STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

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Daniel F. Caruso
Chairman

November 6, 2007

TO: Parties and Intervenors

FROM: S. Derek Phelps, Executive Director

RE: **DOCKET NO. 338** – Sprint Nextel Corporation application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance and operation of a telecommunications facility located at 160 West Street, Cromwell, Connecticut.

As stated at the hearing in Cromwell on September 20, 2007, after the 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 Connecticut Siting Council on the Draft Findings of Fact issued on this docket by November 21, 2007.

SDP/laf

Enclosure

Date: September 21, 2007

LIST OF PARTIES AND INTERVENORS
SERVICE LIST

Status Granted	Status Holder (name, address & phone number)	Representative (name, address & phone number)
Applicant	Sprint Nextel Corporation	Thomas J. Regan, Esq. Brown Rudnick Berlack Israels LLP CityPlace I, 185 Asylum Street Hartford, CT 06103 (860) 509-6522 (860) 509-6501 fax tregan@brownrudnick.com
	Cellco Partnership d/b/a Verizon Wireless	Kenneth C. Baldwin, Esq. Robinson & Cole LLP 280 Trumbull Street Hartford, CT 06103-3597 (860) 275-8200 (860) 275-8299 fax kbaldwin@rc.com

DOCKET NO. 338 – Sprint Nextel Corporation application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance and operation of a telecommunications facility located at 160 West Street, Cromwell, Connecticut.	}	Connecticut Siting Council November 6, 2007

DRAFT Findings of Fact

Introduction

1. Sprint Nextel Corporation (Sprint) in accordance with provisions of General Statutes §§ 16-50g through 16-50aa, applied to the Connecticut Siting Council (Council) on May 23, 2007 for the construction, operation, and maintenance of a wireless telecommunications facility located at 160 West Street, Cromwell, Connecticut. (Sprint 1, p. 3)

2. Sprint is a Delaware corporation with its principal office in Mahwah, New Jersey. (Sprint 1, p. 3)

3. The party in this proceeding is the Applicant. The intervenor is Cellco Partnership d/b/a Verizon Wireless (Verizon). (Transcript 1 – 09/20/07, 4:00 p.m. [Tr. 1], p. 5)

4. The purpose of the proposed facility is to provide wireless service to Routes 3, 9, 99 and 372 in the Cromwell/Middletown area. (Sprint 1, p. 5, Tab 9)

5. Pursuant to General Statutes § 16-50m, the Council, after giving due notice thereof, held a public hearing on September 20, 2007, beginning at 4:00 p.m. and continuing at 7:00 p.m. at the Cromwell Town Hall, Cromwell, Connecticut. (Council's Hearing Notice dated August 10, 2007; Tr. 1, p. 3; Transcript 2 – 09/20/07, 7:00 p.m. [Tr. 2], p. 3)

6. The Council and its staff conducted an inspection of the proposed site on September 20, 2007, beginning at 3:00 p.m. The applicant flew a balloon from 12:00 p.m. to 6:00 p.m. at the site to simulate the height of the proposed tower. The balloon reached the desired height of 80 feet above ground level (agl). (Tr. 1, pp. 65-66)

7. Notice of the application was sent to all abutting property owners by certified mail. Public notice of the application was published in the Hartford Courant on December 27, 2006 and January 4, 2007, and in The Middletown Press on December 26, 2006 and January 3, 2007. (Sprint 1, Tab 3)

8. Sprint installed a six-foot by four-foot sign describing the proposed project and the hearing date/location at the entrance to the property on September 4, 2007. (Sprint 1, p. 21; Tr. 1, p. 66)

9. Pursuant to CGS § 16-50l (b), the Applicant provided notice to all federal, state and local officials and agencies listed therein. (Sprint 1, Tab 5)

State Agency Comment

10. Pursuant to General Statutes § 16-50j (h), on August 10, 2007 and September 21, 2007, the following State agencies were solicited 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)

11. No responses were received from the respective State agencies. (Record)

Municipal Consultation

12. Sprint submitted a technical report describing the proposed project to the Town of Cromwell on September 7, 2007. The City of Middletown, approximately 2,400 feet south of the site, was also notified of the project on September 7, 2007. Sprint, in accordance with CGS § 16-50l (b), is required to notify all municipalities within 2,500 feet of the site. (Sprint 1, p. 9)

13. Sprint representatives met with the Cromwell Town Planner, Craig Minor, on November 2, 2006 to discuss the project. Mr. Minor subsequently discussed the project with the Cromwell Planning and Zoning Commission. (Sprint 1, p. 9)

14. The Town of Cromwell and the City of Middletown did not comment on the proposal. (Sprint 1, p. 9)

15. The First Selectman of the Town of Cromwell, Paul Beaulieu, made a limited appearance statement into the record at the September 20, 2007 hearing stating the Town does not have an objection to the proposal. (Tr. 1, p. 9)

