

<p>DOCKET NO. 434 – 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 relocated telecommunications facility at 139 } North Main Street, West Hartford, Connecticut }</p>	<p>Connecticut Siting Council June 27, 2013</p>
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Findings of Fact

Introduction

1. Cellco Partnership d/b/a Verizon Wireless (Cellco), in accordance with provisions of Connecticut General Statutes (C.G.S.) § 16-50g through 16-50aa, applied to the Connecticut Siting Council (Council) on January 18, 2013 for the construction, maintenance, and operation of a 90-foot relocated wireless telecommunications facility at 139 North Main Street, West Hartford, Connecticut. (Cellco 1, pp. 1-2)
2. Cellco is a Delaware Partnership with an administrative office located at 99 East River Drive, East Hartford, Connecticut. Cellco is licensed by the Federal Communications Commission (FCC) to operate a wireless telecommunications system in Connecticut. The operation of wireless telecommunications systems and related activities are Cellco’s sole business in Connecticut. (Cellco 1, p. 4)
3. The party in this proceeding is the applicant. The intervenor in this proceeding is New Cingular Wireless PCS, LLC (AT&T). (Transcript 1- 3:00 p.m. [Tr. 1], pp. 4)
4. Cellco’s existing West Hartford facility was approved by the Council in 1993 in Petition No. 307. Cellco’s existing facility consists of six antennas (i.e. two levels of three antennas) attached to the outside of the Gallaudet Hall cupola in the easterly portion of the American School for the Deaf (ASD) campus. Cellco’s stacked antennas are located at heights of 68 feet above ground level (AGL) and 73.3 feet AGL. Equipment associated with Cellco’s existing antennas is located inside the Gallaudet Hall building. (Cellco 1, pp. 1-2; Cellco 4, response 5; Council Administrative Notice Item No. 22)
5. AT&T is co-located on the Gallaudet Hall telecommunications facility with its antennas located at 76 feet AGL. (AT&T 1, response 3)
6. The ASD received local zoning approval for campus renovations including the construction of a state-of-the-art education building in the easterly portion of the campus and the demolition of Gallaudet Hall, thereby requiring the relocation of the existing wireless telecommunications facility. (Cellco 1, pp. 1-2; Tr. 1, pp. 14-15)
7. To replace its telecommunications facility at Gallaudet Hall, Cellco proposes to construct a new 90-foot stealth clock tower structure near the center of the ASD campus. It would be designed to mimic the appearance of the Gallaudet Hall cupola structure. All Cellco antennas and associated equipment would be housed inside. (Cellco 1, Tab 9 and pp. 1-2)
8. The purpose of the proposed relocated facility is to maintain wireless service for portions of North Main Street (Route 173) and other local roads in the area, as well as residential and commercial land uses in the West Hartford center area. (Cellco 1, pp. i, ii, 1-2)

9. Pursuant to C.G.S. § 16-50m, the Council, after giving due notice thereof, held a public hearing on April 25, 2013, beginning at 3:00 p.m. and continuing at 7:00 p.m. at the West Hartford Town Hall, Room 314, 50 South Main Street, West Hartford, Connecticut. (Council's Hearing Notice dated February 13, 2013; Tr. 1, p. 3; Transcript 2 – 7:00 p.m. [Tr. 2], p. 3)
10. The Council and its staff conducted an inspection of the proposed site on April 25, 2013, beginning at 2:00 p.m. During the field inspection, the applicant flew a balloon at the proposed site to simulate the height of the proposed tower. The balloon was aloft from 8:00 a.m. to 6:00 p.m. for the convenience of the public. (Council's Hearing Notice dated February 13, 2013; Pre-Hearing Conference Memo dated March 19, 2013)
11. On April 7, 2013, the applicant posted a four-foot by six-foot sign by the main entrance to ASD facing North Main Street. The sign included the height and type of proposed facility as well as the date and location of the public hearing, and contact information for the Council's office. (Cellco 7)
12. Pursuant to C.G.S. § 16-50l (b), public notice of the application was published in Hartford Courant on January 15 and 16, 2013. (Cellco 1, p. 5)
13. Pursuant to C.G.S. § 16-50l(b), notice of the application was provided to all abutting property owners by certified mail. Of the 94 notices sent, Cellco received back 82 return receipts. 11 notices were returned marked "unclaimed." Each of the unclaimed notices were re-sent by regular mail. One notice, to Nathan Smeltz, was returned with a notation that the forwarding address had expired. Cellco confirmed the address with the Town Assessor's Office and resent the notice by regular mail. (Cellco 4, response 1)
14. Pursuant to C.G.S. § 16-50l (b), Cellco provided notice to all federal, state and local officials and agencies listed therein. (Cellco 1, p. 5 and Attachment 2)

State Agency Comment

15. Pursuant to C.G.S. § 16-50j (h), on February 13, 2013 and April 30, 2013, the following State agencies were solicited by the Council to submit written comments regarding the proposed facility: Department of Energy and Environmental Protection (DEEP); Department of Public Health (DPH); Council on Environmental Quality (CEQ); Public Utilities Regulatory Authority (PURA); Office of Policy and Management (OPM); Department of Economic and Community Development (DECD); Department of Agriculture (DOAg); Department of Transportation (DOT); and Department of Emergency Management and Public Protection (DESPP). (Record)
16. The DOT's Bureau of Engineering and Highway Operations responded to the Council's solicitation on February 20, 2013, but had no comments. (DOT Comments dated February 20, 2013)
17. The following agencies did not respond with comment on the application: DEEP, DPH, CEQ, PURA, OPM, DECD, DOAg, and DESPP. (Record)

Municipal Consultation

18. On July 10, 2012, Cellco's representatives met with West Hartford's Town Planner Mila Limson and Corporation Counsel Patrick Alair to introduce Cellco's proposed relocated facility. (Cellco 1, p. 19)

19. On August 17, 2012, Cellco's representatives met with Corporation Counsel Patrick Alair, as designee for Mayor Scott Slifka, to commence the 90-day municipal consultation process. Mr. Alair received copies of the technical information summarizing Cellco's plans to relocate the existing telecommunications facility on the ASD campus. (Cellco 1, pp. 19-20)
20. On September 10, 2012, Cellco's representatives attended one of ASD's regular neighborhood meetings to discuss its telecommunications facility relocation proposal. ASD sent notice of this meeting and the Cellco proposal to 468 neighboring property owners. (Cellco 1, p. 20)
21. Cellco would provide space on the tower for the Town's emergency communication services for no compensation. However, the Town has not expressed an interest in co-locating at this time. (Tr. 1, p.15)

