

DOCKET NO. 506 - New Cingular Wireless PCS, LLC (AT&T) application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance, and operation of a wireless telecommunications facility located at 499 Mile Lane, Middletown, Connecticut. } Connecticut
} Siting
} Council

April 21, 2022

Findings of Fact

Introduction

1. On September 30, 2021, New Cingular Wireless PCS, LLC (AT&T) submitted a 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 construction, maintenance and operation of a new 150-foot monopole wireless telecommunications facility to be located at 499 Mile Lane in Middletown, Connecticut (Petition 1465). (Council Administrative Notice Item No. 34 – Petition 1465 Record; AT&T 1, Tab A, p. 1)
2. AT&T withdrew Petition 1465 on October 6, 2021 and indicated its intent to convert Petition 1465 into an application for a Certificate of Environmental Compatibility and Public Need (Certificate). (Council Administrative Notice Item No. 34 - Petition 1465 Record; AT&T 1, Tab A, p. 1)
3. AT&T, in accordance with provisions of CGS § 16-50g, *et seq*, applied to the Council on October 6, 2021, for a Certificate for the construction, maintenance, and operation of a 150-foot monopole wireless telecommunications facility at 499 Mile Lane, Middletown, Connecticut (refer to Figure 1). (AT&T 1, Tab A, p. 1)
4. Exhibit A of AT&T's October 6, 2021 application requested a waiver of certain Certificate application requirements under the applicable Council statutes and regulations due to the quality and quantity of data in Petition 1465. The Council did not grant any waiver of statutory or regulatory requirements nor did the Council waive its discretion under the Public Utility Environmental Standards Act. (AT&T 1, Tab A, p. 1; Record)
5. AT&T is licensed by the Federal Communications Commission (FCC) to provide personal wireless communication service in the State of Connecticut. (AT&T 1, Tab B, p. 3)
6. The parties in this proceeding are AT&T, the City of Middletown (City) and Talias Trail (TT). (Record)
7. TT is a neighborhood group consisting of three residents located at 29, 50 and 59 Talias Trail, Middletown. (TT 1 through 6)
8. The purpose of the proposed facility is to provide reliable wireless communications services to AT&T customers and first responders in the northern area of Middletown, primarily along Mile Lane, Route 3, Ridgewood Road and the surrounding roads, businesses, schools and neighborhoods. (AT&T 1, Tab B, page 3)

9. Pursuant to C.G.S. § 16-50l (b), notice of Petition 1465 was provided to all abutting property owners by certified mail on September 28, 2021 and notice of the application was provided to all abutting property owners by certified mail on October 6, 2021. Certified mail receipts from three abutting property owners were not received. AT&T resent notice to these abutters by First Class mail on October 29, 2021. (AT&T 1, Tab B10; AT&T 4, response 1, Attachment 1)
10. On September 28, 2021, AT&T provided notice to all federal, state and local officials and agencies listed in C.G.S. § 16-50l (b). (AT&T 1, Tab B10)
11. Pursuant to C.G.S. § 16-50l (b), AT&T provided public notice of the filing of the application that was published in the New Haven Register on October 6 and October 7, 2021. (AT&T 1, Tab C)
12. While the proceedings on the application were pending, on December 14, 2021, AT&T requested the Council initiate a feasibility proceeding pursuant to CGS §16-50aa(c)(2) to determine whether the proposed shared use of an existing 180-foot self-supporting lattice public safety communications facility also located at 499 Mile Lane in Middletown that is owned and operated by the City is technically, legally, environmentally and economically feasible and meets public safety concerns. (AT&T 6, Tab 1; Council Administrative Notice Item No. 35 – Feasibility Proceeding)
13. In its request for a feasibility proceeding, AT&T presented two options for shared use of the City-owned facility: reinforcement of the existing facility or construction of a replacement lattice tower. (AT&T 6, Tab 1; Council Administrative Notice Item No. 35 – Feasibility Proceeding)
14. During a regular meeting held on March 24, 2022, pursuant to C.G.S. §16-50aa(c)(2), the Council determined that AT&T's shared use of the existing City-owned facility or construction of a shared replacement lattice tower was not technically, legally, environmentally or economically feasible, and would not meet public safety concerns. (Council Administrative Notice Item No. 35 – Feasibility Proceeding)

Procedural Matters

15. 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. 58)
16. 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. 58)
17. 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. 55, CGS §1-200, et seq. (2021))
18. EO 7B expired on June 30, 2021. Special Act (SA) 21-2 took effect on July 1, 2021. Section 149 permits public agencies to hold remote meetings under FOIA and the Uniform Administrative Procedure Act until April 30, 2022. (Council Administrative Notice Item No. 58; Council Administrative Notice Item No. 59)

19. SA 21-2 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. 59)

20. Upon receipt of the application, the Council sent a letter to the City on October 6, 2021, as notification that the application was received and is being processed, in accordance with C.G.S. § 16-50gg. (Record)
21. 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 §16-50gg as the Council shall deem appropriate. (CGS §16-50x (2021))
22. During a regular Council meeting held on October 21, 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)
23. Pursuant to SA 21-2 and C.G.S. § 16-50m, on October 22, 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)
24. Pursuant to SA 21-2 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 October 24, 2021. (Record)
25. The Council's Hearing Notice did not refer to a public field review of the proposed site. (Record)
26. Field reviews are neither required by statute nor 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. 60 and 61)
27. On November 4, 2021, in lieu of an in-person field review of the proposed site, the Council requested that AT&T submit photographic documentation of site-specific features into the record intended to serve as a "virtual" field review of the site. On November 23, 2021, AT&T submitted such information in response to the Council's interrogatories. (Record; AT&T 4, response 72)
28. On November 3, 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 Memorandum, dated October 27, 2021)

29. 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 November 16, 2021. The sign presented information regarding the project and the Council's public hearing. (AT&T 3)
30. The Council's project evaluation criteria under CGS § 16-50p does not include the consideration of property values nor is the Council otherwise obligated to take into account the status of property values. (CGS §16-50p (2021); *Westport v. Conn. Siting Council*, 47 Conn. Supp. 382 (2001), affirmed, 260 Conn. 266 (2002); *Goldfisher v. Conn. Siting Council*, 2005 Conn. Super. LEXIS 306 (2005), affirmed, 95 Conn. App. 193 (2006)) *Westport v. Conn. Siting Council*, 47 Conn. Supp. 382 (2001); Transcript 1 – November 30, 2021, 2:00 p.m. [Tr. 1], p. 6; Transcript 2 – November 30, 2021, 6:30 p.m. [Tr. 2], p. 107)
31. Pursuant to C.G.S. § 16-50m, after giving due notice thereof, the Council held a remote public hearing on November 30, 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 October 22, 2021; Tr. 1, p. 1; Tr. 2, p. 100)
32. The Council continued the remote evidentiary hearing session via Zoom conferencing on December 21, 2021 beginning at 2:00 p.m., and February 3, 2022 beginning at 2:00 p.m. (Council's Continued Hearing Memos dated December 1, and December 22, 2021; Transcript 3- December 21, 2021 – 2:00 p.m. [Tr. 3], p. 131; Transcript 4- February 3, 2022 – 2:00 p.m. [Tr. 4], p. 258)
33. In compliance with SA 21-2:
 - 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 December 1, 2021 and December 7, 2021; December 22, 2021 and January 10, 2022; and February 4, 2022 and February 16, 2022, 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 October 22, 2021; Tr. 1; Tr. 2; Record)
34. Pursuant to C.G.S. §16-50n(f), at the conclusion of the evidentiary hearing session held on February 3, 2022, the Council closed the evidentiary record for Docket 506 and established March 5, 2022 as the deadline for the submission of briefs and proposed findings of fact. (Tr. 4, pp. 378-379; Record)
35. On March 3, 2022, AT&T submitted a post-hearing brief. (Record)
36. During a regular meeting held on March 10, 2022, the Council reviewed draft findings of fact for Docket 506 and a non-binding straw poll was conducted. The non-binding straw poll resulted in a proposed final decision to deny the application without prejudice. It was unanimous. (Council Meeting Minutes, March 10, 2022)
37. On March 11, 2022, TT submitted comments on the Council's draft findings of fact. (Record)

38. On March 16, 2022, AT&T submitted a Motion to Reopen the Evidentiary Record (Motion to Reopen) to provide additional information related to the feasibility of collocation on an Eversource Energy electric transmission line structure within the right-of-way to the south of the host parcel and the feasibility of constructing a tower at alternate locations on the host parcel in coordination with the City. (Applicant's Motion to Reopen the Evidentiary Record, March 16, 2022)
39. In its Motion to Reopen, AT&T also consented to an extension of the Council's final decision deadline to June 3, 2022 in accordance with C.G.S. §16-50p(a)(2)(B). (Applicant's Motion to Reopen the Evidentiary Record, March 16, 2022)
40. On March 17, 2022, the Council issued a memorandum to the Docket 506 service list requesting parties and intervenors to submit comments as to whether or not AT&T's Motion to Reopen should be granted for submission of additional information, and if the evidentiary record is reopened, whether or not a hearing should be held for cross examination on the additional information. (Record)
41. On March 22, 2022, Cellco Partnership d/b/a Verizon Wireless (Verizon) submitted a Request for Intervenor Status if the Council approved AT&T's Motion to Reopen. (Record)
42. On March 29, 2022, the Council acknowledged receipt of Verizon's Request for Intervenor Status indicating the evidentiary record for Docket 506 closed on February 3, 2022 and informing Verizon that if AT&T's Motion to Reopen were granted during the Council's April 7, 2022 regular meeting, the Council would consider Verizon's Request for Intervenor Status immediately thereafter, but if AT&T's Motion to Reopen were denied, Verizon's Request for Intervenor Status would be rendered moot. (Record)
43. Also on March 29, 2022, TT submitted comments in opposition to reopening the evidentiary record. (Record)
44. During the Council's April 7, 2022 regular meeting, the Council considered and denied AT&T's Motion to Reopen to submit additional information. The denial of the Motion to Reopen confirmed the close of the evidentiary record as of February 3, 2022 and rendered Verizon's Request for Intervenor Status moot. (Record)

State Agency Comment

45. Pursuant to C.G.S. § 16-50j (g), on October 22, 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)
46. On October 26, 2021, the Council received comments from the CAA¹. The CAA comments are addressed in the Public Safety section of this document. (Record)

¹ [do506-sacrcdpi-caa-20211027-.pdf \(ct.gov\)](https://do506-sacrcdpi-caa-20211027-.pdf) (CAA comments)

47. On October 27, 2021, the Council received correspondence from the CEQ². The CEQ comments are addressed in the Environmental section of this document. (Record)
48. No other state agencies responded with comment on the application. (Record)
49. 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

