

## **AT&T Proposed Findings of Fact**

### **Introduction**

1. New Cingular Wireless PCS, LLC ("AT&T"), in accordance with the provisions of Connecticut General Statutes (CGS) §§ 16-50g through 16-50aa, applied to the Connecticut Siting Council ("Council") on July 2, 2012 for the construction, maintenance, operation and management of a 170-foot wireless telecommunications tower facility located at either a parcel off of Route 67 or 124 Transylvania Road both in the Town of Roxbury, Connecticut. (AT&T Ex 1 (Application or "AT&T App.")).
2. AT&T is a Delaware limited liability company with an office at 500 Enterprise Drive, Rocky Hill, Connecticut 06067. AT&T's member corporation is licensed by the Federal Communications Commission ("FCC") to construct and operate a personal wireless services system, which has been interpreted as a "cellular system", within the meaning of CGS Section 16-50i(a)(6). (AT&T App., p. 3)
3. The purpose of the proposed facility is to rectify an existing coverage gap along Routes 67 (Southbury Road) and the surrounding areas in the Town of Roxbury as well as portions of Southbury and Woodbury. (AT&T App., p. 9)
4. Notice of the application was sent to all abutting property owners by certified mail on June 5, 2012. (AT&T App., Tab 9). Proof of service was received back from all of the abutting property owners save for three owners who were sent follow-up notices by First Class mail. (AT&T Responses to Siting Council Pre-Hearing Interrogatories Set I ("Responses to CSC Set I") A5).
5. AT&T installed a four-foot by six-foot notice signs with information on the application and pending hearing at locations in front of the proposed candidate sites on September 6, 2012. (Ex. 7, pre-hearing information).
6. Pursuant to CGS § 16-50l(b), AT&T provided a copy of the application to all federal, state and local officials and agencies listed therein. (AT&T App., Tab 8).
7. Pursuant to CGS § 16-50m, the Council held a public hearing on September 6, 2012 at the Roxbury Town Hall, 29 North Street, Roxbury, Connecticut. (Transcripts 1 & 2, September 18, 2012).
8. The Council and its staff conducted an inspection of the proposed site on September 18, 2012, beginning at 2:00 p.m. The applicant flew weather balloons at least three feet in diameter at the candidate sites to simulate the height of the proposed tower. (Libertine, Tr. 1, p. 21-22). The balloons were flown at the intended height of 170 feet above ground level ("AGL") but deteriorating weather conditions intervened and overall there was limited success for a short duration. (Libertine, Tr. 1, p. 21-22). As such, the Council has also relied on photographic visual analyses which were conducted by the Applicant. (Visual Analysis Reports; AT&T App., Tabs 3(C) and 4(C), Ex. 15 – Supplemental Submission Tab A (Memorandum of Michael Libertine).

### **Municipal Consultation**

9. AT&T submitted a technical reports to Barbara Henry, the First Selectman of the Town of Roxbury, in July of 2009. (AT&T App., Tab 9, Bulk File). On September 21, 2009 AT&T participated in a public informational meeting with at the Town of Roxbury Town Hall to review the proposed candidate facility at Transylvania Road; identified in the Application as Site B. AT&T also appeared before the Inland Wetlands and Conservation Commissions respectively on December 15, 2009. (AT&T App., p. 12, Tab 6). On September 2011, AT&T submitted a second technical report for a site on a parcel off of Southbury Road, identified in the Application as Candidate A which was followed by a public information session on November 17, 2011. (AT&T App. p. 13)
10. AT&T offered rent-free space to the Town to install emergency communications antennas on the proposed tower facility. (AT&T App., Tab 6)