Public Need for Service

22. In 1996, the United States Congress recognized a nationwide need for high quality wireless telecommunications services, including cellular telephone service. Through the Federal Telecommunications Act of 1996, Congress seeks to promote competition, encourage technical innovations, and foster lower prices for telecommunications services. (Council Administrative Notice Item No. 4)
23. In issuing cellular licenses, the Federal government has preempted the determination of public need for cellular service by the states, and has established design standards to ensure technical integrity and nationwide compatibility among all systems. Cellco is licensed by the Federal Communications Commission (FCC) to provide personal wireless communication service to Hartford County, Connecticut. (Council Administrative Notice Item No. 4; Cellco 1, p. 4; Cellco 4, response 2)
24. The Telecommunications Act of 1996 prohibits local and state entities from discriminating among providers of functionally equivalent services. (Council Administrative Notice Item No. 4)
25. The Telecommunications Act of 1996 prohibits any state or local entity from regulating telecommunications towers on the basis of the environmental effects, which include human health 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. 4)
26. The Wireless Communications and Public Safety Act of 1999 (911 Act) was enacted by Congress to promote and enhance public safety by making 9-1-1 the universal emergency assistance number, by furthering deployment of wireless 9-1-1 capabilities, and by encouraging construction and operation of seamless ubiquitous and reliable networks for wireless services. (Council Administrative Notice Item No. 6)
27. Cellco's facility and AT&T's co-location at the facility would be in compliance with the requirements of the 911 Act. (Cellco 4, response 12; AT&T 1, response 15)
28. Following the enactment of the 911 Act, the FCC mandated wireless carriers to provide enhanced 911 services (E911) to allow public safety dispatchers to determine a wireless caller's geographical location within several hundred feet. The proposed facility would become a component of Cellco's and AT&T's E911 network in this part of the state. (Cellco 1, p. 7; Cellco 4, response 12; AT&T 1, response 15; Council Administrative Notice Item No. 6)

29. In December 2009, President Barack Obama recognized cell phone towers as critical infrastructure vital to the United States. The Department of Homeland Security, in collaboration with other Federal stakeholders, State, local, and tribal governments, and private sector partners, has developed the National Infrastructure Protection Plan (NIPP) to establish a framework for securing our resources and maintaining their resilience from all hazards during an event or emergency. (Council Administrative Notice Item No. 11 -Barack Obama Presidential Proclamation 8460, Critical Infrastructure Protection)
30. 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)

Existing and Proposed Wireless Coverage – Applicant

31. Cellco operates in the 850 MHz (cellular) band, 700 MHz (LTE) band, and 1900 MHz (PCS) band at a signal level service design of -85 dBm for this area, sufficient for in-vehicle coverage. Cellco’s signal level threshold for in-building coverage is -75 dBm. (Cellco 4, responses 2 and 3)
32. The lengths of Cellco’s coverage gaps (signal strength < -85 dBm) that would result if the existing Gallaudet Hall telecommunications facility is not replaced with the proposed relocated facility are listed below. The proposed facility would provide coverage to these gaps.

Existing Road Gaps*	
Road	Miles
Farmington Avenue	1.2
North Main Street	1.5
Trout Brook Drive	1.4
Fern Street	1.45
Mountain Road	0.75
Whitman Road	0.75
Brookside Drive/Cliffmore Road	1.2
Total	8.25

*approximate miles; signal strength <-85 dBm
 (Cellco 4, response 8; Cellco 6, response 4)

33. Cellco’s existing Gallaudet Hall facility provides 0.97 square miles of in-building coverage and 6.44 square miles of in-vehicle coverage. (Cellco 6, response 5)
34. Cellco’s proposed facility would provide 0.75 square miles of in-building coverage and 5.34 square miles of in-vehicle coverage. (Cellco 4, response 10)

35. Cellco’s proposed relocated facility would interact with the adjacent facilities identified in the following table.

Location	Tower/Structure Type and Height	Antenna Height	Approximate Distance from Site
236 Sisson Avenue, Hartford	50-foot rooftop	53 feet	2.25 miles
110 Bartholomew Avenue, Hartford	65-foot rooftop	58 feet	2.62 miles
439 Homestead Avenue, Hartford	140-foot tower	138 feet	2.52 miles
345 North Main Street, West Hartford	73-foot rooftop	73 feet	1.0 miles
1 Westminster Drive, West Hartford	90-foot church steeple	61.5 feet	1.37 miles
457 South Quaker Lane, West Hartford	120-foot tower	100 feet	1.78 miles
2021 Albany Avenue, West Hartford	85-foot rooftop	70 feet	1.57 miles
14-20 Isham Road West, West Hartford	25-foot rooftop tower	110 feet	0.78 miles
219 New Park Avenue, Hartford	108-foot tower	105 feet	2.30 miles

(Cellco 4, response 16)

36. The primary benefit of relocating the Cellco facility to maintain service is improved network capacity as opposed to expanding existing coverage. The proposed facility would provide capacity relief to Cellco’s network in West Hartford. Within its coverage footprint are high density residential areas, busy roadways with high traffic volume, and portions of major commercial areas in West Hartford. (Cellco 4, responses 7 and 8)
37. The minimum antenna heights for Cellco to meet its objectives is 64.5 feet AGL for PCS antennas and 54.5 feet AGL cellular and LTE antennas, respectively. (Cellco 4, response 15)
38. Installing Cellco’s antennas at the proposed heights would provide approximately 5.34 square miles of coverage. (Cellco 4, response 10)

Existing and Proposed Wireless Coverage – AT&T

39. AT&T operates in the 850 MHz (cellular) band, 750 MHz (LTE) band, and 1900 MHz (PCS) band at a signal level service design of -82 dBm for this area, sufficient for in-vehicle coverage. AT&T’s signal level threshold for in-building coverage is -74 dBm. (AT&T 1, response 1)

40. The lengths of AT&T's coverage gaps (signal strength < -82 dBm) that would result if the existing Gallaudet Hall telecommunications facility is not replaced with the proposed relocated facility are listed below.

Existing Road Gaps*	
Road	Miles
North Main Street	0.8
Trout Brook Drive	0.6
Total	1.4

*approximate miles; signal strength <-82 dBm
 (AT&T 1, response 6)

41. AT&T's existing Gallaudet Hall co-location provides 0.43 square miles of in-building coverage and 0.91 square miles of in-vehicle coverage. (AT&T 2, response 3)
42. AT&T's proposed facility would provide 0.1 square miles of in-building coverage and 0.28 square miles of in-vehicle coverage. (AT&T 2, response 3)
43. AT&T's proposed relocated facility would interact with the adjacent facilities identified in the following table.

