

DOCKET NO. 299 – Sprint Spectrum, L.P. application for a } Connecticut
Certificate of Environmental Compatibility and Public Need for }
the construction, maintenance and operation of a } Siting
telecommunications facility at 383 Torrington Road in Litchfield, }
Connecticut. } Council

August 24, 2005

Findings of Fact

Introduction

1. Pursuant to Connecticut General Statutes § 16-50g et seq., and the Regulations of Connecticut State Agencies § 16-50j-1 et seq., Sprint Spectrum (Sprint), L.P. applied to the Connecticut Siting Council (Council) on September 30, 2004 for a certificate of environmental compatibility and public need (Certificate) authorizing the construction, operation, and maintenance of a telecommunications facility at 383 Torrington Road in Litchfield, Connecticut. (Sprint 1, p. 4)
2. Sprint's proposed facility would include a 130-foot tall monopole intended to eliminate an existing coverage gap on Route 202 and surrounding areas in Litchfield. (Sprint 1, pp. 4, 6)
3. Cellco Partnership d/b/a Verizon Wireless (Verizon) intervened in this proceeding with a petition to raise the height of the proposed monopole to 140 feet. (Verizon 1, p. 1)
4. Sprint is a Delaware limited partnership, which is a wholly-owned subsidiary of Sprint Corporation, a Kansas corporation. Sprint Corporation is a wholly-owned subsidiary of WirelessCo, L.P., a Delaware limited partnership. Sprint is authorized to construct, operate, and manage a wireless personal communications system using the radio authorization license held by WirelessCo, L.P. (Sprint 1, p. 4)
5. Sprint is licensed by the Federal Communications Commission (FCC) to provide wireless telecommunication service in thirty-two major United States trading areas, including Connecticut. (Sprint 1, p. 5)
6. The parties in this proceeding are the applicant and the Town of Litchfield. Intervenors are New Cingular Wireless PCS, LLC (Cingular), Jay Abbott, John Bolus, Frank Rosa and Georgiana Bianchi, and Cellco Partnership d/b/a Verizon Wireless. (Tr. 1, pp. 5-6)
7. Pursuant to Conn. Gen. Stat. § 16-50/(b), Sprint had public notice of this application published in the Litchfield Enquirer on September 24 and October 1, 2004 and in the Waterbury Republican-American on September 24 and 28, 2004. (Sprint 1, p. 5)
8. Verizon had public notice of its petition to intervene in this proceeding published in the Waterbury Republican-American on April 6, 2005 and in the Litchfield Enquirer on April 8, 2005. (Verizon 2, Attachment B – Affidavits of Publication)

9. Sprint sent notification of its filing of an application with the Council to all owners of property abutting the proposed site on September 22, 2004. This notification was sent by certified mail, and Sprint received return receipts from 9 of the 11 property owners to whom notice was sent. Sprint sent additional notices via first class mail, no return receipt requested, to the two property owners from whom return receipts were not received. (Sprint 1, p. 5; Sprint 1, Tab 4; Sprint 2, Response 1)
10. Verizon sent certified notices of its petition to intervene in this proceeding to all abutting landowners. Return receipts were received from all but two property owners. Additional notices were sent via regular first class mail on April 15, 2005 to the two property owners, (John R. & Heidi Allison and Janice M. Bogen) from whom return receipts were not received. (Verizon 2, Response 9)
11. As part of its application procedure, Sprint sent a copy of its application to the Town of Litchfield's Chief Elected Official, Land Use and Zoning Enforcement Director, Chairman of the Planning and Zoning Commission, Chairman of the Inland Wetlands Commission, Chairman of the Conservation Commission, and Chairman of Bantam Planning and Zoning; to Andrew Roraback, State Senator representing the Towns of Litchfield and Morris, Craig Miner, State Representative from the 66th House District, and John Piscopo, State Representative from the 76th House District; to the Litchfield Hills Council of Elected Officials and the Northwest Council of Governments; to the Connecticut Attorney General; to the Connecticut Department of Environmental Protection (DEP); to the Connecticut Department of Public Health; to the Connecticut Department of Public Utility Control; to the Connecticut Department of Economic and Community Development; to the Council on Environmental Quality; to the Office of Policy and Management; to the Connecticut Department of Transportation (ConnDOT); to the Connecticut Historical Commission; to the Connecticut Trust for Historic Preservation; to the Federal Communications Commission; and to the Federal Aviation Administration. (Sprint 1, Tab 5)
12. Pursuant to CGS § 16-50l, the Council solicited comments on Sprint's application from the following state departments and agencies: Department of Environmental Protection, Department of Public Health, Council on Environmental Quality, Department of Public Utility Control, Office of Policy and Management, Department of Economic and Community Development, and the Department of Transportation. The Council's letter requesting comments was sent on December 22, 2004. (CSC Hearing Package dated December 22, 2004)
13. The Council received comments from the Connecticut Department of Environmental Protection (DEP) on January 12, 2005. (DEP Letter dated January 11, 2005)
14. The Council received comments from the Connecticut Department of Public Health (DPH) on January 14, 2005. (DPH Letter dated January 12, 2005)
15. The Council received correspondence from the Connecticut Department of Transportation (DOT) indicating this department had no comments on this proposal. (DOT Letter dated January 27, 2005)
16. Pursuant to CGS § 16-50m, the Council, after giving due notice thereof, held a public hearing on April 21, 2005, beginning at 3:00 p.m. and continuing at 7:00 p.m. in Litchfield, Connecticut. (Tr. 1, pp. 2 ff.)

17. The Council's hearing was continued on June 14, 2005 at the Council's offices in New Britain beginning at 11:05 a.m. The hearing was concluded on this date. (Transcript 3, Transcript of the continued public hearing of June 14, 2005, pp. 3, 192)
18. The Council and its staff made an inspection of the proposed site on April 21, 2005. On the day of the field review, Sprint attempted to fly a balloon at the site, however winds were too strong to keep the balloon aloft at the proposed height and several balloons were lost. There was a window from about noon to 1:00 p.m. during which the winds were relatively calm, but generally the weather was not conducive for a good balloon flight. (Tr. 3, p. 133)
19. A balloon was flown again by Verizon on April 29, 2005 at the request of the Town. The balloon was flown at a height of 140 feet. On this date, weather conditions were sunny with winds at approximately 10 to 12 m.p.h. with occasional gusts of roughly 18 to 20 m.p.h. Two balloons were destroyed due to wind conditions. All balloons flew at a diminished height because of the wind. (Verizon 7, pp. 2-3)

Public Need for Service

20. In 1996, the United States Congress recognized a nationwide need for high quality wireless telecommunications services, including cellular and PCS 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, Telecommunications Act of 1996)
21. The Telecommunications Act of 1996 prohibits any state or local agency 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, Telecommunications Act of 1996)
22. The Telecommunications Act of 1996 prohibits local and state bodies from discriminating among providers of functionally equivalent services. (Council Administrative Notice, Telecommunications Act of 1996)
23. In 1999, Congress passed the Wireless Communications and Safety Act, which was intended to improve public safety by facilitating and encouraging the prompt deployment of a nationwide, seamless communication infrastructure for emergency services. As an outgrowth of this Act, the FCC implemented regulation requiring wireless carriers to provide "Enhanced 911" or "E911" capability. (Sprint 1, p. 8)
24. Sprint's proposed facility would be in compliance with E911 requirements. (Sprint 1, p. 8)
25. The Town of Litchfield has a need for wireless communications coverage in the area of town that would be covered by Sprint's proposed facility. (Tr. 3, p. 60)

Service Design

Sprint

26. Sprint's Radio-Frequency Engineering Department has identified a significant gap in wireless service along Route 202 and the surrounding area. The location and extent of the coverage gap was determined by analyzing drive test data from surrounding facilities, call statistics, and propagation models. (Sprint 1, p. 6)
27. Sprint does use technologies such as repeaters and microcells. However, the size of the coverage gap Sprint is seeking to cover with the proposed facility is significant enough that these technologies, which are typically used for filling small gaps in coverage or for providing service in buildings, are not viable options for providing the requisite service level. (Sprint 1, p. 9)
28. Sprint has implemented a digital code division multiple access network to provide a P.02 grade of service. A P.02 grade of service means that a subscriber of the system will be able to place calls ninety-eight percent of the time during the busiest (peak) hours of the day. (Sprint 1, p. 16)
29. Sprint's call data indicate that its customers are experiencing difficulty in originating new calls and an incidence of dropped calls at a rate greater than two percent in the vicinity of the proposed facility. (Sprint 1, pp. 6-7)
30. Sprint considers acceptable signal strength to be -94 dBm in rural areas and -79 to -84 dBm in urban areas. (Sprint 1, p. 15)
31. Sprint's in-vehicle coverage is typically limited to -94 dBm and above, and its in-building coverage is typically between -89 dBm to -84 dBm and above. (Sprint 2, Response 4)
32. Sprint's signal strength in the vicinity of the proposed facility at the time of application was below its minimum acceptable signal strength of -94 dBm. (Sprint 2, Response 2)
33. The minimum height at which its antennas could achieve Sprint's coverage objectives would be 128 feet AGL. (Sprint 1, p. 15)
34. Sprint's antennas would cover approximately 2.75 miles along Route 202. (Sprint 2, Response 5)
35. Sprint's antennas would provide incremental coverage (in areas where the signal will be at its strongest) for an area of approximately 10 square miles. The total area covered from this site (where the signal would be -94 dBm or greater) would be approximately 20.2 square miles. (Sprint 2, Response 6)
36. From the proposed site, Sprint's antennas would hand off signals to existing sites located at 438 Bantam Road in Litchfield, 218 Wheeler Road in Torrington, 113 Brush Hill Road in Goshen, 5 Old Middle Street in Goshen, 64 Hungerford Lane in Harwinton, and 52 Summer Street in Torrington. (Sprint 2, Response 7)