Public Need for Service

16. 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)

17. 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. Sprint is licensed by the FCC to provide wireless service in Connecticut. (Council Administrative Notice Item No. 7; Sprint 1, p. 3)

18. The Telecommunications Act of 1996 prohibits local and state entities from discriminating among providers of functionally equivalent services. (Council Administrative Notice Item No. 7)

19. 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)

Site Selection

20. Sprint established a search ring for the target service area in June of 2003. The search ring covered two separate areas of high ground east and west of Route 9. (Sprint 2, Q. 3)

21. Before selecting the site, Sprint searched for tall buildings, existing towers, utility transmission structures or other structures to locate telecommunications equipment. No such structures were identified in the search area. The nearest existing tower facility to the site is a 170-foot lattice tower approximately 1.26 miles to the north. Another tower facility, a 125-foot monopole, is located approximately 1.9 miles to the south. Neither facility provides Sprint or Verizon adequate coverage to the target service area. (Sprint 1, Tab 9; Verizon 1, Q. 4)

22. A church at the corner of West Street and Hicksville Road, 0.1-mile from the site, was not considered since Cingular is already utilizing the steeple. The steeple is small and has space limitations for additional equipment. Sprint did not consider erecting a tower facility at this location. (Tr. 1, pp. 24-25)

23. After determining there were no viable structures within the search area, Sprint searched for properties suitable for tower development. Sprint investigated five parcels and selected one for tower development. The four rejected parcels and reasons for their rejection are as follows:
    a) Highridge Road/Patricia Lane – condominium association not interested;
    b) 80 Shunpike Road – owner not interested, other property development plans;
    c) 154 West Street – owner not interested, property too small; and
    d) 159 West Street – owner not interested.

    (Sprint 1, p. 8)

Site Description

24. The proposed site is located on a 3.53-acre parcel at 160 West Street in Cromwell. The property, owned by One-Sixty West Street LLC, is developed with two single-story office buildings. (Sprint 1, p. 9)

25. The property is zoned for business. (Sprint 1, p. 9)

26. The proposed tower site is located in a lawn and paved area in the northwest corner of the parcel, adjacent to a row of pine trees along the north property line. (Sprint 1, pp. 9; 17, Tab 7; Tr. 1, p. 65; Tr. 2, p. 12)

27. Abutting property includes a residential neighborhood to the north, an undeveloped, wooded parcel to the west, an office building to the east, and existing residences and a residential development under construction to the south (refer to Figure 1). (Sprint 1, Tab 7; Tr. 1, pp. 28, 30, 67)

28. The tower site is located at an elevation of 132 feet above mean sea level (amsl). (Sprint 1, Tab 7)

29. Sprint proposes to construct an 80-foot monopole, designed as a flagpole, at the site. (Sprint 1, p. 11)

30. The flagpole would have a base diameter of 36 inches tapering to 30 inches at the antenna mounting locations. RF transparent material would conceal the antennas. (Tr. 1, pp. 8, 16-17, 58)

31. The flagpole would be designed to support three levels of antennas. Sprint would install three panel antennas at the 75-foot level and three panel antennas at the 69-foot level. Verizon would install three panel antennas at the 59-foot level of the tower. (Sprint 1, p. 11; Verizon 1, Q. 3)

32. The tower could not accommodate additional antennas or a third carrier due to limited space for additional cables within the flagpole. (Tr. 1, pp. 33-36)

33. The Town of Cromwell would consider using the tower for future safety communication antennas but, at present, considers the proposed site as not critical to the needs of the Town's safety services.

34. Typically, safety service antennas are of a whip design. A whip antenna could be mounted on the top of the tower but not within the flagpole itself. A whip antenna could be problematic since the flag could possibly be blown upward and wrap around the whip antenna. (Tr. 1, pp. 9, 43, 47-48, 54, 58-61)

35. In accordance with the lease agreement, a 12-foot by 20-foot flag would be flown from the pole. (Tr. 1, pp. 10, 17, 22)

36. Sprint intends to maintain the flag in accordance with the United States Flag Code, including provisions regarding lighting or lowering the flag. Sprint prefers not to light the flag due to the proximity of an adjacent residential neighborhood. If the flag were not lit, it would have to be lowered each night; Sprint has not determined who would be responsible for this task. If the flag were lit, it would be illuminated from three directions by lights placed 12 to 15 feet from the center of the pole. (Tr. 1, pp. 19-23)

37. The flag would not interfere with radio frequency characteristics under dry conditions. A wet flag that wraps around the pole could cause a signal loss of 2 to 3 dB. (Tr. 1, pp. 19-22)

