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Chairman

STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

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May 6, 2009

TO: Parties and Intervenors

FROM: S. Derek Phelps, Executive Director 

RE: **DOCKET NO. 369** - Celco Partnership d/b/a Verizon Wireless application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance and operation of a telecommunications facility located off Sherman Road, Woodstock, Connecticut.

By its Decision and Order dated April 23, 2009, the Connecticut Siting Council granted a Certificate of Environmental Compatibility and Public Need for the construction, maintenance and operation of a telecommunications facility located off Sherman Road, Woodstock, Connecticut.

Enclosed are the Council's Findings of Fact, Opinion, and Decision and Order.

SDP/MP/jb

Enclosures (3)

c: State Documents Librarian

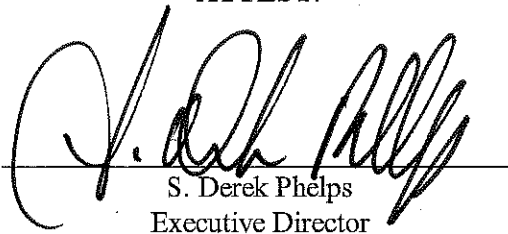
STATE OF CONNECTICUT)

ss. New Britain, Connecticut :

COUNTY OF HARTFORD)

I hereby certify that the foregoing is a true and correct copy of the Findings of Fact, Opinion, and Decision and Order issued by the Connecticut Siting Council, State of Connecticut.

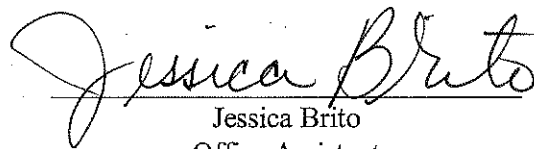
ATTEST:



S. Derek Phelps
Executive Director
Connecticut Siting Council

I certify that a copy of the Findings of Fact, Opinion, and Decision and Order in Docket No. 369 has been forwarded by Certified First Class Return Receipt Requested mail, on May 6, 2009, to all parties and intervenors of record as listed on the attached service list, dated October 1, 2008.

ATTEST:



Jessica Brito
Office Assistant
Connecticut Siting Council

**LIST OF PARTIES AND INTERVENORS
SERVICE LIST**

Status Granted	Status Holder (name, address & phone number)	Representative (name, address & phone number)
Applicant	Cellco Partnership d/b/a Verizon Wireless	Sandy Carter, Regulatory Manager Verizon Wireless 99 East River Drive East Hartford, CT 06108 Kenneth C. Baldwin, Esq. Robinson & Cole LLP 280 Trumbull Street Hartford, CT 06103-3597 (860) 275-8200

<p>DOCKET NO. 369 - Cellco Partnership d/b/a Verizon Wireless application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance and operation of a telecommunications facility located off Sherman Road, Woodstock, Connecticut.</p>	<p>} Connecticut } Siting } Council } April 23, 2009</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 (CGS) § 16-50g through 16-50aa, applied to the Connecticut Siting Council (Council) on September 30, 2008 for the construction, operation, and maintenance of a wireless telecommunications facility off Sherman Road, Woodstock, Connecticut. (Cellco 1, pp. 1-2)
2. Cellco is a Delaware limited partnership with an administrative office in East Hartford, Connecticut. Cellco is authorized to construct, operate, and manage a wireless telecommunications system in the State of Connecticut using the radio authorization license issued by the Federal Communications Commission. (Cellco 1, p. 4)
3. The party in this proceeding is the applicant. (Transcript 1- 3:10 p.m. [Tr. 1], p. 5)
4. The purpose of the proposed facility is to provide service to coverage gaps identified by Cellco along Routes 198, 197 and 171, as well as local roads in the northwest portion of Woodstock. (Cellco 1, p. 1)
5. Pursuant to CGS § 16-50m, the Council, after giving due notice thereof, held a public hearing on January 29, 2009, beginning at 3:00 p.m. and continuing at 7:00 p.m. at the Woodstock Town Hall, 415 Route 169, Woodstock, Connecticut. (Council's Hearing Notice dated December 10, 2008; Tr. 1, p. 2; Transcript 2 – 7:00 p.m. [Tr. 2], p. 3)
6. The Council and its staff conducted an inspection of the proposed site on January 29, 2009, beginning at 2:00 p.m. During the field inspection, the applicant flew a red balloon at proposed site to simulate the height of the proposed tower. The balloon was located within approximately 20 feet of the proposed tower location due to the existing tree canopy. Weather conditions including some intermittent gusts of wind. During the field review, the balloon reached a height of 140 feet above ground level (agl) periodically, but was sometimes lower due to wind gusts. The balloons were aloft from approximately 7:50 a.m. to at least 3:00 p.m. for the convenience of the public. (Council's Hearing Notice dated December 10, 2008; Tr. 1, pp. 15-16)
7. Pursuant to CGS § 16-50l (b), public notice of the application was published in the Norwich Bulletin on September 26 and 27, 2008. (Cello 1, p. 5, Attachment 4, Attachment 11; Cellco 2, p. 1)
8. Pursuant to CGS § 16-50l(b), notice of the application was provided to all abutting property owners by certified mail. All certified mail return receipts were received. (Cellco 1, Attachment 5; Tr. 1, p. 16).
9. Pursuant to CGS § 16-50l (b), Cellco provided notice to all federal, state and local officials and agencies listed therein. (Cellco 1, Attachment 3)

10. Cellco installed a four-foot by six-foot sign that described the proposed project on January 12, 2009 along Sherman Road adjacent to the proposed access drive. The sign contained hearing and contact information as well as the proposed tower height. (Cellco 5)

State Agency Comment

11. Pursuant to CGS § 16-50j (h), on December 10, 2008 and February 2, 2009, the following State agencies were solicited by the Council to submit written comments regarding the proposed facility; Department of Environmental Protection (DEP), Department of Public Health (DPH), Council on Environmental Quality (CEQ), Department of Public Utility Control (DPUC), Office of Policy and Management (OPM), Department of Economic and Community Development (DECD), and the Department of Transportation (DOT). (Record)
12. The Council did not receive responses from any state agencies. (Record)

Municipal Consultation

13. Cellco notified the Town of Woodstock (Town) of the proposal on June 24, 2008 by sending a technical report to First Selectman Allan D. Walker, Jr. On September 28, 2008, Cellco appeared before the recently formed Woodstock Telecommunications Task Force (Task Force) to discuss the proposed project and Cellco's future needs in the Town. (Cellco 1, p. 18; Cellco 3)
14. Cellco discussed its proposed project and future plans for the Town during the meeting with the Task Force. Cellco indicated during the meeting that it would need at least one more tower in eastern Woodstock. The Task Force generally viewed the project favorably. (Tr. 1, p. 29)
15. The Town of Union is within 2,500 feet of the proposed facility. Therefore, Cellco also notified the Town of Union of the proposal on June 24, 2008 by sending a technical report to First Selectman Thomas L. Fitzgerald. (Cellco 1, pp. ii and 18; Cellco 4, response 2)
16. The Woodstock Historic Properties Commission (WHPC) reviewed the technical report and submitted comments to the Council dated September 23, 2008. The WHPC comments included the following:
 - a) The Council and Cellco should take into consideration the recommendations of the Task Force along with the comments of Town officers and commissions in planning for any and all new cell tower facilities in Woodstock;
 - b) The comments of the Woodstock Conservation Commission regarding the proposed facility should be given particular note;
 - c) Woodstock is a town appreciated for its historic and scenic qualities, including its preserved unpaved roads and public ponds. In the area near the proposed cell tower, Black Pond, off Camp Road and Old Turnpike Road, is a particularly prized scenic location, one of the purest ponds in Connecticut, with remnants of an early slave-built dam at its outlet. Sherman, Marcy and Camp Roads are locally designated scenic roads, and other nearby roads could be eligible for scenic designation. The Nature Conservancy has recently acquired land off Tayler Road, including a noteworthy sawmill of considerable preservation interest. It is necessary to ascertain thorough balloon studies completed in the absence of seasonal foliage the impact of the proposed facility on these areas. Further, it is important to consider not only views from the boat launch and trailhead on Black Pond, but also views

from the pond itself. Existing balloon studies have not considered the view from within Black Pond or other views when leaves are not on the trees;

- d) Facility height, design and roadway development should all be determined with deference to their natural surroundings. The WHPC also questions necessity of a 140-foot monopole; and
 - e) Removal of the towers in case of noncompliance or disuse should be guaranteed by bond. (WHPC comments dated September 23, 2008)
17. By letter received on January 22, 2009, Joshua J. Bottone, Chief of the Bungay Fire Brigade (BFB), expressed his support for the proposed tower. (BFB Comments, received January 22, 2009)
18. First Selectman Alan D. Walker, Jr. made a limited appearance statement at the January 29, 2009 proceeding noting that he had received very few inquiries about the proposed tower and only one was negative. Other residents contacted Mr. Walker to inquire about what could be done to improve coverage in the area. (Tr. 1, p. 7)
19. Cellco would provide space on the tower for the Town's emergency communication services for no compensation. The BFB expressed an interest in co-locating at the site, although specific needs were not discussed. (Cellco 1, p. 27-28)

Public Need for Service

20. In 1996, the United States Congress recognized a nationwide need for high quality wireless telecommunications services, including cellular telephone service. Through the Federal Telecommunications Act of 1996, Congress seeks to promote competition, encourage technical innovations, and foster lower prices for telecommunications services. (Council Administrative Notice Item No. 7)
21. 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 Windham County, Connecticut. (Council Administrative Notice Item No. 7; Cellco 1, pp. 4, 7; Cellco 1, Attachment 6; Tr. 1, p. 46)
22. The Telecommunications Act of 1996 prohibits local and state entities from discriminating among providers of functionally equivalent services. (Council Administrative Notice Item No. 7)
23. The Telecommunications Act of 1996, a Federal law passed by the United States Congress, prohibits any state or local entity from regulating telecommunications towers on the basis of the environmental effects of radio frequency emissions to the extent that such towers and equipment comply with FCC's regulations concerning such emissions. This Act also blocks the Council from prohibiting or acting with the effect of prohibiting the provision of personal wireless service. (Council Administrative Notice Item No. 7)
24. The Wireless Communications and Public Safety Act of 1999 (E911 Act) was enacted by Congress to promote and enhance public safety by making 9-1-1 the universal emergency assistance number. The E911 Act facilitated and encouraged the prompt deployment of a nationwide, seamless communication infrastructure for emergency services. Cellco's facility would be in compliance with the requirements of the E911 Act. (Cellco 4, response 10)

Site Selection

25. Cellco established a search ring for the target service area in September of 2006. (Cellco 4, response 1)
26. In order to provide service to the search ring area, Cellco originally filed an application with the Council for a cell site located off Old Turnpike and Route 198. During the course of that proceeding (Docket No. 350), Cellco was approached by Mr. Hallquest (the property owner of the Sherman Road site) about the potential use of his parcel off Sherman Road as an alternative to the originally proposed Old Turnpike site. Upon further review, Cellco determined that the Sherman Road parcel was a better overall alternative and withdrew the Docket No. 350 Application. (Cellco 1, pp. 10-11; Tr. 1, pp. 9-10)
27. Prior to selecting the proposed site at Sherman Road, Cellco considered five existing structures located in the Towns of Woodstock and Union. The sites consisted of three self-supporting lattice towers, one guyed lattice tower, and one monopole. All of the sites were rejected due to inadequate coverage to the target service area. (Cellco 1, Attachment 9)
28. No existing towers are located within two miles of the proposed site. (Cellco 1, Attachment 9)
29. Cellco investigated six raw land sites in the Woodstock area during the search for a suitable location for its facility. These six sites and the determinations of their suitability are listed below.
 - a) Hallquest Property – Sherman Road – This is the proposed site. Cellco was able to successfully negotiate a lease for this site.
 - b) Walsh Property – Route 198 – This site was the subject of Docket No. 350 and was withdrawn from consideration by Cellco.
 - c) 71 Sherman Road – This site could not satisfy coverage objectives along Route 197, one of the three primary target areas of the proposed tower.
 - d) Corner of Routes 197 and 198 – Topography in the area prevents Cellco from satisfying its coverage objectives along Routes 197 and 198 from this location.
 - e) Perrin Road Property – This site is located too far south and cannot satisfy Cellco's objectives in northwest Woodstock.
 - f) Eastford Tool and Die Company Property – 1053 Route 198 – Hills to the east of the site would substantially block the signal, and therefore, the site could not satisfy coverage objectives. (Cellco 1, Attachment 9, pp. 2-3; Tr. 1., p. 60)
30. Microcells and repeaters are not viable technological alternatives for providing the required coverage because the coverage gap is too large, especially at PCS frequencies. (Cellco 1, pp. 9-10; Cellco 4, response 4)

