

DOCKET NO. 500 – Arx Wireless Infrastructure, LLC } Connecticut
application for a Certificate of Environmental }
Compatibility and Public Need for the construction, } Siting
maintenance, and operation of a telecommunications }
facility located at 1061-1063 Boston Post Road, Milford, } Council
Connecticut.

September 23, 2021

Findings of Fact

Introduction

1. Arx Wireless Infrastructure, LLC (Arx or Applicant), in accordance with provisions of Connecticut General Statutes (C.G.S.) § 16-50g, et seq, applied to the Connecticut Siting Council (Council) on March 30, 2021, for a Certificate of Environmental Compatibility and Public Need (Certificate) for the construction, maintenance, and operation of a 115-foot monopole wireless telecommunications facility at 1061-1063 Boston Post Road, Milford, Connecticut. (Applicant 1, pp. 5, 7)
2. Arx is a Delaware limited liability company with an office located at 110 Washington Avenue, North Haven, Connecticut. Arx constructs and owns wireless telecommunications facilities throughout the United States. Arx would construct, maintain and own the proposed facility and would be the Certificate Holder. (Applicant 1, p. 5)
3. The parties in this proceeding are Arx and the City of Milford (City). The Intervenors in this proceeding are Cellco Partnership d/b/a Verizon Wireless (Cellco) and New Cingular Wireless PCS, LLC (AT&T). (Record; Transcript 1, June 15, 2021, 2 p.m. (Tr. 1), pp. 3, 6)
4. Cellco and AT&T are licensed by the Federal Communications Commission (FCC) to provide personal wireless communication service in the State of Connecticut. (Cellco 1, Petition to Intervene, p. 1; AT&T 1, Request to Intervene, p. 1)
5. The purpose of the proposed facility is to replace Cellco's, and AT&T's existing facilities located on the roof of the Howard Johnson Hotel (Hotel) which is to be demolished as part of a redevelopment project that stalled in 2019. The timeline for the demolition of the Hotel building remains unknown to date. (Applicant 1, pp. 2, 8, 16; Cellco 2, response 7; Tr. 1, pp. 34-35, 69; Tr.3, p. 155; Tr. 3, pp. 198-199; Council Administrative Notice Item Nos. 36, 40, 42)
6. Pursuant to C.G.S. § 16-50/ (b), the applicant provided public notice of the filing of the application that was published in the New Haven Register on March 24, and March 26, 2021. (Applicant 1, p. 6; Attachment C)
7. Pursuant to C.G.S. § 16-50/ (b), notice of the application was provided to all abutting property owners by certified mail on March 24, 2021. A certified mail receipt from one abutting property owner was not received and Arx hand-delivered notice to the property owner-on June 8, 2021. (Applicant 1, p. 7, Attachment D; Applicant 10, Response 1)
8. On March 29, 2021, the Applicant provided notice to all federal, state and local officials and agencies listed in C.G.S. § 16-50/ (b). (Applicant 1, p. 6; Attachment B)

Procedural Matters

9. On March 10, 2020, Governor Lamont issued a Declaration of Public Health and Civil Preparedness Emergencies, proclaiming a state of emergency throughout the state as a result of the COVID-19 pandemic. (Council Administrative Notice Item No. 52).

10. On March 12, 2020, Governor Lamont issued Executive Order No. (EO) 7 ordering a prohibition of large gatherings, among other orders and directives. (Council Administrative Notice Item No. 52).
11. On March 14, 2020, and as subsequently extended, Governor Lamont issued EO 7B ordering suspension of in-person open meeting requirements of all public agencies under CGS §1-225. The Freedom of Information Act defines “meeting” in relevant part as “any hearing or other proceeding of a public agency.” (Council Administrative Notice Item No. 52, CGS §1-200, et seq. (2019)).
12. EO 7B allows public agencies to hold remote meetings provided that:
 - a) The public has the ability to view or listen to each meeting or proceeding in real-time, by telephone, video, or other technology;
 - b) Any such meeting or proceeding is recorded or transcribed and such recording or transcript shall be posted on the agency’s website within seven (7) days of the meeting or proceeding;
 - c) The required notice and agenda for each meeting or proceeding is posted on the agency’s website and shall include information on how the meeting will be conducted and how the public can access it any materials relevant to matters on the agenda shall be submitted to the agency and posted on the agency’s website for public inspection prior to, during and after the meeting; and
 - d) All speakers taking part in any such meeting shall clearly state their name and title before speaking on each occasion they speak.(Council Administrative Notice Item No. 52)
13. On March 25, 2020, and as subsequently extended, Governor Lamont issued EO 7M allowing for an extension of all statutory and regulatory deadlines of administrative agencies for a period of no longer than 90 days. (Record; Council Administrative Notice Item No. 52)
14. Upon receipt of the application, the Council sent a letter to the City of Milford (City) on April 1, 2021, as notification that the application was received and is being processed, in accordance with C.G.S. § 16-50gg. (Record)
15. During a regular Council meeting on April 22, 2021, the application was deemed complete pursuant to Regulations of Connecticut State Agencies (R.C.S.A.) § 16-50l-1a and the public hearing schedule was approved by the Council. (Record)
16. Pursuant to Governor Lamont’s EO 7B, as extended. and C.G.S. § 16-50m, on April 26, 2021, the Council sent a letter to the City to provide notification of the scheduled public hearing via Zoom conferencing and to invite the municipality to participate. (Record)
17. Pursuant to Governor Lamont’s EO 7B, as extended, and C.G.S. § 16-50m, the Council published legal notice of the date and time of the remote public hearing via Zoom conferencing in The New Haven Register on April 26, 2021. (Record)
18. In compliance with Governor Lamont’s EO 7 prohibition of large gatherings, the Council’s Hearing Notice did not refer to a public field review of the proposed site. (Record)
19. Field reviews are not an integral part of the public hearing process. The purpose of a site visit is an investigative tool to acquaint members of a reviewing commission with the subject property. (Council Administrative Notice Item Nos. 53 and 54)

20. On May 19, 2021, the Council held a pre-hearing teleconference on procedural matters for parties and intervenors to discuss the requirements for pre-filed testimony, exhibit lists, administrative notice lists, expected witness lists and filing of pre-hearing interrogatories. Procedures for the remote public hearing via Zoom conferencing were also discussed. (Council Pre-Hearing Conference and remote hearing procedure Memoranda, dated May 12, 2021)
21. On May 21, 2021, in lieu of an in-person field review of the proposed site, the Council requested that Arx submit photographic documentation of site-specific features into the record intended to serve as a “virtual” field review of the site. On June 8, 2021, Arx submitted such information in response to the Council’s interrogatories. (Record; Applicant 10, Response 32)
22. In compliance with R.C.S.A. § 16-50j-21, the Applicant installed a four-foot by six-foot sign at the entrance to the subject property on May 28, 2021. The sign presented information regarding the project and the Council’s public hearing. (Applicant 5 - Applicant’s Sign Posting Affidavit)
23. Pursuant to C.G.S. § 16-50m, the Council gave due notice of a remote public hearing to be held on June 15, 2021, beginning with the evidentiary session at 2:00 p.m. and continuing with the public comment session at 6:30 p.m. via Zoom conferencing. The Council provided information for video/computer access or audio only telephone access. (Council’s Hearing Notice dated April 26, 2021; Tr. 1, p. 6)
24. In compliance with Governor Lamont’s EO 7B:
 - a) The public had the ability to view and listen to the remote public hearing in real-time, by computer, smartphone, tablet or telephone;
 - b) The remote public hearing was recorded and transcribed, and such recording and transcript were posted on the Council’s website on June 15, 2021 and August 17, 2021, respectively;
 - c) The Hearing Notice, Hearing Program, Citizens Guide for Siting Council Procedures and Instructions for Public Access to the Remote Hearing were posted on the agency’s website;
 - d) The record of the proceeding is available on the Council’s website for public inspection prior to, during and after the remote public hearing; and
 - e) The Council, parties and intervenors provided their information for identification purposes during the remote public hearing.

(Hearing Notice dated April 26, 2021; Tr. 1; Record)
25. The Council continued the remote evidentiary hearing session via Zoom conferencing on July 27, 2021, beginning at 2:00 p.m. (Council’s Continued Hearing Memo dated June 1, 2021; Transcript 2)
26. On July 27, 2021, the Council issued a Protective Order related to the disclosure of the monthly rent and financial terms contained within the lease agreement for the proposed site, pursuant to CGS §1-210(b) and consistent with the Conclusions of Law adopted in Docket 366. (Record)

State Agency Comment

27. Pursuant to C.G.S. § 16-50j (g), on April 12, 2021, the following state agencies were solicited by the Council to submit written comments regarding the proposed facility: Department of Energy and Environmental Protection (DEEP); Department of Public Health (DPH); Council on Environmental Quality (CEQ); Public Utilities Regulatory Authority (PURA); Office of Policy and Management (OPM); Department of Economic and Community Development (DECD); Department of Agriculture (DOAg); Department of Transportation (DOT); Connecticut Airport Authority (CAA); Department of Emergency Services and Public Protection (DESPP); and State Historic Preservation Office (SHPO). (Record)
28. On May 25, 2021, the Council received correspondence from DOT, stating that it had no comments regarding the proposed project. (Record)
29. The following agencies did not respond with comment on the application: DEEP, DOT, CEQ, PURA, OPM, DECD, DOAg, DESPP, and SHPO. (Record)
30. While the Council is obligated to consult with and solicit comments from state agencies by statute, the Council is not required to abide by the comments from state agencies. (*Corcoran v. Connecticut Siting Council*, 284 Conn. 455 (2007)).

Municipal Consultation

31. Pursuant to CGS § 16-50l(f), Arx commenced the 90-day pre-application municipal consultation process by submitting a technical report to the City on August 27, 2020. (Applicant 1, p. 30, Attachment M)
32. On October 1, 2020, Arx met virtually with City attorneys John W. Knuff and Jon Berchem. The City raised questions regarding the proximity of the proposed site to a residential road, the possibility of alternative sites and Cellco's propagation plots. (Applicant 1, p. 31; Attachment M; Applicant 3)
33. On October 27, 2020, the City submitted correspondence to Arx requesting exploration of alternative methods of providing coverage, such as using small cells and co-locations on existing structures, as well as an investigation of four alternative locations: 1052 Boston Post Road; 1212 Boston Post Road; 1201 Boston Post Road; and 10 Leighton Road. (Applicant 1, Attachment M)
34. On March 26, 2021, Arx responded to the City's request for more information and explained that the City's suggested alternative locations were not viable options for the proposed facility. (Applicant 1, Attachment M; Applicant 3)
35. On April 28, 2021, in response to the Council's April 1, 2021 request under CGS §16-50gg, the City submitted a Memorandum Regarding Location Preferences and Siting Criteria (City Memorandum) to the Council. (Record)
36. On May 4, 2021, Arx submitted a response to the City Memorandum. It provided more information related to the proposed site and the consideration of alternative sites suggested by the City. (Record, Applicant 3)

37. On May 4, 2021, the Council received comments from the Milford Legislative Delegation in opposition to the proposed site requesting consideration of alternative sites. (Record)

