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July 28, 2008

TO: Parties and Intervenors

FROM: S. Derek Phelps, Executive Director 

RE: **DOCKET NO. 358** – MCF Communications bg, Inc. and Celco Partnership d/b/a Verizon Wireless application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance and operation of a telecommunications facility at one of two locations located at 347 Riverside Drive (Route 12), and 407 Riverside Drive (Route 12), Thompson, Connecticut.

As stated at the hearing in Thompson on June 10, 2008, after the Council issues its draft findings of fact, parties and intervenors may identify errors or inconsistencies between the Council's draft findings of fact and the record; however, no new information, evidence, argument, or reply briefs will be considered by the Council.

Parties and Intervenors may file written comments with the Connecticut Siting Council on the Draft Findings of Fact issued on this docket by August 4, 2008.

SDP/CML/jb

Enclosure

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| <p>DOCKET NO. 358 – MCF Communications bg, Inc. and } Cellco Partnership d/b/a Verizon Wireless application for a } Certificate of Environmental Compatibility and Public Need for } the construction, maintenance and operation of a } telecommunications facility at one of two locations located at } 347 Riverside Drive (Route 12)- Site A, and 407 Riverside } Drive (Route 12)- Site B, Thompson, Connecticut.</p> | <p>Connecticut Siting Council July 30, 2008</p> |
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DRAFT Findings of Fact

Introduction

1. MCF Communications bg, Inc. (MCF) and Cellco Partnership d/b/a Verizon Wireless (Cellco), collectively referred to as the “Applicants”, in accordance with provisions of Connecticut General Statutes (CGS) § 16-50g through 16-50aa, applied to the Connecticut Siting Council (Council) on February 25, 2008 for the construction, operation, and maintenance of a wireless telecommunications facility at one of two locations in Thompson, Connecticut. Site A is proposed at 347 Riverside Drive (Route 12) and Site B is proposed at 407 Riverside Drive (Route 12). (Applicants 1, p. 1)
2. MCF is a subsidiary of MCF Communications, which is a stock corporation organized and existing under the laws of the Commonwealth of Massachusetts. MCF develops, owns, manages and markets communication sites in New England for wireless communication companies. (Applicants 1, p. 5)
3. Cellco is a Delaware Partnership with an administrative office in Connecticut. Cellco is licensed by the Federal Communications Commission (FCC) to provide personal wireless communication services at both cellular and personal communication service (PCS) frequencies in Windham County, Connecticut. Operation of the wireless telecommunications systems and related activities are Cellco’s sole business in the State of Connecticut. (Applicants 1, pp. 5, 8, Tab 7)
4. The party in this proceeding is the Applicants. The intervenor in this proceeding is the Thompson Hills West Condominium Association, represented by Richard W. Thunberg, Jr. (Board President). (Transcript 1, 3:00 p.m. [Tr. 1], pp. 6, 7)
5. The purpose of the proposed facility is to provide cellular and PCS coverage along Interstate 395 (I-395), Route 200, Route 193 and Route 12, as well as local roads in the southern portion of Thompson. (Applicants 1, p. 2)
6. Pursuant to General Statutes § 16-50m, the Council, after giving due notice thereof, held a public hearing on June 10, 2008, beginning at 3:00 p.m. and continuing at 7:00 p.m. in the Merrill Seney Community Room of the Thompson Town Hall, 815 Riverside Drive, North Grosvenordale (Thompson), Connecticut. (Council’s Hearing Notice dated April 25, 2008; Tr. 1, p. 3; Transcript 2 – 7:00 p.m. [Tr. 2], p. 3)
7. The Council and its staff conducted an inspection of the proposed sites on June 10, 2008, beginning at 2:00 p.m. The Applicants flew a double red balloon at proposed Site A and a single red balloon at proposed Site B to simulate the height of the proposed towers. Balloons at both proposed sites were raised at 8:00 a.m. and remained aloft until 5:00 p.m. From 8:00 a.m. until approximately 11:00 a.m., weather conditions allowed the balloons to fly vertically. After 11:00 a.m. and throughout the afternoon weather conditions were breezy. (Tr. 1, p. 20)
8. The Applicants posted a sign at the front of the proposed Site A property and Site B property on May 19, 2008 to notify the public of the Council’s hearing regarding the proposed project. (Applicants 6)

9. Pursuant to CGS § 16-50l (b), public notice of the application was published in the Norwich Bulletin on February 18 and 19, 2008. (Applicants 1, p. 6; Applicants 2, Affidavit of Publication)
10. Pursuant to CGS § 16-50l(b), notice of the application was provided to all abutting property owners by certified mail. The Applicants received return receipts from all adjacent landowners to the proposed Site A property. The Applicants did not receive return receipts from five landowners adjacent to the Site B property, all of which are condominium owners in the Thompson Hills West complex. Those landowners were sent notification of the proposed project via regular mail. (Applicants 1, p. 6, Tab 6; Applicants 4, R. 1; Tr. 1, p. 21)
11. Pursuant to CGS § 16-50l (b), the Applicants provided notice to all federal, state and local officials and agencies listed therein. (Applicants 1, p. 6, Tab 4)

State Agency Comment

12. Pursuant to CGS § 16-50j (h), on April 25, 2008 and June 12, 2008, the following State agencies were solicited by the Council to submit written comments regarding the proposed facility; Department of Environmental Protection (DEP), Department of Public Health (DPH), Council on Environmental Quality (CEQ), Department of Public Utility Control (DPUC), Office of Policy and Management (OPM), Department of Economic and Community Development (DECD), and the Department of Transportation (DOT). (Record)
13. The Council received a letter from the DOT on June 3, 2008 stating the agency has "no comment" on the proposed project. (DOT comment letter received June 3, 2008)
14. The following agencies did not respond with comment on the application: CEQ, DPUC, OPM, DPH, DEP, and the DECD. (Record)

Municipal Consultation

15. On December 7, 2007, the Applicants provided a copy of the technical report for the proposed sites to the Thompson First Selectman, Lawrence Groh, Jr. (Applicants 1, p. 21)
16. On March 24, 2008, MCF and Cellco appeared before the Town of Thompson Planning and Zoning Commission (Commission) at a public meeting. The Commission prefers Site A for the construction of the proposed facility due to existing commercial zoning and existing commercial/industrial uses surrounding the property. (Applicants 3, Town of Thompson P&Z comments; Tr. 1, pp. 70, 71)
17. MCF would provide space on the proposed tower for the installation of the town's public safety entities. (Applicants 1, p. 12)

Public Need for Service

18. 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. 7)

19. 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 No. 7)
20. The Telecommunications Act of 1996 prohibits local and state entities from discriminating among providers of functionally equivalent services. (Council Administrative Notice Item No. 7)
21. The Telecommunications Act of 1996, a federal law passed by the United States Congress, 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 No. 7)
22. Public safety was enhanced by the Wireless Communications and Public Safety Act of 1999, which made 911 the universal emergency assistance number, furthered the deployment of wireless 911 capabilities and related functions and encouraged construction and operation of seamless, ubiquitous and reliable networks for wireless services. (Applicants 4, R. 2)
23. The Enhanced 911 (E911) Act of 2004 was passed to facilitate the reallocation of spectrum from the government to commercial users, enhance public safety and emergency response capabilities. As part of the E911 Act, carriers have to provide Public Safety Answering Point with precise information, including latitude and longitude of the caller. The FCC requires E911 technology to meet accuracy standards, development of new technologies supporting E911 services and coordination among public safety agencies, wireless carriers, technology vendors, equipment manufacturers and wireline carriers. (Applicants 4, R. 2)
24. Proposed Site A or Site B would comply with the E911 Act. (Applicants 4, R. 2)

Site Selection

25. MCF began searching for a site in this section of Thompson in 2000. MCF was working with Nextel Communications to develop a site to provide coverage to the area. The Thompson Hills West Condominium property was one of the potential properties investigated by MCF for the establishment of a facility, in addition to Site A and Site B. (Applicants 7, p. 1)
26. MCF signed a lease with the Thompson Hills West Condominium Association in October of 2000, which allowed three years for MCF to obtain all necessary permits and construct a tower on the property. Shortly after signing the lease, Nextel Communications informed MCF that it was no longer interested in a site in this section of Thompson. (Applicants 7, pp. 1, 2)
27. In late 2003, MCF inquired with Deborah Kirkconnell, a representative of the management company contracted by the Association to maintain the property, regarding an extension of the lease agreement with the Association. MCF was informed that the Association was not interested in extending the lease. At that time MCF also maintained leases for sites on the proposed Site A and Site B facilities, but no wireless carriers were interested in either site. (Applicants 7, p. 2)
28. Cellco established a search ring for the target service area on June 30, 2005. The search ring was an approximately 1.1 mile diameter circular area located in the southern section of Thompson. The search area encompasses a portion of I-395 from its intersection with Route 193 to its intersection with Route 200. The proposed sites are on the western edge of the search ring. (Applicants 4, R. 3, 4)

