

DOCKET NO. 162 - An application of
 Springwich Cellular Limited Partnership : Connecticut ORIGINAL
 for a Certificate of Environmental :
 Compatibility and Public Need for : Siting
 the construction, maintenance, : Council
 and operation of a cellular :
 telecommunications facility located :
 on the grounds of South Kent School off :
 Bulls Bridge Road in Kent, Connecticut. : February 24, 1994

FINDINGS OF FACT

1. Springwich Cellular Limited Partnership (Springwich) in accordance with provisions of sections 16-50g through 16-50z of the Connecticut General Statutes (CGS) applied to the Connecticut Siting Council (Council) on October 15, 1993, for a Certificate of Environmental Compatibility and Public Need (Certificate) for the construction, operation, and maintenance of a telecommunications facility in the Town of Kent, Connecticut. The purpose of the facility would be to expand and improve cellular service in Litchfield County within the Litchfield Rural Service Area (RSA). (Springwich 1, p. 1)
2. Public notice of the application, as required by CGS section 16-501(b), was published in the Litchfield County Times on October 8, and 15, 1993; the Kent Good Times Dispatch, October 8 and 15, 1993; and the Waterbury Republican-American, October 7, and 8, 1993. (Springwich 1, Section 1, pp. 5-9)
3. Pursuant to CGS section 16-50m, the Council, after giving due notice thereof, held a public hearing on the application on December 16, 1993, beginning at 3:00 p.m., and reconvening at 7:00 p.m., in the Town Hall Meeting Room, Kent Town Hall, 41 Kent Green Boulevard, Kent, Connecticut. (Council Hearing Notice, p. 1)
4. The Council and its staff made an inspection of the proposed tower site on December 16, 1993. During the field inspection, Springwich flew a balloon at the tower site to simulate the height of the proposed 180-foot above ground level (AGL) tower. (Council Hearing Notice, p. 3; Transcript December 16, 1993 (Tr.), pp. 23, 68)
5. On May 16, 1991, Southern New England Telephone (SNET) Cellular received an operating license (Radio Station Authorization) from the Federal Communications Commission (FCC) to construct and operate cellular radio telecommunications sites in the Litchfield RSA, within which the Town of Kent is located. This license was subsequently transferred to Springwich, an unregulated subsidiary of SNET Cellular. Springwich currently operates four cellular sites in the Litchfield RSA. (Springwich 1, p. 4; Springwich 1, Section VI, p. 27; Springwich 2, p. 6; Springwich 3, Q. 7, pp. 2-5)

Need

6. The FCC has determined that there is a general public need for cellular service. Applicants for cellular licenses are not required to demonstrate a general public need for cellular service to state regulators. (Springwich 1, pp. 3-5; Springwich 1, Section III, p. 3)
7. The FCC has preempted state regulation of cellular telephone service in the areas of technical standards, market structure, and state certification prior to federal filing. (Springwich 1, Section III, p. 4)
8. Cellular service consists of low power transmitter/receiver stations known as cell sites. Cell sites cover a geographic area typically two to ten miles in diameter. The cellular service system design allows for the configuration of cell sites so that the same frequencies can be used at the same time in different cells (frequency reuse) and to provide uninterrupted service throughout a service area (hand-off). (Springwich 1, pp. 2, 3; Springwich 1, Section II, pp. 2, 3)
9. The FCC designates certain frequencies for wireline and non-wireline carrier use. Springwich, the wireline carrier, and the non-wireline carriers have each been allocated 25 MHz of frequency spectrum, which provides 416 two-way radio channels for each carrier. (Springwich 1, Section III, p. 3)