Public Need for Service

38. In 1996, the United States Congress recognized a nationwide need for high quality wireless telecommunications services, including cellular telephone service. Through the Federal Telecommunications Act of 1996, Congress seeks to promote competition, encourage technical innovations, and foster lower prices for telecommunications services. (Council Administrative Notice Item No. 4 – Telecommunications Act of 1996)
39. In issuing cellular licenses, the Federal government has preempted the determination of public need for cellular service by the states and has established design standards to ensure technical integrity and nationwide compatibility among all systems. Cellco is licensed by the FCC to provide personal wireless communication service to New London County, Connecticut. (Council Administrative Notice Item No. 4 – Telecommunications Act of 1996; Cellco 1, p. 6 and Tab 5)
40. Section 253 of the Telecommunications Act of 1996 prohibits any state or local statute or regulation, or other state or local legal requirement from prohibiting or having the effect of prohibiting the ability of any entity to provide any interstate or intrastate telecommunications service. (Council Administrative Notice Item No. 4 – Telecommunications Act of 1996)
41. Section 704 of the Telecommunications Act of 1996 prohibits local and state entities from discriminating among providers of functionally equivalent services and from prohibiting or having the effect of prohibiting the provision of personal wireless services. This section also requires state or local governments to act on applications within a reasonable period of time and to make any denial of an application in writing supported by substantial evidence in a written record. (Council Administrative Notice Item No. 4 – Telecommunications Act of 1996)
42. Section 704 of the Telecommunications Act of 1996 also prohibits any state or local entity from regulating telecommunications towers on the basis of the environmental effects of radio frequency emissions, which include effects on human health and wildlife, to the extent that such towers and equipment comply with FCC’s regulations concerning such emissions. (Council Administrative Notice Item No. 4 – Telecommunications Act of 1996)
43. Section 706 of the Telecommunications Act of 1996 requires each state commission with regulatory jurisdiction over telecommunications services to encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans, including elementary and secondary schools, by utilizing regulating methods that promote competition in the local telecommunications market and remove barriers to infrastructure investment. (Council Administrative Notice Item No. 4 – Telecommunications Act of 1996)
44. In December 2009, President Barack Obama recognized cell phone towers as critical infrastructure vital to the United States. The Department of Homeland Security, in collaboration with other federal stakeholders, state, local, and tribal governments, and private sector partners, has developed the National Infrastructure Protection Plan (NIPP) to establish a framework for securing resources

- and maintaining resilience from all hazards during an event or emergency. (Council Administrative Notice Item No. 11 –Presidential Proclamation 8460, Critical Infrastructure Protection)
45. In February 2012, Congress adopted the Middle Class Tax Relief and Job Creation Act (also referred to as the Spectrum Act) to advance wireless broadband service for both public safety and commercial users. The Act established the First Responder Network Authority to oversee the construction and operation of a nationwide public safety wireless broadband network. Section 6409 of the Act contributes to the twin goals of commercial and public safety wireless broadband deployment through several measures that promote rapid deployment of the network facilities needed for the provision of broadband wireless services. (Council Administrative Notice Item No. 8 – Middle Class Tax Relief and Job Creation Act of 2012)
 46. In June 2012, President Barack Obama issued an Executive Order to accelerate broadband infrastructure deployment declaring that broadband access is a crucial resource essential to the nation’s global competitiveness, driving job creation, promoting innovation, expanding markets for American businesses and affording public safety agencies the opportunity for greater levels of effectiveness and interoperability. (Council Administrative Notice Item No. 22 – FCC Wireless Infrastructure Report and Order; Council Administrative Notice Item No. 12 – Presidential Executive Order 13616, Accelerating Broadband Infrastructure Development)
 47. Pursuant to Section 6409(a) of the Spectrum Act, a state or local government may not deny and shall approve any request for collocation, removal or replacement of equipment on an existing wireless tower provided that this does not constitute a substantial change in the physical dimensions of the tower. (Council Administrative Notice Item No. 8 – Middle Class Tax Relief and Job Creation Act of 2012; Council Administrative Notice Item No. 23 – FCC Wireless Infrastructure Report and Order)
 48. In June 2020, the FCC issued a declaratory ruling that heights of existing towers located outside of the public right-of-way could increase by up to 20 feet plus the height of a new antenna without constituting a substantial change in the physical dimensions of a tower. (Council Administrative Notice Item No. 27)
 49. In November 2020, the FCC issued an order that ground excavation or deployment up to 30 feet in any direction beyond the site boundary of existing towers located outside of the public right-of-way does not constitute a substantial change in the physical dimensions of a tower (Council Administrative Notice Item No. 28)
 50. According to state policy, if the Council finds that a request for shared use of a facility by a municipality or other person, firm, corporation or public agency is technically, legally, environmentally and economically feasible, and the Council finds that the request for shared use of a facility meets public safety concerns, the Council shall issue an order approving such shared use to avoid the unnecessary proliferation of towers in the state. (Conn. Gen. Stat. §16-50aa)
 51. On April 26, 2021, the Council sent correspondence to other telecommunications carriers requesting that carriers interested in locating on the proposed facility in the foreseeable future to notify the Council by June 8, 2021. (Record)
 52. On May 11, 2021, T-Mobile responded to the Council’s solicitation indicating it has no interest in co-locating on the proposed facility. (Record)

53. The facility is designed to accommodate the Town and local emergency service providers and four wireless carriers. The tower and its foundation could also be designed to be extended up to 20-feet. (Applicant 1, p. 14; Tr 1, p.30)
54. As of June 8, 2021, neither the City nor any emergency response entity has expressed an interest in co-locating emergency services antennas on the tower. (Applicant 1, p. 19; Applicant 10, response 19; Tr. 1, p. 33)

Cellco's Existing and Proposed Wireless Services

55. Cellco currently operates a wireless telecommunication facility on the roof of the Hotel and a Centralized Radio Access Network (CRAN) facility at ground level. The existing rooftop facility consists of a 40-foot flagpole and associated equipment with antennas at the 76-foot and 82-foot levels. Cellco currently deploys its wireless service from the existing facility within the 700 MHz and the 2100 MHz frequency bands. (Council Administrative Notice Item Nos. 36 and 40, Cellco 2, response 17)
56. In 2019, Cellco installed a CRAN facility at ground level. (Council Administrative Notice Item Nos. 36 and 40; Cellco 5, response 28)
57. The Hotel has been out of business for over a year and the building is to be demolished as part of a redevelopment project. The demolition of the Hotel would require Cellco to decommission its existing facility on the roof. Cellco has not been able to come to an agreement with the property owner regarding a replacement facility. (Applicant 1, pp. 2, 8,16, 17; Attachment F; Cellco 2, response 7)
58. On August 15, 2019, the Council issued a joint Declaratory Ruling to Cellco, T-Mobile¹ and AT&T to install a temporary tower on the 1052 Boston Post Road parcel that would provide coverage until the rebuilding of the Hotel. It was anticipated that the temporary tower would remain in place for approximately two years, until construction of the new hotel was completed. (Council Administrative Notice Item No. 42; Applicant 10, response 7; Cellco 2, response 7)
59. The temporary tower was not installed. Cellco indicates the temporary tower approved by the Council for use by the three carriers to provide continuity of existing wireless coverage is not currently needed since the demolition of the Hotel was postponed, and the proposed tower would replace Cellco's existing facility at 1052 Boston Post Road. (Cellco 2, response 7)
60. Under Cellco's lease with the current property owner of 1052 Boston Post Road, the term would automatically renew on December 31, 2024 unless Cellco or the property owner issue a notice of cancellation. (Cellco 6, response 15c)
61. Commuters and residents within the Interstate-95 (I-95) corridor, Route 1/ Boston Post Road, New Haven Road, Cherry Street and the residential neighborhoods in the vicinity of these roads would be impacted by the loss of coverage and wireless service as a result of the decommissioning of Cellco's existing facility at 1052 Boston Post Road. (Applicant 1, p. 8; Applicant 11, p. 7)

¹ T-Mobile also currently operates an existing wireless communication facility at the 1052 Boston Post Road site.

62. Cellco’s coverage from the proposed facility would be substantially similar to coverage from the existing facility at 1052 Boston Post Road. (Cellco 2, response 12)
63. Cellco’s propagation plots indicate that in addition to replacing the coverage footprint of its existing facility at the Hotel that deploys two frequencies, the proposed site would allow Cellco to deploy three additional frequencies. (see figures 23 and 24). (Cellco 2, response 11, 12, 17; Cellco 3, response 3 and 4; Tr. 1, pp. 109-112)
64. Cellco designs its network to a -95 dB Reference Signal Received Power (RSRP) standard for reliable in-vehicle service and -85 dB RSRP standard for reliable in-building service. Decommissioning the existing Hotel site without a replacement facility would reduce Cellco’s RSRP levels within the 700 MHz and the 2100 MHz frequency bands. (Cellco 2, response 17)
65. The table below indicates approximate coverage gaps in miles for portions of Route 1 (Boston Post Road), portions of the I-95, and the overall proposed coverage footprint in square miles in the event that Cellco’s existing facility on the Hotel is decommissioned without replacement:

Street Name	700 MHz Coverage Gap	1900 MHz Coverage Gap	2100 MHz Coverage Gap
Interstate-95	0 miles	1.0 miles	1.0 miles
Boston Post Road	0 miles	0.6 miles	0.65 miles
State Road Total	0 miles	1.6 miles	1.65 miles
Proposed Site Coverage footprint	7.6 square miles	4.5 square miles	2.3 square miles

(Cellco 2, Response 15)

66. Cellco’s facility at the proposed site would provide voice and data services over its 700 MHz, 850 MHz, 1900 MHz, 2100 MHz and 3550 MHz frequency bands. Cellco’s proposed equipment installation would provide standard 5G service over its 850 MHz and 2100 MHz frequency bands. (Cellco 2, Response 17, Response 21)
67. The proposed facility would provide both coverage and capacity. (Cellco 4, response 27)
68. The proposed facility would interact with surrounding existing Cellco facilities as shown in the following table:

Cellco Site Designation	Site Address	Distance/direction from Proposed Site	Antenna Height (agl)	Structure Type
Milford CT SC4	Boston Post Road	0.5 miles Northeast	37 Feet	Utility Pole
CT Post Mall In-Building	1201 Boston Post Road	0.5 miles Northeast	NA	In-Building DAS
Old Gate CT	311 Old Gate Road	1.0 miles East	100 feet	Self-Support Lattice
Milford S II CT	185 Research Parkway	1.8 miles Northeast	126 feet	Utility Pole
Milford SC2 CT	540 New Haven Avenue	0.9 miles Southeast	37 feet	Utility Pole

Milford CT SC10	66 Broad Street	1.0 miles Southwest	37 feet	Utility Pole
Milford S CT	200 High Street	1.3 miles Southwest	66 feet	Smokestack
Milford Center CT	434 Boston Post Road	1.3 miles West	90 feet	Self-Support Lattice

(Applicant 1, Attachment F; Cellco 2, Response 16)

69. Cellco’s antennas are proposed to be installed at a centerline height of 112-feet above ground level (agl). The lowest antenna height at which Cellco can achieve its coverage objectives is 110 feet (Applicant 1, p. 1, Attachment G, sheet TR-2; Cellco 2, response 18)
70. If Cellco were to reduce its antenna centerline height below 110 feet, it would experience a reduction in coverage especially at the higher frequencies (1900MHz, 2100MHz). (Cellco 2, response 18)

AT&T’s Existing and Proposed Wireless Services

71. AT&T currently operates a wireless telecommunications facility at the Hotel. The existing facility consists of antennas and associated equipment attached to the building at the 58-foot level. AT&T currently deploys its wireless service from the existing facility within the 700 MHz, 850 MHz, 1900 MHz, 2100 MHz and 2300 MHz frequency bands. (Applicant 1, Attachment E; AT&T 2, response 9)
72. AT&T’s 4G LTE technology is designed to thresholds of -83 dBm and -93 dBm for the 700 MHz LTE system and -86 dBm and -96 dBm for the 1900 MHz LTE system. The stronger thresholds (-83 dBm and -86 dBm) provide faster network speeds for an improved customer experience. The -93 dBm and -96 dBm thresholds are the minimum acceptable levels required to meet customer expectations for 4G service. (Applicant 1, Attachment E, p. 2; AT&T 2, response 12, Attachment 3)
73. The decommissioning of the existing facility at the Hotel would cause service disruption and loss of coverage to residents and commuters in Milford particularly portions of Route 1, New Haven Road, Cherry Street and the residential neighborhoods within the vicinity of these roads. (Applicant 1, p. 8, Attachment E, pp. 1 & 7; AT&T 2, response 15, Attachment 3)
74. AT&T conducted drive tests and propagation modeling to determine the extent of the coverage gap if the hotel were decommissioned. AT&T’s analysis indicates that there would be coverage loss to about 3188 persons, an area of about 1.69 square miles and about 19.6 square miles of roadway. (Applicant 1, Attachment E, p. 4)
75. The proposed facility would replace the resulting coverage loss and restore connectivity to the adjacent sites within AT&T’s existing network. (Applicant 1, Attachment E, p. 7; Tr.3, p. 197; AT&T 3, response 3; AT&T 5, response 9, 10, and 13)
76. The chart below represents the coverage statistics for AT&T’s 700 MHz network with the deployment of the proposed facility.