29. There are four existing telecommunications facilities and one recently approved telecommunications facility within a four-mile radius of the proposed sites. These sites include:

| Location | Height in feet/Type | Cellco Antenna Height |
|--|----------------------|-----------------------|
| 61 Lowell Davis Road, Thompson | 250-ft/guyed lattice | 237-ft/227-ft |
| 720 Thompson Road, Thompson | 140-ft/monopole | N/A |
| 97 Mount Hill Road, Thompson | 180-ft/lattice | N/A |
| 154 Sayle Avenue, Putnam | 180-ft/monopole | 146-ft |
| Rich Road, Thompson (approved on 01/10/08) | 150-ft/monopole | 140-ft |

(Applicants 1, Tab 10)

30. Prior to selecting the proposed sites, Cellco considered two existing structures. The Thompson Congregational Church was considered and rejected because it was too far from I-395 and would not satisfy Cellco's coverage objectives at its existing height. A water tank on Rachel Drive was considered and rejected because the existing structure was too short and too far west of I-395 to satisfy Cellco's coverage objectives. (Applicants 1, Tab 10)
31. After determining that no existing structures would provide Cellco with adequate coverage, Cellco investigated potential properties for construction of a new tower. Cellco investigated five sites, including the two proposed. The three rejected sites, and reasons for rejection, include:
- a. Marianopolis Preparatory School – The local Historic District Commission and the state Historic Preservation Officer were concerned that a tower at this site might have an adverse effect on the town's Historic District.
 - b. Thompson Hills West Condominiums – Per MCF conversations with a representative of Thompson Hills West in late 2003, the Association was not interested in leasing space for a telecommunications facility.
 - c. 129 Robbins Road – this property is located too far south to provide adequate coverage and would be redundant with Cellco's existing Putnam Facility.
- (Applicants 1, Tab 10; Applicants 7, p. 2)
32. On behalf of Thompson Hills West Condominium Association, The intervenor, Mr. Thunberg, stated that the condominium owners currently want that property considered by the Council as an alternative site to the proposed Site A and Site B. Mr. Thunberg also stated the Association's position that, if the condominium property is not chosen as an alternative site, it prefers the Council approve proposed Site A rather than Site B. (Tr. 1, pp. 74, 75)
33. A Connecticut Light and Power Company (CL&P) transmission line runs near the proposed sites, on 40-foot to 60-foot wood poles. Use of a CL&P pole for the installation of Cellco antennas might be able to satisfy Cellco's coverage objectives for the area; however, the pole would have to be replaced with a steel structure approximately double the height of the existing ones. (Applicants 4, R. 29)
34. Microcells and repeaters are not viable technological alternatives for providing coverage to the identified coverage gap due to the large size of the area that needs to be covered along I-395, Route 12, Route 200 and Route 193. (Applicants 4, R. 5)

Proposed Site A

35. Proposed Site A is located on an approximately two-acre parcel at 347 Riverside Drive in Thompson. The parcel is owned by Rene B. and Mary V. Santerre, Trustees and currently is used by D&R Tire & Masonry Supply Co. for an office location and storage yard. The Site A location is depicted in Figure 1 of this document. (Applicants 1, Tab 1)

36. The proposed Site A parcel is located in the Commercial zoning district. The Town of Thompson's Zoning Regulations include five siting preferences for telecommunications facilities, including:
 - a. An alternative facility on an existing or approved tower;
 - b. An alternative facility on an existing non-residential building, water tank or other similar structure;
 - c. A new tower on a parcel already occupied by existing towers;
 - d. A new tower in a commercial or industrial zone; and
 - e. A new tower in a residential zone.(Applicants 1, p. 19)
37. The town's Zoning Regulations also include requirements such as:
 - a. property boundary setbacks for towers equal to the setback in the zone or the height of the tower, whichever is greater;
 - b. the use of a monopole design in residential zones; and
 - c. the applicant to accommodate tower sharing.(Applicants 1, p. 19)
38. The proposed Site A facility would be located in the central portion of the host property at a ground elevation of approximately 327 feet above mean sea level (amsl). (Applicants 1, p. 2, Tab 1)
39. The Site A facility would consist of a 140-foot monopole within a 100-foot by 100-foot leased area. The monopole would be approximately 42 inches at the base tapering to approximately 26 inches at the top. The tower would be designed to support the antennas of Cellco and three additional carriers with a ten-foot center-to-center vertical separation. Construction of the proposed tower would be in accordance with the American National Standards Institute TIA/EIA-222-F "Structural Standards for Steel Antenna Towers and Antenna Support Structures." (Applicants 1, Tab 1)
40. Cellco would install twelve antennas at a centerline height of 137 feet above ground level (agl). Cellco's proposed antennas would extend to a height of 140 feet agl. (Applicants 1, Tab 1)
41. The proposed tower would be located within a 70-foot by 70-foot equipment compound enclosed by an eight-foot tall chain-link fence. The tower and equipment compound would be designed to accommodate the equipment of three additional carriers as well as the town's public safety entities, if needed. Cellco proposes to install equipment within a 12-foot by 30-foot equipment shelter, which would be installed on the ground near the base of the tower. (Applicants 1, pp. 2, 12, Tab 1)
42. The equipment compound could be reduced to a 50-foot by 50-foot compound and still have enough room for the equipment of all wireless carriers that currently hold licenses in the area, if ordered by the Council. (Applicants 4, R. 34; Tr. 1, p. 48)
43. Cellco would install a back-up generator within the proposed equipment building for use during power outages. It would be run periodically for maintenance purposes. (Applicants 1, p. 4)
44. The fuel storage tank associated with the back-up generator would be located beneath the generator. The tank would consist of a double-walled tank with built-in leak detection alarms that are monitored remotely at the Cellco Mobile Telephone Switching Office. The floor of the generator room is designed to contain 120% of the capacity of all generator fluids. (Applicants 4, R. 27)

45. Cellco would not be willing to install a fuel cell to provide back-up power to Proposed Site A, nor does Cellco have plans to install fuel cells at any existing sites or future sites within Connecticut. (Applicants 4, R. 38, 39)
46. Since the filing of the application, the owner of the proposed Site A property has excavated material from the slope in the area of the proposed site. (Applicants 4, R. 6; Tr. 1, p. 14)
47. Access to the proposed Site A facility would extend southeast from Riverside Drive along an existing gravel driveway for approximately 205 feet, then over a new gravel driveway for an additional approximately 20 feet. (Applicants 1, p. 2, Tab 1)
48. Utilities would extend underground to the site from an existing overhead pole within the southern portion of the parcel. One new 40-foot utility pole would be installed south of the proposed Site A compound to allow installation of underground utilities. (Applicants 1, Tab 1; Applicants 4, R. 9)
49. The Applicants could install utilities underground from the existing utility pole northwest of proposed Site A. (Tr. 1, p. 39)
50. Development of proposed Site A is not expected to require blasting. (Applicants 4, R. 14)
51. The tower setback radius would extend onto adjacent properties to the north (owned by Suzanne L. St. Onge), by approximately 32 feet, and south (owned by Donna M. Esposito), by approximately 32 feet. The tower setback radius would also include the northern portion of the Liberty Glass & Metal building that is located on an adjacent property south of the proposed site. (Applicants 1, Tab 1)
52. The Site A host property also contains a two-story brick building that would be almost completely within the tower setback radius. The nearest point of the building is approximately 36 feet from the proposed tower location. Two propane tanks are located approximately 104 feet from the proposed tower. (Applicants 1, Tab 1)
53. MCF would design the proposed tower with a yield point at approximately 80 feet agl to allow the tower to remain on the host property in the event of a tower failure. (Applicants 4, R. 7)
54. There are nine residences within 1,000 feet of the proposed tower. The nearest residence is approximately 188 feet northwest of the proposed Site A facility. (Applicants 1, p. 14)
55. Land use in the surrounding area is predominately commercial/industrial to the south and west; a railroad right-of-way is located to the east; and residential areas exist north of proposed Site A. (Applicants 1, Tab 1)
56. The estimated construction cost of the proposed Site A facility, including antennas and radio equipment, is:

| | |
|---|---------------|
| Cell site radio equipment | \$ 450,000 |
| Tower, coax and antennas | 150,000 |
| Power systems | 20,000 |
| Equipment building | 50,000 |
| <u>Miscellaneous (incl. preparation and installation)</u> | <u>75,000</u> |
| Total | \$ 745,000 |

(Applicants 1, pp. 22, 23)