Location	Tower/Structure Type	Antenna Height	Approximate Distance from Site
345 North Main Street	rooftop	87 feet	0.9 miles
29 South Main Street	rooftop	90 feet	0.8 miles

(AT&T 1, response 8)

44. The minimum antenna height for AT&T to meet its coverage objectives is 60 feet AGL. (AT&T 1, response 11)
45. In order to maintain reliable service in this area, AT&T would relocate its antennas on the proposed clock tower at the maximum available height of 44.5 feet AGL. (AT&T 2, response 1)
46. Installing AT&T's antennas at 44.5 feet AGL at the proposed site would provide approximately 0.28 square miles of coverage. (AT&T 1, response 10)

Site Selection

47. Cellco first established a search ring in the area in approximately 1993 for Petition No. 307. The approval of Petition No. 307 by the Council resulted in Cellco's original telecommunications site at Gallaudet Hall of ASD. (Tr. 1, p. 9; Cellco 1, p. i)
48. When Cellco was notified of ASD's plan to demolish Gallaudet Hall, it immediately began investigating potential alternative locations for a replacement facility. (Cellco 1, p. 10)

49. Cellco's site search first focused on the densely populated area immediately surrounding the ASD campus. Cellco determined that relocating its telecommunications facility a significant distance from the ASD campus would jeopardize the site's ability to interact with the existing sites in the area. (Cellco 1, p. 10)
50. Given small lot sizes and high density of homes in the area, Cellco investigated building roof-tops and church steeples in the area. (Cellco 1, p. 10)
51. Cellco evaluated four sites, but found that none would not meet its coverage objectives. These sites are listed as follows:
- a) UCONN Hartford Campus, Asylum Avenue, West Hartford – roof-top of building.
 - b) 1028 Farmington Avenue, West Hartford – roof-top of building
 - c) 90 North Main Street, West Hartford – steeple of First Baptist Church
 - d) 433 Fern Road, West Hartford – steeple of Universalist Church
- (Cellco 1, Tab 8; Tr. 1, pp. 9-10)
52. There is a smokestack on the ASD property adjacent to Gallaudet Hall that Cellco considered for co-location, but the smokestack would be removed along with the building. (Tr. 1, p. 10)
53. Microcells, repeaters, and distributed antennas systems are not viable technological alternatives for providing coverage to the identified coverage gap. (Cellco 1, response 10)

Facility Description

54. The proposed site is located on a 49.4-acre parcel at 139 North Main Street in West Hartford. The parcel, owned by American School for the Deaf, contains a school campus. The proposed relocated tower location is depicted on Figure 1. (Cellco 1, p. i and Attachment 1, Sheet C-1.0)
55. The property is zoned residential, R-10. The Town's zoning regulations permit telecommunication towers in R-10 Zone districts, subject to issuance of a Special Permit. (Cellco 1, pp. 17-18)
56. Land use within a quarter-mile of the site included high density residential and commercial. (Cellco 1, Tabs 1 and 9)
57. The tower site is located in the west-central portion of the property, at an elevation of 162 feet above mean sea level (amsl). (Cellco 1, Tab 1, Sheet C-1.3)
58. The tower would be located on an open grass space adjacent to a soccer field. (Tr. 1, p. 11)
59. The proposed relocated facility would consist of a 90-foot tower and an equipment building. The upper portion of the tower (approximately 40.8 feet in height) would be designed to mimic the existing cupola facility on Gallaudet Hall, which is being demolished. The mid-section of the tower would be octagon-shaped (approximately 17.6 feet in height and 24.4 feet wide) and would contain the clock face. At the base of the tower (approximately 31.9 feet in height) would be a building square in cross-section, with dimensions of 29 feet by 29 feet. Its outside finish would be brick, similar to the façade of Gallaudet Hall, and it would contain four floors inside (three above-ground and one underground) to accommodate carriers' equipment, HVAC equipment, and a backup generator. (Cellco 1, Tab 9)

60. The proposed new stealth structure would be designed and constructed to comply with the Connecticut State Building and Life Safety Codes and all current supplements and amendments. (Cellco 4, response 14)
61. The clock would be functional. (Tr. 1, p. 17)
62. The existing cupola at Gallaudet Hall has a 15-foot tall spire at the top of the cupola dome. (Tr. 1, p. 11)
63. The clock tower would have a 15.8-foot tall spire on top of the cupola dome. (Cellco 1, Tab 1, Sheet C-4.0)
64. Cellco would install six panel antennas at the 64.5-foot AGL level of the tower and nine panel antennas 54.5-foot AGL level of the tower. All antennas would be located inside the tower. (Tr. 1, p. 15; Cellco 1, p. 2)
65. AT&T would install three panel antennas inside the tower at the 44.5-foot AGL level. (Tr. 1, pp. 29-30; Cellco 1, Tab 1, Sheet C-4.0)
66. The tower would be designed for a third carrier to co-locate at the 34.5-foot AGL level. (Cellco 1, Tab 1, Sheet C-4.0)
67. The stealth structure would have a garden fence in front of it along Cellco's parking area. (Cellco 1, Tab 1, Sheet C-4.0)
68. The tower setback radius would remain within the subject property. (Cellco 1, Attachment 1, sheet C-1.0)
69. A natural gas-fired backup generator would be located inside the equipment room. In an emergency, absent an unforeseen disruption of natural gas service or mechanical problems with the generator itself, the natural gas-fired generator could run as long as necessary until commercial power to the site is restored. (Cellco 4, response 9)
70. There is insufficient space in AT&T's equipment room for its own backup generator. However, AT&T would consider sharing Cellco's generator subject on mutually agreeable terms and conditions. AT&T and Cellco do not currently have an agreement in place. (AT&T 1, response 13; Tr. 1, p. 36)
71. Development of the site would require the removal of 400 cubic yards of material from the site. (Cellco 1, response 18)
72. Vehicular access to the new stealth structure would extend from North Main Street, over existing paved driveways on ASD campus, to the tower site. (Cellco 1, p. ii)
73. Underground electric and telephone service would extend from North Main Street under the existing driveways of the ASD campus. (Cellco 1, pp. 2-3, Tab 1)
74. Natural gas service for the backup generator would extend underground from existing service on the ASD campus located to the north of the proposed structure. (Cellco 6, response 2)
75. Development of the site is not expected to require blasting. (Cellco 4, response 20)

76. There is one temporary ASD building located approximately 88 feet to the west of the proposed stealth tower. This building is planned to be removed in the future. (Cellco 1, Tab 1, Sheet C-1.3)
77. Pursuant to CGS § 16-50p(a)(3)(G), the proposed stealth tower would be located more than 250 feet from all buildings on the ASD campus used for school or commercial day care purposes. The closest permanent ASD building is the Butterworth Infirmiry Building approximately 235 feet south of the clock tower location. (Cellco 1, pp. 14-15, Tab 1)
78. The nearest off-site school is located over 2,750 feet to the northwest. The nearest off-site commercial child day care center is located approximately 2,000 feet southeast of the proposed facility. Neither of these locations would have views of the proposed facility. (Cellco 1, Tab 9)
79. The nearest property boundary from the proposed relocated tower is approximately 358 feet to the south (Hager property). (Cellco 1, Attachment 1)
80. There are approximately 105 residences within 1,000 feet of the proposed relocated tower site. The nearest residence is approximately 415 feet south of the tower site (Hager property). (Cellco 1, p. 13 and Attachment 1, sheets C-1.0 and C-1.1)
81. Land use in the surrounding area is predominantly single-family residential. Several places of worship are also located along North Main Street in the vicinity. (Cellco 4, response 17)
82. The estimated construction cost of the proposed facility is:

