DOCKET NO. 464 – Blue Sky Towers, LLC and New Cingular Wireless PCS, LLC application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance, and operation of a telecommunications facility located at Bridgeport Tax Assessor Map 53, Block 1527, Lot 2, 220 Evergreen Street, Bridgeport, Connecticut.	}	Connecticut Siting Council April 14, 2016

Findings of Fact

Introduction

1. Blue Sky Towers, LLC (Blue Sky) and New Cingular Wireless PCS, LLC (AT&T) collectively referred to as the Applicant (Applicant), in accordance with provisions of Connecticut General Statutes (C.G.S.) § 16-50g, et seq, applied to the Connecticut Siting Council (Council) on December 2, 2015 for a Certificate of Environmental Compatibility and Public Need (Certificate) for the construction, maintenance, and operation of a 135-foot monopole wireless telecommunications facility at 220 Evergreen Street in Bridgeport, Connecticut. (Applicant 1, pp. 1-3)

2. Blue Sky is a Delaware limited liability company with its headquarters at 352 Park Street Suite 106, North Reading, Massachusetts. Blue Sky develops/builds, owns and leases numerous telecommunications towers in the United States. (Applicant 1, p. 4)

3. Blue Sky entered into a long term lease with the subject property owner Chapin & Bangs Company and subsequently, a lease with AT&T. Blue Sky would construct, maintain and own the proposed facility and would be the Certificate Holder. (Applicant 1, p. 4)

4. AT&T is a Delaware limited liability company with an office at 500 Enterprise Drive, Rocky Hill, Connecticut. The company's member corporation is licensed by the Federal Communications Commission (FCC) to construct and operate a personal wireless services system. The company does not conduct any other business in the State of Connecticut other than the provision of wireless services under FCC rules and regulations. (Applicant 1, p. 4)

5. The party in this proceeding is the Applicant. (Transcript 1, February 11, 2016, 3:00 p.m. [Tr. 1], p. 5)

6. The purpose of the proposed facility is to provide a permanent replacement to an existing AT&T site located at 370 North Avenue, Bridgeport known as the HI HO Facility (HI HO Facility). (Applicant 5 – Item No. 1)

7. The HI HO Facility is an approximately 80-foot concrete and steel coal storage silo facility. AT&T's antennas are co-located at the 83-foot level of the structure. Sprint and MetroPCS are also co-located on this facility. (Applicant 4, response 22; Applicant 1, Tab 1 – Council Staff Report, Petition No. 1169; Tr. 1, p. 45)

8. Because of the age of the structure (dating back to circa 1930s) and some coal being left inside the structure, there is excessive structural deterioration of this existing support structure on which AT&T's antennas are located. According to the Structural Condition Assessment Report dated November 12, 2014, the entire HI HO Facility structure was deemed a serious hazard to any technicians, tower hands, or anyone else working on or around this structure. (Applicant 1, p. 1; Applicant 1, Tab 1 – Council Staff Report, Petition No. 1169; Council Administrative Notice Item No. 28 – Structural Condition Assessment Report, Petition No. 1169)

9. In light of the safety issues, AT&T's technicians are unable to visit the HI HO Facility. Thus, AT&T's radiofrequency (RF) engineering was unable to add LTE capacity to the HI HO Facility, and AT&T network operations would not restore service from the site in the event of an outage. Accordingly, AT&T will decommission the HI HO Facility and seeks to install antennas at the proposed site. (Applicant 1, pp. 1-2)

10. On July 6, 2015, the Council received a Petition (Petition) from Blue Sky and AT&T for a declaratory ruling that no Certificate of Environmental Compatibility and Public Need is required for the proposed installation of a temporary wireless telecommunications facility at the Chapin and Bangs property on 220 Evergreen Street, Bridgeport. The temporary wireless facility was intended to provide an interim solution for AT&T in order to continue providing wireless service until a permanent facility could be leased, permitted, constructed, and brought into operation. (Applicant 1, Tab 1 – Council Staff Report, Petition No. 1169)

11. The temporary facility is a 120-foot monopole on top of an 8-foot tall ballast base, for a total height of 128 feet above ground level (agl). This temporary facility was approved by the Council on August 6, 2015. (Applicant 1, Tab 1, Council Decision Letter, Petition No. 1169)

12. As of February 3, 2016, the temporary tower has been installed at the site, and AT&T is in the process of securing utility connections such as telephone. As of February 11, 2016, AT&T has a temporary electrical meter in place and is awaiting delivery of the equipment shelter. The temporary site was planned to be in service based on a projected completion of construction by the end of February 2016. (Applicant 4, response 24; Tr. 1, p. 16)

13. The purpose of the proposed permanent monopole facility is to allow AT&T to continue to provide reliable service to a geographic area including portions of Route 8, Route 127, Route 1, Main Street, Capitol Avenue, Lindley Street, Island Brook Avenue, Noble Avenue, Huntington Road, and other local roads in Bridgeport. (Applicant 1, pp. 3 and 10)

14. Pursuant to C.G.S. § 16-50*l* (b), the Applicant initiated public notice of the application that was published in the Connecticut Post on November 17, and November 19, 2015. (Applicant 2)

15. Pursuant to C.G.S. § 16-50*l*(b), notice of the application was provided to all abutting property owners by certified mail on November 18, 2015. Notice was unclaimed by four abutters: Westlund-Krasenics Properties, LLC; Maria C. & Julio Guzman; Estate of Sarina Charris & Victor P. Charris; and River Street Properties, Inc. The Applicant submitted a copy of the notice letter to these four abutters a second time by first class mail on January 5, 2016. (Applicant 1, Tab 12 – Certification of Service; Applicant 4, response 1, Tab 1)

16. On December 2, 2015, the Applicant provided notice to all federal, state and local officials and agencies listed in C.G.S. § 16-50*l* (b). (Applicant 1, p. 5 and Tab 13 – Certification of Service)

Council Procedures

17. Upon receipt of the application, the Council sent a letter to the City of Bridgeport, on December 3, 2015, as notification that the application was received and is being processed, in accordance with C.G.S. §16-50gg. (Record)

18. On December 3, 2015, the Council requested an extension of time to deem the application complete. On December 10, 2015, the Applicant granted the Council a thirty-day extension of time to January 31, 2016 to deem the application complete. (Record)

19. During a regular Council meeting on January 7, 2016, the application was deemed complete pursuant to the Regulations Connecticut of State Agencies (R.C.S.A.) § 16-50*l*-1a and the public hearing schedule was approved by the Council. (Record)

20. Pursuant to C.G.S. §16-50m, the Council published legal notice of the date and time of the public hearing in the Connecticut Post on January 12, 2016. (Record)

21. Pursuant to C.G.S. § 16-50m, on January 8, 2016, the Council sent a letter to the City of Bridgeport to provide notification of the scheduled public hearing and to invite the municipality to participate. (record)

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 January 27, 2016. The sign presented information regarding the project and the Council's public hearing. (Applicant 3; Applicant 1, p. 1)

23. The Council and its staff conducted an inspection of the proposed site on February 11, 2016, beginning at 2:00 p.m. During the field inspection, the Applicant flew a balloon at the proposed site to simulate the height of the proposed tower. The balloon location was shifted about 20 feet horizontally from the proposed tower site to avoid power lines and the existing temporary tower. However, the horizontal shift did not materially affect visibility. (Council's Hearing Notice dated January 8, 2016; Tr. 1, pp. 12-14)

24. Weather conditions during the day of the balloon flight included high winds. The balloon height did not reach the proposed tower height due to the wind conditions. The balloon flight commenced at 7:00 a.m. and was intended to continue until 4:00 p.m. for the convenience of the public. However, the balloon flight was interrupted by all of the balloons popping due to the high winds, except for one. (Council's Hearing Notice dated January 8, 2016; Tr. 1, pp. 12-14)

25. Pursuant to C.G.S. § 16-50m, the Council, after giving due notice thereof, held a public hearing on February 11, 2016, beginning with the evidentiary portion of the hearing at 3:00 p.m. and continuing with the public comment session at 7:00 p.m. at the Bridgeport City Hall, Council Chambers, 45 Lyon Terrace, Bridgeport, Connecticut. (Council's Hearing Notice dated January 8, 2016; Tr. 1, p. 1; Transcript 2 – 7:00 p.m. [Tr. 2], p. 54)

State Agency Comment

26. Pursuant to C.G.S. § 16-50j (g), on January 8, 2016 and February 16, 2016, 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)

27. The Council received a response from the DOT's Bureau of Engineering and Construction on January 14, 2016 indicating that DOT had no comments. (DOT Comments received January 14, 2016)

28. The following agencies did not respond with comment on the application: DEEP, DPH, CEQ, PURA, OPM, DECD, DOAg, CAA, DESPP, and SHPO. (Record)

Municipal Consultation

29. The Applicant commenced the 90-day pre-application municipal consultation process by letter to Mayor Bill Finch of the City of Bridgeport dated August 28, 2015. The Applicant also provided copies of the technical report to Mayor Finch and the City Planning and Zoning Commission. (Applicant 1, Tab 11; Applicant 1e)

30. By letter dated October 15, 2015, the City of Bridgeport Planning and Economic Development – Zoning Department issued the following comments regarding the proposed facility:

    a) The City notes that the subject parcel is located in the I-L (Industrial) Zone; thus, it appears to be a suitable location for a new wireless communications facility.
    b) The City notes that there is no need to meet and discuss any concerns with the Applicant.
    c) A building permit needs to be filed to ensure that all construction activity is in compliance with the Basic Building Code of the State of Connecticut.

    (Applicant 1, Tab 11 – City of Bridgeport Planning and Economic Development – Zoning Department Comments dated October 15, 2015)

31. If approved, the Applicant would file a Development and Management Plan (D&M Plan) for Council review and approval and then seek the issuance of a Building Permit from the City of Bridgeport prior to commencement of construction. (Applicant 1, p. 20)

32. Blue Sky would be willing to reserve space on the tower for emergency services antennas if requested. However, to date, the City of Bridgeport has not expressed an interest in co-locating emergency services antennas on the proposed tower. (Tr. 1, pp. 14-15)

Public Need for Service

33. 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)

34. 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 Federal Communications Commission (FCC) to provide personal wireless communication service to Fairfield County, Connecticut. (Council Administrative Notice Item No. 4 – Telecommunications Act of 1996; Applicant 4, response 26)

35. 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)

36. 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)

37. 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)

38. In February 2009, as part of the American Recovery and Reinvestment Act, Congress directed the FCC to develop a National Broadband Plan to ensure every American has "access to broadband capability." Congress also required that this plan include a detailed strategy for achieving affordability and maximizing use of broadband to advance "consumer welfare, civic participation, public safety and homeland security, community development, health care delivery, energy independence and efficiency, education, employee training, private sector investment, entrepreneurial activity, job creation and economic growth, and other national purposes." (Council Administrative Notice Item No. 19 – The National Broadband Plan)

39. 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)

40. 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 our resources and maintaining their resilience from all hazards during an event or emergency. (Council Administrative Notice Item No. 11 –Presidential Proclamation 8460, Critical Infrastructure Protection)

41. In February 2012, Congress adopted the Middle Class Tax Relief and Job Creation 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)

42. 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 Admin Notice Item No. 21 – FCC Wireless Infrastructure Report and Order; Council Admin Notice Item No. 12 – Presidential Executive Order 13616, Accelerating Broadband Infrastructure Development)

43. Pursuant to Section 6409(a) of the Middle Class Tax Relief and Job Creation Act of 2012, also referred to as 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. The Federal Communications Commission defines a substantial change in the physical dimensions of a tower as follows:
    a) An increase in the existing height of the tower by more than 10% or by the height of one additional antenna array with separation from the nearest existing antenna not to exceed twenty feet, whichever is greater. Changes in height should be measured from the dimensions of the tower, inclusive of originally approved appurtenances and any modifications that were approved prior to the passage of the Spectrum Act.
    b) Adding an appurtenance to the body of the tower that would protrude from the edge of the tower more than twenty feet, or more than the width of the tower structure at the level of the appurtenance, whichever is greater.
    c) Installation of more than the standard number of new equipment cabinets for the technology involved, but not to exceed four, or more than one new equipment shelter.
    d) A change that entails any excavation or deployment outside the current site.
    e) A change that would defeat the concealment elements of the tower.
    f) A change that does not comply with conditions associated with the siting approval of the construction or modification of the tower, provided however that this limitation does not apply to any modification that is non-compliant only in a manner that would exceed the thresholds identified in (a) – (d).