Proposed Site B

57. Proposed Site B is located on an approximately 3-acre parcel at 407 Riverside Drive in Thompson. The parcel is owned by David F. Rogers and is used as a residential property. The Site B location is depicted in Figure 2 of this document. (Applicants 1, Tab 2)
58. The proposed Site B parcel is located in a Residential (R-20) zoning district. The Town of Thompson's Zoning Regulations include five siting preferences for telecommunications facilities including:
 - a. An alternative facility on an existing or approved tower;
 - b. An alternative facility on an existing non-residential building, water tank or other similar structure;
 - c. A new tower on a parcel already occupied by existing towers;
 - d. A new tower in a commercial or industrial zone; and
 - e. A new tower in a residential zone.(Applicants 1, p. 19)
59. The town's Zoning Regulations also include requirements such as:
 - a. property boundary setbacks for towers equal to the setback in the zone or the height of the tower, whichever is greater;
 - b. the use of a monopole design in residential zones; and
 - c. the applicant to accommodate tower sharing.(Applicants 1, p. 19)
60. The proposed Site B facility would be located in the eastern portion of the host property at a ground elevation of approximately 370 feet amsl. (Applicants 1, p. 3, Tab 2)
61. The Site B facility would consist of a 140-foot monopole within a 100-foot by 100-foot leased area. The monopole would be approximately 42 inches at the base tapering to approximately 26 inches at the top. The tower would be designed to support the antennas of Cellco and three additional carriers with a ten-foot center-to-center vertical separation. Construction of the proposed tower would be in accordance with the American National Standards Institute TIA/EIA-222-F "Structural Standards for Steel Antenna Towers and Antenna Support Structures." (Applicants 1, Tab 2)
62. Cellco would install twelve antennas at a centerline height of 137 feet agl. Cellco's proposed antennas would extend to a height of 140 feet agl. (Applicants 1, Tab 2)
63. The proposed tower would be located within a 70-foot by 70-foot equipment compound enclosed by an eight-foot tall chain-link fence. The tower and equipment compound would be designed to accommodate the equipment of three additional carriers as well as the town's public safety entities, if needed. Cellco proposes to install equipment within a 12-foot by 30-foot equipment shelter, which would be installed on the ground near the base of the tower. (Applicants 1, pp. 3, 12, Tab 2)
64. The equipment compound could be constructed as a 50-foot by 50-foot compound and still have enough room for the equipment of all wireless carriers that currently hold licenses in the area, if ordered by the Council. (Applicants 4, R. 34; Tr. 1, p. 48)
65. Cellco would install a back-up generator within the proposed equipment building for use during power outages. It would be run periodically for maintenance purposes. (Applicants 1, p. 4)

66. The fuel storage tank associated with the back-up generator would be located beneath the generator. The tank would consist of a double-walled tank with built-in leak detection alarms that are monitored remotely at the Cellco Mobile Telephone Switching Office. The floor of the generator room is designed to contain 120% of the capacity of all generator fluids. (Applicants 4, R. 27)
67. Cellco would not be willing to install a fuel cell to provide back-up power to Proposed Site B, nor does Cellco have plans to install fuel cells at any existing sites or future sites within Connecticut. (Applicants 4, R. 38, 39)
68. Construction of the proposed Site B compound and access road would require grading. (Applicants 1, Tab 2)
69. Access to the proposed Site B facility would extend east from Riverside Drive along an existing gravel driveway for approximately 230 feet, then over a new gravel driveway for an additional approximately 235 feet. (Applicants 1, p. 3, Tab 2)
70. Utilities would extend partially overhead and partially underground to the site from an existing overhead pole along Riverside Drive. Two new 40-foot utility poles would be installed for a distance of approximately 30 feet. The underground portion of the utility installation would be along the proposed access road for a distance of approximately 230 feet. (Applicants 1, Tab 2; Applicants 4, R. 10, 11)
71. The Applicants could install utilities underground along the access road to the site. (Tr. 1, p. 41)
72. Development of proposed Site B is not expected to require blasting. (Applicants 4, R. 14)
73. The tower setback radius would remain on the proposed Site B host property. (Applicants 1, Tab 2)
74. There are 25 residences within 1,000 feet of the proposed tower. The nearest off-site residence is approximately 216 feet southwest of the proposed Site B facility. The Site B property owner's residence is located 170 feet west of the site. (Applicants 1, p. 15, Tab 11; Applicants 4, R. 20)
75. The Thompson Hills West Condominium property is located north and northeast of the proposed site. The nearest building on the adjacent condominium property is located 264 feet north. (Applicants 1, p. 15, Tab 2)
76. Land use in the surrounding area predominately consists of residential condominiums to the east and north, with undeveloped property on the condominium property to the south. Residential property exists along Riverside Drive west of the proposed site. A medical building operated by Day Kimball Hospital is located north of the site. (Applicants 1, Tab 2)
77. The estimated construction cost of the proposed Site B facility, including antennas and radio equipment, is:

| | |
|---|----------------|
| Cell site radio equipment | \$ 450,000 |
| Tower, coax and antennas | 150,000 |
| Power systems | 20,000 |
| Equipment building | 50,000 |
| <u>Miscellaneous (incl. preparation and installation)</u> | <u>110,000</u> |
| Total | \$ 780,000 |

(Applicants 1, p. 23)

Environmental Considerations

78. The proposed facilities would have no effect upon historic, architectural or archeological resources listed on or eligible for the National Register of Historic Places (Applicants 1, p. 22)
79. The proposed facilities would not adversely affect federally listed or proposed species. No federally listed endangered or threatened species are known to occur in Windham County. (Applicants 1, pp. 21, 22, Tab 12)
80. The proposed sites are not within state-listed species or significant natural community areas. (Applicants 1, Tab 12; Applicants 4, R. 12)
81. Vegetation near proposed Site A consists of 50 to 60-foot deciduous trees; however, the property on which the Site A facility would be located contains little or no vegetation. The property of proposed Site B predominately consists of 50-foot to 60-foot deciduous and coniferous trees. Vegetation type in the area of both proposed Site A and Site B includes a mix of pine, oak, maple and hickory. (Applicants 4, R. 16, 17)
82. No trees with diameters of six inches or greater would have to be removed for the construction of the proposed Site A facility. Construction of the proposed Site B facility would require the removal of four trees with diameters of six inches or greater. (Applicants 4, R. 15)
83. The Thompson Inland Wetland and Watercourses Regulations regulate activity both within a wetland or watercourse and within 200 feet of an identified wetland or watercourse. (Applicants 1, pp. 19, 20)
84. There are no wetlands or watercourses within 200 feet of the proposed Site A facility. The nearest wetlands to Site A are associated with the French River, northwest of the site across Riverside Road. (Applicants 1, p. 20)
85. The nearest wetland to the proposed Site B facility is located approximately 122 feet southwest of the proposed compound, within the existing CL&P right-of-way. (Applicants 1, p. 20)
86. Cellco would install appropriate erosion and sedimentation control measures at either proposed Site A or Site B, and maintain these throughout the construction process. (Applicants 1, p. 20)
87. Both proposed Site A and Site B would be located within the Federal Emergency Management Agency flood zone designated C, which is an area of minimal flooding. (Applicants 1, p. 20; Applicants 4, R. 30)
88. The nearest public airfield to proposed Site A and Site B is located in the Town of Danielson, Connecticut approximately eight miles south of both sites. Obstruction lighting and marking of the proposed Site A or Site B towers would not be required. (Applicants 1, p. 21; Applicants 4, R. 19)
89. The maximum power density from the radio frequency emissions of Cellco's antennas at either proposed site would be 8.33% of the standard for 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 would be pointed at the base of the tower and all channels would be operating simultaneously. (Applicants 1, p. 16)