Cellular Coverage

10. The proposed Kent cell site location in Litchfield County would provide cellular coverage within the Litchfield RSA in accordance with Springwich's system design to provide additional and improved coverage to the Kent area. (Springwich 1, p. 5; Springwich 1, Section IV, p. 4; Springwich 1, Section VI, p. 1; Springwich 3, Q. 2, Q. 15)
11. Cellular coverage at the proposed 180-foot height would provide coverage to sections of Routes 7, 37, 39, 55, and 341; southern sections of Kent, Kent Center, northern New Milford, some sections of Sherman, and to portions of the Appalachian Trail. Coverage at this height would be marginal in Kent Center and approaching Kent Furnace to the north along Route 7. In the area southward of Kent Center and south of Gaylordsville, signal quality would deteriorate and holes in coverage would exist along Route 7 approaching New Milford. Calls in this area are currently being dropped by Springwich's New Milford facility. The site would interconnect coverage with Springwich's existing facility in New Milford. (Springwich 1, p. 5; Springwich 1, Section IV, p. 4; Springwich 1, Section VI, p. 1; Springwich 3, Q. 2, Q. 15; Tr. pp. 32-34)

12. Extending the height of the proposed tower to 197 feet with the top of the directional antennas at 199 feet would marginally improve cellular coverage in areas north of Kent Center and west of Route 7 in higher elevations of northern Kent, east of Route 7 in Flanders, east of Birch Hill and south Kent, along Route 7 in Gaylordsville, in areas of New Milford, and in the center of Sherman along sections of Route 30. (Springwich 3, Q. 2; Springwich Late File 10; Tr. pp. 68-70)
13. At a height reduced to 150 feet, cellular coverage would be diminished by about 0.5 mile on Route 7, enough to lose Kent Center; 0.5 mile north of Merwinsville and 0.25 mile at Merwinsville; 0.5 mile south of Gaylordsville along Route 7; 0.5 mile along Route 341 southeast of the center of Kent; and throughout the center of Sherman. (Springwich 7, Q. 2; Tr. pp. 35-37, 43-44)
14. Based on future coverage, Springwich may need to construct another cellular facility in the Gaylordsville to Boardman Bridge area south of Kent Center and north of New Milford to improve coverage along Route 7. (Tr. pp. 35-37, 63, 68)

Proposed Facility

15. Springwich would construct a 180-foot, self-supporting monopole steel tower supporting an approximately ten-foot wide, triangular antenna platform mounted at the top. The antenna platform would support nine, flat, rectangular-panel directional antennas, each approximately 1.0-foot by 3.5 feet in size, and one 17-foot high whip paging antenna. One transmitting antenna for radio station WGSK would be attached approximately 40 feet AGL. (Springwich 1, Section V, pp. 3, 5, 8, 9; Springwich 3, Q. 5; Tr. pp. 46-49)
16. The height of the tower and antenna structure would be approximately 197 feet AGL. (Springwich 1, Section V, p. 3; Springwich 1, Section VI, p. 28; Tr. p. 46)
17. No microwave antennas would be mounted on the proposed tower. (Tr. pp. 38, 39)
18. The monopole would be designed to EIA-RS-222E specifications to withstand 100 mph winds while covered with one-half inch of radial ice. (Springwich 1, Section V, p. 4).
19. On May 13, 1993, Springwich requested the Federal Aviation Administration (FAA) for approval to construct the proposed tower. The FAA determined the proposed tower would not be an obstruction to air navigation and would not require obstruction marking or lighting. Springwich would not install lights on the tower. (Springwich 1, p. 4; Springwich 1, Section VI, pp. 27, 28; Tr. p. 122)

20. The FAA Determination of No Hazard to Air Navigation for construction of the proposed tower expires on March 15, 1994. (Springwich 1, Section VI, p. 28)
21. Springwich would construct a 12-foot by 26-foot single story modular equipment building faced with a textured finish. Security and fire alarms would be installed inside the building. The building and tower would be surrounded by an eight-foot high, 60-foot by 70-foot chain link security fence. (Springwich 1, Section V, pp. 1, 2, 6-8; Springwich 1, Section VI, p. 17; Springwich 3, Q. 4 Attachment)
22. Access to the site would be from an approximately 2,200-foot long by 12-foot wide gravel driveway, constructed from Bulls Bridge Road across South Kent School land. The driveway would follow existing pathways bordering several open fields. Three 14-foot wide gates would be installed, one at the entrance of the driveway, a second about 650 feet from the entrance, and a third in the chain link fence enclosing the proposed tower site. (Springwich 1, Section VI, pp. 8, 11, 12, 15; Springwich 3, Q. 4 Attachment; Tr. p. 24)