Site Description

31. The proposed site is located on a 39-acre parcel at Sherman Road, Woodstock, west of Route 198. The parcel, owned by Colin G. Hallquest, does not currently contain any residences. It is zoned Town Community District. The proposed location is depicted on Figure 1. (Cellco 1, pp. ii and 2; Cellco 1, Attachment 1, Drawing C-1)
32. The Town's zoning regulations permit telecommunication towers in Town Community District, subject to Special Permit and Site Plan approval. The Town of Woodstock Plan of Conservation and Development does not specifically identify telecommunications towers or facilities as a land use consistent or inconsistent with the general planning or conservation policies of the Town. (Cellco 1, pp. 16-17)
33. The tower site is located in the eastern portion of the property, at an elevation of 905 feet above mean sea level (amsl). The site is mostly wooded, undeveloped land. Surrounding land use can be described as low density residential. See Figure 3. (Cellco 1, Attachment 1, Drawing C-1; Cellco 1, Attachment 10, p. 1; Cellco 4, response 3)
34. The proposed facility would consist of a 140-foot agl monopole within a 100-foot by 100-foot leased area. The tower would be 42 inches wide at the base tapering to 30 inches at the top. It would be designed to support four levels of antennas with a 10-foot center-to-center vertical separation. The tower would be constructed in accordance with the American National Standards Institute TIA/EIA-222-F "Structural Standards for Steel Antenna Towers and Antenna Support Structures" (Version F). (AT&T Wireless 1, Attachment 1, p. 6; Tr. 1, pp. 16-17)
35. The tower would also meet TIA/EIA-222-G (Version G). Version G tends to be more stringent than Version F. However, Version G is currently an optional standard while Version F is mandatory. (Tr. 1, pp. 16-17)
36. Cellco would install 12 panel antennas on a low-profile platform at a centerline height of 137 feet agl. The total height of the facility with antennas would be 140 feet agl. (Cellco 4, response 8; Cellco 1, pp. 2-3)
37. A low-profile platform has no rails or other attachments other than the platform itself and the mounts for the antennas. This type of platform design presents less area for wind loading than a full-platform and puts less weight on the tower. (Tr. 1, p. 16)
38. Cellco could use T-arm mounts for its antennas, but prefers a low-profile platform because it provides a surface for workers to stand on when performing antenna installations, maintenance, replacements, etc., increasing worker safety. (Cellco 4, response 8; Tr. 1, pp. 61-62)
39. Both low-profile platforms and T-arm mounts for antennas extend out horizontally about three to four feet from the tower to the face of the antennas. Both types are arranged around a tower in three sectors, each with a 14-foot wide face and capable of holding four antennas – 12 in all. (Tr. 1, pp. 37-38)
40. Flush-mounting is the least obtrusive type of design for mounting antennas on towers, but allows only three antennas at a given level of height, as opposed to 12, thus reducing coverage. If Cellco were to use flush mounts, it would need to compensate by occupying three levels on the tower, and, in the worst-case scenario, four. (Cellco 4, response 8; Tr. 1, pp. 46-47)

41. Flush-mounts would extend out horizontally about one to one-and-one-half feet from the tower to the faces of the antennas. (Tr. 1, p. 37)
42. Low-profile platforms and T-arms have the ability to hold the same number of antennas. (Tr. 1, p. 41)
43. Pocket Communications expressed an interest in co-locating on the tower, but has no lease agreement with Cellco at this time. Also, the height Pocket Communications would need for its antennas has not been determined. (Tr. 1, pp. 18-20)
44. A 40-foot by 75-foot equipment compound enclosed by an eight-foot high chain link fence with three strands (one foot) of barbed wire would be established at the base of the tower. The size of the fenced compound area would be able to accommodate the equipment of four wireless carriers. Cellco would install Lucent Flexent Modular Cell 4.0B cell site equipment inside a proposed 12-foot by 30-foot equipment shelter within the compound. A backup diesel generator would also be located inside the proposed equipment shelter in its own room. (Cellco 1, pp. 3,9; Cellco 1, Attachment 1, Drawings C-2 and C-3; Tr. 1, p. 23)
45. The use of fuel cells as backup generators is being reviewed by Cellco; however, such use has not yet been authorized for this or any cell site in Connecticut. (Cellco 4, response 6)
46. It is not Cellco's practice to use backup generators for primary power during an extended period. The generator would be exercised only once per week for about two hours during daytime to maintain it in working condition. The backup generator could provide about eight hours of backup power without refueling. (Tr. 1, pp. 23-24)
47. Development of the site would require 346 cubic yards of cut and 57 cubic yards of fill. (Cellco 4, response 11)
48. Access to the proposed site would be provided over an existing 12-foot wide, 1,060-foot long gravel and dirt drive extending from Sherman Road. A new gravel driveway extending approximately 220 feet long would continue the access to the proposed tower site. This route would shield visibility of the compound from Sherman Road. (Cellco 1, p. i; Cellco 1, Attachment 1, Drawing C-1)
49. No improvement to the existing part of the access drive is expected to be necessary, except for areas that may be disturbed during the construction process, e.g. by heavy equipment. (Tr. 1, pp. 26-27)
50. Utilities would be installed aboveground approximately 880 feet from an existing pole on Sherman Road parallel to the existing access road. Utilities would continue underground for a distance of 665 feet along a new Connecticut Light and Power Company easement to the tower site. (Cellco 1, pp. 5, 9, Attachment 8; Tr. 1, p. 22 and 35)
51. The tower setback radius would remain within the property boundaries. While a new residence on the subject property is being contemplated by the property owner, it would be located approximately 242 feet away from the tower, outside of the tower setback radius. (T-Mobile 1, Attachment 3; Tr. 2, pp. 24-26)
52. The nearest property boundary from the proposed tower is approximately 520 feet to the west (State of Connecticut). (Cellco 1, Attachment 1, Drawing C-1)

53. There are no residences within 1,000 feet of the proposed tower. The nearest residence is approximately 1,400 feet east of the tower site. (Cellco 1, p. 14; Cellco 1, Attachment 1, Drawing C-1)
54. Land use in the surrounding area is generally low-density residential, focused to the north along Route 197 and east along Sherman Road. Portions of the Nipmuck State Forest abut the subject property to the west and south. (Cellco 4, response 2)
55. The estimated construction cost of the proposed facility is:
- | | |
|---|------------------|
| Radio Equipment | \$ 450,000 |
| Monopole, Coax and Antennas | \$ 200,000 |
| Power System | \$ 20,000 |
| Equipment Building | \$ 50,000 |
| <u>Misc. Costs (inc. site prep. and installation)</u> | <u>\$ 75,000</u> |
| Total | \$ 795,000 |
56. Cellco has a lease agreement with the property owner for the proposed facility with a term of 25 years. Such lease could be extended upon mutual agreement between Cellco and property owner. (Tr. 2, p. 20)

Environmental Considerations

57. The proposed facility would have no effect upon historic, architectural, or archaeological resources listed on or eligible for the National Register of Historic Places or upon properties of traditional cultural importance to Connecticut's Native American community. (Cellco 1, Attachment 11)
58. No Federally threatened or endangered species or State endangered, threatened or special concern species are present at the proposed site. (Cellco 1, Attachment 11)
59. Trees surrounding the site consist mainly of mixed deciduous hardwood species interspersed with stands of mature evergreens. The average tree canopy height is 65 feet. Approximately 23 trees six inches diameter at breast height (dbh) would be removed to develop the site. (Cellco 1, Attachment 1, Drawing C-1; Cellco 1, Attachment 10; Tr. 1, p. 26)
60. The area proposed for the equipment compound does not contain any wetlands. (Cellco 1, p. 17)
61. The existing access drive is approximately 20 feet from Wetland 1 and 50 feet from Wetland 2. No direct impact to wetlands is expected. (Cellco 1, p. 17)
62. Portions of the existing access drive are within the Town of Woodstock Inland Wetlands and Watercourses Agency 100-foot upland review area. (Cellco 4, response 10)
63. To protect the wetlands, erosion and sedimentation controls consistent with the Connecticut Guidelines for Soil Erosion and Sediment Control would be established and maintained during the construction period. Cellco would also employ appropriate construction management practices to ensure that no pollutants would be discharged to any nearby watercourse or wetland areas or to area groundwater during the construction process. (Cellco 1, p. 17)

- 64. No site drainage improvements to the access drive are proposed because the existing grades would not be changed significantly and because the existing surface of the drive is gravel. (Tr. 1, pp. 51-53)
- 65. The closest public airfield to the site is Toutant Airport in the Town of Woodstock, approximately 2.13 nautical miles southeast of the site. There are no private airfields or heliports within three nautical miles of the proposed tower site. (Cellco 1, p. 18; Cellco 1, Attachment 18)
- 66. Obstruction marking and lighting of the tower would not be required. (Cellco 1, p. 18; Cellco 1, Attachment 18)
- 67. The maximum power density from the radio frequency emissions of Cellco's proposed antennas would be 15.79% 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. (Cellco 1, p. 15)
- 68. The backup generator housing and exhaust would be designed to dampen the noise, and the generator would not be heard at the nearest residence approximately 1,400 feet to the east. However, the generator may be audible at the possible future residence on the subject property. (Tr. 1, pp. 23-24)
- 69. To protect against accidental fuel spillage, the backup generator's 275-gallon fuel tank would be double-walled and would have leak detection alarms. The generator and fuel tank would also be located in its own room in the equipment shelter with a floor designed to contain 120 percent of all generator fluids. (Cellco 4, response 5)

Visibility

- 70. The proposed tower would be visible year-round from approximately 30 acres within a two-mile radius of the site (refer to Figure 12a). The tower would be seasonally visible from approximately 9 acres within a two-mile radius of the site. (Cellco 1, Attachment 10, Viewshed Map)
- 71. Visibility of the proposed tower from roads within a two-mile radius of the site is presented in the table below:

Road	Length of Road Visibility (Seasonal)	Length of Road Visibility (Year-round)	Nearest Distance with Visibility to Tower
Route 197	0.3 miles	0.2 miles	0.4 miles south
Corbin Road	-	0.1 miles	0.5 miles south
Hunter Road	0.5 miles	0.2 miles	0.1 miles north

(Cellco 1, Attachment 10, Viewshed Map)

72. 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 to Tower
Herindeen Landing	Yes	35 feet - unobstructed	0.66 miles southwest
Intersection of Route 197 and Corbin Road	Yes	50 feet - unobstructed	0.46 miles south
Intersection of Route 197 and Herindeen Landing	Yes	12 feet - unobstructed	0.47 miles southwest
Old Turnpike Road	No	-	1.07 miles north
Black Pond – near eastern shore	No	-	1.55 miles northwest
Intersection of Camp Road and Route 198	No	-	0.95 miles northwest
Route 198- south of Route 197	No	-	0.66 miles southwest
Sherman Road – west of Route 198	No	-	0.44 miles west
Intersection of Sherman Road and Noren Road	No	-	0.31 miles northwest

(Cellco 1, Attachment 10, Photo-simulations)