Cell site radio equipment	\$450,000
Stealth structure, coax and antenna costs	\$958,000
Power systems	\$285,000
Miscellaneous (including site prep. and installation)	<u>\$170,000</u>
<u>Total</u>	\$1,863,000

(Cellco 1, p. 21)

83. AT&T's co-location at the proposed facility would cost approximately \$500,000. (Tr. 1, p. 31)

Environmental Considerations

84. According to the State Historic Preservation Office, the proposed facility would have no effect on the State's historic resources with the following conditions:
- a) The tower shall be stealthed, as shown in the submission; and
 - b) If not in use for six consecutive months, the antennas and equipment shall be removed by the telecommunications facility owner. This removal shall occur within 90 days of the end of such six-month period. Upon removal, the property shall be restored by the facility owner to its historically appropriate appearance and materials.
- (Cellco 5)
85. The Eastern Box Turtle, a State-designated Species of Special Concern, may exist in the vicinity of the proposed clock tower. (Cellco 1, p. 16)

86. An Eastern Box Turtle Protection Program would be implemented during construction to protect this Species of Special Concern. This Program includes isolation of the project perimeter, periodic inspections and maintenance, turtle sweeps, education of contractors, protective measures, and reporting. With such measures taken, development of the site is not expected to have an adverse impact on the Eastern Box Turtle. (Cellco 1, Tab 11; Cellco 1, p. 16)
87. No tree clearing would be required. (Cellco 1, Tab 1, p. 5)
88. The nearest wetland is located approximately 800 feet to the southwest of the proposed site. No adverse impact to wetlands would be expected due to the distance. No temporary impacts associated with construction would be anticipated provided that erosion and sedimentation controls are designed, installed and maintained during construction in accordance with the *2002 Connecticut Guidelines for Soil Erosion and Sediment Control*. (Cellco 1, Attachment 13)
89. Obstruction marking and lighting of the tower would not be required. (Cellco 1, p. 20 and Attachment 15).
90. The cumulative worst-case maximum power density from the radio frequency emissions from the operation of Cellco's and AT&T's proposed antennas is 46.05% 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, 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. (Cellco 1, pp. 16-17; Post-Hearing Submission dated May 8, 2013)

Visibility

91. The proposed clock tower would be visible year-round from approximately 42 acres within a two-mile radius of the site. The tower would be seasonally visible from approximately 118 acres within a two-mile radius of the site. (Cellco 1, Tab 9)
92. Visibility of the proposed 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 and Direction to Tower
Across North Main Street from School Entrance	Yes	10 feet	0.29 miles southwest
Across North Main Street from School Entrance	Yes	12 feet	0.29 miles southwest
Adjacent to 44 Hilltop Drive	Yes	5 feet	0.14 miles northwest
Adjacent to 52 Hilltop Drive	Yes	15 feet	0.12 miles northwest
Adjacent to 58 Hilltop Drive	Yes	50 feet	0.10 miles northwest
Intersection of Hilltop Drive and Fern Street	No	None	0.17 miles northwest
Adjacent to 16 Cobbs Road	Yes	30 feet through trees	0.14 miles northeast
Fernridge Road cul-de-sac	Yes	25 feet through trees	0.29 miles northeast
Fernridge Road	No	None	0.35 miles northeast
Fernridge Park	No	None	0.35 miles northeast

Braeburn School (sidewalk off parking circle)	No	None	0.80 miles northeast
Fairview Cemetery	No	None	0.59 miles northeast
Fernridge Park	No	None	0.31 miles northeast
Whitmore Avenue	No	None	0.47 miles northeast
Intersection of Linwold Road and Linnard Road	Yes	50 feet	0.38 miles southwest
Intersection of North Main Street and Linnard Road	Yes	20 feet	0.30 miles southwest
Intersection of Wyndwood Road and Banbury Lane	Yes	40 feet	0.11 miles south
Intersection of Brookside Boulevard and Brookside Place	No	None	0.32 miles southwest
Brookside Place	No	None	0.37 miles south
Rustic Lane	No	None	0.31 miles east
East Maxwell Drive	Yes	40 feet through trees	0.31 miles northeast
Asylum Avenue and Shade Lane	No	None	0.64 miles southeast
Intersection of Fern Street and North Main Street	No	None	0.36 miles northwest

*based on the top of the cupola dome
 (Cellco 1, Tab 9)

93. The proposed clock tower would be visible on a seasonal and year-round basis from a select number of homes within the study area. The number of homes are listed below.

Street	Year-round visibility	Seasonal visibility*
North Main Street	6	14
Hilltop Drive	17	34
Cobbs Road	0	15
Fern Street	1	29
Fernridge Road	0	13
Linnard Road	0	9
Wyndwood Road	14	12
Banbury Lane	0	5
Brookside Boulevard	0	3
Brookside Place	0	2
Rustic Lane	0	6
Cliffmore Road	0	11
East Maxwell Drive	0	1

*Seasonal visibility denotes residential properties in addition to those with potential year-round views. (Cellco 1, Tab 9)