	Coverage Recovered with Proposed Site	
Population: ⁴	(≥ -93 dBm)	3188
Business Pops: ⁵	(≥ -93 dBm)	5269
Area (mi²):	(≥ -93 dBm)	1.69
Roadway (mi):	Main (-93 dBm):	6.66
	Secondary (-93 dBm):	11.95
	Total (-93 dBm):	18.61

(Applicant 1, Attachment E, p. 6)

77. AT&T’s facility at the proposed site would provide voice and data services over its 5G low-band spectrum using 700 MHz, 850 MHz, 1900 MHz, 2100 MHz and 2300 MHz frequency bands. The facility would not support AT&T’s 5G+ which uses 24 gigahertz and 39 gigahertz frequency bands. (AT&T 2, Response 9 and 17)
78. The proposed facility would provide both coverage and capacity relief as well as FirstNet Services. (Applicant 1, Attachment E, p. 1; Tr. 3, pp. 192,193)
79. The proposed facility would interact with surrounding existing AT&T facilities as shown in the following table:

AT&T Site Designation	Site Address	Distance/direction from Proposed Site	Antenna Height (agl)	Structure Type
CT5099	434 Boston Post Road	1.3 miles West Southwest	37 Feet	Self-Support Lattice
CT2169	181-185 Research Drive	1.8 miles East Northeast	NA	Monopole
CT5601	234 Melba Street	2.1 miles Southeast	100 feet	Monopole

(Applicant 1, Attachment E, p.1; AT&T 2, response 13; Tr. 3, p. 192)

80. AT&T's antennas are proposed to be installed at a centerline height of 100-feet agl, which is the lowest height that would meet its wireless service objectives in the area. (Applicant 1, p. 1; Attachment G, TR-2; AT&T 2, response 18)
81. Installing the antennas at 90 feet (or ten feet lower) would affect AT&T's ability to meet its wireless service goals for coverage, handoff, and capacity. (AT&T 2, Response 19)

Site Selection

82. AT&T established a search ring for the target area after identifying a need for a replacement facility. AT&T's search ring had a 0.5 mile radius and was centered on the existing site at 1052 Boston Post Road. (Application 1, p. 18, Attachment F; AT&T 2, response 7)
83. Cellco's search area is centered on its existing facility at 1052 Boston Post Road. (Cellco 2, response 6)
84. After determining there were no suitable structures within the search area, AT&T and Arx searched for properties suitable for tower development. Arx investigated 9 sites, one of which was selected for site development. AT&T and Verizon agreed to support an application by Arx to construct a new facility in this location to provide the required coverage. The 9 sites investigated are as follows:
 - a) **1061-1063 Boston Post Road, Milford, CT** (the proposed site): 2.5 acre dual zoned (commercial and residential) parcel. ARX entered into a lease agreement with the owner of this property, Lee Partners, LLP, for the development of the Facility;
 - b) **1052 Boston Post Road, Milford CT** (former Howard Johnson Hotel): 8.3 acre parcel within Milford's Interchange Commercial District. Arx sent correspondence to the property owner indicating interest to develop a new tower within the property. Arx has received no response as of the close of the evidentiary record of this proceeding;
 - c) **1212 Boston Post Road, Milford, CT**: 7.7 acre commercially zoned parcel. The property owner was not interested in a potential lease;
 - d) **230 Cherry Street, Milford, CT**: 10.9 acre commercially zoned parcel. The property owner was not interested in a potential lease;
 - e) **1201 Boston Post Road, Milford, CT** (Connecticut Post Mall): 75 acre commercially zoned parcel. The property owner was not interested in a potential lease. The roof of the building would not satisfy Cellco's coverage needs however a 120 foot tower site located on the property closer to Verizon's target might satisfy the coverage needs of both carriers;
 - f) **1064 Boston Post Road, Milford, CT**: a 0.94 acre parcel located within Milford's Interchange Commercial District. The property owner was not interested in a potential lease;
 - g) **271 Cherry Street, Milford, CT**: a 0.11 acre commercially zoned parcel. The property owner was not interested in a potential lease;
 - h) **10 Leighton Road, Milford, CT**: a 21.5 acre parcel zoned as light Industrial. The property owner was not interested in a potential lease;
 - i) **354 North Street Milford, CT**: a 2.5 acre undeveloped residential parcel. A facility at this location would not satisfy AT&T's coverage objectives.

(Applicant 1, p. 18; Attachment F; Cellco 2, response 10; Cellco 3, response 6; AT&T 2, response 8, response 18; Applicant 7, response 8)

85. Cellco operates about five small cell facilities within the subject area, however deploying a series of small cells on utility poles would not be a viable alternative. There are not enough utility poles in the area to deploy a series of small cells to provide the required coverage. Also, Cellco would be unable to provide reliable backup power for these small cells and would be unable to use its full set of frequencies for its wireless services. This alternative solution could cost up to 3 times the amount projected for the proposed facility. (Cellco 3, response 8; Tr. 3, pp. 146-149)

A combination of rooftop facilities and small cell or flagpole deployments would have the same constraints mentioned above. The height of the roof tops would be insufficient for Cellco's coverage objectives and flagpoles would require multiple levels of antenna arrays. Cellco would only consider a multi-site solution if a single site solution was not available. (Cellco 3, response 8; Tr.3, pp. 146-149)

86. AT&T has not determined whether a multi-site solution* could meet its coverage needs. (AT&T 3, response 7; Tr.3, pp. 193-194)

* A multi-site solution refers to a combination of facilities, for example a shorter tower or a rooftop facility and small cells.

87. A series of small cell deployments on existing utility poles would not be a viable alternative for AT&T and would be impossible to provide backup power in the event of a loss of commercial power resulting in a significant loss of coverage. This solution could also result in higher radio frequency emissions than the proposed facility due to the lower antenna heights. (Tr. 3, pp. 191-193)

88. In addition to the sites investigated by Arx, the following were considered as alternatives to the proposed facility during the proceeding. (Tr.3, pp. 153, 202, 219, 220)

SITE ADDRESS AND FACILITY TYPE	SITE DESCRIPTION	CELLCO REQUIRED HEIGHT	CELLCO REASON FOR REJECTION	AT&T REQUIRED HEIGHT	AT&T REASON FOR REJECTION
1061-1063 Boston Post Rd Rooftop Facility	2 commercial buildings; Rooftop heights 20+ ft.	112 ft.	Rooftop heights are too low	100 ft.	Rooftop heights are too low
1052 Boston Post Road (Existing or Future Howard Johnson Hotel building) Tower or Rooftop Facility	Existing hotel rooftop height 47-ft. with AT&T @ 58-ft. penthouse attachment; Verizon @ 82-ft. and 76-ft. on flagpole; and T-Mobile @ 72-ft. on 2 nd flagpole Future hotel rooftop height 49 ft.	80 – 100 ft.	Tower facility required; Existing hotel building demolition; property owner unwilling to host additional flagpole or tower on roof; Future rooftop height too low	94 – 100 ft.	Tower facility required; Existing hotel building demolition; property owner unwilling to host additional flagpole or tower on roof; Future rooftop height too low
1212 Boston Post Road (Old Navy) Tower or Rooftop Facility	Commercial building and parking lot with some undeveloped areas along western and northern border; Rooftop height 25 ft.	110 – 120 ft.	Tower facility required, property owner not interested; Rooftop height is too low	100 ft.	Tower facility required, property owner not interested; Rooftop height is too low
230 Cherry Street Tower or Rooftop Facility	Commercial building and large parking area; Rooftop height 25 ft.	110 – 120 ft.	Tower facility required, property owner not interested; Rooftop height is too low	100 ft.	Tower facility required, property owner not interested; Rooftop height is too low
1201 Boston Post Road (Connecticut Post Mall) Tower or Rooftop Facility	Shopping mall and large parking area; Rooftop heights 25 – 40 ft.	130 ft.	Tower facility required, property owner not interested; Rooftop height is too low	100 ft.	Tower facility required; insufficient coverage to the SW if located in the Southerly parking lot; property owner not interested; Rooftop height is too low

SITE ADDRESS AND FACILITY TYPE	SITE DESCRIPTION	CELLCO REQUIRED HEIGHT	CELLCO REASON FOR REJECTION	AT&T REQUIRED HEIGHT	AT&T REASON FOR REJECTION
1064 Boston Post Road (Athenian Diner) Tower or Rooftop Facility	commercial building and parking area; Rooftop height 25 ft.	110 – 120 ft.	Tower facility required; property owner not interested; Rooftop height is too low	100 ft.	Tower facility required; property owner not interested; Rooftop height is too low
271 Cherry Street (Milford Cemetery) Tower or Rooftop Facility	Commercial parcel with a building and landscaped space; Rooftop height 20 ft.	110 – 120 ft.	Tower facility required; property owner not interested; Rooftop height is too low	100 ft.	Tower facility required; property owner not interested; Rooftop height is too low
10 Leighton Road (Schick Manufacturing) Tower, Rooftop or Billboard Facility	Light Industrial parcel with building and large parking area; Rooftop heights 25 - 50 ft.; Billboard height 45 ft.	110 ft.	Tower facility required; Property owner not interested; Rooftop height is too low; Billboard is too low	100 ft.	Tower facility required; Property owner not interested; Rooftop height is too low; Billboard is too low; insufficient coverage to the SW
354 North Street Tower or Rooftop Facility	Undeveloped residential parcel; nearby commonly-owned building rooftop height 25 ft.	120 ft.	Does not meet coverage objectives	100 ft.	Too close to existing AT&T site (overlap and redundant coverage)
160 Wampus Lane	Industrial parcel supports commercial building and existing 120 ft. monopole tower with T-Mobile @ 108 ft. and 117 ft.	120 ft.	Does not meet coverage objectives and would leave a gap in coverage on I-95	100 ft.	Does not meet coverage objectives

89. 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 nor shall the Council be limited in any way by the applicant having already acquired land or an interest therein for the purpose of constructing a facility. (Corcoran v. Connecticut Siting Council, 284 Conn. 455 (2007); CGS § 16-50p(g)(2019))
90. The proposed site is located in the southernmost portion of an approximately 2.5-acre parcel at 1061-1063 Boston Post Road also known as Route 1, in Milford. The northern portion of the parcel

is located within the City Interchange Commercial District (ICD) while the southern portion of the parcel is zoned residential. The proposed site location is depicted on Figure 1. (Applicant 1, p. 1; Attachment G, Sheet TR-1)

91. The originally proposed facility would be located within a residentially zoned portion of the host parcel. During the proceedings Arx provided site plans and a description of an alternate location for the proposed facility within the ICD zoned portion of the host parcel. (See figure 5). (Applicant 12, Exhibit #41; Applicant 14, pp. 1-2)
92. Both carriers would be located at similar heights as at the originally proposed-location and the alternate location would have no impact on their proposed coverage objectives. (Tr. 3, p. 194)
93. Although it is technically possible to provide wireless service to the target service area using numerous small cells, the actual number of small cells necessary would be significant due to the large size of the service area to be covered. The use of a macro-cell at the proposed site is the most efficient and cost-effective method for providing a large coverage footprint. (Applicant 1, p. 17; Tr. 3, pp. 149-151, pp. 191-192)

Facility Description

94. Pursuant to Regulations of Connecticut State Agencies (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. (RCSA §16-50j-2a(29))
95. The subject property currently hosts the Mexico Tipico restaurant building, the Firestone building and a parking lot. (Applicant 1, p. 7; Attachment G, Sheet TR-1)
96. Land use immediately surrounding the subject parcel to the south, southeast and southwest is residential. The parcel is bounded immediately to north by Route 1 and commercial properties to the northeast and northwest. The Milford Cemetery is directly to the west of the host parcel and I-95 is further northwest. (Applicant 1, pp. 7 & 28; Attachment H, p. 1)