37. Because of the different technologies used by the two respective companies, a Sprint/Nextel merger would not mean the customers of one company's network would be able to have their phones use the frequencies of the other company's network. In the event of such a merger, Sprint could not meet the service demand of its aggregate customer base using Nextel frequencies alone. (Sprint 6, p. 2)

Cingular

38. Cingular's objectives for this location are to provide coverage on Routes 63 and 202 and to provide coverage to residential areas in Litchfield. (Cingular 1, Response 4)
39. Cingular's strength of signal in the vicinity of this proposed facility varies between -85 dBm and less than -104 dBm. (Cingular 1, Response 1)
40. Cingular's system design standards are -75 dBm for in-building coverage, -80 dBm for in-car coverage, and -90 dBm for street coverage. (Cingular 1, Response 2)
41. Cingular's desired lost call rate is less than 2%. Its lack of coverage in the area that would be served by this facility makes it difficult to determine the existing percentage of lost calls. The lost call rates for the nearest adjacent cells are listed below:

<u>Cell Name</u>	<u>Lost Call %</u>
Summer Street, Torrington	3.47
Mohawk Mountain, Cornwall	18.20
Weingart Road, Harwinton	5.09

(Cingular 1, Response 5)

42. Because Cingular has little existing service in the area that would be covered by this facility and the adjacent cells provide only minimal signal in this cell, there are minimal opportunities to hand off signals to adjacent cells. (Cingular 1, Response 10)
43. Cingular would install 6 antennas on a three-sided platform (2 antennas per side). The center line of the antennas would be at 115 feet. (Cingular 1, Response 7)
44. The minimum height at which Cingular could achieve its coverage objectives is 115 feet. (Cingular 1, Response 9)
45. Cingular's equipment would comply with E911 requirements. (Cingular 1, Response 3)
46. Cingular's antennas would cover approximately 2.5 miles on Route 202, Route 118, and Route 63. (Cingular 1, Response 12)
47. Cingular's antennas would cover approximately 5.9 square miles from this location. (Cingular 1, Response 8)
48. Cingular plans to locate antennas on two nearby existing facilities that would interact with this proposed facility: the Connecticut State Police tower and the Bay Communications site on Bantam Road in Litchfield. These future cells do not cover the area of this proposed facility. (Cingular 1, Response 14)

49. A combination of antennas placed at the Congregational Church, the Town's property, and a site on Wheeler Street in Torrington would enable Cingular to cover the same area, at the 850 megahertz frequency, as the area it could cover from Sprint's proposed site. (Tr. 3, p. 99)

Verizon

50. Verizon has no coverage or signal strength in the area of the proposed facility since it has only recently started activating PCS sites in Litchfield County, and none of its currently activated sites are in the vicinity of Sprint's proposed site. (Verizon 2, Response 1)
51. Verizon has established a signal threshold of -85 dBm for its in-car coverage in the State of Connecticut and -75 dBm for its in-building coverage. (Verizon 2, Response 2; Tr. 3, pp. 131-132)
52. Verizon is seeking to have the height of the proposed tower raised from 130 feet to 140 feet so that it could install antennas at the 138-foot height. (Verizon 1, p. 3)
53. The minimum height at which antennas would achieve Verizon's coverage objectives at this site is 138 feet. (Verizon 2, Response 4)
54. At this site, Verizon's primary coverage objective is to cover Routes 202 and 63. With its antennas mounted at 138 feet, Verizon would cover approximately 2.75 miles on Route 202 and approximately 3 miles along Route 63. (Verizon 2, Response 5)
55. Verizon's antennas would cover a total area of approximately 8 square miles from this site. (Verizon 2, Response 6; Tr. 3, p. 128)
56. Verizon's antennas at this location would hand off signals to sites located at 218 Wheeler Road in Torrington, 1291 Bantam Road in Litchfield, and 113 Brush Hill Road in Goshen. (Verizon 1, p. 3)
57. If Sprint's proposed site were not available, Verizon would need a combination of three of the other sites that have been considered to provide suitable coverage. However a three-site combination would not provide coverage as complete as could be achieved from Sprint's proposed location. (Tr. 3, p. 138)
58. Verizon would install 12 panel-type directional antennas on the proposed tower with a centerline height of 138 feet. It would also install a 12-foot by 30-foot equipment shelter to house its receiving, transmitting, switching, processing and performance monitoring equipment, and the required heating and cooling equipment. (Verizon 1, p. 4)
59. Verizon would install a back-up generator in its equipment shelter for power outages and periodic maintenance. (Verizon 1, p. 4)

Municipal Consultation

60. On July 27, 2004, Sprint sent a letter to the Litchfield First Selectman, Leo J. Paul, informing the town of its intent to file an application for a telecommunication facility. With the letter, Sprint enclosed materials that included a National Environmental Policy Act (NEPA) review, a packet of radio-frequency coverage information, a site plan, and a Visual Resource Evaluation Report. (Sprint 1, p. 11)
61. The Town of Litchfield did not provide any comments on the submitted material during the 60-day consultation period. (Sprint 1, p. 12)
62. In a letter dated January 20, 2005, the Litchfield Inland Wetlands Commission listed a number of concerns regarding Sprint's project. The concerns centered on this project's potential impacts on nearby wetlands. (Litchfield Inland Wetlands Commission letter dated January 20, 2005)
63. The Litchfield Planning and Zoning Commission met on January 18, 2005 and endorsed a report listing concerns of the Commission regarding this project. The Commission had concerns regarding Sprint's compliance with different sections of the Town's zoning regulations. The sections that the Commission cited included those that dealt with landscape plans, noise levels, camouflaged towers, the fall zone setback requirement, and evaluation of visual effect. (Litchfield Planning and Zoning Commission letter dated January 19, 2005)
64. The Town opposes Sprint's application for a telecommunications facility at the location proposed in this application. (Town of Litchfield Brief, p. 2)
65. The Town prefers a property it owns on Route 202 (197 Torrington Road) to be the site of a facility to serve the wireless needs of the northeast area of Litchfield. (Tr. 2, p. 63)
66. The Town of Litchfield sent a letter dated April 12, 2005 to the owner of the proposed site enumerating several zoning violations stemming from the existing uses on the property. (Town 6)
67. The Town of Litchfield's Inland Wetlands Commission issued a Notice of Violation to the owner of the proposed site for unapproved regulated activities that allegedly occurred on this property. (Town 7)
68. On April 26, 2005, the Town of Litchfield's Planning and Zoning Commission issued a Cease and Desist Order to the owner of the proposed site for certain zoning violations on this property. (Town 9)
69. On May 9, 2005, the Town of Litchfield's Inland Wetlands Commission issued a Cease and Desist Order to the owner of the proposed site for regulated activities conducted on this property for which no wetlands application(s) had been requested. (Town 10)
70. Sprint would allow the Town of Litchfield to use its proposed tower for no charge. (Tr. 3, pp. 170-171)

Site Selection

71. After determining the extent of its coverage gap, Sprint used computer modeling to identify an area within which a telecommunications facility would need to be located to provide the desired coverage. Based on the results of its computer modeling, Sprint formed a search ring to guide its search for a suitable site. (Sprint 1, pp. 9-10)
72. Sprint investigated 19 different existing structures as possible sites for its facility. The locations of the structures and the determination of their suitability are listed in the table below.