    (Council Administrative Notice Item No. 8 – Middle Class Tax Relief and Job Creation Act of 2012; Council Administrative Notice Item No. 21 – FCC Wireless Infrastructure Report and Order)

44. 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)

Existing and Proposed Wireless Services

45. The Applicant's proposed facility would replace the lost coverage and capacity provided by the current HI HO Facility and also allow technological upgrades which are currently impossible due to the deteriorated condition of the current site. (Applicant 4, response 27)

46. A substantial hardship would result with the decommissioning of the HI HO Facility by removing coverage and service to residents and commuters in Bridgeport. The added traffic load for the serving sectors of the surrounding AT&T sites covering portions of the subject area would place a substantial capacity strain on the network, resulting in further degradation of network quality. The proposed facility would provide a remedial solution for the subject area. (Applicant 1, Tab 1 – Radio Frequency Analysis Report, pp. 1 and 2)

47. AT&T would initially deploy 700 MHz and 1900 MHz frequency bands at the proposed site. AT&T would deploy 850 MHz and 1900 MHz frequency bands at the proposed site at some point in the future. (Applicant 4, response 28)

48. For AT&T's 850 MHz and 1900 MHz UMTS network, AT&T's design signal strengths for in-building and in-vehicle coverage are -74 dBm and -82 dBm, respectively. For AT&T's 700 MHz LTE network, AT&T's design signal strengths for in-building and in-vehicle coverage are -83 dBm and -93 dBm, respectively. For AT&T's 1900 MHz LTE, AT&T's design signal strengths for in-building and in-vehicle coverage are -86 dBm and -96 dBm, respectively. (Applicant 4, responses 32 and 33; Applicant 1, Tab 1 – Radio Frequency Analysis Report, p. 1)

49. Assuming no HI HO Facility active and no temporary facility active, the existing signal strength for 1900 MHz UMTS in the area that AT&T seeks to cover ranges from -100 dBm to -74 dBm. (Applicant 4, response 33)

50. The table below indicates AT&T's approximate existing coverage gaps along State roads at various frequencies assuming that there is no HI HO Facility and no temporary facility.

Street Name	**700 MHz LTE Coverage Gap**	**1900 MHz LTE Coverage Gap**	**1900 MHz UMTS Coverage Gap**
Route 1	N/A	0.53 miles	1.27 miles
Route 8	N/A	0.05 miles	0.05 miles
Route 25	N/A	N/A	0.01 miles
State Road Total	N/A	0.58 miles	1.33 miles

(Applicant 4, response 34)

51. The tables below indicate the distances that AT&T would cover along State roads and secondary roads in the area of its proposed facility at 120-foot and 130-foot heights for various frequencies.

Street Name	**700 MHz LTE Coverage at 130 feet**	**700 MHz LTE Coverage at 120 feet**	**1900 MHz LTE Coverage at 130 feet**	**1900 MHz LTE Coverage at 120 feet**
Route 1	N/A	N/A	0.53 miles	0.53 miles
Route 8	N/A	N/A	0.05 miles	0.05 miles
Secondary Roads	0.48 miles	0.39 miles	8.61 miles	7.97 miles
Total	0.48 miles	0.39 miles	9.19 miles	8.55 miles

Street Name	**1900 MHz UMTS Coverage at 130 feet**	**1900 MHz UMTS Coverage at 120 feet**
Route 1	1.20 miles	1.08 miles
Route 8	0.05 miles	0.05 miles
Secondary Roads	15.27 miles	14.70 miles
Total	16.52 miles	15.83 miles

(Applicant 4, responses 39 and 40)

52. For 1900 MHz UMTS, the decommissioning of the HI HO Facility would result in the loss of population coverage of 4,172 and 6,741 at signal strengths of not less than -74 dBm and -82 dBm, respectively. The proposed facility would provide population coverage of 9,847 and 9,349 at signal strengths of not less than -74 dBm and -82 dBm, respectively. (Applicant 1, Tab 1 – Radio Frequency Analysis Report, p. 2)

53. Adjacent facilities to the proposed facility are identified in the following table.

Site Location	Distance and Direction from Proposed Tower	Height of AT&T's Antennas agl	Structure Type
2470 North Avenue	1.8 miles southwest	132 feet	Rooftop
2625 Park Avenue	1.4 miles west	160 feet	Rooftop
3200 Park Avenue	1.5 miles west	121 and 69 feet	Rooftop
1320 Chopsey Hill Road	1.6 north-northwest	165 feet	Lattice Tower
120 Huntington Turnpike	1.2 miles northeast	100 feet	Rooftop
267 Grant Street	1.4 miles southeast	142 feet	Rooftop
955 Main Street	1.3 miles south	140 feet	Rooftop
430 John Street	1.5 miles south-southwest	148 feet	Rooftop

(Applicant 4, response 29; Applicant 1, Tab 1, Radio Frequency Analysis Report, pp. 10 and 11)

54. This table indicates the total areas that AT&T would cover from its proposed facility for prescribed frequencies at various heights.

Antenna Height	Area Coverage* with 700 MHz LTE	Area Coverage* with 1900 MHz LTE	Area Coverage* with 1900 MHz UMTS
130 feet	2.00 square miles	3.54 square miles	3.06 square miles
120 feet	1.80 square miles	2.86 square miles	2.42 square miles

Antenna Height	Area Coverage** with 700 MHz LTE	Area Coverage** with 1900 MHz LTE	Area Coverage** with 1900 MHz UMTS
130 feet	12.12 square miles	9.47 square miles	8.17 square miles
120 feet	10.02 square miles	8.55 square miles	7.25 square miles

*This is based on in-building coverage.
**This is based on in-vehicle coverage.
(Applicant 4, response 36; Tr. 1, p. 22)

55. The minimum antenna centerline height for AT&T to meet its coverage objectives is 130 feet agl. (Applicant 4, response 31)

56. Installing the antennas at 120 feet (or ten feet lower) could result in lost capacity and the ability to have continuous coverage in some areas. (Tr. 1, p. 20)

Site Selection

57. Subsequent to the 2014 structural analysis report identifying structural safety concerns at the HI HO Facility, AT&T decided to relocate its facility to a new site. (Applicant 4, response 21; Council Administrative Notice Item No. 28 – Petition No. 1169, Structural Analysis Report for HI HO Facility)

58. There are no other existing towers or other sufficiently tall structures available within the Bridgeport area to meet AT&T's RF needs. (Applicant 1, p. 12)

59. After determining there were no suitable structures existing within their search area, AT&T searched for properties suitable for tower development. AT&T investigated seven parcels/areas, one of which was selected for site development. The six rejected parcels/areas and reasons for their rejection are as follows:
    a) **494 Lindley Street, Bridgeport (on existing billboard)** – AT&T rejected this site because it would not meet its RF needs.
    b) **2800 Main Street, Bridgeport (St. Vincent's Medical Center – on 10 story rooftop)** – The property owner showed some initial interest in leasing space for a tower, but has since become unresponsive.
    c) **2875 Main Street, Bridgeport (on rooftop)** – AT&T rejected this site because it would not meet its RF needs.
    d) **2102 Main Street, Bridgeport (Olivet Congregational Church – inside steeple)** – AT&T rejected this site because it would not meet its RF needs.
    e) **865 North Avenue, Bridgeport (The Cathedral Parish – inside steeple)** – AT&T rejected this site because it would not meet its RF needs.
    f) **236 Evergreen Street, Bridgeport (Animal Shelter – raw land)** – AT&T rejected this site because of its location in a 100-year flood zone.

    (Applicant 1, Tab 2, Properties Investigated by AT&T; Applicant 4, response 8, Tab 3)

60. Blue Sky also searched for properties suitable for tower development. Blue Sky investigated nine parcels/areas, one of which was selected for site development. The eight rejected parcels/areas and reasons for their rejection are as follows:
    a) **145 Front Street, Bridgeport** – The property owner is not interested in leasing space for a tower.
    b) **380 Lindley Street, Bridgeport** – The property owner is not interested in leasing space for a tower.
    c) **494 Lindley Street, Bridgeport** – The property owner is not interested in leasing space for a tower.
    d) **261 River Street, Bridgeport** – The property owner is selling the property and did not want to interrupt the sale with a new lease.
    e) **225 Evergreen Street #227, Bridgeport** – The property owner is not interested in leasing space for a tower due to space constraints.
    f) **125 Front Street, Bridgeport** – The property owner is selling the property and did not want to interrupt the sale with a new lease.
    g) **236 Evergreen Street, Bridgeport (Animal Shelter)** – Blue Sky has contacted the City several times, but has not received a reply.
    h) **320 North Avenue, Bridgeport** – The property owner was not interested in leasing space for a tower due to space constraints.

    (Applicant 1, Tab 2, Properties Investigated by Blue Sky)

61. Repeaters, microcells transmitters, distributed antenna systems and other types of transmitting technologies are not a practicable or feasible means to replacing the wireless telecommunications services that were provided by the HI HO Facility. (Applicant 1, p. 12; Applicant 4, response 25)

Facility Description

62. The proposed site is located on an approximately 1.0-acre parcel at 220 Evergreen Street in Bridgeport. The parcel is owned by Chapin & Bangs Company. The proposed site location is depicted on Figure 1. The existing temporary tower is located on this parcel. (Applicant 1, p. 1; Applicant 1, Tab 1 – Petition No. 1169, Council Staff Report; Applicant 4, response 24)

63. The subject property is zoned Industrial (IL) and is used as part of Chapin & Bangs Company's steel fabrication services. (Applicant 1, p. 3 and Tab 11)

64. The tower site is located in the northern portion of the subject property, at an elevation of approximately 13 feet above mean sea level (amsl). (Applicant 1, Tab 4 – Sheets C-1 and C-2)

65. The proposed tower would be located approximately 40 feet southeast of the temporary tower. (Tr. 1, pp. 13-14)

66. Land use at adjacent properties include developed commercial uses, multi-family residences, and the City of Bridgeport Animal Shelter. (Applicant 1, p. 18)

67. The proposed facility would consist of a 135-foot monopole within an irregular shaped 3,617.5 square foot leased area. The tower would be approximately 42 inches wide at the base tapering to 28 inches wide at the top. The tower would be designed to support three levels of wireless carrier antennas (including AT&T's). The tower would be designed to be expandable in height by up to 20 feet. (Applicant 1, Tab 4 – Sheets A-1 and C-3; Applicant 1, Tab 3 – Facilities and Equipment Specification; Applicant 4, response 13)

68. The monopole would have a grey, galvanized steel finish. (Applicant 4, response 12)

69. The tower and foundation would be designed to accommodate a 20-foot increase in height. (Applicant 4, response 13; Tr. 1, p. 26)

70. AT&T would install nine panel antennas and 27 remote radio heads (RRHs) on a low-profile platform at a centerline height of 130 feet agl. The total height of the facility with AT&T's antennas would not exceed 135 feet agl. (Applicant 1, Tab 4 – Sheet A-1; Applicant 4, response 10)

71. Platform antenna mounts are a safer and more structurally sound appliance to mount antennas on a tower as opposed to T-arms. T-arm antenna mounts are also less desirable than platform mounts because they could affect the mounting of equipment such as RRHs. However, T-arms would not affect coverage. (Applicant 4, response 11; Tr. 1, p. 41)

72. The use of flush-mounted antennas would necessitate a taller tower to accommodate multiple antenna heights in order to maintain RF coverage and effectively provide for future co-location on the structure. The tower would have to be at least 20 feet taller for AT&T to utilize flush-mounted antennas. (Applicant 4, response 11; Tr. 1, p. 21)

73. An irregular shaped approximately 3,617.5 square foot fenced equipment compound would be established at the base of the tower. AT&T would install its equipment within a 11-foot 5-inch by 20-foot equipment shelter located within the compound. AT&T's proposed backup generator would be located within a 4-foot by 7-foot area inside the fenced compound and adjacent to the equipment shelter. (Applicant 1, Tab 4 – Sheet C-3)

74. Two exterior wall-mounted air conditioning units would be attached to AT&T's proposed equipment shelter to cool the radio equipment. (Applicant 4, response 55, Tab 9, p. 1)

75. The proposed equipment compound would be surrounded by an eight-foot high chain-link fence. The fence would have a mesh size of 1 ¼ inches. The Applicant's proposed compound fence would have a gate that would be locked for security purposes. (Applicant 1, Tab 1 – General Facility Description and Tab 4 – Sheet A-3; Tr. 1, p. 24)

76. No other wireless carriers have expressed an interest in co-locating on the proposed tower at this time or relocating from the existing HI HO Facility. (Tr. 1, pp. 14 and 45)

77. Development of the site would not require any cutting. Approximately 20 to 25 cubic yards of fill would be required. (Applicant 4, response 7)

78. No new access from Evergreen Street to the proposed tower compound is proposed because the tower compound would be located very close to the property line with Evergreen Street. (Applicant 1, Sheet C-3)

79. Utilities would be installed underground to the site from an existing pole located to the north and on the same side of Evergreen Street. If approved, the final details of the utility connections would be included in the D&M Plan. (Tr. 1, pp. 50-51)

80. Pursuant to CGS § 16-50p(a)(3)(G), the nearest school is the Maplewood Annex Elementary School approximately 0.43 miles southwest of the proposed facility. The nearest commercial child day care facility is Saint Paul's Child Development Center approximately 0.44 miles northeast of the proposed facility. (Applicant 1, Tab 8 – Visibility Study, p. 4 and Viewshed Map; Applicant 4, response 3)

81. The nearest property boundary from the proposed tower is approximately 38 feet to the southwest (Guzman property). This property contains a three-family residential structure. (Applicant 1, Tab 4 – Sheet C-1; Applicant 4, response 5; Tr. 1, p. 18)

82. There are approximately 75 residential structures within 1,000 feet of the proposed tower site. (Applicant 4, response 4)

83. If approved, the construction details related to removing the temporary tower would be included with the D&M Plan for the proposed permanent facility. (Applicant 4, response 20)

84. Site preparation work would commence following Council approval of a D&M Plan and the issuance of a Building Permit by the City of Bridgeport. The site preparation phase would be expected to be completed in two weeks given that most of the work will have been done already for the temporary tower. Installation of the monopole, antennas and associated equipment would be expected to take an additional two weeks. The duration of the total construction schedule would be expected to be approximately four weeks. Facility integration and system testing for carrier equipment would be expected to require an additional two weeks after construction is completed. (Applicant 1, p. 20)

