

DOCKET NO. 427 – North Atlantic 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 one of two sites: 171 Short Beach Road, Branford, or 82 Short Beach Road, East Haven, Connecticut. } Connecticut
Siting
Council
November 2, 2012

DRAFT Findings of Fact

Introduction

1. North Atlantic Towers, LLC and New Cingular Wireless PCS, LLC (collectively the Applicant), in accordance with the provisions of Connecticut General Statutes (CGS) § 16-50g through 16-50aa, applied to the Connecticut Siting Council (Council) on April 24, 2012 for a Certificate of Environmental Compatibility and Public Need (Certificate) for the construction, maintenance, and operation of a wireless telecommunications facility located at either 171 Short Beach Road, Branford or 82 Short Beach Road, East Haven, Connecticut (refer to Figures 1 & 2). (Applicant 1, p. 3)
2. North Atlantic Towers, LLC (NAT) is a Delaware limited liability company with an office in Bradenton Florida. NAT would be the Certificate Holder and would construct and maintain the proposed facility. (Applicant 1, p. 7)
3. New Cingular Wireless PCS, LLC (AT&T) is a Delaware limited liability company with an office in Rocky Hill, Connecticut. AT&T is licensed by the Federal Communications Commission (FCC) to construct and operate a personal wireless service system in Connecticut. (Applicant 1, p. 7)
4. The parties to the proceeding are the Applicant and the Town of Branford. The intervenors to the proceeding are Cellco Partnership d/b/a Verizon Wireless (Cellco), James Beradri, Daniel Criscuolo, Sr. and Pamela Maki, Bruce H. Williams, Jr., Richard Moreland, Niki Whitehead, and Niki Whitehead. (Record)
5. The purpose of the proposed facility is to provide wireless service to the Route 142 area in the southeast section of East Haven and the southwest section of Branford, including the Short Beach area. (Applicant 1, p. 4, Tab 1)
6. Pursuant to CGS § 16-50m, the Council held a public hearing on July 10, 2012 at the East Haven Senior Center, 91 Taylor Avenue, East Haven, Connecticut. (Transcript 1 – 07/10/12, 3:00 p.m. [Tr. 1], p. 2; Transcript 2 – 07/10/12, 7:00 p.m. [Tr. 2], p. 2)
7. The Council continued the public hearing in New Britain on August 15, September 11, and October 2, 2012. (Transcript 3 – August 15, 2012 [Tr. 3]; Transcript 4 – September 11, 2012 [Tr. 4]; Transcript 5 – October 2, 2012 [Tr. 5])
8. The Council and its staff conducted an inspection of both proposed sites on July 10, 2012, beginning at 2:00 p.m. The applicant flew a red balloon at each site from 12:00 p.m. to 6:00 p.m. to simulate the height of the proposed facilities. Winds in excess of 10 mph were common for the early portion of the balloon fly, preventing the balloons from reaching full height during the field review. Calmer winds prevailed later in the day, allowing the balloons to reach their respective heights at certain times. (Applicant 9, Q. 10)

9. Notice of the application was sent to all abutting property owners by certified mail. All return receipts were received except for Carl Cheslock (Branford abutter), William Delegorges (East Haven abutter, and James Berardi (East Haven abutter). A second notice was sent to these abutters via first class mail. (Applicant 1, Tab 8; Applicant 2, Q. 1)
10. Pursuant to CGS §16-50(b), public notice of the filing of the application to the Council was published in The Sound, the East Haven Courier, and The New Haven Register. (Applicant 1 p. 8, Applicant 5)
11. Pursuant to R.C.S.A. §16-50j-21, the Applicant installed a four-foot by six-foot sign at the entrance to each property on June 22, 2012. Each sign presented information regarding the project and the Council's public hearing. (Applicant 8)
12. Pursuant to CGS § 16-50l(b), the Applicant provided notice of the application to all federal, state and local officials and agencies listed therein. (Applicant 1, p. 8, Tab 7)

State Agency Comment

13. Pursuant to CGS § 16-50j(h), on May 11 2012, the Council solicited comments on this application from the following state agencies: Department of Agriculture, Department of Energy & Environmental Protection, Department of Public Health, Council on Environmental Quality (CEQ), Public Utilities Regulatory Authority, Office of Policy and Management, Department of Economic and Community Development, the Department of Transportation (DOT), and the Department of Emergency Management and Homeland Security. (Council memo to State Department Heads dated May 11, 2012)
14. On July 6, 2012, the Council received a written response from the DOT Bureau of Engineering and Construction stating that a permit would be required if construction occurred within the Route 142 right-of-way. (Record)
15. On July 3, 2012 the Council received written comment from the CEQ expressing concern for migratory birds and coastal scenic resources. (Record)
16. With the exception of the DOT and CEQ, no other state agencies submitted comments in response to the Council's solicitation. (Record)

Municipal Consultation

17. On July 30, 2010, the Applicant submitted a technical report to the Town of Branford representatives that provided details regarding the Branford Site. (Applicant 1, p. 30)
18. The Applicant met with the Town of Branford's Telecommunications Committee on October 8, 2010. Representatives from Cellco and T-Mobile Northeast also attended. (Applicant 1, p. 30)
19. The Applicant attended a community meeting in the Town of Branford on November 22, 2010. After the meeting, the Town of Branford requested that the Applicant delay the application filing process so that the Town could examine potential alternatives. (Applicant 1, p. 23)
20. Various alternatives were examined by the Applicant through December 2010. One of the sites examined, the East Haven Site, was deemed viable by the Applicant and a lease was secured. The Applicant developed site documentation during the Spring of 2011. (Applicant 1, p. 31)

21. On June 14, 2011, the applicants submitted a technical report to the Towns of East Haven and Branford, detailing both proposed sites. (Applicant 1, p. 31)
22. On August 15, 2011, the Applicant met with East Haven representatives to discuss the proposal. The Town of East Haven requested a community meeting, which was subsequently delayed due to Hurricane Irene. During the delay, the East Haven site was redesigned from a 125-foot tower to a 103-foot tower to meet Federal Aviation Administration (FAA) guidelines for the avoidance of tower lighting and marking. (Applicant 1, p. 32; Applicant 2, Q. 14)
23. The Applicant notified the Town of Branford and Town of East Haven regarding the East Haven Site redesign on February 29, 2012. (Applicant 1, p. 32)
24. On March 15, 2012, the Applicant attended a community meeting in East Haven. (Applicant 1, p. 32)
25. After the East Haven community meeting, the Applicant did not receive any comment from town officials from either town and the Applicant proceeded to file the application with the Council. (Applicant 1, p. 32)

Public Need for Service

26. 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 4)
27. 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. (Council Administrative Notice Item 4)
28. The Telecommunications Act of 1996 prohibits local and state entities from discriminating among providers of functionally equivalent services. (Council Administrative Notice Item 4)
29. The Telecommunications Act of 1996 prohibits any state or local entity from regulating telecommunications towers on the basis of the environmental effects of radio frequency emissions to the extent that such towers and equipment comply with FCC's regulations concerning such emissions. This Act also blocks the Council from prohibiting or acting with the effect of prohibiting the provision of personal wireless service. (Council Administrative Notice Item 4)
30. In an effort to ensure the benefits of wireless technologies to all Americans, Congress enacted the Wireless Communications and Public Safety Act of 1999 (911 Act). The purpose of this legislation was to promote public safety through the deployment of a seamless, nationwide emergency communications infrastructure that includes wireless communications services. (Council Administrative Notice Item 6)
31. In December 2009, President Barack Obama recognized cell phone towers as critical infrastructure vital to the United States. (Council Administrative Notice Item No. 10)
32. The proposed facilities would enable AT&T to provide Enhanced 911 services to the surrounding area, as required by the 911 Act. (Applicant 1, p. 14)

33. Pursuant to the tower sharing policy of the State of Connecticut under C.G.S. §16-50aa, 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)
34. NAT would provide lease-free space on either tower for emergency service antennas. The Town of Branford does not intend to locate at either site. The Town of East Haven has not replied to this offer. (Applicant 1, p. 30; Tr. 3, pp. 9, 156)

AT&T - Existing and Proposed Wireless Coverage

35. AT&T proposes to operate cellular (800 MHz), personal communication service (PCS - 1900 MHz), and long-term evolution (LTE - 700 MHz) equipment at the proposed site. (Applicant 1, Tab 5)
36. To maintain reliable service, AT&T designs and operates its system at a signal level threshold of -82 dBm for in-vehicle service and -74 dBm for in-building service. (Applicant 1, Tab 1; Applicant 2, Q. 5)
37. The existing cellular signal level in the proposed service area ranges from -82 dBm to less than -100 dBm. The proposed service area generally extends along the Farm River in East Haven from Meadow Street south to Whalers Point Road, and from the Farm River east to Harbor Street in Branford (refer to Figure 3). (Applicant 1, Tab 1; Applicant 2, Q. 7; Applicant 9, Tab 4)
38. The nearest AT&T facilities to the proposed service area are as follows:

| Location | Distance from service area (Rt. 142 at Farm River) | Antenna height |
|------------------------------|---|-----------------------|
| 259 Commerce St., East Haven | 1.3 miles west | 57 feet |
| 290 Dodge Ave., East Haven | 1.9 miles west | 40 feet |
| 96 Frontage Rd., East Haven | 2.4 miles northwest | 56 feet |
| 65 Messina Dr., East Haven | 1.7 miles northwest | 95 feet |
| 4 Beaver Road, Branford | 1.6 miles northeast | 115 feet |
| 150 North Main St. Branford | 2.9 miles northeast | 113 feet |

Coverage from these existing sites does not extend to the proposed service area. (Applicant 1, Tab 1)

39. Installing antennas at the proposed sites would provide the following reliable cellular service to the proposed service area:

| | Main Roads | Secondary Roads | Coverage Provided (Area) |
|------------------------|-------------------|------------------------|---|
| <i>Branford Site</i> | 1.37 miles | 10.6 miles | 1.8 square miles in-building 1.6 square miles in-vehicle |
| <i>East Haven Site</i> | 0.95 | 9.0 miles | 1.7 square miles in-building 1.5 square miles in-vehicle |