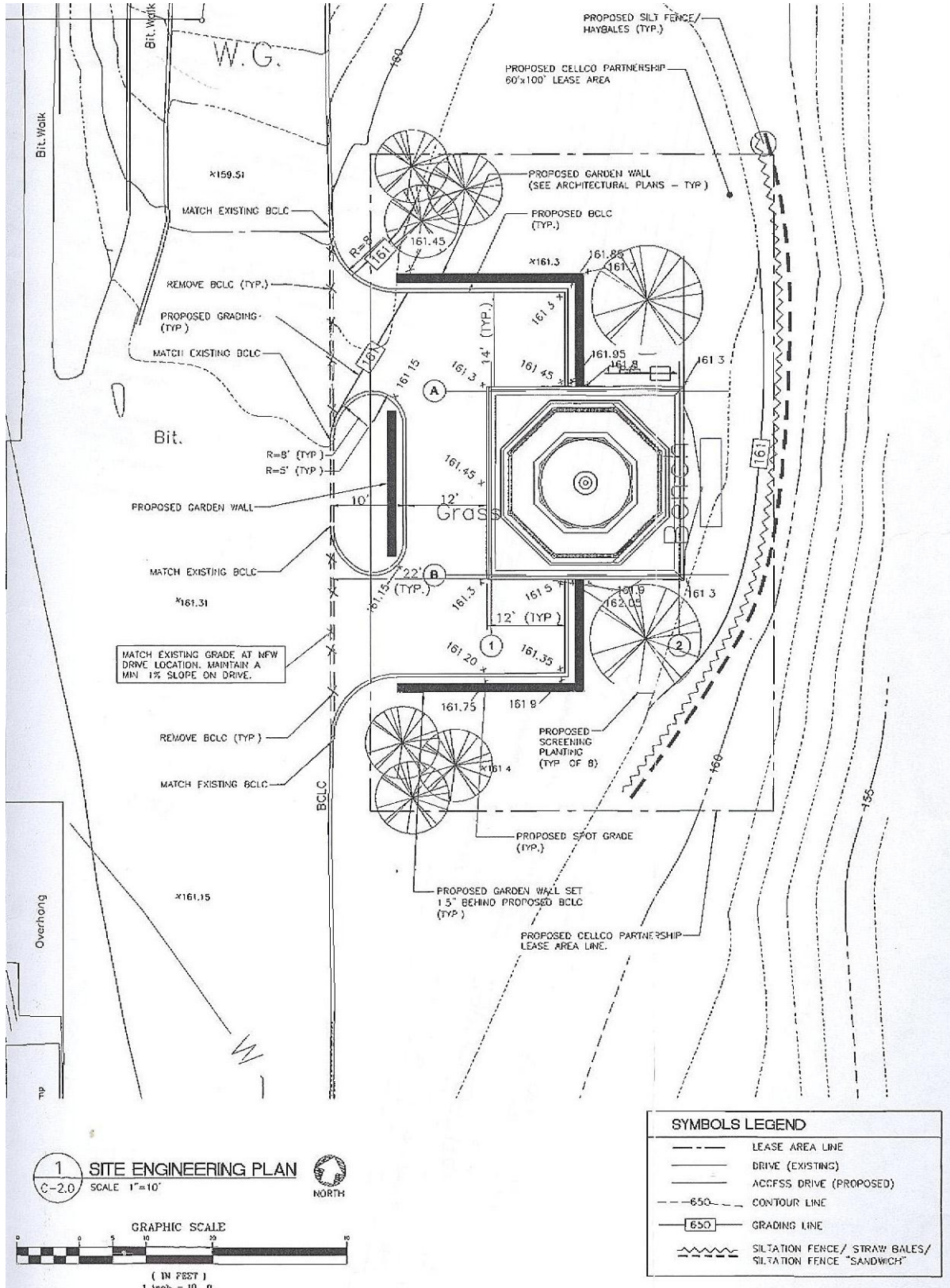
94. Views of the spire on top of the dome would fade into the sky at distances of roughly one-quarter mile or greater. (Tr. 1, p. 12)
95. Because the proposed stealth structure looks similar to Gallaudet Hall, with its clock tower reaching a similar elevation, the overall visual effect would be to shift existing cupola views to the west. The character of the view would be fairly consistent with existing views, and the new cupola would not create any new views from residences. (Tr. 1, p. 14)

Aerial Map of proposed site



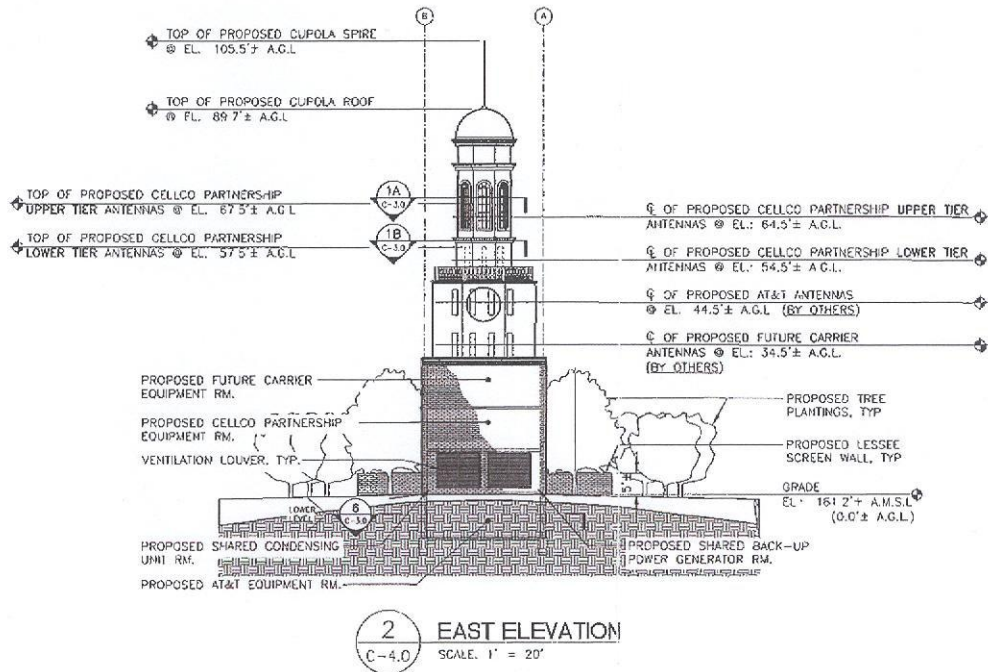
(Cellco 1, p. ix)

Site Plan (showing compound and access)



(Cellco 1, Tab 1, Sheet C-2.0)

Profile drawing of tower



(Cellco 1, Tab 1, Sheet C-4.0)