85. The estimated cost of the proposed facility is:

Tower and Foundation	$65,000
Site Development*	0
Utility Installation	10,000
Subtotal: Blue Sky's Cost	**$75,000**
Antennas and Equipment	$250,000
Subtotal: AT&T's Cost	**$250,000**
Total Estimated Costs	**$325,000**

*Site development costs are minimal because the site was largely developed during the temporary tower installation.
(Applicant 1, pp. 19-20; Tr. 1, p. 15)

Public Safety

86. 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)

87. AT&T would be in compliance with the requirements of the 911 Act and would provide Enhanced 911 services. (Applicant 1, p. 11)

88. 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 Admin. Notice No. 20 – FCC Text-to-911: Quick Facts & FAQs)

89. AT&T and this facility would be capable of supporting text-to-911 service once the PSAP is capable of receiving text-to-911. AT&T is not aware that this functionality has yet been requested for this area. (Applicant 4, response 49)

90. 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 certain wireless phone models and other enabled mobile devices to receive geographically-targeted, text-like 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)

91. The tower would be constructed in accordance with the governing standard in the State of Connecticut for tower design in accordance with the currently adopted International Building Code. (Applicant 1, Tab 3 – Facilities and Equipment Specifications)

92. No notice is required to the Federal Aviation Administration. Tower marking or lighting is not required. (Applicant 1, Tab 3 – Facilities and Equipment Specification; Applicant 1, Tab 4 – TOWAIR Determination Results)

93. AT&T's equipment shelter and backup generator would be locked and alarmed and monitored remotely on a 24/7 basis. (Applicant 4, response 15)

94. The tower set back radius extends beyond the property boundary approximately 97-feet to the southwest onto the Guzman property. A tower design yield point can be employed at approximately the 100-foot level of the tower and conservatively result in a tower setback radius of 35 feet, which would remain within the subject property boundaries. (Applicant 1, Tab 4 – Sheets A-1 and C-1; Applicant 4, response 6; Tr. 1, p. 18)

95. The cumulative worst-case maximum power density from the radio frequency emissions from the operation of AT&T's proposed antennas is 3.98% 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. (Applicant 1, Tab 7 – Power Density Analysis dated August 24, 2015; Council Administrative Notice Item No. 2 – FCC OET Bulletin No. 65)

Emergency Backup Power

96. 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. 45)

97. In response to the findings and recommendations of the Panel, and in accordance with C.G.S. §16-50*ll*, the Council, in consultation and coordination with the Department of Energy and Environmental Protection, the Department of Emergency Services and Public Protection and the Public Utilities Regulatory Authority (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. The study was completed on January 24, 2013. (Council Administrative Notice Item No. 26 – Council Docket No. 432)

98. The Council reached the following conclusions in the study:
    a) "Sharing a backup source is feasible for CMRS providers, within certain limits. Going forward, the Council will explore this option in applications for new tower facilities;" and
    b) "The Council will continue to urge reassessment and implementation of new technologies to improve network operations overall, including improvements in backup power."

    (Council Administrative Notice Item No. 26 – Council Docket No. 432)

99. For backup power, AT&T proposes to install a 50-kilowatt diesel-fueled generator for its own use. AT&T's backup generator would have a 210-gallon diesel fuel tank to provide approximately 48 hours of run time before it requires refueling. If approved, the specific details of the backup generator would be included in the D&M Plan. (Applicant 4, responses 42 and 43; Tr. 1, p. 23)

100. The proposed backup generator would have a double-walled fuel tank with leak detection equipment connected to a remote alarm to protect against fuel leakage. Also, the generator unit vessel itself would protect against oil or coolant leakage. If approved, the final details of the generator fluid containment measures could be included in the D&M Plan. (Tr. 1, p. 23)

101. While AT&T's backup generator would be for its own use, if approved, reserved space for a future shared generator could be considered in the D&M Plan. (Applicant 4, response 42; Tr. 1, p. 31)

102. AT&T would also have a battery backup in order to provide uninterrupted power during the generator start-up delay period. The battery backup system alone could provide up to eight hours of backup power. (Applicant 4, response 44)

103. 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 State Noise Control Regulations. (R.C.S.A. §22a-69-1.8)

Environmental Considerations

104. The proposed project is not expected to have an adverse impact on contributing resources listed on or eligible for listing on the National Register of Historic Places. (Applicant 1, Tab 10, SHPO Letter dated September 24, 2015)

105. There are no wetlands located within the vicinity of the proposed facility. The nearest wetland is off-site and associated with the Pequonnock River. It is located approximately 0.2 miles to the southeast. Thus, no adverse impacts to wetlands are anticipated. (Applicant 1, pp. 14 and 19; Applicant 4, response 56)

106. The proposed project would comply with the *2002 Connecticut Guidelines for Soil Erosion and Sedimentation Control*. (Applicant 1, p. 19)

107. The tower site is generally located within the 500-year flood zone but outside the 100-year flood zone. (Applicant 4, response 8, Tab 3)

108. The specific heights of equipment versus flood elevations are listed in the table below.

Equipment	Height of bottom of equipment above grade	Height of bottom of equipment above mean sea level	100-year flood elevation amsl	500-year flood elevation amsl	Above 100-year flood elevation	Above 500-year flood elevation	Additional height required to raise above 100-year flood elevation	Additional height required to raise above 500-year flood elevation
Tower Base	~0 feet	~13 feet	12.25 feet	15.31 feet	Yes	No	None	>2.31 feet
Equipment shelter (includes bottom railing)	2 feet	~15 feet (lowest at eastern corners)	12.25 feet	15.31 feet	Yes	No	None	>0.31 feet
Generator	~3.16 feet	16.17 feet	12.25 feet	15.31 feet	Yes	Yes	None	None
Generator Fuel Tank	~ 0 feet	~14 feet (lowest at eastern corners)	12.25 feet	15.31 feet	Yes	No	None	>1.31 feet

(Applicant 1, Tab 4 – Sheets A-1, A-2 and C-2 and C-3; Tr. 1, p. 32 and 34)

109. No trees would be removed as a result of the proposed project. (Tr. 1, p. 17)

110. The proposed facility is not located near an Important Bird Area (IBA), as designated by the National Audubon Society. The nearest IBA to the proposed tower site is Stratford Great Meadows, approximately four miles to the southeast of the proposed tower site. (Applicant 4, response 52; Council Administrative Notice Item No. 63 – Connecticut Important Bird Areas)

111. The proposed facility would comply with the United States Fish and Wildlife Service guidelines for minimizing the potential for telecommunications towers to impact bird species. (Applicant 4, response 53)

112. The Applicant does not anticipate the need for blasting at the proposed site. (Applicant 4, response 18)

113. With mitigation measures (e.g. noise mats) installed along the fence line parallel to the southwestern property line, noise from the air conditioning units and the backup generator* at the proposed facility would not exceed DEEP Noise Control Regulations at the property boundaries.

*While exempt as an emergency generator, the backup generator was included in the analysis. (Applicant 4, response 55, Tab 9; Tr. 1, p. 24-25; R.C.S.A. §22a-69-1.8; Applicant Post-Hearing Brief, p. 2 – Supplemental Noise Information)

114. Alternatively, the backup generator could be relocated and the air conditioning units could be moved away from the southern property line both closer to and in the direction of the City property to the north. This would achieve compliance with DEEP noise standards without the need for noise mats. If approved, this configuration could be considered in the D&M Plan. (Applicant Post-Hearing Brief, p. 2 – Supplemental Noise Information)

115. By letter dated July 13, 2015, DEEP has reviewed the Natural Diversity Database and does not expect that the proposed project would adversely impact State-listed species. (Applicant 1, Tab 9, DEEP Letter dated July 13, 2015)

Visibility

116. The proposed tower would be located in a highly urbanized area where significant vegetation is absent. Thus, only a year-round visibility analysis was performed. The proposed tower would be visible year-round from approximately 89 acres within a 0.5 mile radius of the site (refer to Figure 17). (Applicant 4, responses 57 and 58)

117. Of the 75 residences located with 1,000 feet of the proposed tower, views of the tower are possible from all 75. (Applicant 1, response 60)

118. The proposed tower (similar to the existing temporary tower) would be visible along Evergreen Street and in between local buildings and street trees within an approximately ¼ mile radius of the proposed site. Select areas of visibility would exist beyond this distance, but visibility would be limited to brief glimpses between and/or above intervening structures. (Applicant 1, Tab 8 – Visibility Study, p. 3; Council Administrative Notice Item No. 28 – Petition No. 1169, Visibility Study, p. 3)

119. The proposed tower (similar to the existing temporary tower) would be visible to southbound motorists from a portion of Route 8/25 between Chopsey Hill Road and Lindley Avenue. The opportunity for views from the northbound lanes is brief due to the direction of the travel. (Applicant 1, Tab 8 – Visibility Study, p. 3; Council Administrative Notice Item No. 28 – Petition No. 1169, Visibility Study, p. 3)

120. Visibility of the proposed tower from specific locations within a one-half-mile radius of the site is presented in the table below:

Specific Location	Photo location on Map*	Approx. Portion of Facility Visible	Approx. Distance & Direction to Tower
Evergreen Street at River Street	1	Year-round – 135 feet	175 feet east
Commercial area south of subject property	2	Year-round – 92 feet	395 feet west
North Avenue near NAPA Auto Parts	3	Year-round – 135 feet	560 feet east
Evergreen Street at Lindley Street	4	Year-round – 135 feet	680 feet northeast
North Avenue near Housatonic Street	5	Year-round – 107 feet	1,080 feet northeast
Roosevelt Street near Hill Street	6	Year-round – 97 feet	980 feet southeast
River Street near Meriam Street	7	Year-round – 135 feet	530 feet northwest

*See Figure 17.
(Applicant 1, Tab 8 – Visibility Analysis)

121. There are no known hiking trails located within a two-mile radius of the proposed tower site. (Applicant 4, response 60)

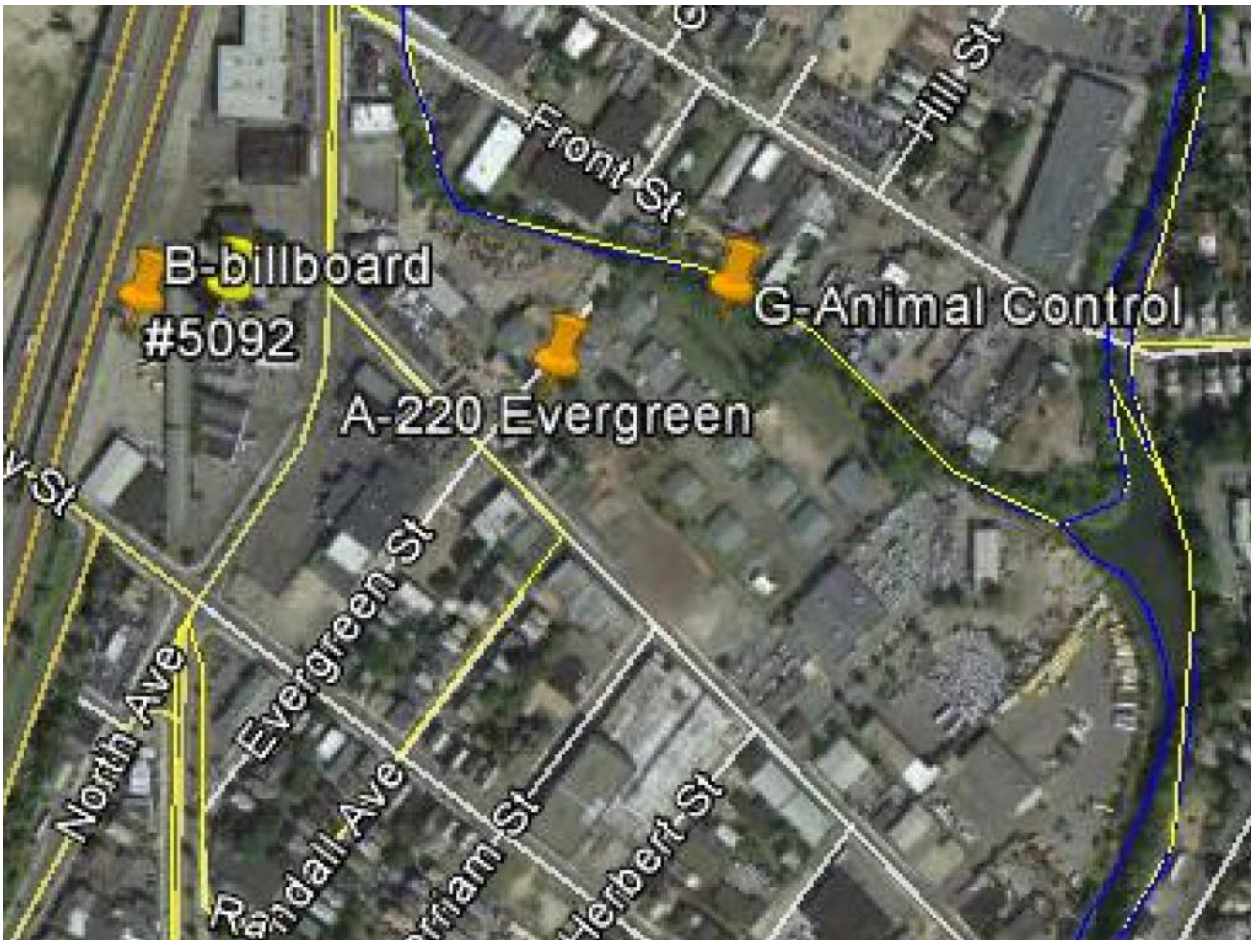
122. The industrial setting of the site does not provide the proper context to warrant a stealth design. (Applicant 4, response 54)