AT&T uses cellular service to define the limits of service for AT&T customers. PCS service provides significantly less coverage. (Applicant 1, Tab 1; Applicant 2, Q. 6)

40. The Branford Site offers better coverage to the proposed service area than the East Haven Site. With the Branford site, reliable coverage would occur along Route 142 and adjacent areas but unreliable cellular coverage (> -82 dBm) would occur in the Cosey Beach area of East Haven (refer to Figure 4). (Applicant 1, Tab 1, Applicant 9, Q. 12)
41. The East Haven Site would provide better coverage to Cosey Beach although most coverage in this area would be rated as in-vehicle. The East Haven site would also leave gaps of unreliable coverage (>-82 dBm) in residential areas of Branford including Lanphiers Cove area (Rustic Road, Howard Avenue, Brocketts Point Road), Sunset Lane, Kenwood Lane, Vineyard Road, Castle Rock Street, Harbor Street, and Pawson Road (refer to Figure 4). (Applicant 1, Tab 1, Tab 4A, Tab 4C, Tab 5C; Applicant 9, Q. 12; Council Administrative Notice 48; Tr. 3, pp. 68-69; Tr. 4, p. 76)

Cellco- Existing and Proposed Coverage

42. Cellco holds a FCC license to provide wireless service in Connecticut. (Cello Request to Intervene, 04/25/12; Cellco 1, Q. 2)
43. Cellco proposes to install cellular, PCS and LTE equipment at the site. Cellco utilizes the cellular and PCS bands primarily for voice services and LTE for data services. (Cellco 1, Q. 3; Tr. 3, pp. 118-120)
44. Cellco's existing level of service within the proposed service area ranges from -86 dBm to -100 dBm (refer to Figure 5). (Cellco 1, Q. 1)
45. Cellco's minimum signal threshold of -85 dBm is necessary for reliable service. (Cellco 1, Q. 2)
46. The proposed sites would provide the following coverage areas:

| | Cellular | PCS | LTE |
|------------------------|------------------|------------------|------------------|
| <i>Branford Site</i> | 6.7 square miles | 3.2 square miles | 6.4 square miles |
| <i>East Haven Site</i> | 7.4 square miles | 3.3 square miles | 6.3 square miles |

(Cellco 1, Q. 1)

47. Cellco prefers the East Haven Site as it provides slightly better coverage and serves a greater population than the Branford Site. (Tr. 3, p. 111)
48. At cellular and LTE frequencies, the East Haven Site would provide coverage to the Route 337 and Cosey Beach areas of East Haven and most of the Branford shoreline area. The Branford site covers the Branford shoreline area but does not extend into the Cosey Beach and Route 337 areas of East Haven (refer to Figure 6). (Cellco 1, Tabs 3 & 4)

Site Selection

49. AT&T established a search area for the proposed service area in 2005 that was centered on the shoreline area of western Branford. AT&T did not find any existing structures that could meet coverage needs. (Applicant 1, p. 4)

50. In 2009, NAT, in consultation with AT&T, began reviewing potential sites within the proposed service area. The search area covered a mostly residential area with limited availability of large parcels. Additionally, the presence of the Tweed New Haven Airport in East Haven limited tower heights. (Applicant 1, p. 4, Tab 2)
51. After determining there were no viable structures within the search area, NAT searched for properties suitable for tower development. Potential locations that were investigated and rejected by the Applicant are as follows:
- a) 189 Alps Road, Branford – rooftop mount but lease negotiation failed;
 - b) 100 Double Beach Road, Branford (CT Hospice) – did not meet coverage requirements;
 - c) 64 Shore Drive, Branford (Short Beach FD) – rooftop mount did not meet coverage requirements and property too small to accommodate a tower facility;
 - d) 82 Shore Drive, Branford – site too visible;
 - e) 345 Shore Drive (Orchard House) – Town of Branford not interested in leasing property;
 - f) 175 Clark Avenue, Branford (yacht club) – site limited to 75 feet in height due to FAA criteria and such height would not meet coverage objectives;
 - g) Westwood Road, Branford – town park with no visual screening;
 - h) 68-88 Burban Drive, Branford – former town school but too far from proposed service area;
 - i) Summit Place, Branford – town parcel too far from proposed service area;
 - j) 108 Cherry Hill Road, Branford- town parcel too far from proposed service area;
 - k) 44 Brown Road, East Haven – visibility and FAA concerns.
 - l) Apartment complexes south of Briarwood Lane, Branford – investigated at request of Council, rooftop mount would not meet coverage objectives and deed restrictions in place for undeveloped portions of property.
 - m) 67/71 Goodsell Road, Branford – owner contacted Applicant after July 10, 2012 hearing. Applicant determined parcel is near the existing Docket 386 site (123 Pine Orchard Road) and would be too visible from a historic district.
(Applicant 1, Tab 2; Applicant 2, Q. 2; Applicant 10; Applicant 12, Q. 4; Applicant 17, Q. 1; Applicant 18)
52. Cellco established a search ring for the area in January 2012 and determined both proposed sites were suitable for coverage needs. Cellco did not investigate any other properties. (Cellco 1, Q. 8)

Branford Site Description – 171 Short Beach Road

53. The Branford Site is located on a 0.87-acre parcel owned by 171 Short Beach Realty, LLC. (Applicant 1, Tab 4A)
54. The parcel is located on the northwest side of Route 142 and is developed with a 6,500 square foot commercial building that houses a heating and air conditioning business. (Applicant 1, Tab 4A, Tab 4B)
55. The Applicant proposes to construct a 120-foot monopole in an open, gravel area in the northeast corner of the parcel, approximately 257 feet northwest of Route 142 (refer to Figure 7). The tower site would be accessed through the existing parking lot. (Applicant 1, Tab 4A)
56. The proposed tower would be located at an elevation of 59 feet above mean sea level (amsl). (Applicant 1, Tab 4A)

57. The property is zoned Residential, R-3. Abutting property includes a land trust parcel to the north and west, a developed commercial property to the east, and developed residential properties to the south and southeast. (Applicant 1, Tab 4A; Applicant 10, Tab 3)
58. The nearest property line is approximately 14 feet northwest of the proposed tower (Branford Land Trust property). (Applicant 10, Tab 3)
59. The nearest dwelling is approximately 136 feet south of the proposed tower (Perrelli property). (Applicant 10, Tab 3)
60. There are approximately 41 residences within 500 feet, and 334 residences within 1,000 feet of the proposed tower site. (Applicant 2, Q. 16; Applicant 14)
61. The Branford Site is not within 250 feet of a licensed day care facility or public school. (Applicant 9, Q. 4, Q. 5)
62. The proposed tower would be designed to support five levels of platform-mounted antennas. It would be constructed in accordance with Electronic Industries Association standard ANSI/TIA-222-F. (Applicant 1, Tab 4A)
63. AT&T proposes to install up to 12 panel antennas on a platform at a centerline height of 120 feet above ground level (agl). Cellco proposes to install up to 15 panel antennas on a platform at a centerline height of 110 feet agl. (AT&T 1, Tab 4A; Cellco 1, Q. 3)
64. The Applicant would construct a 50-foot by 50-foot compound around the tower. The compound would be enclosed by an eight-foot high chain link fence. Underground utilities would service the compound. (Applicant 1, Tab 4A; Tr. 5, p. 19)
65. AT&T would install a 12-foot by 20-foot equipment shelter within the compound. A diesel generator would be located on a concrete pad adjacent to the shelter. The generator would be able to run for approximately two days before it would need re-fueling. (Applicant 1, Tab 4A; Tr. 1, pp. 39-40)
66. Cellco would install a 12-foot by 24-foot equipment shelter within the compound. The shelter would include a diesel generator for emergency power. (Cellco 2, Q. 4)
67. The estimated construction cost of the facility, not including AT&T's or Cellco's antennas or radio equipment, is:

| | |
|------------------------------|-------------------|
| Tower and foundation | \$75,000. |
| Site development | 11,250. |
| Utilities | 7,500. |
| <u>Facility installation</u> | <u>93,000.</u> |
| | |
| <u>Total estimated cost</u> | <u>\$186,750.</u> |

(Applicant 1, p. 33)

East Haven Site Description – 82 Short Beach Road

68. The East Haven Site is located on a 0.91-acre parcel owned by the Riverside Volunteer Fire Department. (Applicant 1, Tab 5A)
69. The parcel is located on the south side of Route 142 and contains a firehouse and associated parking areas. (Applicant 1, Tab 5A)
70. The Applicant proposes to construct a 103-foot monopole along the south edge of the parking area, behind the fire station (refer to Figure 8). The tower site would be accessed through the existing parking lot. (Applicant 10, Tab 4)
71. The proposed tower would be located at an elevation of 59 feet above mean sea level (amsl). (Applicant 1, Tab 5A)
72. The property is zoned Residential, R-1. Developed residential properties abut the site to the north, east, and west. An undeveloped lot and Farm River State Park are located to the south. (Applicant 1, Tab 5B)
73. The nearest property line is approximately 33 feet east of the proposed tower (Williams property). (Applicant 10, Tab 4)
74. The nearest dwelling is approximately 142 feet northwest of the proposed tower site (Berardi property). Mr. Berardi's garage is approximately 122 feet from the tower. (Applicant 10, Tab 3)
75. There are approximately 83 residences within 500 feet, and 115 residences within 1,000 feet of the proposed tower site. (Applicant 10, Tab 4; Applicant 14)
76. The East Haven Site is not within 250 feet of a licensed day care facility or public school. (Applicant 9, Q. 4, Q. 5)
77. The proposed tower would be designed to support four levels of platform-mounted antennas. It would be constructed in accordance with Electronic Industries Association standard ANSI/TIA-222-F. (Applicant 1, Tab 5A)
78. AT&T proposes to install up to 12 panel antennas on a platform at a centerline height of 100 feet agl. Cellco proposes to install up to 15 panel antennas on a platform at a centerline height of 90 feet agl. (AT&T 1, Tab 5A; Cellco 1, Q. 3)
79. The Applicant would construct a generally rectangular 2,500 square foot compound around the tower. The compound would be enclosed by an eight-foot high chain link fence. Underground utilities would service the compound. (Applicant 1, Tab 5A; Tr. 5, p. 19)
80. The location of the compound would not interfere with fire department operations. (Applicant 12, Q. 8)
81. AT&T would install a 12-foot by 20-foot equipment shelter within the compound. A diesel generator would be located on a concrete pad adjacent to the shelter. The generator would be able to run for approximately two days before it would need re-fueling. (Applicant 1, Tab 5A; Tr. 1, pp. 39-40)
82. Cellco would install a 12-foot by 24-foot equipment shelter within the compound. The shelter would include a diesel generator for emergency power. (Cellco 2, Q. 4)

