

STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

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January 20, 2012

TO:

Parties and Intervenors

FROM:

Linda Roberts, Executive Director House

RE:

DOCKET NO. 420 - SBA Towers III and New Cingular Wireless PCS, LLC application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance and management of a telecommunications facility at one of three sites located at 49 Mountain Avenue; 23/25 Northwest Corner Road; or 350B Cossaduck Hill Road, North Stonington, Connecticut. Draft Findings of Fact.

As stated at the hearing in New Britain on October 11, 2011, after the Connecticut Siting Council (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 Council on the Draft Findings of Fact issued on this docket by January 27, 2012.

LR/MP/laf

Enclosure



LIST OF PARTIES AND INTERVENORS <u>SERVICE LIST</u>

Status Granted	Document Service	Status Holder (name, address & phone number)	Representative (name, address & phone number)
Applicant	⊠ U.S. Mail	SBA Towers III (SBA) and New Cingular Wireless PCS, LLC (AT&T)	Daniel M. Laub, Esq. Christopher B Fisher, Esq. Cuddy & Feder LLP 445 Hamilton Avenue, 14 th Floor White Plains, NY 10601
			(914) 761-1300 (914) 761-5372 fax dlaub@cuddyfeder.com cfisher@cuddyfeder.com
			Hollis Redding SBA One Research Drive, Suite 200C Westborough, MA 01581 hredding@sbasite.com
			Michele Briggs AT&T 500 Enterprise Drive Rocky Hill, CT 06067-3900 michele.g.briggs@cingular.com
Party (granted 09/20/11)	1.	Peter R. and Gisele A. Buehler 350D Cossaduck Hill Rd. North Stonington, CT 06359	
		16247 Fringe Tree Drive Spring Hill, FL 34610 (860) 245-5050 or (727) 856-1963 buehlerga@comcast.net	

DOCKET NO. 420 - SBA Towers III and New Cingular	}	Connecticut
Wireless PCS, LLC application for a Certificate of Environmental		
Compatibility and Public Need for the construction, maintenance	}	Siting
and management of a telecommunications facility at one of three		_
sites located at 49 Mountain Avenue; 23/25 Northwest Corner	}	Council
Road; or 350B Cossaduck Hill Road, North Stonington,	•	
Connecticut.		January 12, 2012

DRAFT Findings of Fact

Introduction

- 1. SBA Towers III (SBA) and New Cingular Wireless PCS, LLC (AT&T) (collectively, the Applicant), in accordance with provisions of Connecticut General Statutes (CGS) § 16-50g through 16-50aa, applied to the Connecticut Siting Council (Council) on June 29, 2011 for the construction, maintenance, and operation of a telecommunications facility, which would include a 190-foot tall monopole telecommunications tower at of three sites located at 49 Mountain Avenue (Site A) or 25 Northwest Corner Road (Site B) or 350 Cossaduck Hill Road (Site C), in the Town of North Stonington (Town), Connecticut. (Applicant 1, pp. 1-6)
- 2. SBA is a Delaware limited liability company and a subsidiary of SBA Communications Corporation, a publicly traded company that owns and operates wireless infrastructure facilities nationwide. Its offices are at One Research Drive, Suite 200C, Westborough, Massachusetts. (Applicant 1, p. 7)
- 3. AT&T is a Delaware limited liability company with an office at 500 Enterprise Drive, Rocky Hill, Connecticut. The company's member corporation is licensed by the Federal Communications Commission (FCC) to construct and operate a personal wireless services system. The company does not conduct any other business in the State of Connecticut other than the provision of wireless services under FCC rules and regulations. (Applicant 1, p. 7)
- 4. The parties in this proceeding are the Applicant and Peter and Gisele Buehler. (Transcript, September 20, 2011, 3:20 p.m. [Tr. 1], pp. 5-6)
- 5. The purpose of the proposed facility would be to provide wireless communication coverage in the North Stonington area and along Route 201 and other local roads in the area. (Applicant 1, p. 5)
- 6. Pursuant to CGS § 16-50m, the Council, after giving due notice thereof, held a public hearing on September 20, 2011, beginning at 3:20 p.m. and continued at 7:00 p.m. at the North Stonington Volunteer Fire Company, Main Meeting Room, 267 Norwich-Westerly Road, North Stonington, Connecticut. (Tr. 1, p. 3 ff.)

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- 7. The Council and its staff conducted an inspection of the proposed sites on September 20, 2011, beginning at 1:30 p.m. On the day of the field inspection, the applicant flew a 5-foot diameter balloon at each site between 12:00 p.m. and 6:30 p.m. Site A had a yellow and red balloon. Site B had a yellow balloon. Site C had a yellow and blue balloon. Weather conditions were generally fair with low winds. However, there were times when the balloons did not reach the full height of 190 feet due to the wind. Also the Site A balloon string did get caught on the trees at some point during the field inspection. (Tr. 1, pp 16-18; Tr. 3, pp. 25-26)
- 8. Pursuant to CGS § 16-501 (b), public notice of the application was published in the Westerly Sun on June 15 and 17, 2011. This notice listed 23 Northwest Corner Road as Site B. An additional notice was published in the Westerly Sun on June 23 and 24, 2011 to clarify that access to Site B would be via 23 Northwest Corner Road, but the proposed Site B tower would be located at 25 Northwest Corner Road. (Applicant 1, p. 8 and Tab 9; Applicant 6)
- 9. Pursuant to CGS § 16-50*l*(b), AT&T sent notices of its intent to file an application with the Council to each person appearing of record as owner of property abutting the properties on which the proposed facilities are located. (Applicant 1, pp. 8-9 and Tab 9)
- 10. AT&T received return receipts from all of the abutting property owners to whom it sent notice. (Applicant 2, response 4)
- 11. Letters were sent the neighbors of 23 and 25 Northwest Corner Road via Registered Mail (no return receipt requested) to clarify that the proposed site B tower location is at 25 Northwest Corner Road, not 23 Northwest Corner Road. (Applicant 2, response 4)
- 12. Pursuant to CGS § 16-50*l* (b), AT&T provided notice to all federal, state, regional, and local officials and agencies listed therein. (Applicant 1, p. 8 and Tab 8)
- 13. On September 9, 2011, the Applicant posted a sign near each of the three sites informing the passing public of the proposed facility, time, date, and place of the hearing on this application and how to contact the Council. (Tr. 1, pp. 17-18)