Proposed Site Location

97. The originally proposed tower site is located in a landscaped area adjacent to a parking lot in the southern portion of the property, at an elevation of approximately 32 feet above mean sea level (amsl). (Applicant 1, p. 7, Attachment G, sheet TR-2; Attachment H, p. 1)
98. The proposed facility would consist of a 115-foot monopole within a 75-foot by 75-foot leased area. The tower would be designed to support four wireless carrier antennas as well as municipal emergency services antennas (Refer to Figure 2). (Applicant 1, pp. 1 & 7; Attachment G, Sheet TR-2)
99. The tower and its pad and pier foundation could be designed to accommodate an increase in tower height of up to 20 feet. (Applicant 10, Response 16 & 12)

100. Cellco would install twelve panel antennas and nine remote radio heads on a low-profile platform antenna mount at a centerline height of 112 feet agl. (Cellco 2, response 3; Tr.3 p. 183)
101. AT&T would install nine panel antennas and 12 remote radio heads on a low-profile platform antenna mount at a centerline height of 100 feet agl. (AT&T 2, response 3)
102. A 60-foot by 60-foot fenced equipment compound would be established at the base of the tower. The size of the equipment compound would be able to accommodate the equipment of four wireless carriers and two additional lease areas for municipal and emergency services equipment. (Applicant 1, Attachment G, Sheet TR-2)
103. Ground preparation and development of the equipment compound would require the removal of approximately 8-cubic yards of material and approximately 12 to 16 cubic yards of fill. The pad and pier foundation of the tower would require the replacement of 120 cubic yards of material with concrete. (Applicant 10, response 13)
104. Cellco would install one equipment cabinet on a 7-foot 6-inch by 4-foot concrete pad with a protective ice canopy within the southeastern part of the equipment compound. (Refer to Figure 2) (Attachment G, Sheet TR-2)
105. AT&T would install one equipment walk-in cabinet on an 8-foot 6-inch by 8-foot 6-inch concrete pad. (Attachment G, Sheet TR-2)
106. The proposed equipment compound will be surrounded by an eight-foot high chain link fence. The proposed compound fence would have a 12-foot wide gate that would be locked for security purposes. (Applicant 1, p.; Attachment G Sheet TR-2; Applicant 10, Response 7)
107. Access to the tower site would be via the existing 25-foot wide paved driveway from Boston Post Road extending in a southeast direction through the existing paved parking area to the proposed site. (Attachment G, p. 1; Applicant 10, Response 10)
108. Utilities would extend underground from the eastern side of the compound to an existing utility pole located along Home Acres Avenue. (Applicant 10, response 5; Attachment G, Sheet TR-1)
109. The nearest property boundary from the base of the proposed tower is approximately 80 feet to the south of the facility at 43 Home Acres Avenue. (Applicant 12, response 34, exhibit 40)
110. There are approximately 68 residential structures within 1,000 feet of the proposed tower site including a condominium complex on Forest Avenue, 49 units of which are within that radius. The nearest residence is located at 43 Home Acres Avenue, approximately 170 feet south of the tower. (Applicant 10, response 3)
111. Site preparation and engineering would commence following Council approval of a Development and Management Plan (D&M Plan) and are expected to be completed within four to five weeks. Monopole, antennas and associated equipment installation are expected to take an additional eight weeks. After the equipment installation, cell site integration and system testing would require about two additional weeks. (Applicant 1, p. 33)
112. The estimated cost of the originally proposed facility is:

Tower and Foundation	\$ 85,000
Site Development	\$ 160,000
Utility Installation	\$ 30,000
Cellco Generator	\$ 25,000
Cellco Cell Site and Radio Equipment	\$ 150,000
Miscellaneous fiber and electrical installation	\$ 25,000
AT&T Equipment and Materials	\$ 114,000
AT&T Construction	\$ 179,000
AT&T Integration and Optimization	\$ 15,300
<u>Total Estimated Costs</u>	<u>\$ 783,300</u>

(Applicant 1, p.32; Cellco 2, response 1; AT&T 2, response 1)

113. Arx would recover construction costs associated with the facility by the revenue generated from leasing space on the facility to other wireless providers. (Applicant 4, Response 2)
114. Cellco would recover the costs of its equipment through customer subscriptions. (Cellco 2, Response 2)
115. AT&T would recover the costs of its equipment through customer subscriptions. (AT&T 2, response 2)

Alternate Site Location

116. Arx's proposed alternate site is located in the western portion of the host parcel behind the Mexico Tipico restaurant building, approximately 100 feet Northwest from the proposed site location. The alternate location is located in the ICD zoned portion of the parcel. (see figure 5). (Applicant 12, response 39; Applicant 14, p. 1, Exhibit #41)
117. The alternate tower site would be located within the far western portion of the existing parking lot and would consist of a 115-foot monopole within a 160-foot by 35-foot leased area. The tower would be designed to support four wireless carrier antennas as well as municipal emergency services antennas (Refer to Figure 3). (Applicant 12, Exhibit #41)
118. The alternate tower and its proposed caisson foundation could be designed to accommodate an increase in tower height of up to 20 feet. (Tr. 3, p. 236)
119. The alternate site would take up about five existing parking spaces. The originally proposed site location was selected to avoid impacts to parking for the two tenants on the site parcel. (Tr. 1, p. 17, 59; Tr. 3, pp. 243-246, 250-251)
120. Local zoning regulations do not apply to facilities under the exclusive jurisdiction of the Council. Pursuant to CGS §16-50x, the Council has exclusive jurisdiction over telecommunications facilities throughout the state. It shall consider any location preferences provided by the host municipality under CGS §16-50g as the Council shall deem appropriate. (CGS §16-50x (2021))
121. Cellco would install twelve panel antennas and nine remote radio heads on a low-profile platform antenna mount at a centerline height of 112 feet agl. (Cellco 2, response 3; Tr.3, p. 183)

122. AT&T would install nine panel antennas and 12 remote radio heads on a low-profile platform antenna mount at a centerline height of 100 feet agl. (AT&T 2, response 3)
123. A 150-foot by 25-foot fenced equipment compound would be established at the base of the tower. The size of the equipment compound would be able to accommodate the equipment of four wireless carriers and one additional lease area for municipal and emergency services equipment. (Applicant 12, Exhibit 41)
124. Ground disturbance would be the same as the original facility however an additional 36 cubic yards of material would be replaced as a result of the proposed caisson foundation for the tower. (Applicant 10, response 13)
125. Cellco would install one equipment cabinet on a 7-foot 6-inch by 4-foot concrete pad with a protective ice canopy. (Refer to Figures 3 & 5) (Applicant 12, Exhibit 41)
126. AT&T would install one 6-foot long by 6-foot wide equipment walk-in cabinet on an 8-foot 6-inch by 8-foot 6-inch concrete pad. (Applicant 12, Exhibit 41)
127. The proposed equipment compound would be surrounded by an eight-foot high chain link fence topped with three strands of barbed wire. The proposed compound fence would have two 12-foot wide gates that would be locked for security purposes. (Applicant 12, Sheet TR-3; Applicant 10, Response 17)
128. Access to the alternate tower site would be via the existing 25-foot wide paved driveway from Boston Post Road extending in a southeast direction through the existing paved parking area to the proposed site. (Applicant 10, Response 10)
129. Utilities would extend underground from the western side of the compound to an existing utility pole located along Home Acres Avenue. (Applicant 12, Sheet TR-1)
130. The nearest property boundary from the base of the alternate proposed tower is the abutting Milford Cemetery which is approximately 22 feet to the west of the alternate proposed facility. The nearest residence from the base of the alternate proposed tower is located at 43 Home Acres Avenue, approximately 275 feet south of the tower. (Applicant 12, Exhibit 39; Tr. 1, p. 233)
131. The alternate facility would cost an additional \$70,000 as a result of the caisson foundation which would be installed instead of the pad and pier foundation for the originally proposed facility. The footer of a pad and pier foundation installed at the alternate facility would encroach on the property line of the abutting Milford Cemetery. (Applicant 14, p. 3 & 4; Tr. 3, p. 237)

Public Safety

132. The Wireless Communications and Public Safety Act of 1999 (911 Act) was enacted by Congress to promote and enhance public safety by making 9-1-1 the universal emergency assistance number, by furthering deployment of wireless 9-1-1 capabilities, and by encouraging construction and operation of seamless ubiquitous and reliable networks for wireless services. (Council Administrative Notice Item No. 6 - Wireless Communications and Public Safety Act of 1999)

133. The proposed facility would be in compliance with the requirements of the 911 Act and would provide Enhanced 911 services. (Applicant 1, p. 12)
134. Wireless carriers have voluntarily begun supporting text-to-911 services nationwide in areas where municipal Public Safety Answering Points (PSAP) support text-to-911 technology. Text-to-911 will extend emergency services to those who are deaf, hard of hearing, have a speech disability, or are in situations where a voice call to 911 may be dangerous or impossible. However, even after a carrier upgrades its network, a user's ability to text to 911 is limited by the ability of the local 911 call center to accept a text message. The FCC does not have the authority to regulate 911 call centers; therefore, it cannot require them to accept text messages. (Council Administrative Notice Item No. 21 – FCC Text-to-911: Quick Facts & FAQs)
135. Cellco's and AT&T's proposed equipment installation would be capable of supporting text-to-911 service. (Applicant 1, p. 1; Cellco 2, Response 3)
136. Pursuant to the Warning, Alert and Response Network Act of 2006, "Wireless Emergency Alerts" (WEA) is a public safety system that allows customers who own enabled mobile devices to receive geographically-targeted, text messages alerting them of imminent threats to safety in their area. WEA complements the existing Emergency Alert System that is implemented by the FCC and FEMA at the federal level through broadcasters and other media service providers, including wireless carriers. (Council Administrative Notice No. 5 – FCC WARN Act)
137. Cellco's and AT&T's proposed equipment installation would comply with the Warning, Alert and Response Network Act of 2006. (Applicant 1, p. 12; Cellco 2, Response 19)
138. FirstNet is a federal agency with a mandate to create a nationwide, interoperable public safety broadband network for first responders. FirstNet selected AT&T to build, manage and operate the Public Safety Broadband Network using FirstNet's Band 14 spectrum, together with AT&T's own wireless network. AT&T would deploy FirstNet services at this facility. (Attachment E, p. 1)
139. Pursuant to C.G.S. §16-50p(a)(3)(G), the towers would be constructed in accordance with the current governing standard in the State of Connecticut for tower design in accordance with the currently adopted International Building Code. (Applicant 1, Attachment 4 Construction Drawings sheet T-1, Applicant 4, Response 6; Tr. 1 p.16)
140. Neither the originally proposed tower nor the alternate proposed tower would require notice to the Federal Aviation Administration or constitute an obstruction or hazard to air navigation and therefore would not require any obstruction marking or lighting. (Applicant 1, p. 19)
141. Cellco and AT&T's equipment cabinets would be equipped with silent intrusion and system alarms. Cellco and AT&T would have personnel available on a 24-hour basis to receive and respond to incoming alarms. (Applicant 4, Response 10)
142. The tower setback radius* for the originally proposed tower would extend beyond the boundary of the subject property to the south by 61 feet. Arx would design a tower yield point at the 61-foot agl of the tower, to ensure the tower setback radius remains within the boundaries of the subject property. (Applicant 1, p.15, p.22, Attachment 4, construction drawings sheet SP-1; Tr 1, p. 24)

*The horizontal distance equal to the tower height that extends radially from the center of the tower.
143. The tower setback radius for the alternate proposed tower would extend beyond the boundary of the subject property to the west by 95-feet. Arx would design a tower yield point at the 95-foot

above ground level of the tower, to ensure the tower setback radius remains within the boundaries of the subject property. (Tr 1, p. 233)

144. Construction noise is exempt from the DEEP Noise Control Regulations §22a-69-1.8(g), which includes, but is not limited to, “physical activity at a site necessary or incidental to the erection, placement, demolition, assembling, altering, blasting, cleaning, repairing, installing, or equipping of buildings or other structures, public or private highways, roads, premises, parks, utility lines, or other property.” (R.C.S.A. §22a-69-1.8(g))
145. The cumulative worst-case maximum power density from the radio frequency emissions from the operation of AT&T’s and Cellco’s antennas is 22.0% of the standard* for the General Public/Uncontrolled Maximum Permissible Exposure, as adopted by the FCC, at the base of the proposed tower. This calculation was based on methodology prescribed by the FCC Office of Engineering and Technology Bulletin No. 65E, Edition 97-01 (August 1997) that assumes all antennas in a sector would be pointed at the base of the tower and all channels would be operating simultaneously, which creates the highest possible power density levels. Under normal operation, the antennas would be oriented outward, directing radio frequency emissions away from the tower, thus resulting in significantly lower power density levels in areas around the tower.

