

DRAFT

**Petition No. 1552
Crown Castle and Cellco Partnership d/b/a Verizon Wireless
845 Ethan Allen Highway, Ridgefield, Connecticut**

**Staff Report
February 24, 2023**

Introduction

On December 1, 2022, Crown Castle (Crown) and Cellco Partnership d/b/a Verizon Wireless (Cellco) (collectively, Petitioner) submitted a joint petition to the Connecticut Siting Council (Council) for a declaratory ruling pursuant to Connecticut General Statutes (CGS) §4-176 and §16-50k for the proposed replacement and extension of an existing telecommunications facility located at 845 Ethan Allan Highway, Ridgefield, Connecticut (Petition or Project).

Specifically, Crown proposes to replace and extend the height of the existing telecommunications facility and expand the existing compound/lease area at the site to accommodate the collocation of Cellco and future tenants. The existing flagpole tower has limited structural capacity and is not tall enough to support the collocation of Cellco and future tenants.¹

Pursuant to Regulations of Connecticut State Agencies (RCSA) §16-50j-40, on or about December 1, 2022, Petitioner provided notice of the proposed Project to abutting property owners and the Town of Ridgefield (Town).

On December 2, 2022, the Council sent correspondence to the Town stating that the Council has received the Petition and invited the Town to contact the Council with any questions or comments by December 31, 2022. No comments were received.

Under RCSA §16-50j-40, neither Petitioner nor the Council is required to provide notice to the state agencies listed in CGS §16-50j(g) when a petition for a declaratory ruling for modifications to an *existing facility* is submitted to the Council. On December 16, 2022, the Council on Environmental Quality submitted comments on the Project.²

Under CGS §16-50x, the Council retains exclusive jurisdiction over the existing telecommunications facility site. Under RCSA §16-50j-2a(29), “site” means a contiguous parcel of property with specified boundaries, including, but not limited to, the leased area, right-of-way, access and easements on which a facility and associated equipment is located, shall be located or is proposed to be located. The Council

¹ A replacement flagpole tower with all internally-mounted antennas would need to be at least 20 feet taller than the proposed replacement monopole with platform-mounted antennas to meet Cellco’s wireless service objectives.

² https://portal.ct.gov/-/media/CSC/3_Petitions-medialibrary/Petitions_MediaLibrary/MediaPetitionNos1501-1600/PE1552/ProceduralCorrespondence/PE1552-SACRCDPI_CEQ_.pdf

cannot delegate its statutory authority to any other entity and it is not required to abide by comments from state agencies.³

The Council issued interrogatories to Petitioner on January 25, 2023. Petitioner submitted responses to the Council's interrogatories on February 15, 2023.

Pursuant to CGS §4-176(e) of the Uniform Administrative Procedure Act, an administrative agency is required to take an action on a petition for a declaratory ruling within 60 days of receipt. On December 22, 2022, pursuant to CGS §4-176(e), the Council voted to set the date by which to render a decision on the Petition as no later than May 30, 2023, which is the 180-day statutory deadline for a final decision under CGS §4-176(i).

Jurisdiction

Pursuant to CGS §§16-50i(a)(6) and 16-50x, the Council has exclusive jurisdiction over telecommunications towers, including associated equipment, owned or operated by the state, a public service company or a certified telecommunications provider or used in a cellular system.

Under RCSA §16-50j-2a (30), "Tower" means a structure, whether free standing or attached to a building or another structure, that has a height greater than its diameter and that is high relative to its surroundings, or that is used to support antennas for sending or receiving radio frequency signals, or for sending or receiving signals to or from satellites, or any of these, which is or is to be:

- a) **Used principally to support one or more antennas** for receiving or sending radio frequency signals, or for sending or receiving signals to or from satellites, or any of these, and
- b) Owned or operated by the state, a public service company as defined in Section 16-1 of the Connecticut General Statutes, or a certified telecommunications provider, or used in a cellular system, as defined in Section 16-50i(a) of the Connecticut General Statutes.