Site	Height	Evaluation
NU Pole #1	55	Insufficient height
NU Pole #2	55	Insufficient height
NU Pole #3	55	Insufficient height and too far from search ring center to meet coverage objective
Tower farm	127	Too far from search ring center to meet coverage objective
Soapstone Radio	300	Too far from search ring center to meet coverage objective
CT Junior Republic	50	Insufficient height
Litchfield Superior Courthouse	50	Insufficient height
St. Anthony's Church	45	Insufficient height
St. Michael's Church	40	Insufficient height
Silo #1	60	Insufficient height
Silo #2	30	Insufficient height
Silo #3	30	Insufficient height and too far from search ring center to meet coverage objective
Silo #4	45	Insufficient height and too far from search ring center to meet coverage objective
Water Tank	60	Insufficient height and too far from search ring center to meet coverage objective
Litchfield Community Field Flagpole	30	Insufficient height
Wisdom House	45	Insufficient height
First Congregational Church	65	Insufficient height
Telephone Pole with Emergency Whips	40	Insufficient height and too far from search ring center to meet coverage objective
Flagpole	35	Insufficient height and too far from search ring center to meet coverage objective

(Sprint 1, pp. 10-11)

73. In addition to existing structures, Sprint considered eight other properties as potential raw land facility sites. These properties and the determinations of their respective suitability, as stated by Sprint, are listed below:
 1. Pedroncelli property, 61 Little Pitch Road – rejected by Sprint RF department
 2. Adkins property, Fern road – rejected by Sprint RF department
 3. SNET tower – Cingular sought to put wireless tower on this property but was denied by Town’s planning and zoning commission
 4. Haight Vineyards property, 32 Chestnut Hill Road – landlord withdrew interest as a result of neighbor opposition
 5. Monfort Missionaries – rejected by Sprint Radio Frequency department
 6. Litchfield Real Estate Trust – Sprint sent letter of inquiry but received no response
 7. Harriett Marrin property, 191 Fern Road – owner not interested
 8. Sylvia Abbott property, 130 Norfolk Road – owner not interested
(Sprint 2, Response 9)
74. Sylvia Abbott, Harriett Marrin, and the Litchfield Real Estate Trust may not have received any correspondence from Sprint inquiring about the potential use of their property as a telecommunications site. (Tr. 3, p. 157 ff.)
75. During the time this application for a certificate was being considered by the Siting Council, Sprint received more than 10 requests or inquiries to consider different properties as potential sites. Each property so identified was investigated for its potential coverage, and in each case these properties could not provide comparable coverage to the site proposed in Sprint’s application. (Tr. 3, pp. 187-188)
76. If Sprint’s antennas were mounted at a centerline of 199 feet on a tower on the Town’s property on Torrington Road, Sprint would not be able to achieve the same amount of coverage as could be achieved at the proposed site with its antennas at a centerline of 130 feet. (Tr. 3, p. 168)
77. If Sprint were to locate antennas in the steeple of the First Congregational Church, located on the green in Litchfield’s Historic District, or on either of the water tanks in Torrington, it would need at least one additional site, possibly two additional sites, to duplicate the coverage of the proposed site. (Tr. 3, p. 42 ff.)
78. Placing antennas on a water tank might present interference problems if more than one carrier was interested in using the same tank because each carrier would likely need the same orientation for its antennas. If this were the case, antennas of different carriers would need vertical space between them to minimize interference. (Tr. 3, p. 43 ff.)
79. With antennas at the Town of Litchfield’s property on Torrington Road (Route 202) and in the steeple of the Congregational Church, Sprint would still need another tower facility to cover a gap on Route 63. (Tr. 3, p. 44)
80. Prior to intervening in this proceeding, Cingular had an independent site search underway for a facility to be located in Litchfield. (Tr. 3, p. 96)

Project Description

81. Sprint's facility would be located on a 6.7 acre parcel at 383 Torrington Road (Route 202). The property is commercially developed and is occupied by an art studio, a landscape company, and a natural food store. (Sprint 1, p. 12)
82. At this location, Sprint would lease a 100-foot by 100-foot area within which it would develop a 50-foot by 50-foot compound. Sprint's facility would include a 130-foot tall monopole designed to accommodate six carriers and a concrete equipment pad for the power, battery, radio, and growth cabinets. The compound would be enclosed by a six-foot high chain link fence. (Sprint 1, pp. 13-14)
83. The property on which Sprint's proposed facility is located is classified as an R-80 Residence Zone. (Sprint 1, p. 12)
84. The proposed monopole would be designed and constructed in accordance with the American National Standards Institutes/Electronic Industries Association's Manual #222 — Revision F, "Structural Standards for Steel Antenna Towers and Antenna Support Structures." (Sprint 1, p. 13)
85. The proposed tower would be located at 41° 45' 58.62" N latitude and 73° 10' 42.70" W longitude. The elevation at the base of the tower would be 1127 feet AMSL. (Sprint 1, Tab 10 – Comprehensive Site Plan)
86. On the tower, Sprint would install 12 panel antennas on a triangular platform set to have an antenna centerline of 127.5 feet. The top of Sprint's antennas would not exceed 130 feet. Sprint would also mount a GPS antenna at a height of 65 feet. (Sprint 1, p. 13; Sprint 8, No. 1)
87. A setback radius equal to the proposed tower's height would lie completely within the host property. (Sprint 1, Attachment 10)
88. Access to the site would be over a 300-foot long existing woods road that leading from an existing parking lot on the host property. Sprint would upgrade the existing road to a 12-foot wide gravel road. (Sprint 1, p. 13)
89. Utility service to the facility would originate at a new utility pole near an existing building at the front of the property. From this pole, utility lines would follow the access road underground to the facility compound. (Sprint 1, p. 14)
90. Sprint's facility would be equipped with a battery back-up system that could be realistically expected to last approximately six to eight hours at a 50% load. For power outages lasting longer than 24 hours, Sprint might bring in a diesel powered emergency generator on a temporary basis. (Sprint 1, pp. 14-15)
91. The closest residence to the proposed facility is 440 feet to the south and is owned by Georgiana Bianchi and Frank Rosa. (Sprint 1, p. 3; Sprint 2, Response 14)
92. There are 23 residences within 1,000 feet of the proposed tower. (Sprint 2, Response 13)

93. The estimated construction costs for this facility area are:

Site Work	\$ 35,000
Monopole	45,000
Electrical & Telephone	30,000
Foundation	40,000
Landscaping	10,000
<u>Road</u>	<u>5,000</u>
Total	\$165,000

(Sprint 1, Tab 12)

Environmental Considerations

94. A NEPA review conducted of Sprint's proposed facility determined that the proposed site would not be located in an environmentally sensitive area nor would it fall under any of the NEPA "listed" environmental categories. (Sprint 1, p. 25; Tab 17)
95. Sprint's proposed facility would have no effect on historic, architectural, or archaeological resources listed on or eligible for the National Register of Historic Places nor would it have any effect on properties of traditional cultural importance to Connecticut's Native American communities. (Sprint 1, Tab 17)
96. A tower extended to 140 feet would have no effect on historic, architectural, or archaeological resources listed on or eligible for the National Register of Historic Places, and it would have no effect upon properties of traditional cultural importance to Connecticut's Native American community. (Verizon 4, letter from State Historic Preservation Officer)
97. According to the Connecticut DEP, there are no known extant populations of Federal or State Endangered, Threatened, or Special Concern Species that occur at the proposed site. (Sprint 1, Tab 17)
98. Georgiana Bianchi, an intervenor, has observed spotted salamanders, box turtles, and yellow Lady's Slippers on her property which is located near Sprint's proposed location. These species are listed on DEP's list of endangered, threatened and special concern species. (Rosa 1, p. 3)
99. According to the Connecticut DEP's Natural Diversity Database, the Town's property on Torrington Road may be proximate to a listed species or a critical habitat. (Tr. 3, pp. 150-151)
100. In order for more than one carrier to place antennas in the steeple of the Congregational Church the steeple would need significant structural reinforcements from the steeple to the church's basement and, potentially, to the foundation as well. In addition, carriers would need to find space for their supporting ground equipment, as there is no current space available. (Tr. 3, pp. 143-144)
101. The proposed facility is located within the source water area for the Fernwood Rest Home well 1 and well 2. In order to minimize the potential for contamination of this water source, erosion and sediment controls should be established for all construction activities and any cleaning of equipment should be avoided. (DPH Letter dated January 12, 2005)

102. Sprint's proposed facility would not produce any discharge to the groundwater. (Tr. 3, pp. 169-170)
103. The proposed site is located in a predominantly deciduous stand of black birch, red maple and hickory, with minor components of hemlock, red oak, and pin cherry. (DEP letter dated January 11, 2005)
104. A red oak with a 24" diameter at breast height is the largest tree at the site and the only tree of any significant size. (DEP letter dated January 11, 2005)
105. According to a methodology prescribed by the FCC Office of Engineering and Technology Bulletin No. 65E, Edition 97-01 (August 1997) that assumes all antennas (including those of Sprint, Cingular, and Verizon) would be pointed at the base of the tower and all channels would be operating simultaneously, the maximum power density at the base of the proposed tower would be 0.0933 mW/cm² or 9.75% of the standard for Maximum Permissible Exposure as adopted by the FCC. (Sprint 1, Tab 15; Cingular 1, Response 11; Verizon 5, p. 1)
106. The access road to the site would bisect two adjacent wetland areas. An area to the north of the road is associated with a large forested wetland and is dominated by red maple, green ash, winterberry, arrowwood, sedges, and various forbs. The area to the south of the road is an isolated forested wetland dominated by red maple, black birch, winterberry, arrowwood, red oak, witch hazel, and jewelweed. (Sprint 1, p. 18)
107. The owner of the property on which Sprint's proposed site is located may have created this access road by laying down wood chips in an area that was subject to the Litchfield Inland Wetlands Commission's jurisdiction without receiving a regulated activities permit from this commission. (Tr. 3, p. 82)
108. No wetlands or watercourses were identified or delineated with Sprint's lease area for its proposed facility. (Sprint 1, p. 18)
109. The location of Sprint's proposed facility is within the Town's 100-foot upland review area of existing wetlands. (Sprint 1, p. 18)
110. In order to mitigate any possible impact of site work on nearby wetlands, Sprint would propose to install a small culvert underneath the proposed access road to hydraulically connect the wetlands separated by the access road and to install wildlife planting consisting of native shrubs and a wildlife conservation seed mix that would be planted in areas disturbed around the proposed facility and access road. (Tr. 3, p. 186)
111. Some bedrock could be encountered during the excavation for the facility compound and its access road. If bedrock were encountered, it could be removed by using one of several methods including blasting or using a hammer hoe. (Tr. 1, p. 90)
112. Sixty-five trees with diameters greater than six inches at breast height would have to be removed to develop the proposed facility. (Sprint 2, Response 15)
113. Sprint would install sediment barriers downslope of all areas to be disturbed prior to the start of any land disturbance activities. (Sprint 1, p. 18)