38. Sprint would be willing to construct an 80-foot monopole designed as a pine tree at the site. The landowner is amenable to this design. (Tr. 2, pp. 8, 9, 14)

39. A pine tree design would allow for greater flexibility in antenna configurations and network growth. Sprint would only need one antenna height on the tower rather than two, as necessitated by the flagpole design. This would allow Verizon to move up 10 feet higher on the monopole, increasing coverage by 2 to 3 dB. A third carrier could locate below Verizon or possibly above Sprint if the tower was extended in the future. A tree design also allows for placement of a whip antenna with few mounting issues. (Tr. 2, pp. 12-13, 25)

40. A tree design would eliminate issues relating to lighting or daily lowering of the flag. (Tr. 2, p. 9)

41. A tree design in this location would be consistent with the surrounding landscape. Pine trees in this area could attain heights of 70 to 90 feet. The pine trees along the north property boundary, adjacent to the site, are approximately 45 feet in height and could reach 70 to 80 feet in 20 to 25 years. (Tr. 2, pp. 10-11)

42. The proposed tree tower would extend above the existing treeline by 30 to 35 feet. (Tr. 2, p. 12)

43. Sprint proposes to construct a 30-foot by 54-foot equipment compound at the base of the tower (refer to Figure 2). An eight-foot high stockade fence would enclose the compound. Within the compound, Sprint would install a 12-foot by 20-foot equipment shelter with a brick façade to match the existing office buildings on the property. Verizon would also place an equipment shelter within the compound and would be willing to install a brick façade. (Sprint 1, p. 12; Tr. 2, p. 26-27)

44. Sprint would be willing to construct a single building to house Sprint and Verizon's equipment. (Tr. 1, p. 62)

45. Access to the site would be from an existing parking lot serving the office buildings. The parking lot is accessed from the north side of West Street. (Sprint 1, Tab 7)

46. Underground utilities would service the site. The utilities would be installed along a lawn area on the west side of the existing parking lot. (Sprint 1, Tab 7)

47. The nearest abutting property to the tower site is approximately 30 feet to the west, owned by Stephen Chenock, Jr., et al. The southwest corner of the compound would be three feet from the property line. (Sprint 1, Tab 7)

48. There are 41 residences within a 1,000-foot radius of the tower site. (Sprint 2, Q. 8)

49. The nearest residence to the proposed tower site is approximately 145 feet to the north, owned by Mary Ann Davis. (Sprint 1, Tab 7)

50. Land use within a quarter-mile of the site is primarily residential with some commercial uses along Route 372. Route 9 is located west of the site. A church is located to the southeast. (Sprint 1, p. 10; Tr. 1, 24-25)

51. The estimated cost of construction, excluding Verizon's equipment, is:

a.	Flagpole tower	30,000.
b.	Foundation	30,000.
c.	Site work	15,000.
d.	Utilities	20,000.
e.	Radio equipment/antennas	90,000.
	Total estimated cost	$185,000.

(Sprint 1, Tab 8; Sprint 2, Q. 6)

Environmental Concerns

52. The proposed facility would have no effect on historic, architectural, or archaeological resources listed on or eligible for the National Register of Historic Places. (Sprint 1, Tab 14)

53. The proposed site contains no known existing populations of Federal or State Endangered, Threatened or Special Concern Species. (Sprint 1, p. 24)

54. Construction of the site would not require the removal of any trees. (Sprint 1, Tab 7)

55. Construction of the site would not impact any wetlands or watercourses. No wetlands were identified on the property. The nearest wetland is is approximately 225 feet west of the site. (Sprint 1, p. 16)

56. The tower would not be an aviation hazard. (Sprint 2, Q. 12)

57. The cumulative maximum power density from the radio frequency emissions of the proposed Sprint and Verizon antennas is calculated to be 30.75 % of the standard for Maximum Permissible Exposure, as adopted by the FCC, at the base of either 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. (Sprint 1, Tab 13; Verizon 1, Q. 3)

Visibility

58. The tower would be visible year-round above the tree canopy from approximately 112 acres within a two mile radius of the site (refer to Figure 3). This includes approximately 57 acres of tidal marsh along the Mattabessett River 1.8 miles south of the site, and 16 acres of parking lots associated with two shopping centers a half-mile west of the site. The tower would be seasonally visible from an additional 15 acres. (Sprint 1, Tab 12)

59. The upper half of the tower would be visible from the Highridge Road/Patricia Lane neighborhood immediately north of the site. Approximately 21 residential properties in this area would have year-round views of the tower. A majority of the 15 acres of seasonal visibility is within this neighborhood. (Sprint 1, Tab 12; Tr. 1, pp. 28-30)