Architectural rendering of tower

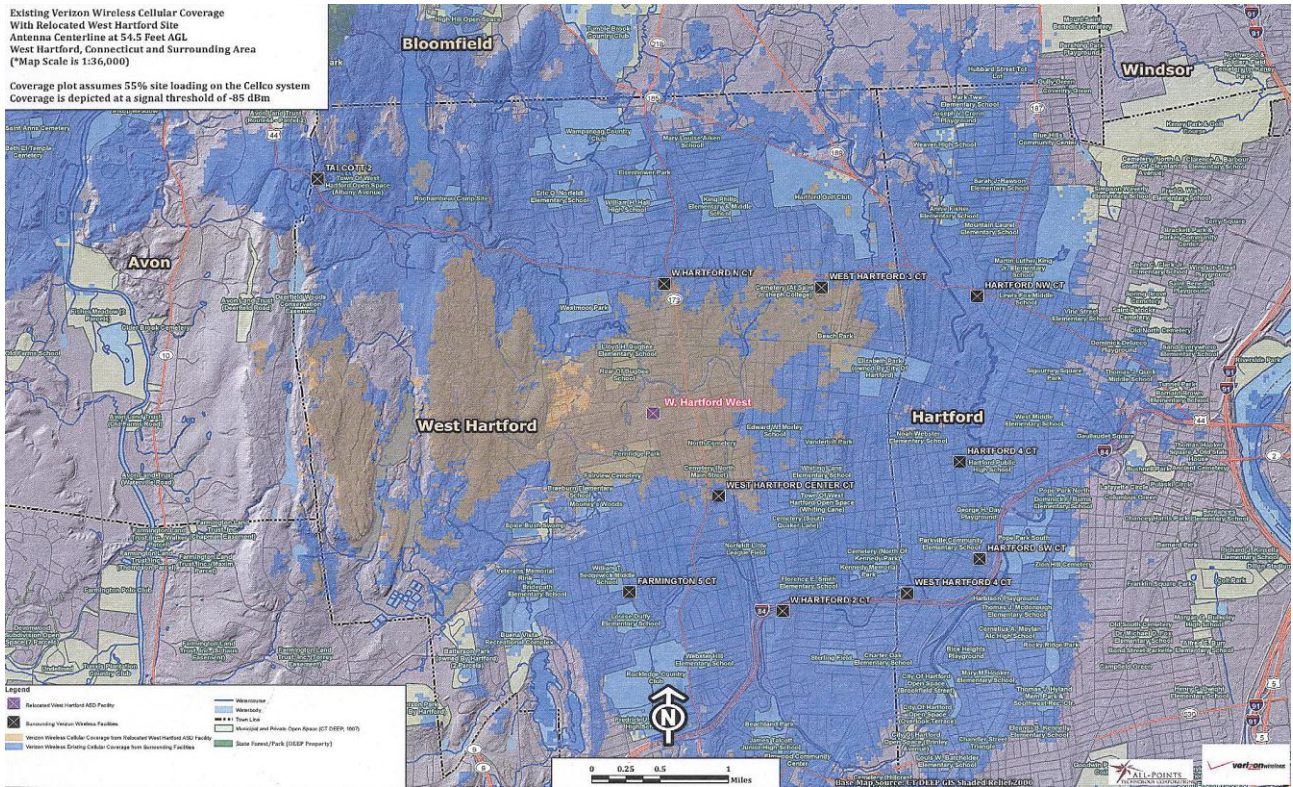


(Cellco 8)

Existing and Proposed Cellco Cellular Coverage

Existing Verizon Wireless Cellular Coverage
 With Relocated West Hartford Site
 Antenna Centerline at 54.5 Feet AGL
 West Hartford, Connecticut and Surrounding Area
 (*Map Scale is 1:36,000)

Coverage plot assumes 55% site loading on the Celco system
 Coverage is depicted at a signal threshold of -85 dBm

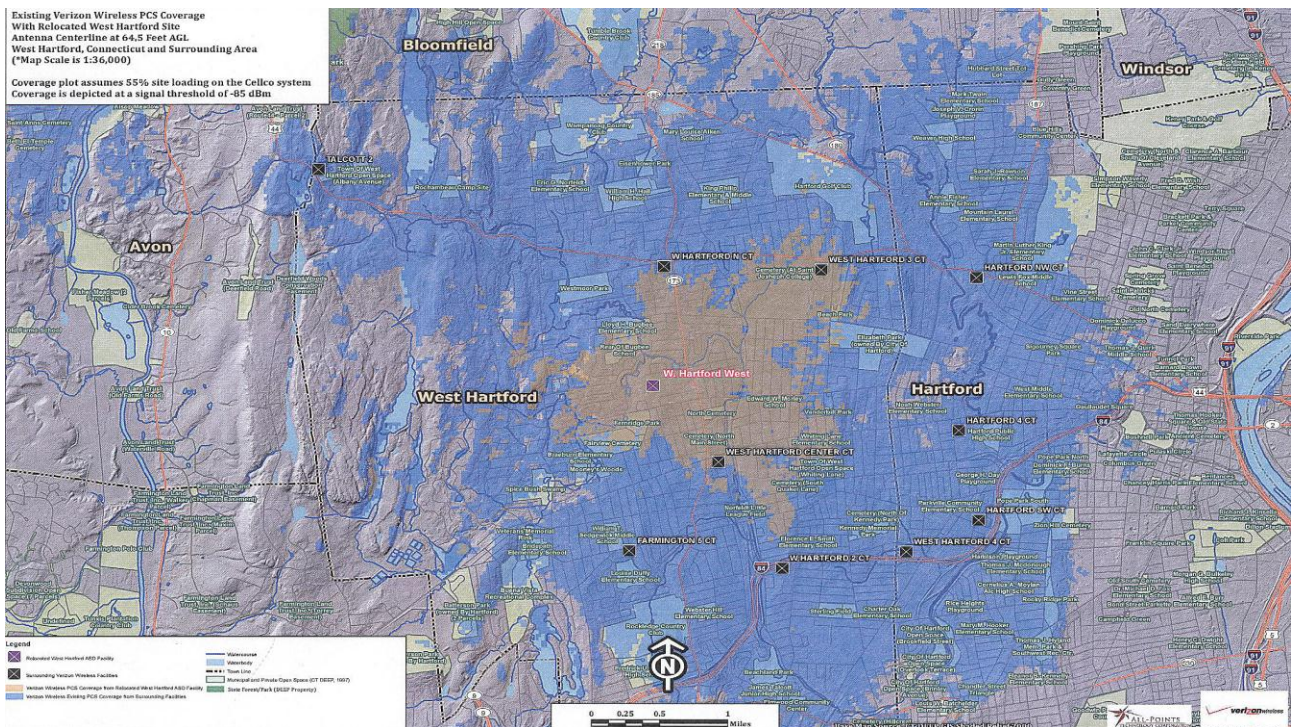


(Cellco 1, Tab 6)

Existing and Proposed Cellco PCS Coverage

Existing Verizon Wireless PCS Coverage
 With Relocated West Hartford Site
 Antenna Centerline at 64.5 Feet AGL
 West Hartford, Connecticut and Surrounding Area
 (*Map Scale is 1:36,000)

Coverage plot assumes 55% site loading on the Celco system
 Coverage is depicted at a signal threshold of -85 dBm