114. There are public hiking trails associated with the Topsmead State Forest located approximately 1.5 miles to the southeast of the proposed facility. However, these trails have been closed to the public for the last several years due to severe ice damage. These trails do not generally afford open views that might be impacted by the proposed facility. (Sprint 2, Response 17)
115. Portions of Routes 63 and 118, which intersect in the center of Litchfield, have been designated as scenic roadways by the DOT. (Sprint 2, Response 18)
116. No lighting or other markings would be required for this facility by the Federal Aviation Administration (FAA). (Sprint 1, p. 24)
117. There are wetlands located on the Town’s property on Torrington Road, but they have not been flagged to determine where a tower could be located on this property without disturbing the wetlands. (Tr. 3, p. 84)

Visibility

118. Within a two-mile radius of the proposed site, the 130-foot tower would be visible from approximately 85 acres. (Sprint 1, p. 22; Tab 14)
119. A 140-foot tower, as proposed by Verizon’s petition to intervene, would increase the tower’s visibility by approximately 20 acres or less. No new areas would have visibility of the higher tower, but those areas with visibility of the 130-foot tower would be expanded slightly. (Tr. 3, p. 132)
120. The visibility of the proposed site from different vantage points in the surrounding vicinity is summarized in the following table. The locations of the vantage points listed are identified by their corresponding number on the Photolog Documentation Map included as part of the Visual Resource Evaluation Report in Sprint’s application.

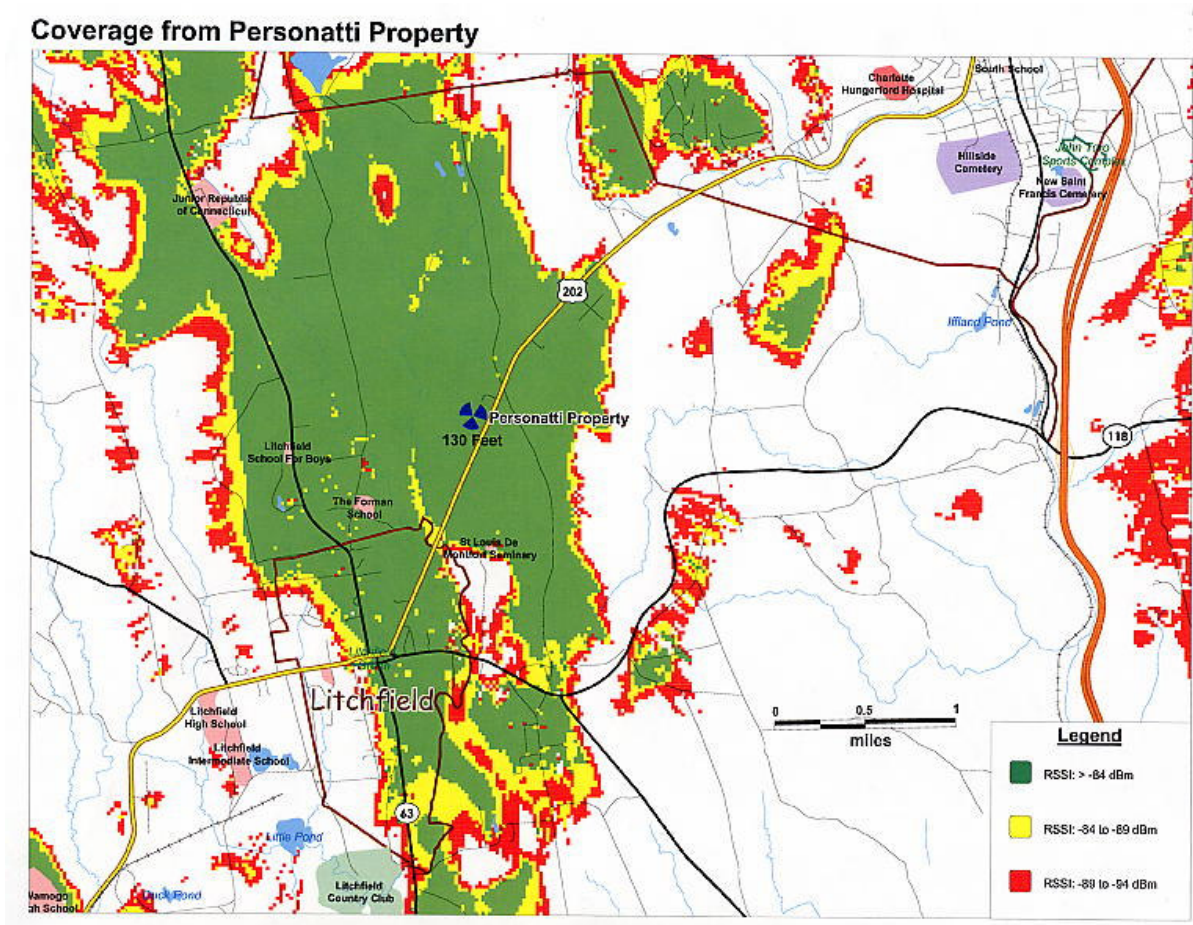
<u>Location</u>	<u>Visible</u>	<u>Approx. Portion of (130’) Tower Visible (ft.)</u>	<u>Approx. Distance and Direction to Tower</u>
	Site		Site
1 – Route 202 at subject property	Yes	65	740 feet; W
2 – #231 Fern Avenue	Yes	60	1160 feet; W
3 – Route 202, north of Karl Street	Yes	15	1.15 miles; NE
4 – Norfolk Road	Yes	30	3850 feet; NE
5 – Route 63, north of Hurley Lane	Yes	30	1 mile; E
6 – Route 63, to southwest of site	Yes	20	1.03 miles; NE

(Sprint 1, Tab 14)

121. The tower would be seasonally visible from approximately 42 acres in the surrounding vicinity. This acreage includes those areas that would have only a partial view of the tower. (Sprint 1, Tab 14)

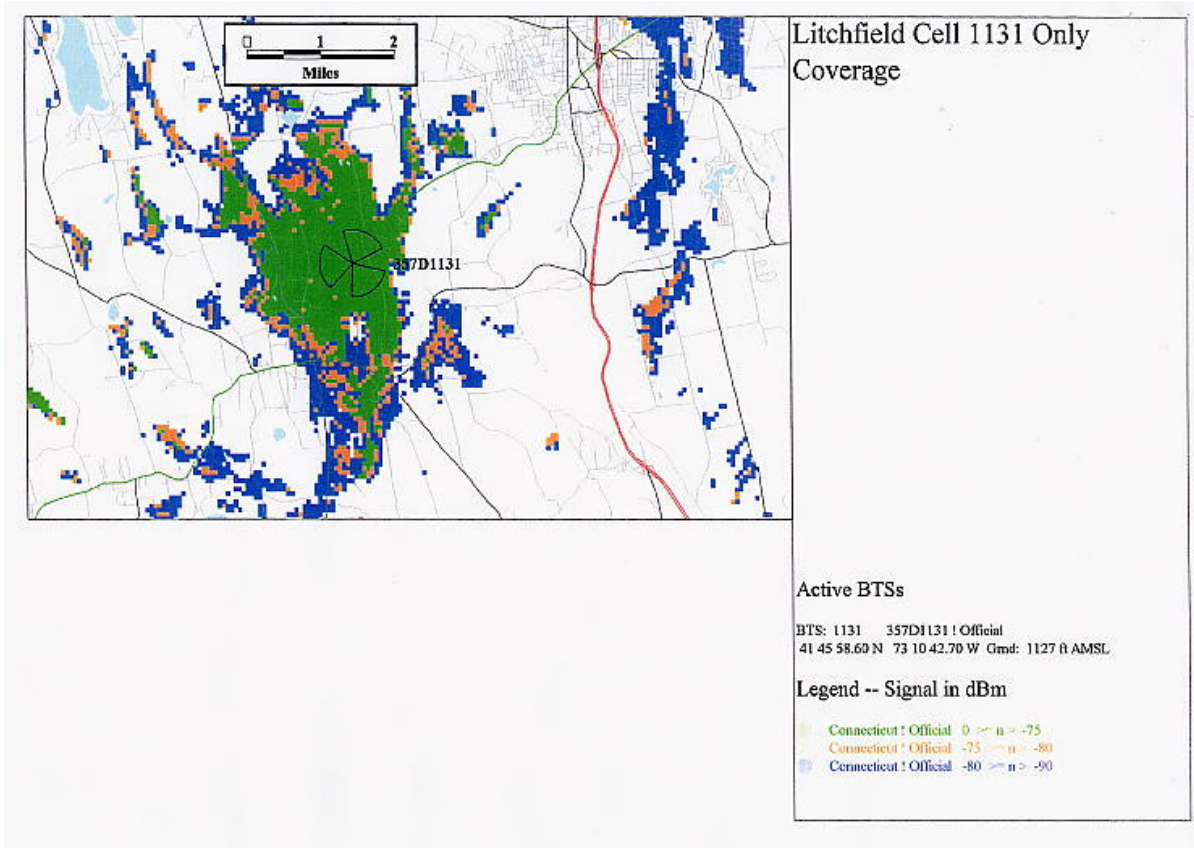
122. The proposed tower would be most visible year round from portions of Route 202 (Torrington Road), Fern Avenue, Norfolk Road, and Route 63 (Goshen Road). (Sprint 1, p. 23; Tab 14)
123. The tower would have additional seasonal visibility from portions of Route 202, Fern Avenue, Bertoli Drive, Norfolk Road, and Route 63. (Sprint 1, p. 23; Tab 14)
124. Approximately 14 residences would have year round views of the proposed tower, and approximately 12 residences would have some seasonal views. (Sprint 2, Response 19)
125. The tower would not be visible from the portions of Routes 63 and 118 that have been designated as scenic roadways by the DOT. (Sprint 1, p. 23; Tr. 3, p. 169)
126. The 130-foot tower would be partially visible from an area within the historic district south of the cemetery located in that area for about a quarter mile stretch along Route 202. The 140-foot tower's visibility from this area would increase negligibly. (Tr. 1, pp. 35-36; Tr. 3, pp. 134-135)
127. A 150-foot tower located at the Town's property on Torrington Road would be visible from more than twice the area from which a 140-foot tower would be visible from Sprint's proposed site. (Tr. 3, pp. 145-146; Verizon 8)
128. A 150-foot tower at the Town's property would have less visible impact on the Litchfield Historic District than the 140-foot tower at Sprint's site, but the tower on the Town property would have similar, if not greater, visible impacts on residential areas. (Tr. 3, p. 148)