60. The upper 20 to 40 feet of the tower would be visible from a new subdivision under construction south of the site. (Tr. 1, p. 30)

61. Approximately 75% of the tower would be visible from the West Street - Hicksville Road intersection area, 0.1 mile east of the site. Three residences on the south side of West Street and a church are present in this area. (Sprint 1, Tab 12; Tr. 1, pp, 28-29, pp. 64-65)

62. There are no hiking trails maintained by the DEP or the Connecticut Forest and Parks Association within a two-mile radius of the site. (Sprint 1, Tab 12)

63. Visibility of the tower from specific locations within a two-mile radius of the site is as follows:

Location	Visible	Approximate Portion of Tower Visible	Distance from Tower
Highridge Road neighborhood	Yes	40 feet – unobstructed	0.1 to 0.3 miles north
Patricia Lane cul-de-sac	Yes	15 feet – unobstructed.	0.1 miles north
Arrowhead Drive	Yes	At treeline	0.75 miles north
West Street - Washington Street intersection	Yes	50 feet – unobstructed.	0.1 miles east
Hicksville Road	Yes	60 feet – unobstructed.	0.1 miles south east
West Street	Yes	15 feet – unobstructed	0.5 miles west
Route 3 near Berlin Road	Yes	10 feet – unobstructed	0.5 miles southwest

(Sprint 1, Tab 12; Tr. 1, pp. 28-30)

Sprint - Existing and Proposed Wireless Coverage

64. Sprint proposes to operate Integrated Digital Enhanced Network (iDEN) equipment at this site. iDEN operates in the 800 MHz and 900 MHz frequencies. Although Sprint is licensed to operate in the 1900 MHz frequencies (PCS), Sprint does not propose to install PCS equipment at this site. (Sprint 2, Q. 5; Tr. 1, pp. 25-28)

65. Sprint is designing the site with a signal level threshold of -81 dBm for in-vehicle coverage and -71 dBm for in-building coverage. (Sprint 1, p. 12; Tr. 1, p. 12)

66. Sprint's existing signal level in the Routes 3, 9, 99 and 372 area is below -81 dBm to -91 dBm (refer to Figure 4). The dropped call rate at surrounding Sprint sites is 1.2% to 2.7%. Incomplete call attempts are not included in these statistics. (Sprint 1, Tab 9; Sprint 2, Q. 7)

67. Sprint proposes to install iDEN antennas at 75 feet and 69 feet agl. Coverage from the proposed site would adequately serve all major roads except for a 0.6-mile section of Route 99 east of the site (refer to Figure 5). (Sprint 1, Tab 9)

68. Lowering the height of the iDEN antennas to 65 feet and 59 feet agl would degrade coverage on Route 372 and residential neighborhoods east, and residential neighborhoods east and west of the site (refer to Figure 6). (Sprint 2, Q. 9)

Verizon - Existing and Proposed Wireless Coverage

69. Verizon proposes to operate 800 MHz (cellular) and PCS equipment at the site. Verizon proposes to install three dual band antennas at the 59-foot level of the flagpole tower. (Verizon 1, Q. 2, Q. 3)

70. Verizon is designing the site with a signal level threshold of -85 dBm. (Verizon 1, Q. 2)

71. The site would provide PCS service to coverage gaps on Routes 3, 9 and 372 in the south Cromwell area (refer to Figures 7 & 8) and cellular capacity relief to the surrounding area. (Verizon 1, Q. 1, Q. 4)