*This includes a 10 dB off-beam pattern loss to account for the lower relative gain below the antennas.

(Applicant 1, p. 23; Attachment J; Council Administrative Notice Item No. 2 – FCC OET Bulletin No. 65)

Emergency Backup Power

146. In response to two significant storm events in 2011, Governor Malloy formed a Two Storm Panel (Panel) that was charged with an objective review and evaluation of Connecticut’s approach to the prevention, planning and mitigation of impacts associated with emergencies and natural disasters that can reasonably be anticipated to impact the state. (Final Report of the Two Storm Panel, (Council Administrative Notice Item No. 43)
147. Consistent with the findings and recommendations of the Panel, and in accordance with C.G.S. §16-50//, the Council, in consultation and coordination with DEEP, DESPP and PURA, studied the feasibility of requiring backup power for telecommunications towers and antennas as the reliability of such telecommunications service is considered to be in the public interest and necessary for the public health and safety. (Council Administrative Notice Item No. 26 – Council Docket No. 432)
148. Commercial Mobile Radio Service (CMRS) providers are licensed by and are under the jurisdiction and authority of the FCC. At present, no standards for backup power for CMRS providers have been promulgated by the FCC. Every year since 2006, AT&T, Sprint, T-Mobile, and Verizon have certified their compliance with the CTIA Business Continuity/Disaster Recovery Program and the Communications Security, Reliability and Interoperability Council standards and best practices to ensure network reliability during power outages. (Council Administrative Notice Item No. 26 – Council Docket No. 432)
149. For backup power, Cellco proposes a 30-kilowatt diesel-fueled generator with a 210 gallon base tank for its own use. Cellco’s proposed generator would provide approximately 120 hours of run time at 75% electrical load, before it requires refueling. (Cellco 2, Response 16; Tr. 1, p. 22)

150. For backup power, AT&T proposes a 15-kilowatt diesel fueled generator with a 54-gallon base tank. AT&T's proposed generator would provide approximately 90 hours of runtime at 75% electrical load, before it requires refueling. (AT&T 2, response 21)
151. Natural gas is available on Boston Post Road. Use of a natural gas-fueled generator at the site would require installation of piping to bring the fuel to the facility, which costs more than installation of a diesel-fueled generator. (Tr. 1, pp. 30, 113 - 114)
152. Cellco and AT&T would have battery backup systems integrated into their equipment cabinets in order to avoid a "re-boot" condition during the generator start-up delay period. The battery backup system alone could provide up to four hours of backup power. (Cellco 2, Response 17)
153. The proposed backup generators would have a secondary containment basin to collect any oil or coolant leaks. (Tr. 1, p. 21 & 23)
154. The generators would be remotely tested and monitored on a weekly basis to ensure proper operation. (Applicant 1, p. 19; attachment 5 p.1-2)
155. According to R.C.S.A. §22a-69-1.8, noise created as a result of, or relating to, an emergency, such as an emergency backup generator, is exempt from the DEEP Noise Control Regulations. (R.C.S.A. §22a-69-1.8)
156. Pursuant to R.C.S.A. §22a-174-3b, the generator would be managed to comply with DEEP's "permit by rule" criteria. Therefore, the generator would be exempt from general air permit requirements. (R.C.S.A. §22a-174-3b)

Environmental Considerations

157. The nearest wetland to the proposed site is located approximately 1320 feet south of the proposed facility and 1420.16 feet south of the alternate facility. (Applicant 1, p.30; Attachment I, Wetland Inspection report p.2)
158. The proposed project would be constructed consistent with the *2002 Connecticut Guidelines for Soil Erosion and Sedimentation Control*. (Applicant 1, p. 30, Attachment I, Wetland Inspection report p.2)
159. The proposed site and the alternate site are located on mostly level ground. Development of the proposed site would require about 128 cubic yards of cut and 136 cubic yards of stone and concrete fill for the compound base. The alternate site would require an additional 36 cubic yards of cut and fill material as a result of the caisson foundation. (Applicant 10, response 13)
160. The proposed site and the alternate site are not located within the Federal Emergency Management Agency designated 100-year or 500-year flood zones. (Applicant 1, p. 26, Attachment I, pp. 1, 6, 7, FEMA Flood Map)
161. Neither the proposed site nor the alternate site is located within a state-designated aquifer protection area. (Applicant 1, p.22, DEEP Aquifer Protection Area Maps)
162. The proposed facility is located within a DEEP Natural Diversity Database buffer area. The DEEP NDDDB review recommends that work should occur when the Eastern Box Turtle (*Terrapene c.*

- carolina*) are active (April 1st to October 30th). (Applicant 1, p.25; attachment I, DEEP NDDB Determination letter dated August 6, 2020)
163. Development of the proposed site would not require the removal of any existing trees with a diameter of six inches or greater at breast height. (Applicant 1, p. 2)
164. Development of the alternate site would require the removal of one existing tree with a diameter of six inches or greater at breast height. (Applicant 14, p. 2; Tr.3, pp. 233, 237)
165. Connecticut is within the range of the northern long-eared bat (NLEB), a federally-listed threatened species and state-listed endangered species. There are no known NLEB hibernacula or known maternity roost trees within 0.25 miles and 150-feet, respectively, of the proposed site. The U.S. Fish and Wildlife Service (USFWS) determined that the proposed facility would not have an impact on the NLEB. (Applicant 1, Attachment I, USFWS Letter Dated June 19, 2020)
166. The nearest Important Bird Area to the proposed site is The Silver Sands State Park and Charles Island in Milford located approximately 1.9 miles to the southwest. (Applicant 1, Attachment K, Avian Resources Evaluation p.1)
167. The proposed facility would comply with the USFWS guidelines for minimizing the potential for telecommunications towers to impact bird species. (Applicant 1, Attachment I)
168. By letter dated August 18, 2020, SHPO determined that the proposed project would not have an adverse effect on sites listed on or eligible for listing on the NRHP. (Applicant 1, p. 22, Attachment I, SHPO Determination dated August 18, 2020)
169. Arx does not anticipate the need for blasting at the proposed site. (Applicant 10, Response 14)

Visibility

170. Arx used a combination of predictive computer models, in-field analysis, and a review of various data sources to evaluate the visibility of the originally proposed and alternate facility on both a quantitative and qualitative basis. (Applicant 1, p. 20; Attachment H, p.2 & 3)
171. On December 9, 2020, Arx conducted a crane test and field reconnaissance at the originally proposed tower site. The crane test consisted of attaching a brightly colored flag to a crane boom and raising it to a height of approximately 115-feet agl at the proposed tower location. Weather conditions were favorable for the in-field activity with calm winds and partly cloudy skies. The crane was up for a period of about three and a half hours. (Applicant 1, p. 20; Attachment H p.3-4)
172. On July 15, 2021, Arx conducted a balloon float 22-feet northwest of the proposed alternate tower site. An existing tree prevented floating the balloon at the exact location. (Cellco 14, p. 3)
173. Information obtained during the field reconnaissance was incorporated into mapping data layers, including observations of the field reconnaissance, photo-simulation locations, areas that experienced land use changes, and places where the initial modeling was found to over- or under-predict visibility to produce a final predictive viewshed map for areas within a two-mile radius of the site. (Applicant 1, Attachment H p.7)

174. Based on the final viewshed analysis, the proposed tower would be visible year-round from approximately 74 acres within the study area (refer to Figure-11). This would be about 0.09 percent of the study area.* The tower would be seasonally visible (leaf-off conditions) from approximately 90 acres or about 1.1 percent of the study area. (Applicant 1, Attachment H, p.7)

*The study area is comprised of 8,042 acres.
(Applicant 1, Attachment H, p. 7; viewshed maps)

The alternate tower site would have the same visibility characteristics as the original however the northward shift of the tower reduces visibility at the southeastern end of Home Acres Avenue. (Applicant 14, p. 3)

175. Most areas from which the facility would be visible are within approximately 0.5-miles of the site. This would include areas north and west along Home Acres Avenue and west and northwest along Boston Post Road. Year-round visibility of the facility would extend to areas 0.23 miles northwest on Home Acres Avenue, 0.1 miles southeast on Boston Post Road, 1.03 miles southeast on Buckingham Avenue and 0.20 miles southeast on Forest Road. (Applicant 1, Attachment H, p. 5)
176. Seasonally (i.e. under “leaf-off conditions) partially obstructed views of the facility in the immediate area of the site would extend northwest to Home Acres Avenue, Northeast to Corona Drive, southeast to Forest Road and west to Old Gate Lane. (Applicant 1, Attachment H, p.5-6)
177. Pursuant to CGS §16-50p(a)(3)(F), no public schools or commercial child day care facilities are located within 250 feet of the site. The nearest building containing a school is Orange Avenue Elementary School located approximately 0.59 miles northwest of the proposed facility at 260 Orange Avenue in Milford. The nearest building containing a commercial child day care facility is the Sedona Daycare and Learning Center located approximately 0.82 miles southwest of the proposed facility at 21 Plymouth Place in Milford. No visibility of the tower is predicted from either the public school or the day care center. (Applicant 1, p. 21; Attachment H, p.7)
178. There are no state or locally-designated scenic roads located within the two-mile study area. (Applicant 1, p. 25)
179. A stealth monopine facility at both the proposed and alternate locations would be more visible above the existing tree line due to the lack of existing pine trees and the low heights of the existing commercial buildings to the northwest and would cost an additional \$80,000. The monopine design would increase the diameter of the pole by 6 to 8 inches and the overall width of the tower by 3 to 4-feet. (Applicant 10, response 26, response 27; Applicant 12, response 36; Tr.1 pp. 19-20; Tr. 3, p. 233)
180. Arx would install evergreen trees such as white pine or arborvitae as screens along the compound fence and would maintain the landscaping for the life of the facility. (Applicant 10, response 9)
181. There are no “blue-blazed” hiking trails maintained by the Connecticut Forest and Park Association within one-mile of the site. (Applicant 1, p. 25)