Sprint Coverage from Proposed Site at 130 Feet



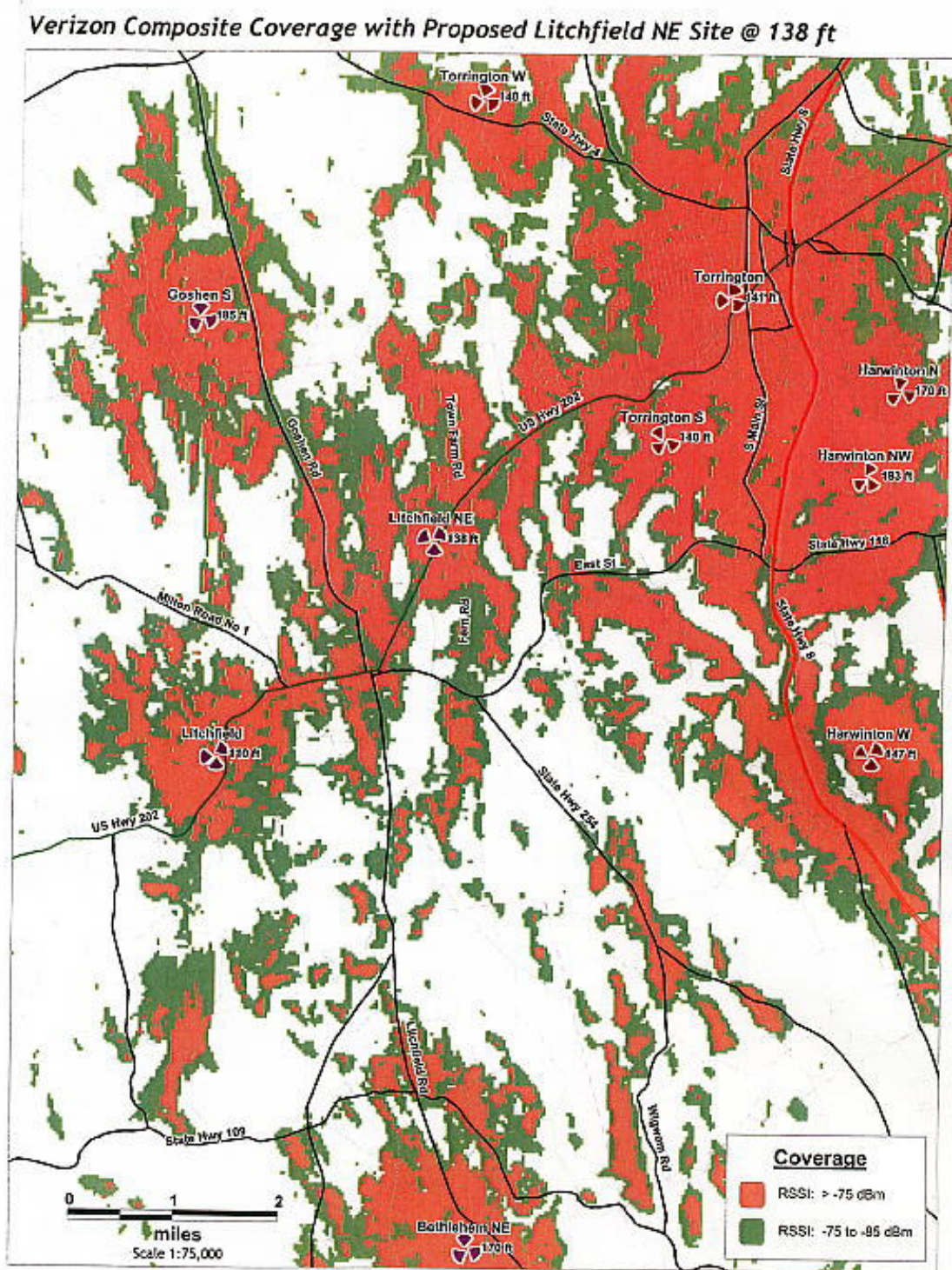
(Sprint 2, Response 8)

Cingular Coverage from Proposed Site

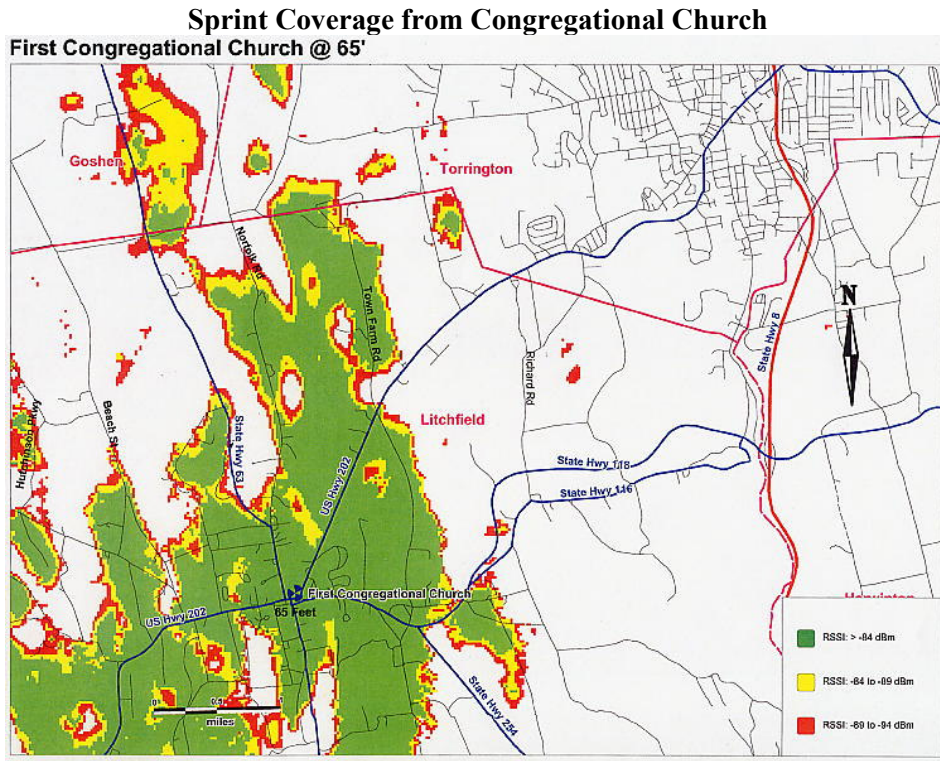


(Cingular 1, Response 6)