123. No landscaping is proposed around the tower compound. (Applicant 1, Tab 4 – Sheet C-3)

124. The proposed tower would be seen within the context of existing manufacturing, warehousing, and commercial buildings. Thus, the tower would be visually consistent with such views. (Applicant 1, Tab 8 – Visibility Study, p. 3)

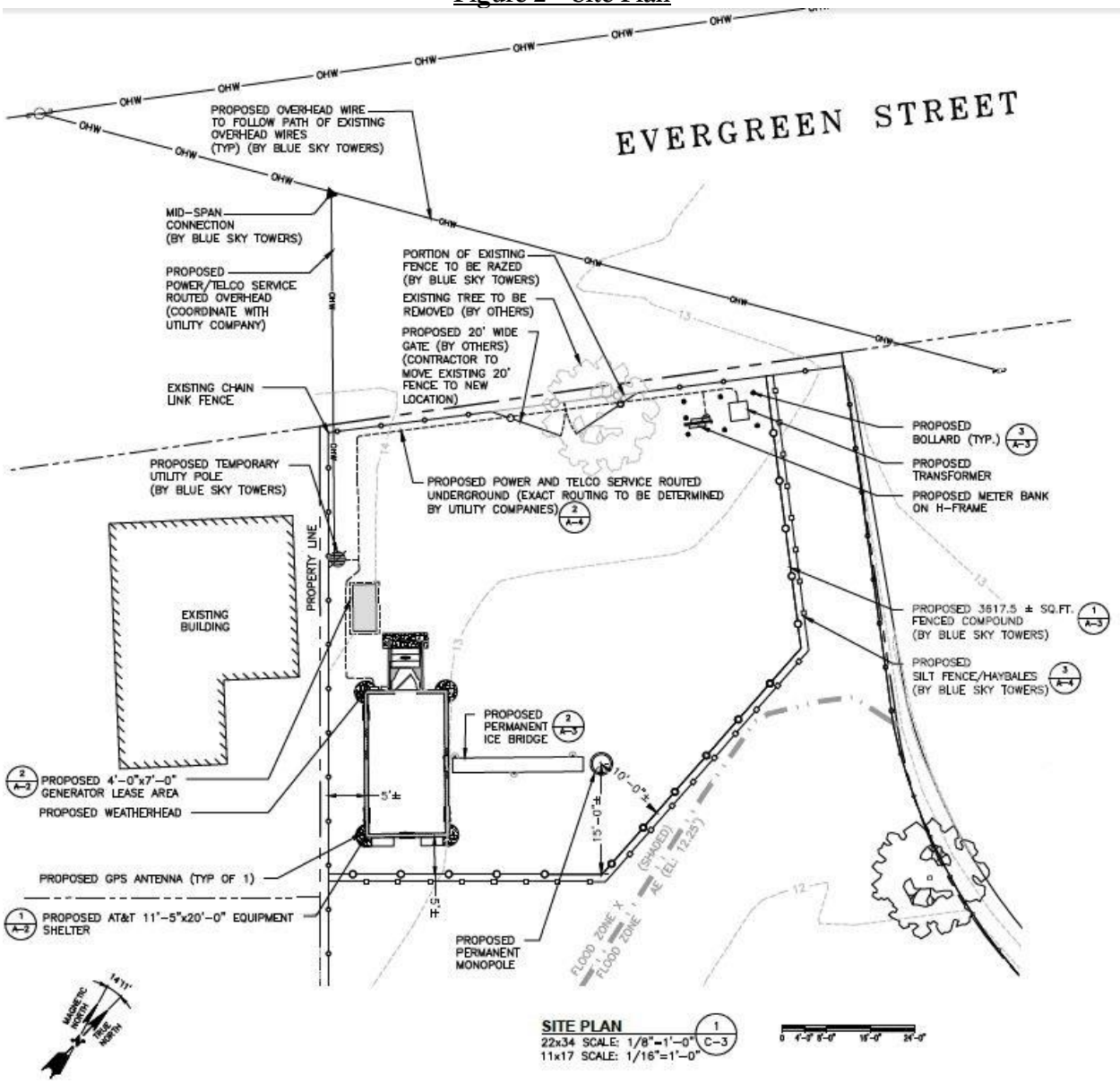
125. The galvanized gray monopole would eventually dull to a softer gray. (Tr. 1, p. 22)

Figure 1 – Aerial Map – Proposed Site at 220 Evergreen Street



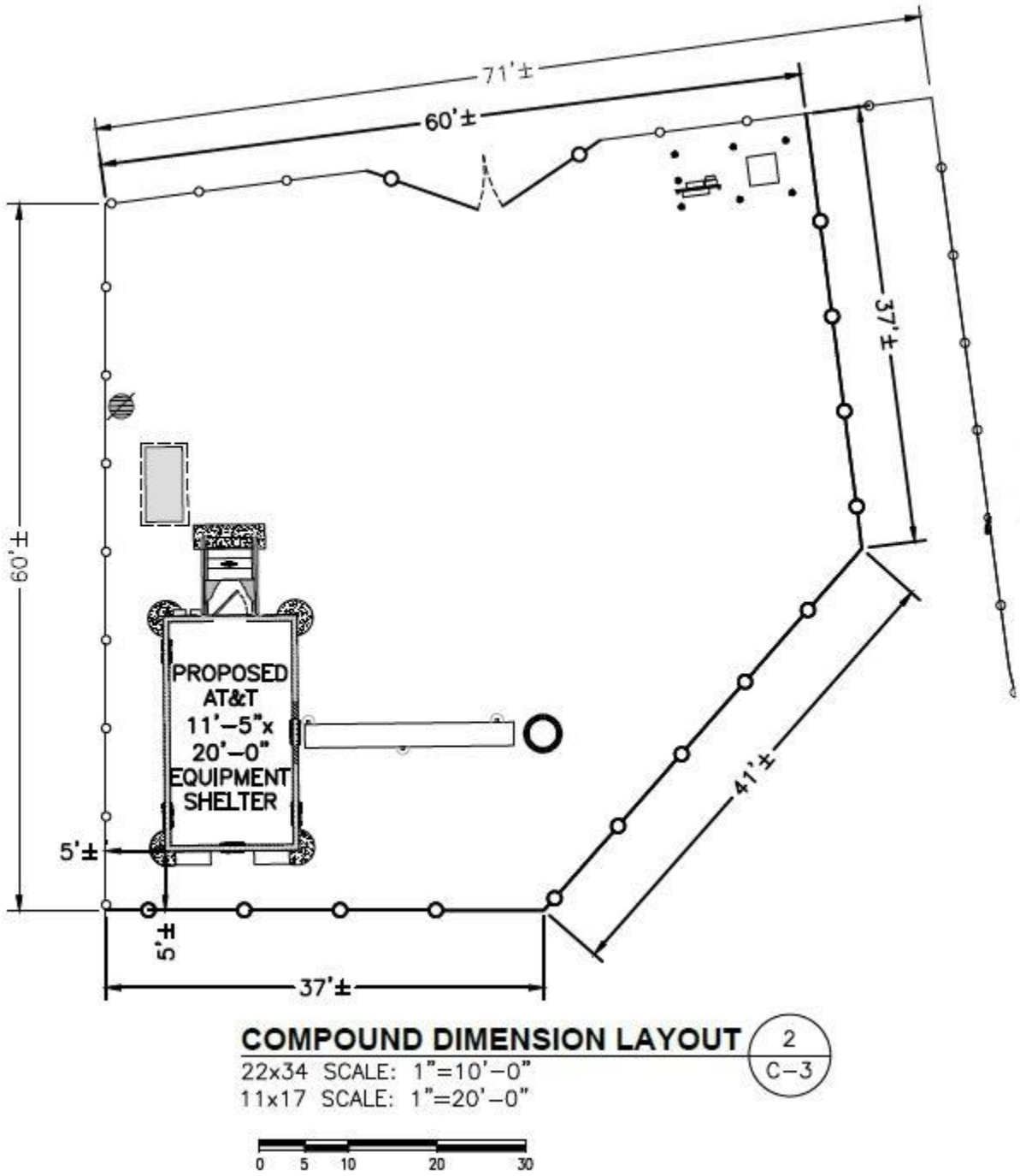
(Applicant 1, Tab 2 – Site Search Map)

Figure 2 – Site Plan



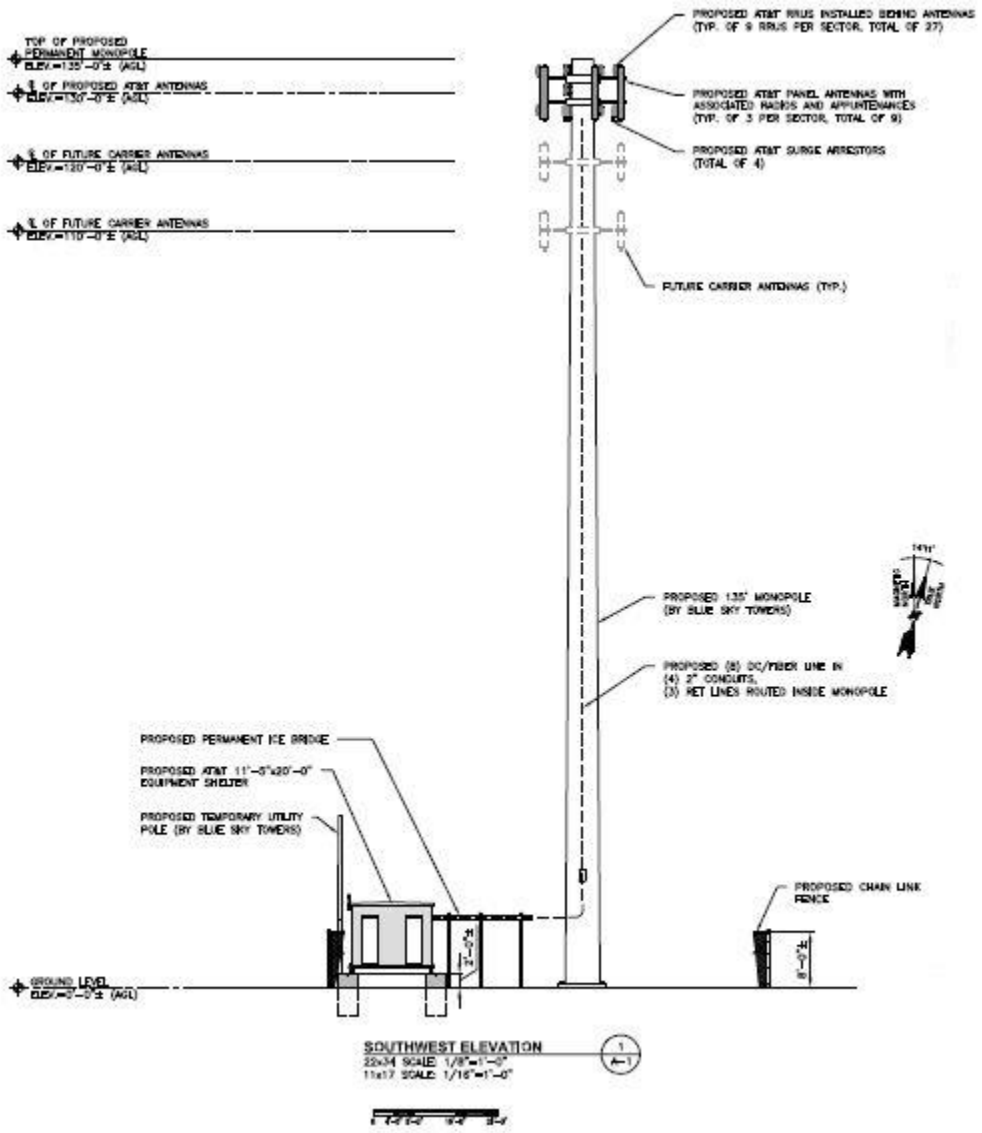
(Applicant 1, Tab 4 – Sheet C-3)