83. The estimated construction cost of the facility, not including AT&T's or Cellco's antennas or radio equipment, is:

| | |
|------------------------------|-------------------|
| Tower and foundation | \$75,000. |
| Site development | 51,250. |
| Utilities | 7,500. |
| <u>Facility Installation</u> | <u>93,000.</u> |
| <u>Total estimated cost</u> | <u>\$226,750.</u> |

(Applicant 1, p. 33)

Environmental Concerns

84. Development of the Branford Site would require the removal of 12 trees. Development of the East Haven Site would require the trimming of trees along the rear property line. (Applicant 1, Tab 4A; Tr. 3, p. 102)

85. Development of either site, as proposed, would have no adverse effect on historic, architectural or archeological resources listed in or eligible for the National Register of Historic Places. (Applicant 1, p. 21)

86. The Branford Electric Railway Historic District is approximately 0.3 miles east of the East Haven Site at its closest point. This district includes a trolley museum located 0.8 miles north of the site and an associated linear trolley track that extends south from the museum to Court Street in Branford. The State Historic Preservation Office determined that the proposed 103-foot tower would have no effect on this historic district but if the tower was increased in height, it would have a detrimental impact. (Applicant 1, p. 21; Applicant 2, Q. 12)

87. Development of either site would have no effect on Federal or State endangered, threatened, or special concern species. Both sites are within previously disturbed areas and no further on-site surveys for wildlife and habitat are necessary. (Applicant 1, p. 22; Applicant 7; Applicant 12, Q. 12, Q. 13)

88. Neither site is located within a 100 or 500-year flood zone. (Applicant 1, pp. 23-24)

89. Development of either site would not directly impact any wetlands. No wetlands were identified within 100 feet of the proposed Branford Site. The nearest wetland to the East Haven Site is located approximately 56 feet to the south, at the base of a steep slope adjacent to the compound, on the abutting Williams property. Development of the East Haven Site would not affect this wetland. (Applicant 1, Tab 4B, Tab 5B; Applicant 12, Q. 14; Williams 2; Tr. 3, pp. 17, 47, 56-57; Tr. 4, p. 55)

90. Erosion and sedimentation controls would be established and maintained for the duration of construction. (Applicant 1, p. 27; Tr. 3, pp. 20-21, 57-58)

91. The Branford Site is generally flat and minimal grading and filling is expected. (Applicant 1, Tab 4A)

92. The East Haven Site is located adjacent to a steep slope. Approximately 800 cubic yards of material would be removed from the site and replaced with controlled fill. Although the rear of the fire station property may consist of unconsolidated material from previous filling, the Applicant does not expect any slope destabilization from the installation of a foundation. The Applicant would excavate all fill material until stable soils are reached. A caisson foundation would be installed in the stable soil layer. The steep slope adjacent to the compound would have no effect on this narrow-profile foundation. (Applicant 1, Tab 5A; Williams 2; Tr. 3, pp. 21, 58-59, 68-73; Tr. 4, pp. 15-16)
93. The Branford Site is not located within the Connecticut Coastal Management Act's (CCMA) coastal boundary. No coastal resources, as defined in the CCMA, would be adversely affected by development of the Branford Site. The nearest coastal area is Lanphiers Cove, approximately 0.23 miles southeast of the site (Council Administrative Notice 48; Applicant 1, Tab 4B)
94. The East Haven Site is located within the CCMA coastal boundary. The nearest coastal area is the Farm River, approximately 700 feet east of the site. No coastal resources, as defined in the CCMA, would be adversely affected by development of the East Haven Site. (Applicant 1, Tab 5B)
95. The nearest National Audubon Society designated Important Bird Area is Lighthouse Point park in New Haven, 1.5 miles west of the East Haven Site and 2.6 miles west of the Branford Site. This IBA was designated due to the large number of migrating hawks, eagles, and other birds that migrate just inland from the water's edge. (Council Administrative Notice 47; Applicant 1, Tab 4B, Tab 5B)
96. The Connecticut coastline is within the Atlantic Flyway, a generalized regional migratory bird flyway used as a stopover for migratory birds. Within the flyway, the Atlantic Coast Joint Venture (ACJV), a partnership of State and federal entities as well as conservation groups, has identified "waterfowl focus areas" as the most important waterfowl habitats within the flyway. Both proposed sites are within the ACJV designated New Haven Harbor waterfowl focus area. (CEQ comments of July 3, 2012; Applicant 9, Q. 15)
97. The Branford Site is located within a half-mile of two marshes on Killams Point and one marsh north of Castle Rock Road in Branford. (CEQ comments of July 3, 2012; Applicant 1, Tab 4C; Applicant 2, Tab 6)
98. The East Haven Site is located within a half-mile of extensive marshes associated with the Farm River north, south and east of the site, including marshes within Farm River State Park, and the East Haven Marsh Wildlife Area. (CEQ comments of July 3, 2012; Applicant 1, Tab 5C; Applicant 2, Tab 6; Whitehead Administrative Notice Items 1 and 2)
99. Migratory bird collisions with towers occur most frequently when towers are lighted and have guy wires. In foggy conditions, the birds are attracted to the lights, circle the tower and strike the guy-wires. The proposed sites are not marked or lighted, do not have guy-wires, and are relatively short. Birds that live or migrate in the area of the proposed towers would most likely be able to see the towers and avoid them. (Tr. 3, pp. 17-18; Tr. 4, pp. 83-84)
100. The design of both proposed towers would comply with recommended guidelines of the United States Fish and Wildlife Service for minimizing the potential for telecommunications towers to impact bird species, including waterfowl. The guidelines recommend that towers be less than 199 feet tall, avoid the use of aviation lighting, and avoid guy wires as tower supports. (Council Administrative Notice 14; Applicant 12, Q. 13)

101. Neither site, as proposed, would require aircraft hazard obstruction marking/lighting. The proposed Branford site can be constructed up to 199 feet agl without marking/lighting. The proposed East Haven site would require marking/lighting if the tower and/or antennas exceed 103 feet in height. (Applicant 1, p. 23, Tab 5A; Applicant 9, Q. 11; Tr. 4, pp. 86-87)
102. The cumulative worst-case maximum power density from the radio frequency emissions from the operation of the proposed AT&T and Cellco antennas would be below the Maximum Permissible Exposure standard, as adopted by the FCC, at the base of both proposed towers. This determination 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 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 base. (Applicant 1, Tab 4B, Tab 5 B; Cellco 1, Tab 7)

Visibility

103. The projected visibility of the proposed towers within a two-mile radius of each site is as follows:

| Receptor | Branford Site | East Haven Site |
|--|-------------------------------|--------------------------------|
| Year-round visibility (land) | 25 acres (most within ¼ mile) | 30 acres (most within ¼ mile) |
| Year-round visibility (water and marsh) | 2,000 acres | 1,416 acres |
| Seasonal visibility (land) | 19 acres (within ¼ mile) | 27 acres (most within ¼ mile) |
| Residential properties with year-round views | 54 | 35 |
| Residential properties with seasonal views | 29 | 36 |

(Refer to Figures 9 & 10). (Applicant 1, Tab 4C, Applicant 4)

104. The projected visibility of the proposed Branford Site from select locations is as follows:

| Location | Approximate Distance/Direction from Site | Visibility |
|---------------------------------------|---|---------------------------------|
| Adjacent to #156 Short Beach Road | 315 feet east | 50 feet above trees |
| Adjacent to #180 Short Beach Road | 475 feet south | 70 feet above and through trees |
| Adjacent to #505 Shore Drive | 686 feet southeast | 35 feet above and through trees |
| Adjacent to # 1 Lanphiers Cove Road | 900 feet south | 55 feet above trees |
| Adjacent to # 18 Lanphiers Cove Road | 0.2 mile south | 20 feet above trees |
| Adjacent to #4 Brocketts Lane | 633 feet east | 60 feet above house |
| Double Beach Road | 0.36 mile south | 40 feet above and through trees |
| Harbor Street at Parker Memorial Park | 0.70 mile east | 40 feet above trees |
| Parker Memorial Park | 0.52 mile east | 20 feet above trees |
| Adjacent to #230 Harbor Street | 0.91 northeast | 20 feet above trees |
| Block Island Road at marina | 1.34 miles east | 20 feet above trees |
| Adjacent to #25 Sunset Beach Road | 1.35 miles east | 75 feet above trees |
| Adjacent to #72 Spinnaker Run | 1.2 miles southeast | 60 feet above trees |
| 162 Short Beach Road | 365 feet southeast | Entire facility |
| 166 Short Beach Road | 380 feet southeast | Entire facility |
| 170 Short Beach Road | 355 feet southeast | Entire facility |
| 174 Short Beach Road | 370 feet southeast | Entire facility |

(Applicant 1, Tab 4C; Tr. 1, pp. 27-29)