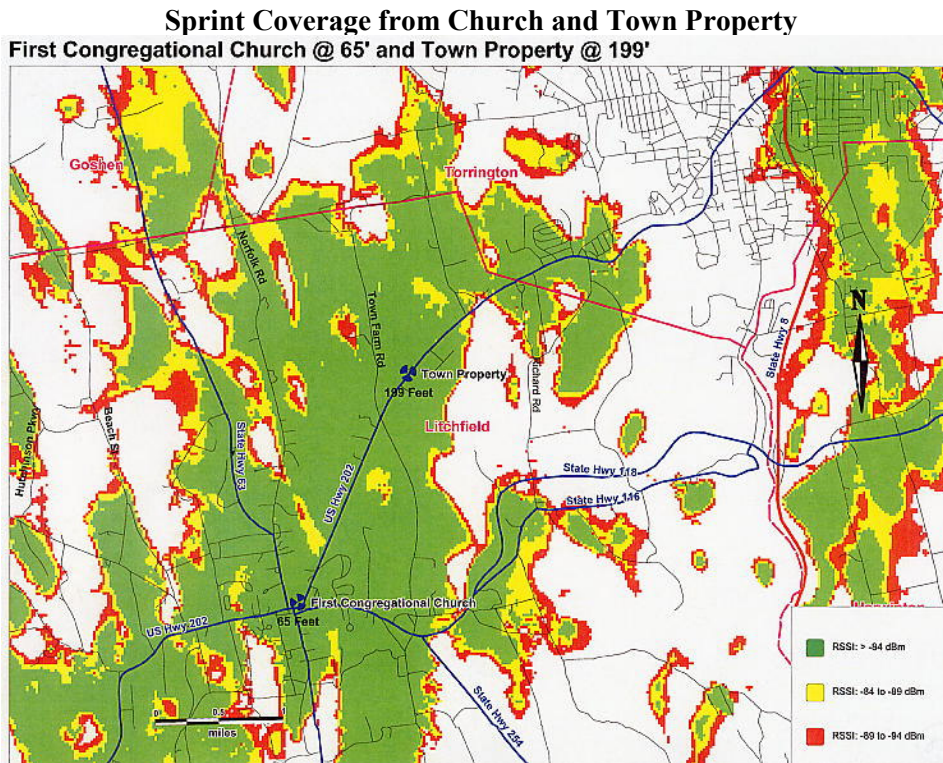
Verizon Coverage Map



(Verizon 1, Tab 1)



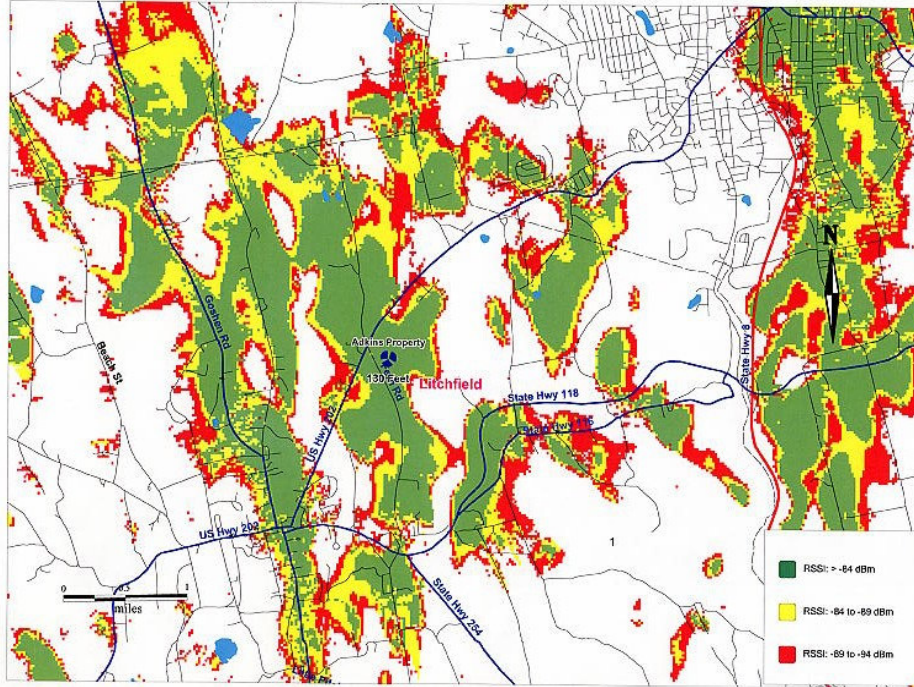
(Sprint 3, Response 3)



(Sprint 3, Response 12)

Sprint Coverage from 226 Fern Road, Adkins Property

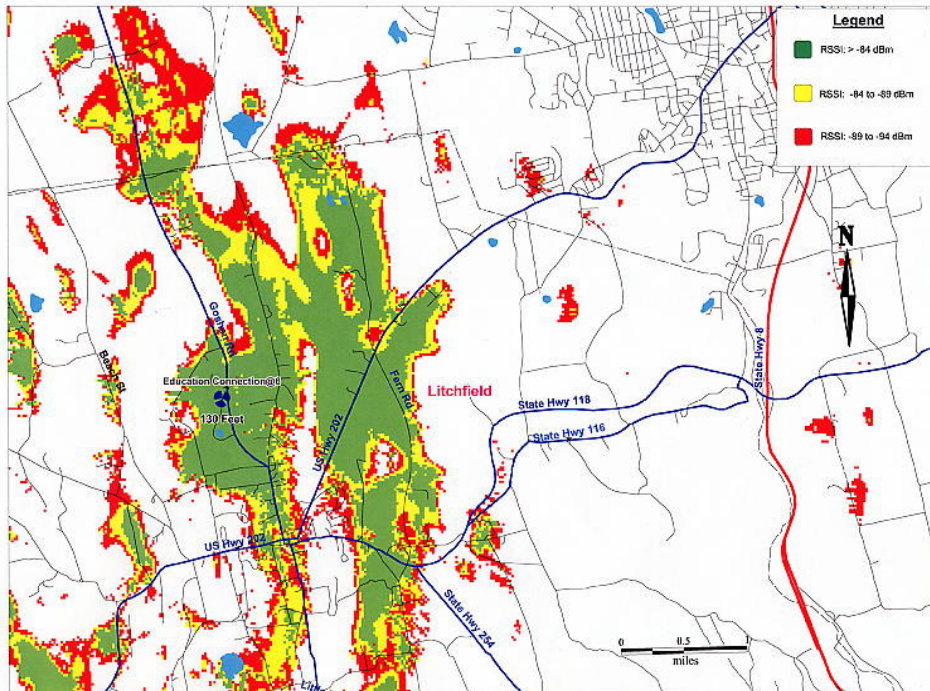
226 Fern Road - Adkins Property - Revised



(Sprint 8)

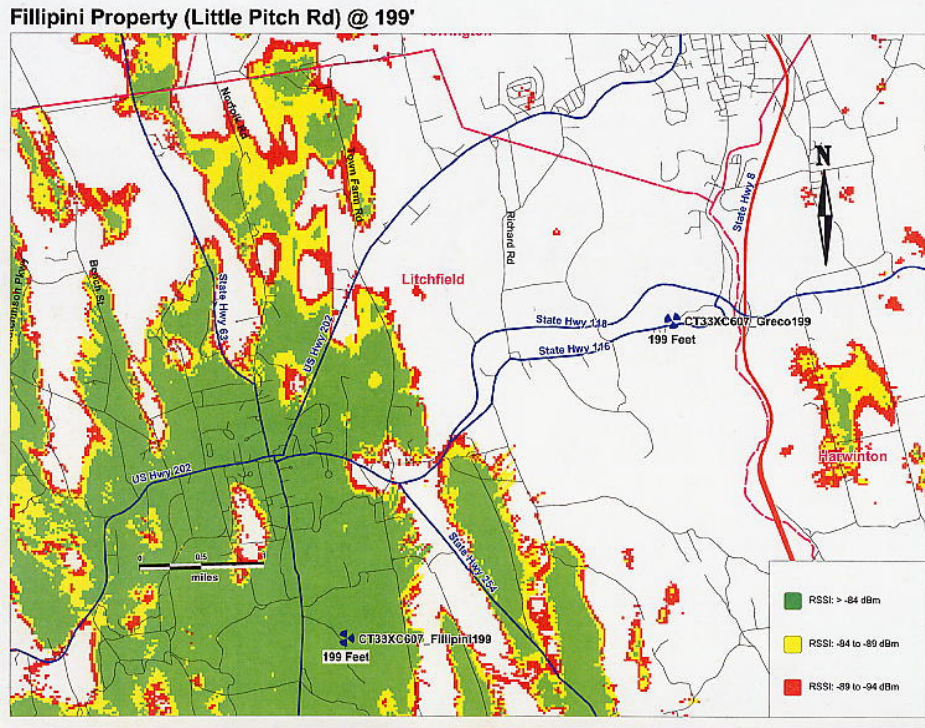
Sprint Coverage from Education Connection

Education Connection at 130 Ft.



