to increase the height of the tower. Although the initial tower site plan depicts Town emergency and public works antennas on each facility, the Town has no current plan to install such equipment at either site. If the Town's equipment were to be installed in the future, the Litchfield County Dispatch, which manages the Town's emergency communications system, favors Site B over Site A due to the greater coverage footprint.

Proposed Site A consists of a 154-foot monopole facility located on an undeveloped, wooded 1.99 acre parcel, zoned rural residential. The tower site and associated compound would be in the southwest portion of the site, accessed by a new 12-foot wide, 300-foot long gravel driveway. The ground elevation at the tower base would be at an approximate elevation of 1,300 feet above mean sea level. There are 16 single family residences within 1,000 feet of the Site A compound, with the nearest located approximately 151 feet to the south. The nearest property boundaries from the compound fence are approximately 25 feet to the south and 29 feet to the west. HT would design a yield point on the Site A tower at a height of 91 feet above ground level 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. Additionally, HT would be willing to relocate the tower to other areas of the parcel.

Proposed Site B consists of a 154-foot monopole facility located on a 6.82-acre parcel on the east side of Richards Road approximately one mile south of Site A. The parcel, zoned rural residential, is improved with a residence and a one story commercial building. The tower site and associated compound would be located in the northeast corner of the property, partially within an existing construction storage yard. The compound would be accessed mostly using an existing gravel driveway on the property with a new 60-foot long section of gravel driveway constructed off Richards Road to ensure the entire access way remains on the site property. The total length of the access road to the compound is 1,050 feet. The ground elevation at the tower base would be at an approximate elevation of 1,345 feet above mean sea level. There are 4 single family residences within 1,000 feet of the Site B compound, with the nearest located approximately 490 feet to the north. The nearest property boundaries from the compound fence are approximately 61 feet to the north and 41 feet to the southeast. The tower/compound cannot be re-located on the parcel due to the landlords' use of the property. HT would design a yield point on the Site B tower at a height of 70 feet above ground level 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.

At both proposed sites, an eight-foot high chain link fence would enclose the compound with landscaping along the fence line to provide for visual screening. HT would be willing to consider alternative fence designs to provide further shielding of views into the compounds. Utilities to both compounds would be installed underground along the respective access roads. HT does not anticipate the need for blasting to construct either proposed facility.

Site A would require 450 cubic yards of excavation and 210 cubic yards of imported stone to construct the compound and access drive. Approximately 90 percent of the proposed development occurs within 100 feet of the southern property line and within an area that contains abandoned debris. A Phase I site investigation of this area was conducted. Approximately 22 trees that are six inches in diameter or greater would be removed to develop Site A.

Site B would require approximately 125 cubic yards of excavation and 100 cubic yards of imported stone to construct the compound and access drive. Most of the proposed compound development occurs within 100 feet of the northern and southern property line. Approximately 7 trees that are six inches in diameter or greater would be removed to develop Site B.

As for environmental impact, neither site is located within a flood zone, an aquifer protection area, or on mapped prime farmland soils. A DEEP Natural Diversity Database (NDDDB) review indicates neither site would affect any NDDDB listed-species.

Neither site is near any National Audubon Society designated Important Bird Area. 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.

Operation of either facility would comply with DEEP Noise Control Standards.

In the event an outage of commercial power occurs at either proposed site, AT&T would rely on a 15-kW propane-fueled generator that would allow for an approximate 72 hour run time before refueling is necessary. Two 120 gallon propane tanks would be installed on a concrete pad within the compound.

The proposed sites are located within the Upper Housatonic Valley National Heritage Area (UHVNHA), a designation intended to interpret and promote the historical, cultural and scenic features of the upper Housatonic River valley. Neither site is proximate to any UHVNHA identified historic, cultural or natural resource.

The Applicants prepared a visual impact assessment of both sites utilizing a two-mile radius study area and computer modeling that was supplemented with in-field studies. Balloon floats were conducted at Site A in April 2019 and January 2020. A crane test was conducted at Site B in January 2020. These analyses were used by the Applicants to generate photo-simulations of the proposed towers. PDA also conducted a balloon float of the proposed facilities in July 2020.

Based on the visual impact assessment, the proposed Site A tower would be visible year-round from approximately 131 acres within a two-mile radius of the site, or approximately 1.62 percent of the two-mile radius study area (8,042 acres). The proposed Site B tower would be visible year-round from approximately 205 acres within a two-mile radius of the site, or approximately 2.55 percent of the two-mile radius study area (8,042 acres).

Year-round views of Site A would be most prominent from areas within 0.5 mile of the tower including, but not limited to, the Richards Road area and from the open waters of North and South Spectacle Ponds, with the extent of visibility dependent on the specific location. Several residences are located within the open areas of Richards Road where there would be views of the upper half of the facility. Approximately 5 residences/cottages along North Spectacle Pond would be able to view the upper 10-30 feet of the tower and approximately 9 residences/cottages along South Spectacle Pond would have views of the upper 50-70 feet of the tower. Within 0.5 mile of the Site A tower, approximately 3 residential properties would have year-round views and 13 residential properties would have seasonal views of the facility.