Figure 3 – Compound Plan



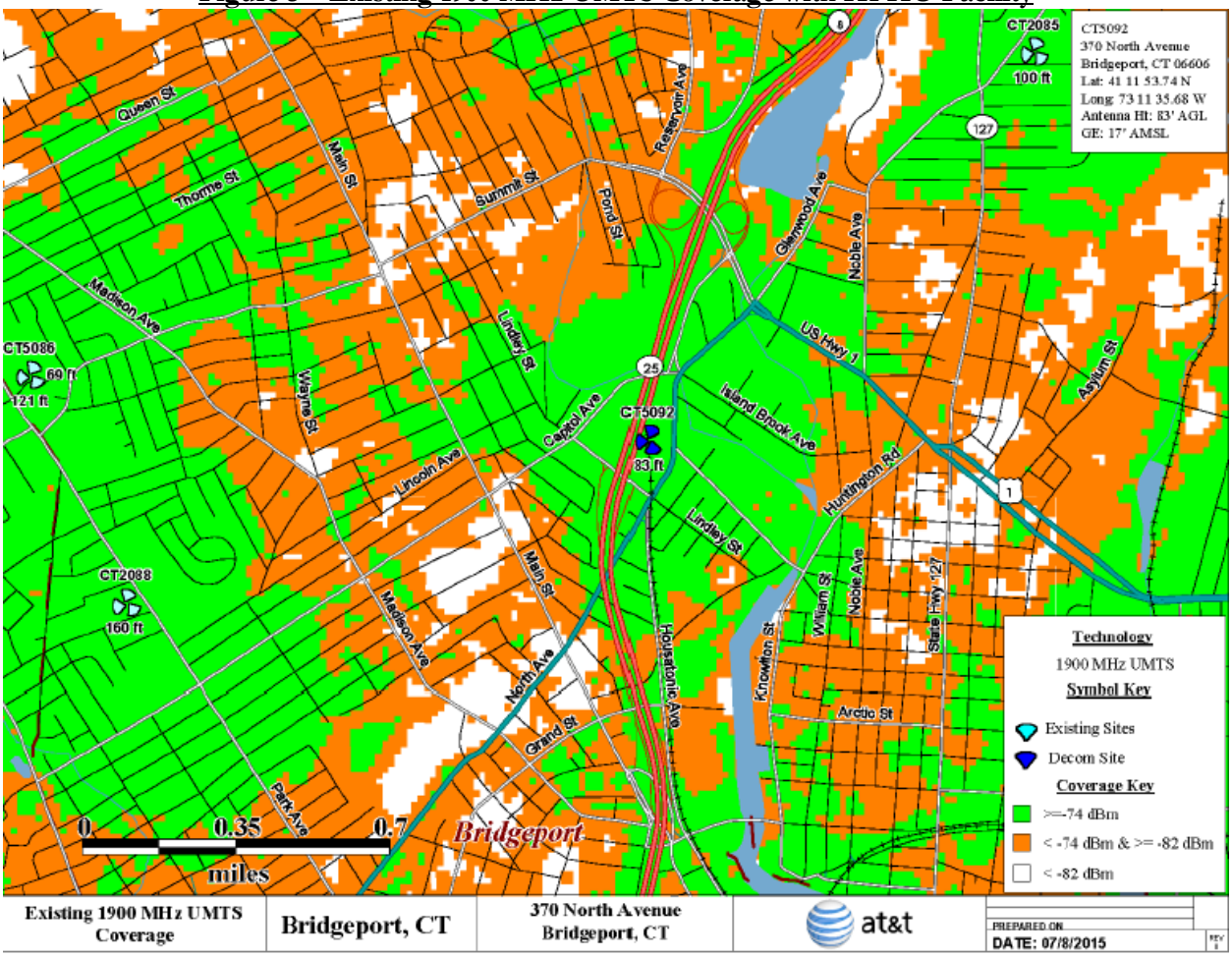
(Applicant 1, Tab 4 – Sheet C-3)

Figure 4 – Tower Profile Drawing



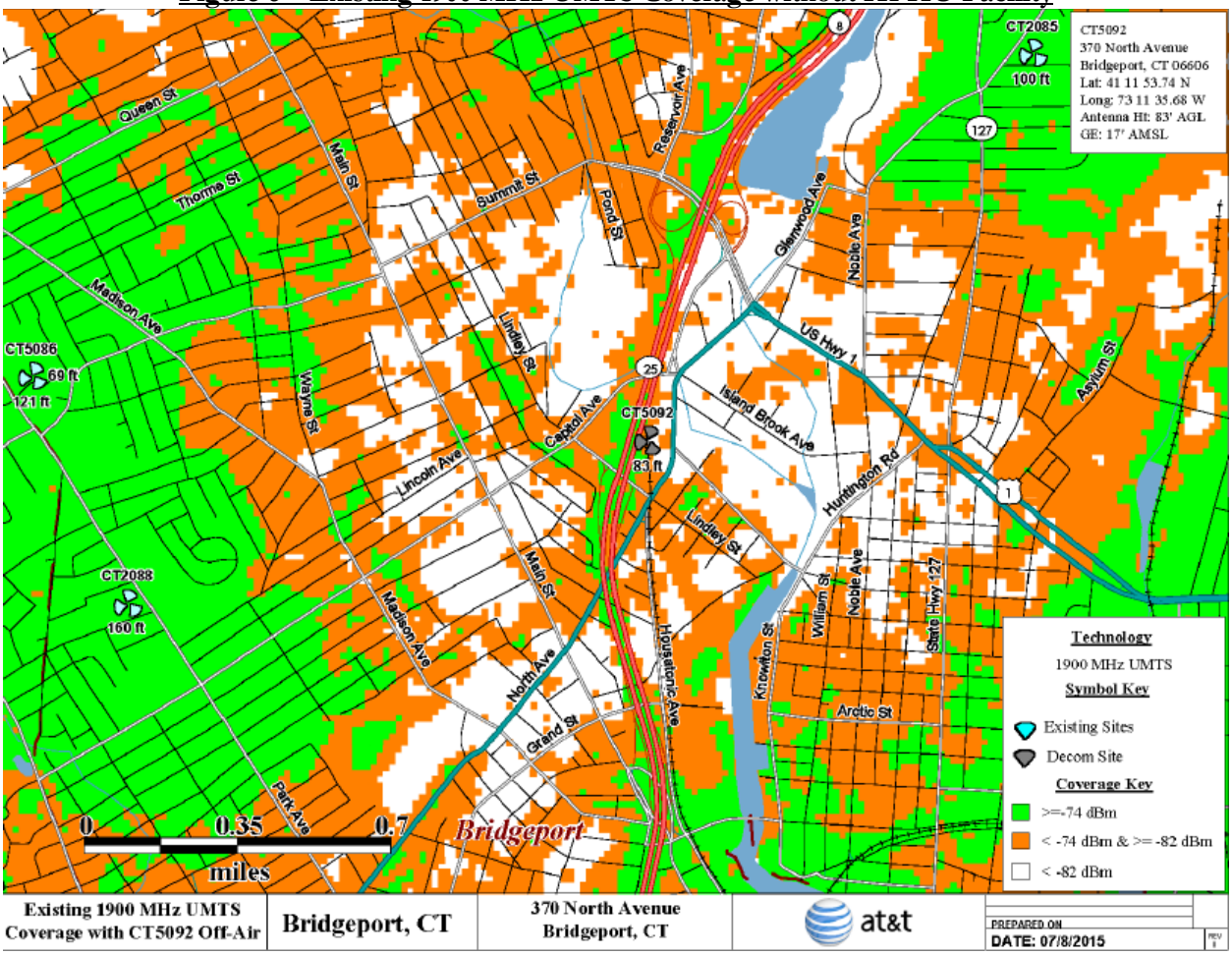
(Applicant 1, Tab 4 – Sheet A-1)

Figure 5 – Existing 1900 MHz UMTS Coverage with HI HO Facility



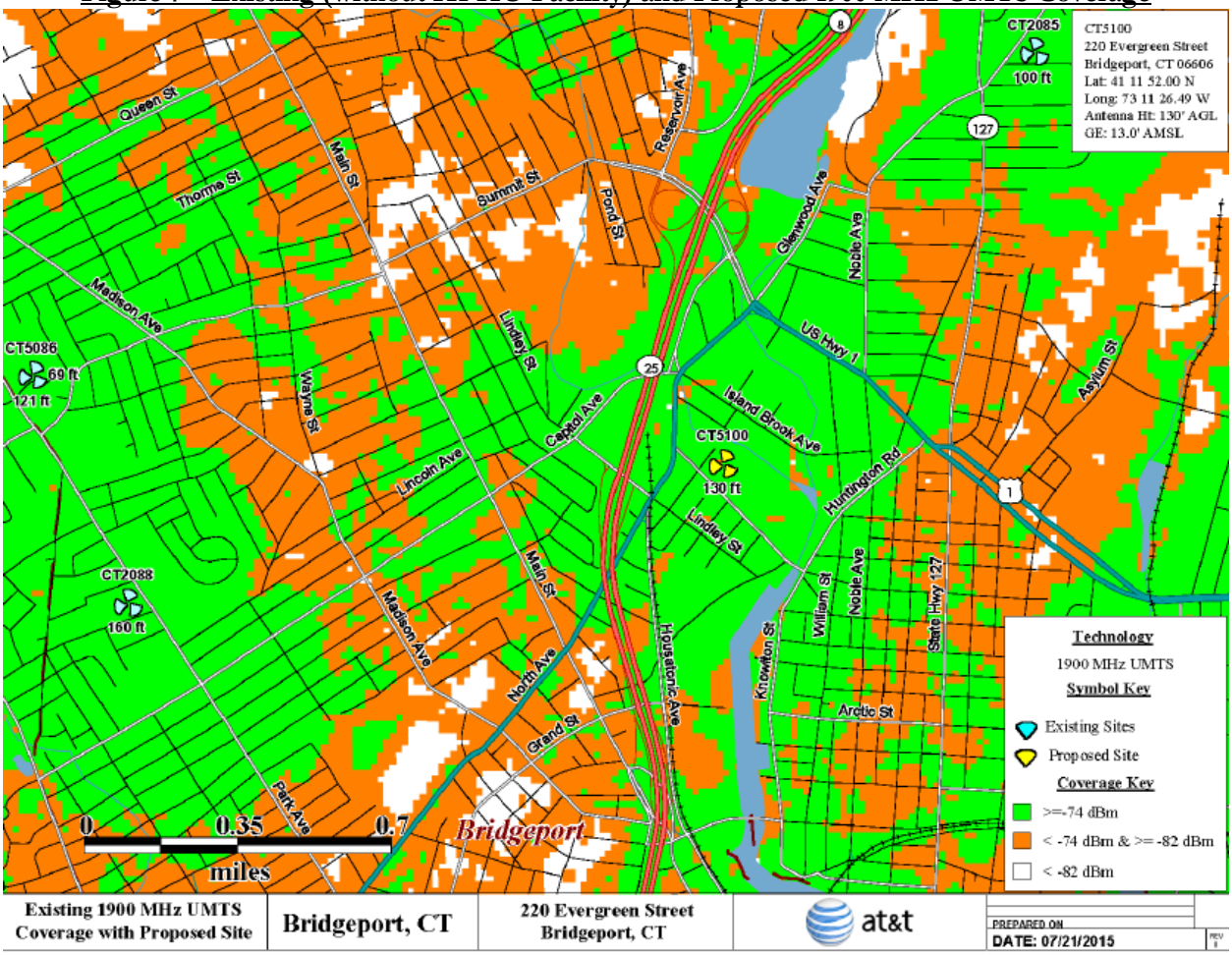
(Applicant 1, Tab 1 – Radio Frequency Analysis Report, p. 6)

Figure 6 – Existing 1900 MHz UMTS Coverage without HI HO Facility



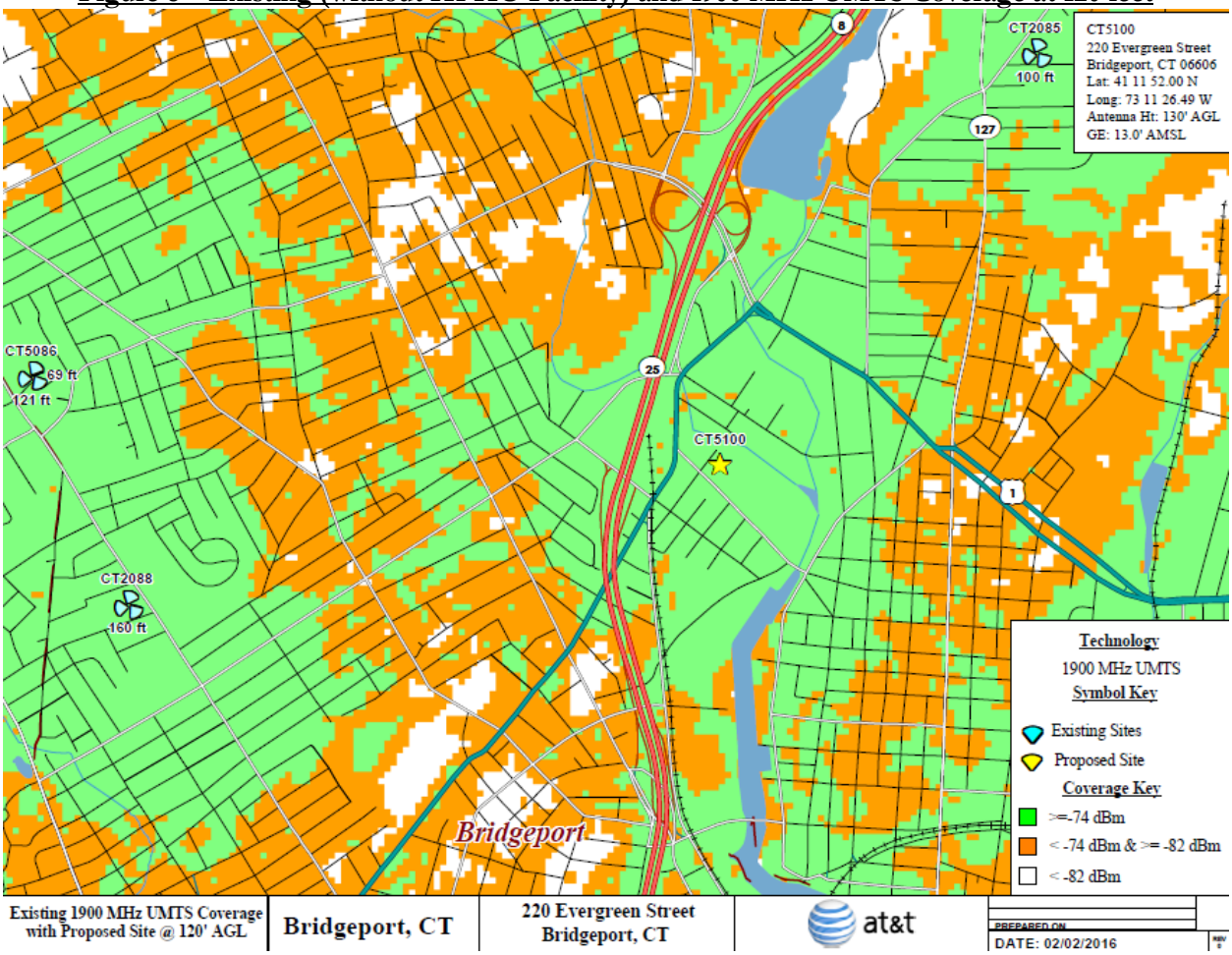
(Applicant 1, Tab 1 – Radio Frequency Analysis Report, p. 7)