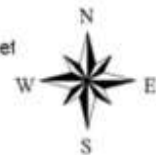
Figure 1 – Aerial Map



MAP DISCLAIMER - NOTICE OF LIABILITY

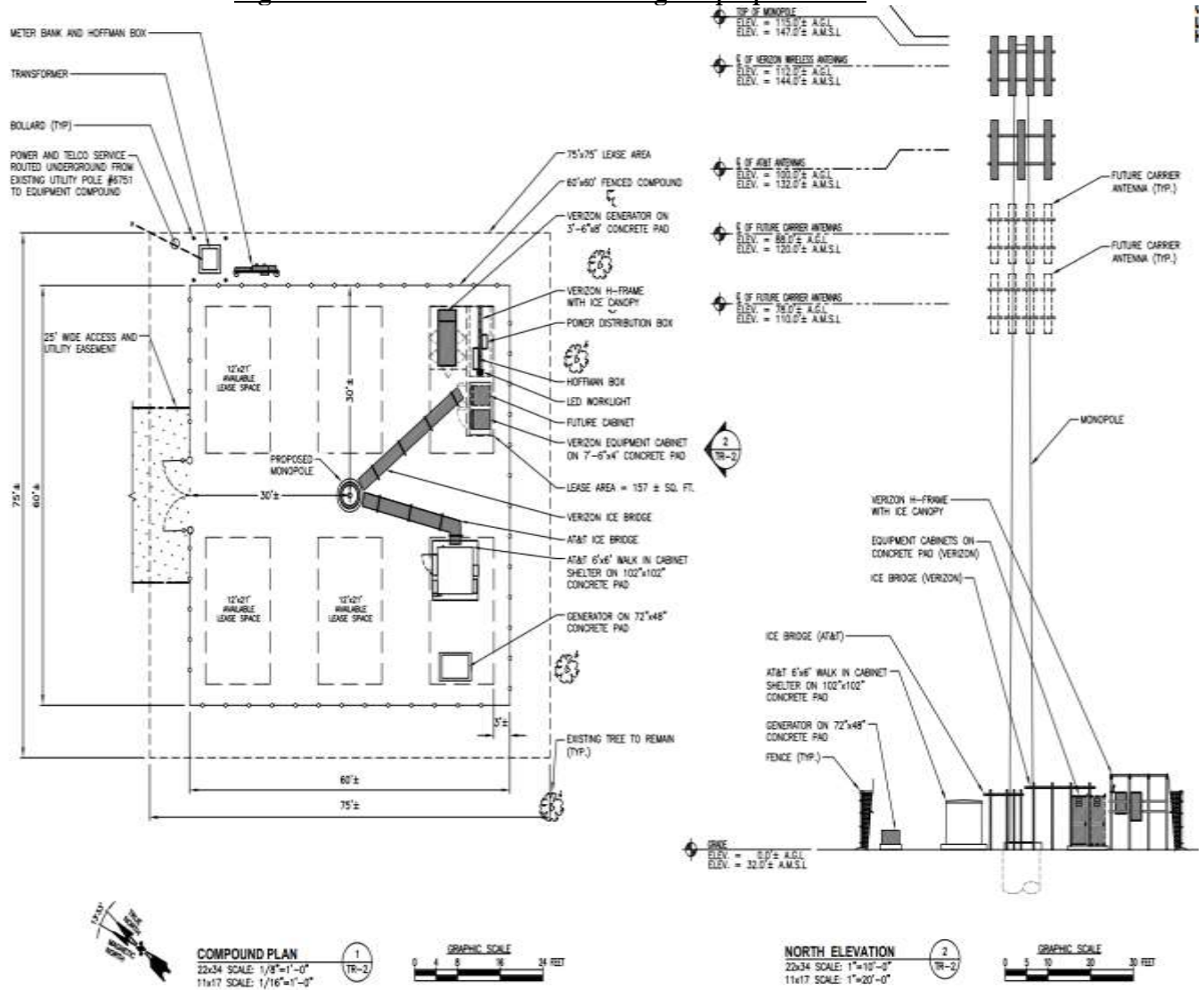
This map is for assessment purposes only. It is not for legal description or conveyances. All information is subject to verification by any user. The City of Milford and its mapping contractors assume no legal responsibility for the information contained herein.

Approximate Scale: 1 inch = 1000 feet



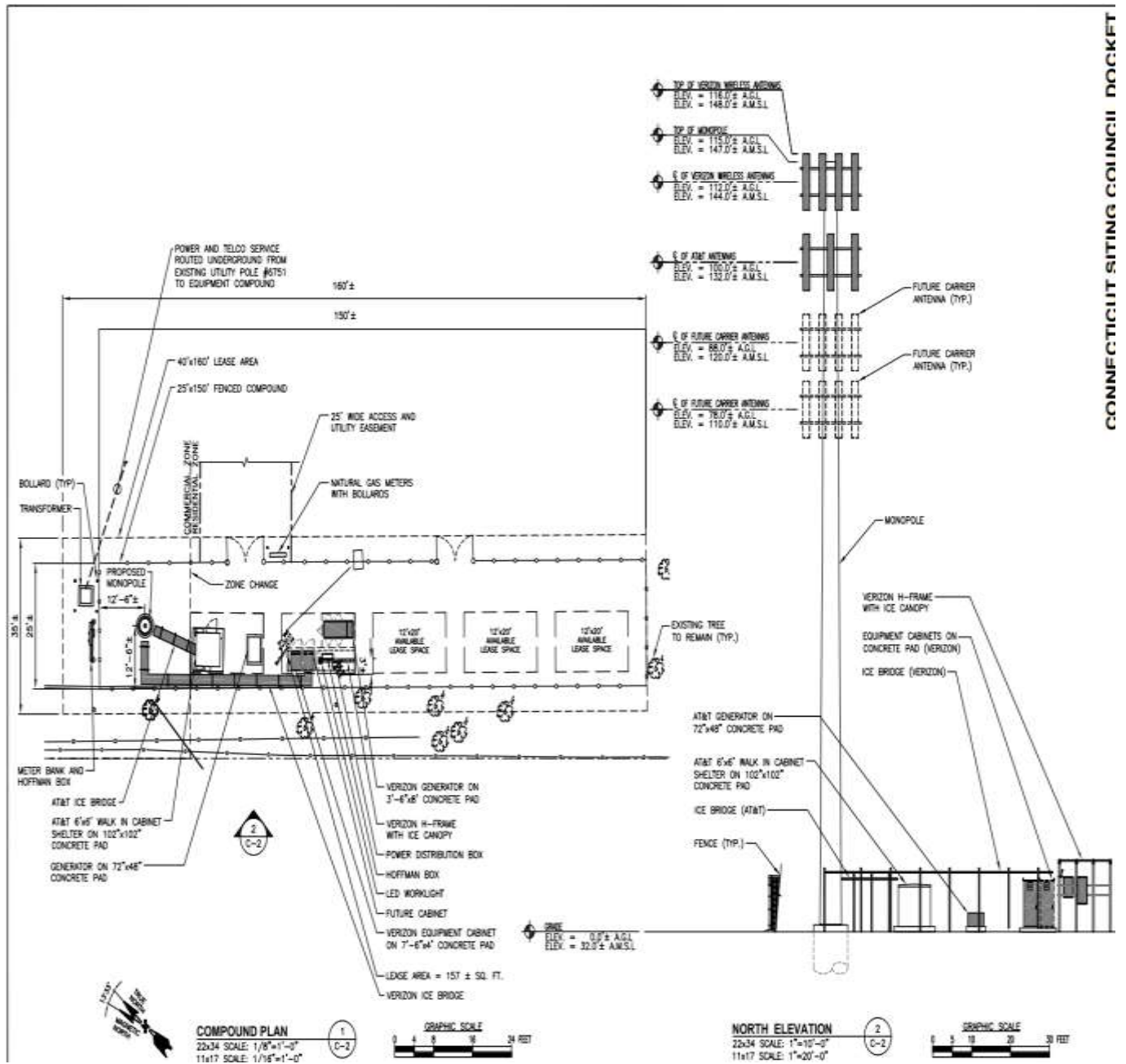
(Applicant 1, Attachment P, Aerial Photograph)

Figure 2 – Site Plan and elevation: Original proposed Site



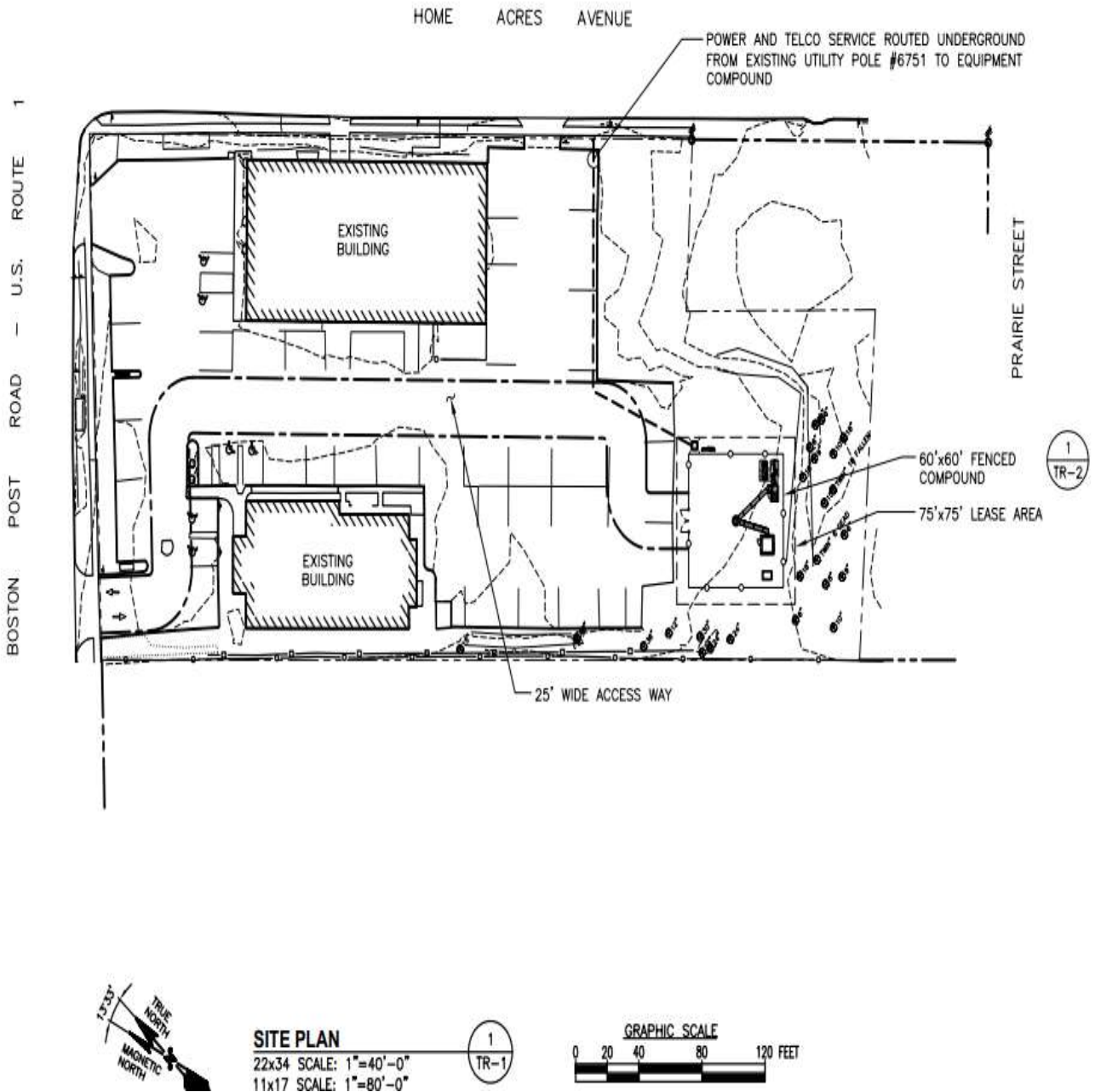
(Applicant 1, Attachment G (revised) , Project Plans Sheet TR-2)