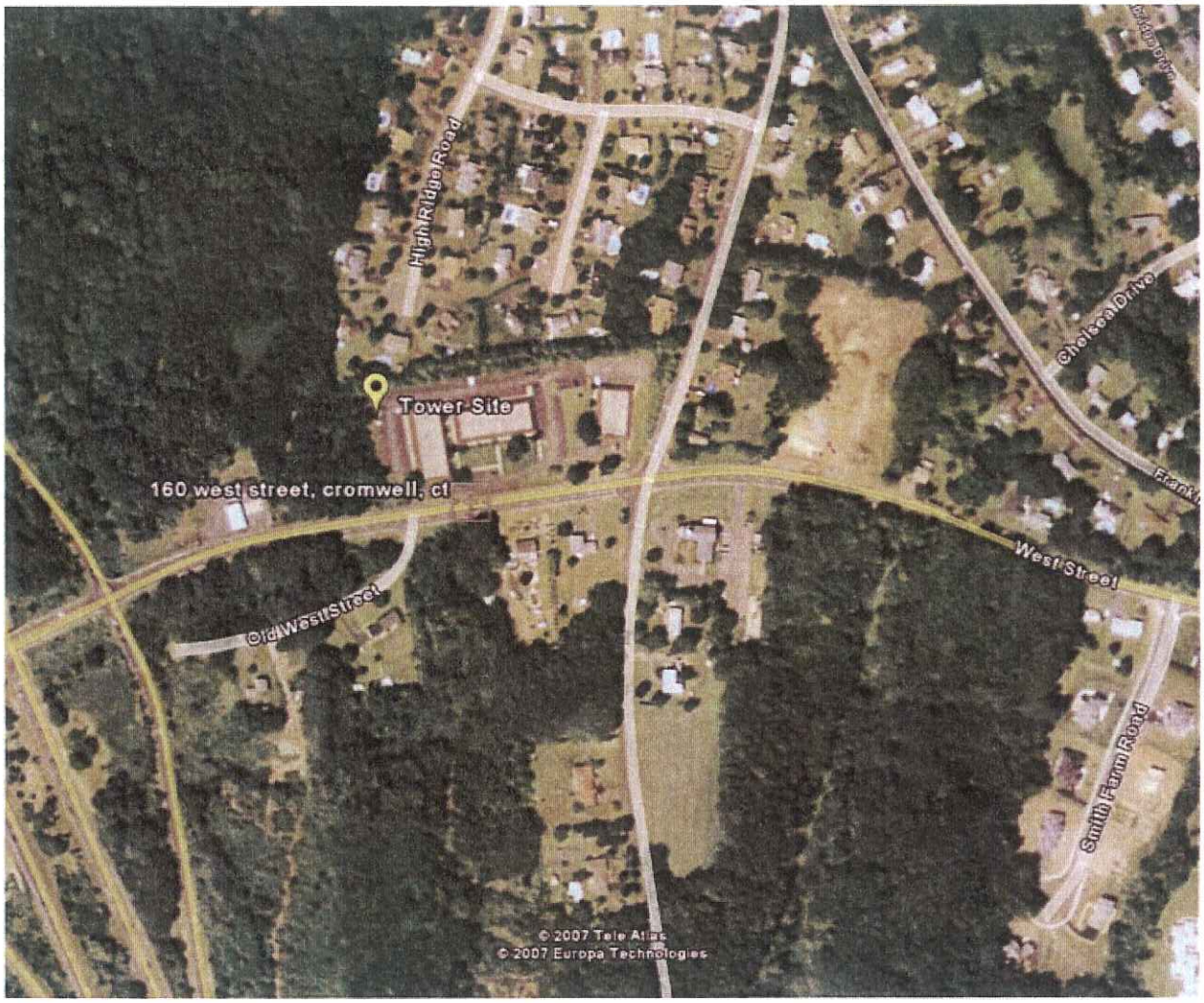

Figure 1: Location of the Site – 160 West Street, Cromwell.

(Sprint 1, Tab 1)

