Petition No. 1106
AT&T
Southington, Connecticut
Staff Report

On June 3, 2014, the Connecticut Siting Council (Council) received a petition from New Cingular Wireless PCS, LLC (AT&T) for a declaratory ruling that no Certificate of Environmental Compatibility and Public Need is required for the installation of a rooftop wireless telecommunications tower on an existing building located at 168 Center Street in Southington, Connecticut. Council member Phil Ashton and staff member David Martin visited the site on July 1, 2014 to review the proposal. Christopher Fisher of Cuddy & Feder, Adam Braillard of SmartLink, Luke Calvin, Marc Chretien of Advanced Engineering Group, and Dan Goulet of C Squared Systems represented AT&T. The Southington town planner, Rob Phillips, represented the town at the field review.

The building at 168 Center Street is an old brick factory complex comprised of several different sections of varying heights and sizes. Much of the complex is occupied by commercial tenants. Currently Verizon has antennas installed on the roof near the front of one of the sections. The section of the old factory on which Verizon has its antennas did not have any tenants at the time of the Council's field review. AT&T proposes to install a 31-foot guyed tower on the roof of the same building, approximately 60 feet to the south of the Verizon installation. AT&T would install 12 antennas and 27 remote radio heads in a three-sector configuration on the tower at a centerline height of 69 feet above ground level. AT&T's ground equipment would be located in an equipment room to be created in the building's basement. The room would also contain a natural gas-fueled generator for backup power. The generator would be vented to the outside of the building.

AT&T's representatives explained that AT&T needed the additional height afforded by the tower so that its antennas would be able to "shoot above" Verizon's antennas, thereby avoiding interference problems. AT&T's plans indicate that the antennas of both companies will be oriented toward the same azimuths. During the field review, Council member Ashton explored the feasibilities of different alternatives to the guyed tower that would be less visible. Part of the impetus for his exploration was the concern expressed by the town planner about the visual impact on nearby residences. AT&T's representatives have responded by saying they will be looking at different alternatives (*See Report Update on next page*).

The factory complex at 168 Center Street is at the western edge of Southington's central business district, which has been experiencing a steady revitalization during the past several years. Most of the nearest buildings to the east are commercial, although a new townhouse development is slated to be built near the factory. The area to the west is predominantly residential although there are businesses and old factory buildings on the nearest streets. A north-south rail trail passes right next to the building.