Figure 7 – Existing (without HI HO Facility) and Proposed 1900 MHz UMTS Coverage



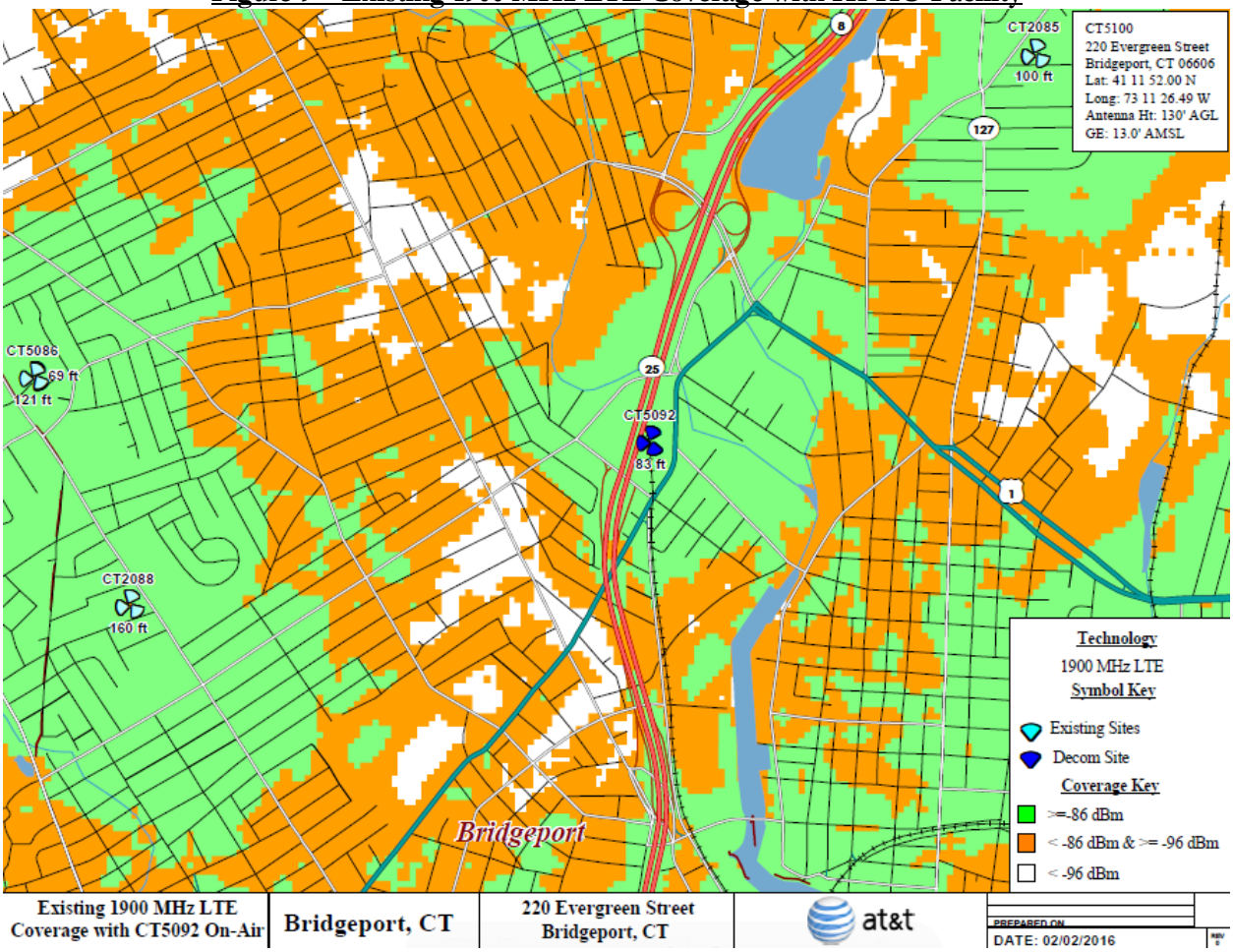
(Applicant 1, Tab 1 – Radio Frequency Analysis Report, p. 8)

Figure 8 – Existing (without HI HO Facility) and 1900 MHz UMTS Coverage at 120 feet



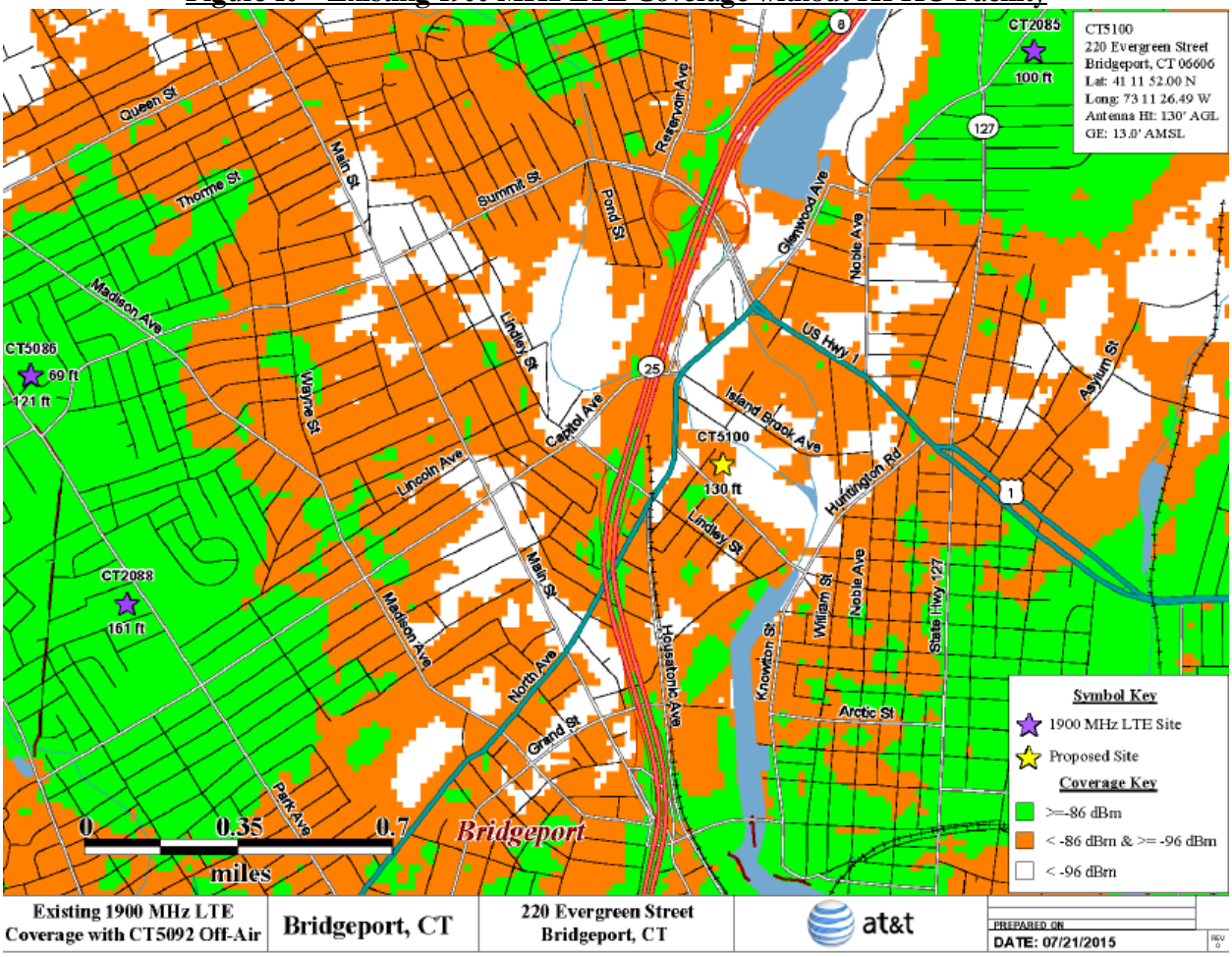
(Applicant 4, response 38, Tab 6)

Figure 9 – Existing 1900 MHz LTE Coverage with HI HO Facility



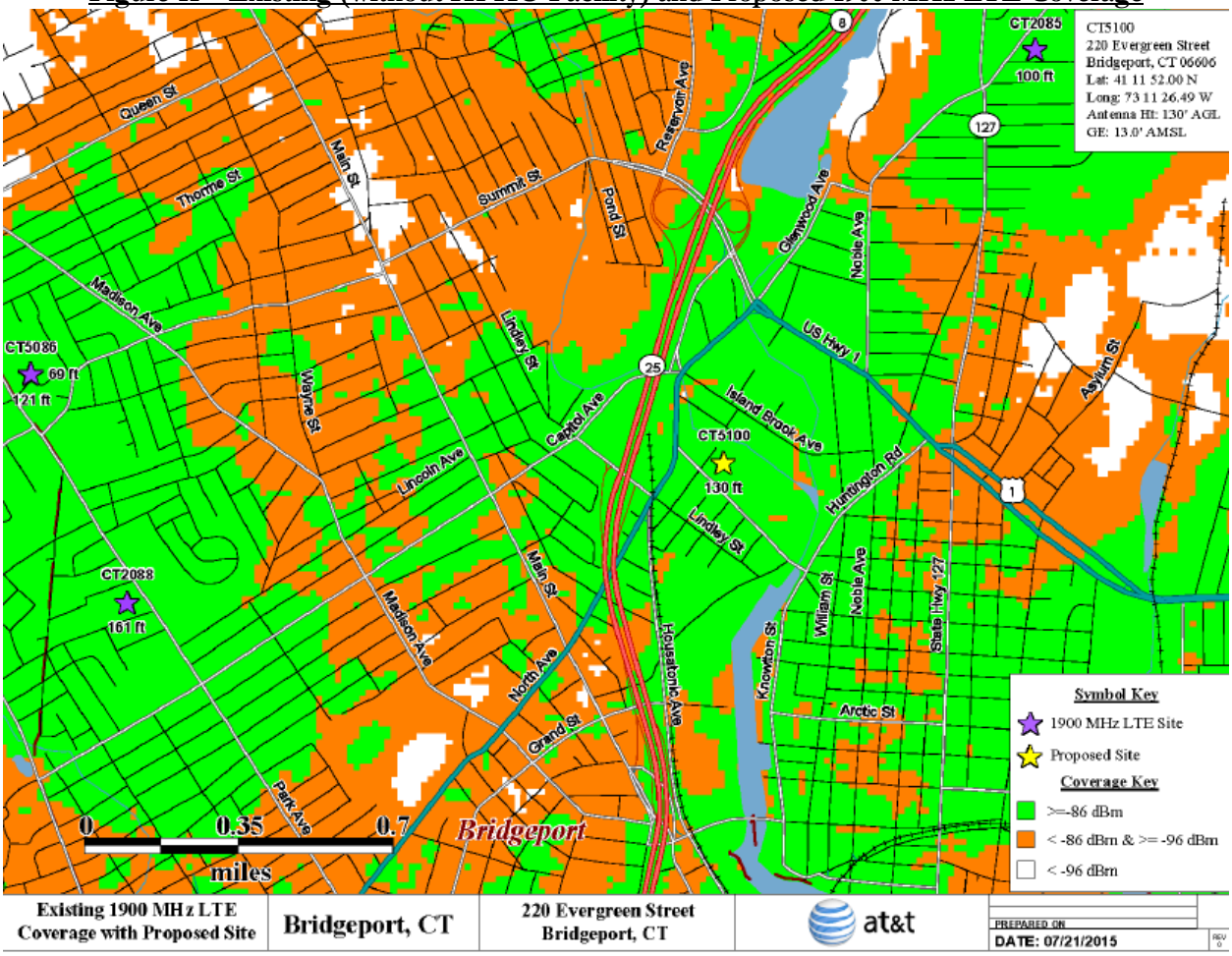
(Applicant 4, response 37, Tab 5)