### **Public Need for Service**

11. 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; AT&T App., p. 4; Tr. 2, p. 4-5)
12. 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 wireless service to Litchfield County. (Council Administrative Notice Item No. 4; AT&T App., p. 4).
13. The Telecommunications Act of 1996 prohibits local and state entities from discriminating among providers of functionally equivalent services. (Council Administrative Notice Item No. 7; Tr. 2, p. 4-5; Tr. 2, p. 5).
14. The Telecommunications Act of 1996, a Federal law passed by the United States Congress, prohibits any state or local entity from regulating telecommunications towers on the basis of the environmental effects of radio frequency emissions to the extent that such towers and equipment comply with FCC's regulations concerning such emissions. This Act also blocks the Council from prohibiting or acting with the effect of prohibiting the provision of personal wireless service. (Council Administrative Notice Item No. 4; Tr. 2, p. 4-5).
15. In an effort to ensure the benefits of wireless technologies to all Americans, Congress enacted the Wireless Communications and Public Safety Act of 1999 ("911 Act"). The purpose of this legislation was to promote public safety through the deployment of a seamless, nationwide emergency communications infrastructure that includes wireless communications services. (Council Administrative Notice Item No. 6; AT&T App., p. 10).
16. As an outgrowth of the 911 Act, the Federal Communications Commission has mandated that wireless carriers provide enhanced 911 services (E911) as part of their communications networks. (Administrative Notice Item No. 7, AT&T App., p. 10).
17. The site will provide enhanced 911 services to the proposed service area which is utilized by the CT Alert system. (AT&T App., p. 10; Responses to CSC Set I, A6).

18. The proposed facility would be an integral component of AT&T's wireless network in Litchfield County. (AT&T App., p. 1, 4). Presently, AT&T has gaps in coverage along Routes 67 (Southbury Road) surrounding areas and roads in the Town of Roxbury, as well as locations in Woodbury and Southbury. (AT&T App., p. 9)

#### **AT&T - Existing and Proposed Wireless Coverage**

22. AT&T's operating frequencies in this part of the state include the 700 and 850 MHz (cellular) bands, specifically 880-894 MHz, and the 1900 MHz (PCS) band. At the proposed facility, AT&T would initially install 850 MHz and 1900 MHz PCS service likely followed by 700 MHz service for LTE. (CSC Responses Set I, A1, Tr. 1, p. 49).
23. AT&T designs and operates at the following signal level thresholds: in-vehicle service is -82 dBm and in-building service is -74 dBm. (CSC Responses Set I, A2).
24. AT&T currently has gaps in coverage in the southern portion of the Town of Roxbury along Route 67 (Southbury Road). (App. Tab 1). The proposed service area is primarily zoned for residential uses and open space areas. (Bulk File - Roxbury Zoning Regulations & Zoning Map)
25. The minimum height at which AT&T could achieve its coverage objectives from either candidate facility is 167 feet AGL. (Responses to CSC Set I, A16 & A37). Installing antennas at 167 feet AGL would provide reliable service to the proposed service area. (AT&T App., Tab 1).
26. Installing antennas at a lower height, such as 160 or 150 feet would leave a gap in coverage resulting in dropped calls along Route 67. (CSC Responses Set I, Tab A). Reliable coverage along Route 67 as well as Route 172 would be served by these candidate facilities are the basis for the proposed 167 foot antenna height at each candidate facilities. (AT&T App., p. 9; CSC Responses Set II, A4).
27. Coverage strength lower than -82 dBm is considered inadequate for reliable in-car service. (AT&T Pre-Hearing Interrogatory Responses, Set I, A13).
28. At a signal strength of -82 dBm, AT&T would be able to provide full coverage for the identified coverage gaps along Route 67 and other routes and areas. (App. Tab 1; CSC Responses, Set I, A13 & A34).
29. From the proposed facility, AT&T's antennas would hand off to adjacent sites located 35 Lower County Road, Roxbury (CT 2088), 478 Good Hill Road, Woodbury (CT 1172), 85 Papermill Road, Woodbury (CT 1279), 103 Great Hollow Road, Woodbury (2066), 231 Kettletown Road, Southbury (CT2086), Horsefence Hill Road, Southbury (CT 2126); and 98 Russian Village Road, Southbury (CT 5113). (CSC Responses Set I, A18, A39 & Tab C).

#### **Site Selection**

30. AT&T began its investigation of the area with benchmark data on a gap in its wireless coverage in central and southern Roxbury, and then established a "site search area" in the general geographical location where the installation of a wireless facility would address the identified coverage need problem while still allowing for orderly integration of a site into AT&T's network, based on the engineering criteria of hand-off, frequency reuse and interference. (AT&T App., p. 11-13, Tab 1).