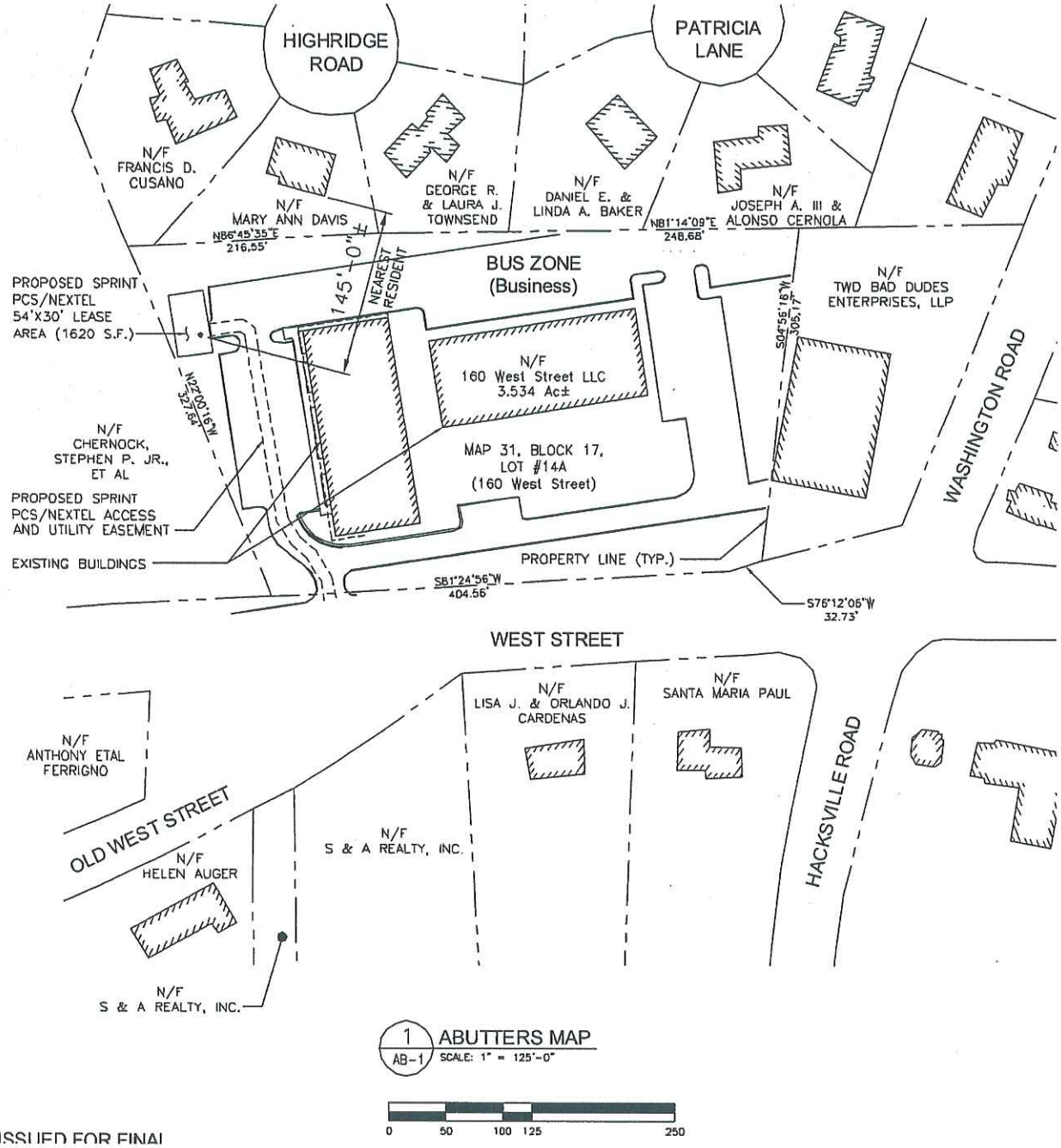

Figure 2: Site Plan

(Sprint 1, Tab 7)

Legend

- Proposed Tower Location (Includes area of visibility approximately 500 feet around facility)

Photos - May 4, 2006

- Balloon Visible Above Trees
- Seasonal Visibility (Approximately 15 acres)

Approx.. % of Flagpole Visible (Year-Round)

- Tree Line View - Upper 25% - 93 Acres
- 50% - 11 Acres
- 75% - 6 Acres
- Entire Facility - 2 Acres

(Sprint 1, Tab 12)

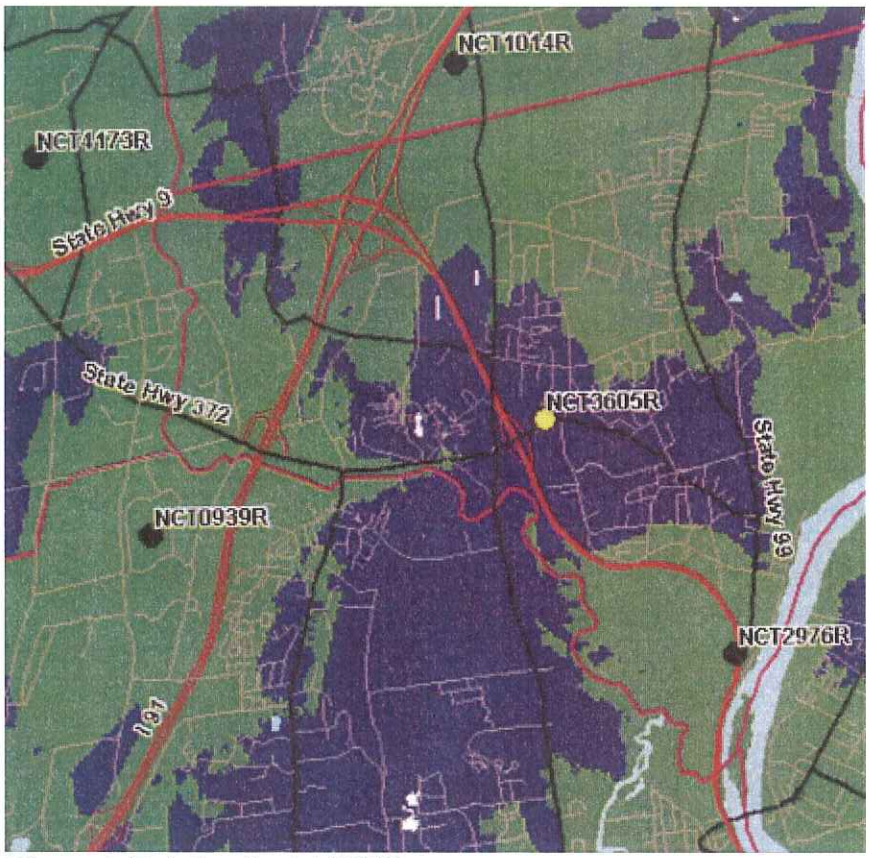

Figure 4: Existing Sprint iDEN coverage.