73. The proposed tower would be visible year-round from approximately eight residences in the immediate area, including three homes along Route 197 north of the facility, one home on Corbin Road just north of Route 197, three homes along Herindeen Landing, and one home on Moren Road just south of the proposed tower. These views would consist of approximately the top third to the top half of the tower. (Cellco 1, Attachment 10, p.4 and Photographic Documentation and Simulation)
74. The proposed tower would be seasonally visible from approximately four homes, including three along Route 197 and one off of Corbin Road. (Cellco 1, Attachment 10, p. 5)
75. The proposed tower would be seasonally visible from a very small portion of the Nipmuck State Forest in the vicinity of Route 197 and Corbin Road, approximately 0.5 miles north of the proposed tower site. (Cellco 1, Attachment 10, Viewshed Map)
76. The tower would not be visible from Black Pond which is approximately 1.17 miles southeast of the proposed tower. (Tr. 1, p. 25)
77. The closest hiking trail to the proposed tower is the Nipmuck Trail, which is part of the Blue-Blazed Hiking Trail System of eastern Connecticut. The closest portion of the trail is approximately 1.75 miles west to northwest of the proposed tower location. As such, no views of the tower area are expected from the trail. (Cellco 1, Attachment 10, Viewshed Map; Cellco 4, response 14; Admin. Notice Item No. 9, Connecticut Walk Book East Edition, pp. 171-174)
78. Views of the tower are also not expected from a series of informal trails in the Nipmuck State Forest or the Yale Forest. (Cellco 4, response 14)
79. The closest locally-designated scenic road to the proposed site is Sherman Road, approximately 0.3 miles to the southeast at the nearest point. The tower is not expected to be visible from Sherman Road. (Cellco 1, Attachment 10, Viewshed Map)

- 80. Another locally-designated scenic road is Corbin Road, located approximately 0.5 miles to the north of the proposed site. The tower would be visible from approximately 0.1 miles of Corbin Road. (Cellco 1, Attachment 10, Viewshed Map)
- 81. The tower would not be visible from the remaining locally designated scenic roads: Camp Road and Marcy Road. These roads are located approximately 0.95 miles and 1.76 miles southeast of the proposed tower site, respectively. (Cellco 1, Attachment 10, Viewshed Map)
- 82. There are no state-designated scenic roads within a two-miles radius of the proposed tower. (Cellco 1, Attachment 10, Viewshed Map)
- 83. There are no historic districts within a two-mile radius of the proposed tower. (Cellco 1, Attachment 10, Viewshed Map)
- 84. No landscaping around the compound is proposed due to existing vegetation. (Cellco 1, Attachment 1, Drawing C-1A)
- 85. Cellco considered a monopine as an alternative design, but did not believe it would fit into the context of this site and might be more visible. (Tr. 1, pp. 21 and 56)
- 86. The Town has not indicated a preference for or against an alternative tower design. (Tr. 1, p. 22)

Existing and Proposed Wireless Coverage

- 87. Cellco operates in the 850 MHz frequency band for cellular and the 1900 MHz frequency band for PCS and expects to utilize a new 700 MHz band soon, at a signal level service design of -85 dBm for this area, sufficient for in-vehicle coverage. (Cellco 1, Attachment 7; Cellco 4, response 9; Tr. 1, pp. 43-44)
- 88. The length of existing coverage gaps (signal strength < -85 dBm) on select roads within a two-mile radius of the proposed site is presented in the table below. See Figure 4 and 6.

Existing Road Gaps*		
Road	Cellular	PCS
Route 171	2.2	2.5
Route 197	3.0	4.1
Route 198	1.9	2.5
Total	7.1	9.1

*approximate miles; signal strength < -85 dBm
 (AT&T 1, Attachment 3)

- 89. Cellco seeks a minimum antenna height of 137 feet agl to achieve its coverage objectives. (Cellco 1, p. 2)
- 90. To install the antennas a height greater than 137 feet agl, e.g. 147 feet agl, would not provide any additional coverage advantage. (Tr. 1, p. 58)

91. A tower shorter than 140 feet agl (i.e. an antenna height less than 137 feet agl) could also result in a taller future facility being needed. (Tr. 2, p. 19)
92. The proposed facility would provide reliable coverage (signal strength > -85 dBm) on select roads within a two-mile radius of the proposed site and such data is presented in the table below. See Figures 5 and 7.

Proposed Coverage*		
Road	Cellular	PCS
Route 171	4.1	2.5
Route 197	5.1	4.1
Route 198	2.6	2.5
Total	7.1	9.1

*approximate miles; signal strength > -85 dBm
 (AT&T 1, Attachment 3)

93. Installing antennas at 137 feet agl at the proposed site would provide approximately 18.4 square miles of cellular coverage and 7.1 square miles of PCS coverage. (Cellco 1, p. 2)
94. Adjacent Cellco facilities that would interact with the proposed facility are as follows:

Location	Tower Type and Height	Antenna Height agl	Approximate Distance from Sites
1050 Buckley Highway, Union	168-foot self-supporting lattice tower	150 feet	3.2 miles northwest
1825 Route 198, Woodstock	180-foot self-supporting lattice tower	177 feet	2.5 miles north
215 Coatney Hill Road, Woodstock	190-foot monopole	167 feet	4.1 miles east

(Cellco 1, Attachment 9; Cellco 4, response 7)

Possible Coverage at 127-foot Antenna Centerline Height

95. Installing Cellco's antennas at 127 feet agl at the proposed site would reduce the coverage area to approximately 17.0 square miles for cellular and 6.0 square miles of PCS coverage. See Figures 8 and 9. (Tr. 1, p. 49)
96. Cellco's antennas at 127 feet agl would also result in PCS coverage beginning to break up west of Marcy Road. (Tr. 1, p. 49)

Possible Coverage at 117-foot Antenna Centerline Height

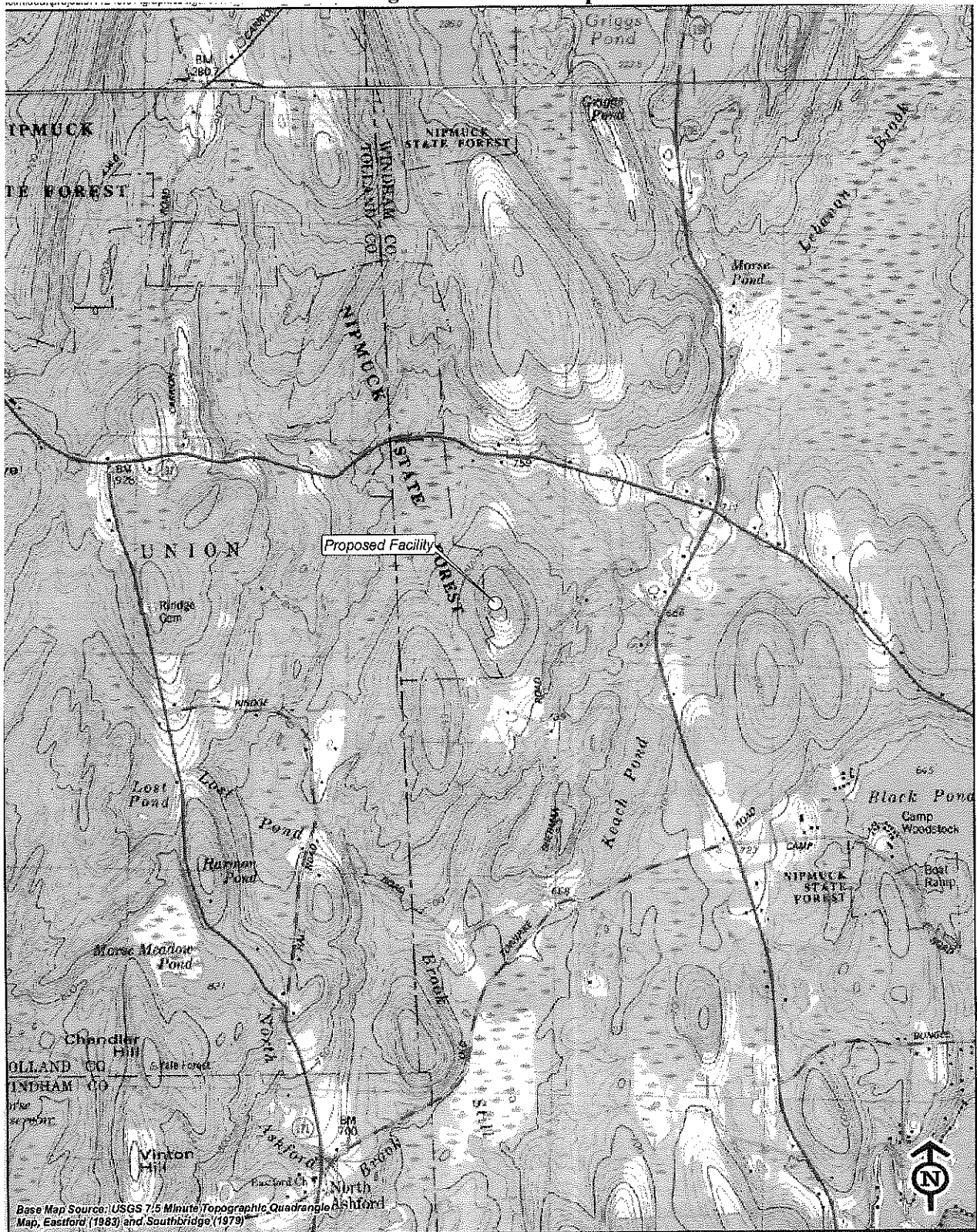
97. Installing Cellco's antennas at 117 feet agl at the proposed site would further reduce the coverage area to approximately 15.0 square miles for cellular and 5.2 square miles for PCS. See Figures 10 and 11. (Tr. 1, p. 49)

98. Cellco's antennas at 117 feet agl would result in coverage breaking up just north of Black Pond. (Tr. 1, p. 49)

Future Coverage

99. With the proposed facility, the Town of Woodstock would be well covered by cellular service. However, several additional towers may be needed to cover the Woodstock area for PCS service. (Tr. 1, pp. 31-32)
100. Even with the proposed facility, Cellco is also looking into a future tower site in the vicinity of the intersection of Routes 169 and 197 in order to have contiguous cellular and PCS coverage along Routes 169 and 197. (Tr. 1, pp. 30-31; Cellco 1, Attachment 7)
101. Cellco has no plans to build a tower to the west towards Union at this time. (Tr. 1, p. 31)

Figure 1: Location Map



1,000 500 0 1,000
Feet

Vanasse Hangen Brustlin, Inc.
USGS Topographic Map

(Cellco 1, p. iii)