State Agency Comments

- 14. Pursuant to CGS § 16-50*l*, the Council solicited comments on AT&T's application from the following state departments and agencies: Department of Agriculture, Department of Energy and Environmental Protection (DEEP), Department of Public Health, Council on Environmental Quality, Department of Public Utility Control, Office of Policy and Management, Department of Economic and Community Development, the Department of Transportation (DOT), and the Department of Emergency Management and Homeland Security. The Council's letters requesting comments were sent on August 4, 2011 and October 11, 2011. (CSC Hearing Package dated August 4, 2011; Council Memo Requesting Additional State Agency Comments dated October 11, 2011)
- 15. On August 12, 2011, DOT responded to the Council's solicitation. In its comments, DOT described the process by which leases for wireless telecommunications tower sites may be secured from DOT. No responses were received from any of the other state agencies solicited. (DOT Comments dated August 12, 2011; Record)

Municipal Consultation

- 16. The Applicant filed a technical report for the Site A facility with the Town of North Stonington (Town) on October 8, 2010. (Applicant 1, p. 26)
- 17. On October 15, 2010, the Applicant appeared at the First Selectman's Office and answered questions. (Applicant 1, p. 26)
- 18. A public meeting to review AT&T's need and the proposed Site A facility (the only site for consideration at that time) was held on November 22, 2010. (Applicant 1, p. 26)
- 19. Based on public comments as well as correspondence from the First Selectman, additional alternative sites were considered. The Site B and Site C candidates were developed and an update was sent to the First Selectman by letter on April 29, 2011. (Applicant 1, p. 26)
- 20. Town First Selectman Nicholas Millane gave a limited appearance statement at the September 20, 2011 hearing. First Selectman Millane acknowledged the need for service in the area, expressed an interest in co-locating police, fire, and ambulance antennas on any of the proposed towers, but does not have a specific preference as to which tower site would be most appropriate. (Tr. 1, pp. 7-9 and 34)
- 21. Any of the three sites would work for the Town's municipal emergency services antennas. (Tr. 3, p. 10)
- 22. SBA would provide space for municipal emergency services antennas at no fee. (Tr. 1, p. 34)

Public Need for Service

- 23. In 1996, the United States Congress recognized a nationwide need for high quality wireless telecommunications services, including cellular telephone service. Through the Federal Telecommunications Act of 1996, Congress seeks to promote competition, encourage technical innovations, and foster lower prices for telecommunications services. (Council Administrative Notice Item No. 4 Telecommunications Act of 1996)
- 24. 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. AT&T is licensed by the FCC to provide personal wireless communication service throughout the State of Connecticut. (Council Administrative Notice Item No. 4 Telecommunications Act of 1996; AT&T 1, p. 6)
- 25. The Act prohibits local and state bodies from discriminating among providers of functionally equivalent services. (Council Administrative Notice Item No. 4 Telecommunications Act of 1996)

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- 26. The Act 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 Item No. 4 Telecommunications Act of 1996)
- 27. Congress enacted the Wireless Communications and Public Safety Act of 1999 (the 911 Act) to promote public safety through the deployment of a seamless, nationwide emergency communications infrastructure that includes wireless communications services. (Council Administrative Notice Item No. 5 Wireless Communications and Public Safety Act of 1999; Applicant 1, pp. 10-11)
- 28. AT&T would provide Enhanced 911 services from any of its proposed sites in compliance with the 911 Act. (Applicant 1, pp. 10-11; Applicant 2, response 6)

Existing and Proposed Wireless Coverage

- 29. AT&T's proposed facility would provide 880 MHz (cellular), 1900 MHz (PCS) service, and 700 MHz (LTE). (Applicant 2, responses 1 and 5)
- 30. AT&T designs its system for -82 dBm in-vehicle coverage and -74 dBm in-building coverage. (Applicant 2, response 2)
- 31. AT&T's existing signal strength in the area that would be covered from any of the proposed facilities ranges from -110 dBm to -82 dBm due to terrain fluctuations. (Applicant 2, response 9, 25, 42)
- 32. The table below indicates the distances AT&T would cover along the major routes in the area of its proposed facility at various heights.

Street Name	Coverage at Site A with Tower Height of 190 feet	Coverage at Site B with Tower Height of 190 feet	Coverage at Site C with Tower Height of 190 feet
Route 201 (Glasgo Road)	2.79 miles	2.34 miles	2.71 miles
Route 49 (Pendleton Hill Road, Voluntown Road)	1.18 miles	0.17 miles	0.88 miles
Route 164	0.00 miles	0.00 miles	0.12 miles
Route 216 (High Street)	0.00 miles	0.00 miles	0.06 miles
Norwich Voluntown Road	0.31 miles	0.00 miles	0.05 miles
Interstate 395	0.00 miles	0.00 miles	0.00 miles
Route 138	0.00 miles	0.00 miles	0.00 miles
Secondary Roads	21.31 miles	12.02 miles	18.48 miles

Street Name	Coverage at Site A with Tower Height of 180 feet	Coverage at Site B with Tower Height of 180 feet	Coverage at Site C with Tower Height of 180 feet
Route 201 (Glasgo Road)	2.56 miles	2.24 miles	2.60 miles
Route 49 (Pendleton Hill Road, Voluntown Road)	1.11 miles	0.16 miles	0.88 miles
Route 164	0.00 miles	0.00 miles	0.00 miles
Route 216 (High Street)	0.00 miles	0.00 miles	0.03 miles
Norwich Voluntown Road	0.29 miles	0.00 miles	0.04 miles
Interstate 395	0.00 miles	0.00 miles	0.00 miles
Route 138	0.00 miles	0.00 miles	0.00 miles
Secondary Roads	20.58 miles	11.30 miles	17.70 miles