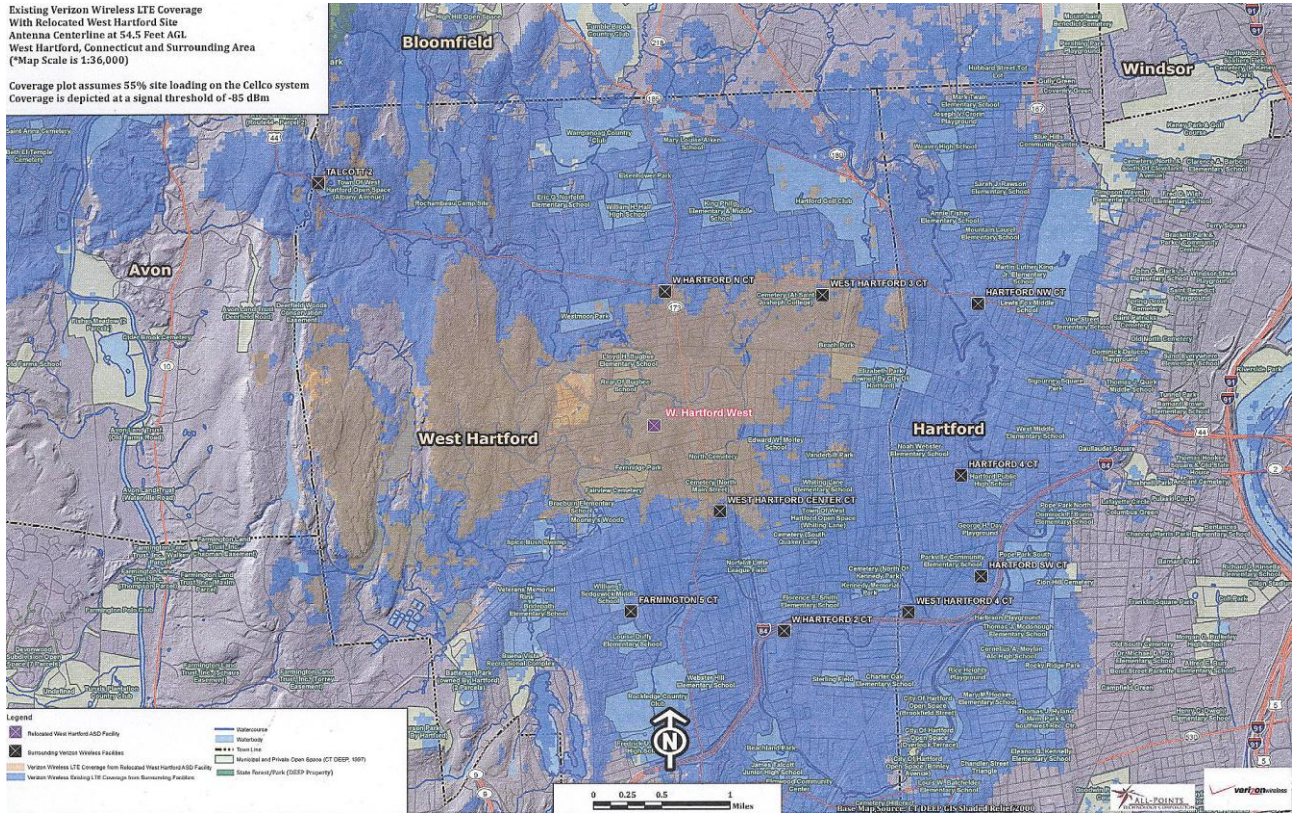


(Cellco 1, Tab 6)

Existing and Proposed Cellco LTE Coverage

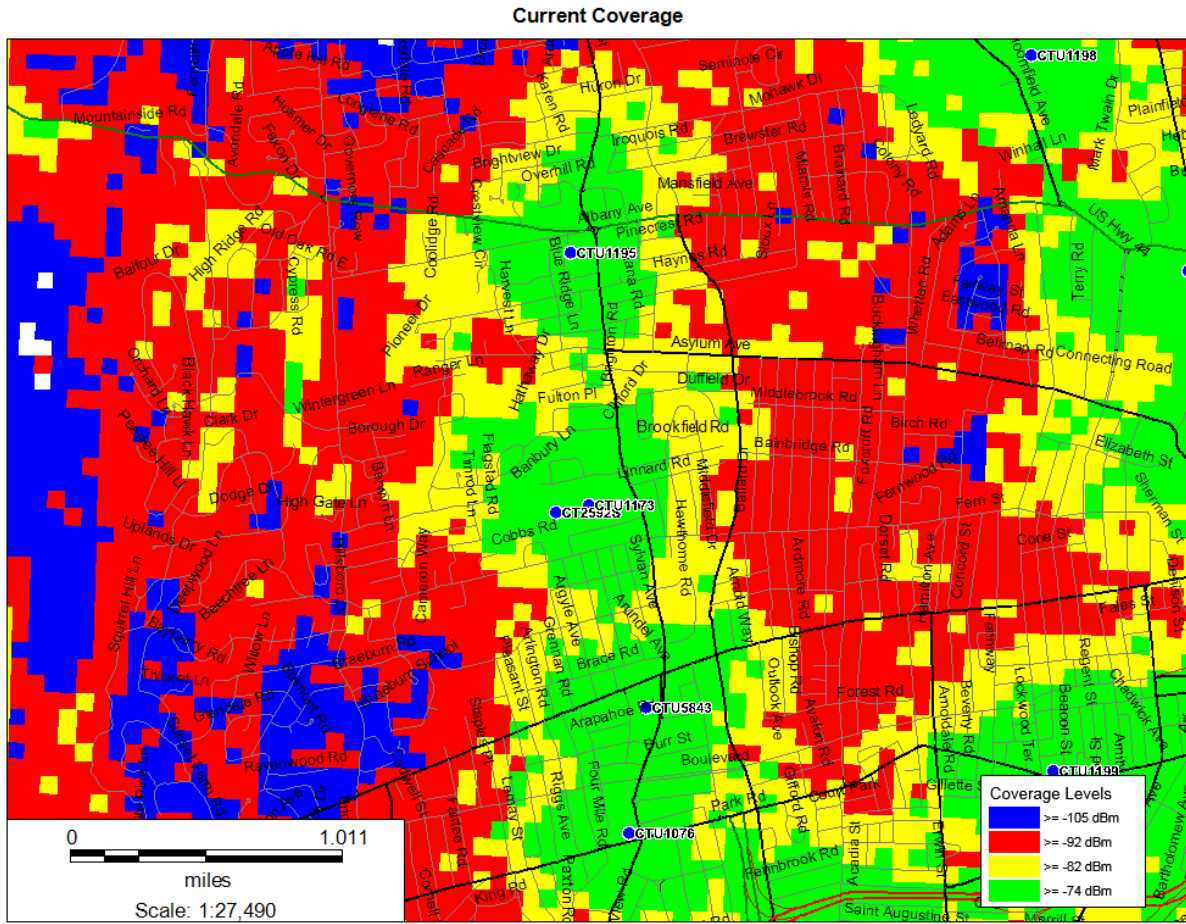
Existing Verizon Wireless LTE Coverage
With Relocated West Hartford Site
Antenna Centerline at 54.5 Feet AGL
West Hartford, Connecticut and Surrounding Area
(*Map Scale is 1:36,000)

Coverage plot assumes 55% site loading on the Celco system
Coverage is depicted at a signal threshold of -85 dBm