Proposed Site

23. The proposed site is a leased 100-foot by 100-foot parcel on land owned by the South Kent School in Kent. The site is located approximately 1,200 feet north of Bulls Bridge Road (Route 130) and about 2,400 feet east of the intersection of Spooner Hill Road and Route 130. (Springwich 1, Section VI, pp. 2, 4-6, 8, 12, 28; Springwich 3, Q. 3)
24. The proposed site is located on an elevated section of the South Kent School property at the corner of an actively cultivated corn field. The site is bordered to the south and east by stands of mature trees and by open fields to the north and west. The proposed site is zoned Rural Residential (RU40) and has a maximum elevation of 784 feet above mean sea level (AMSL). (Springwich 1, Section VI, pp. 8, 11, 12, 15)
25. The topography of the proposed tower site varies from 778 feet to 784 feet AMSL. Some surface disruption would be necessary to accommodate construction of the tower and equipment building.

Following construction, the site would be graded to blend with the surrounding topography. Areas disturbed by construction activities would be stabilized or reseeded to prevent erosion. (Springwich 1, Section VI, pp. 16, 17)
26. The proposed driveway would rise over its length from 652 feet AMSL to 784 feet AMSL. To control off-site erosion, Springwich would use erosion and sedimentation control techniques, such as spreading hay mulch on loose soil and temporarily placing

staked hay bales or other sediment barriers to minimize sediment transport. All construction would be performed in accordance with the State of Connecticut Guidelines for Soil Erosion and Sediment Control. (Springwich 1, Section VI, pp. 16, 17; Tr. p. 24)

27. No trees would be removed to construct the proposed tower facility. Approximately 200 feet of tree trimming and brush removal would be performed to construct the access road. (Springwich 1, Section VI, p. 15; Springwich 3, Q. 4 Attachment; Tr. pp. 23, 24)
28. Electric and telephone utility lines would be buried from Bulls Bridge Road along the driveway to the proposed cell site. A connecting cable for radio station WGSK's antenna would be entrenched from the radio station building to and then within the roadway containing the Springwich utility lines. (Springwich 1, Section VI, p. 15; Springwich 3, Q. 4 Attachment, Q. 13; Springwich 8, Q. 4, p. 11; Tr. p. 26)
29. The nearest residence is located on private property about 900 feet west of the proposed tower. (Springwich 3, Q. 6)
30. The tower's fall zone would lie entirely within South Kent School property and would only encompass Springwich's proposed equipment building. (Springwich 3, Q. 6, p. 2)

Environmental Effects

31. The proposed cell site would initially transmit on 15 voice channels at a maximum of 100 watts per channel. The facility would have the capability to expand to 56 voice channels. (Springwich 1, Section VI, p. 23; Springwich 7, Q. 5)
32. The Connecticut power density standard in effect at the submission of the application for the frequencies used by cellular antennas is 2.9333 mW/cm^2 . With the proposed Springwich cellular antennas' centerline at 182 feet AGL and with 56 voice channels operating at 100 watts per channel, the maximum power density at the site fence 40 feet from the base of the proposed tower would be 0.09062 mW/cm^2 . This represents 15.46 percent of the 1992 American National Standards Institute (ANSI) standard of 0.58666 mW/cm^2 for non-ionizing radiation emissions operating in the 870-890 megahertz bands. (Springwich 1, Section IV, p. 8; Springwich 1, Section VI, p. 23; Tr. pp. 26, 27, 50)
33. Electrical service to the proposed site would keep batteries charged to run the cellular equipment. No emergency generator would be permanently installed on the proposed site. During electrical power outages, cellular service would continue to be

provided by the system's batteries and an alarm sent to Springwiche's Meriden switching office. A portable gasoline-powered electrical generator would be brought to the site to supply electricity to charge the batteries during extended power failures. (Springwiche 1, Section VI, pp. 17, 18; Springwiche 3, Q. 11, Letter to William R. Tobin, Jr. dated August 10, 1993, pp. 8, 9; Tr. pp. 65, 66)