Street Name	Coverage at Site A with Tower Height of 170 feet	Coverage at Site B with Tower Height of 170 feet	Coverage at Site C with Tower Height of 170 feet
Route 201 (Glasgo Road)	2.24 miles	2.24 miles	2.55 miles
Route 49 (Pendleton Hill Road, Voluntown Road)	1.11 miles	0.16 miles	0.83 miles
Route 164	0.00 miles	0.00 miles	0.00 miles
Route 216 (High Street)	0.00 miles	0.00 miles	0.01 miles
Norwich Voluntown Road	0.29 miles	0.00 miles	0.04 miles
Interstate 395	0.00 miles	0.00 miles	0.00 miles
Route 138	0.00 miles	0.00 miles	0.00 miles
Secondary Roads	20.34 miles	10.52 miles	17.22 miles

(Applicant 2, response 13, 29, 46)

33. The table below indicates the total areas AT&T would cover from the proposed facilities at various heights.

Signal Strength	Coverage Area at Site A with Tower Height of 190 feet	Coverage Area at Site B with Tower Height of 190 feet	Coverage Area at Site C with Tower Height of 190 feet
	190 feet	190 feet	190 feet
≤-82 dBm*	12.96 square miles	7.70 square miles	11.44 square miles

\$ Signal Strength	Coverage Area at Site A with Tower Height of 180 feet	Coverage Area at Site B with Tower Height of 180 feet	Coverage Area at Site C with Tower Height of 180 feet
≤-82 dBm*	12.53 square miles	7.40 square miles	11.18 square miles

Signal Strength	Coverage Area at	Coverage Area at	Coverage Area at
	Site A with Tower	Site B with Tower	Site C with Tower
	Height of	Height of	Height of
	170 feet	170 feet	170 feet
≤-82 dBm*	12.11 square miles	7.05 square miles	10.75 square miles

^{*}This is the signal strength AT&T considers generally sufficient to provide service within vehicles, otherwise known as "in-vehicle coverage." (Applicant 2, responses 14, 30, and 47)

34. AT&T's proposed facility would interact with the adjacent facilities identified in the following table.

Distance to	Distance to	Distance to
Site A Tower	Site B Tower	Site C Tower
3.88 miles	2.55 miles	3.35 miles
4.61 miles	3.04 miles	4.10 miles
4.55 miles	2.98 miles	4.05 miles
4.97 miles	5.79 miles	5.32 miles
4.26 miles	3.75 miles	4.16 miles
5.09 miles	6.43 miles	5.43 miles
6.68 miles	7.67 miles	6.68 miles
7.69 miles	9.23 miles	8.22 miles
	3.88 miles 4.61 miles 4.55 miles 4.97 miles 4.26 miles 5.09 miles 6.68 miles	Site A Tower Site B Tower 3.88 miles 2.55 miles 4.61 miles 3.04 miles 4.55 miles 2.98 miles 4.97 miles 5.79 miles 4.26 miles 3.75 miles 5.09 miles 6.43 miles 6.68 miles 7.67 miles

(Applicant 2, response 18)

35. Site A could provide the required coverage independently as a stand-alone tower. Likewise, Site C could also provide the required coverage by itself. However, Site B would also require Site C, as a two-tower configuration to meet coverage objectives. (Tr. 3, pp. 10-11)

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- 36. The minimum height at which AT&T could achieve its coverage objectives (with any of the proposed towers) is 190 feet AGL with an antenna centerline height of 187 feet AGL. (Applicant 2, response 16)
- 37. While Verizon Wireless did not intervene, SBA was informed that Site B and Site C would not work for Verizon Wireless from an RF perspective. (Tr. 3, p. 18)

Site Selection

- 38. AT&T initiated a search ring for this area in January 2009. (Applicant 2, response 3)
- 39. AT&T's search ring was centered between Billings Lake and Route 201 at 41° 30′ 34″ north latitude and 71° 53′ 5.4″ west longitude. Its radius was approximately 0.5 miles. (Applicant 2, response 3)
- 40. There are two communications towers within a radius of approximately four miles of the center of the search ring. Neither of these towers were found to be adequate for AT&T's coverage purposes. The towers are listed in the table below.

Tower Location	Height, Type of Tower	Tower Owner	Approx. Distance and Direction from Search Ring Center
101 Pierce Road, Preston	150 feet, monopole	Sprint	3.97 miles to NW
2172 Glasgo Road, Griswold	199 feet, monopole	SBA Towers	2.01 miles to N

(Applicant 1, Attachment 1)

41. AT&T investigated 8 sites as potential locations, including the proposed sites, for its proposed facility. Information about these sites presented in the table below.

Location	Determination of	
	Suitability	
49 Mountain Road	This is the proposed Site A.	
23 Northwest Corner	This is the proposed Site B.	
Road		
350B Cossaduck Hill	This is the proposed Site C.	
Road		
207 Coal Pit Hill	This site would not meet	
Road	AT&T's coverage	
	objectives.	
Wyassup Road	This parcel is on State	
	Forest land is not available	
	for lease.	
53 Legend Wood	The property owner was not	
Road	interested.	
51 Legend Wood	The property owners were	
Road	not interested.	
49 Legend Woods	This parcel was rejected due	
Road	to a land trust restriction.	