The proposed replacement tower will be used principally to support antennas and used in a cellular system. Thus, the Council has jurisdiction over the proposed replacement facility.

Pursuant to the tower sharing policy of the state under CGS §16-50aa, the Council must examine whether the proposed replacement facility may be shared with any public or private entity that provides service to the public, provided such shared use is technically, legally, environmentally and economically feasible and meets public safety concerns, to promote the immediate and shared use of telecommunications facilities and avoid the unnecessary proliferation of such facilities in the state. The proposed replacement facility is designed to accommodate four wireless carriers and municipal antennas.

Existing Facility

This facility was approved by the Town in 2000. The Council approved Sprint and AT&T collocations at the facility in 2001 and 2002, respectively. Crown acquired the existing facility from Omnipoint Communications/Voice Stream Wireless (predecessor to T-Mobile) in 2012.

³ *Corcoran v. Connecticut Siting Council*, 284 Conn. 455 (2007).

The existing 100-foot flagpole tower is located in the north-central portion of an approximately 1.78-acre parcel owned by 845 LLC. The parcel, zoned Light Industry, is developed with a single-story building, the existing facility, and a gravel access driveway off Ethan Allen Highway (Route 7). The facility is located about 8 feet northwest of the existing building and is enclosed within an 8-foot tall stockade fence. Abutting property along Route 7 to the north, south and east is commercial and light industrial. Abutting property to the west is open space and residential.

The existing tower currently supports T-Mobile at the 97-foot level, Sprint at the 80-foot level and AT&T at the 70-foot level. The existing tower is located in the center of an approximately 20-foot by 34-foot equipment compound. The compound contains equipment cabinets on concrete pads for T-Mobile, Sprint and AT&T.

Proposed Project

Crown intends to replace the existing 100-foot tall flagpole with a 110-foot tall monopole and expand the existing compound to accommodate Cellco and provide space for future collocation. The proposed replacement tower would be installed approximately 25 feet northwest of the existing tower location and approximately 33 feet northwest of the existing building. It would have a diameter of approximately 46 inches at the base and approximately 17 inches at the top. The existing tower has a uniform diameter of 24 inches.

Cellco would install 9 antennas and 6 remote radio heads on an antenna platform at a centerline height of 106 feet above ground level (agl). Cellco's proposed antennas would provide services in the 700/850/1900/2100/3550/3600 MHz frequencies. The 850 MHz and 3600 MHz frequency bands are capable of providing 5G services.

Cellco's installation would improve its existing 700 MHz coverage signal strength within its existing coverage area. Areas of improved signal strength include, but are not limited to, portions of Route 7 and Route 35 in Ridgefield. In addition to coverage improvements, the site would provide capacity relief to Cellco's adjacent sites in Ridgefield and Redding.

T-Mobile, Sprint, and AT&T would install their antennas at the approximately 96-foot, 80-foot, and 70-foot levels of the replacement tower, respectively.

The compound would be expanded by 817 square feet along the north side, enclosed by a new 8-foot tall stockade perimeter fence and an 8-foot 6-inch wide double gate at the northeastern side. An approximately 2 to 3 foot tall retaining wall would be installed along the northern and western sides of the compound expansion area to maintain a level compound surface.

Petitioner would utilize existing gravel access. Such access would be shifted slightly to the north to accommodate the compound expansion. The electrical connection would run underground from an existing on-site transformer to the proposed utility board east of the compound. The telecom connection would extend underground from an existing pole westward to reach the utility board. Cellco would install its equipment on a 26-foot 6-inch long by 11-foot 4-inch wide elevated steel platform located on concrete piers and with a canopy on top within the expanded portion of the compound. No changes to AT&T, Sprint or T-Mobile's ground equipment are proposed at this time.

The existing 100-foot flagpole would be decommissioned and removed within 90 days after the replacement tower is fully operational with all carriers. No disruptions to T-Mobile, Sprint and AT&T wireless services are anticipated. The existing tower foundation would be left in place to avoid disruption to existing equipment within the existing compound.