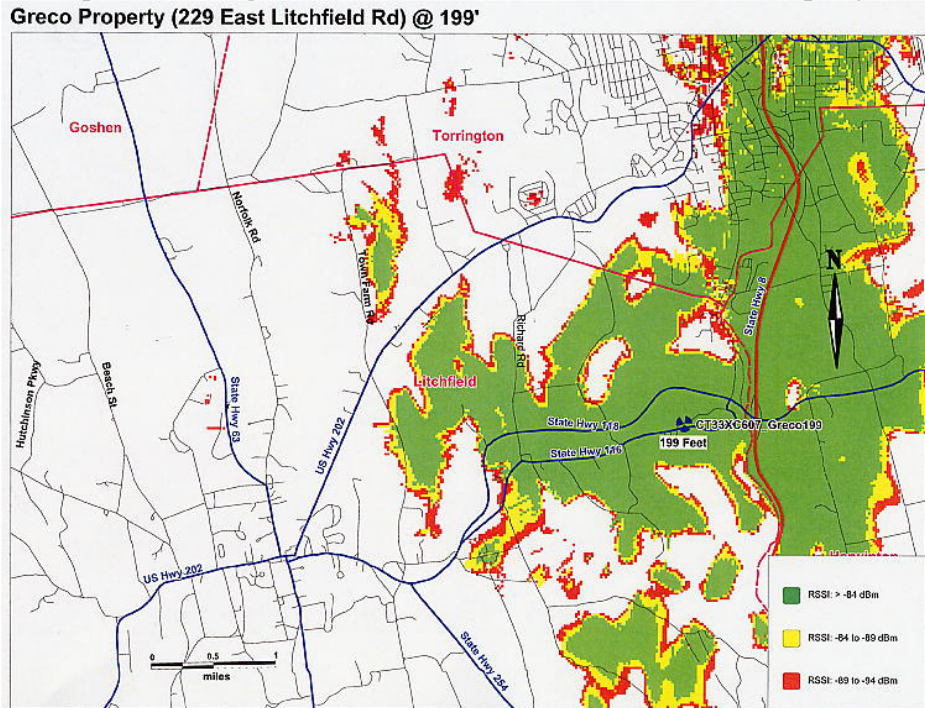
(Sprint 4.a., Response 2)

Sprint Coverage from Fillipini Property on Little Pitch Road

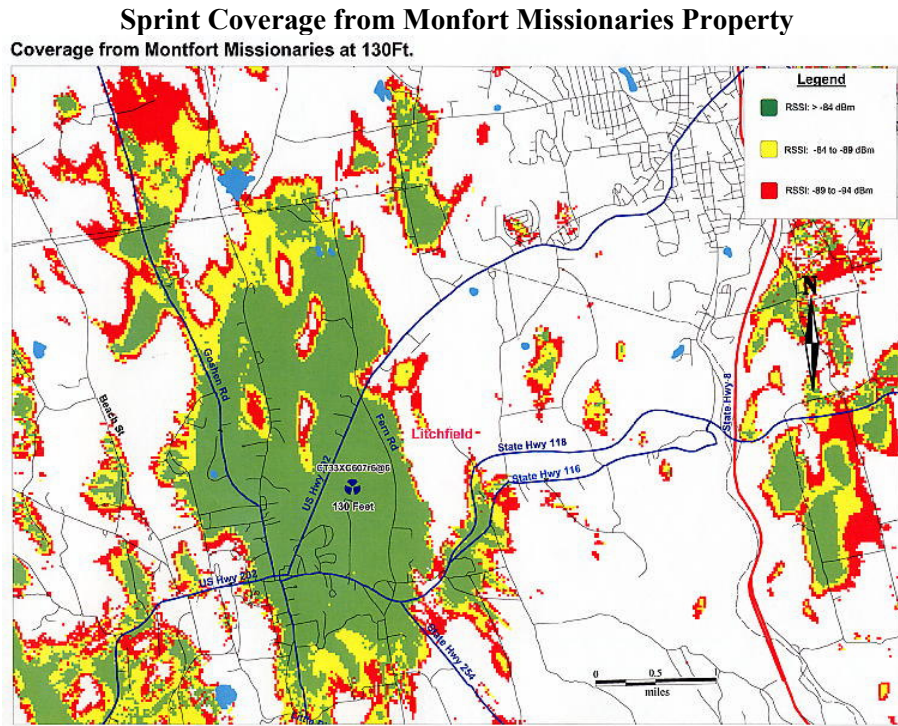


(Sprint 4.a., Response 2)

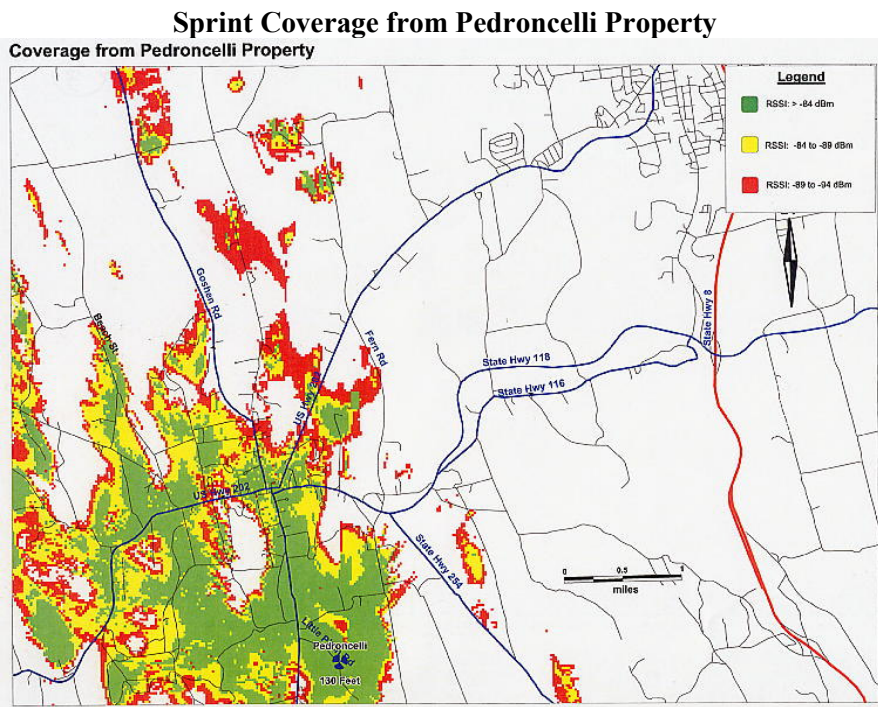
Sprint Coverage from 229 East Litchfield Road, Greco Property



(Sprint 4.a., Response 2)



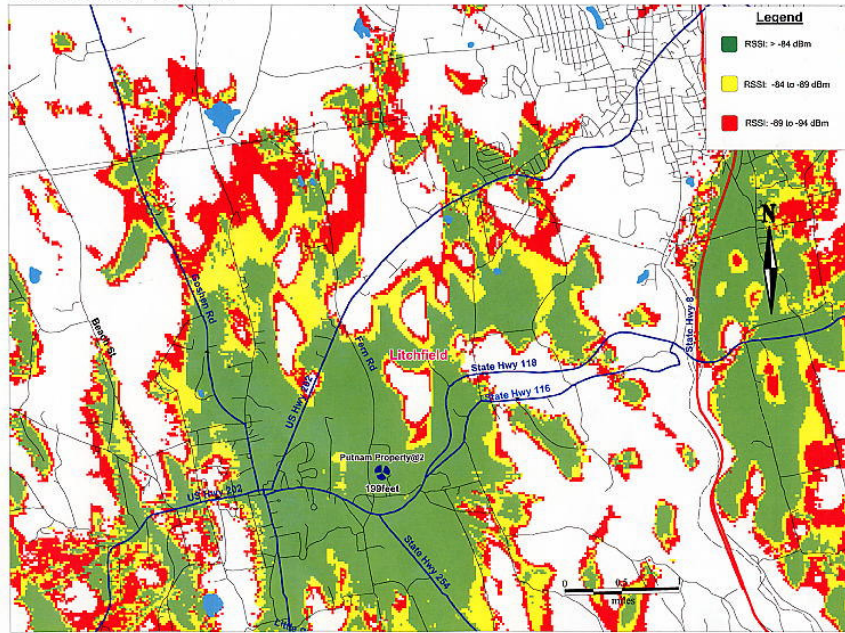
(Sprint 5)



(Sprint 4.a., Response 2)

Sprint Coverage from Putnam Property

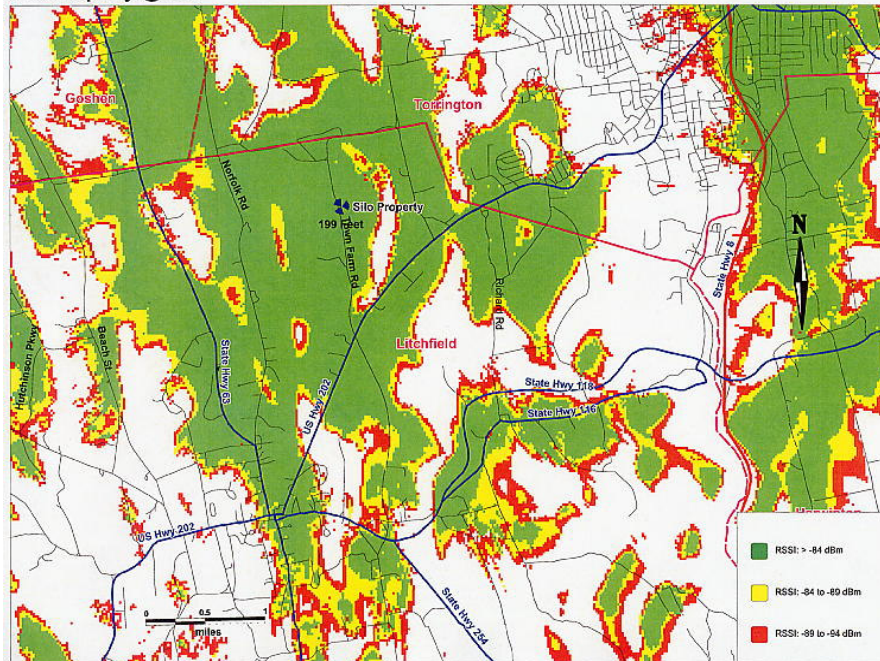
Putnam Property at 130 Ft.