Visibility

90. The proposed Site A tower would be visible year-round from approximately 22.5 acres within a two-mile radius of the site (refer to Figure 3 of this document). The Site A tower would be seasonally visible from an additional 5.6 acres within two miles of the site. (Applicants 1, p. 14, Tab 11)
91. The proposed Site B tower would be visible year-round from approximately 33 acres within a two-mile radius of the site (refer to Figure 4 of this document). In addition, the Site B tower would be seasonally visible from an additional six acres within a two-mile radius of the site. (Applicants 1, p. 14, Tab 11)
92. Proposed Site A is located on an open area of the parcel with a wooded area to the east that would create a visual buffer to adjacent properties in that direction. The proposed Site B parcel is predominately wooded, which would create a visual buffer to all adjacent properties. (Applicants 1, Tab 11)
93. There are three historical sites, three parks/recreational areas, one school, three cemeteries/churches and three hiking trails within a two-mile radius of both of the proposed sites. None of these areas would have a view of either proposed tower. (Applicants 1, Tab 11; Applicants 4, R. 18)
94. Visibility of the proposed Site A tower from specific locations within a two-mile radius of the site is presented in the table below:

| Location | Visible | Approx. Portion of Tower Visible | Approx. Distance from Tower |
|--|---------|----------------------------------|-----------------------------|
| 1. Westside Drive | No | - | 2,165 feet northeast |
| 2. Westside Drive | No | - | 2,270 feet north northeast |
| 3. 430 Riverside Drive | No | - | 1,940 feet north |
| 4. 353 Riverside Drive | Yes | Whole tower | 430 feet north |
| 5. Riverside Drive | No | - | 4,300 feet southwest |
| 6. Historic George Nichols Pickering House | No | - | 2,100 feet south |
| 7. Thompson Hill Historic District | No | - | 6,000 feet northeast |
| 8. Quinntisset Country Club | No | - | 7,650 feet southeast |
| 9. West Thompson Recreational Area | No | - | 3,200 feet northwest |
| 10. 91 Church Street | No | - | 8,150 feet southwest |
| 11. Tourtellotte Memorial High School | No | - | 9,900 feet northwest |
| 12. North Grosvenordale Mill Historic District | No | - | 12,500 feet northwest |
| 13. St. Joseph Cemetery | No | - | 10,700 feet northwest |
| 14. Swiss Cemetery | No | - | 10,900 feet northwest |
| 15. Riverside Drive | No | - | 1,700 feet north |

(Applicants 1, Tab 11)

95. Visibility of the proposed Site B tower from specific locations within a two-mile radius of the site is presented in the table below:

| Location | Visible | Approx. Portion of Tower Visible | Approx. Distance from Tower |
|--|---------|----------------------------------|-----------------------------|
| 1. Westside Drive | Yes | 10 feet above trees | 540 feet northeast |
| 2. Westside Drive | Yes | 40 feet above trees | 640 feet north |
| 3. 430 Riverside Drive | Yes | 120 feet above trees | 900 feet northwest |
| 4. 353 Riverside Drive | No | - | 1,450 feet southwest |
| 5. Riverside Drive | No | - | 6,000 feet southwest |
| 6. Historic George Nichols Pickering House | No | - | 3,700 feet south |
| 7. Thompson Hill Historic District | No | - | 5,000 feet east |
| 8. Quinattisset Country Club | No | - | 8,500 feet southeast |
| 9. West Thompson Recreational Area | No | - | 3,900 feet west |
| 10. 91 Church Street | No | - | 9,800 feet southwest |
| 11. Tourtellotte Memorial High School | No | - | 8,900 feet northwest |
| 12. North Grosvenordale Mill Historic District | No | - | 11,400 feet northwest |
| 13. St. Joseph Cemetery | No | - | 9,800 feet northwest |
| 14. Swiss Cemetery | No | - | 9,800 feet northwest |
| 15. Riverside Drive | Yes | Upper portion – through trees | 580 feet west |

(Applicants 1, Tab 11)

96. The proposed site A tower is expected to be visible year-round from three residences along Riverside Drive and seasonally from an additional five residences on Riverside Drive. The proposed Site B tower is expected to be visible year-round from 13 residences along Riverside Drive and three residences along West Side Drive. The Site B tower would be seasonally visible from one additional residence on Riverside Drive and two additional residences on West Side Drive. (Applicants 1, Tab 11)
97. The Thompson Hills West Condominium complex consists of 42 units, 28 of which would have year-round views of the proposed Site B tower. An additional six units would have seasonal views of the proposed Site B tower and the remaining eight units are not expected to have a view of the proposed tower. (Tr. 1, p. 15)
98. None of the units at the Thompson Hills West Condominium complex would have a view of the proposed Site A tower. However, a portion of a driveway to one section of the condominium complex affords a view of the proposed Site A tower along the CL&P transmission line right-of-way. (Tr. 1, p. 16; Tr. 2, p. 4)

Existing and Proposed Wireless Coverage – Cellco

99. Cellco operates in the 850 MHz (cellular) and 1900 MHz (PCS) frequency bands. Cellco's minimum signal level is -85 dBm, which is adequate for in-vehicle coverage. The in-building signal level is -75 dBm. (Applicants 1, Tab 7, Tab 8; Applicants 4, R. 22, 23)
100. The existing signal level in the area of the proposed sites ranges from -86 dBm to -104 dBm at cellular frequencies to -86 dBm to -112 dBm at PCS frequencies. (Applicants 4, R. 23)

101. There are significant gaps in Cellco's cellular and PCS coverage in the southern portion of Thompson. Cellco has antennas at the 237 and 227-foot level of a tower located at 61 Lowell Davis Road in Thompson, northeast of the proposed sites; at the 146-foot level of a tower located at 154 Sayle Avenue in Putnam, south of the proposed sites; and at the 267 foot level of a tower located at 1375 North Road in Killingly, southeast of the proposed sites. (Applicants 1, p. 2; Applicants 4, R. 24)
102. Cellco would provide coverage from the proposed sites along nearby roadways shown in the following table (distance in linear miles).

| Road | Site A – Cellular | Site A – PCS | Site B – Cellular | Site B - PCS |
|-------------|--------------------------|---------------------|--------------------------|---------------------|
| I-395 | 2.86 | 2.66 | 3.12 | 2.75 |
| Route 200 | 1.51 | 1.2 | 1.0 | 0.89 |
| Route 193 | 0.85 | 0.6 | 1.2 | 0.8 |
| Route 12 | 3.28 | 2.65 | 3.3 | 2.88 |

(Applicants 1, pp. 3, 4)

103. From proposed Site A, Cellco would provide an overall cellular coverage footprint of 7.3 square miles and a PCS coverage footprint of 3.0 square miles. From proposed Site B, Cellco would provide an overall cellular coverage footprint of 7.0 square miles and a PCS coverage footprint of 3.1 square miles. (Applicants 1, pp. 3, 4)
104. A 140-foot tower located at the condominium property would provide similar coverage to that provided by the proposed Site B facility. (Tr. 1, p. 21)
105. Cellco estimates that available cellular spectrum in this area would be exhausted by the end of 2009. When cellular spectrum is exhausted, Cellco would have to put voice-transmitting capabilities on the PCS spectrum. (Applicants 4, R. 35)
106. Cellco's search for potential future sites in the area of the proposed project include: a site on a water tank along Route 131; a site east of the proposed Thompson facility in Putnam, along Route 44; and a raw land site in Woodstock along Route 197. The potential future site on a water tank along Route 131 would interact with the proposed facility; the other sites would not. (Tr. 1, pp. 21-24)
107. Cellco has filed an application with the Council for a site east of the proposed Thompson facility in Putnam, along Route 44. (Tr. 1, p. 22)

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**Proposed Verizon Wireless
Thompson 98 Site A & B
Riverside Drive
North Grosvenordale, Connecticut**

Figure 1. Aerial photograph of proposed Site A and Site B and surrounding area. (Applicants 5)