Figure 2: Aerial Photograph

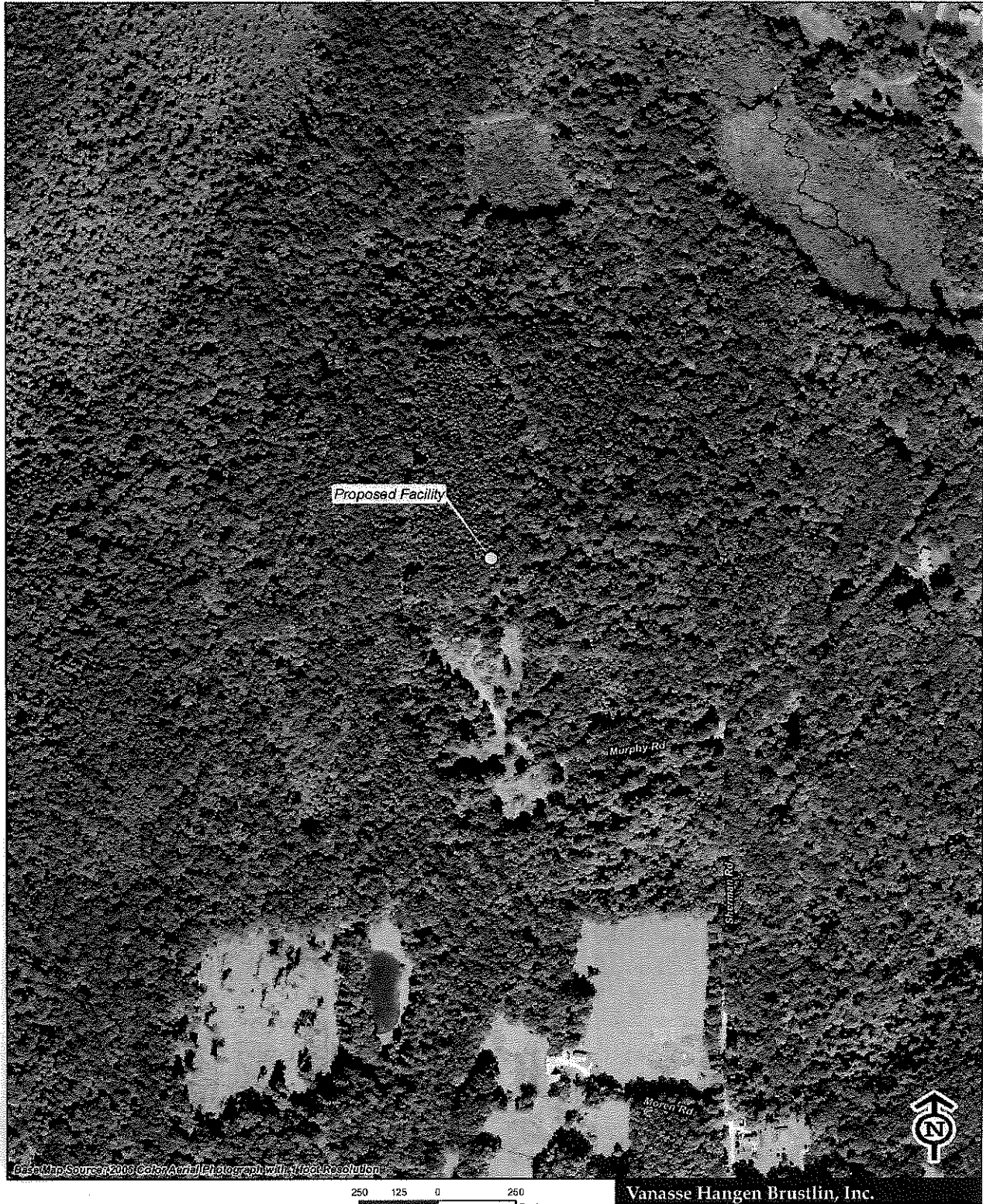
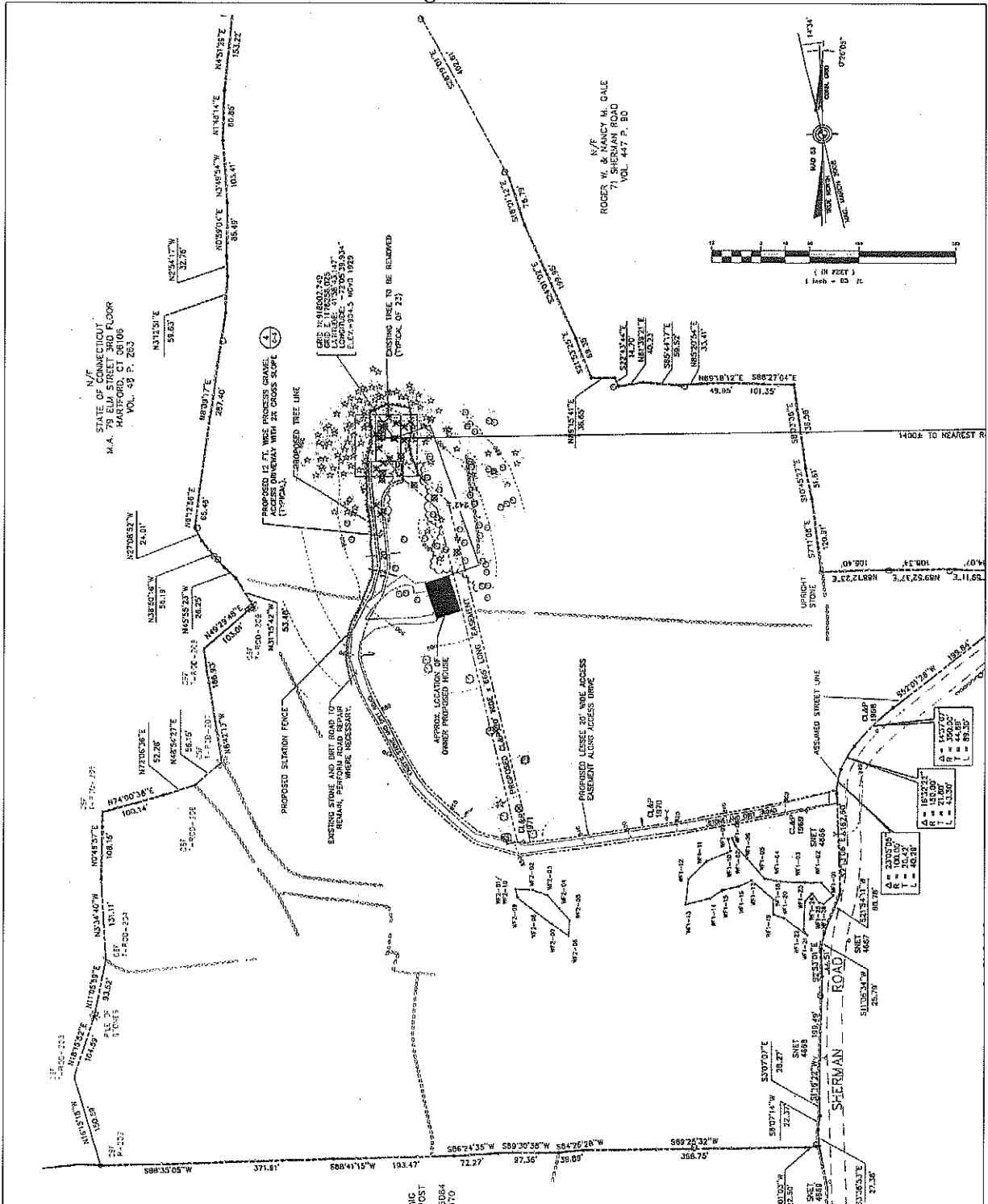
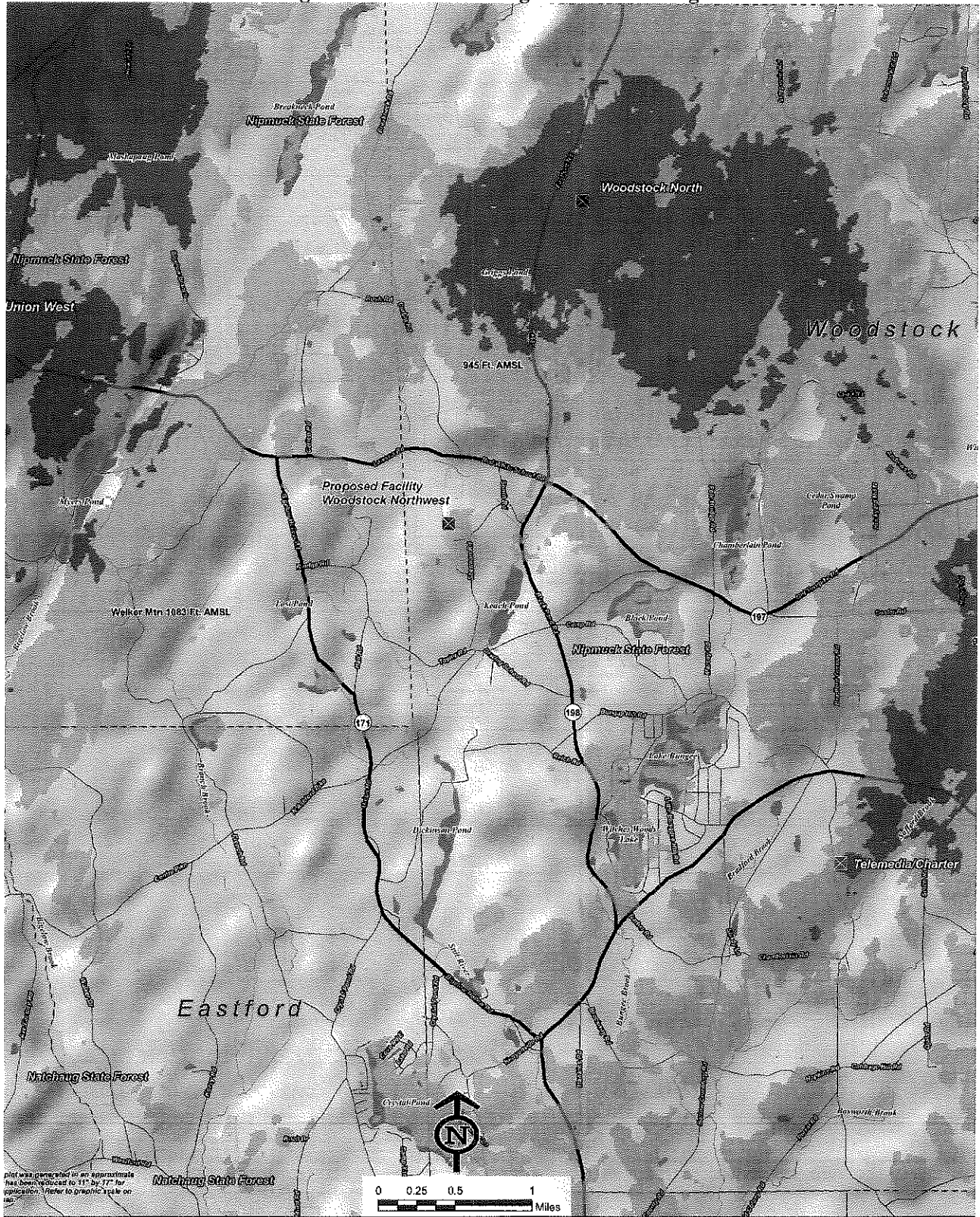


Figure 3: Site Plan



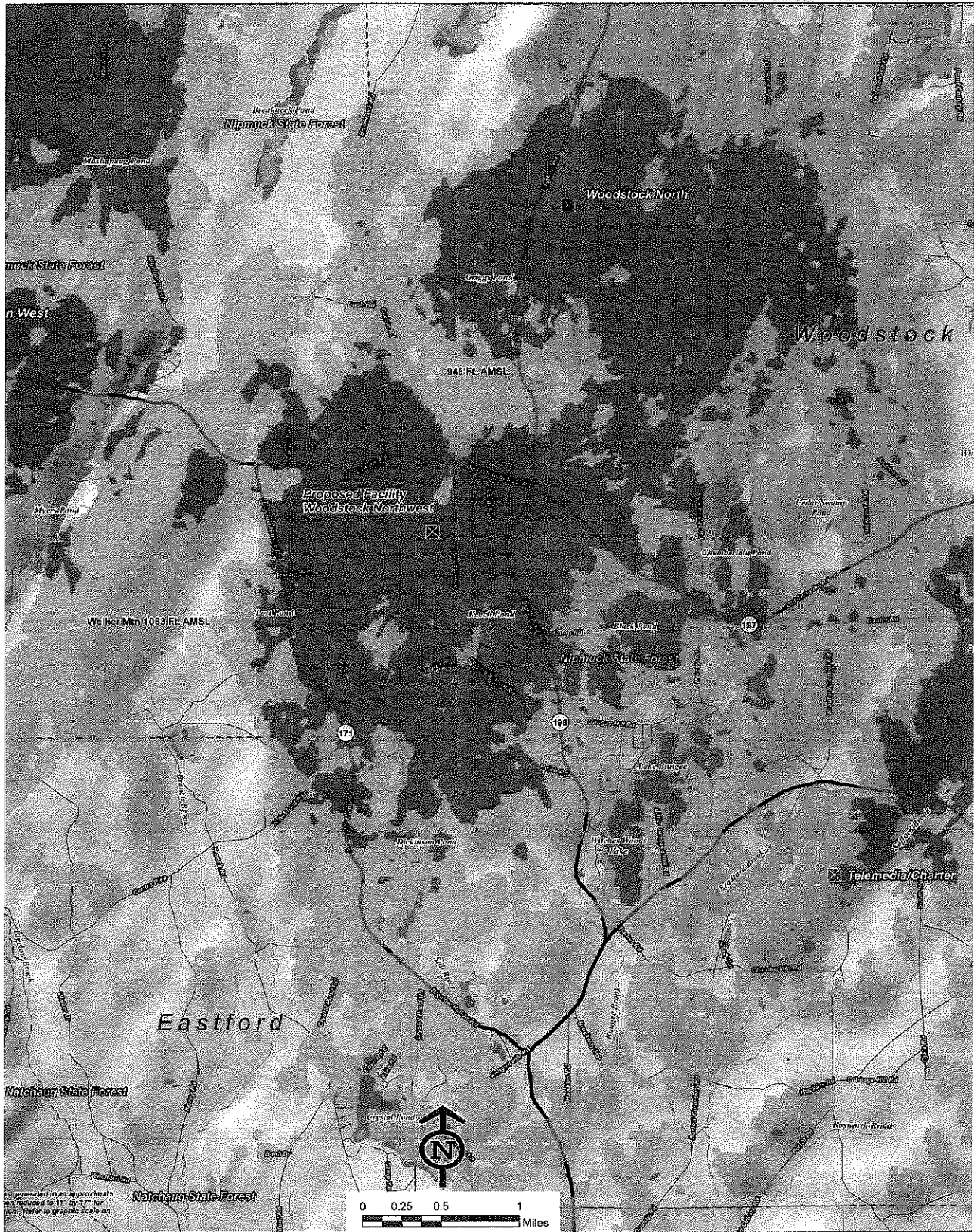
(Cellco 1, Attachment 1, Drawing C-1)