50. The City's existing 180-foot self-supporting lattice tower located at 499 Mile Lane, Middletown provides coverage for the City and Town of Portland police, fire, emergency management, public works and local government, as well as links to statewide emergency response assets. (Council Administrative Notice Item No. 34 – Petition 1465; AT&T 1, Tabs A and B, p. 1; City 2)
51. In 2017, prior to construction of the City tower, AT&T expressed interest in shared use. (City 2)
52. The City built the tower in 2018. AT&T had no role in the financing or construction of the tower. (City 2)
53. A structural analysis was performed in 2019 and determined that significant structural modifications to the tower legs, bolts, diagonal steel and anchor rods would be necessary to accommodate AT&T's proposed co-location loading. (AT&T 1, Tab B, p. 2)
54. If reinforcements to the existing facility were implemented, the City's communications system could remain operational. (Tr. 1, pp. 12-13)
55. In 2021, AT&T performed another structural analysis of the existing facility that concluded it was not structurally capable of supporting AT&T's proposed equipment without significant bolt and weld modifications. If all of the reinforcements in the structural analysis were implemented, AT&T believes it would not be sufficient. Furthermore, the amount of welding required to reinforce the existing facility for collocation of AT&T's equipment could weaken rather than strengthen the structural integrity. (AT&T 6, Attachment 3; Tr. 1, p. 26; Tr. 4, pp. 310-311)
56. In lieu of sharing the existing tower, AT&T proposes to install a new 150-foot monopole to be located immediately adjacent to the City's tower to avoid any interruption of the City's emergency services equipment. (Council Administrative Notice Item No. 34 – Petition 1465; AT&T 1, Tabs A and B, p. 1; City 2)
57. By letter received October 4, 2021, the City noted that a technical consultation of at least 90 days per C.G.S. § 16-50l (e) was already undertaken as part of the City's lease review. (City 1)

Public Need for Service

58. 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)

² do506-sacrcdpi-ceq-20211029.pdf (ct.gov) (CEQ comments)

59. 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. AT&T is licensed by the FCC to provide personal wireless communication service to Middlesex County, Connecticut. (Council Administrative Notice Item No. 4 – Telecommunications Act of 1996; AT&T 1, Tab B, p. 3; AT&T 1, Tab 4 – RF Report, p. 7)
60. 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)
61. 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)
62. 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)
63. 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)
64. 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)
65. 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 (FirstNet) 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)

66. 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. 12 – Presidential Executive Order 13616, Accelerating Broadband Infrastructure Development; Council Administrative Notice Item No. 23 – FCC Wireless Infrastructure Report and Order)
67. 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)
68. 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)
69. 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)
70. 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)
71. On October 22, 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 November 23, 2021. No carriers responded to the Council's solicitation. (Record; AT&T 4, response 37; AT&T 9)
72. On March 25, 2022, the Council determined that AT&T's shared use of the City-owned facility was not technically, legally, environmentally or economically feasible, and would not meet public safety concerns. The Council did not issue an order for shared use of the City-owned facility pursuant to CGS §16-50aa(c)(2). (Council Administrative Notice Item No. 35 - Feasibility Proceeding)
73. The proposed facility would be designed to accommodate a total of three wireless carriers (including AT&T), but it could be designed to accommodate a total of four carriers. (AT&T 1, Tab A, p. 1; Tr. 1, pp. 66-67, 72)

AT&T's Existing and Proposed Wireless Services

Existing Service

74. AT&T is experiencing coverage gaps within its 700 MHz, 1900 MHz, 2100 MHz and 2300 MHz frequencies on Mile Lane, Route 3, Ridgewood Road and surrounding roads, businesses, and neighborhoods proximate to the proposed site. The proposed facility would provide improved coverage to these areas. (AT&T 1, Tab 4 – RF Report, pp. 2, 3, 6)
75. 700 MHz serves as the “base layer” for LTE service and has a substantially larger coverage footprint due to the propagation characteristics of the frequency band. The 1900 MHz, 2100 MHz, and 2300 MHz overlay layers have incrementally smaller footprints and are used to manage capacity. (AT&T 1, Tab 4 – RF Report, p. 6)
76. AT&T currently operates equipment on 17 existing facilities within a four-mile radius of the site. As a result of distances between the existing sites and geographical terrain, none of these facilities are able to provide adequate coverage to the proposed service area. (AT&T 1, Tab 4 – RF Report, pp. 3, 5, 12; AT&T 4, response 39)
77. AT&T’s wireless service deficiency in the area was confirmed through propagation modeling. Additionally, drive testing of the network and performance of existing cell sites indicates that a significant coverage gap exists in the target area. (AT&T 1, Tab 4 – RF Report, p. 6; AT&T 4, response 45)
78. AT&T would provide voice and data services to the proposed service area using 4th Generation (4G) services over LTE technology and using its 5G low-band spectrum via the 700 MHz, 850 MHz, 1900 MHz, 2100 MHz and 2300 MHz frequency bands. The proposed AT&T antennas would be unable to provide AT&T’s 5G+ which uses 24 gigahertz to 39 gigahertz frequency bands, at this time. Use of 5G+ would require different antennas, and it would add minimal value to the system at this time. (AT&T 1, Tab 4, RF Report, p. 6; AT&T 4, responses 40 and 41; Tr. 1, p. 63)
79. AT&T’s 4G LTE technology is designed to thresholds of -83 dBm and -93 dBm for the 700 MHz LTE system. (AT&T 1, Tab 4, RF Report, p. 4)
80. AT&T’s existing signal strength for the frequencies listed above within the proposed service area is less than -93 dBm and thus below the required threshold. (AT&T 4, response 44)
81. AT&T’s drive testing of the network and performance of surrounding cell sites indicates a significant gap in coverage. (AT&T 4, response 45)

82. The chart below represents the coverage statistics for AT&T's 700 MHz network with the deployment of the proposed 150-foot monopole facility.

		Incremental Coverage from Proposed Site (700 MHz)	
Population: ³	(\geq -83 dBm)	2691	
	(\geq -93 dBm)	2000	
Business Pops: ⁴	(\geq -83 dBm)	1018	
	(\geq -93 dBm)	891	
Area (mi ²):	(\geq -83 dBm)	2.12	
	(\geq -93 dBm)	1.57	
Roadway (mi):	Main (-93 dBm):	1.29	
	Secondary (-93 dBm):	7.17	
	Total (-93 dBm):	8.46	

(Applicant 1, p. 8, Tab E, p. 4; Tr. 1, p. 18)

83. The chart below represents the coverage statistics for AT&T's 700 MHz network if AT&T co-located on the existing City-owned tower at 180 feet.

		Incremental Coverage from Proposed Site @ 180' AGL (700 MHz)	
Population: ³	(\geq -83 dBm)	3001	
	(\geq -93 dBm)	2481	
Business Pops: ⁴	(\geq -83 dBm)	1151	
	(\geq -93 dBm)	1187	
Area (mi ²):	(\geq -83 dBm)	2.34	
	(\geq -93 dBm)	2.03	
Roadway (mi):	Main (-93 dBm):	2.4	
	Secondary (-93 dBm):	10.1	
	Total (-93 dBm):	12.5	

(AT&T 4, response 50)

84. The chart below represents the difference in coverage statistics for AT&T's 700 MHz network if AT&T co-located on the existing City-owned tower at 180 feet versus on the proposed tower at 150 feet.

Incremental Coverage Gained by Raising Antennas from 150 feet AGL to 180 feet AGL (700 MHz)		
Population: ¹	(≥ -83 dBm)	310
	(≥ -93 dBm)	481
Business Pops: ²	(≥ -83 dBm)	133
	(≥ -93 dBm)	296
Area (mi ²):	(≥ -83 dBm)	0.22
	(≥ -93 dBm)	0.46
Roadway (mi):	Main (-93 dBm):	1.1
	Secondary (-93 dBm):	2.9
	Total (-93 dBm):	4.0

(AT&T 4, response 48)

85. While the proposed site would enhance capacity, the facility is proposed primarily to address coverage needs. (AT&T 1, Tab 4 – RF Report, p. 2; AT&T 4, response 46)
86. The proposed facility would interact with surrounding existing AT&T facilities as shown in the following table:

AT&T Site Designation	Site Address	Municipality	Distance/direction from Proposed Site	Antenna Height (agl)	Structure Type
CT1017	231 Court Street	Middletown	2.29 miles SE	171 feet	Rooftop
CT1044	90 Industrial Park Road	Middletown	1.51 miles WNW	174 feet	Monopole
CT1143	228 Meriden Road	Middlefield	2.79 miles SSW	133 feet	Monopole
CT5118	1100 Country Club Road	Middletown	2.28 miles WSW	26 feet	Rooftop
CT5144	24 Christian Hill Road	Cromwell	1.95 miles NNW	98 feet	Self-Support
CT5271	101 Skyview Drive	Cromwell	1.92 miles N	39 feet	Concealment Pole
CT5272	201 Main Street	Cromwell	1.88 miles NNE	117 feet	Monopole
CT5437	1221-8 Washington Street	Middletown	2.14 miles S	64 feet	Rooftop

(AT&T 1, Tab 4 – RF Report, p. 5; AT&T 4, responses 38 and 39 and Attachment 4 – Existing Adjacent Towers)

87. AT&T's antennas are proposed to be installed at a centerline height of 150-feet agl, which is the minimum height required to achieve its wireless service objectives. (AT&T 4, response 42)
88. Incremental coverage would be lost if the proposed tower were ten feet shorter, i.e. AT&T installs its antennas at 140 feet. Such height reduction would also impact future carrier co-locations. (AT&T 4, response 42)

89. Installing AT&T antennas at 180 feet versus 150 feet would result in added coverage that could be beneficial to FirstNet and AT&T customers. This additional coverage would occur in an area roughly a few hundred feet wide and located at the edges of the already adequate 150-foot coverage area. The additional 30 feet of antenna centerline height would not be expected to obviate the need for additional AT&T facilities. (AT&T 6 – Late Filed Exhibit h)

Site Selection

90. AT&T established a search ring for the target area in August 2018. AT&T's search ring had a 0.25 mile radius and was centered within the Eversource electric transmission line right of way to the south of the host parcel. (AT&T 4, responses 9 and 10; AT&T 9, Tab 2; Tr. 1, pp. 11-12)
91. The City-owned tower is the only existing tower within a 4-mile radius that could meet AT&T's coverage objectives. (AT&T 4, response 12; Tr. 1, p. 15)
92. After determining there were no other suitable towers within a 4-mile search area, AT&T searched for properties suitable for tower development. AT&T investigated 2 sites, one of which was selected for site development. The 2 sites investigated are as follows:
- a) **499 Mile Lane, Middletown, CT** (the proposed site) – AT&T entered into a lease agreement with the City for the development of the Facility;
 - b) **Lawrence School, Middletown, CT** – This parcel is significantly lower in elevation than the proposed site and is encumbered by wetlands in portions of the site. This site was rejected by AT&T because it would not provide reliable wireless services to the target coverage area.
- (AT&T 1, Tab A, p. 1; AT&T 4, responses 12 and 15; Tr. 1, p. 15)