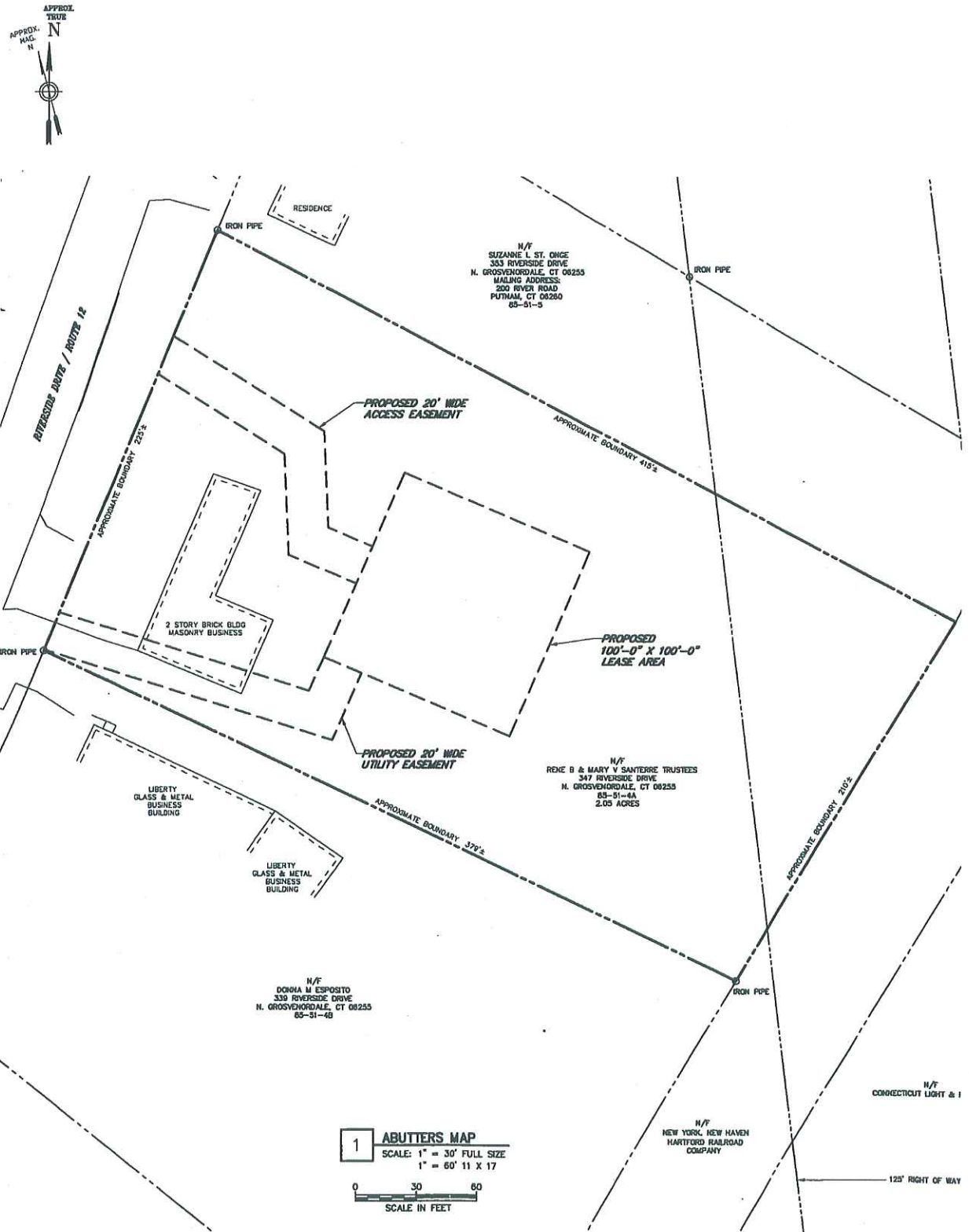


Figure 2. Property map of proposed Site A. (Applicants 1, Tab 1)

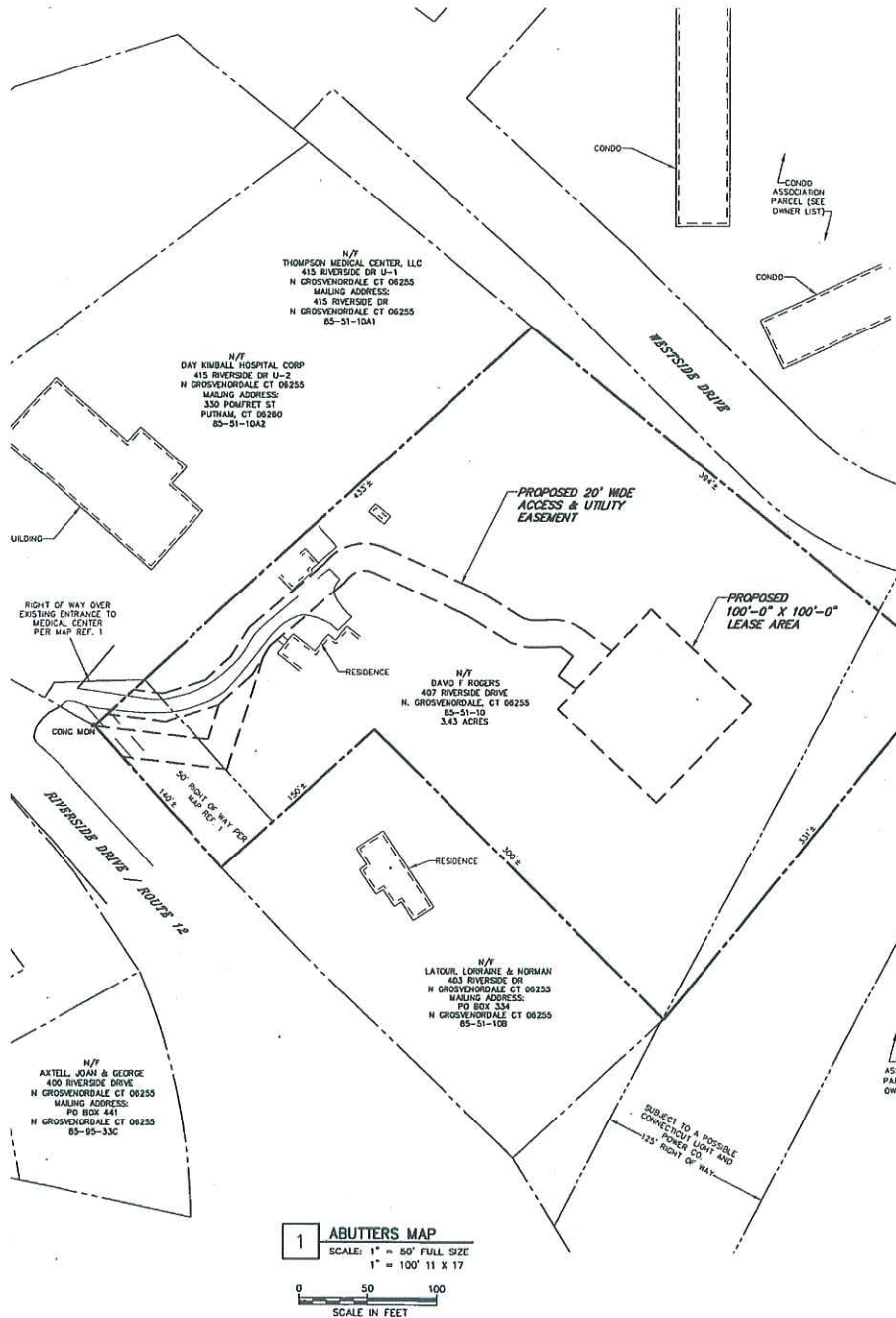


Figure 3. Property map of proposed Site B. (Applicants 1, Tab 2)