Cellco would install a 50-kilowatt propane-fueled backup generator and three 120-gallon propane tanks on the proposed equipment platform. The generator could supply power for approximately 30 hours based on full load and the 360-gallon propane capacity. Cellco would also install a battery cabinet on the equipment platform. The battery backup would be capable of supplying power for approximately 4 to 8 hours before recharging is necessary. AT&T, Sprint and T-Mobile maintain existing backup power sources at the site.

Commercial Mobile Radio Service (CMRS) providers are licensed by and are under the jurisdiction and authority of the Federal Communications Commission (FCC). At present, no standards for backup power for CMRS providers have been promulgated by the FCC.

The nearest residential property line from the replacement tower is approximately 371 feet to the southwest at 195 Haviland Road. Approximately 6 residences are located within 1,000 feet of the replacement tower.

The estimated cost of the proposed replacement facility is \$398,000, excluding Cellco's installation, and T-Mobile, Sprint and AT&T relocation costs. Neither the Project, nor any portion thereof, is proposed to be undertaken by state departments, institutions or agencies, or funded in whole or in part, by the state through any contract or grant. Crown is a private entity.

Facility Construction

Typical construction hours and workdays of the week are as follows: Monday through Saturday, 7:00 AM to 7:00 PM.

Environmental

Construction would occur within existing developed areas. One existing shrub would be removed near the northern corner of the existing compound to facilitate the proposed compound expansion.

The Project site is not located within a Connecticut Department of Energy and Environmental Protection (DEEP) Natural Diversity Database buffered area. The proposed facility is not within a DEEP designated Aquifer Protection Area. The Norwalk River is located 84 feet to the north.

There are no Audubon-designated Important Bird Areas within two miles of the site. The proposed replacement tower would comply with the USFWS recommended best practices for Communication Tower Design, Siting, Construction, Operation, Maintenance and Decommissioning.

A visibility study determined that the proposed 110-foot replacement tower would have a total visibility area (year-round plus seasonal) of approximately 24 acres (0.3%) within a two-mile radius (8,042 acres) study area. This total visibility area for the replacement tower would be approximately the same as that of the existing tower. Changes in visibility footprint would not be significant. The proposed external antenna arrays on the replacement facility would be visible within approximately 500 feet of the site and primarily along Route 7, within a commercially developed area.

The nearest publicly accessible recreational resource is Martin Park located approximately 260 feet to the northeast of the site at its closest point. This parcel is mostly wooded and contains parking areas. The proposed replacement facility is not expected to result in a substantial change in visibility from Martin Park. Any change in visibility would be minimal and generally limited to the parking area.

The proposed facility and compound expansion area are located within the Federal Emergency Management Agency (FEMA) AE Zone, a special flood hazard area. The 100-year flood elevation (or base flood elevation) is 492 feet above mean sea level (amsl). The 500-year flood elevation is 493 feet amsl. The elevated equipment compound would be located on top of concrete (TOC) piers with a TOC elevation of at least 494 feet amsl.

The proposed Project development including, but not limited to, retaining wall, fill, and equipment platform pier foundations would reduce existing flood storage capacity volume by approximately 23.4 cubic yards (cy). A 59.7 cy compensatory flood storage area would be established on the western edge of the host property. It would provide an unrestricted hydraulic connection to the Norwalk River and result in a net increase in flood storage capacity of approximately 36.3 cy. Development of the expanded facility compound and the compensatory flood storage area would require approximately 59.7 cy of cut, and the expanded compound would require approximately 23.4 cy of fill. Any excess materials would be disposed of off-site. By letter dated December 5, 2022, DEEP indicated that the Project would comply with the National Flood Insurance Program standards.

Wetland 1 is a complex of hillside seep wetlands draining to the Norwalk River, bordering floodplain wetlands and backwater wetlands to the riverine resource. Wetland 1 extends in a northeast-southwest direction across the northwestern portion of the host property. The proposed compound expansion would be located approximately 25 feet from Wetland 1 at its nearest location. Development of the proposed replacement tower and compound expansion would not result in direct impacts to Wetland 1. Petitioner would incorporate appropriate soil erosion and sedimentation control measures consistent with the *2002 Connecticut Guidelines for Soil Erosion and Sediment Control* prior to the commencement of construction.