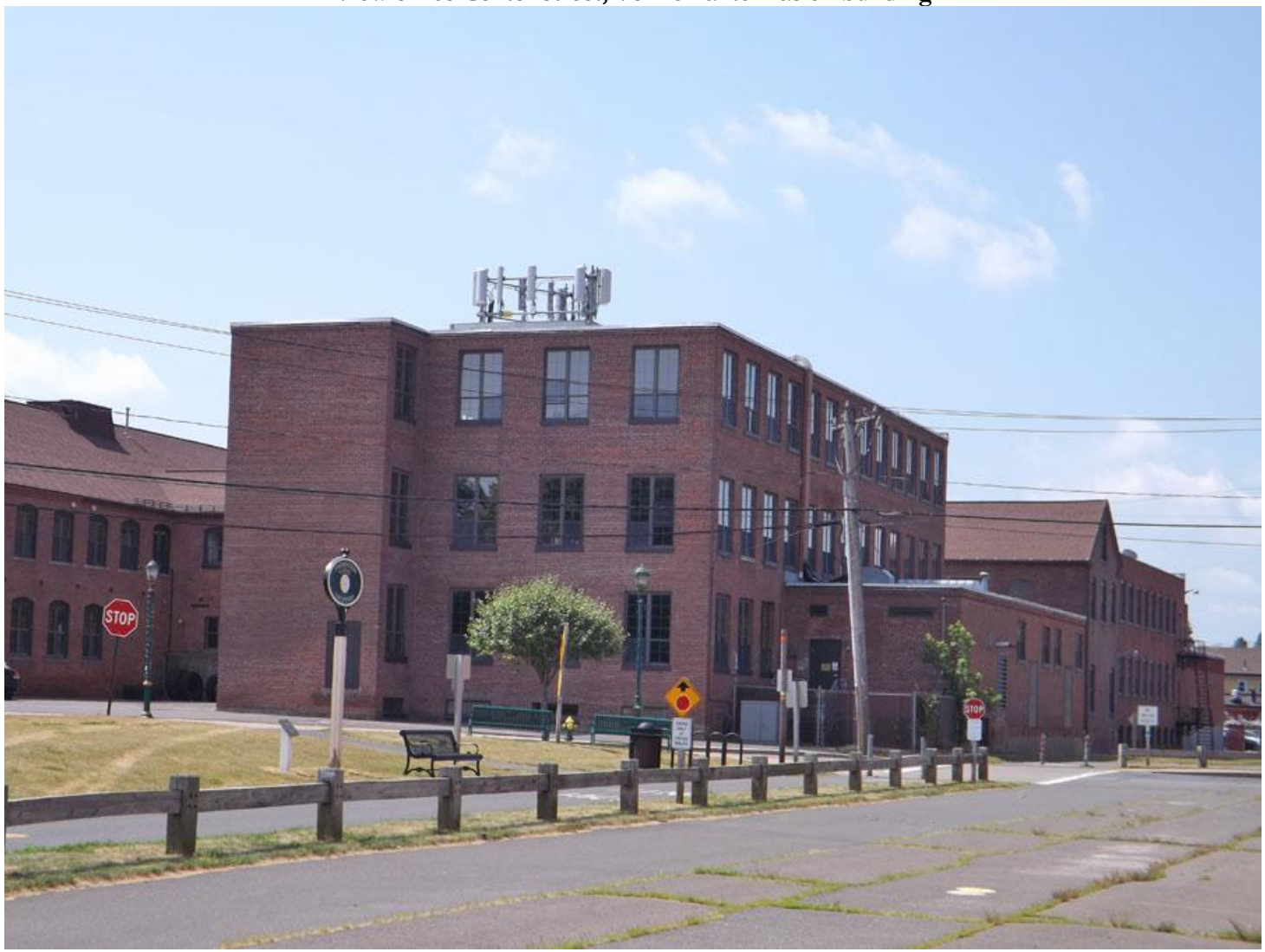
The tower's guy wires would be tied into the walls of the factory building. Instead of a P.E.'s structural analysis of the building, the Council received an affidavit that states the tower and the attachments to the building will be designed in compliance with the relevant codes. This is not, in the staff's opinion, the same as a stamped structural analysis (*See Report Update on next page*).

C Squared's RF engineers calculated that the combined power density of Verizon's existing antennas and AT&T's proposed antennas would be approximately 44.66% of the FCC's maximum permissible exposure at six feet above ground level (as an average height of a person). This calculation includes a 10 dB off-beam pattern loss adjustment.

The visibility of the proposed tower would be limited to the immediate vicinity due to its relatively low height and the presence of mature trees in the surrounding area.

Report Update: In response to concerns raised by Council representatives during the field review, AT&T re-examined its proposed installation to see if it could lower the height of the proposed tower or find different ways to mount its antennas to make its installation less visible. After exploring several alternatives, AT&T's RF consultants concluded that lowering the height of AT&T's antennas could cause interference problems with Verizon's antennas on the same roof. The interference problems could be mitigated, but not eliminated, by changing the azimuths of AT&T's antennas. However, lowering the height of the antennas and changing their azimuths would markedly reduce the area that could be covered from this site. Other alternatives were eliminated by landlord restrictions and structural limitations of the building. In its supplemental materials, AT&T did include an engineer's structural analysis of the proposed rooftop tower. This analysis concluded that the existing building framing is structurally capable of supporting the proposed tower installation with modifications. The Council representatives who attended the field review are satisfied that AT&T's supplemental filing represents a good faith effort to explore alternatives and agree with AT&T's conclusion that the installation as proposed is the best feasible solution for providing needed coverage from this site.