105. The projected visibility of the proposed East Haven Site from select locations is as follows:

| Location | Approximate Distance/Direction from Site | Visibility |
|--|---|---|
| Route 142 at Jefferson Place | 0.25 mile east | 10 feet above building |
| Adjacent to #54 Hilton Avenue | 316 feet east | 20 feet above trees |
| Adjacent to #40 Hilton Avenue | 370 feet east | 30 above and through trees |
| Adjacent to #18 Hilton Avenue | 422 feet south | 12 feet above trees |
| Adjacent to #65 Short Beach Road | 264 feet north | 40 feet above firehouse |
| River Street at Greenlawn Cemetery | 1.17 miles northwest | 10 feet above trees |
| 8 Hilton Avenue | 465 feet southeast | 15-20 feet above trees |
| 9 Hilton Avenue (interior) | 485 feet southeast | Visible - not quantified |
| 54 Hilton Avenue (interior and exterior) | 270 feet east | 50 feet above trees |
| 100 Short Beach Road (Rt. 142) | 140 feet southwest | 15 feet above trees |
| 63 Hilton Avenue | 340 feet east | Visible – not quantified |
| 71 Short Beach Road | 200 feet north | 70 feet above firehouse, compound visible |

(Applicant 4; Applicant 9, Q. 2; Tr. 1, pp. 17-20; Tr. 3, pp. 143-144; Tr. 4, pp. 12-14, 23-24, 53-54; Tr. 5, pp. 8-9)

106. The East Haven site is approximately 200 feet north-northeast of the nearest boundary of Farm River State Park, a park maintained for passive recreation use. Most of the park is wooded with a few open marsh areas and rock outcrops. Seasonal views could occur from various locations within the park. (Applicant 2, Q. 10; Whitehead Administrative Notice 2; Tr. 4, p. 67)

107. The Branford Site abuts the Short Beach Preserve, a 40-acre wooded parcel owned by the Guilford Land Trust. (Applicant 1, Tab 4A; Town of Branford 2008 Plan of Conservation and Development)

108. The Branford Site is located 870 feet from the Branford Trail at its closest point. This Town-designated trail extends generally in an east-west direction from Parker Memorial Park in Branford to Short Beach, using a combination of paved roads, dirt roads and some trail along its length. The Branford Site would be visible from spot locations on roadways in the Lanphiers Cove Road area, approximately 900 feet south of the site. (Applicant 1, Tab 4C; Applicant 2 Tab 6)

109. The East Haven Site is approximately 475 feet east of the Shoreline Greenway Trail at its closest point. This trail extends in a north-south direction from the Farm River, south through Farm River State Park and to the Cosey Beach area of East Haven using roadways and wooded trails. Year-round views of the tower would occur where the trail crosses Route 142 and along a section that follows Fairview Avenue. (Applicant 2, Tab 6; Tr. 4, pp. 64-66)

110. Neither site would be visible from the Branford Electric Railway Historic District. The trolley right-of-way also serves as a portion of the Short Beach section of the Branford Trail. (Council Administrative Notice 28; Applicant 1, Tab 4C, Tab 5C; Tr. 1, p. 23)

111. Neither site would be visible from the Short Beach Historic District, a district recognized by the State Historic Preservation Office. The district extends along Route 142 from Clark Avenue east to Glen Street in Branford and south to Long Island Sound. (Applicant 2, Q. 13, Tab 6)

112. A flush-mount tower design at the Branford Site would require a 160-foot tower to accommodate AT&T's and Cellco's antennas. AT&T would need three tower levels to accommodate their antennas and Cellco would need two tower levels for their antennas. Installing antennas below the proposed tower heights would not meet coverage objectives for either carrier. (Applicant 18. Q. 1; Tr. 3, pp. 112-114; Tr. 5, pp. 17-18, 20-21)
113. A flush-mount tower design, including utilization of one multi-band antenna per sector, limits network optimization by restricting the orientation of the antennas and creates interference issue associated with LTE services. Demand for LTE services continues to expand and network flexibility is essential to maintain service. (Applicant 9, Q. 9; Tr. 1, pp. 61-66; Tr. 3, pp. 112-114, 119-122; Tr. 5, pp. 34-36)
114. The FAA lighting/marking requirement for structures over 103 feet agl limits stealth designs at the East Haven Site. A coniferous tree design at this site would feature a tree with a flat top to accommodate AT&T's platform-mounted antennas at 100-foot agl. The FAA tower height restriction prevents the installation of the typical seven feet of faux branches to create a conical design at the top of the tower. The flat top design does resemble naturally occurring pine trees that lose their upper portions from wind damage. The faux branches would extend fourteen feet from the tower to conceal the antennas and platform mounting bars from view. Trees around the East Haven Site are mostly deciduous and average 65-70 feet in height. (Tr. 1, pp. 33-36; Tr. 3, pp. 30-31; Tr. 5, pp. 32-34; Applicant 18; Q. 2)
115. A flush-mount tower design would not be feasible at the East Haven Site, as it would require the tower to exceed 103 feet in height to meet coverage needs. Both AT&T and Cellco would need multiple tower positions to mount antennas to achieve coverage objectives. Antennas mounted below the proposed heights would not meet coverage objectives. (Tr. 1, pp. 32-33, 61-66; Tr. 3, pp. 112-114; Tr. 5, pp. 21, 40-41)

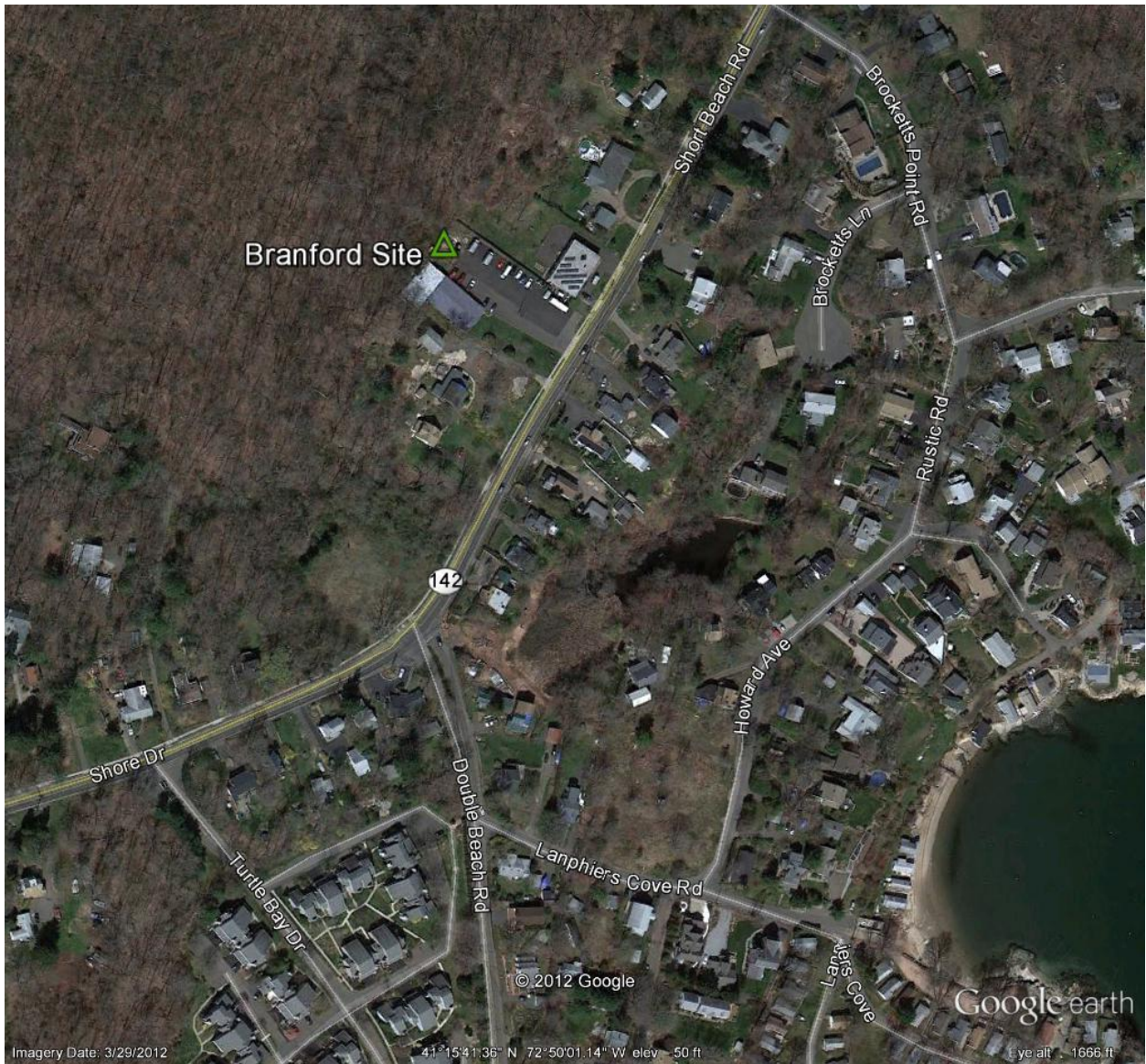


Figure 1: Location of Branford Site at 171 Short Beach Road in Branford. (Applicant 1, Tab 4 B)



Figure 2: East Haven Site location at 82 Short Beach Road in East Haven. (applicant 1, Tab 5B)