Additionally, the flood compensatory storage area would be planted with native wetland vegetation to function as a natural floodplain wetland system in support of the adjacent Norwalk River. Petitioner would implement a Wetland and Norwalk River Protection Plan (WNRPP) that includes, but is not limited to, contractor education; erosion and sedimentation controls/isolation barriers; petroleum materials storage and spill prevention plan; herbicide, pesticide and salt use restrictions; and reporting requirements.

No properties listed on the National Register of Historic Places are located proximate to the site.

Public Safety

The Project would be constructed in accordance with the Connecticut State Building Code, Telecommunications Industry Association (TIA) 222-H Structural Standards for Steel Antenna Towers and Antenna Supporting Structures, the National Electrical Code, the Connecticut State Fire Safety Code, and the Occupational Safety and Health Administration standards (OSHA).

Construction of the replacement tower would not impact or interfere with any existing nearby public utilities. Prior to commencement of construction, all existing utilities and infrastructure locations will be identified to ensure that proper construction measures can be incorporated to avoid impacts and interference.

Access to the facility site would be restricted to the tower tenants and Crown personnel. Carrier equipment would maintain silent intrusion alarms. Climbing pegs on the lower portion of the tower would be removed to deter unauthorized climbing of the tower. The expanded compound would be enclosed by an eight-foot tall stockade fence.

The proposed replacement tower would be located about 84 feet south of the nearest property line; thus, the tower setback radius would extend beyond the host parcel. The tower could be designed with a yield point at 80 feet above ground level to ensure that the tower setback radius remains within the boundaries of the host property. The yield point design and fabrication would add approximately 10 to 15 percent to the tower cost.

The proposed replacement tower would not constitute an obstruction or hazard to air navigation. Notice to the Federal Aviation Administration is not required.

The proposed replacement facility and associated equipment would comply with DEEP Noise Control Standards. The proposed emergency backup generator is exempt from DEEP Noise Control Regulations §22a-69-1.8.

Cellco's antennas would support text-to-911 service and would comply with E911 requirements and the intent of the Warning, Alert and Response Network Act of 2006.

AT&T does not provide FirstNet Services⁴ from the existing tower at this time.

The calculated cumulative worst-case power density from the operation of Cellco's, T-Mobile's, Sprint's, and AT&T's antennas would be 8.92% of the applicable exposure limit established by the Federal Communications Commission at ground level using a far field approximation.

Conclusion

If approved, staff recommends the following conditions:

- 1) Approval of any project changes be delegated to Council staff;
- 2) Radio frequency access restriction and caution signage shall be installed at the site in compliance with FCC guidance;
- 3) Deployment of any 5G services must comply with FCC and FAA guidance relative to air navigation, as applicable;
- 4) Submission of the final construction drawings stamped and signed by a Professional Engineer duly licensed in the State of Connecticut prior to commencement of construction;
- 5) Submission of a structural analysis for the replacement tower/antenna mounts and foundation stamped and signed by a Professional Engineer duly licensed in the State of Connecticut prior to commencement of construction; and
- 6) The final structural design shall include a yield point to ensure that the tower setback radius remains within the boundaries of the host property.

⁴ FirstNet is a subscriber service available to local emergency response entities that would allow preferred wireless service on AT&T's 700 MHz system during emergencies.