Figure 4: Cellco's Existing Cellular Coverage



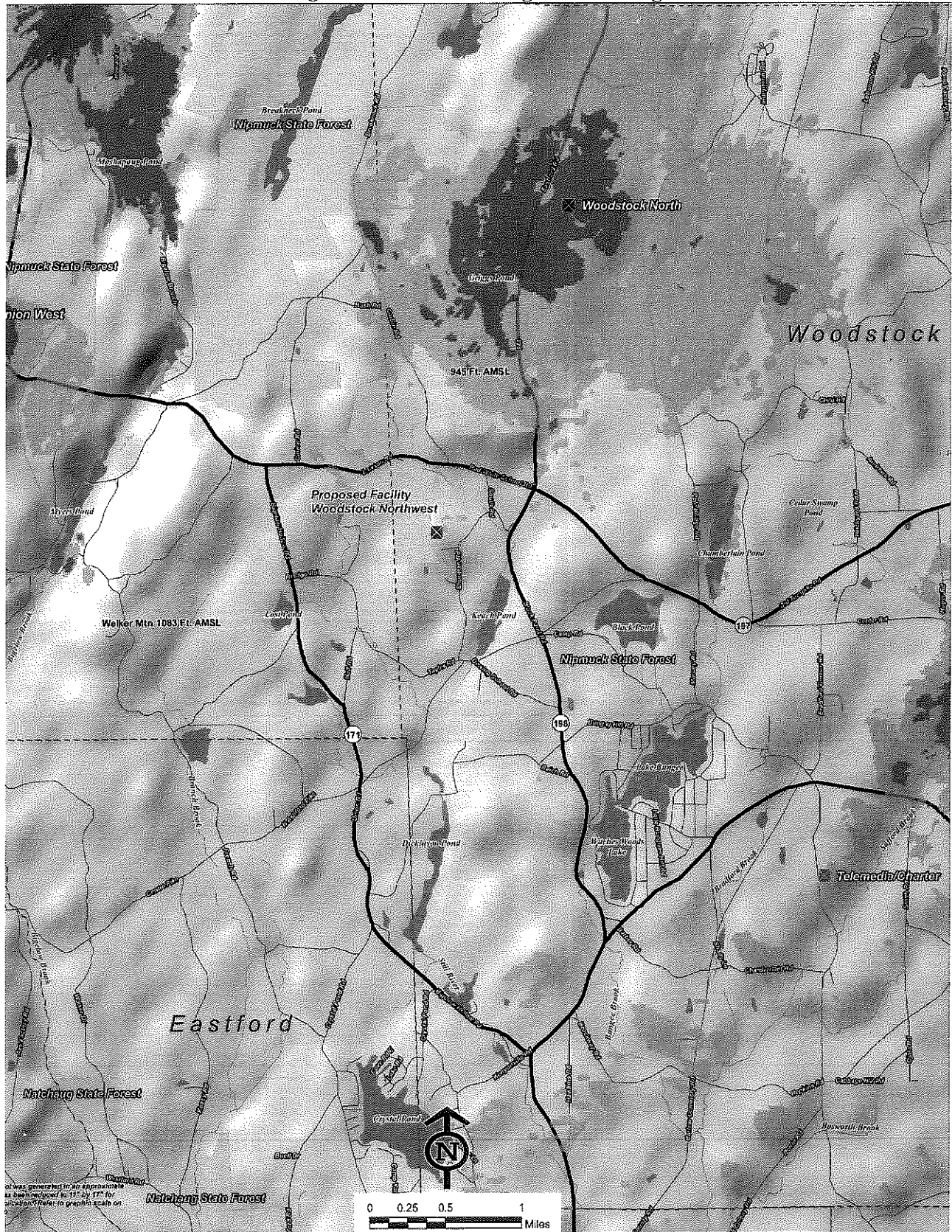
(Cellco 1, Attachment 7)

Figure 5: Celco's Proposed Cellular Coverage with Antennas at 137 feet



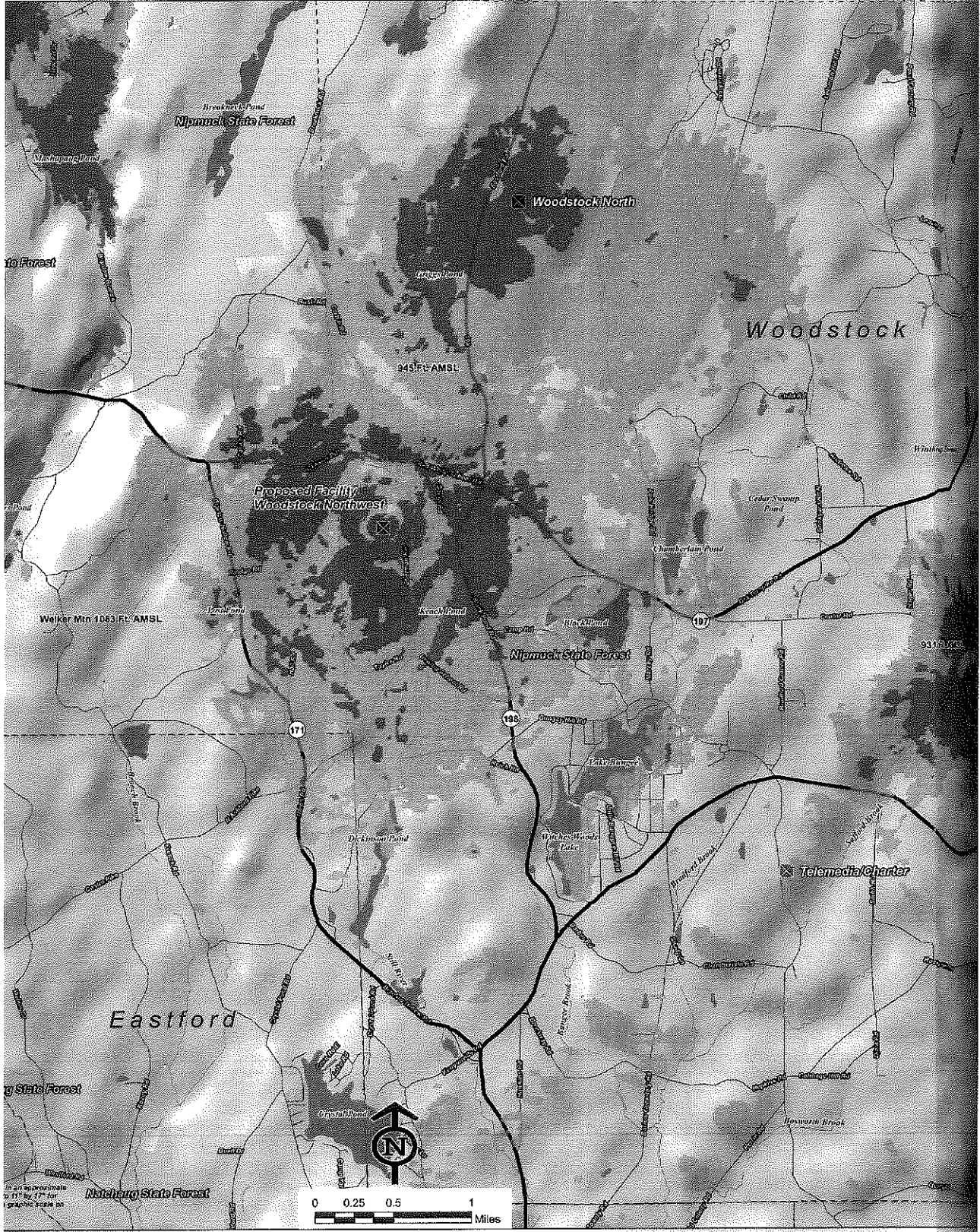
(Celco 1, Attachment 7)

Figure 6: Cellco's Existing PCS Coverage



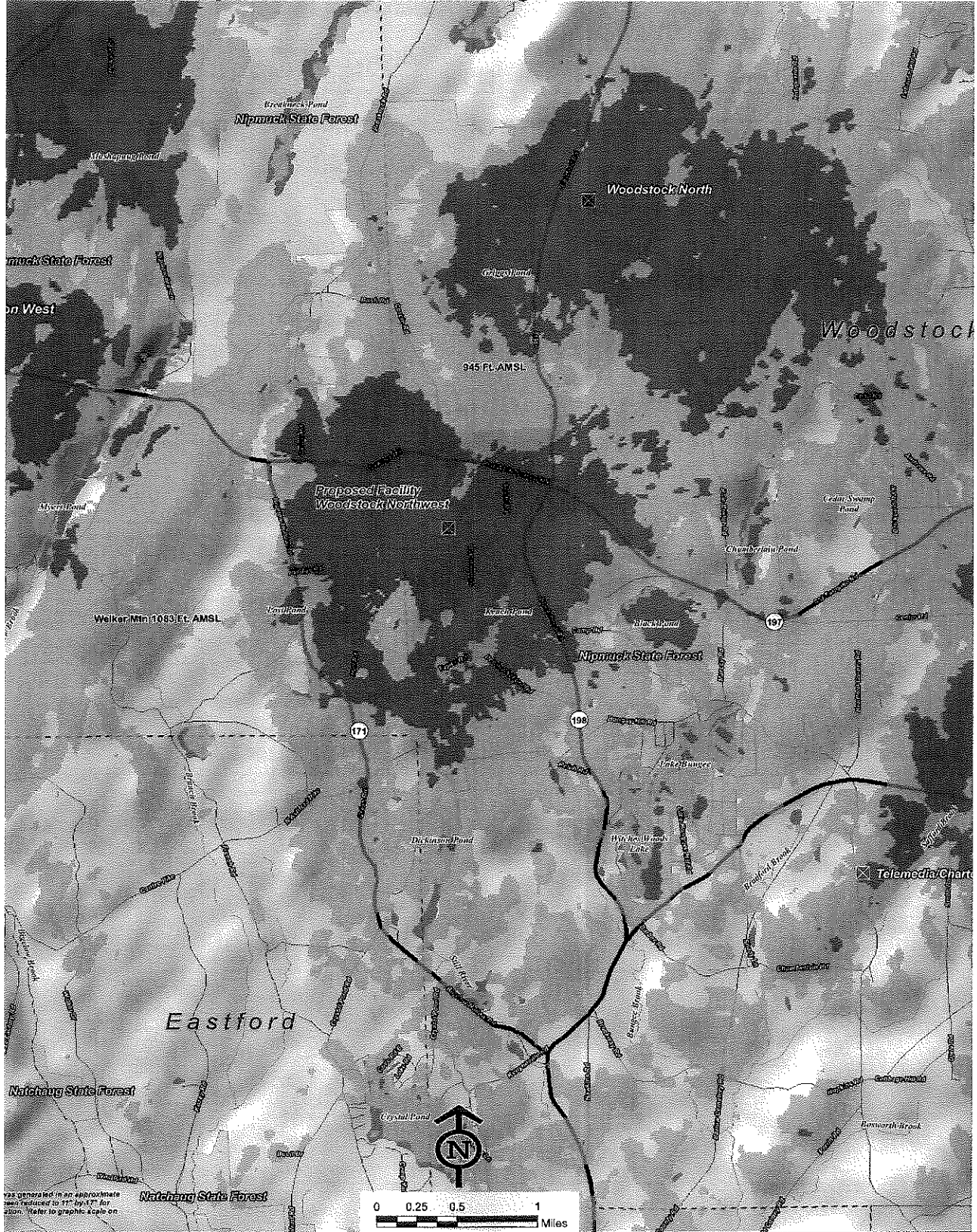
(Cellco 1, Attachment 7)