Figure 3 – Site Plan and Elevation: Alternate Site



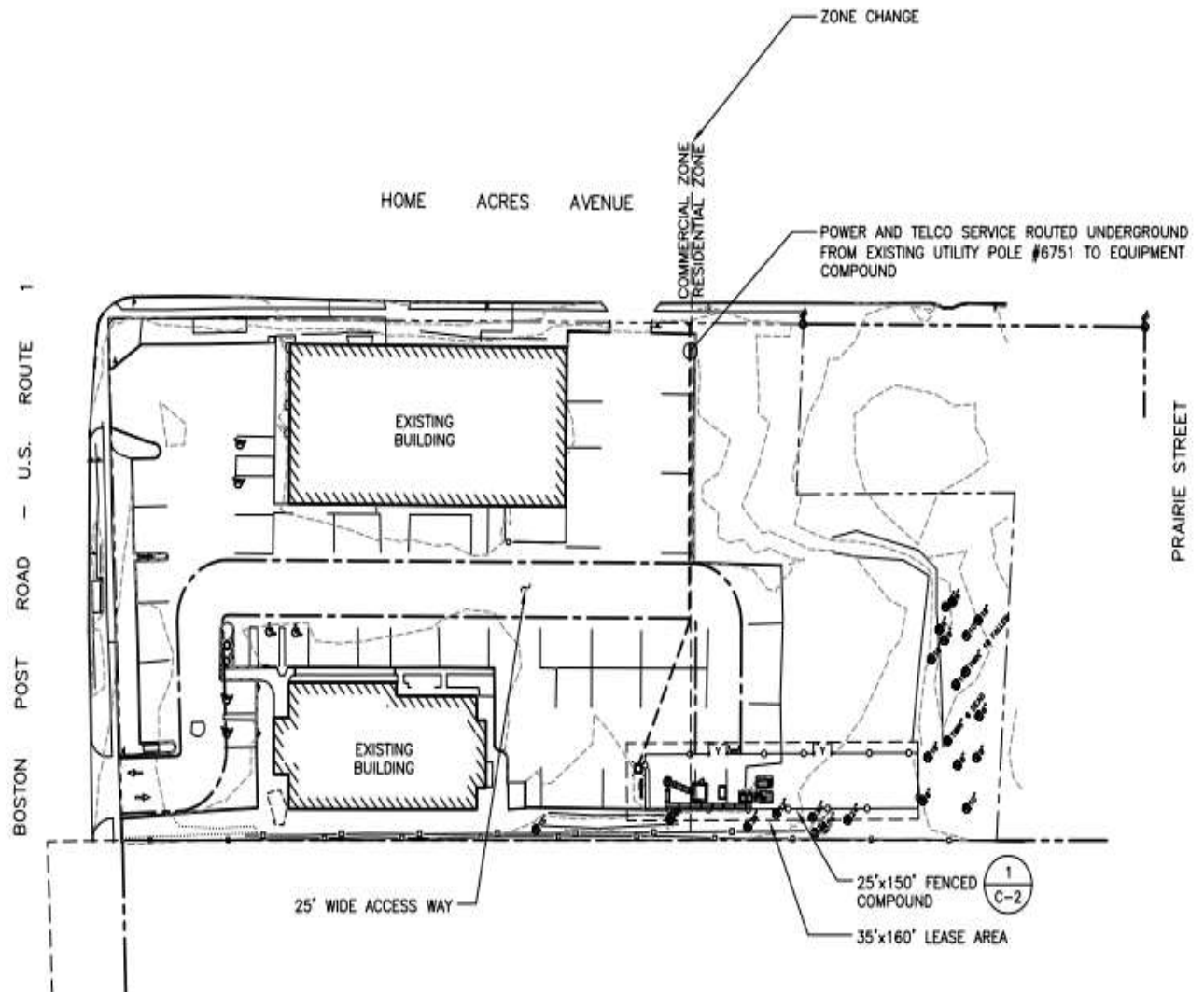
(Applicant 12, Exhibit #41, Project Plans Alternate Site C-2)

Figure 4 – Site over view with easements: Original proposed site

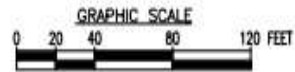


(Applicant 1, Attachment G(revised), Project Plans sheet TR-1)

Figure 5 – Site over view with easements: Alternate site

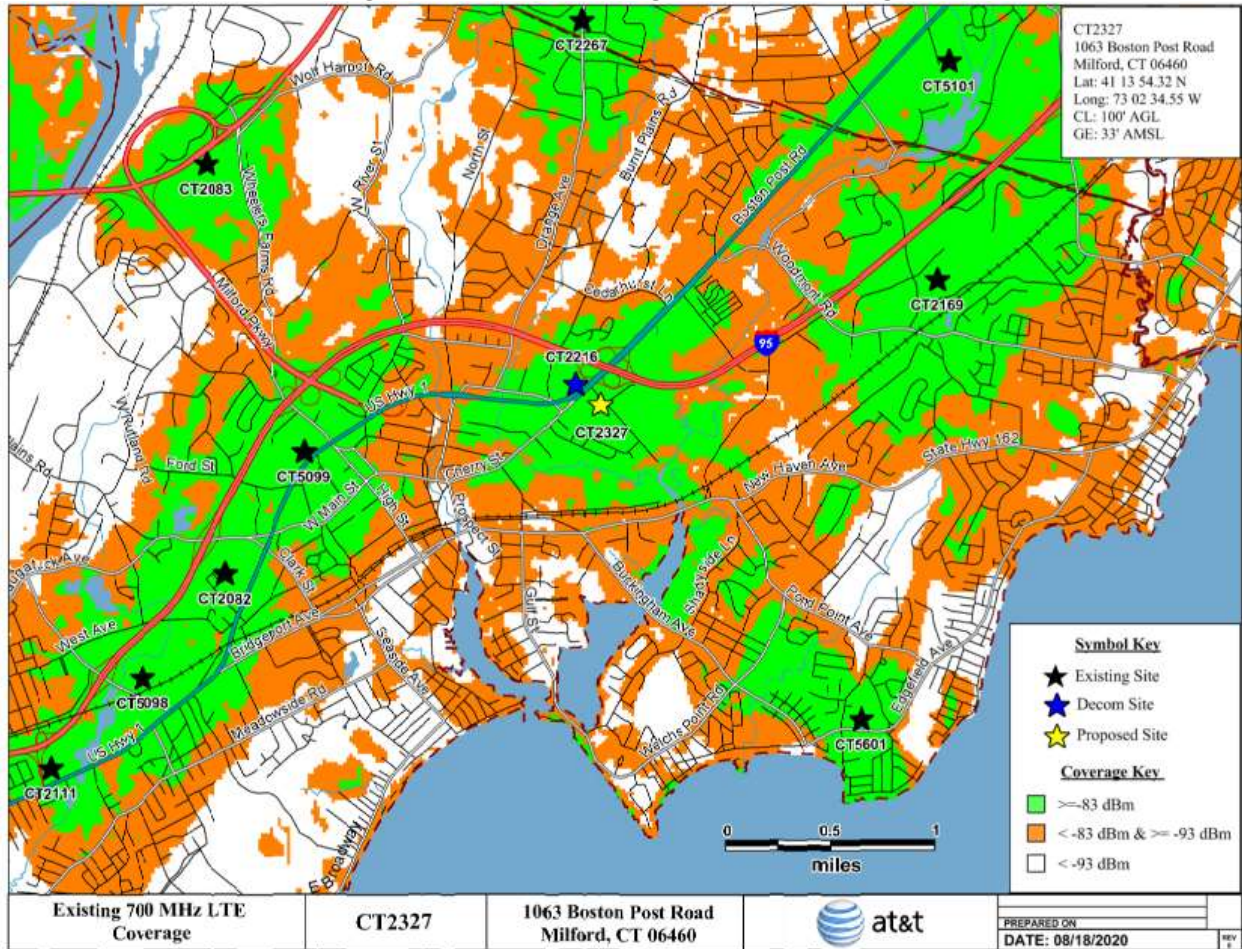


SITE PLAN
22x34 SCALE: 1"=40'-0"
11x17 SCALE: 1"=80'-0"



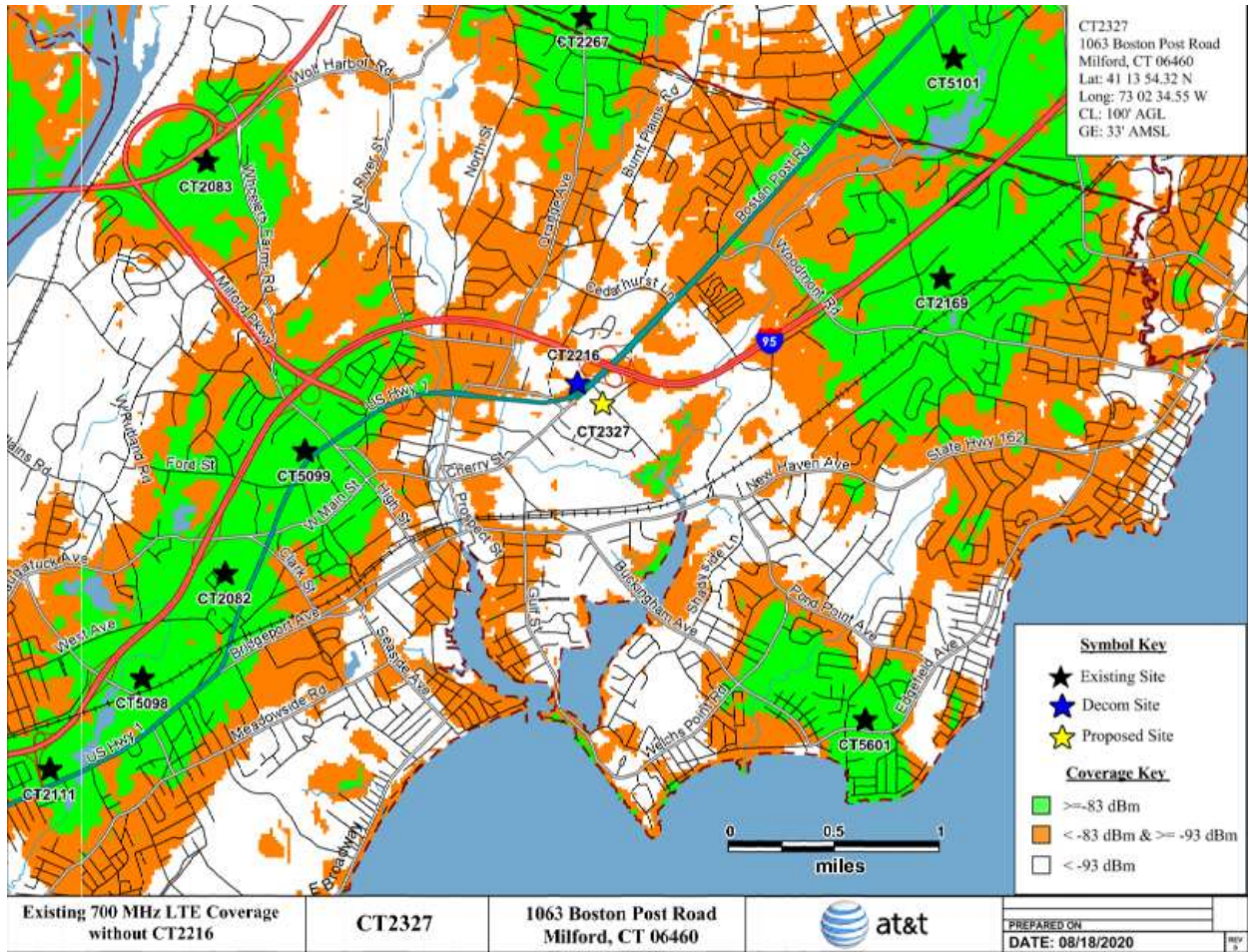
(Applicant 12, Exhibit #41, Project Plans Alternate Site C-1)

Figure 6 – AT&T Existing 700 MHz Coverage



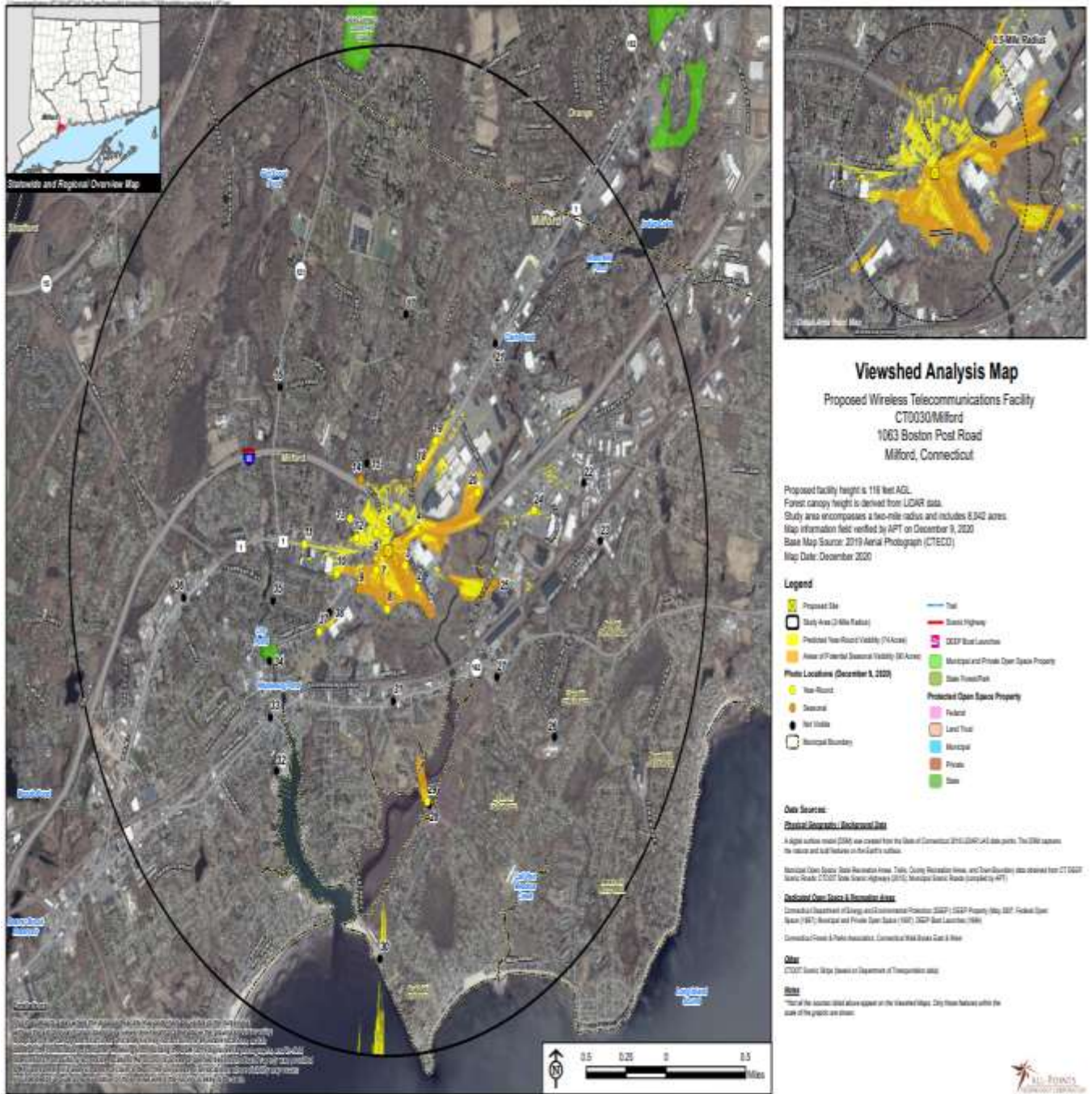
(Applicant 1, Attachment E Coverage maps)