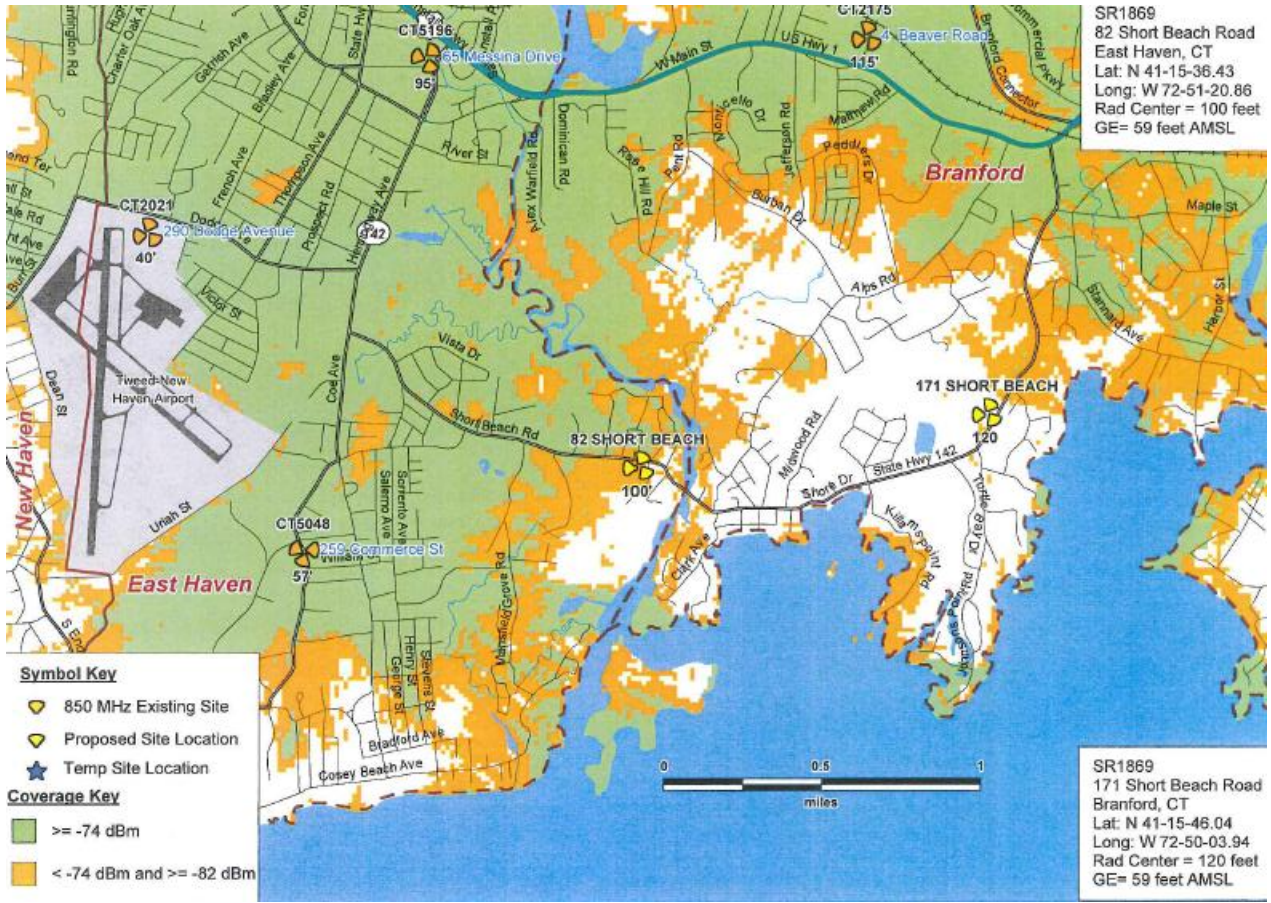


Figure 3: Existing AT&T cellular coverage in proposed service area. (Applicant 9, Tab 4)

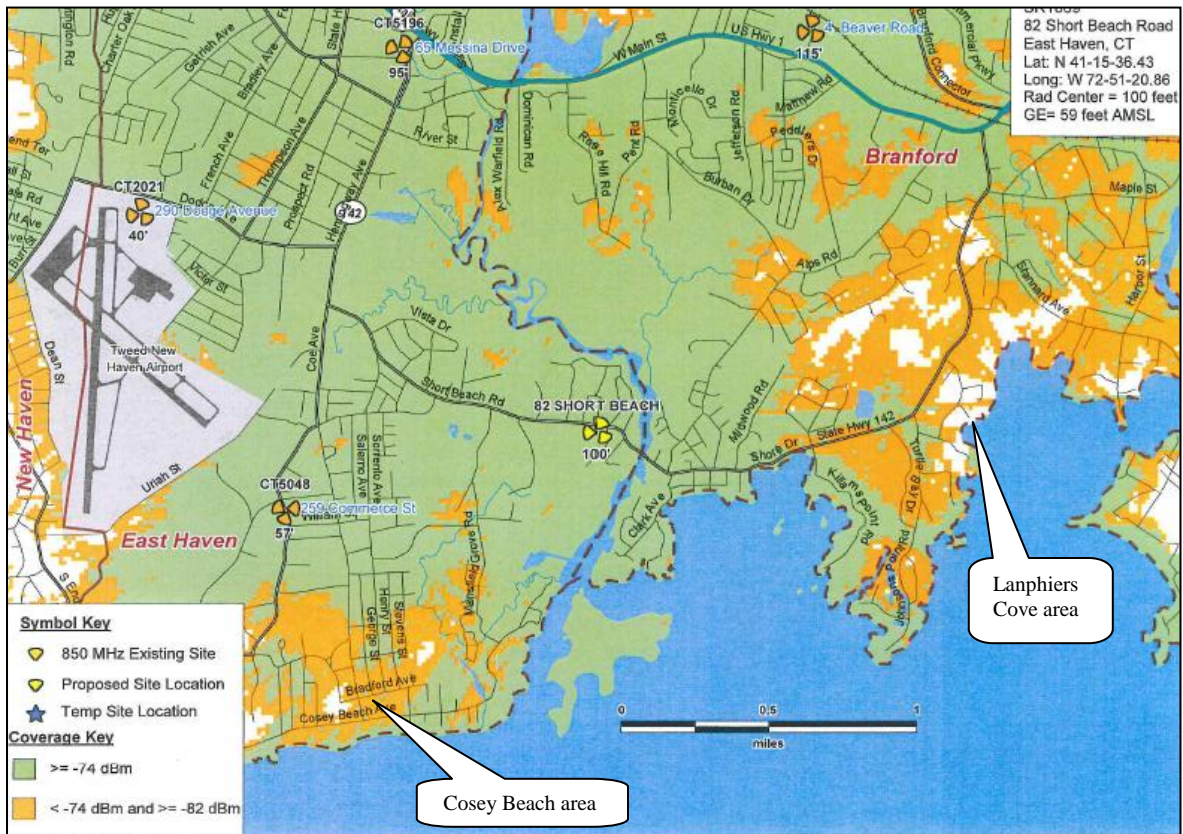
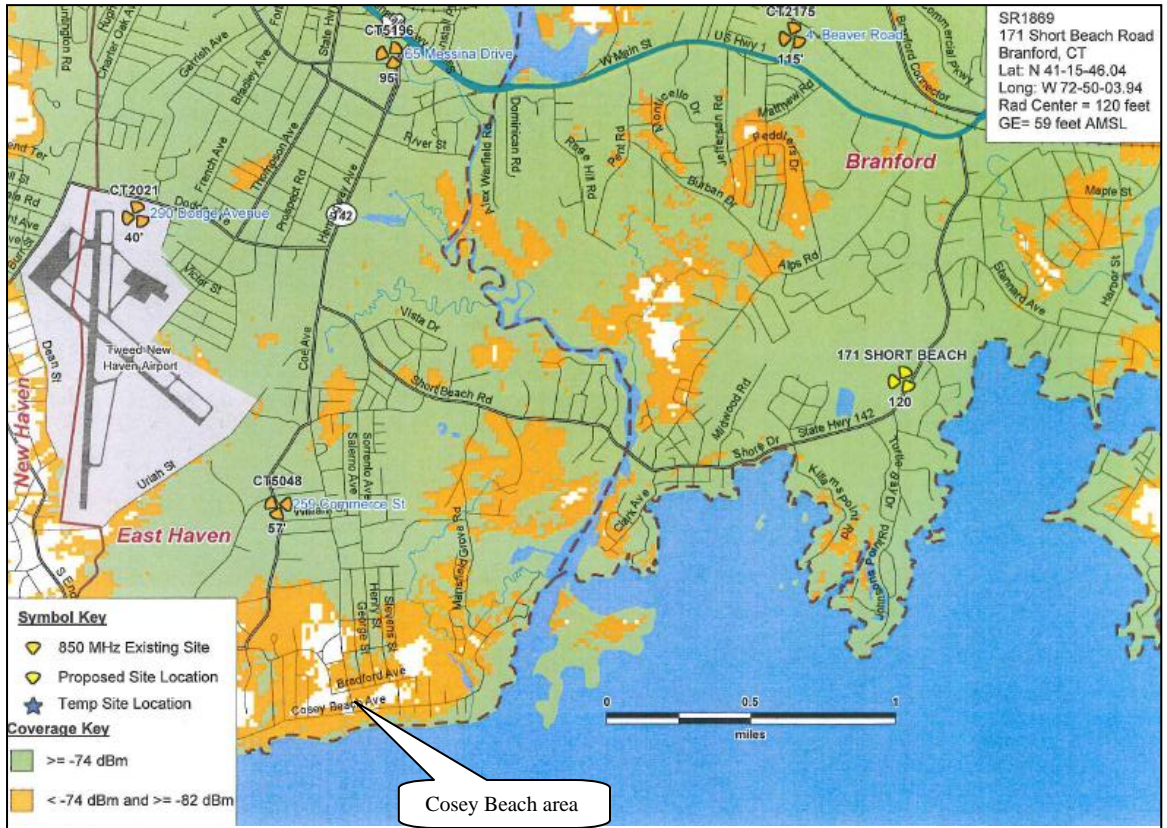


Figure 4: Proposed AT&T cellular coverage from Branford Site (top) and East Haven Site (bottom).