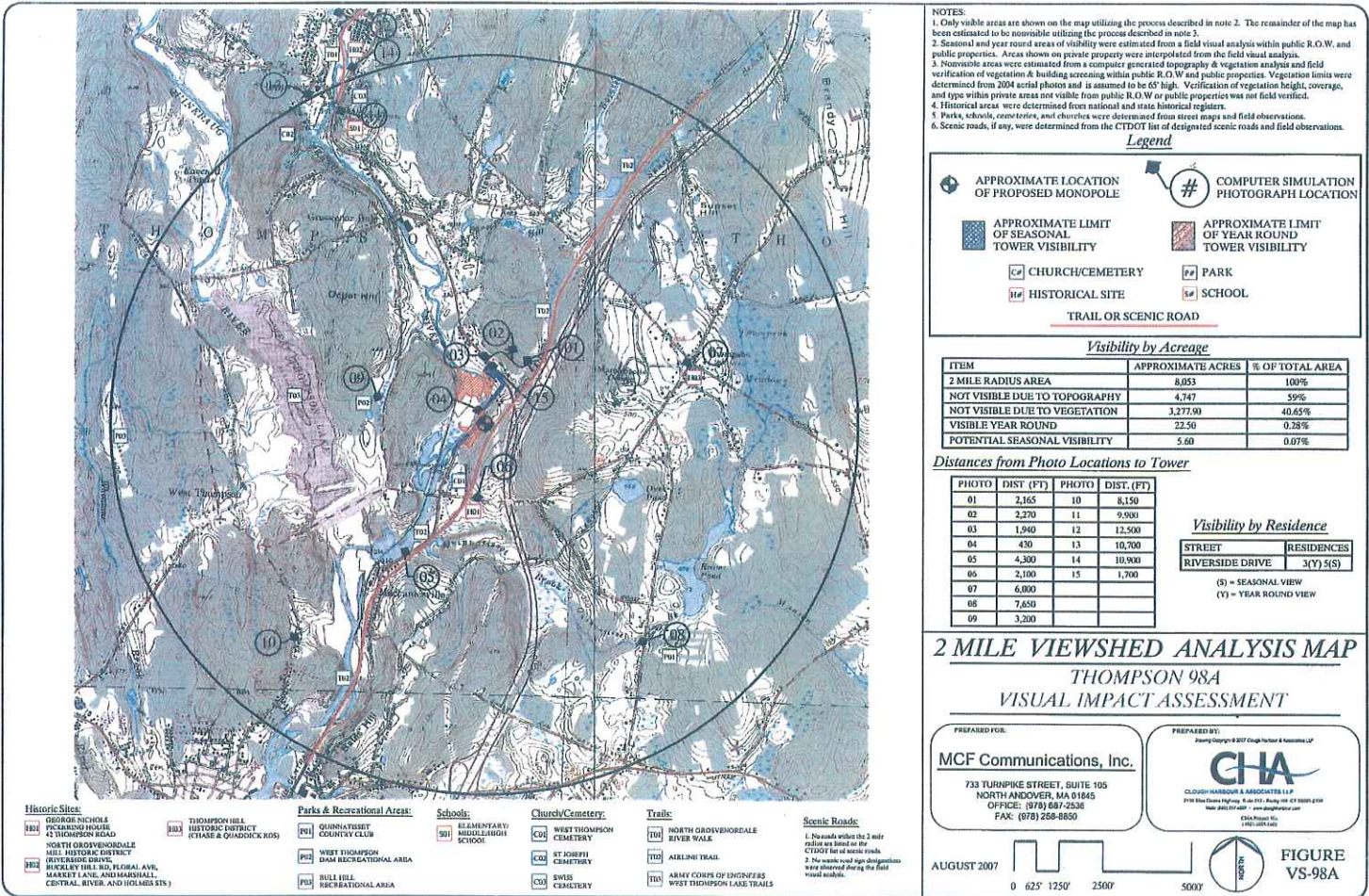


Figure 4. Viewshed analysis of a 140-foot tower at proposed Site A. (Applicants 1, Tab 11)

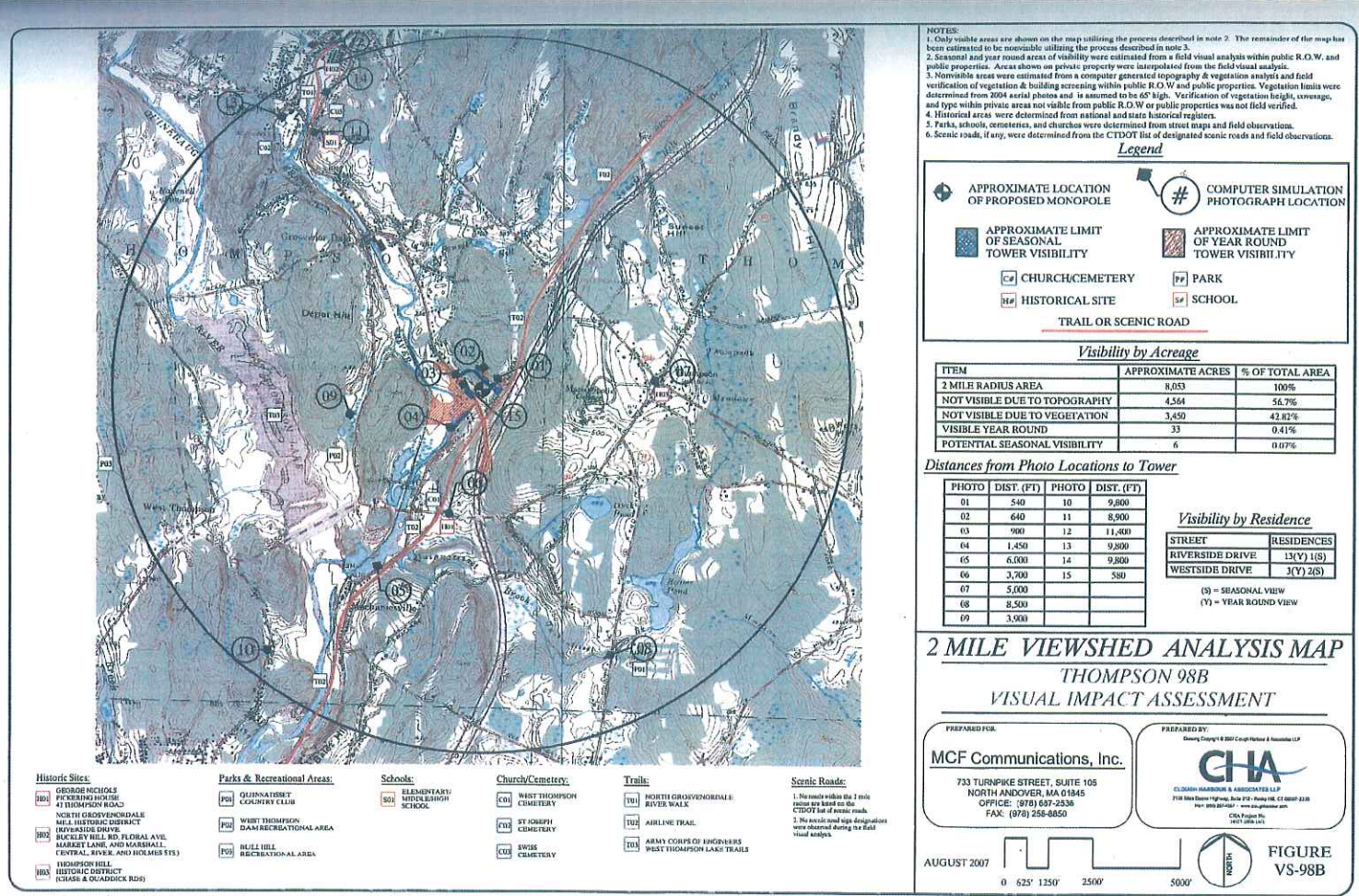


Figure 5. Viewshed analysis of a 140-foot tower at proposed Site B. (Applicants 1, Tab 11)

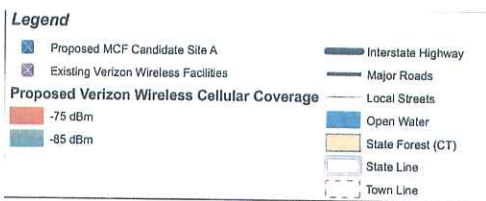
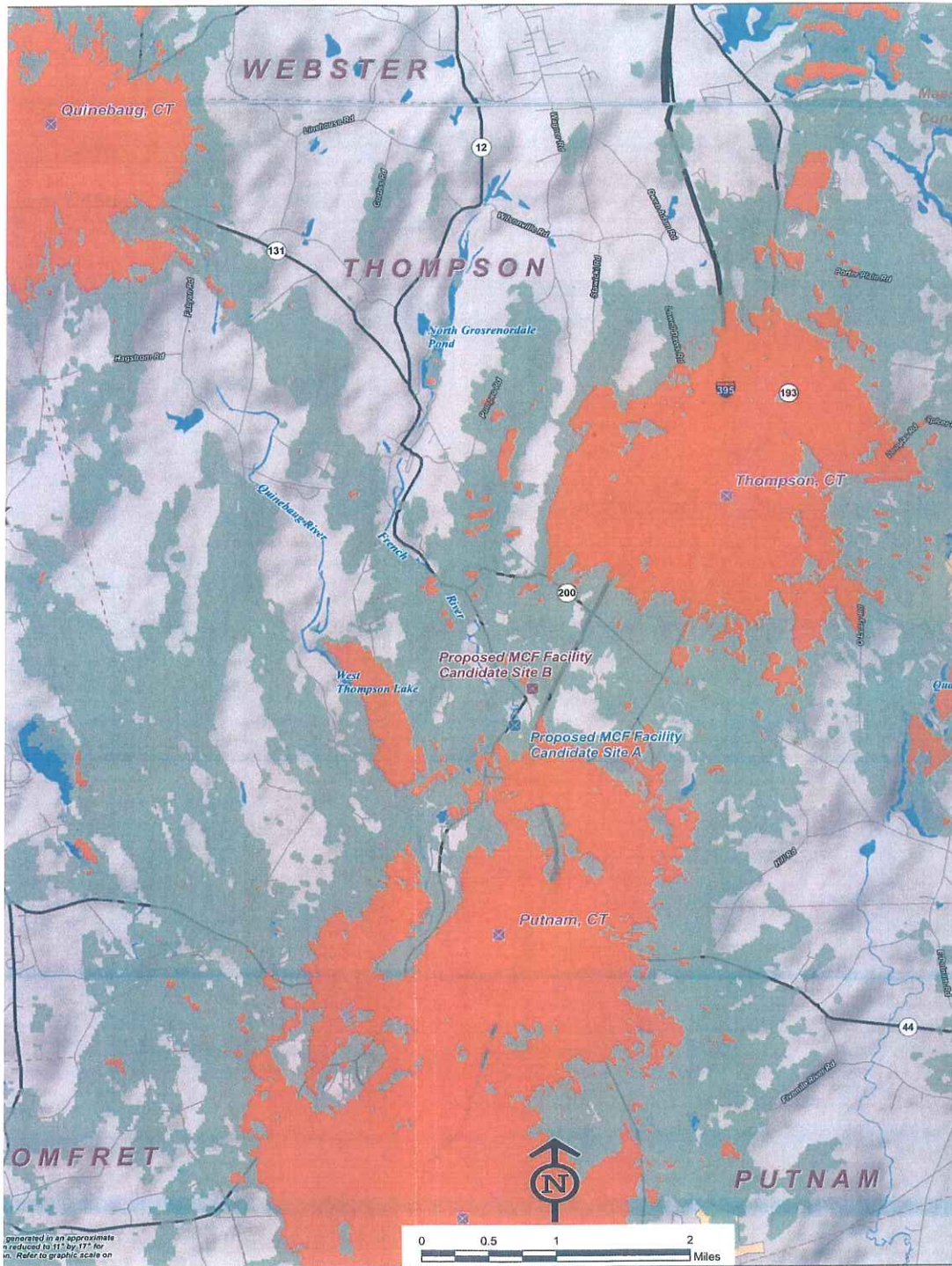