Figure 7: Cellco's Proposed PCS Coverage with Antennas at 137 feet



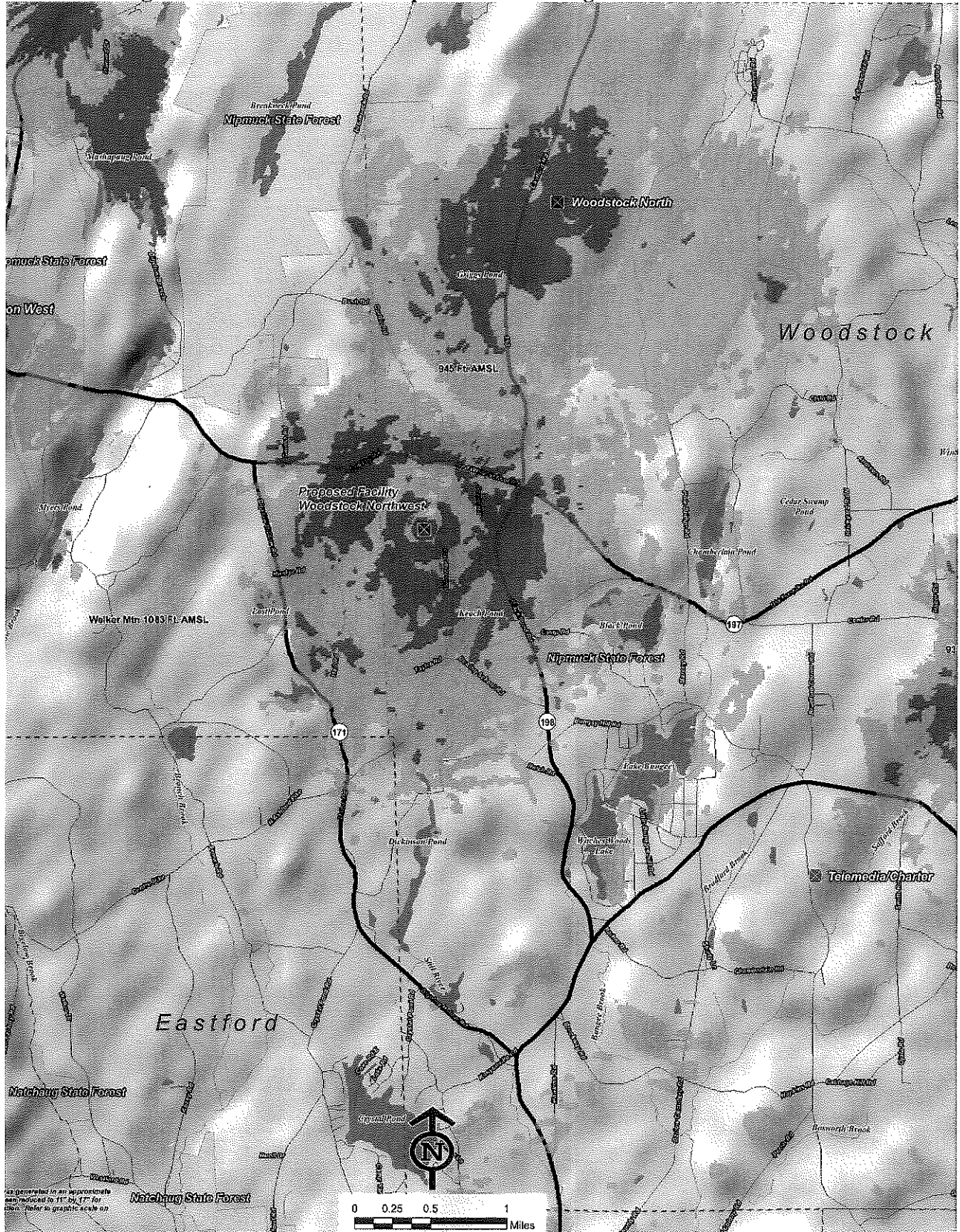
(Cellco 1, Attachment 7)

Figure 8: Cellco's Cellular Coverage with Antennas at 127 Feet



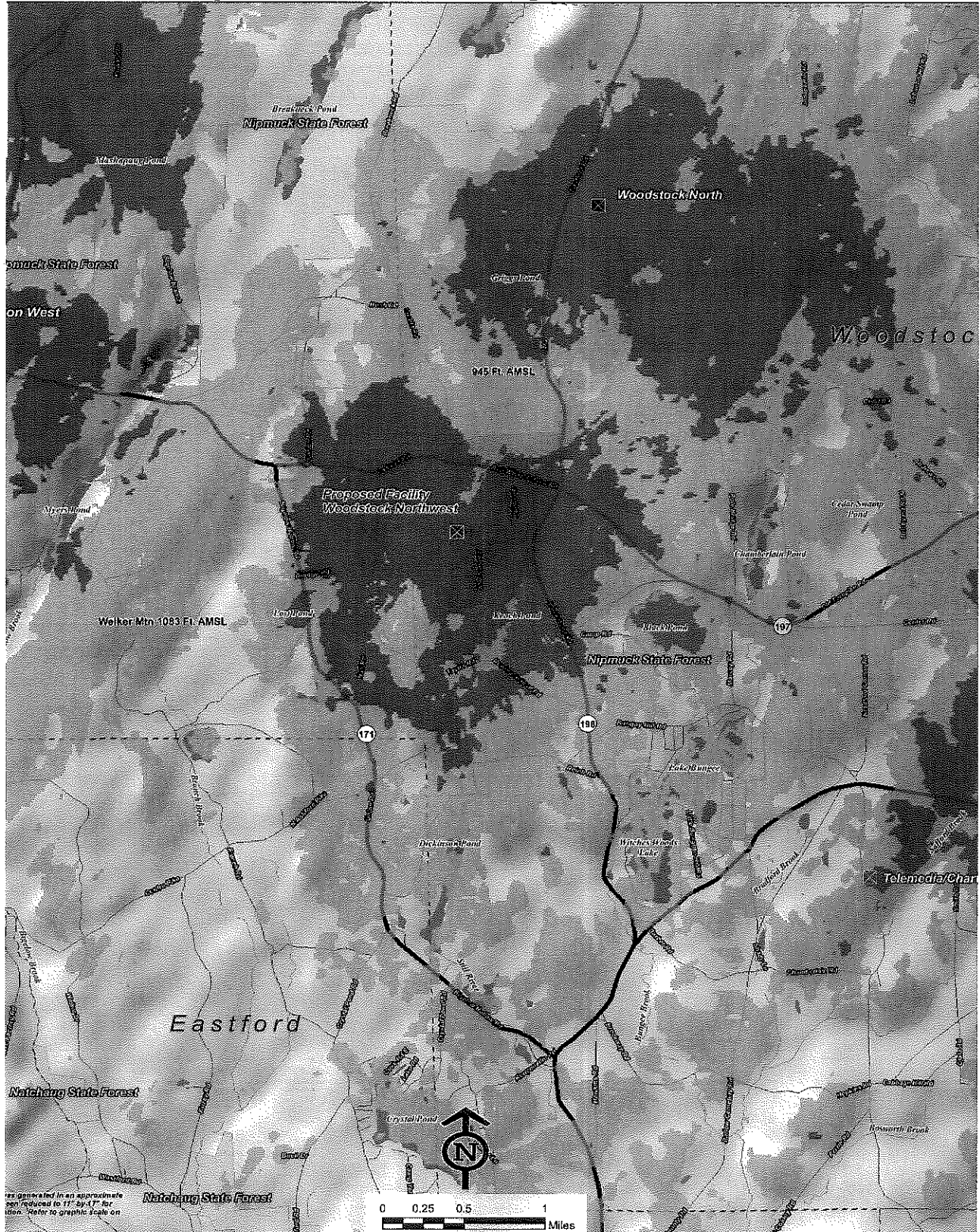
(Cellco 4, response 13)

Figure 9: Verizon Wireless Proposed PCS Coverage with Antennas at 127 feet



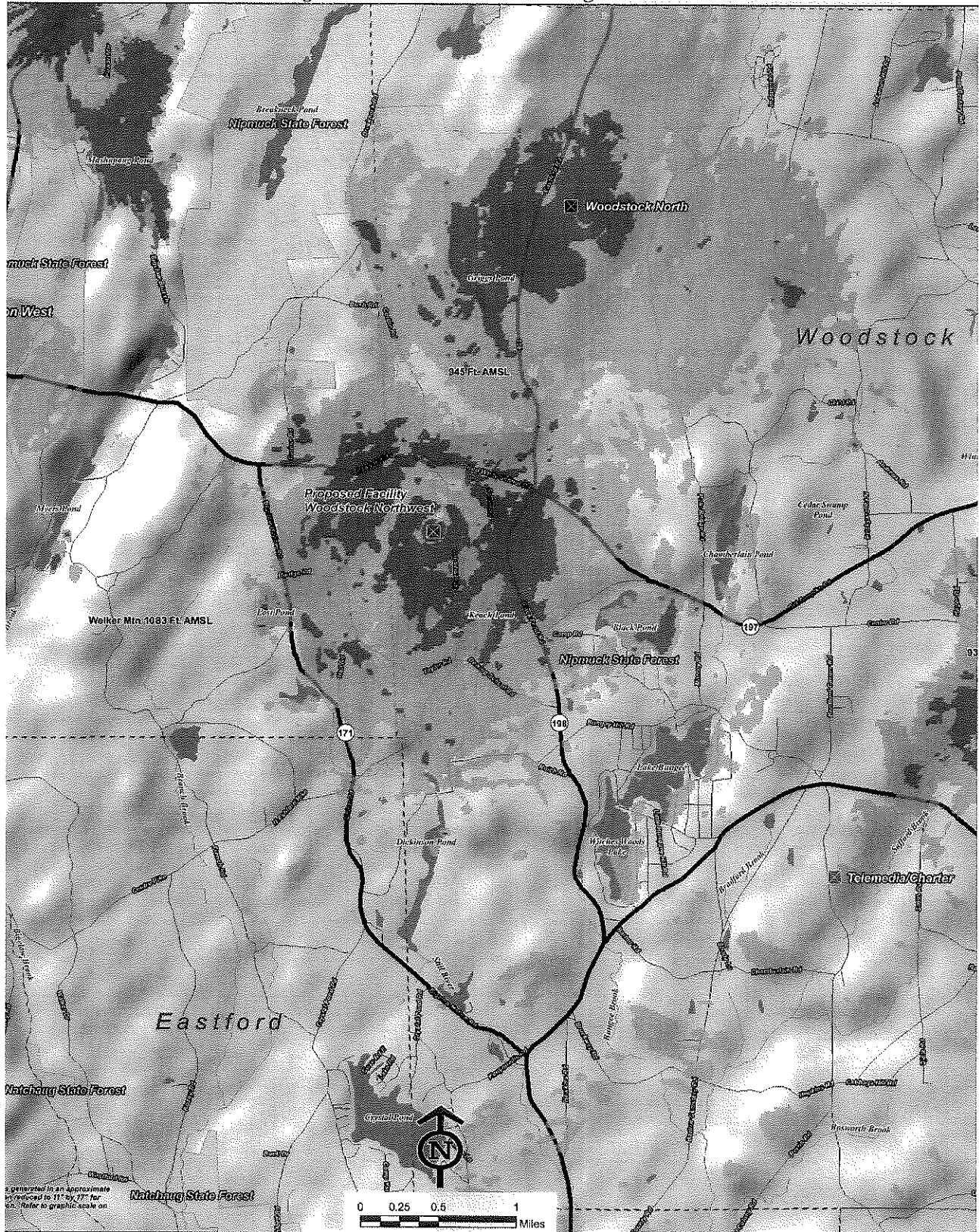
(Cellco 4, response 13)