93. During the proceedings, TT suggested an alternative site at a City-owned property located on Newfield Street east of the proposed Mile Lane site or at any of the City-owned properties within a four-mile radius of the proposed Mile Lane site, including the high school. AT&T rejected the suggested Newfield Street site due to a lower ground elevation than the Mile Lane site. The City does not know if City properties within a four mile radius of the proposed Mile Lane site are available for tower development as approvals are required from City departments and commissions. (TT 3 and 4; AT&T 8, response 1; City 4, response 1)
94. As of January 26, 2022, there were no agreements for AT&T to locate a telecommunications facility on any other City-owned parcels other than the subject property. While the City could consider a telecommunications facility on another City-owned parcel, such proposal would require review by the City's Office of General Counsel and the Mayor, and then final review would be required by the City Common Council before such a lease could be finally executed by the Mayor. (City 4, response 1; Tr. 4, pp. 285-286)
95. 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))

Small Cells

96. AT&T's proposed facility at a centerline height of 150 feet or collocation on the existing tower at 180 feet would be ideal in terms of location, as compared with a series of small cells or some combination of shorter towers or rooftop facilities. (Tr. 1, p. 15)

97. A series of small cells or a Distributed Antennas System (DAS) could not provide the same amount of coverage as the proposed facility in area. Additionally, neither technology is able to provide long term backup power. (AT&T 4, response 43)
98. Small cells would not meet AT&T's service objectives due to limited coverage provided by each small cell, the demographics and density of the service area and the inability to support backup power requirements for FirstNet. Existing utility service in the area is overhead, but approximately 42 to 48 small cells would be required. (AT&T 6; Tr. 1, pp. 15-16)
99. A small cell alternative would cost over \$3 million assuming the capital costs per small cell node is between \$50,000 and \$70,000. Costs do not include the building of a hub site or front haul fiber. (AT&T 9)
100. Small cells are typically in the public rights-of way; however, providing adequate in-building coverage to the area would require the installation of poles on private properties. For example, providing coverage in Middletown High School, which has underground utilities and no available poles, would require the installation of poles on the school property. (AT&T 9)
101. DAS would not be feasible or practical to meet AT&T's wireless service objectives for this site. (Tr. 1, pp. 15-16)
102. There are no DAS systems in operation in Connecticut. The Council approved a DAS in November 2007 that was specifically designed to only serve the Merritt Parkway from the New York state line to Westport, Connecticut. The approved DAS consisted of 27 nodes and two base stations to provide wireless service to approximately 20 linear miles of the parkway. The Council approved the project with the condition that a Development and Management (D&M) Plan be submitted prior to construction. No D&M Plan was ever submitted. (Council Petition 809; Council Docket 488, Finding of Fact No. 92)

Electrical Transmission Structures

103. In July 2020, the Council approved the replacement of 80 115-kV wood electric transmission line structures with weathering steel electric transmission line structures along the Eversource ROW. One existing lattice structure located approximately 0.8-mile southeast of the existing facility site and west of Newfield Street was not replaced (Structure No. 6-325). Construction was completed in June 2021. (Council Administrative Notice Item No. 37 – Sub-petition No. 1293-BMM-01; Council Administrative Notice Item No. 35 – FP-AT&T-083-211214, Transcript 1, pp. 19-20)
104. AT&T believes collocation on any of the electric transmission line structures is not feasible due to structural engineering challenges, access limitations to the top of the hill and general Eversource aversion to allowing new towers and collocations within its ROWs. (AT&T 9, Late Filed Exhibits; Council Administrative Notice Item No. 37 – Sub-petition No. 1293-BMM-01; AT&T Administrative Notice Item No. 4)
105. Replacement H-frame electric transmission line structures (Structure Nos. 6-216 to 6-222) are located in the ROW to the south of the existing facility site at ground elevations ranging from approximately 90 feet amsl to 190 feet amsl. There is access to these structures via Ridgewood Road, Azalea Drive and Cynthia Lane. (Council Administrative Notice Item No. 37 – Sub-petition No. 1293-BMM-01)

106. Feasibility of collocation on any electric transmission line structure is subject to Eversource circuit outage availability ratings that are based on impact to Bulk Power System reliability. 345-kV lines hold the maximum outage availability rating whereas 115-kV lines hold a lower outage availability rating. Eversource evaluates interruption to lines according to reliability risks and congestion charges. (AT&T Administrative Notice Item No. 4)
107. AT&T has not had discussions with Eversource about potential collocation on an electric transmission line structure as of February 17, 2022. (Tr. 4, pp. 311-312; Council Administrative Notice Item No. 35 – FP-AT&T-083-211214, Transcript 1, pp. 13, 37)

Tower Configuration Alternatives

108. Tower configuration alternatives are indicated in the table below. See Figure 12 for cost data.

SITE ADDRESS AND FACILITY TYPE	SITE DESCRIPTION	PROPOSED/ TOTAL HEIGHT	STRUCTURAL REINFORCEMENTS	CITY EQUIPMENT CUTOVERS/DISRUPTION	AT&T REASON FOR REJECTION	COLLOCATION (AT&T REQUIRED HEIGHT)
499 Mile Lane Reinforcement of Existing Lattice Facility	The existing lattice tower was constructed in 2017 and is the master site for the City's public safety and emergency communications network.	180 ft.	Required.	None.	Structural modifications would not meet the building code. Other carriers would not be able to collocate. City is concerned with impact to its emergency network. AT&T's collocation would require the Council to make a feasibility determination under CGS § 16-50aa.	180 ft. (due to the location of existing municipal antennas on the structure)
499 Mile Lane Replacement of Existing Lattice Facility with New Lattice Facility	Municipal property that is used as a fire training facility.	180 ft.	Not applicable.	Required.	Cost Potential cutover issues for City equipment May need a new compound, driveway and utility extensions if on a different location on the property.	180 ft.

499 Mile Lane Install a Monopole in Addition to Existing Lattice Facility (Proposed)	Municipal property that is used as a fire training facility.	150 ft.	Not applicable.	None.	This is the proposed project.	150 ft.
499 Mile Lane Install a Monopole in a different location on the City property in addition to the existing lattice facility	AT&T and the City considered moving the facility within the parcel.	150 ft.	Not applicable.	None.	The City is concerned that locating the facility in a different location on the parcel would restrict future uses and potential expansion.	150 ft.

(AT&T 1, p. 1; AT&T 4, responses 3, 6, 14, 16, and 42)

109. Reinforcement of the existing facility would not allow for future collocation of other carriers. (Tr. 3, p. 211)
110. The possibility of installing a new monopole to be shared by the City and AT&T was discussed. AT&T and the City have not had further discussions about the feasibility of sharing a new monopole as of February 17, 2022. (Council Administrative Notice Item No. 35 – FP-AT&T-083-211214, Transcript 1, pp. 11-12)
111. The City expressed concerns about sway of antennas, especially microwave dishes, when attached to a tower with a monopole design. A lattice tower design is preferable to the City for installation of their equipment. (Tr. 4, pp. 283-285)
112. AT&T estimates costs for decommissioning the existing lattice tower and construction of a new lattice tower, referred to as a “drop and swap,” would be approximately \$950,000 to \$1.3 million. (Tr. 3, pp. 208-212, 219; Council Administrative Notice Item No. 35 – FP-AT&T-083-211214, Transcript 1, p. 28)

Facility Description

113. 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))
114. The proposed site is located on an approximate 23.72-acre parcel at 499 Mile Lane in Middletown. The property has road frontage on Mile Lane. The proposed site location is depicted on Figure 10. (AT&T 1, Tab B, 1; AT&T 6, Tab 6 – Sheet C-1)
115. The subject property was a former U.S. Military Nike Missile Launch Site since the 1950s. In 1987, the U.S. Army Reserves constructed a new building at the site for use as a reserve base. The base was closed in the 2000s, and the City acquired the property for public safety operations in approximately 2010. (AT&T 1, Tab 7 – SHPO Letter dated June 24, 2021; Tr. 3, pp. 174-175)

116. Since acquiring ownership, the City has located its emergency operations center (EOC) on the property. (Tr. 3, p. 175)
117. The subject property is in a Residential (R-15) zone and is developed with an existing City-owned 180-foot self-supporting lattice tower (constructed in 2018) within an existing fenced equipment compound located in the central portion of the property. (AT&T 1, Tab A, p. 1; AT&T 4, response 2 and Attachment 7, Drawings T-1, C-1, C-2, A-1, and A-2)
118. Surrounding parcels are primarily single-family residential or City-owned properties associated with the City's school system. (AT&T 1, Tab B, p. 2)
119. The proposed tower site is located north of the existing City tower compound in the central portion of the host parcel. (AT&T 6, Tab 6 – Sheet C-2)
120. The proposed tower would be located approximately 47 feet to the north-northwest of the existing City tower and at a ground elevation of approximately 109 feet above mean sea level (amsl). Site topography for the existing compound and proposed compound expansion area is level at approximately 109 feet (amsl). (AT&T 4, response 23 and Attachment 7 – Sheet C-2; AT&T 6, Tab 6 – Sheet C-2)
121. The proposed facility would consist of a 150-foot monopole within an approximately 544 square foot trapezoidal expanded compound area on the north side of the compound. The tower would be approximately 6 feet wide at the base, tapering to 3 feet wide at the top (refer to Figure 9). (AT&T 1, Tab A, p. 1; AT&T 4, response 22; AT&T 6, Attachment 6, Drawing A-1)
122. AT&T would install 9 panel antennas and 12 remote radio heads on sector frame mounts at a centerline height of 150 feet agl. (AT&T 6, Attachment 6, Drawing A-2)
123. AT&T would utilize the City's existing 60-foot by 60-foot fenced equipment compound. AT&T would install a 6-foot 8-inch by 6-foot 8-inch by 11-foot high walk-in equipment shelter on an 8-foot 6-inch by 8-foot 6-inch concrete pad in the western portion of the existing compound. AT&T would install a 20-kilowatt diesel backup generator on a 6-foot by 4-foot concrete pad in the western portion of the existing compound. (AT&T 6, Attachment 6, Drawings A-1 and A-4)
124. The proposed equipment compound expansion area would be enclosed by an eight-foot high chain-link fence with three strands of barbed wire on top and would include a 12-foot wide access gate. (AT&T 6, Attachment 6, Drawings A-1 and A-5)
125. AT&T would utilize the City's existing access drive that extends from Mile Lane in a southerly direction to the compound. (AT&T 1, Tab B, p. 3; AT&T 6, Attachment 6, Drawing A-1)
126. AT&T has not performed a geotechnical study at the site. AT&T does not anticipate the need for blasting. A geotechnical survey would be performed prior to construction to evaluate subsurface conditions. If ledge is encountered, chipping is preferable to blasting. If blasting is required, AT&T would utilize appropriate protocols in accordance with state and municipal regulations. (AT&T 4, response 33; Tr. 3, p. 216)
127. Underground utilities would be run underground for a distance of approximately 26 feet from an existing pole located east of the existing compound to a proposed meter bank within the existing compound. (AT&T 6, Tab 6 – Drawing A-1)