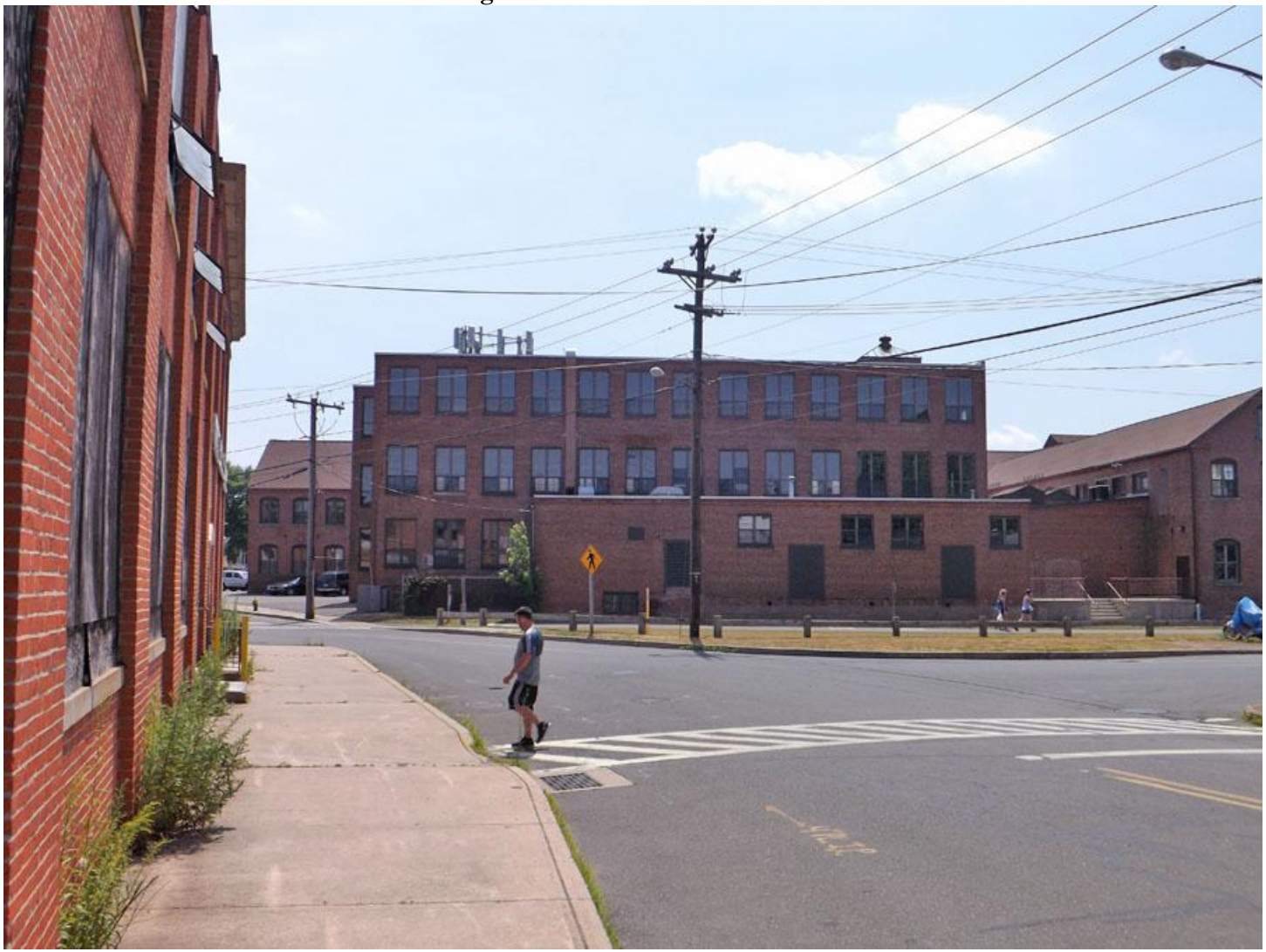
View of 168 Center Street; Verizon antennas on building



Note: View is looking southward; rail trail is along right side of building

Photosimulation of AT&T antennas on building at 168 Center Street

Looking eastward toward 168 Center Street



Note: This vantage point makes the street utility pole appear to be approximately the same height and bulk as the proposed tower on top of the building, except that it would be located in line with the third window to the right.