31. AT&T's search ring was first established in northern Roxbury on February 26, 2008. (AT&T Pre-Hearing Interrogatory Responses, Set I, A3). AT&T's site search was the result of AT&T's awareness of a lack of wireless coverage along Routes 67 (Southbury Road) and the surrounding areas. (AT&T App., p. 11).
32. The search area, SR1876, was approximately 2 miles in diameter and centered at 41° 31' 45.70"N, 73° 16' 13.10"W. (CSC Responses, Set I, A3).
33. In this particular area of Roxbury, there are no communications towers or other existing structures to service AT&T's gap in coverage. (App., p. 12 & Tab 2).
34. Determining there were no viable structures within the search area, AT&T identified and investigated fourteen (14) potential sites/areas in and near the Roxbury site search area. (App., p. 12, Tab 2).
35. AT&T first identified a candidate location at 126 Transylvania Road; identified in the Application as Site B. (App. p. 12, Tab 2). Consultation with the Town and by request of the Attorney General's office AT&T was asked to review additional sites including the parcel off of Route 67 subsequently identified as Candidate A in the Applications. (App. p. 12, Tabs 2, 6 & 7).
36. The owners of the Candidate A parcel independently secured approvals from the State of Connecticut Department of Transportation, the Town of Roxbury Inland Wetlands Commission for an access drive to the Candidate A parcel prior to agreeing to a lease with AT&T. (App. p. 13, Responses to Bronson Mountain Interrogatories ("Bronson Mountain") Set III, A6). AT&T & the owners of the Site A parcel came to lease terms. (App. p. 13, Bronson Mountain Interrogatories Set III, A6).
37. The decision of the Inland Wetlands Commission was not appealed. (Barton, Tr. 3 p. 76)
38. Repeaters, microcell transmitters, distributed antenna systems and other types of transmitting technologies would not be practicable or feasible means of providing to providing service within the target area for this site, which contains a significant wide area coverage gap. There are no equally effective and feasible technological alternatives to the construction of the proposed tower. (AT&T App., p. 11, Bronson Mountain Set III).

### **Facility Description**

39. The proposed Candidate A facility consists of a 100' by 100' lease area located in the south-central portion of an approximately 96.5 acre parcel owned by C.N. Builders at Southbury Road (Route 67) in Roxbury. A new self-supporting monopole tower 170' in height would be constructed. AT&T will install up to 12 panel antennas at the 167' centerline height on the tower together with an associated 12' by 20' radio equipment shelter at the tower base on a concrete pad within the tower compound. The tower compound would consist of a 75' by 75' area to accommodate AT&T's equipment and provide for future shared use of the Facility by other carriers. AT&T App., p. 1-3, Tab 3.
40. The proposed Candidate B facility consists of a 100' by 100' lease area located in the central-north portion of an approximately 21.02 acre parcel owned by Rita L. Errico at 126 Transylvania Road in Roxbury. A new self-supporting monopole tower 170' in height would be constructed. AT&T will install up to 12 panel antennas at the 167' centerline height on the tower together with an associated 12' x 20' radio equipment shelter at the tower base on a concrete pad within the tower compound. The tower compound would consist of a 75' by 75' area to accommodate AT&T's equipment and

provide for future shared use of the facility by other carriers. An 8-foot high chain link fence would enclose the tower compound. AT&T App., p. 1-3, Tab 4.