(Applicant 1, Tab 2)

42. Repeaters, microcell transmitters, distributed antenna systems and other types of transmitting technologies are not a practicable or feasible means of providing service within the coverage objective area, and there are no equally effective and feasible technological alternatives to the construction of the proposed tower. (Applicant 1, p. 11)

Site A Description - 49 Mountain Road

- 43. Site A is located on a 2.24-acre parcel. The property is owned by Tucker Village LLC. (See Figures 1 and 2) (Applicant 1, Tab 3A)
- 44. Land use in the general proximity of Site A is mainly comprised of low-density residential development, much of which is seasonal in association with some of the surrounding lake properties (Billings Lake, Anderson Pond, and Wyassup Lake), and undeveloped wetlands. (Applicant 2, response 7)
- 45. Site A is within a Residential R-80 Zoning District. (Applicant 1, p. 22)
- 46. The Applicant would locate its proposed facility in the western portion of the subject property. It would lease a 100-foot by 100-foot parcel, within which it would develop a 45-foot by 90-foot compound that would include a 190-foot tall monopole tower. The compound would be gravel and enclosed by an eight-foot high chain link fence. AT&T would house its ground equipment in a 12-foot by 20-foot shelter. (See Figure 3) (Applicant 1, Tab 3A)
- 47. The proposed tower would be designed in accordance with the American National Standards Institute TIA/EIA-222-G "Structural Standards for Steel Antenna Towers and Antenna Support Structures" and the 2003 International Building Code with the 2005 Connecticut Amendment. It would have a diameter of approximately five feet at its base and approximately two feet at its top. (Applicant 1, Tab 3A Facilities and Equipment Specification)
- 48. At its proposed height of 190 feet, SBA's tower could accommodate three additional wireless carriers. (Applicant 1, Attachment 3A)
- 49. Verizon Wireless expressed an interest to SBA to co-locate on the proposed Site A tower. However, Verizon Wireless did not participate in this proceeding. (Tr. 1, p. 34)
- 50. The proposed tower would be located at 41° 30' 16.7" north latitude and 71° 52' 55.7" west longitude. Its ground elevation would be 474 feet above mean sea level (amsl). (Applicant 1, Tab 3A Site Evaluation Report)
- 51. AT&T would deploy up to 12 panel antennas and up to 12 diplexers on a low-profile platform at a centerline height of 187 feet AGL. (Applicant 1, p. 5 and Tab 3A)
- 52. AT&T could use T-arm mounts without compromising coverage. (Applicant 2, response 17)
- 53. To utilize flush-mounted antennas would require twenty feet of additional height and three levels of antennas: 210 feet, 200 feet, and 190 feet. (Applicant 2, response 17; Tr. 1, p. 21)

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- 54. For backup power, AT&T would primarily rely on a diesel generator. The 210 gallon fuel tank would provide approximately 48 hours of run time. (Applicant 2, response 20)
- 55. Approximately 214 cubic yards of cut and approximately 40 cubic yards of fill would be required to develop the proposed Site A tower site and access drive. (Applicant 2, response 19)
- 56. Vehicular access to the proposed facility would extend from Mountain Avenue over a new gravel access drive approximately 400 feet to the proposed equipment compound. (Applicant 1, p. 6)
- 57. Utility service for the proposed facility would be extended underground from Mountain Avenue and generally follow the existing access drive. (Applicant 1, p. 6)
- 58. The setback radius of the proposed tower would extend approximately 165 feet on the 49 Ledgen Wood Road property located to the south (owned by Tucker Village LLC, the same owner as the subject Site A property). The setback radius would also extend approximately 70 feet onto the 39E Ledgen Wood Road (owned by Stearns Tamar). It would be difficult to design a yield point to keep the setback radius completely within the Site A subject property. (Applicant 1, Tab 3A; Tr. 3, p. 45)
- 59. There are 12 residences located within 1,000 feet of Site A. (Tr. 3, p. 24)
- 60. The nearest residence is at Mountain Avenue, 353 feet to the west of the proposed facility. (Applicant 1, Tab 3A; Tr. 3, p. 25; Attachment 3; Tr. 1, p. 18; Applicant 8, response 1)
- 61. The estimated cost of construction of the proposed Site A facility including radio equipment:

Tower and foundation costs	\$90,000
Site development costs	\$50,000
Utility installation costs	\$30,000
Facility installation	\$93,000
Antennas and equipment	<u>\$250,000</u>
Total Estimated Cost	\$513,000

(Applicant 1, pp. 26-27)

Site B Description - 23/25 Northwest Corner Road

62. Site B is located on a 86-acre parcel. The property is owned by Eric Berg. (See Figures 3 and 4) (Applicant 1, Tab 4A)

- 63. Land use in the general proximity of Site B is mainly comprised of undeveloped woodlands (including State Forest land) and low-density residential development. (Applicant 2, response 7)
- 64. Site B is within a Residential R-80 Zoning District. (Applicant 1, p. 22)
- 65. The Applicant would locate its proposed facility in the eastern portion of the subject property. It would lease a 100-foot by 100-foot parcel, within which it would develop a 75-foot by 75-foot compound that would include a 190-foot tall monopole tower. The compound would be gravel and enclosed by an eight-foot high chain link fence. AT&T would house its ground equipment in a 12-foot by 20-foot shelter. (See Figure 3) (Applicant 1, Tab 4A; Applicant 7, response 1)
- 66. The proposed tower would be designed in accordance with the American National Standards Institute TIA/EIA-222-G "Structural Standards for Steel Antenna Towers and Antenna Support Structures" and the 2003 International Building Code with the 2005 Connecticut Amendment. It would have a diameter of approximately five feet at its base and approximately two feet at its top. (Applicant 1, Tab 4A Facilities and Equipment Specification)
- 67. At its proposed height of 190 feet, SBA's tower could accommodate three additional wireless carriers. (Applicant 7, response 1)
- 68. The proposed tower would be located at 41° 29' 37" north latitude and 71° 54' 31" west longitude. Its ground elevation would be 400 feet amsl. (Applicant 1, Tab 4A Site Evaluation Report)
- 69. AT&T would deploy up to 12 panel antennas and up to 12 diplexers on a low-profile platform at a centerline height of 187 feet AGL. (Applicant 1, p. 5 and Tab 4A)
- 70. AT&T could use T-arm mounts without compromising coverage. (Applicant 2, response 33)
- 71. To utilize flush-mounted antennas would require twenty feet of additional height and three levels of antennas: 210 feet, 200 feet, and 190 feet. (Applicant 2, response 33; Tr. 1, p. 21)
- 72. For backup power, AT&T would primarily rely on a diesel generator. The 210 gallon fuel tank would provide approximately 48 hours of run time. (Applicant 2, response 36)
- 73. Vehicular access to the proposed facility would extend using existing access across the 23 Northwest Corner Road property. Then a new gravel access drive would continue for approximately 380 feet to the compound. (Applicant 1, Tab 4A)
- 74. Utility service for the proposed facility would be extended underground from Northwest Corner Road. (Applicant 1, Tab 4A)
- 75. The setback radius of the proposed tower would remain within the Site B subject property. (Applicant 1, Tab 4A)
- 76. There are no residences located within 1,000 feet of Site B. (Tr. 3, p. 24)