128. The nearest property boundary (Old Colony of Wallingford LLC property) from the proposed tower is approximately 256 feet to the west-southwest. The tower is 786 feet to the south property line, 774 feet to the north property line and 384 feet to the east property line. (AT&T 6, Tab 6 – Sheet C-1)
129. There are approximately 91 residences within 1,000 feet of the proposed tower. The nearest residence is approximately 425 feet to the west-northwest at 60 Talias Trail. (AT&T 4, response 20; AT&T 6, Tab 6 – Sheet C-1 and Attachment 7)
130. The distances from the TT property lines and residences to the proposed tower location are indicated below:

Talias Trail Properties	Distance and Direction from Property Line to Proposed Tower Location	Distances from Residence to Proposed Tower Location
29 Talias Trail (Siteman Property)	673 feet northwest	700 feet northwest
50 Talias Trail (Pugliares Property)	340 feet northwest	517 feet northwest
59 Talias Trail (Barbagallo Property)	585 feet west-northwest	606 feet west-northwest

(AT&T , Tab 6 – Sheet C-1; AT&T 8; Tr. 4, pp. 266-268)

131. The estimated cost of the proposed facility is:

Tower and Foundation	\$54,000
Site Development	\$50,000
Utility Installation	\$36,000
Antennas & Equipment	\$120,000
Total Estimated Costs	\$260,000

(AT&T 3, response 3)

132. AT&T would recover the costs of tower construction as part of network services provided to customers and may be supplemented through rent from sub-tenants that choose to co-locate on the tower facility. (AT&T 4, response 4)

Public Safety

133. 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)
134. The proposed facility would be in compliance with the requirements of the 911 Act and would provide Enhanced 911 services. (AT&T 4, response 59)

135. 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. 22 – FCC Text-to-911: Quick Facts & FAQs)
136. AT&T's proposed equipment installation would be capable of supporting text-to-911 service. (AT&T 4, response 58)
137. 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)
138. AT&T's proposed equipment installation would provide WEA services. (AT&T 4, response 60)
139. 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. AT&T and FirstNet work together to determine which sites in coverage deficient areas are prioritized. (Tr. 1, pp. 18-19, 52-53; Tr. 3, pp. 149-152, 196-197)
140. FirstNet is independent of the City's public safety communications system that is installed on the existing facility. The City is not a subscriber of FirstNet. (Tr. 1, pp. 70-71, Tr. 3, pp. 149-151, 196-197)
141. The City's Mile Lane lattice facility serves as the master site of the City's entire public safety communications system. The areas served by this site cover a significant portion of the City. During any interruption, no state assets would be available to assist or mitigate coverage because the link to statewide assets would be lost. (City 2, p. 2; Tr. 3, pp. 146-149)
142. The City is not aware of any cutover options to address the continuity of service issue. Use of a temporary tower facility would still involve some downtime for the City's existing equipment such as the alignment of microwave dishes. (Tr. 3, p. 148)
143. Installing a new tower with all new City equipment (a/k/a "drop and swap") would require all equipment pre-installed and microwave dishes already aligned. The City believes that this option would be difficult and could still present some equipment downtime. The risk would be that any loss of this existing master site could affect other sites' ability to communicate with each other. (Tr. 3, pp. 148-149)
144. 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. (AT&T 1, Tab B3, Sheet T-1; AT&T 4, response 36)

145. By letter dated August 15, 2017, the Federal Aviation Administration (FAA) issued a Determination of No Hazard to Air Navigation for the existing lattice tower. The proposed monopole tower would not require notice to the FAA. (AT&T 6, Tab 2 – FAA No Hazard Determination and FAA Summary Report)
146. AT&T would ensure that deployment of 5G services comply with FCC and FAA guidance relative to air navigation. (Council Administrative Notice Item No. 35 – FP-AT&T-083-211214, Transcript 1, p. 14)
147. The proposed compound fence includes barbed wire for additional security. In addition to the proposed compound fence, to prevent unauthorized access to facility components, the equipment cabinets would be equipped with silent intrusion alarms. (AT&T 4, response 34)
148. The tower setback radius* would remain within the boundaries of the subject property. The distance from the center of the proposed monopole to the nearest property boundary would be approximately 256 feet. (AT&T 4, response 25)
*The horizontal distance equal to the tower height that extends radially from the center of the tower.
149. Noise from the emergency generator is exempt from DEEP Noise Control Regulations. Notwithstanding, as the dominant source of noise at the site, the proposed backup generator would result in noise levels not expected to exceed 35 dBA at any property boundary. Thus, it would comply with City and DEEP Noise Control Regulations. (AT&T 6, Tab 10 – Generator Noise Study, pp. 1-3; R.C.S.A. §22a-69-1.8)
150. 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))
151. The cumulative worst-case maximum power density from the radio frequency emissions from the operation AT&T’s antennas on the proposed tower and the Town’s antennas on the adjacent existing tower is 8.19 percent 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 and a 20 dB off-beam pattern loss for microwave antennas due to their highly directional nature.

(AT&T 1, Tab B9 – Calculated Radio Frequency Exposure; Council Administrative Notice Item No. 2 – FCC OET Bulletin No. 65)

152. If AT&T were to co-locate on the existing City tower at 180 feet or if AT&T shared a replacement tower with the City with AT&T at 180 feet, the cumulative worst-case maximum power density from the radio frequency emissions from the operation AT&T’s antennas and the City’s antennas would be 5.90 percent of the standard* for the General Public/Uncontrolled Maximum Permissible Exposure, as adopted by the FCC, at the base of the proposed tower.

*This includes a 10 dB off-beam pattern loss to account for the lower relative gain below the antennas and a 20 dB off-beam pattern loss for microwave antennas due to their highly directional nature.

(AT&T 1, Tab B9 – Calculated Radio Frequency Exposure; Council Administrative Notice Item No. 2 – FCC OET Bulletin No. 65; AT&T 4, responses 51 and 52)

Emergency Backup Power

153. 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. 54)
154. Consistent with the findings and recommendations of the Panel, and in accordance with C.G.S. §16-50ll, 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. 33 – Council Docket No. 432)
155. 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. (Council Administrative Notice Item No. 33 – Council Docket No. 432)
156. The City currently utilizes propane for its own backup generator fuel. (AT&T 9, Late Filed Exhibit c)
157. For backup power, AT&T proposes a 20-kilowatt diesel-fueled generator with an attached 92-gallon fuel tank for its own use. AT&T's proposed generator would provide approximately 37 hours of run time before it requires refueling. The generator would be tested periodically. (AT&T 4, responses 54 and 56; AT&T 9, Tab 1 – Generator Specification Sheet)
158. The proposed diesel generator would cost approximately \$50k to \$60k. (Tr. 4, p. 369)
159. Natural gas, as a generator fuel source, is available on the street, but not at the existing tower site. To supply natural gas to the site, it would require approximately 700 linear feet of new trenching in addition to potential driveway excavation and re-paving. The cost of a new natural gas line would be at least \$10,000 and well in excess of the planned costs for backup power for AT&T. Thus, AT&T believes that the costs of a new natural gas line would not be warranted for economic reasons in light of alternatives such as diesel or propane. (AT&T 9, Late Filed Exhibit c)
160. AT&T would have battery backup system in order to avoid a “re-boot” condition during the generator start-up delay period. The battery backup system alone could provide up to 8 hours of backup power. (AT&T 4, response 55)
161. The generator would be tested once per week for about 15 minutes for maintenance purposes. (AT&T 4, response 56)
162. 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)

163. 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. (AT&T 4, response 57; Tr. 1, p. 25; R.C.S.A. §22a-174-3b)

Environmental Considerations

164. The Inland Wetlands and Watercourses Act (IWWA), CGS §22a-36, *et seq.*, contains a specific legislative finding that the inland wetlands and watercourses of the state are an indispensable and irreplaceable but fragile natural resource with which the citizens of the state have been endowed, and the preservation and protection of the wetlands and watercourses from random, unnecessary, undesirable and unregulated uses, disturbance or destruction is in the public interest and is essential to the health, welfare and safety of the citizens of the state. (CGS §22a-36, *et seq.*)
165. The IWWA grants regulatory agencies with the authority to regulate upland review areas in its discretion if it finds such regulations necessary to protect wetlands or watercourses from activity that will likely affect those areas. (CGS §22a-42a)
166. The IWWA forbids regulatory agencies from issuing a permit for a regulated activity unless it finds on the basis of the record that a feasible and prudent alternative does not exist. (CGS §22a-41)
167. Wetland 1 is located to the south, west and east of the existing compound. AT&T's proposed compound expansion area would be located approximately 20 feet east-northeast of Wetland 1. (AT&T 6, Tab 8 – Wetland Inspection Map)
168. The proposed project would be constructed consistent with the *2002 Connecticut Guidelines for Soil Erosion and Sedimentation Control*. (Tr. 1, p. 23)
169. The project is not likely to adversely impact Wetland 1 provided that erosion and sedimentation controls measures are utilized during construction. (AT&T 6, Late Filed Exhibit d and Tab 9 – Wetland Delineation Form)
170. The proposed site is not located within the Federal Emergency Management Agency designated 100-year or 500-year flood zones. (AT&T 4, response 63)
171. The site is not located within a state-designated aquifer protection area. (Council Administrative Notice Item No. 79)
172. The proposed facility is not located within a DEEP Natural Diversity Database buffer area. (AT&T 1, Tab B6 – Natural Diversity Database Map)
173. The proposed project would not result in tree clearing. (Tr. 1, pp. 22, 89)
174. 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. (Council Administrative Notice Item No. 80)
175. The nearest Important Bird Area to the proposed facility is Meshomasic State Forest Block located 5.6 miles to the northeast. (AT&T 4, response 65)

176. AT&T's originally proposed compound location was found to be located within wetlands. To avoid these direct wetland impacts, AT&T has shifted the compound approximately 120 feet to the west-northwest of its originally proposed location. The proposed facility would comply with the USFWS guidelines for minimizing the potential for telecommunications towers to impact bird species. (AT&T 4, response 66)
177. The proposed facility* would not impact historic resources. Two previously identified archaeological resources are located within 1 mile of the proposed project area, but these resources would not be impacted by the proposed facility.

*While the proposed facility is a monopole, the tower could also be a monopine under the SHPO review.