Figure 1 - Side by Side simulation of the existing and proposed replacement towers from approximately 224 feet to the northeast



EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
9	ETHAN ALLEN HIGHWAY	SOUTHWEST	+/- 224 FEET	YEAR ROUND



PROPOSED

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
9	ETHAN ALLEN HIGHWAY	SOUTHWEST	+/- 224 FEET	YEAR ROUND

Figure 2 - Proposed Site Plan

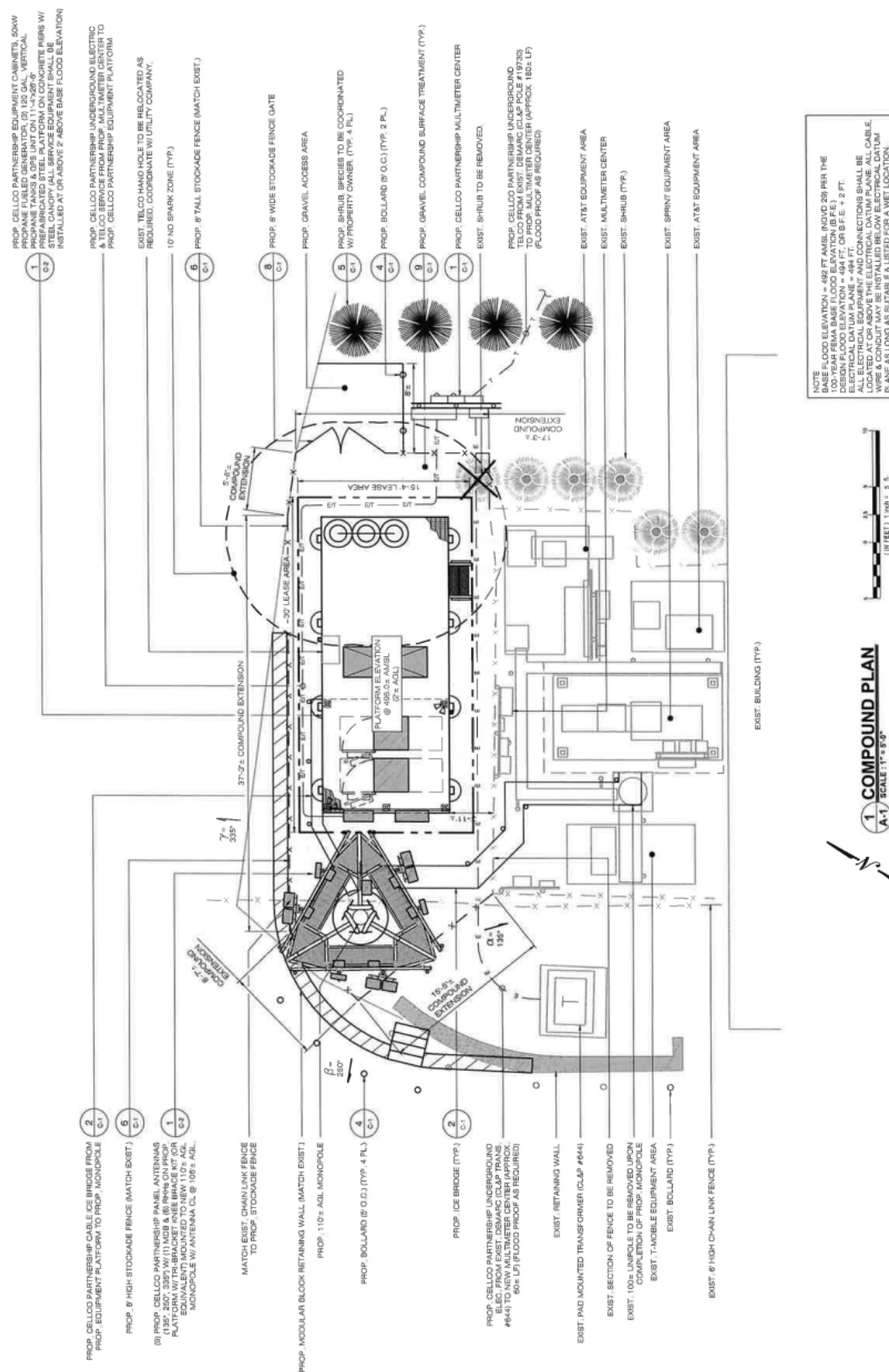


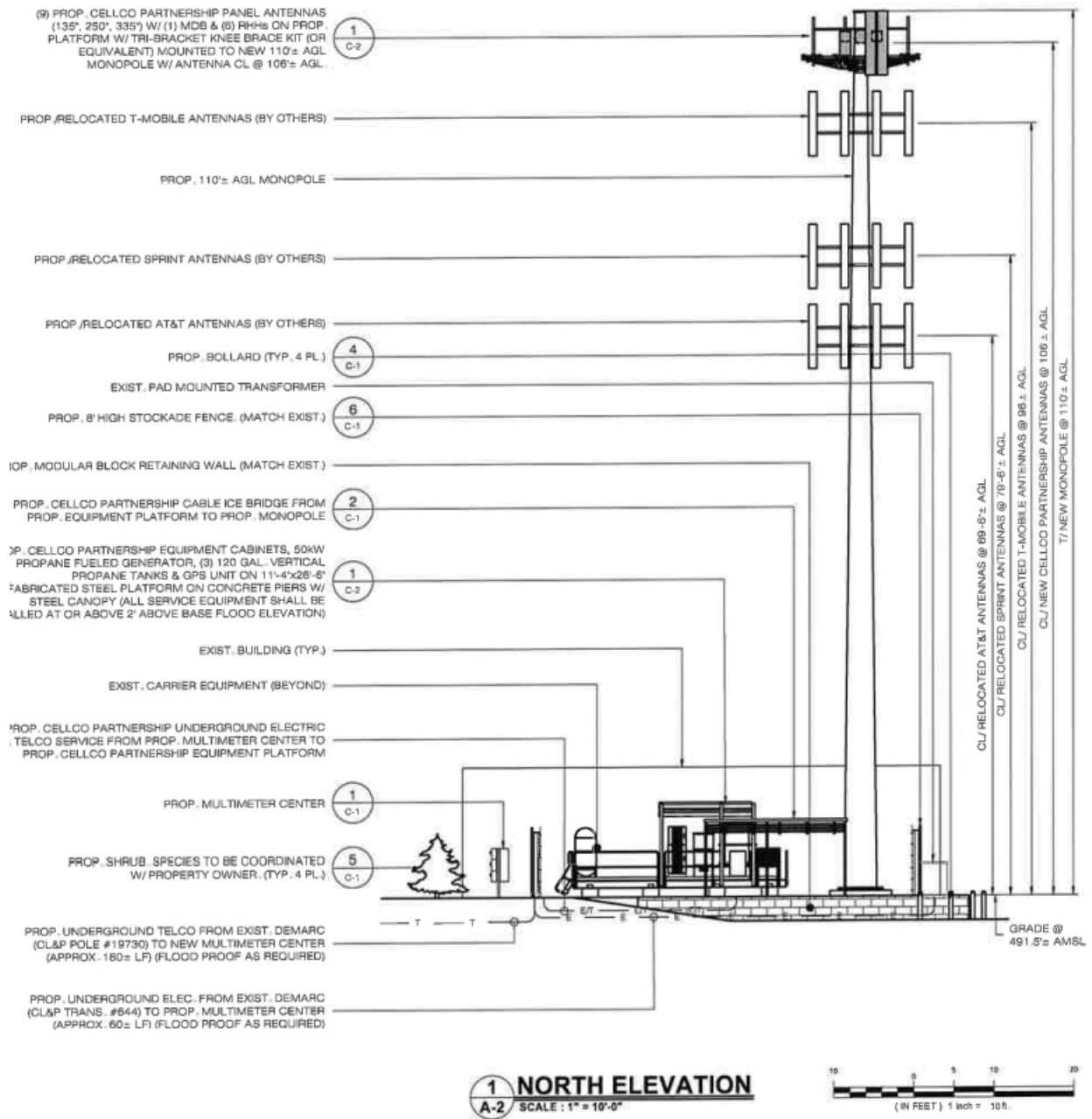
Figure 3 - Proposed Replacement Tower Elevation Drawing

Figure 4 – Compensatory Flood Storage/Wetland