41. Land uses in the vicinity of both Candidates A and B consist primarily of low-density residential housing and open space. (App., p. 22, Tabs 3(D) & 4(D)).
42. No barbed wire is proposed for either site. (App. 3(A); Hearing Information Corrections, September 11, 2012).
43. The Candidate A facility would be located at 41° 30' 53.83" north latitude and 72° 15' 46.12" west with a ground elevation of 723' AMSL. (App. Tab 3). The Candidate B facility would be located at 41° 31' 46.08" north latitude and 73° 16' 00.27" west with a ground elevation of 822' AMSL. (App. Tab 4).
44. The proposed tower at either candidate would be designed in accordance with American National Standards Institute TIA/EIA-222-F "Structural Standards for Steel Antenna Towers and Antenna Support Structures" and the 2003 International Building Code with 2005 Connecticut Amendment. The foundation design would be based on soil conditions at the site selected. The details of the tower and foundation design would be provided as part of the final D&M plan. (App. Tabs 3 & 4).
45. At either candidate AT&T will install up to 12 panel antennas at the 167' centerline height on the tower together with an associated 12' x 20' radio equipment shelter at the tower base on a concrete pad within the tower compound. (App, Tabs 3(A) and 4(A)).
46. In the event of a power failure, AT&T's proposed emergency backup power plans for the either candidate relies on battery backup and a permanent diesel generator. AT&T would have a battery backup required to prevent the Facilities from experiencing a "re-boot" condition during the generator start-up delay period that typically lasts ten minutes. The generator's fuel tanks would contain approximately 210 gallons of fuel, and would consist of a bladder within a steel containment chamber and is designed to contain fuel in the unlikely event of a fuel spill. (CSC Responses Set I, A24).
47. AT&T's proposed backup generator will meet all applicable noise standards at the either candidate property boundaries. (Tr. 1 p. 40).
48. Either proposed facility would be unmanned, requiring monthly maintenance visits approximately one hour long. AT&T's equipment would be monitored 24 hours a day, seven days a week from a remote location. (AT&T App., p. 19)
49. Development of the Candidate A facility would require approximately 410 cubic yards of cut and 385 cubic yards of fill. (CSC Responses Set I, A23). Development of the Candidate B facility would require approximately 692 cubic yards of cut and 582 cubic yards of fill. (Hearing Information Corrections dated September 17, 2012).
50. Access to the Candidate A facility would extend from Southbury Road (Route 67) along an access drive to be constructed by the owner approximately 1,300 feet to a new 12-foot wide gravel access drive approximately 210 feet to the proposed equipment compound. (AT&T Tab 3(A)).
51. Access to the Candidate B facility would extend from Transylvania Road over a portion of existing driveway and then a new 12-foot wide gravel access drive approximately 210 feet to the proposed equipment compound. (AT&T Tab 3(A)).

52. Utility service for either proposed facility, including electric and telephone services, would be extended underground from existing offsite utility pole to the proposed facility. (App p. 2; App Tabs 3(A) and 4(A)).
53. The tower height setback radius for the Candidate B facility would not extend or encroach onto any adjacent properties. (App. Tab 3(A)). The Tower height setback for the candidate Site A facility would encroach by approximately 38 feet to the south, however the tower location could be shifted 100' to the north to eliminate any encroachment. (App Tab 3(A), Responses to Bronson Mountain Set II, Supplemental Information Regarding Set I Interrogatory Q4).
54. Exposed ledge was not visible at either candidate property in the vicinity of the proposed facility sites during AT&T's field investigations. The presence of ledge will be confirmed upon completion of a geotechnical investigation. If ledge is encountered, chipping is preferred to blasting. (Responses to CSC, Set I, A26 & A45).
55. The nearest off-site residence to Candidate A is approximately 970' to the southeast at 41 Bronson Mountain Road. (CSC Responses, Set III, A10). The nearest off-site residence to Candidate B is approximately 460' to the southwest at 118 Transylvania Road.
56. The total estimated costs of construction for the candidate facilities and antennas and equipment is as follows:

	Proposed Facility A	Proposed Facility B
Tower & Foundation	\$100,000	\$100,000
Site Development	\$100,000	\$200,000
Utility Installation	\$90,000	\$90,000
Facility Installation	\$95,000	\$95,000
Antennas and Equipment	\$250,000	\$250,000
Total Cost	\$635,000	\$735,000

(AT&T App., p. 24).