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77. The nearest residence is at 247 Cossaduck Hill Road, approximately 1,570 feet from the proposed Site B facility. (Applicant 1, Tab 4A; Applicant 8, response 1; Tr. 3, p. 25)

78. The estimated cost of construction of the proposed facility:

Tower and foundation costs	\$90,000
Site development costs	\$50,000
Utility installation costs	\$30,000
Facility installation	\$93,000
Antennas and equipment	<u>\$250,000</u>
Total Estimated Cost	\$513,000

(Applicant 1, pp. 26-27)

Site C Description - 350B Cossaduck Hill Road

- 79. Site C is located on an 11.66-acre parcel. The property is owned by Paul Buehler. (See Figures 5 and 6) (Applicant 1, Tab 5A)
- 80. Land use in the general proximity of Site C is mainly agricultural land, undeveloped woodlands (including State Forest land) and low-density residential development. (Applicant 2, response 7)
- 81. Site C is within a Residential R-80 Zoning District. (Applicant 1, p. 22)
- 82. The Applicant would locate its proposed facility in the eastern portion of the subject property. It would lease a 100-foot by 100-foot parcel, within which it would develop a 75-foot by 75-foot compound that would include a 190-foot tall monopole tower. The compound would be gravel and enclosed by an eight-foot high chain link fence. AT&T would house its ground equipment in a 12-foot by 20-foot shelter. (See Figure 3) (Applicant 1, Tab 5A; Applicant 7, response 1)
- 83. The proposed tower would be designed in accordance with the American National Standards Institute TIA/EIA-222-G "Structural Standards for Steel Antenna Towers and Antenna Support Structures" and the 2003 International Building Code with the 2005 Connecticut Amendment. It would have a diameter of approximately five feet at its base and approximately two feet at its top. (Applicant 1, Tab 5A Facilities and Equipment Specification)
- 84. At its proposed height of 190 feet, SBA's tower could accommodate three additional wireless carriers. (Applicant 7, response 2)
- 85. The proposed tower would be located at 41° 29' 57" north latitude and 71° 53' 23" west longitude. Its ground elevation would be 444 feet amsl. (Applicant 1, Tab 5A Site Evaluation Report)

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- 86. AT&T would deploy up to 12 panel antennas and up to 12 diplexers on a low-profile platform at a centerline height of 187 feet AGL. (Applicant 1, p. 5 and Tab 5A)
- 87. AT&T could use T-arm mounts without compromising coverage. (Applicant 2, response 50)
- 88. To utilize flush-mounted antennas would require twenty feet of additional height and three levels of antennas: 210 feet, 200 feet, and 190 feet. (Applicant 2, response 50; Tr. 1, p. 21)
- 89. For backup power, AT&T would primarily rely on a diesel generator. The 210 gallon fuel tank would provide approximately 48 hours of run time. (Applicant 2, response 53)
- 90. Vehicular access to the proposed facility would extend using existing access approximately 1,720 feet in length and then over a new gravel access drive for approximately 510 feet to the compound. (Applicant 1, Tab 5A)
- 91. Utility service for the proposed facility would be extended underground from Cossaduck Hill Road. (Applicant 1, Tab 5A)
- 92. The setback radius of the proposed tower would extend onto an adjacent property approximately 25 feet. The tower at Site C could be designed with a yield point. (Applicant 1, Tab 5A; Tr. 3, pp. 44-45)
- 93. There are two residences located within 1,000 feet of Site C. (Tr. 3, p. 24)
- 94. The estimated cost of construction of the proposed facility:

Tower and foundation costs	\$90,000
Site development costs	\$50,000
Utility installation costs	\$30,000
Facility installation	\$93,000
Antennas and equipment	\$250,000
Total Estimated Cost	\$513,000

(Applicant 1, pp. 26-27)

Environmental Considerations

- 95. None of the three sites are located within the Coastal Boundary and the Town of North Stonington does not lie within the Coastal Area. Therefore, none of the three sites would be subject to the Connecticut Coastal Management Act. (Applicant 2, response 8)
- 96. Blasting is not expected to be necessary at any of the proposed sites. However, if rock/edge removal is found to be necessary, chipping would be the preferred method of removal. (Applicant 2, responses 22, 38, and 55)

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- 97. The Site A facility would have no effect on historical or archaeological resources listed in, or eligible for listing in, the National Register of Historic Places. (Applicant 8, Attachment C)
- 98. There are no above-ground resources on which Sites B and C would have a visual effect. Further assessment regarding potential archaeological resources would have to be provided; however, no significant impact to below ground resources is expected. (Applicant 8, p. 2 and Attachment C)
- 99. Sites A, B, and C would comply with the recommendations of the U.S. Fish and Wildlife Service for minimizing the potential for telecommunications towers to impact bird species. (Applicant 2, responses 24, 40, and 57)
- 100. None of the three tower sites are located near an Important Bird Area (IBA) as designated by the National Audubon Society. The nearest IBA is the Barn Island Wildlife Management Area located approximately 9.5 miles to the south/southeast. (Applicant 2, responses 23, 39, 56)
- 101. There are no known extant populations of Federal or State Endangered, Threatened or Special Concern Species that occur at any of the three sites. (Applicant 1, p. 14-16)
- 102. Site A would require the removal of 36 trees with diameters of six inches or more at breast height for construction of the facility. (Applicant 1, Tab 3A)
- 103. Site B would require the removal of 15 to 25 trees with diameters of six inches or more at breast height for the construction of the facility. (Applicant 1, Tab 4A)
- 104. Site C would require the removal of 7 to 12 trees with diameters of six inches or more at breast height for construction of the facility. (Applicant 1, Tab 5A)
- 105. The nearest wetlands from Site A are located over 300 feet to the north and 450 feet to the southeast. (Applicant 8)
- 106. The nearest wetlands from Site B are located approximately 350 feet to the south. (Applicant 8)
- 107. The nearest wetlands from Site C are located over 700 feet to the east. (Applicant 8)
- 108. No adverse impacts to wetlands are expected at any of the three sites. (Applicant 1, pp. 14-17)
- 109. None of the proposed towers would require lighting or marking. (Applicant 1, p. 21)

