

**DOCKET NO. 498** – Diamond Towers V, LLC application for a } Connecticut  
Certificate of Environmental Compatibility and Public Need for }  
the construction, maintenance, and operation of a } Siting  
telecommunications facility located at 185 Academy Road (Route }  
68/Route 70), Cheshire, Connecticut. } Council

August 12, 2021

### Opinion

On March 11, 2021, Diamond Towers V, LLC (Diamond) 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 95-foot tall wireless telecommunications facility to be located in the Town of Cheshire, Connecticut. The purpose of the proposed facility is to increase network capacity and provide reliable wireless service for Cellco Partnership d/b/a Verizon Wireless (Cellco) in the eastern-central portion of Cheshire including the eastern portion of Route 68. Cellco is an intervenor to the proceeding.

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.

Cellco is experiencing significant increase in network demand within the Cheshire town center and the area east of the business district during peak usage times. Cellco is also experiencing coverage gaps along the eastern portion of Route 68 within its 700 MHz, 850 MHz, 1900 MHz and 2100 MHz frequencies. The proposed facility would provide capacity relief to Cellco's existing wireless facilities located to the west of the proposed site and most notably its existing Cheshire CT facility (Alpha Sector) which is currently operating at capacity limits in the 700 MHz, 850 MHz, 1900 MHz and 2100 MHz frequency range.

In 2012, Cellco established a search ring for the proposed service area. Cellco determined there were no existing structures available within the search ring and subsequently investigated two properties for tower deployment; one was rejected because the property owner was not interested in leasing space for a tower, and the other is the proposed site. The property owner of the proposed site had a pre-existing lease agreement with Diamond. Cellco approached Diamond with interest in locating its equipment on the proposed facility.

The proposed site is located on an approximately 8.1-acre parcel, which currently hosts the United Methodist Church building and its parking lot. The proposed tower site is located in a landscaped area adjacent to a parking lot in the southern portion of the property. The subject property is zoned Residential (R-40). Land use immediately surrounding the subject parcel is predominately residential to the north, west and east of the property. The parcel is bounded immediately to north by Route 68 and the Cheshire Hillside Cemetery to the south and southwest. The nearest residence is located approximately 310 feet east of the tower site. As the host property consists of a church, the Council will require Diamond to consult with the property owner regarding its construction schedule during church business hours and over the weekend.

Diamond would construct a 95-foot monopine with faux branches extending 4 feet above the top of the pole and associated 42-foot by 50-foot fenced equipment compound within a 52-foot by 50-foot lease area. The equipment compound would be able to accommodate the equipment of three wireless carriers.

Cellco would install six panel antennas and nine remote radio heads on triple T-arm antenna mounts at a centerline height of 90 feet agl. Cellco's antennas would be wrapped in green socks to match the faux branches and all other appurtenances would be painted brown to match the tower. The total height of the facility with the faux branches would be 99-feet agl. The antennas would offer network services in the 700 MHz, 850 MHz, 1900 MHz, 2100 MHz and 3550 MHz frequencies, providing GSM, LTE and 5G wireless services.

Cellco would install one equipment cabinet with an integrated battery backup system, a 30-kilowatt propane-fueled emergency backup generator and a 500-gallon propane tank within the compound. In the event an outage of commercial power occurs, the generator and propane tank will provide approximately five days of run time before it requires refueling. Cellco's emergency backup battery system would prevent a reboot condition and alone could provide about four hours of backup power.

The tower will be designed to support the antennas of a minimum of three wireless carriers as well as municipal emergency services antennas. The Town expressed interest in locating on the proposed tower for its emergency services and public works and safety communications equipment. No other wireless carriers have expressed an interest in co-locating on the tower at this time.

The tower setback radius would extend beyond the boundary of the subject property to the south by 55-feet. The tower would be designed with a yield point of 55-feet agl to ensure the tower setback radius remains within the boundaries of the subject property.

Access to the site would be via the existing driveway from Academy Road extending approximately 480-feet through the parking area. Utilities would be installed underground from the western side of the compound to an existing utility pole.

The nearest wetland is located approximately 105 feet east of the proposed facility. The project would be constructed consistent with the *2002 Connecticut Guidelines for Soil Erosion and Sedimentation Control*. In accordance with the recommendations from DPH, the Council will require Diamond to submit a Fuel Spill Response Plan as part of a Development and Management Plan.

The proposed facility is not located within a DEEP Natural Diversity Database buffer area and no known hibernacula or maternity roost trees for the northern long-eared bat (NLEB), a federally listed threatened species and state-listed endangered species are located within 0.25 miles and 150-feet, respectively of the proposed site. The U.S. Fish and Wildlife Service determined that the proposed facility would not have an impact on the NLEB.

The nearest Important Bird Area to the proposed site is at Naugatuck State Forest in Naugatuck, Oxford, Beacon Falls, and Bethany, located approximately 8.1 miles to the southwest. The proposed facility would comply with the U.S. Fish and Wildlife Service guidelines for minimizing the potential for telecommunications towers to impact bird species.

The site is located outside of the 100-year and 500-year flood zones and is not located in a state-designated aquifer protection area. No Prime Farmland soils would be impacted by the construction of the proposed facility. No historic properties would be affected by the proposed facility.

There are no Connecticut blue-blazed hiking trails located within one mile of the proposed site. In addition, there are no state or locally-designated scenic roads located within two miles of the proposed site.

No public schools or child day care centers are located within 250 feet of the proposed tower.

The tower would be visible year-round from approximately 7 acres within the two-mile radius visibility study area. The tower would be seasonally visible in leaf-off conditions from approximately 39 acres within the study area. This represents in total less than one percent of an 8,042 acre study area. Most areas from which the facility would be visible are within approximately 0.5-miles of the site.

No landscaping is proposed; however, the proposed equipment compound will be surrounded by an eight-foot high wood shadow box fence with a 12-foot wide wooden gate that would be locked for security purposes. No trees would be removed. The monopine design of the proposed facility, relatively low height, and the presence of mature trees within the study area would camouflage the facility and minimize any views.

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 9.4% 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 for panel antennas. 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.

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 95-foot stealth monopine telecommunications facility at the proposed site located at 185 Academy Road, Cheshire, Connecticut.