Figure 6. Existing Cellco cellular coverage near the proposed sites. (Applicants 1, Tab 8)

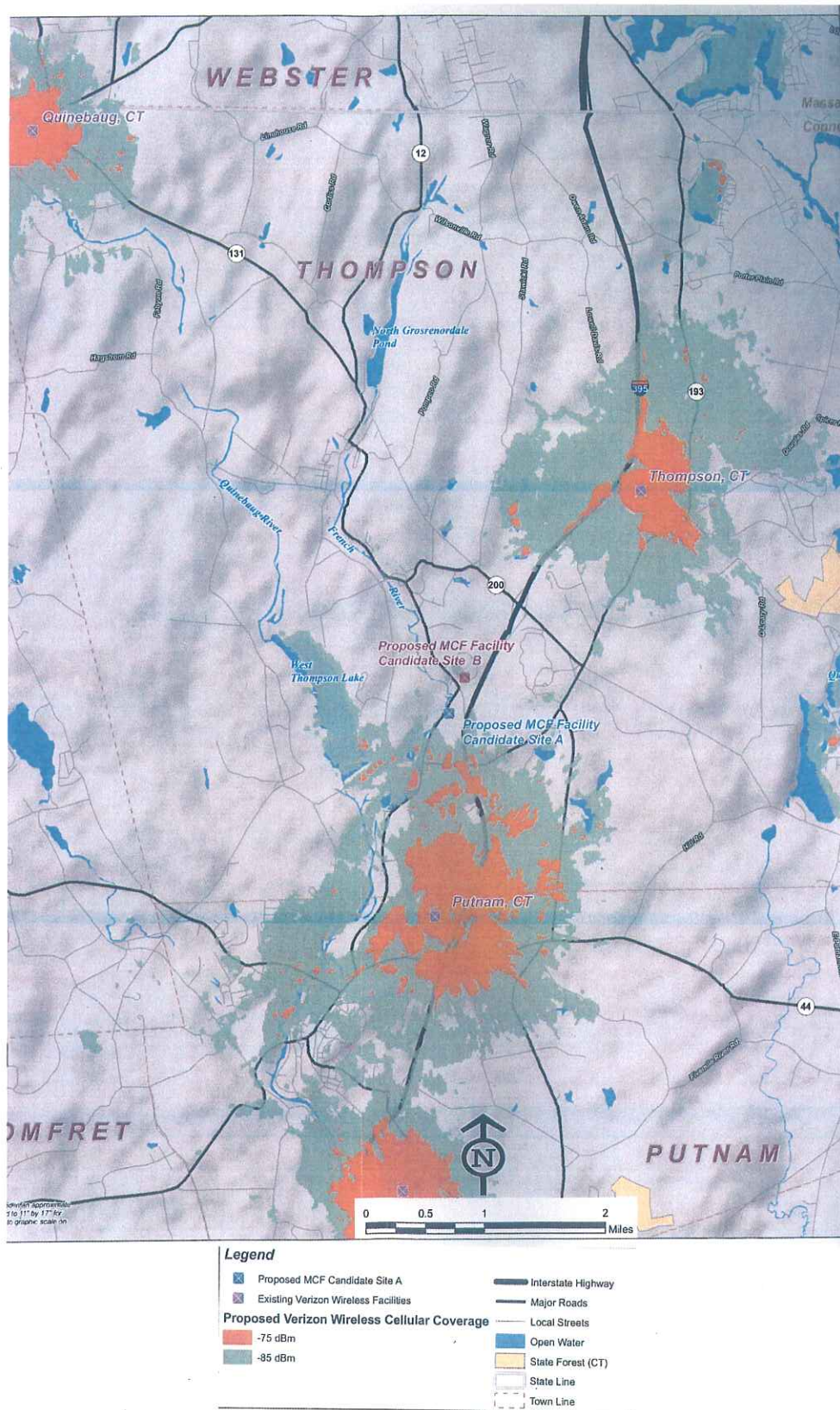


Figure 7. Existing Cellco PCS coverage near the proposed sites. (Applicants 1, Tab 8)

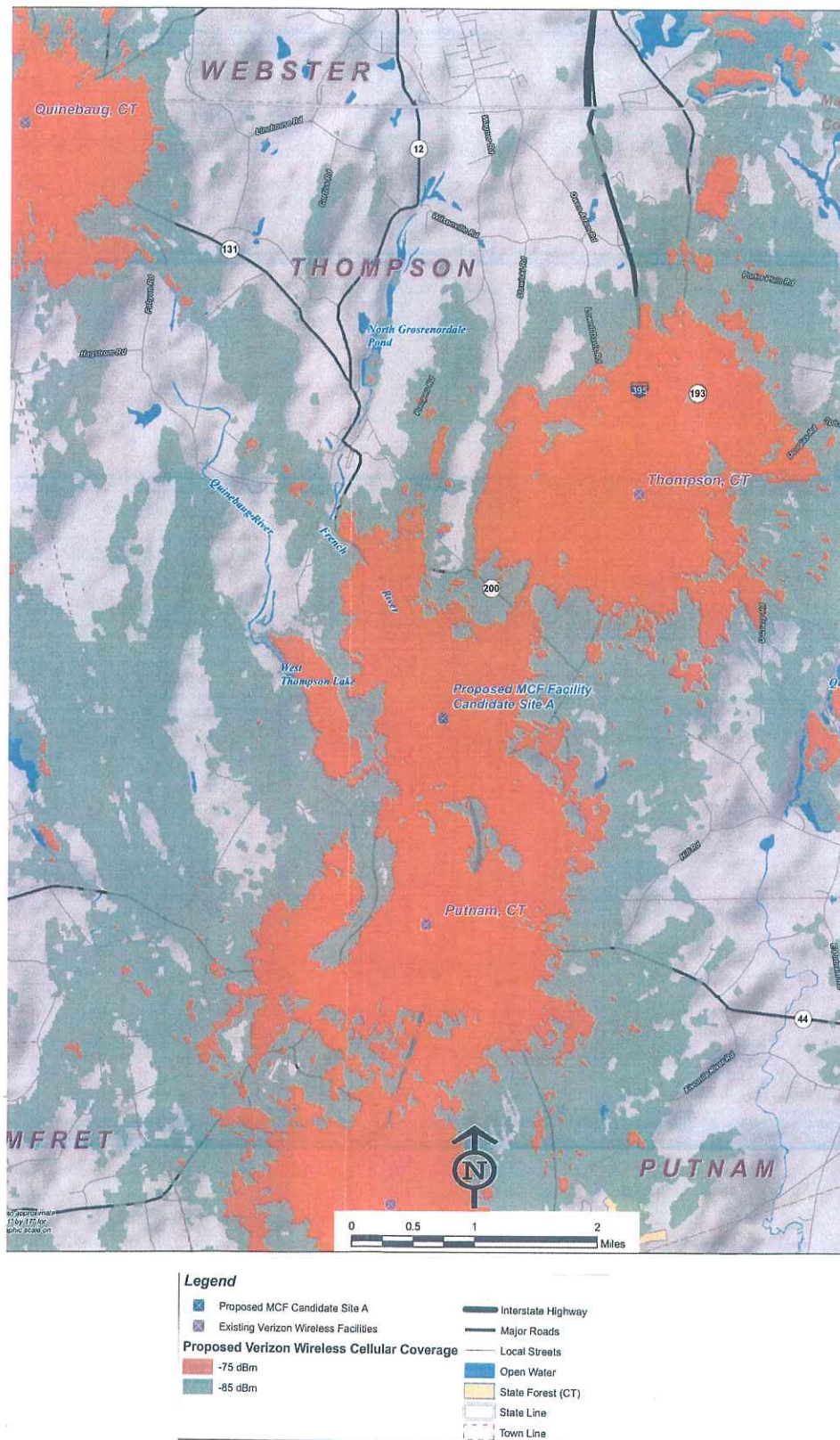


Figure 8. Cellco's existing and proposed cellular coverage from Site A at 140 feet agl. (Applicants 1, Tab 8)