110. The cumulative worst-case maximum power density from the radio frequency emissions from the operation of AT&T's proposed antennas at any of the proposed towers is 3.50% 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. (Applicant 1, p. 20)

Visibility

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

Receptor	Site A	Site B	Site C
Year-round visibility (acres)	104 (mostly on Billings Lake, Anderson Pond,	30	9 (mostly on host property)
	and Wyassup Lake)		
Seasonal visibility (acres)	32	32	4 (all on host property)
Residential properties with year-round views	12	1	3
Residential properties with seasonal views	6	.2	1

(Applicant 1, Tabs 3C, 4C, and 5C)

- 112. Site A would be visible year-round from approximately 65 acres of open water on Billings Lake, 13 acres of Anderson Pond, and 11 acres of Wyassup Lake. (Applicant 1, Tab 3C)
- 113. Site A would be visible from the south/southwest portion of Camp Wightman as it abuts Billings Lake. Both seasonal and year-round views are expected. (Tr. 3, pp. 9-10)
- 114. None of the three sites would be visible from Narragansett Trail. (Applicant 1, Tabs 3C, 4C, and 5C)

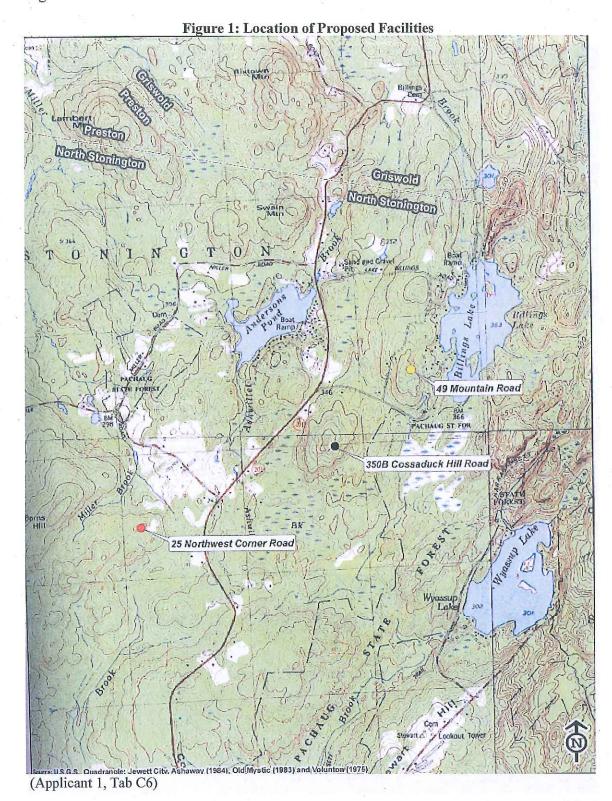


Figure 2: Aerial Photograph of Vicinity of Proposed Facilities Old Norwich Rd Preston North Stonington Griswold North Stonington 49 Mountain Road 350B Cossaduck Hill Road 25 Northwest Corner Road

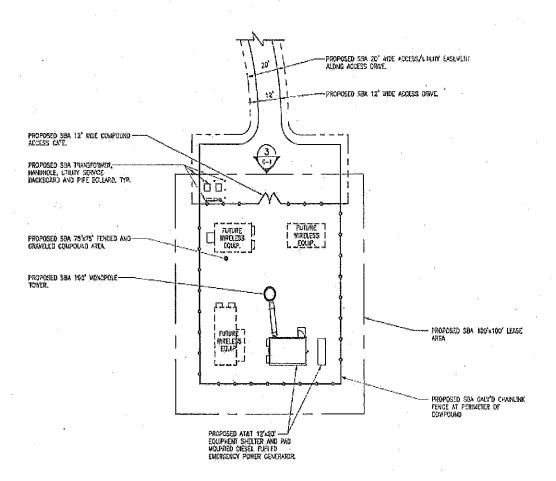
(Applicant 1, Tab C6)

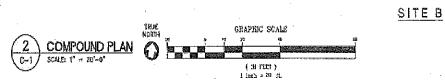
PROPOSED SBA 100'x100' LEASE AREA

Figure 3: Site Plan for Site A Facility

(Applicant 1, Tab 3A)

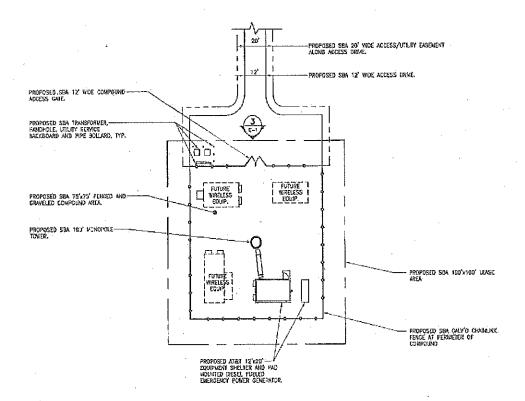
Figure 4: Site Plan for Site B Facility





(Applicant 7, response 1)