(AT&T 1, Tab 7 – SHPO Letter dated June 24, 2021; AT&T 4, response 69)

178. The nearest publicly-accessible recreational resource is the Middletown Bikeway, located 1.23 miles northwest of the proposed facility. The proposed facility is not expected to be visible from the Middletown Bikeway. (AT&T 4, response 68)
179. The subject property contains approximately 1.2 acre of prime farmland soils. The proposed project would not disturb any portions of prime farmland soils. (AT&T 4, response 64; AT&T 6, Tab 7 – Subject Property Farmland Soils)

Visibility

180. AT&T used a predictive computer model and a review of various data sources to evaluate the visibility of the proposed facility on both a quantitative and qualitative basis. (AT&T 4, response 67, Attachment 5)
181. The Study Area viewshed map depicts areas where year-round and seasonal visibility (leaf-off conditions) could occur within a two-mile radius of the site, based on computer modeling. (AT&T 4, response 67, Attachment 5)
182. Based on the viewshed analysis (refer to Figure 11), the proposed tower would be visible year-round from approximately 90 acres, or 1.12% of the Study Area. The tower would be seasonally visible (leaf-off conditions) from approximately 122 acres, or 1.52% of the Study Area. (AT&T 4, response 67, Attachment 5 – Viewshed Map)
183. The proposed facility would not result in an increase of existing year-round or seasonal visibility areas resulting from the existing lattice tower. (AT&T 4, response 67)
184. The proposed facility would be seasonally visible from an approximately 0.47-mile long section of Mile Lane with some limited interspersed year-round views. (AT&T 4, response 67, Attachment 5)
185. The proposed facility would be visible year-round from the majority of the Talias Trail neighborhood with some interspersed seasonal views. (AT&T 4, response 67, Attachment 5)
186. A monopine design would increase the cost of the project by \$150,000. A monopine would have a wider profile than a monopole, and given the lack of tall existing vegetation in the general area, a monopine may draw additional attention from a visual standpoint. (AT&T 4, response 5; Tr. 1, pp. 29-30)

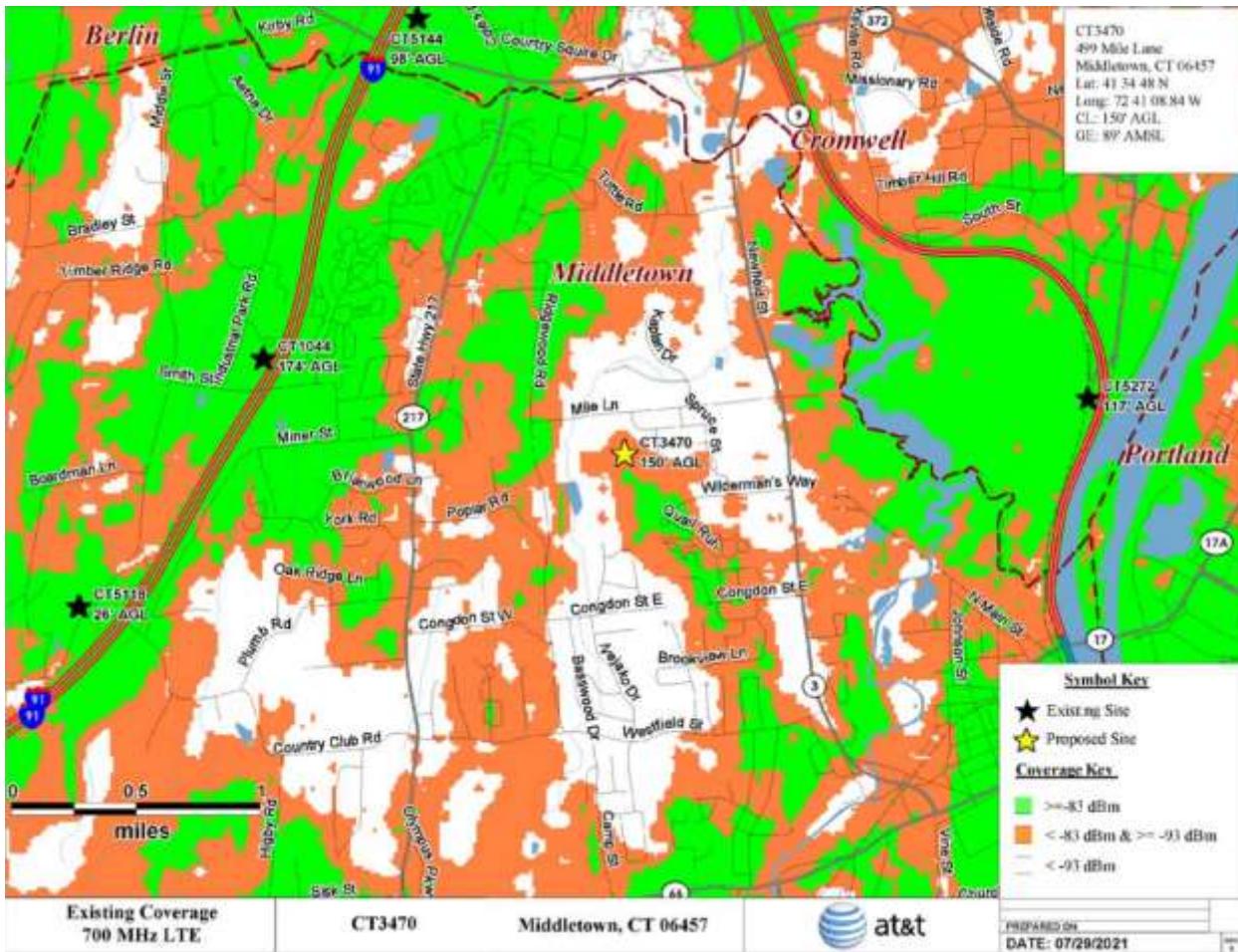
187. During a City Planing and Zoning (P&Z) Commission review of the proposed lease, the City P&Z Commission expressed a preference for a monopole rather than a monopine. (AT&T 4, response 5)
188. No compound screening is proposed. (AT&T 4, Attachment 7, Drawings A-1 and C-2)
189. Relocating the proposed tower farther into the subject parcel would restrict future uses and potential expansion of the emergency management and public safety services on the site by the City. The City is amenable to the proposed tower being located in the general vicinity of where it is currently proposed. (AT&T 4, response 16)
190. There are no state or locally-designated scenic roads located within the two-mile study area. (AT&T 4, response 67, Attachment 5)
191. Pursuant to CGS §16-50p(a)(3)(F), for a telecommunications facility proposed to be installed on land near a building containing a school, the facility will not be less than 250 feet from the building containing a school unless the location is acceptable to the chief elected official of the municipality or the Council finds that the facility will not have a substantial adverse effect on the aesthetics or scenic quality of the neighborhood in which such school is located. (CGS §16-50p(a)(3)(F))
192. No public schools or commercial child day care facilities are located within 250 feet of the site. The nearest school is Middletown High School (MHS), located approximately 0.3-mile southeast of the site. The nearest commercial daycare care is the Building Blocks Early Learning Center, located approximately 0.82-mile northwest of the site. The proposed facility is not expected to be visible from the majority of the MHS building. However, some limited year-round views of the tower are expected from the northeast corner of the MHS building, and some limited seasonal-views are expected from the southeast corner of MHS building and parking area. The proposed tower is not expected to be visible from Building Blocks Early Learning Center. (AT&T 4, responses 18 and 19; AT&T 4, response 67, Attachment 5)
193. The City did not express any concerns about visibility of the proposed facility from any schools, including the High School and Lawrence School. (Tr. 4, p. 287)
194. Members of TT would prefer a shared monopole tower design over a shared lattice or monopine tower design at an alternative location southeast of the existing facility on the host parcel. (Tr. 4, pp. 266-270, 276-277)
195. The Mattabassett Trolley Trail is located approximately 1.14 miles north-northeast of the proposed facility. The proposed facility is not expected to be visible from the Mattabassett Trolley Trail. (AT&T 4, response 67, Attachment 5)

Figure 1 – Site Location – Aerial Photograph



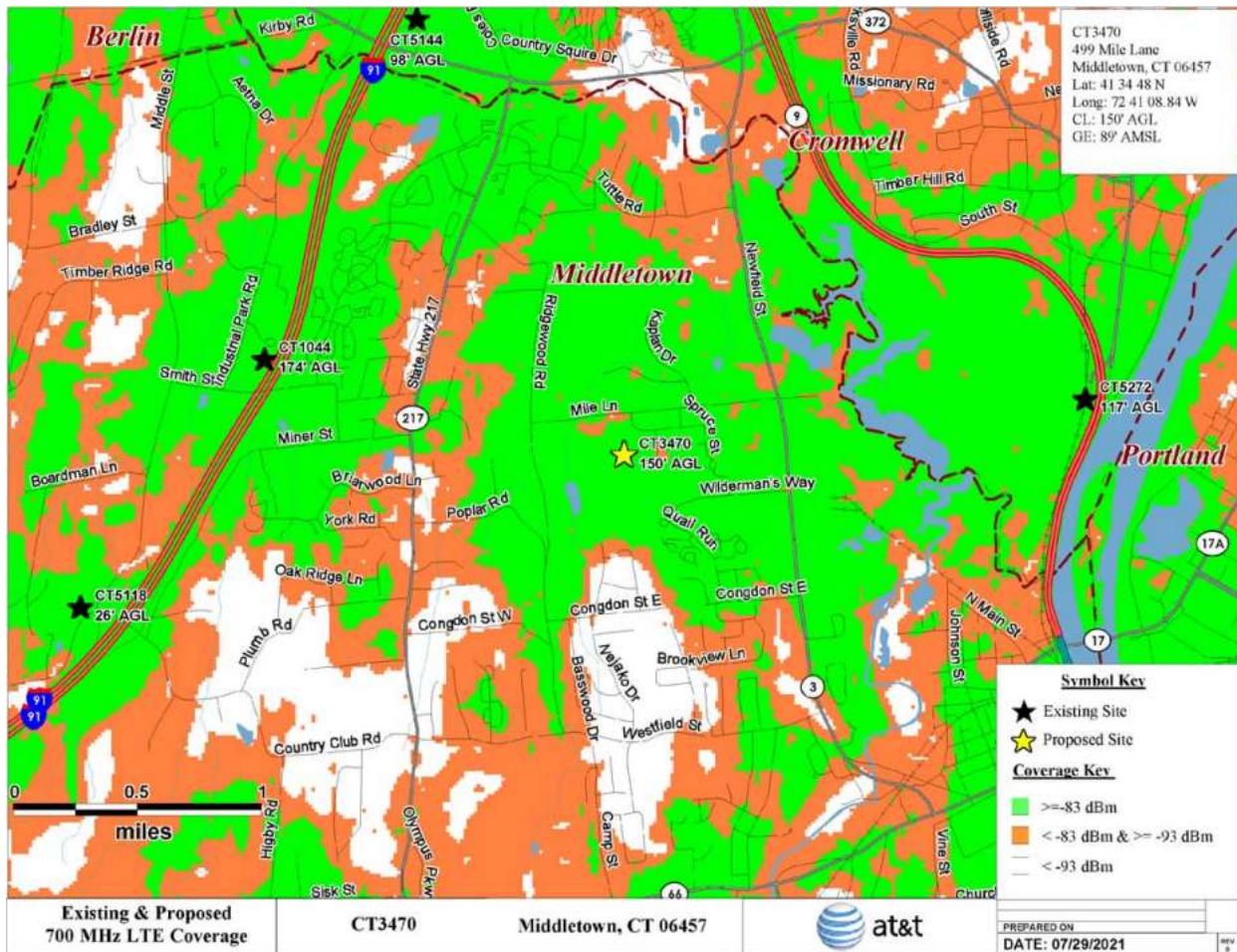
(AT&T 4, Attachment 7, Sheet T-1)