Figure 10 – Existing 1900 MHz LTE Coverage without HI HO Facility



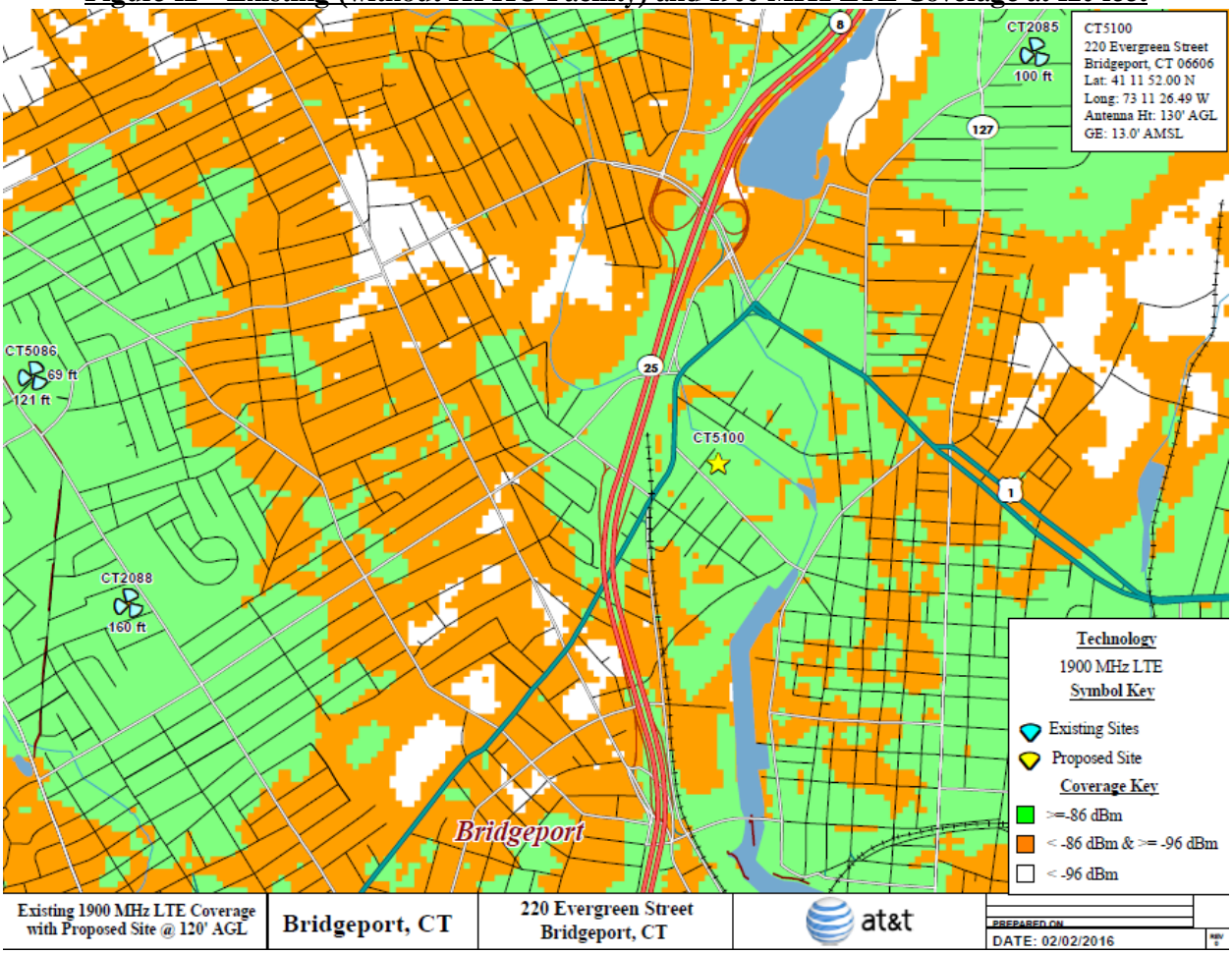
(Applicant 1, Tab 1 – Radio Frequency Analysis Report, p. 12)

Figure 11 – Existing (without HI HO Facility) and Proposed 1900 MHz LTE Coverage



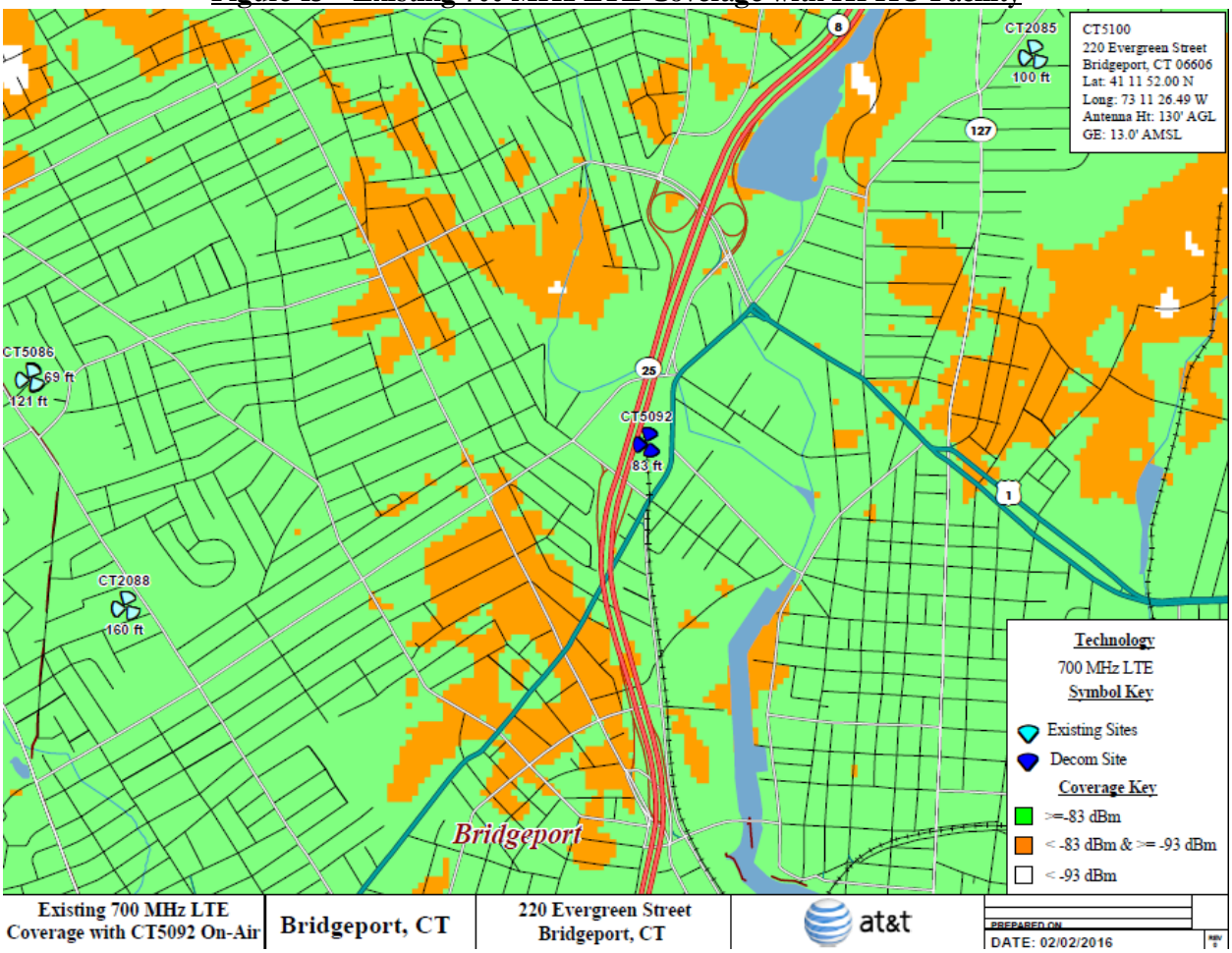
(Applicant 1, Tab 1 – Radio Frequency Analysis Report, p. 13)

Figure 12 – Existing (without HI HO Facility) and 1900 MHz LTE Coverage at 120 feet



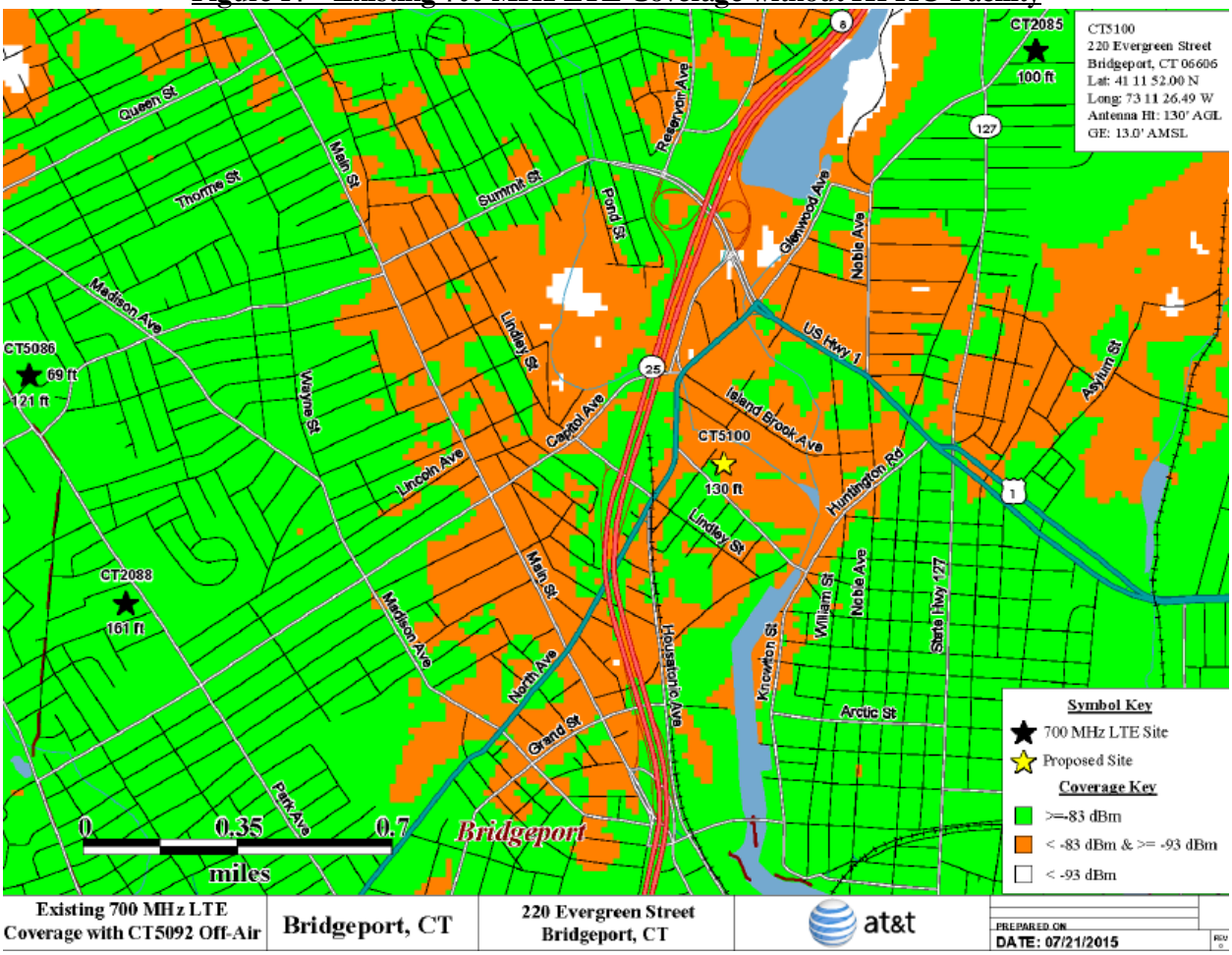
(Applicant 4, response 38, Tab 6)

Figure 13 – Existing 700 MHz LTE Coverage with HI HO Facility



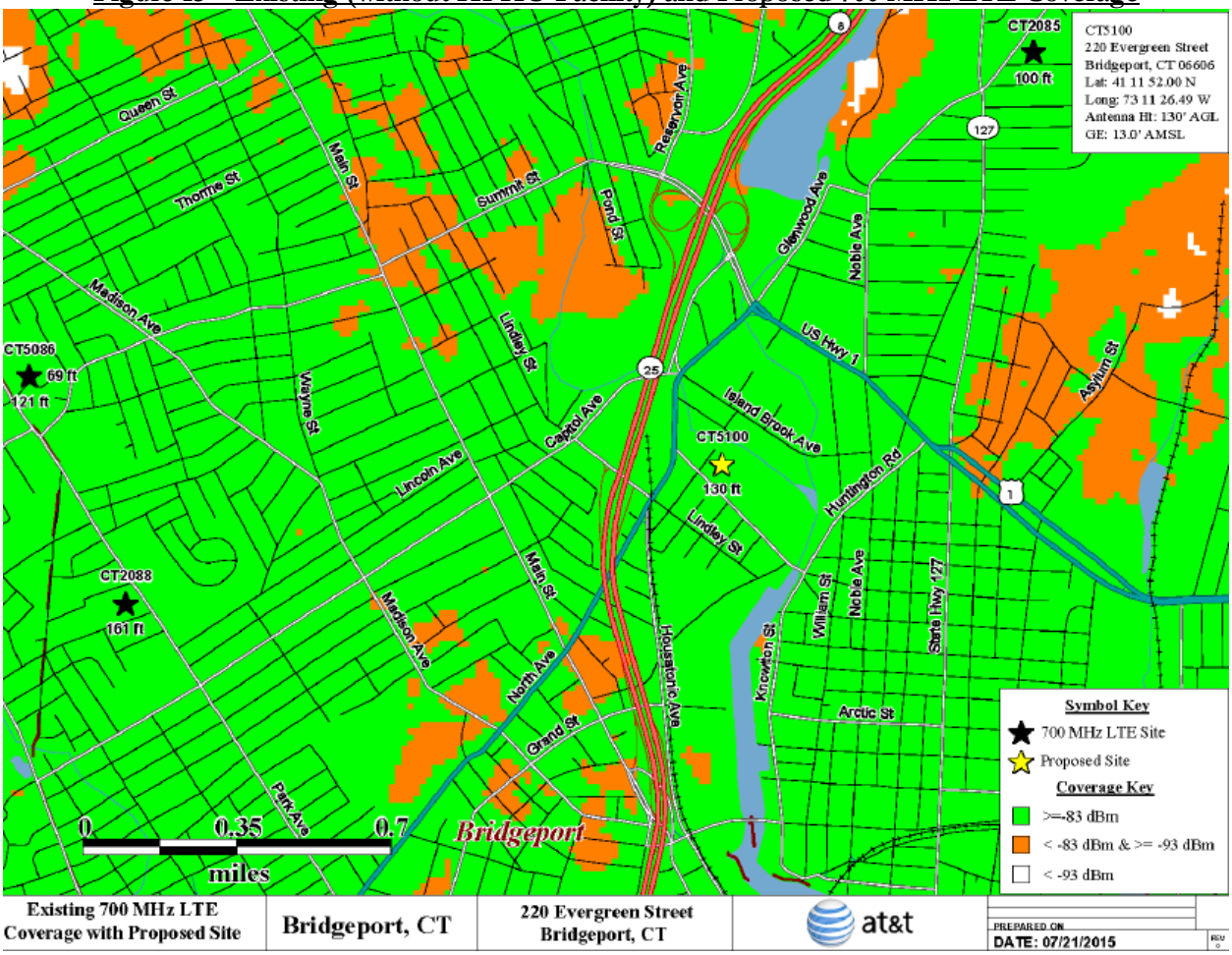
(Applicant 4, response 37, Tab 5)