Figure 5: Site Plan for Site C Facility



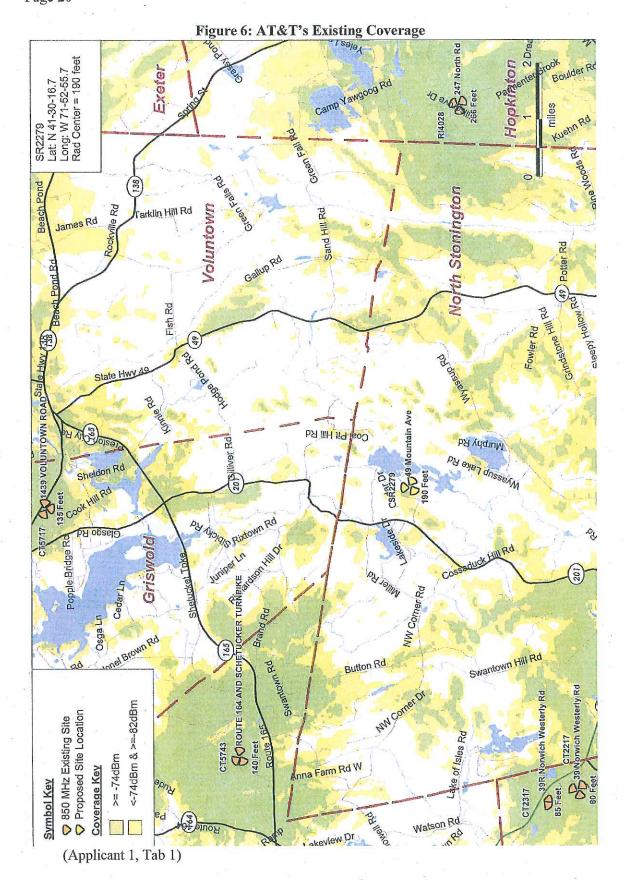
SITE C

COMPOUND PLAN

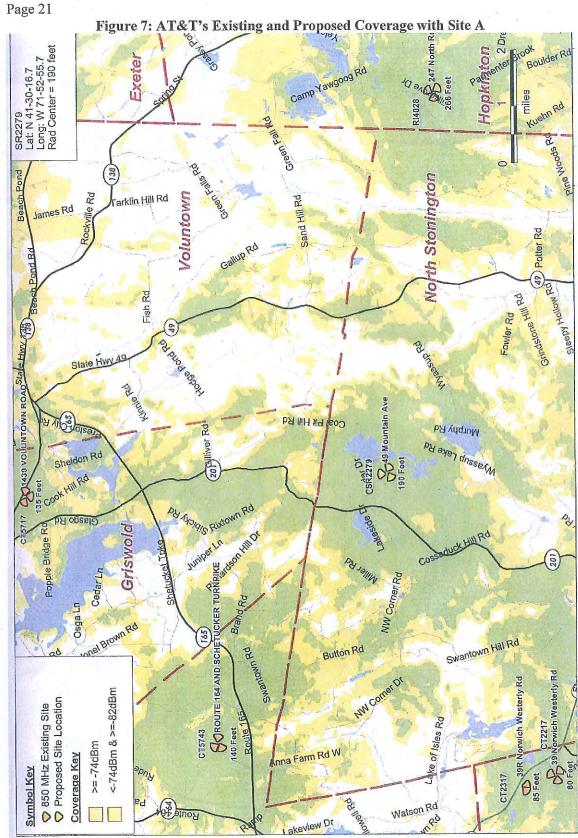
C-1 SORE 1" in 20'-0"

Linch = 20 n. (18 PERT)

(Applicant 7, response 2)



(Applicant 1, Tab 1)



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Figure 8: AT&T's Existing and Proposed Coverage with Site B

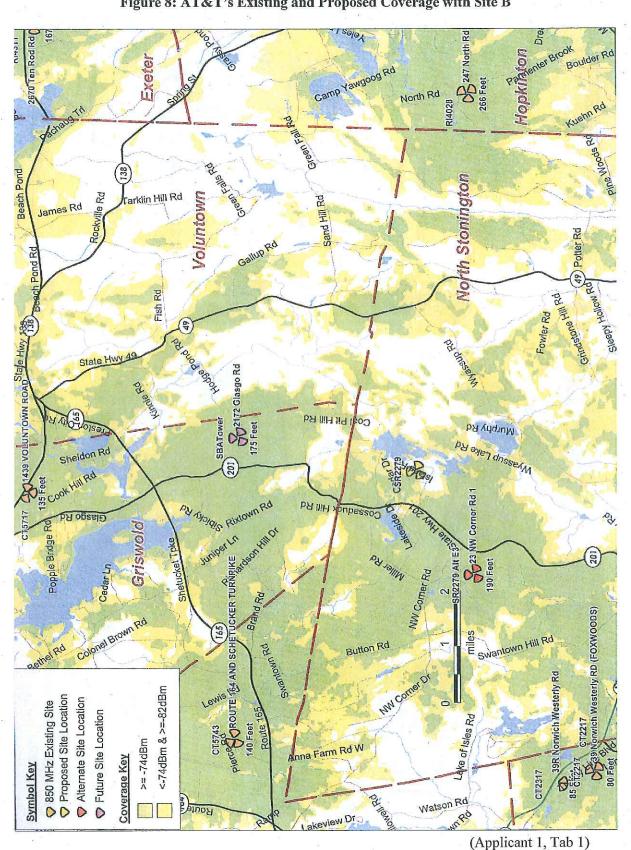
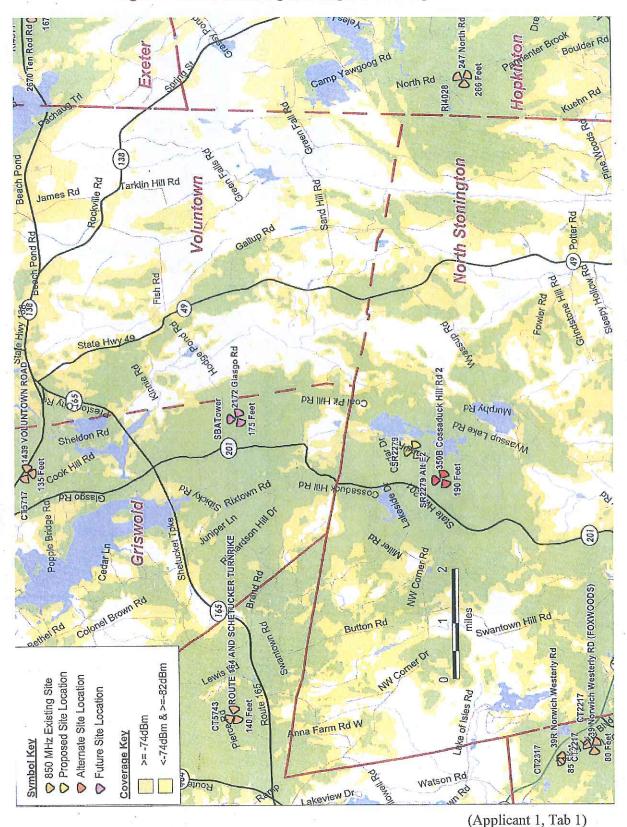
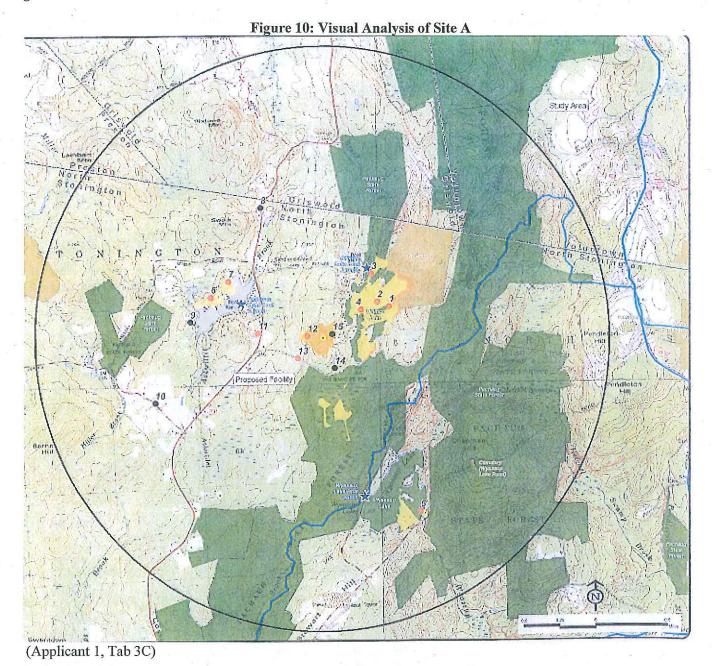