Figure 10: Celco's Cellular Coverage with Antennas at 117 feet



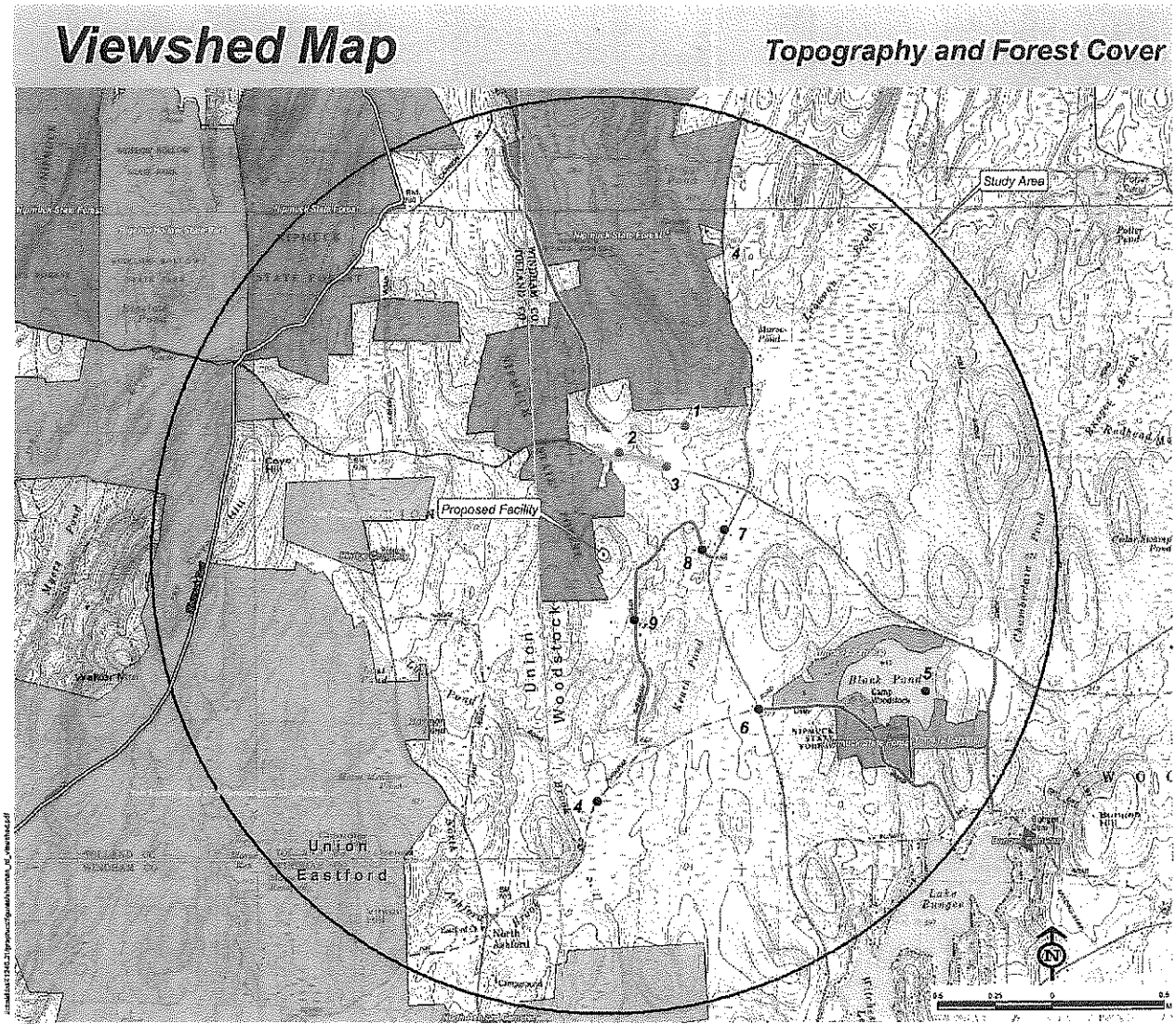
(Celco 4, response 13)

Figure 11: Cellco's PCS Coverage at 117 feet



(Cellco 4, response 13)

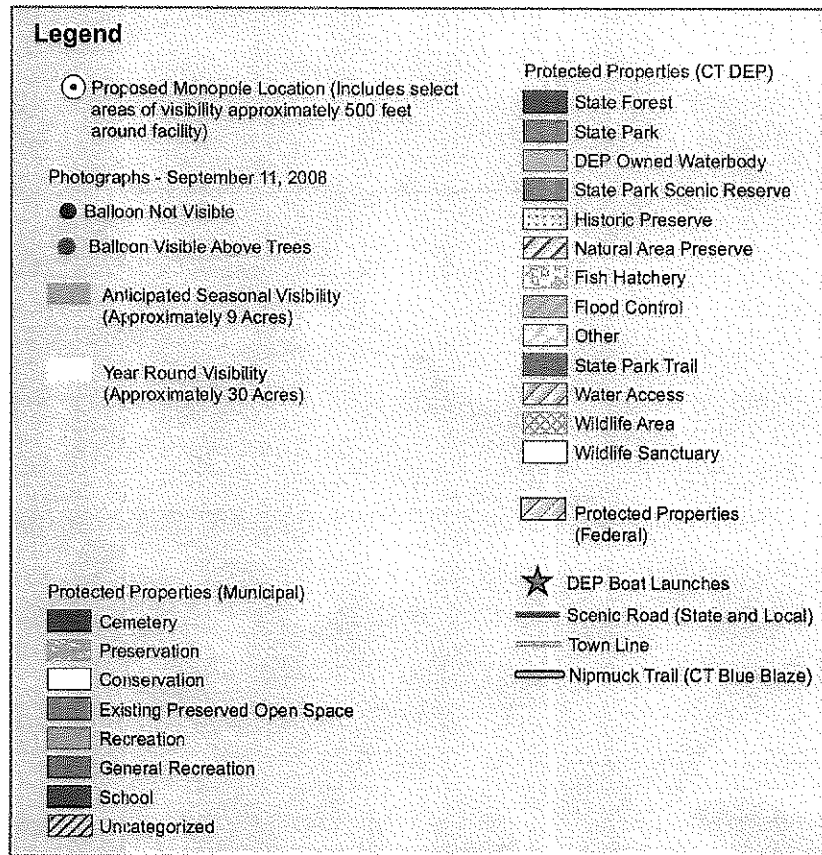
Figure 12a: Viewshed Map



(Cellco 1, Attachment 10)

Figure 12b: Viewshed Map Legend

Map Compiled September 2008



(Cellco 1, Attachment 10)

DOCKET NO. 369 - Cellco Partnership d/b/a Verizon Wireless } Connecticut
application for a Certificate of Environmental Compatibility and }
Public Need for the construction, maintenance and operation of a } Siting
telecommunications facility located off Sherman Road, }
Woodstock, Connecticut. } Council

April 23, 2009

Opinion

On September 30, 2008, Cellco Partnership d/b/a Verizon Wireless (Cellco) applied to the Connecticut Siting Council (Council) for a Certificate of Environmental Compatibility and Public Need (Certificate) for the construction, maintenance and operation of a wireless telecommunications facility to be located off of Sherman Road in the Town of Woodstock, Connecticut. Cellco's purpose in locating a facility at this location would be to provide coverage in the Town of Woodstock, particularly along Routes 198, 197, and 171, as well as local roads in the area. Cellco was the only party in this proceeding.

This docket replaces Docket No. 350, in which Cellco sought a Certificate to install a tower off Old Turnpike and Route 198 in Woodstock. After being approached by the property owner of the Sherman Road site and reviewing the site, Cellco determined that the Sherman Road site would be more suitable and withdrew its Docket No. 350 application. Subsequently, Cellco filed an application for the Sherman Road site, which is the subject of this proceeding.

Cellco proposes to build a 140-foot monopole tower within a 40-foot by 75-foot compound. The facility would be within a 100-foot by 100-foot parcel leased on a 39-acre property owned by Colin G. Hallquest and located in the Town Community District. The compound would be enclosed by an eight-foot high chain link fence. Cellco would install 12 panel antennas on a low-profile, triangular platform at a centerline height of 137 feet. The tower would be designed to accommodate three additional wireless carriers.

The subject site is mostly wooded, undeveloped land. Surrounding trees consist mainly of mixed deciduous hardwood species interspersed with stands of mature evergreens. Development of Cellco's facility would require the clearing of 23 trees with a diameter of six inches or more at breast height.

Vehicular access to the facility compound would be via an existing gravel drive that begins at Sherman Road and continues approximately 1,060 feet towards the tower site. This gravel driveway would be extended by 220 feet to reach the tower compound. Utilities would be installed overhead, adjacent to the existing gravel drive, for about 880 feet from an existing pole on Sherman Road. The overhead utilities would turn north and continue underground approximately 665 feet to the site along a proposed Connecticut Light and Power Company easement.

The tower's setback radius would be completely contained within the host property due to the size of the parcel. While the property owner is considering constructing a house on the subject property, this house would be approximately 242 feet from the proposed tower, well outside of the tower's setback radius.

Cellco's tower would be visible on a year-round basis from approximately 30 acres in the surrounding vicinity. Specific areas of year-round visibility include an approximately 0.2 mile

Docket 369: Woodstock

Opinion

Page 2

long portion of Route 197 and 0.1 mile long portion Corbin Road (a locally-designated scenic road), both north of the proposed site; and approximately eight residences in the immediate area, including three homes along Route 197 north of the facility, one home on Corbin Road just north of Route 197, three homes along Herindeen Landing, and one home on Moren Road just south of the proposed tower. The tower would be seasonally visible from an estimated 9 acres. Specific areas of seasonal visibility include an approximately one-third mile long portion of Route 197 and a one-half mile long portion of Hunter Road, both north of the proposed site; and approximately four homes, including three along Route 197 and one off of Corbin Road.

The tower is not expected to be visible from Black Pond, which is an important recreational resource in the Woodstock area and is located approximately 1.2 miles southeast of the proposed tower. The tower is also not expected to be visible from the Nipmuck Trail, which is approximately 1.8 miles west of the proposed site at its closest point.

Most of the residential vantage points from which the tower would be visible are about one-half mile from the site. At this distance, the tower's visual presence in the landscape would be somewhat diminished and limited conservatively to the top 50 feet of the tower. Although the tower would be visible from 39 acres, this represents less than one-half of one percent of the two-mile viewshed analysis. Therefore, the visibility of the tower would not be a sufficient reason to deny this application.

The area proposed for the equipment compound does not contain any wetlands. However, the existing access drive is located approximately 20 and 50 feet from Wetlands 1 and 2, respectively. Thus, the existing access drive is located within the 100-foot upland review area of Town of Woodstock Inland Wetlands and Watercourses Agency. No improvement to the existing part of the access drive is expected to be necessary, except for areas that may be disturbed during the construction process, e.g. by heavy equipment. Thus, adverse effects on the wetlands and/or the upland review area are not expected to be significant. Notwithstanding, as a precaution, the Council will order that erosion and sedimentation controls consistent with the Connecticut Guidelines for Soil Erosion and Sediment Control be employed by Cellco during the construction process to protect the wetlands and the upland review area.

Presently, Cellco does not have cellular nor PCS service in this area of Woodstock, and the Council finds that there is a need for a new tower in this area. Furthermore, the Council acknowledges that Cellco will need other PCS antenna sites to establish contiguous coverage and a comprehensive network in the northeast Connecticut region. The proposed 140-foot tower would provide Cellco with sufficient coverage to its target service area while allowing space for other telecommunication providers that may wish to locate on the tower in the future. In addition, Cellco would provide space on the tower for no compensation for any municipal emergency service communication antennas, provided such antennas are compatible with the structural integrity of the tower.

According to a methodology prescribed by the FCC Office of Engineering and Technology Bulletin No. 65E, Edition 97-01 (August 1997), the combined radio frequency power density levels of the antennas proposed to be installed on the tower have been calculated to amount to approximately 15.8% of the FCC's Maximum Permissible Exposure, as measured at the base of the tower. This percentage is well below federal and state standards established for the frequencies used by wireless companies. If federal or state standards change, the Council will require that the tower be brought into compliance with such standards. The Council will require that the power densities be recalculated in the event other carriers add antennas to the tower. The Telecommunications Act of 1996 prohibits any state or local agency from regulating

Docket 369: Woodstock

Opinion

Page 3

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.