Blue:	**-91 dBm**
Green:	**-81 dBm**
Yellow:	**Site Location**

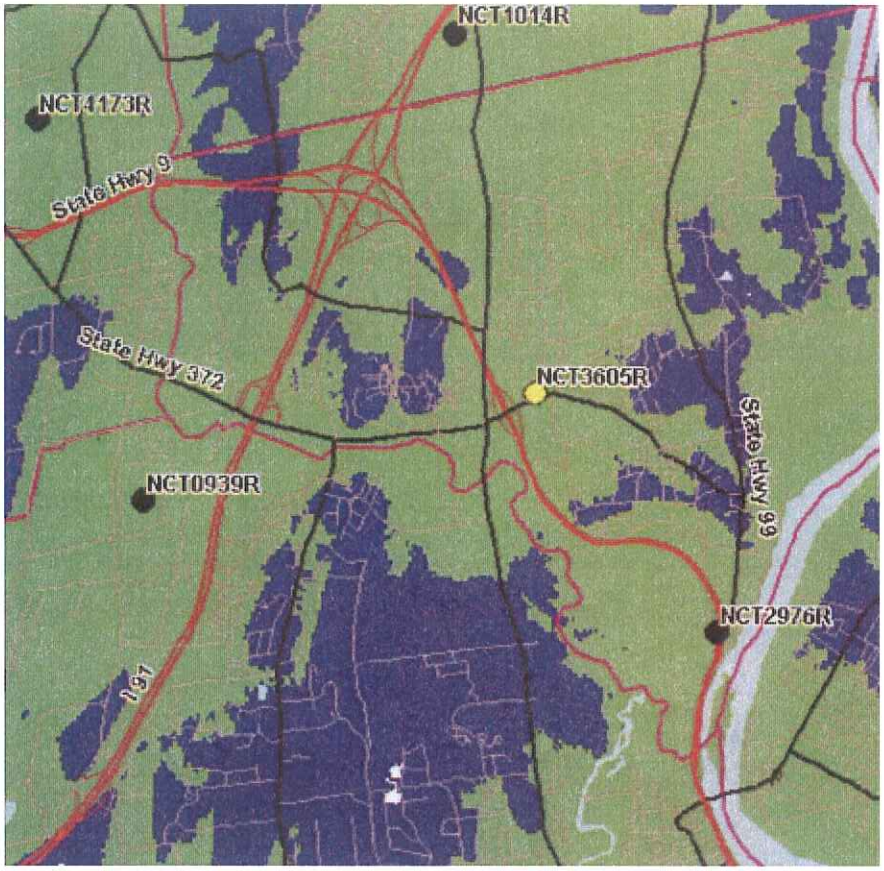

Figure 5: Proposed Sprint iDEN Coverage with antennas at 75 and 69 feet.
Blue: -91 dBm
Green: -81 dBm
Yellow: Site Location

(Sprint 1, Tab 9)