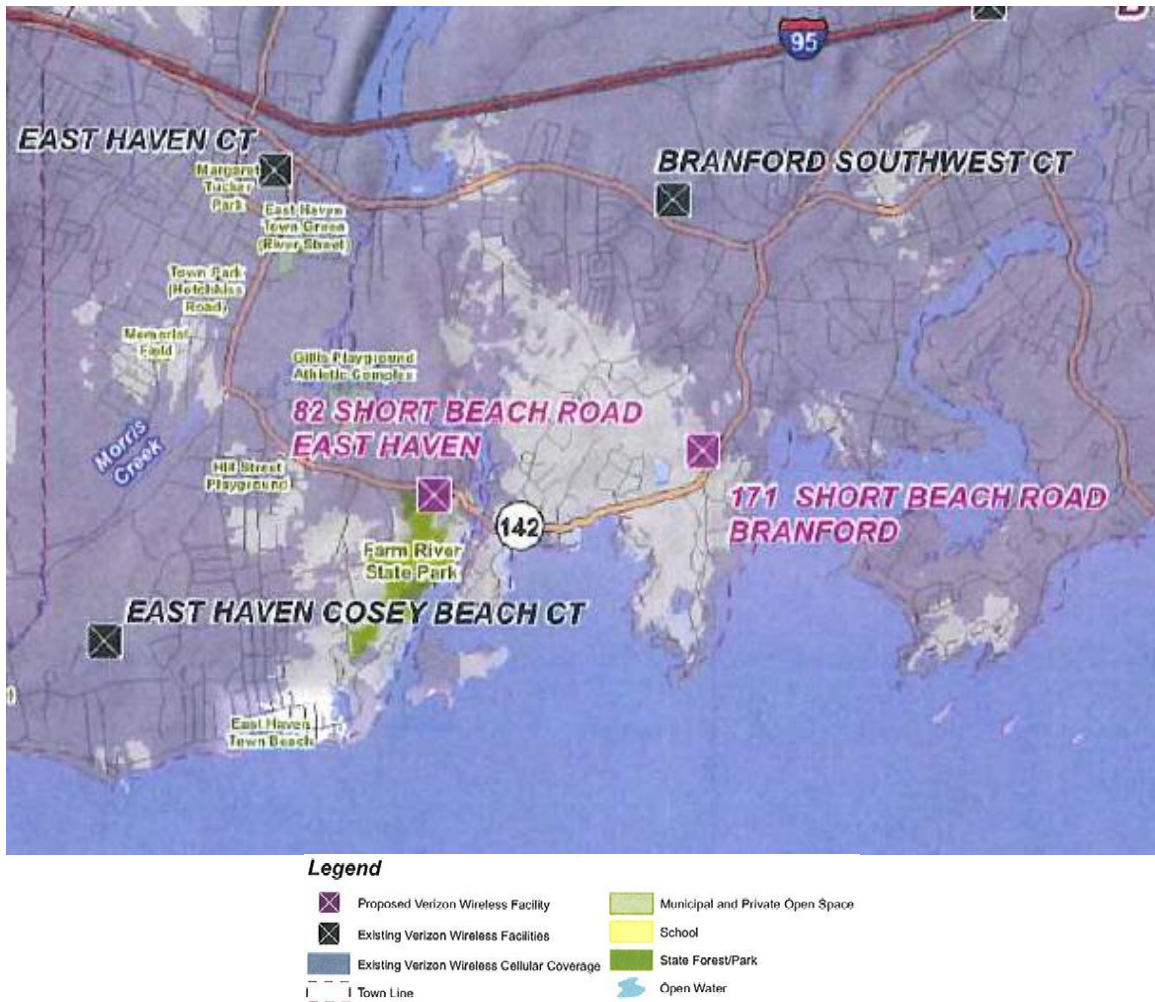


Figure 5: Existing Cellco cellular coverage. (Cellco 1, Tab 2)

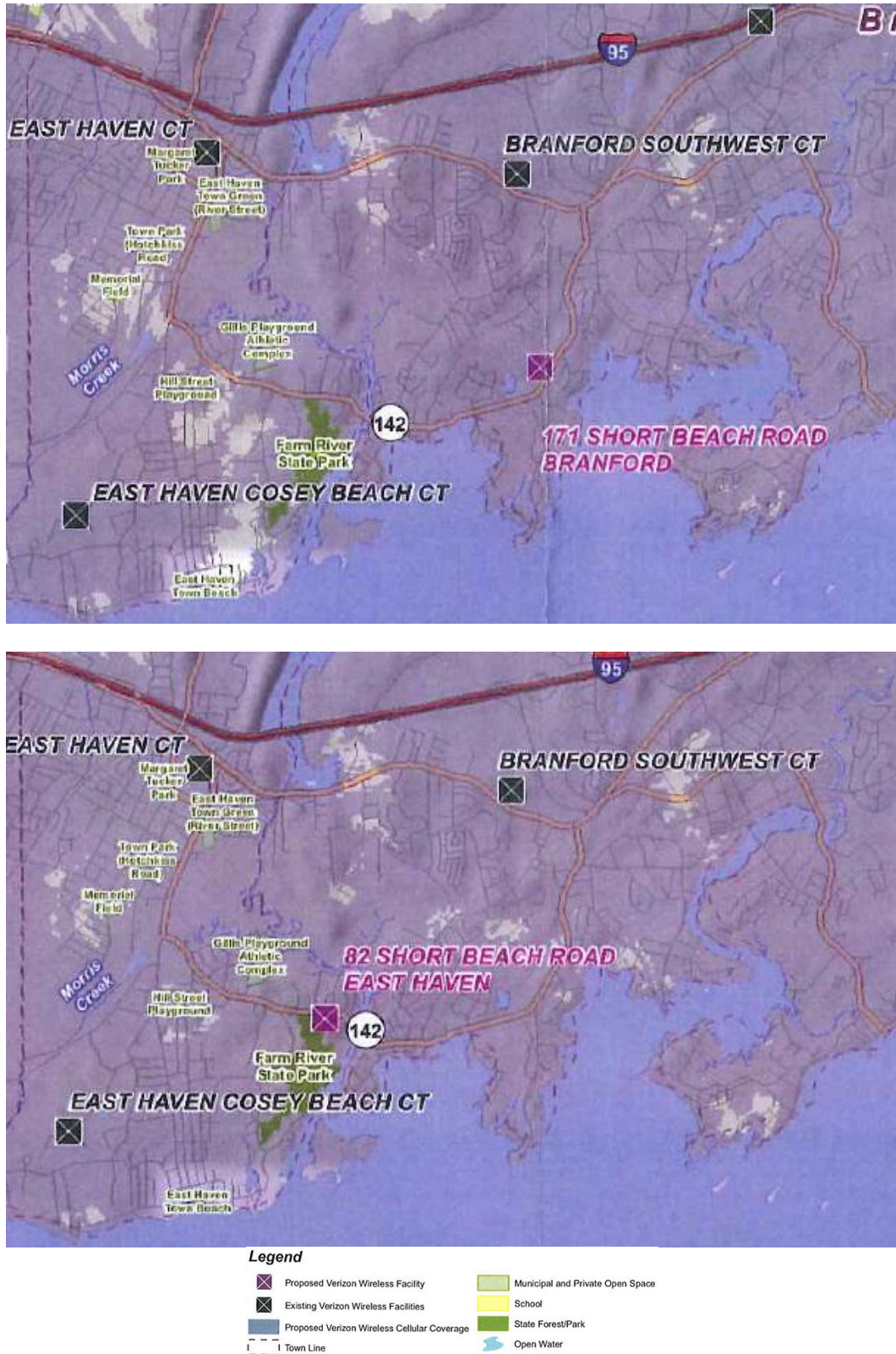


Figure 6: Proposed Cellco cellular coverage from Branford Site (top) and East Haven Site (bottom).

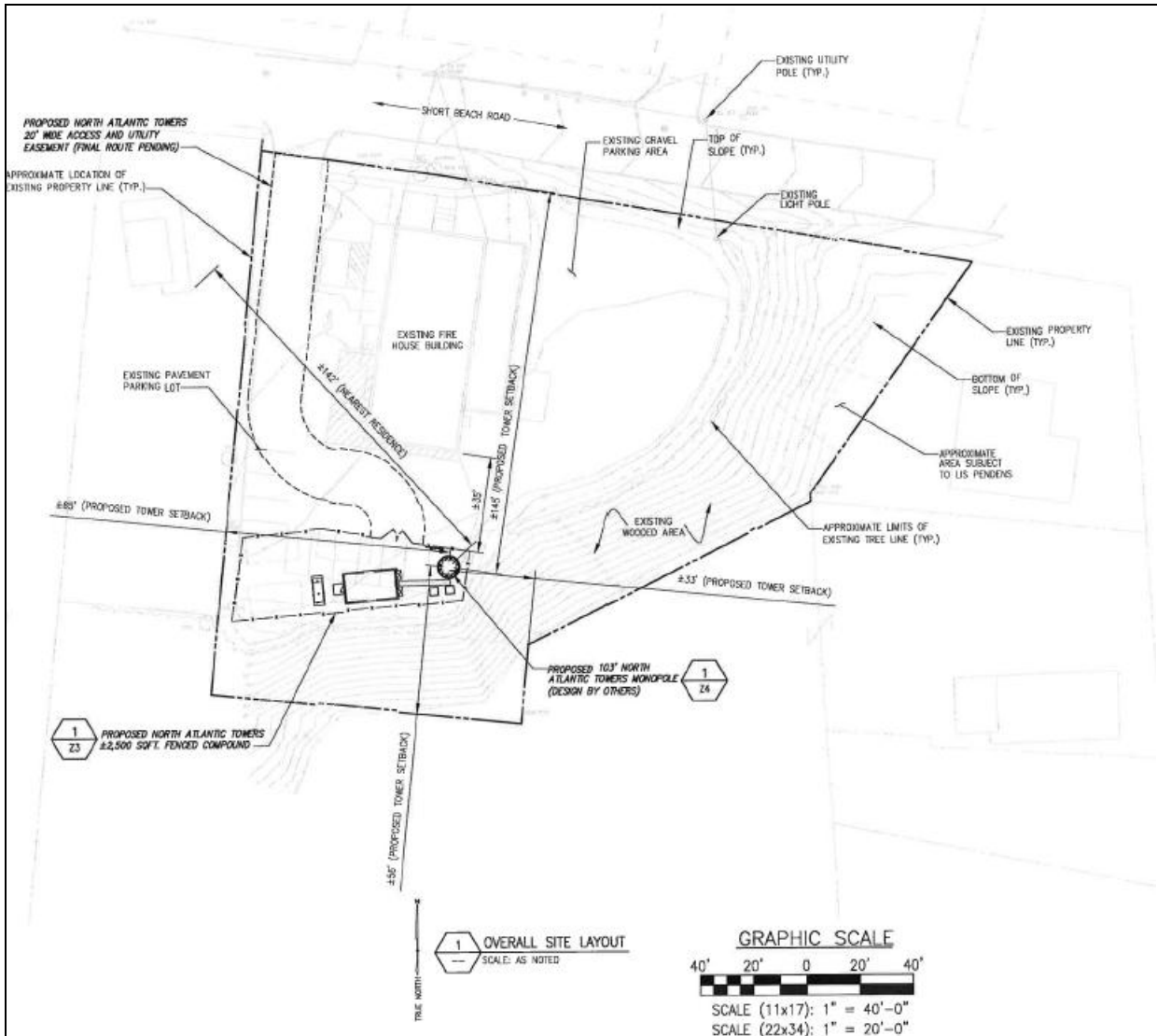


Figure 8: East Haven Site proposed site plan. (Applicant 10, Tab 4)