Figure 7 – AT&T 700 MHz Coverage after decommissioned site



(Applicant 1, Attachment E Coverage maps)

Figure 9 - Viewshed Map/Analysis of the proposed site



(Applicant 1, Attachment H)

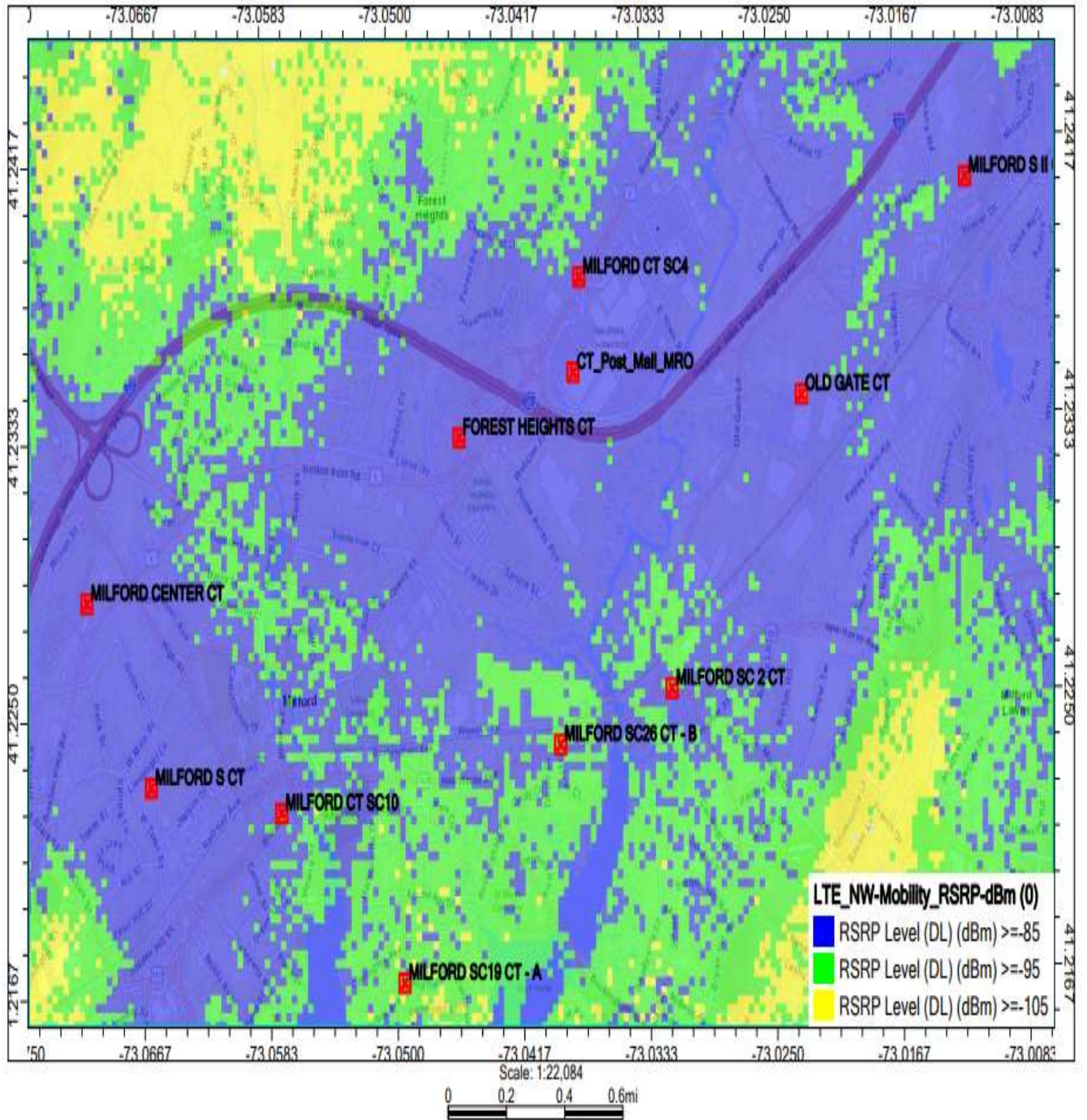
Figure 10 – Photolog

Photo	Location	Orientation	Distance to Site	Visibility	Height Visible above Trees*
1	Home Acres Avenue	Northwest	±0.35 Mile	Seasonal	1'-20'
2	Home Acres Avenue	Northwest	±0.23 Mile	Year Round	1'-20'
3	Home Acres Avenue	Northwest	±0.12 Mile	Year Round	20'-40'
4	Leighton Road	Southwest	±0.20 Mile	Year Round	20'-40'
5	Home Acres Avenue	South	±380 Feet	Year Round	40'-60'
6	Athenian Diner III Parking Lot - 1064 Boston Post Road	Southeast	±0.10 Mile	Year Round	60'-80'
7	King's Highway Cemetery	Northeast	±0.11 Mile	Year Round	20'-40'
8	Corona Drive	North	±0.23 Mile	Year Round	40'-60'
9	Corona Drive	Northeast	±0.24 Mile	Seasonal	20'-40'
10	Corona Drive	Northeast	±0.33 Mile	Year Round	20'-40'
11	Boston Post Road	East	±0.53 Mile	Year Round	20'-40'
12	Forest Road	Southeast	±0.20 Mile	Year Round	40'-60'
13	Forest Road	Southeast	±0.27 Mile	Year Round	20'-40'
14	Forest Road	Southeast	±0.33 Mile	Seasonal	20'-40'
18	Boston Post Road	Southwest	±0.38 Mile	Year Round	20'-40'
19	Boston Post Road	Southwest	±0.53 Mile	Year Round	20'-40'
20	Connecticut Post Mall	Southwest	±0.61 Mile	Year Round	1'-20'
24	Entrance to Hilton Garden Inn - 291 Old Gate Lane	West	±0.93 Mile	Year Round	20'-40'
25	The Edge Fitness Club Parking Lot - 125 Old Gate Lane	West	±0.68 Mile	Seasonal	20'-40'
29	Buckingham Avenue	Northwest	±1.03 Miles	Year Round	20'-40'
37	Gulf Street	Southeast	±0.54 Mile	Year Round	1'-20'

* A range of potential visibility is provided to characterize the estimated height in the vicinity of the photograph.

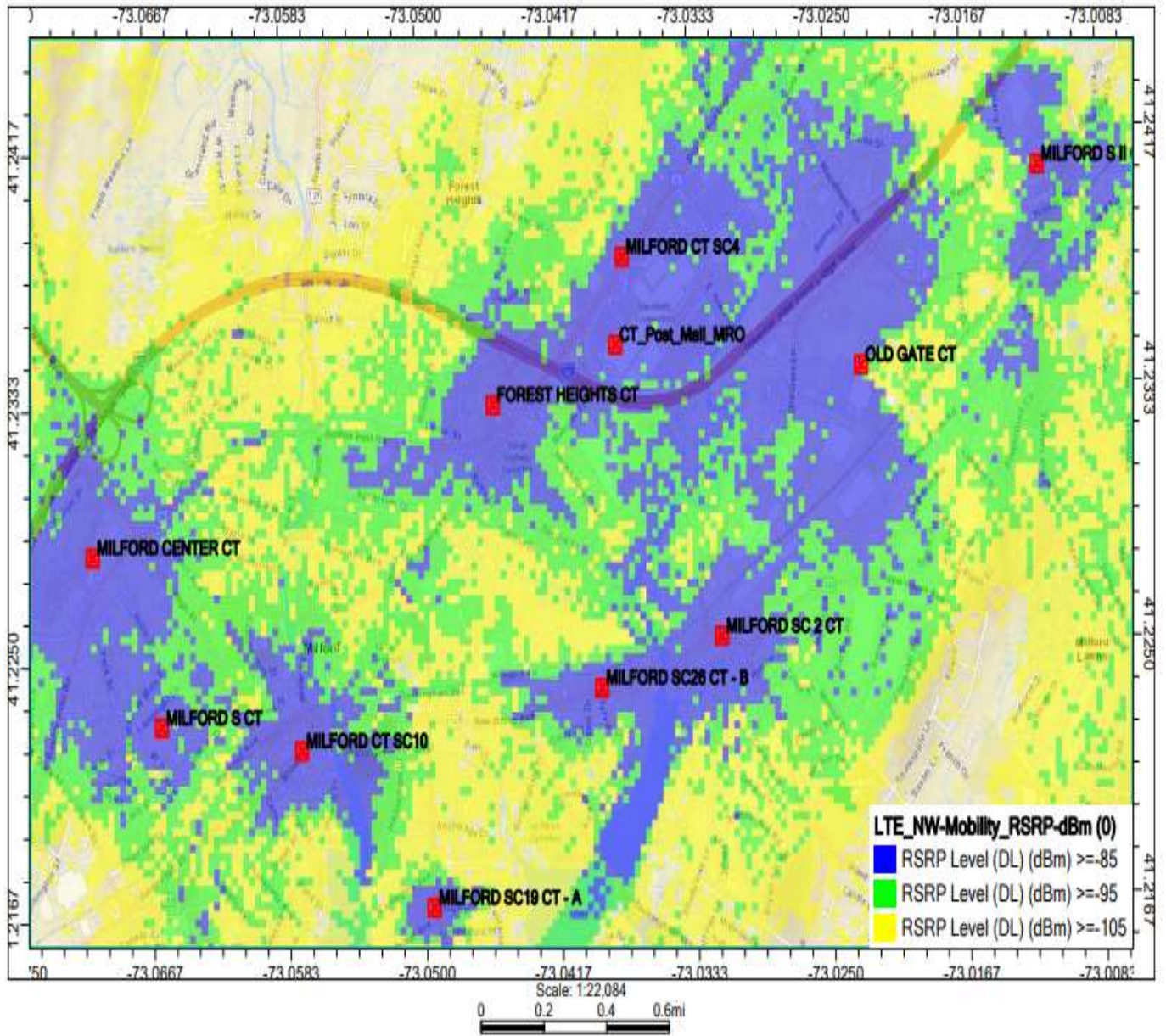
(Applicant 10, response 25)

Figure 11 - Cellco propagation Plot for 700 MHz Coverage with existing Hotel site



(Cellco 4, response 4)

Figure 13 - Cellco propagation Plot for 2100 MHz Coverage with existing Hotel site



(Cellco 4, response 4)