(Sprint 5)

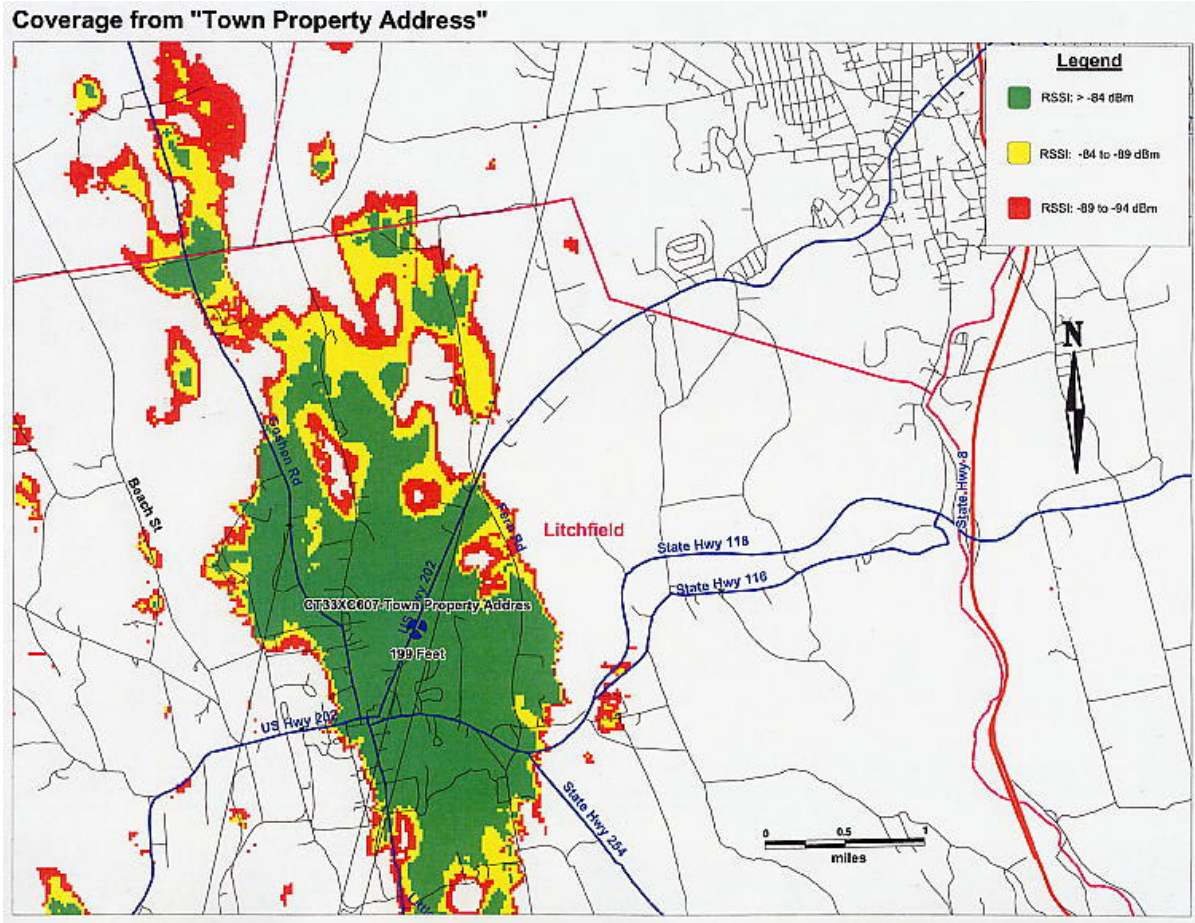
Sprint Coverage from Silo Property

Silo Property @ 199'



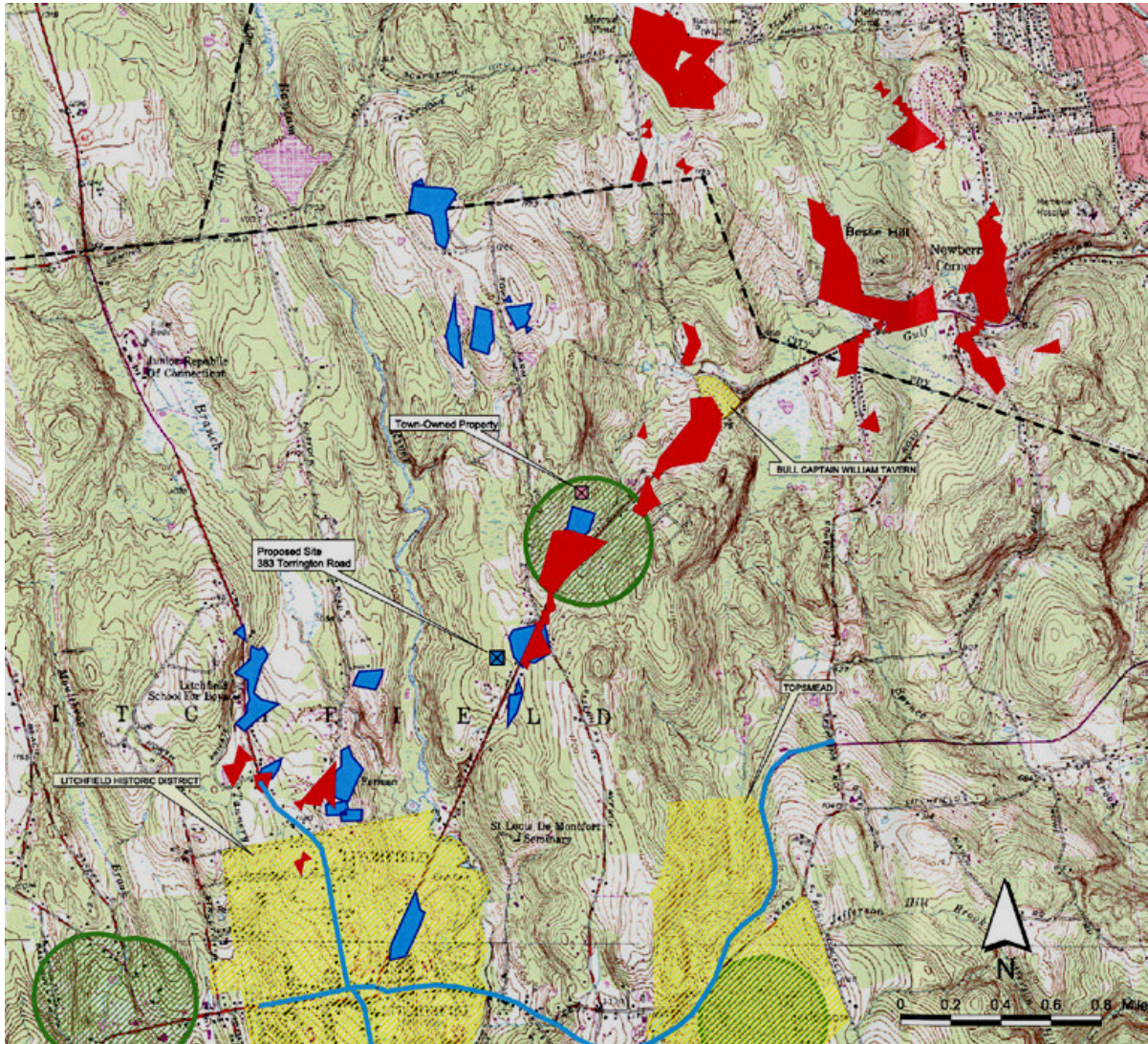
(Sprint 4)

Sprint Coverage from Town Property



(Sprint 4)

Comparative Viewshed Map: Towers at Sprint Site at 140 feet and Town Property at 150 feet



LEGEND

- Proposed Facility at 383 Torrington Road
(Includes area of visibility approximately 500 feet around Facility)
- Potential Facility on Town-Owned Property
(Includes area of visibility approximately 500 feet around Facility)
- Year-round visibility 140-Foot
Facility Currently Proposed
(approximately 101 acres)
- Year-round visibility 150-Foot
Facility on Town Property
(approximately 216 acres)
- Threatened and Endangered Species
- Historic Districts
- Scenic Roads (Local and/or State designated)
- Town Line

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 54 Tuttle Place
 Middletown, CT 06457*

(Verizon 8)