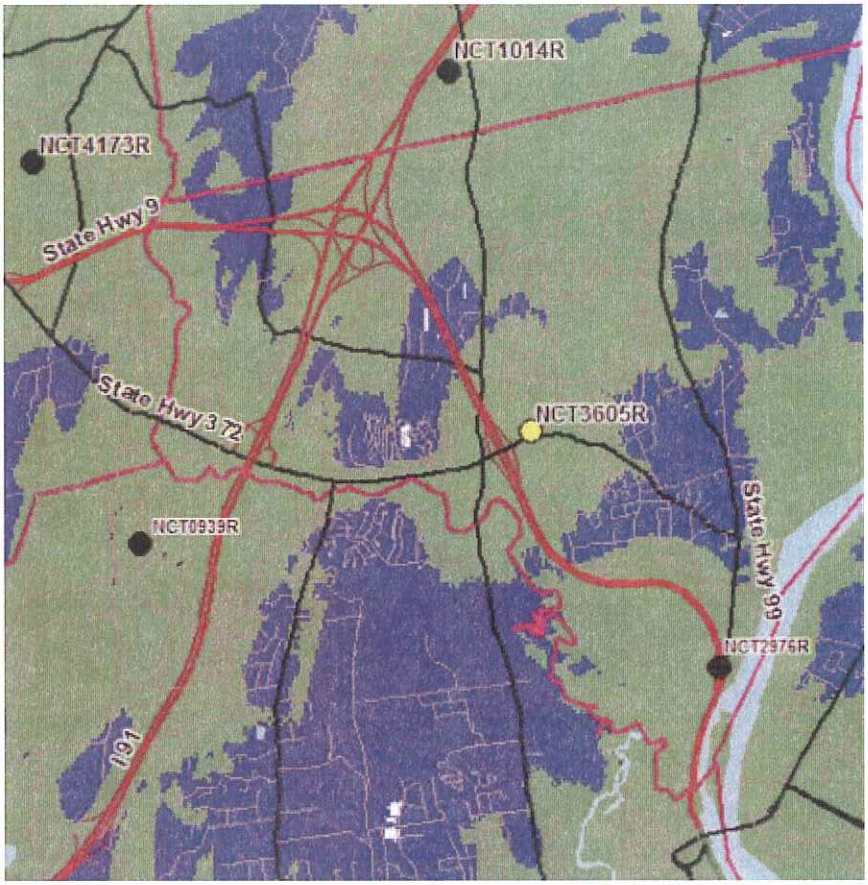

Figure 6: Proposed Sprint iDEN Coverage with antennas at 65 and 59 feet. A coverage gap occurs on Route 372 west of Route 99 and in residential areas north of Route 372.

Blue:	**-91 dBm**
Green:	**-81 dBm**
Yellow:	**Site Location**

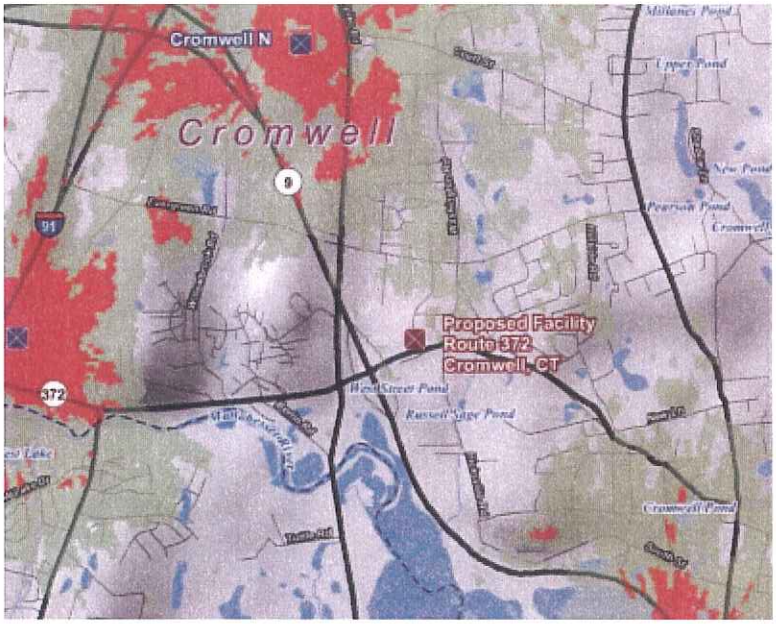

Figure 7: Verizon existing PCS coverage.

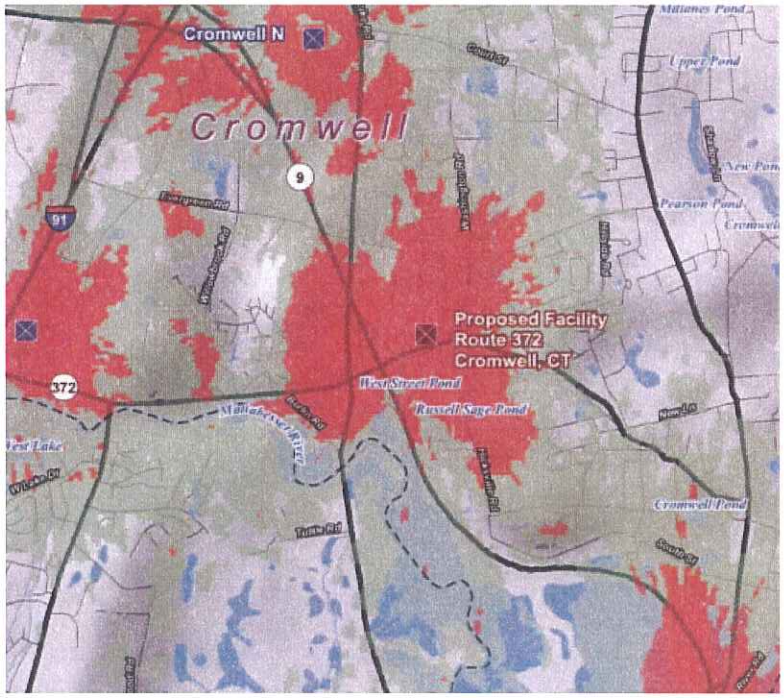

Figure 8: Verizon proposed PCS coverage with antennas at 59 feet.

(Verizon 1, Q. 4)