Figure 2 – AT&T Existing 700 MHz Coverage



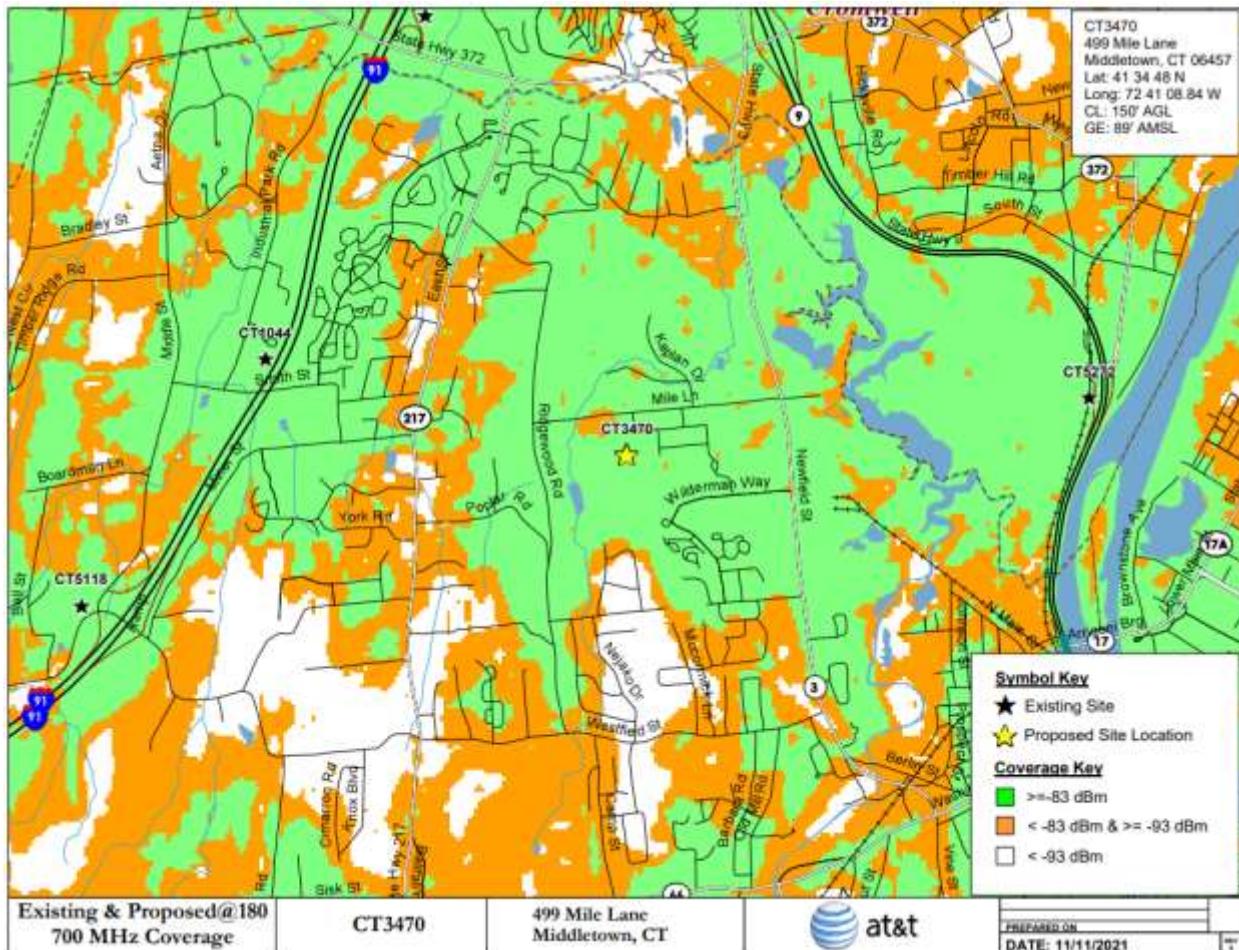
(AT&T 1, Tab 4 – RF Report, p. 9)

Figure 3 – AT&T Existing and Proposed 700 MHz Coverage w/150-foot Monopole



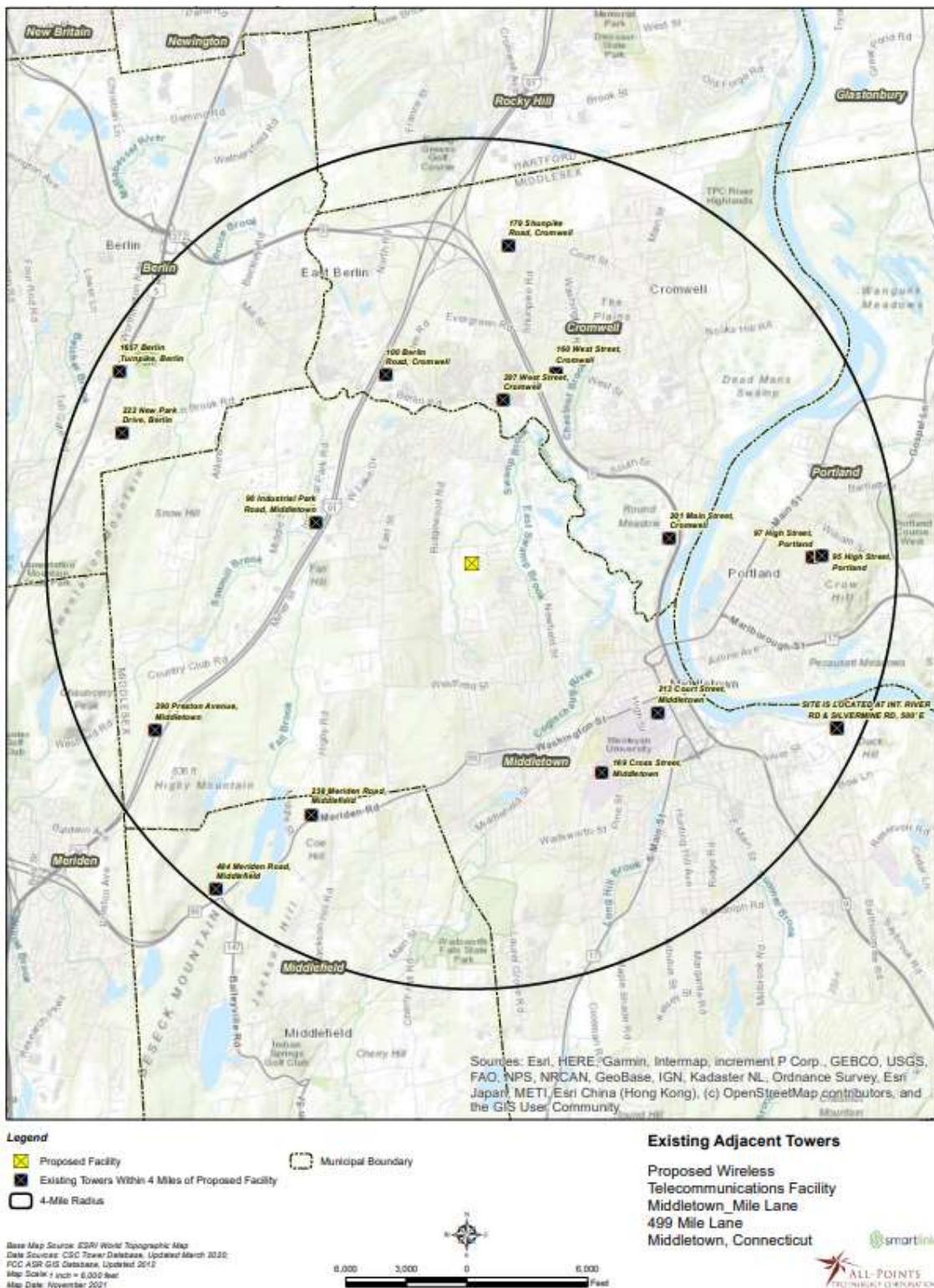
(AT&T 1, Tab 4 – RF Report, p. 10)

Figure 4 – AT&T 700 MHz Existing and Potential Coverage w/AT&T co-located at 180 feet on existing lattice tower



(AT&T 4, response 49, Attachment 6)

Figure 5– Existing Adjacent Towers Map



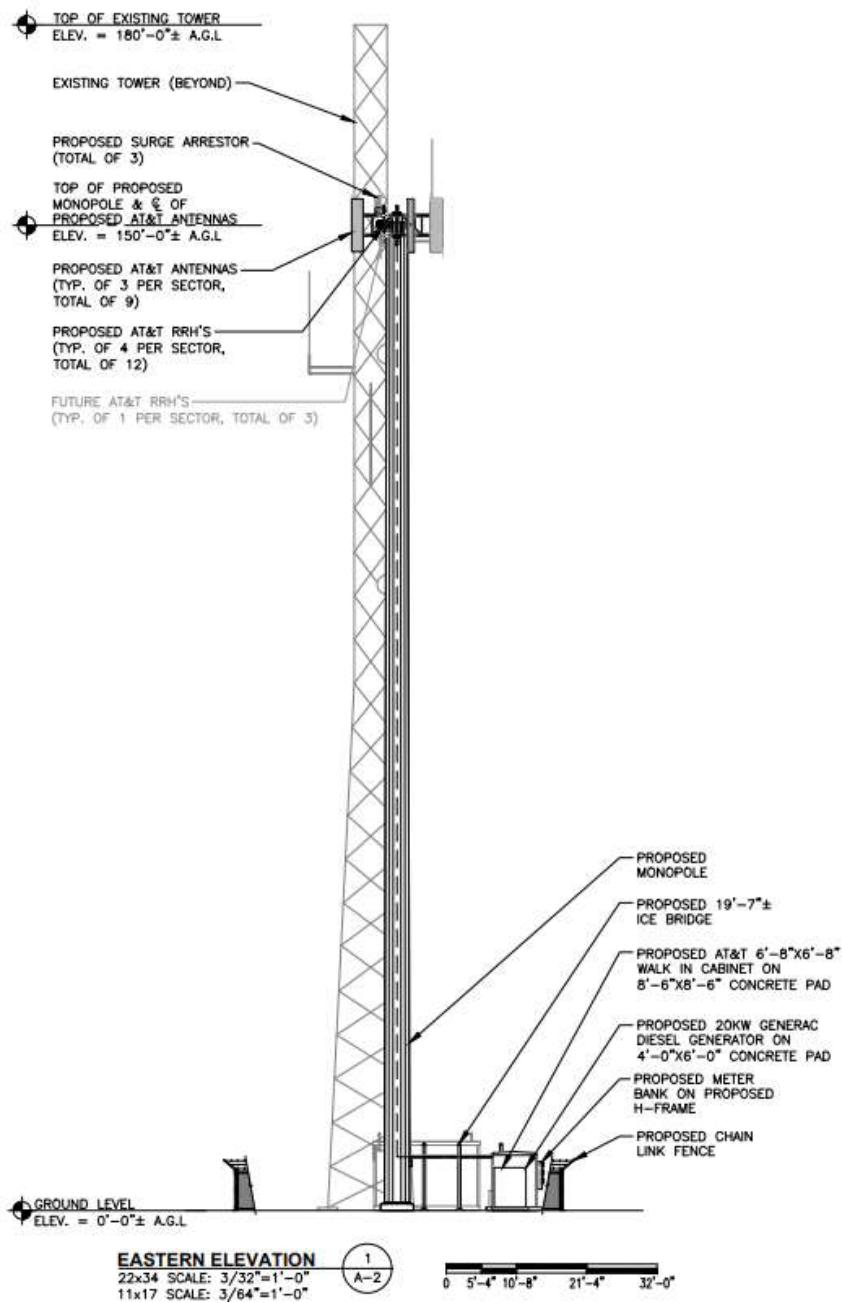
(AT&T 4, response 11, Attachment 4)