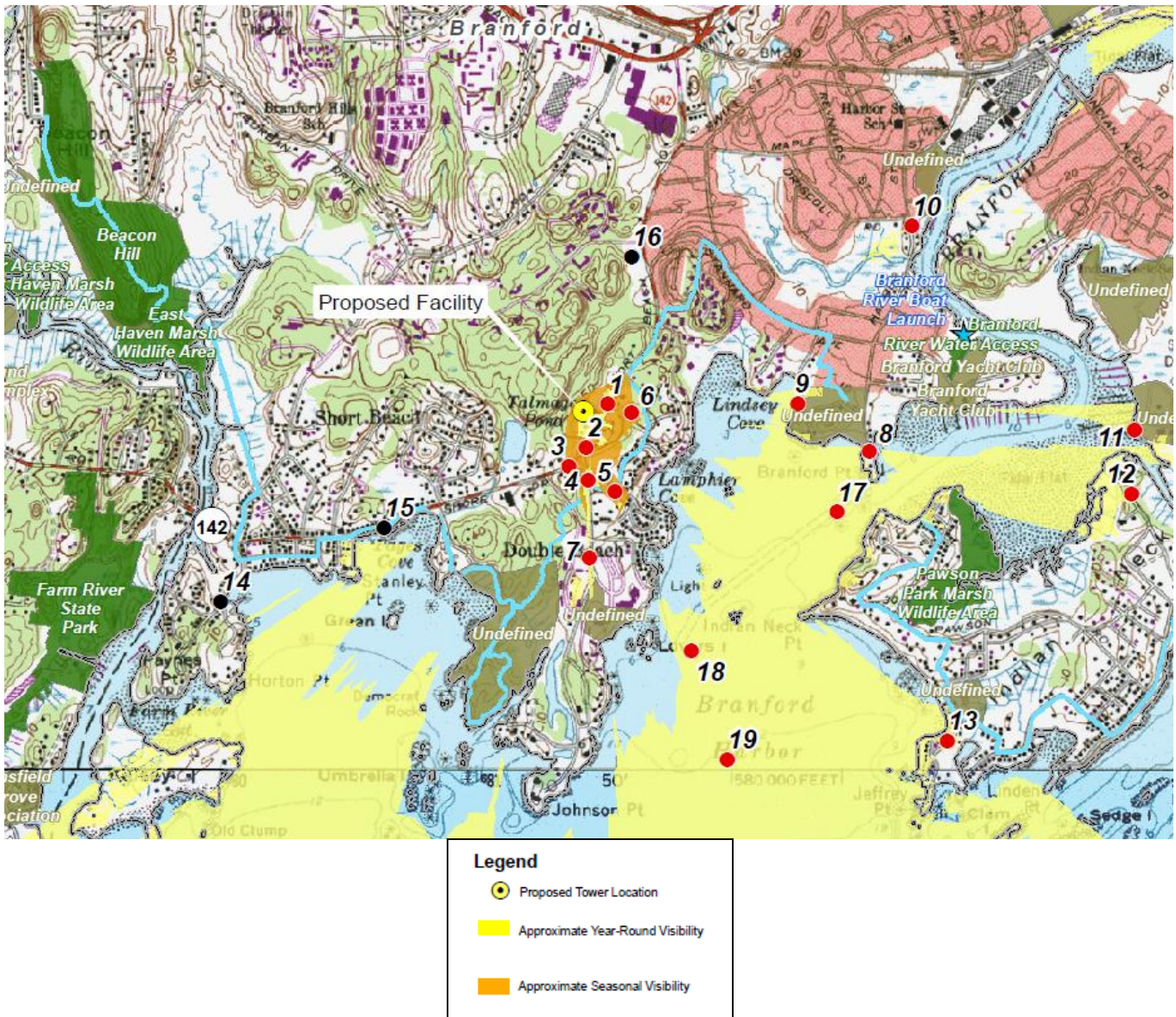


Figure 9: Projected visibility of the proposed Branford Site. Photo-simulations with corresponding photo-location map numbers follow. (Applicant 1, Tab 4C)



Branford Site photo-simulation 1- Adjacent to #156 Short Beach Road, 0.06 mile east.



Branford Site photo-simulation 2 - Adjacent to #180 Short Beach Road, 0.09 miles south.



Branford Site photo-simulation 4 - Adjacent to #1 Lanphiers Cove Road, 0.17 miles south.



Branford Site photo-simulation 7 - Double Beach Road, 0.36 miles south.



Branford Site photo-simulation 8 - Harbor Drive at Parker Memorial Park, 0.70 miles east.



Branford Site photo-simulation 12 - Adjacent to #25 Sunset Beach Road, 1.35 miles east.