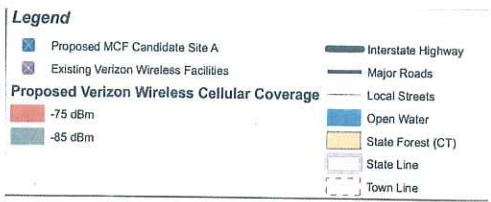
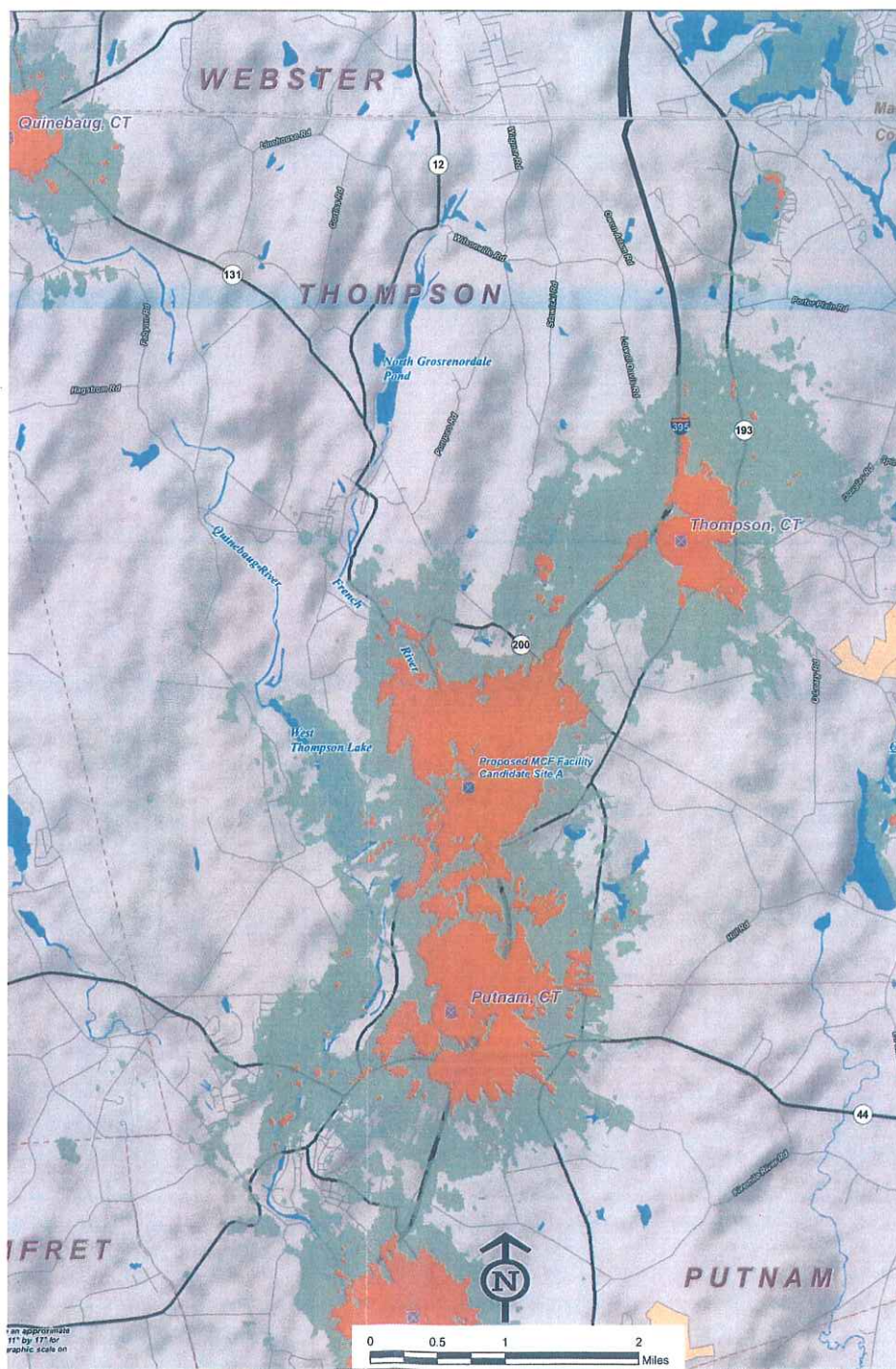


Figure 9. Cellco's existing and proposed PCS coverage from Site A at 140 feet agl. (Applicants 1, Tab 8)



Figure 10. Cellco's existing and proposed cellular coverage from Site B at 140 feet agl. (Applicants 1, Tab 8)

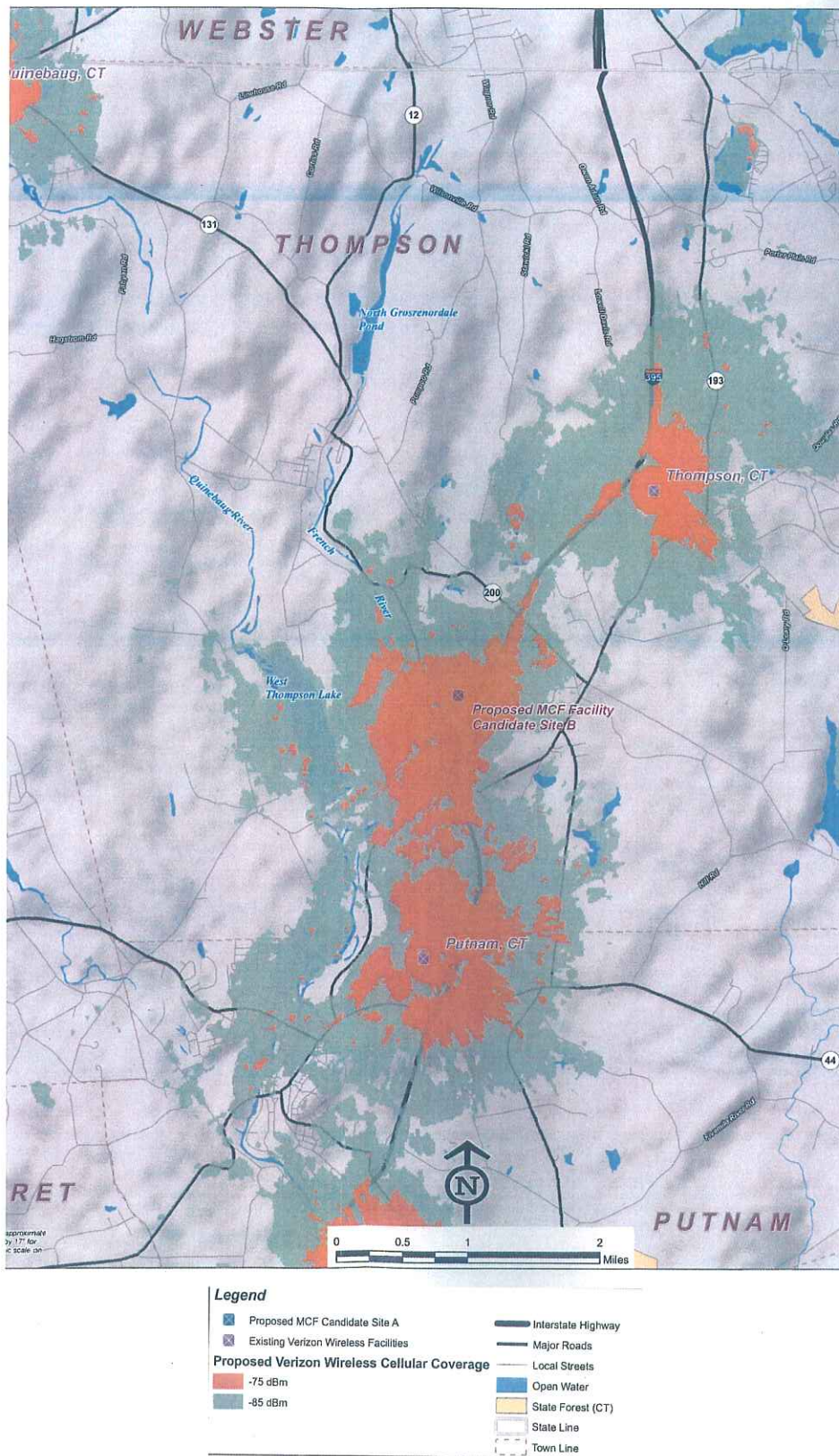


Figure 11. Cellco's existing and proposed PCS coverage from site B at 140 feet agl. (Applicants 1, Tab 8)