Figure 14 – Existing 700 MHz LTE Coverage without HI HO Facility



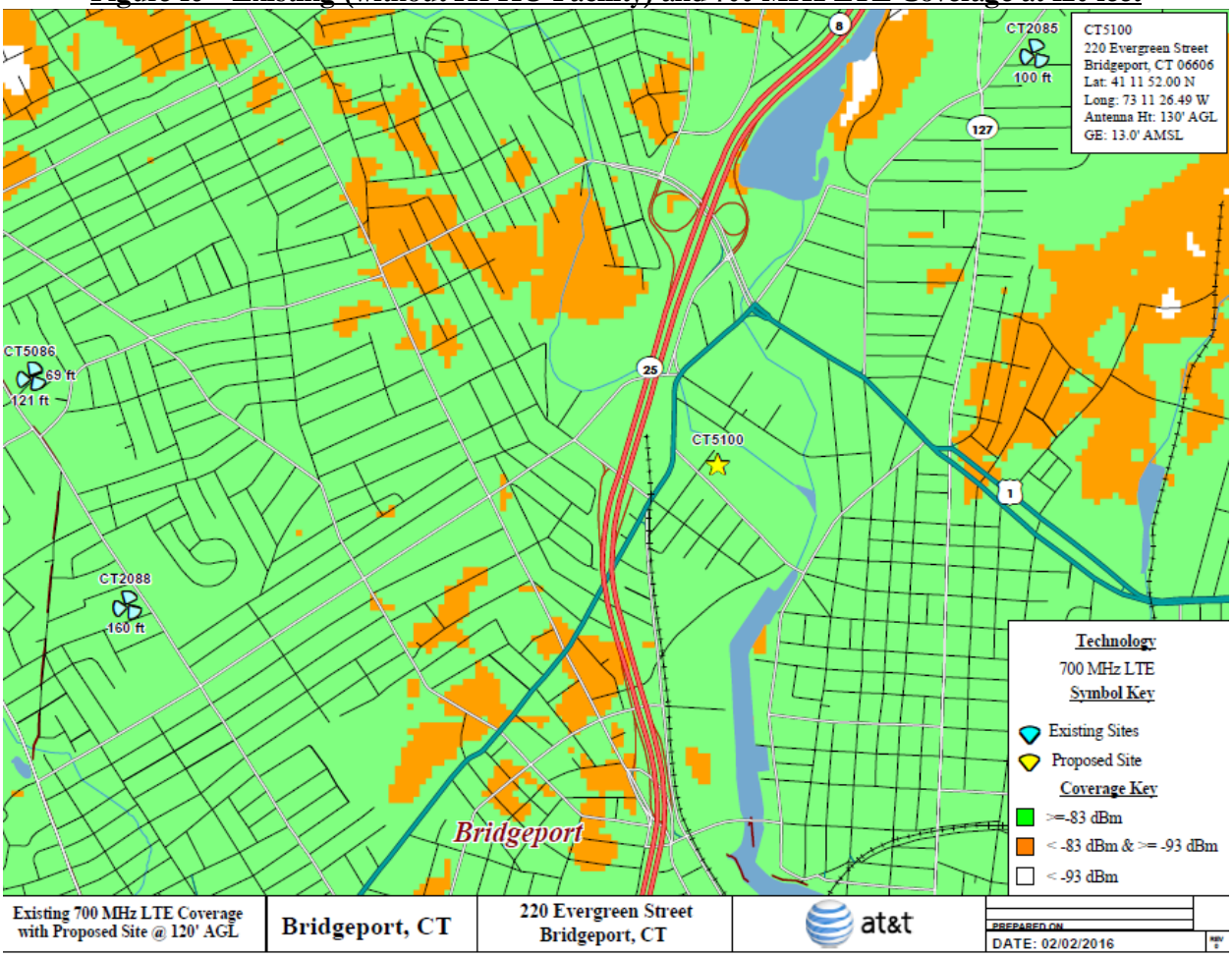
(Applicant 1, Tab 1 – Radio Frequency Analysis Report, p. 14)

Figure 15 – Existing (without HI HO Facility) and Proposed 700 MHz LTE Coverage



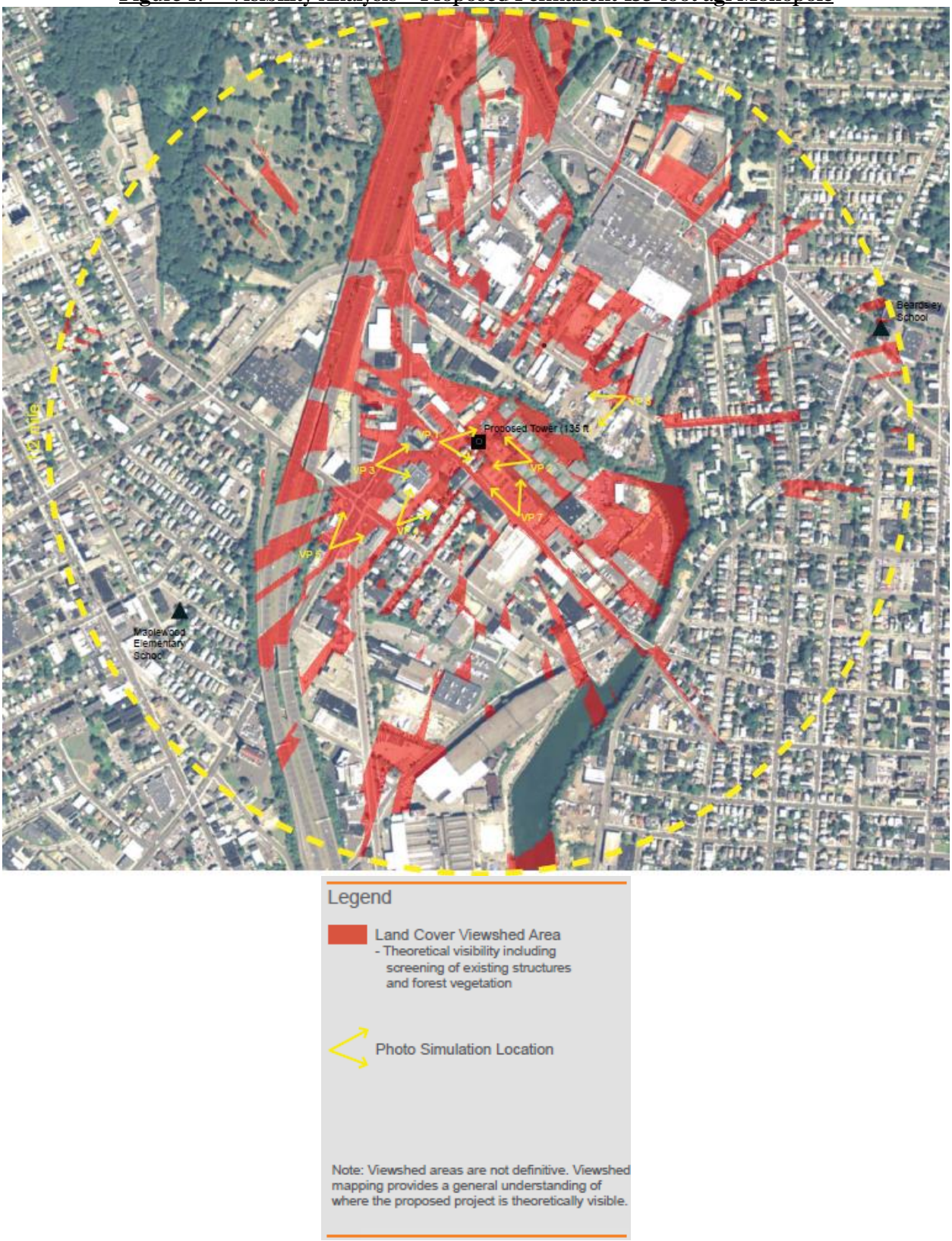
(Applicant 1, Tab 1 – Radio Frequency Analysis Report, p. 15)

Figure 16 – Existing (without HI HO Facility) and 700 MHz LTE Coverage at 120 feet



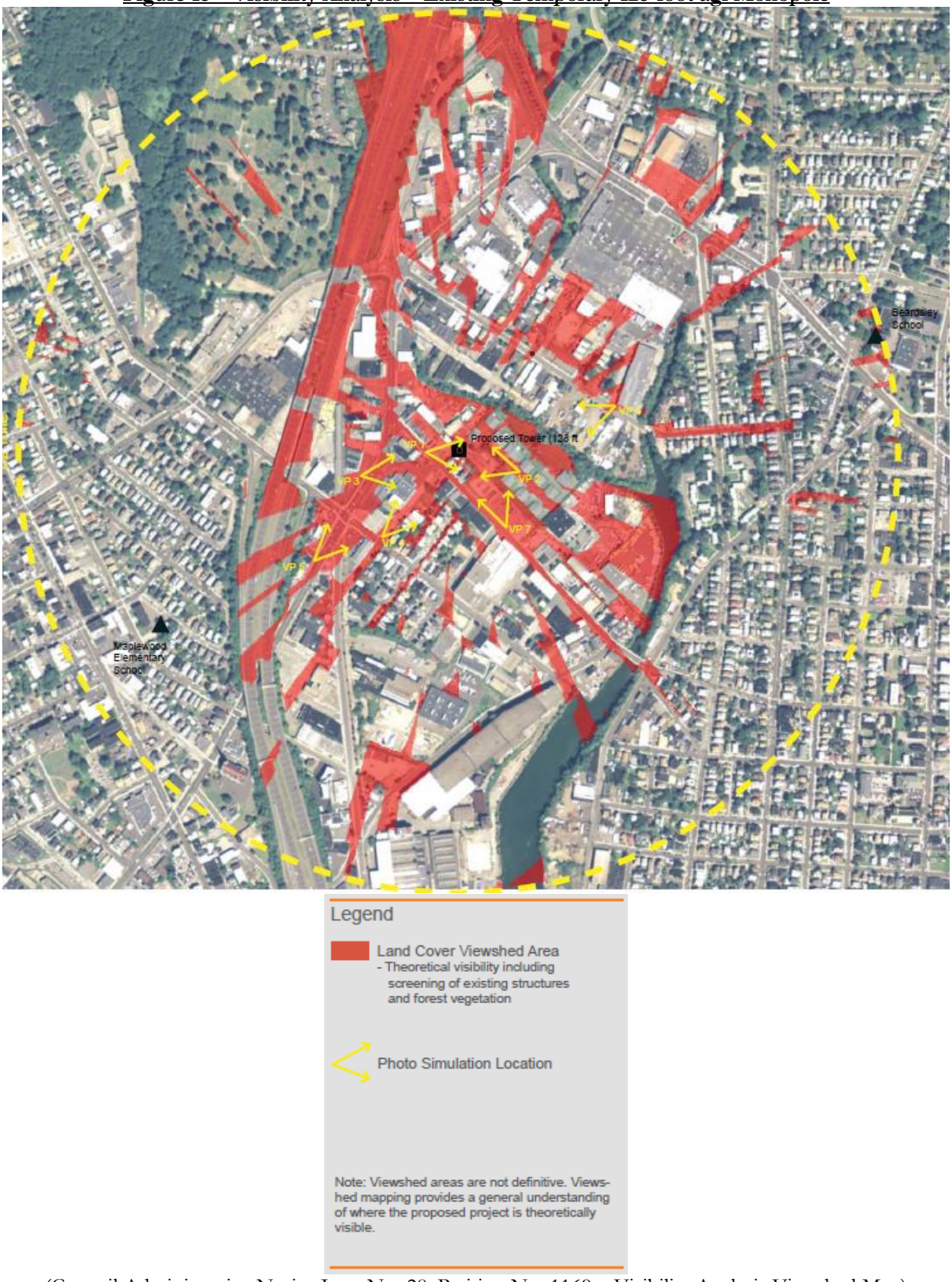
(Applicant 4, response 38, Tab 6)

Figure 17 – Visibility Analysis – Proposed Permanent 135-foot agl Monopole



(Applicant 1, Tab 8 – Viewshed Map)

Figure 18 – Visibility Analysis – Existing Temporary 128-foot agl Monopole



(Council Administrative Notice Item No. 28, Petition No. 1169 – Visibility Analysis Viewshed Map)