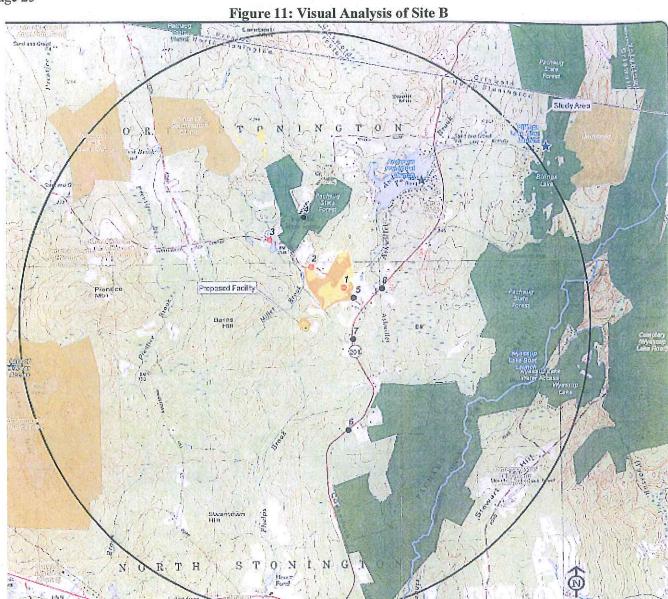
Figure 9: AT&T's Existing and Proposed Coverage with Site C





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(Applicant 1, Tab 4C)





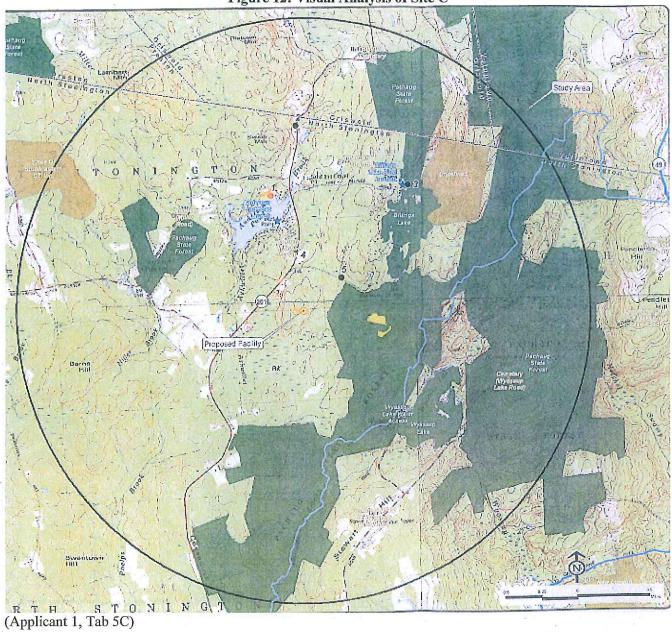


Figure 13: Viewshed Map Key

Legend

Proposed Tower Location
 Balloon is not visible
 Balloon visible above trees
 Seasonal Visibility Area
 Year-Round Visibility Area

Protected Municipal and Private
Open Space (CT DEP, 1997)
Cemetery
Preservation
Conservation
Existing Preserved Open Space
Recreation
General Recreation

School Uncategorized

(Applicant 1, Tab 3C)

CT DEP Property (CT DEP, May 2010)
State Forest
State Park
DEP Owned Waterbody
State Park Scenic Reserve
Historic Preserve
Natural Area Preserve
Fish Hatchery

Fish Hatchery
Flood Control
Other
State Park Trail
Water Access
Wildlife Area
Wildlife Sanctuary

Federal Open Space (CT DEP, 2004)

Boat Launches (CT DEP, Dec 2009)

Scenic Road (State and Local)

Narragansett Trail (CT Blue Blaze)

--- Town Line