Figure 6 – Proposed Site Location – Aerial Image



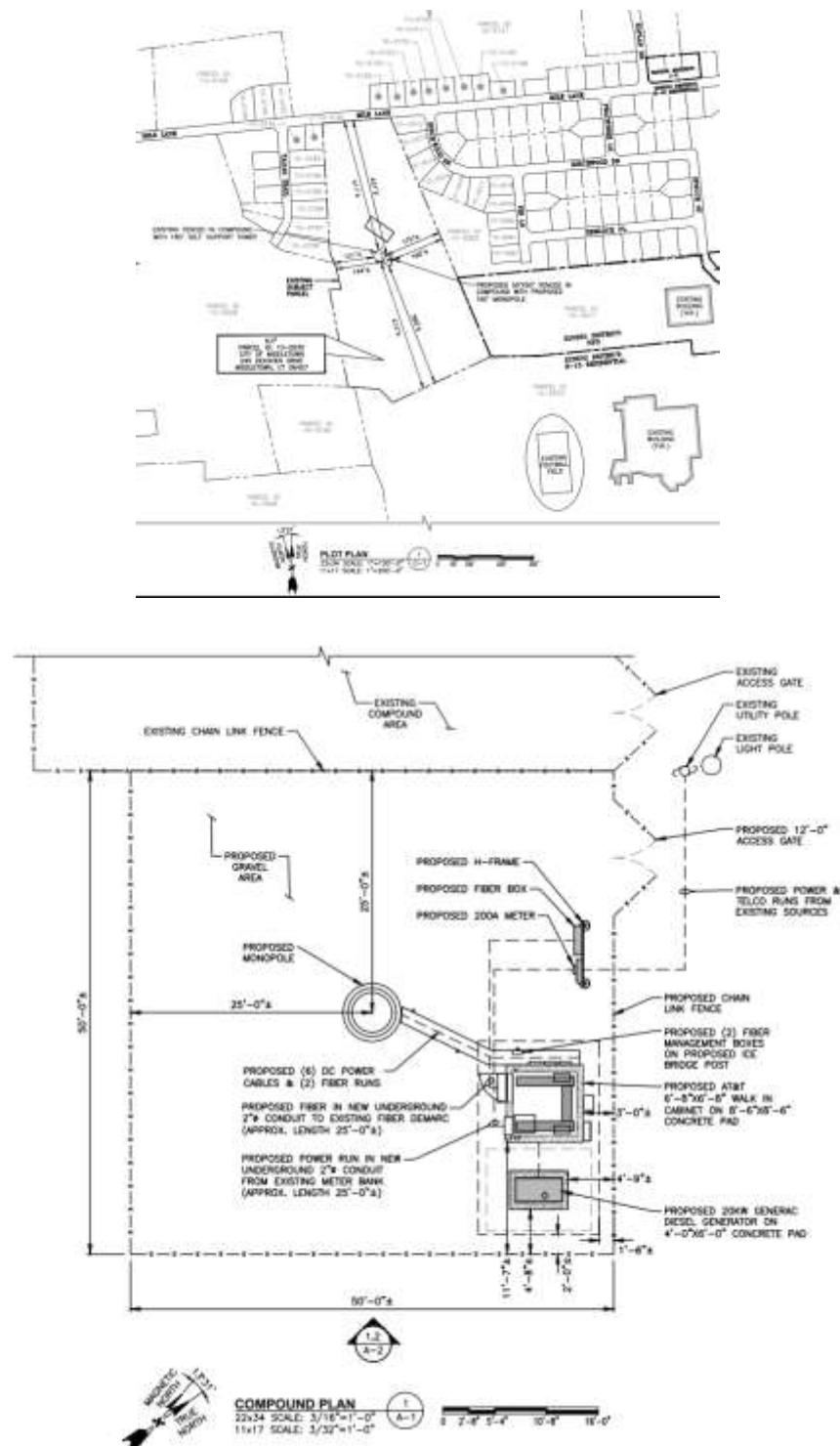
(AT&T 4, response 72, Attachment 9)

Figure 7 – Originally Proposed Tower Site Plan



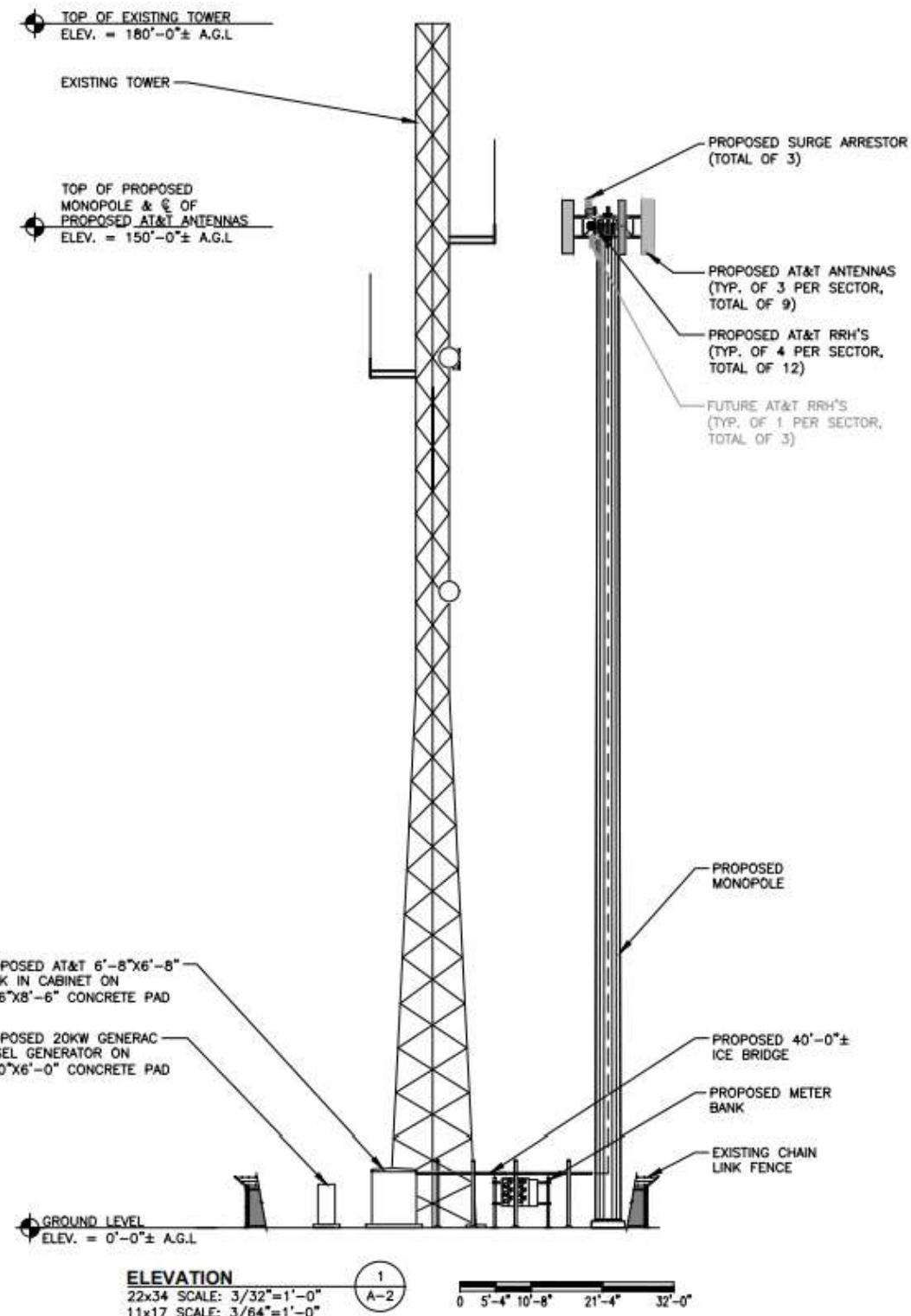
(AT&T 1, Tab 3 – Drawing A-2)

Figure 8 – Originally Proposed Site Location/Site Plan



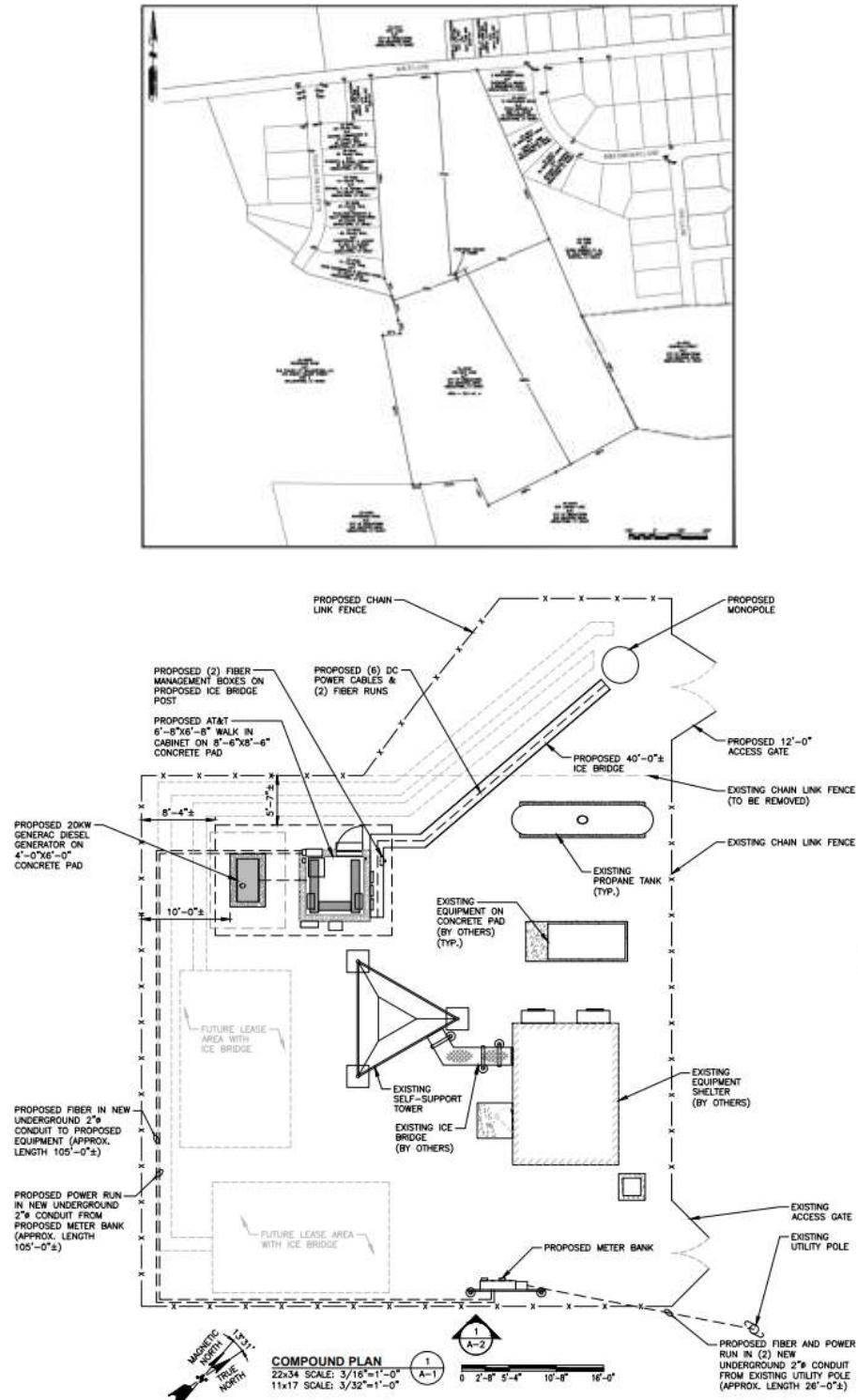
(AT&T 1, Tab 3 – Drawings C-1 and A-1)