Year-round views of Site B would be most prominent from areas within 0.5 to 1.0 mile of the tower, including portions of Richards Road, and Upper Kent Hollow Road, as well as from the northern portion of South Spectacle Pond. The open areas along Richards Road, approximately 0.5 mile north of the site, would have views of the upper half of the tower. Approximately 6 residences/cottages along South Spectacle Pond, 0.35 miles north at its closet point, would have views of the upper 10-75 feet of the tower above the tree line with the extent of visibility dependent on the specific location. There would be no visibility of the Site A tower from South Spectacle Pond. More distant views of the tower would occur from Kent Hollow Road and Upper Kent Hollow Road areas to the east and southeast, and from Brown Road and Greer Road to the west and southwest. Within 0.5 mile of the Site B tower, approximately 4 residential properties would have year-round views and 12 residential properties would have seasonal views of the facility.

There are several land preserves with hiking trails within 2 miles of the proposed sites. Field reconnaissance of the West Aspetuck Scenic Wetlands Preserve Hiking Trail, the East Kent Hamlet Nature Preserve Hiking Trail, the Iron Mountain Preserve Hiking Trail and the Emery Park Hiking Trail indicates neither tower would be visible from the hiking trails within these areas. The Appalachian Trail, at its closest point, is approximately 2.8 miles west of Site A and 3.6 miles west of Site B and year-round visibility of either site is not expected. However, leaf-off views from parts of the Appalachian Trail may be possible.

Lake Waramaug, at its closest point is located approximately 2.3 miles southeast of Site A and 1.9 miles east of Site B. Although both towers would be visible from substantial portions of the lake, as one moves eastward across the lake, the towers would not be a focal point to a viewer given the distance between the sites and the lake.

Site A is not expected to be visible from any Town designated scenic road whereas Site B would have spot year-round visibility from several locations along Geer Mountain Road, approximately 1.7 miles southwest of the site and from a short section of Treasure Hill Road, approximately 0.5 mile southwest of the site where seasonal visibility is possible. However, for the Site B tower, the Council finds there would be no adverse impacts to the two scenic roads given the distance between Geer Mountain Road and the tower, and the isolated, seasonal views of the tower from Treasure Hill Road.

Pursuant to CGS section 16-50x, the Council has exclusive jurisdiction over the construction, maintenance and operation of telecommunications facilities throughout the state. In ruling on applications for certificates, the Council shall give such consideration to other state laws and municipal regulations as it shall deem appropriate. The Town established a Horizon-line Conservation Overlay District (HCOD) to conserve and protect the hill summits and ridges that form the high horizon visible from the Town's system of roads and prefers towers to be sited outside of the HCOD. The proposed Site A tower is not within the HCOD. The proposed Site B tower is within the HCOD. The Council is cognizant that any tower in this area of Kent will affect ridgeline views from certain areas whether the tower is located within or outside of the HCOD.

In regards to reducing the visual impact to the surrounding area, the Council finds that a faux tree tower at either site, although beneficial to some near views through the trees, would appear bulky and out of place as most year-round views are from field areas or open water areas where the tower would be above the tree line, silhouetted against the sky, and thus, drawing a viewer to it. A two-tone tower/antenna paint scheme would be more practical where the lower half of the tower would be painted to blend into surrounding wooded terrain and the upper half painted to blend in with the sky.

No public schools or commercial child day care facilities are located within 250 feet of either site. Furthermore, no such facilities are within 2 miles of the proposed sites.

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 8 percent of the FCC's General Public/Uncontrolled Maximum Permissible Exposure, as measured at the base of the tower taking into account a 10-dB off-beam pattern loss. 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. In addition to enhanced coverage around the site for in-building and in-vehicle service, large portions of the surrounding area would at least have outdoor wireless service, enabling emergency calls to an area with no current level of service. The site would also provide FirstNet emergency communication service allowing for dedicated first responder communication on-demand.

Although the visual impact of both sites is similar, the Council finds Site A preferable as it would have less of an overall visual impact footprint than Site B and is located outside of the Town's HCOD. To further minimize visual impact to the surrounding area, the Council will order a 135-foot monopole to bring it closer to the tree line when viewed from certain areas. Additionally, the Council will order a two-tone color tower painting scheme to reduce visibility when viewed through forest or when silhouetted against the sky.

In accordance with C.G.S. §22a-19, 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 proposed Site A, 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 to Homeland Towers, LLC for the construction, maintenance, and operation of a 135-foot monopole telecommunications facility located at Kent Tax Assessor ID #M10, Block 22, Lot 38 Bald Hill Road.