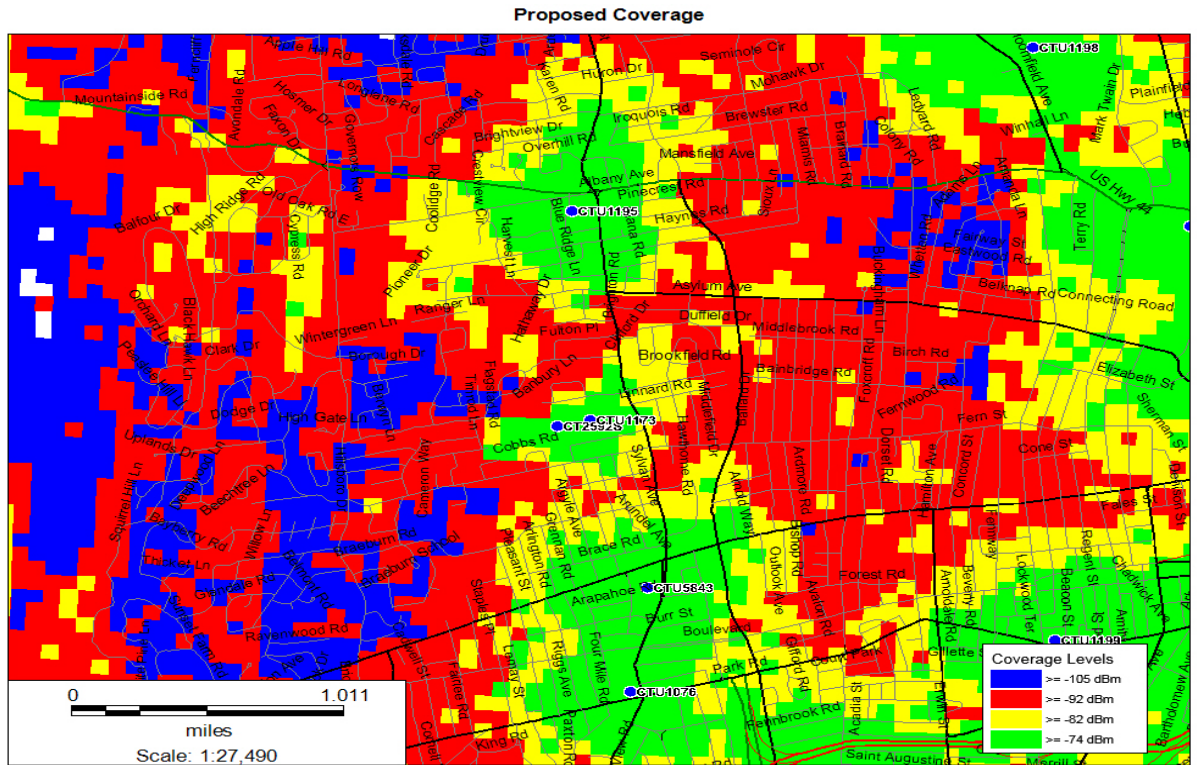


(Cellco 1, Tab 6)

Existing AT&T Coverage

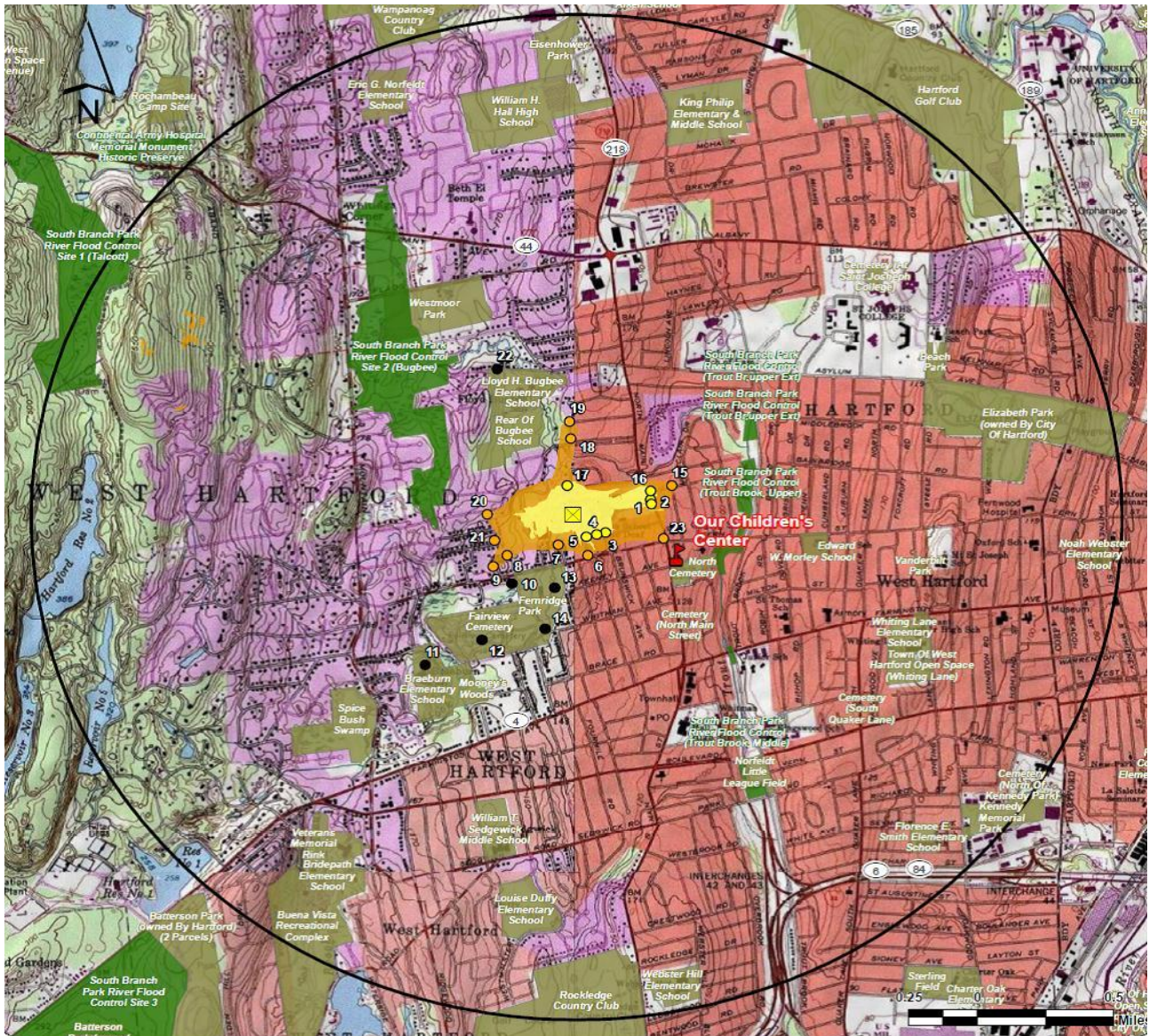


Existing and Proposed AT&T Coverage



(AT&T 1, response 7)

Visibility Analysis



- Legend**
- Proposed Facility
 - Commercial Child Day Care Facility
 - Photo Point Location**
 - Not Visible
 - Seasonally Visible
 - Visible Year-Round
 - DEP Boat Launch*
 - Year-Round Visibility (Approx. 42 Acres)
 - Seasonal Visibility (Approx. 118 Acres)
 - Study Area (2-Mile Radius)
 - Federal Open Space*
 - Protected Properties (CT DEP)
 - Protected Properties (Municipal)

*No Data within Study Area