Figure 9 – Proposed Revised Tower Site Plan



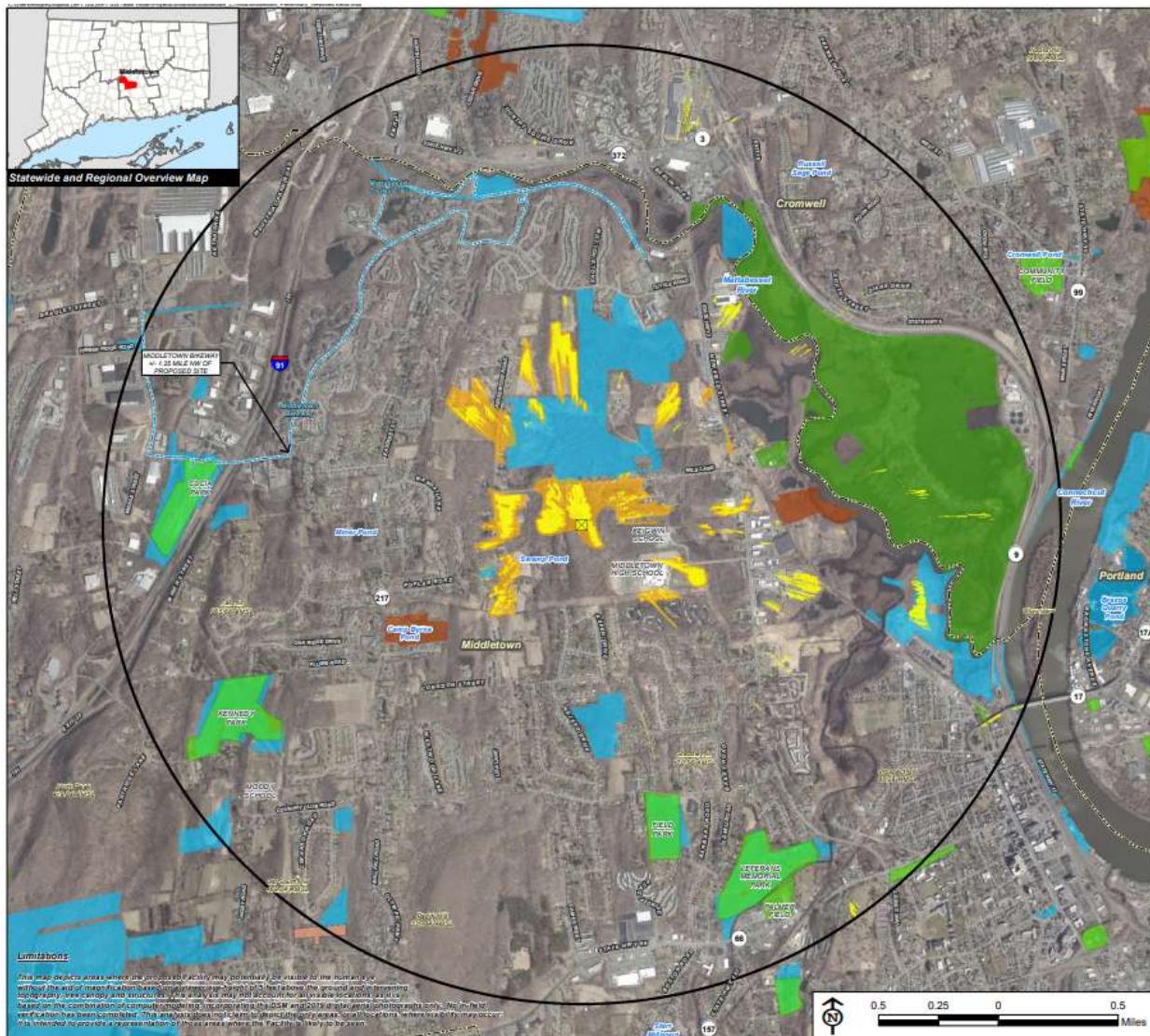
(AT&T 4, Drawing A-2)

Figure 10 – Proposed Revised Site Location/Site Plan



(AT&T 4, Drawings C-1 and A-1)

Figure 11a – Proposed Site Visibility Analysis (within 2 miles)



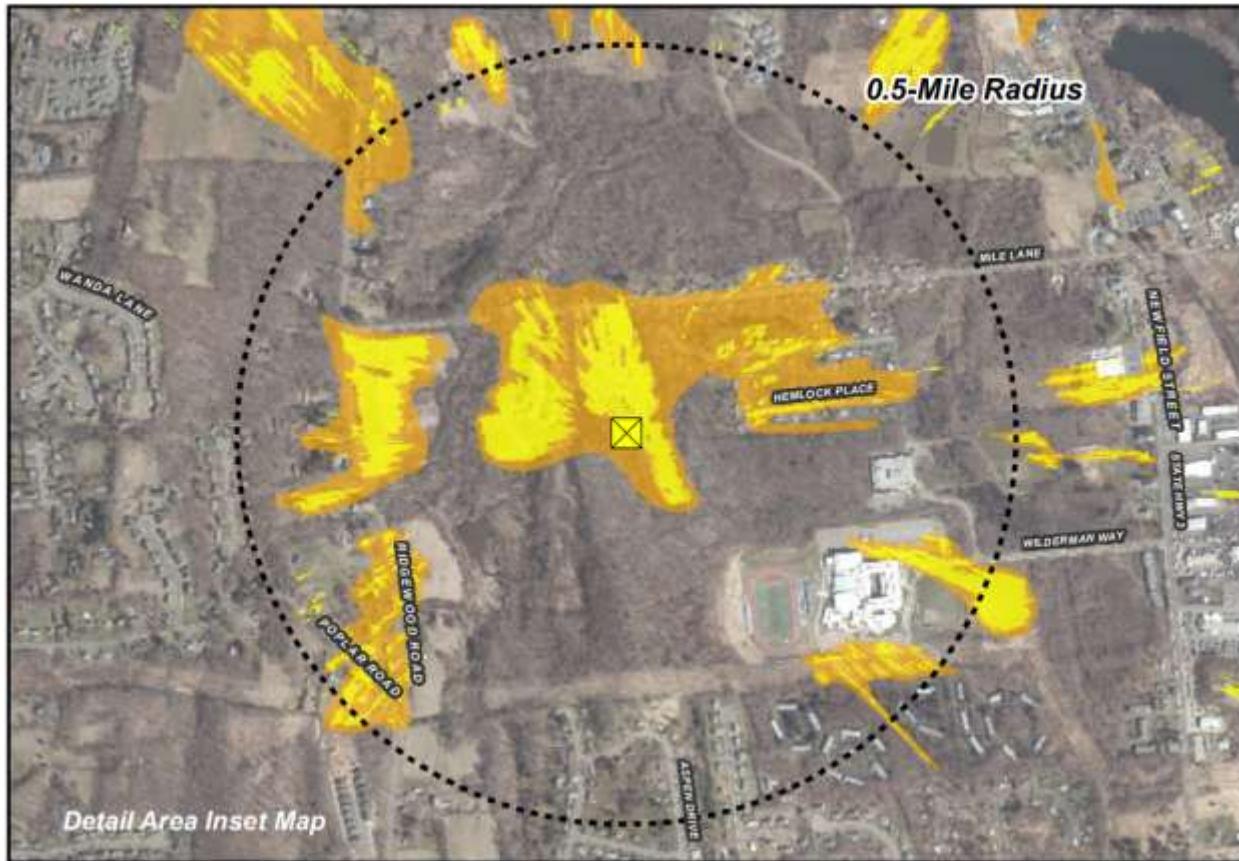
Legend

- | | |
|--|---|
| Proposed Site | Trail |
| Study Area (2-Mile Radius) | Scenic Highway |
| Predicted Year-Round Visibility (90 Acres) | DEEP Boat Launches |
| Areas of Potential Seasonal Visibility (122 Acres) | Municipal and Private Open Space Property |
| Municipal Boundary | State Forest/Park |

Protected Open Space Property

- | |
|------------|
| Federal |
| Land Trust |
| Municipal |
| Private |
| State |

Figure 11b – Proposed Site Visibility Analysis (within 0.5-mile)



(AT&T 4, response 67, Attachment 5)

Figure 12 – Tower Configuration Cost Data Table

Costs	REINFORCEMENT OF EXISTING FACILITY	CONSTRUCT REPLACEMENT LATTICE TOWER	CONSTRUCT REPLACEMENT MONOPOLE TOWER	CONSTRUCT NEW MONOPOLE TOWER ADJACENT TO EXISTING FACILITY – PROPOSED FACILITY	CONSTRUCT NEW MONOPOLE TOWER IN ALTERNATE LOCATION ON THE PARCEL
Tower cost	\$300,000 - \$450,000	\$1,000,000	\$500,000	\$150,000	\$150,000
AT&T Equipment Cost	\$110,000 - \$120,000	\$110,000 - \$120,000	\$110,000 - \$120,000	\$110,000 - \$120,000	\$110,000 - \$120,000
Cutover Cost for City Equipment	N/A	\$150,000 - \$300,000	\$150,000 - \$300,000	N/A	N/A
Replacement cost of City equipment	N/A	\$150,000	\$150,000	N/A	N/A
Site development and restoration costs	N/A	N/A	N/A	N/A	\$50,000 - \$200,000
Decommissioning cost for existing facility	N/A	\$200,000	\$200,000	N/A	N/A
Total Costs	\$410,000 - \$570,000	\$1,610,000 - \$1,770,000	\$1,110,000 - \$1,270,000	\$260,000 - \$270,000	\$310,000 - \$470,000

(AT&T 9; Council Administrative Notice Item No. 35 – FP Transcript 1, pp. 11-46)