Based on the record in this proceeding, the Council finds that the effects associated with the construction, operation, and maintenance of the telecommunications facility at the proposed location, including effects on the natural environment; ecological integrity and balance; public health and safety; scenic, historic, and recreational values; forests and parks; air and water purity; and fish and wildlife are not disproportionate either alone or cumulatively with other effects when compared to need, are not in conflict with policies of the State concerning such effects, and are not sufficient reason to deny this application. Therefore, the Council will issue a Certificate for the construction, operation, and maintenance of a 140-foot monopole telecommunications facility off of Sherman Road in the Town of Woodstock, Connecticut.

<p>DOCKET NO. 369 - Cellco Partnership d/b/a Verizon Wireless application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance and operation of a telecommunications facility located off Sherman Road, Woodstock, Connecticut.</p>	<p>} Connecticut } Siting } Council</p>
	<p>April 23, 2009</p>

Decision and Order

Pursuant to the foregoing Findings of Fact and Opinion, the Connecticut Siting Council (Council) finds that the effects associated with the construction, operation, and maintenance of a telecommunications facility, including effects on the natural environment; ecological integrity and balance; public health and safety; scenic, historic, and recreational values; forests and parks; air and water purity; and fish and wildlife are not disproportionate, either alone or cumulatively with other effects, when compared to need, are not in conflict with the policies of the State concerning such effects, and are not sufficient reason to deny the application, and therefore directs that a Certificate of Environmental Compatibility and Public Need, as provided by General Statutes § 16-50k, be issued to Cellco Partnership d/b/a Verizon Wireless, hereinafter referred to as the Certificate Holder, for a telecommunications facility off of Sherman Road, Woodstock, Connecticut.

The facility shall be constructed, operated, and maintained substantially as specified in the Council's record in this matter, and subject to the following conditions:

1. The tower shall be constructed as a monopole, no taller than necessary to provide the proposed telecommunications services, sufficient to accommodate the antennas of the Certificate Holder and other entities, both public and private, but such tower shall not exceed a height of 140 feet above ground level. The height at the top of the Certificate Holder's antennas shall not exceed 140 feet above ground level.
2. The Certificate Holder shall prepare a Development and Management (D&M) Plan for this site in compliance with Sections 16-50j-75 through 16-50j-77 of the Regulations of Connecticut State Agencies. The D&M Plan shall be served on the Town of Woodstock for comment, and all parties and intervenors as listed in the service list, and submitted to and approved by the Council prior to the commencement of facility construction and shall include:
 - a) a final site plan(s) of site development to include specifications for the tower, tower foundation, antennas, equipment compound, radio equipment, access road, utility line, and landscaping; and
 - b) construction plans for site clearing, grading, landscaping, water drainage, and erosion and sedimentation controls consistent with the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control, as amended.
3. The Certificate Holder shall, prior to the commencement of operation, provide the Council worst-case modeling of the electromagnetic radio frequency power density of all proposed entities' antennas at the closest point of uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin No. 65, August 1997. The Certificate Holder shall ensure a recalculated report of the electromagnetic radio frequency power density be submitted to the Council if and when circumstances in operation cause a change in power density above the levels calculated and provided pursuant to this Decision and Order.

4. Upon the establishment of any new State or federal radio frequency standards applicable to frequencies of this facility, the facility granted herein shall be brought into compliance with such standards.
5. The Certificate Holder shall permit public or private entities to share space on the proposed tower for fair consideration, or shall provide any requesting entity with specific legal, technical, environmental, or economic reasons precluding such tower sharing.
6. The Certificate Holder shall provide reasonable space on the tower for no compensation for any Town of Woodstock public safety services (police, fire and medical services), provided such use can be accommodated and is compatible with the structural integrity of the tower.
7. Unless otherwise approved by the Council, if the facility authorized herein is not fully constructed and providing wireless services within eighteen months from the date of the mailing of the Council's Findings of Fact, Opinion, and Decision and Order (collectively called "Final Decision"), this Decision and Order shall be void, and the Certificate Holder shall dismantle the tower and remove all associated equipment or reapply for any continued or new use to the Council before any such use is made. The time between the filing and resolution of any appeals of the Council's Final Decision shall not be counted in calculating this deadline.
8. Any request for extension of the time period referred to in Condition 7 shall be filed with the Council not later than 60 days prior to the expiration date of this Certificate and shall be served on all parties and intervenors, as listed in the service list, and the Town of Woodstock. Any proposed modifications to this Decision and Order shall likewise be so served.
9. If the facility ceases to provide wireless services for a period of one year, this Decision and Order shall be void, and the Certificate Holder shall dismantle the tower and remove all associated equipment or reapply for any continued or new use to the Council before any such use is made.
10. The Certificate Holder shall remove any nonfunctioning antenna, and associated antenna mounting equipment, within 60 days of the date the antenna ceased to function.
11. In accordance with Section 16-50j-77 of the Regulations of Connecticut State Agencies, the Certificate Holder shall provide the Council with written notice two weeks prior to the commencement of site construction activities. In addition, the Certificate Holder shall provide the Council with written notice of the completion of site construction and the commencement of site operation.

Pursuant to General Statutes § 16-50p, the Council hereby directs that a copy of the Findings of Fact, Opinion, and Decision and Order be served on each person listed below, and notice of issuance shall be published in the Norwich Bulletin.

By this Decision and Order, the Council disposes of the legal rights, duties, and privileges of each party named or admitted to the proceeding in accordance with Section 16-50j-17 of the Regulations of Connecticut State Agencies.

The parties and intervenors to this proceeding are:

Applicant

Cellco Partnership d/b/a Verizon Wireless

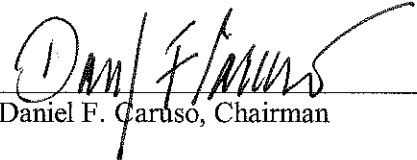
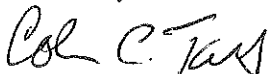
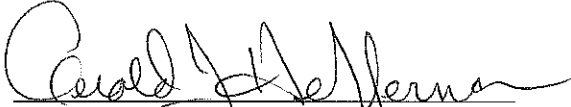

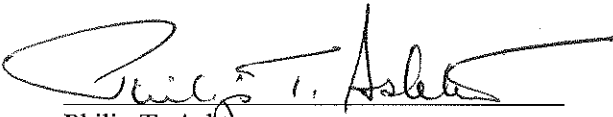
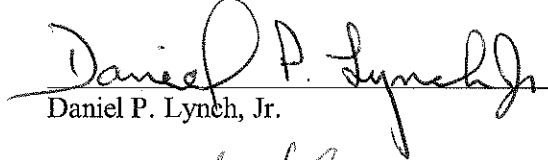
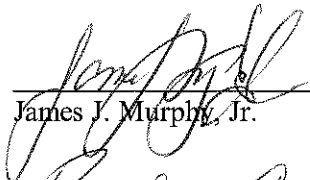
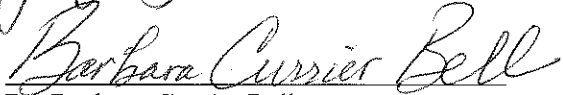
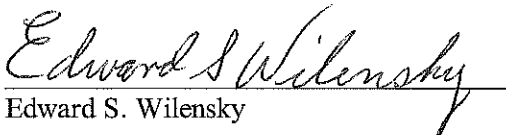
Its Representative

Kenneth C. Baldwin, Esq.
Robinson & Cole LLP
280 Trumbull Street
Hartford, CT 06103-3597

Sandy Carter, Regulatory Manager
Verizon Wireless
99 East River Drive
East Hartford, CT 06108

CERTIFICATION

The undersigned members of the Connecticut Siting Council (Council) hereby certify that they have heard this case, or read the record thereof, in **DOCKET NO. 369** - Cellco Partnership d/b/a Verizon Wireless application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance and operation of a telecommunications facility located off Sherman Road, Woodstock, Connecticut, and voted as follows to approve the proposed telecommunications facility located off Sherman Road, Woodstock, Connecticut:

<u>Council Members</u>	<u>Vote Cast</u>
 Daniel F. Caruso, Chairman	Yes
 Colin C. Tait, Vice Chairman	Yes
 Commissioner Donald W. Downes Designee: Gerald J. Heffernan	Yes
 Commissioner Gina McCarthy Designee: Brian Golembiewski	Yes
 Philip T. Ashton	Abstained
 Daniel P. Lynch, Jr.	Yes
 James J. Murphy, Jr.	Yes
 Dr. Barbara Currier Bell	Yes
 Edward S. Wilensky	Yes

Dated at New Britain, Connecticut, April 23, 2009.



Daniel F. Caruso
Chairman

STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051

Phone: (860) 827-2935 Fax: (860) 827-2950

E-Mail: siting.council@ct.gov

Internet: ct.gov/csc

May 6, 2009

TO: Classified/Legal Supervisor
369081209
Norwich Bulletin
66 Franklin Street
Norwich, CT 06360

FROM: Jessica Brito, Office Assistant 

RE: **DOCKET NO. 369** - Celco Partnership d/b/a Verizon Wireless application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance and operation of a telecommunications facility located off Sherman Road, Woodstock, Connecticut.

Please publish the attached notice as soon as possible, but not on Saturday, Sunday, or a holiday.

Please send an affidavit of publication and invoice to my attention.

Thank you.

JB



Daniel F. Caruso
Chairman

STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051

Phone: (860) 827-2935 Fax: (860) 827-2950

E-Mail: siting.council@ct.gov

Internet: ct.gov/csc

NOTICE

Pursuant to General Statutes § 16-50p (d), the Connecticut Siting Council (Council) announces that, on April 23, 2009, the Council issued Findings of Fact, an Opinion, and a Decision and Order approving an application from Cellco Partnership d/b/a Verizon Wireless for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance and operation of a telecommunications facility located off Sherman Road, Woodstock, Connecticut.

This application record is available for public inspection in the Council's office, Ten Franklin Square, New Britain, Connecticut



Daniel F. Caruso
Chairman

STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051

Phone: (860) 827-2935 Fax: (860) 827-2950

E-Mail: siting.council@ct.gov

Internet: ct.gov/csc

May 6, 2009

Kenneth C. Baldwin, Esq.
Robinson & Cole LLP
280 Trumbull Street
Hartford, CT 06103-3597

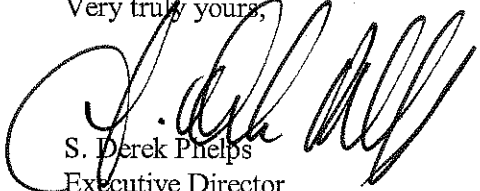
RE: **DOCKET NO. 369** - Cellco Partnership d/b/a Verizon Wireless application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance and operation of a telecommunications facility located off Sherman Road, Woodstock, Connecticut.

Dear Attorney Baldwin:

By its Decision and Order dated April 23, 2009, the Connecticut Siting Council (Council) granted a Certificate of Environmental Compatibility and Public Need (Certificate) for the construction, maintenance and operation of a telecommunications facility located off Sherman Road, Woodstock, Connecticut.

Enclosed are the Council's Certificate, Findings of Fact, Opinion, and Decision and Order.

Very truly yours,


S. Derek Phelps
Executive Director

SDP/MP/jb

Enclosures (4)

c: Sandy Carter, Verizon Wireless



STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

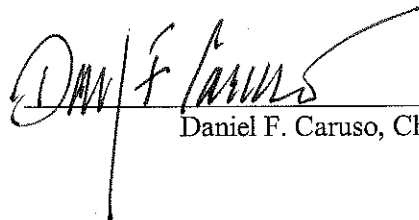
Ten Franklin Square, New Britain, CT 06051
Phone: (860) 827-2935 Fax: (860) 827-2950
E-Mail: siting.council@ct.gov
www.ct.gov/csc

CERTIFICATE
OF
ENVIRONMENTAL COMPATIBILITY AND PUBLIC NEED
DOCKET NO. 369

Pursuant to General Statutes § 16-50k, as amended, the Connecticut Siting Council hereby issues a Certificate of Environmental Compatibility and Public Need to Celco Partnership d/b/a Verizon Wireless for the construction, maintenance and operation of a telecommunications facility located off Sherman Road, Woodstock, Connecticut.

This Certificate is issued in accordance with and subject to the terms and conditions set forth in the Decision and Order of the Council on April 23, 2009.

By order of the Council,



Daniel F. Caruso, Chairman

April 23, 2009