### **Environmental Review**

57. Neither of the proposed facilities would have an adverse effect on historic, architectural or archeological resources listed in or eligible for the National Register of Historic Places. (AT&T App., pp. 15-16). The Connecticut State Historic Preservation Office ("SHPO") issued determinations that a facility at either proposed location would have no effect on cultural resources. (AT&T App. Tabs 3(B) and 4(B)).
58. Other than habitat for the Eastern Box Turtle, neither candidate site is within any designated area indicating the presence of Federally threatened or endangered species or State endangered, threatened or special concern species. (AT&T App., p. 19). Protocols for the protection of Eastern Box Turtles have been developed for a facility at either candidate and the Department of Energy and Environmental Protection concurs that species can be adequately protected during the course of construction. (App. Tabs 3(B), 4(B)).
59. Erosion and sedimentation controls and other best management practices would be established and maintained for the duration of site construction. (App Tabs 3(A), 4(A)).

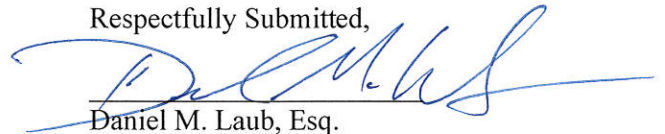
60. Development of the proposed Candidate A facility would require the removal of 122 trees with a diameter at breast height of 6 inches or larger within the area of the proposed utility run and compound. (AT&T App., Tab 3(A), Tr. 3, p. 13). Development of the proposed Candidate B facility would require the removal of 68 trees with a diameter at breast height of 6 inches or larger within the area of the proposed utility run and compound. (CSC responses Set II, A9).
61. AT&T has received determinations from the FAA that neither candidate facility would be a hazard to air navigation and that marking and lighting of the tower not be necessary. This determination is for a tower up to 170 feet (or 58.1 meters) tall. (App Tab 3(B) and CSC responses Set II, Tab B).
62. The cumulative worst-case maximum power density from the radio frequency emissions from the operation of the proposed AT&T antennas at a centerline height of 167' AGL is calculated to be 5.67% 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 base. (App. Tab(3(B) and 4(B)).

#### Visibility

63. The State Historic Preservation Officer (SHPO) determined that the proposed Candidate A facility will "have no adverse effect" on historic resources. AT&T App. Tab 3(B).
64. The areas where the proposed tower would be visible above the tree canopy comprise just 18 acres within the over 8,000 acre study area (or 0.22%). AT&T App., p. 16, Tab 3(C).
65. A majority of the anticipated year round visibility associated with the proposed Candidate A facility would generally occur distant to the site in the general vicinity of the Route 67/Route 172 intersection approximately 0.90-mile to the southeast and over open water on the east side of Transylvania Pond located approximately 1.10 miles to the southeast. AT&T App. p. 16, Tab 4(C), Ex. 15, Supplemental Submission, November 29, 2012, Tab A, CSC responses Set I, A29.
66. The proposed Candidate A monopole will be seen from portions of ten (10) residential properties, which will have partial year-round views of the proposed Facility, and thirteen (13) additional residential properties, which will have potential seasonal views of the proposed Facility. AT&T App. p. 16, Tab 3(C).
67. Existing vegetation will screen the Facility from surrounding properties. AT&T App. p. 16, Tab 3(C), AT&T Responses to Town of Roxbury Interrogatories Set I, A19.
68. The State Historic Preservation Officer (SHPO) determined that the proposed Candidate B facility will "have no adverse effect" on historic resources. AT&T App. Tab 4(B).
69. A 170' AGL monopole at the Candidate B facility will be visible year-round from approximately 68 acres or 0.8% of the 8,042 acre study area. AT&T App. p. 17, Tab 4(C).

70. The proposed monopole will be seen from portions of (10) residential properties, which will have partial year-round views of the proposed Facility, and (7) additional residential properties, which will have potential seasonal views of the proposed Facility. AT&T App. p. 17, Tab 4(C).
71. Existing vegetation will screen the Candidate B facility from surrounding properties and most views will be distant with the majority of visibility of the Candidate B facility occurring over select portions of Squire Road, Route 67, Transylvania Road, Bacon Road, Grassy Hill Road, and Hickory Lane. AT&T App. p. 17, Tab 4(C).

Respectfully Submitted,

A handwritten signature in blue ink, appearing to read 'D. Laub', is written over a horizontal line.

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