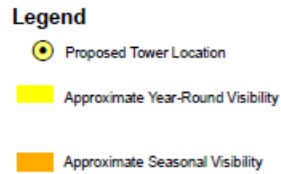
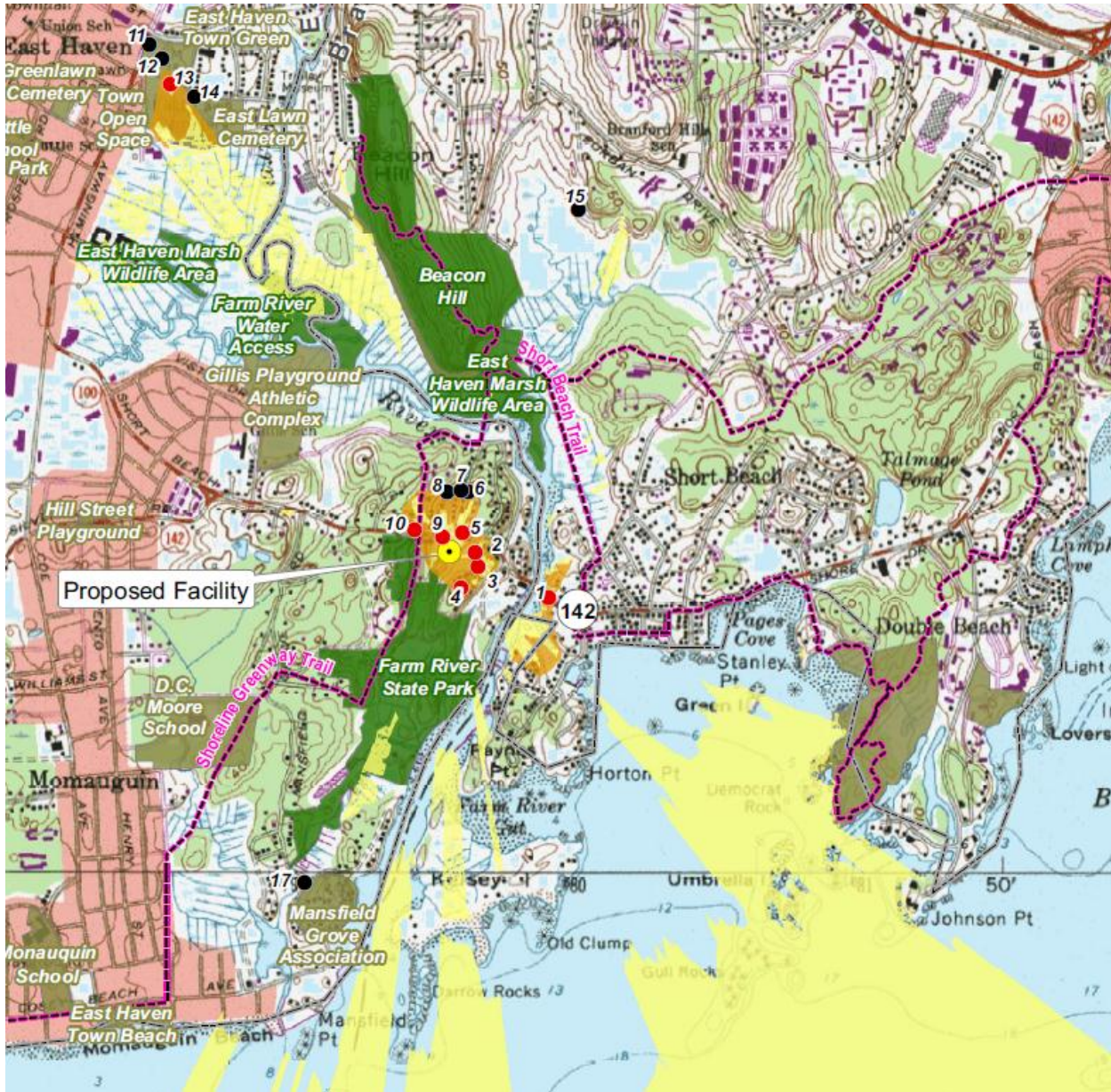
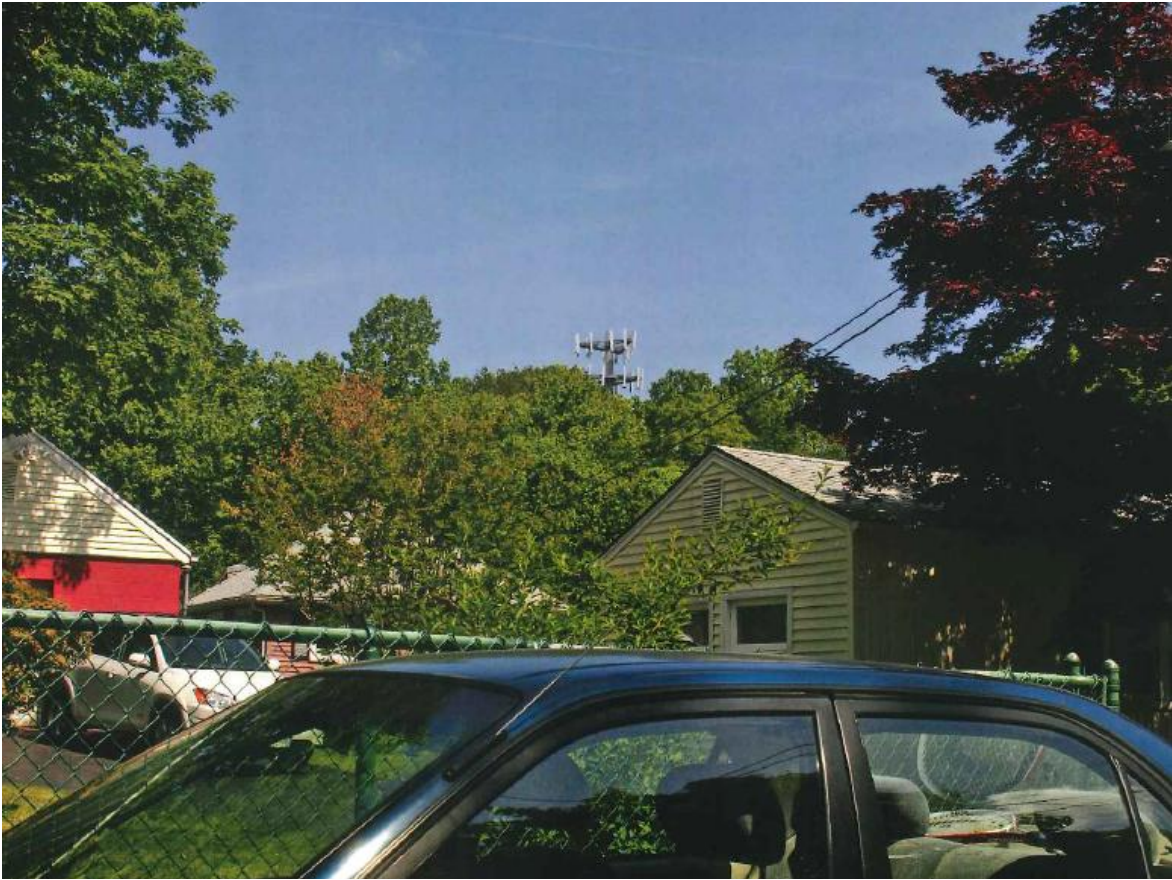
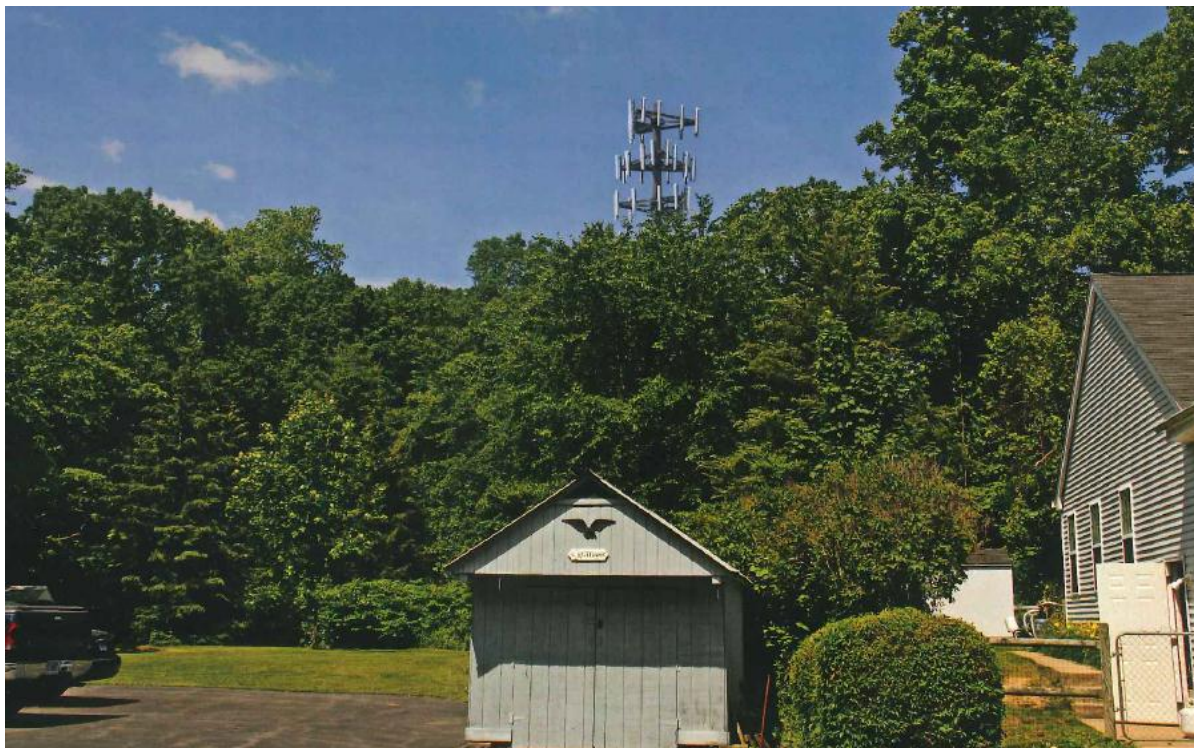


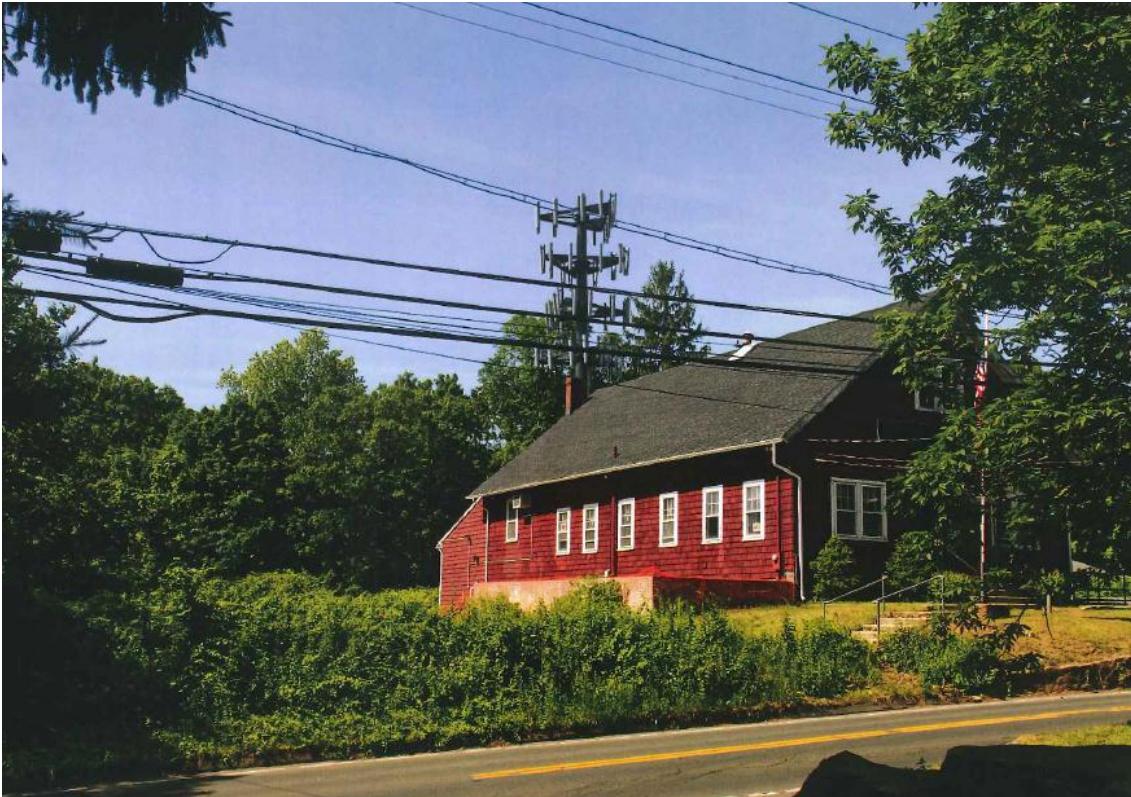
Figure 10: Projected visibility of the proposed East Haven Site. Photo-simulations with corresponding photo-location map numbers follow. (Applicant 1, Tab 5C)



East Haven Site photo-simulation 4 – Adjacent to #18 Hilton Avenue, 422 feet southeast of site.



East Haven Site photo-simulation 2 – Adjacent to # 54 Hilton Avenue, 316 feet southeast of site.



East Haven Site photo-simulation 5 – Adjacent to #65 Short Beach Road, 264 feet northeast of site.



East Haven Site photo-simulation 3– Adjacent to #40 Hilton Avenue, 370 feet southeast of site.