34. During normal operations, no air pollutants would be emitted from the physical structures on the site. Noise emanating from the site would be temporary and created by construction work and from an air conditioning unit during facility operation. (Springwiche 1, Section VI, pp. 17, 18; Springwiche 3, Q. 11, Letter to William R. Tobin, Jr. dated August 10, 1993, pp. 8, 9)
35. There are no inland wetlands in the immediate vicinity of the proposed site or access road. The nearest wetland is about 2,000 feet northeast of the site. (Springwiche 3, Q. 1 - Town of Kent Soil Survey Map, Q. 6, Q. 9)
36. There are no known extent populations of federal or State endangered and threatened species occurring at the proposed site. A Connecticut Species of Special Concern, the Northern Saw-whet Owl (*Aegolius acadicus*), may nest in the area. The proposed project would not adversely impact the feeding or nesting areas of this species. (Springwiche 3, Q. 9)
37. The proposed cellular site in South Kent would have no direct impact on interests of the State Park and Recreation Program. (Springwiche 3, Q. 9, p. 15)
38. The proposed project would have no effect on any sites having historical significance in the Kent area. (Springwiche 1, Section VI, p. 22; Springwiche 3, Q. 10)
39. The tower would be visible from some locations outside the South Kent School property including an approximately eight-tenths of a mile section along South Kent Road. Springwiche does not expect the tower to be visible from Kent's business district. The Appalachian Trail (Trail) is located generally northwest of the site. The tower could be visible from sections of the Trail. (Springwiche 1, Section VI, pp. 5, 6, 19; Springwiche 3, Q. 9, 12, 19; Tr. pp. 39-43)
40. The tower would be painted a blue-gray color to reduce visibility and blend against the background of the sky. Visibility would also be reduced by stands of mature trees bordering the site on the east and south sides. Springwiche would landscape around the building and place shrubs where necessary to reduce the visual image of the site. (Springwiche 1, Section V, p. 2; Springwiche 1, Section VI, pp. 19, 30; Tr. p. 40)

41. Springwiche would construct the proposed facility in about six weeks and would have the facility ready for on-line operation about three weeks following construction. (Springwiche 1, Section VI, p. 25)

COSTS

42. Total estimated cost of construction to Springwiche for the proposed site would be:

Radio equipment	\$188,650.00
Antenna equipment and tower	72,000.00
Power and common equipment	178,775.00
Land and building	271,500.00
Miscellaneous	<u>80,000.00</u>
TOTAL	<u>\$790,925.00</u>

Alternative Locations

43. Springwiche determined no existing towers were located within the 1.2 mile radius Kent cell site search area. Springwiche investigated three existing tower sites adjacent to the Kent cell site search area and rejected each for inadequate and limited coverage, principally of Route 7. Several other locations including a site in Spooner Hill Estates, a hill called "The Cobble", sections of Segar Mountain and Bull Mountain, a site off Gay Road, and several ridge tops along the New York border, were considered and rejected for reasons of inaccessibility, local opposition, signal blockage, inadequate coverage, and proximity to a residential subdivision. (Springwiche 1, Section VI, pp. 3-7; Tr. pp. 13, 14)
44. Springwiche did not propose an alternate tower site because the landowner, Town of Kent officials, community leaders, and civic groups supported the construction of a Springwiche cellular facility on the grounds of the South Kent School. (Springwiche 1, Section VI, p. 2; Springwiche 3, Q. 14; Town of Kent Letter, dated December 8, 1993; Town of Kent Planning and Zoning Commission Letter, dated December 17, 1993; Tr. pp. 120, 121, 209-214)
45. The Board of Selectmen of the Town of Kent supports the application of SNET Cellular for the construction, maintenance, and operation of a cellular service in the Litchfield RSA on property owned by South Kent School. (Letter, dated December 8, 1993; Tr. p. 121)
46. The Kent Planning and Zoning Commission has no objection to the site proposed for the Springwiche cellular facility. (Letter, dated December 17, 1993)

Tower Sharing

47. Springwich's policy regarding tower sharing with common carriers (competitors) is for a one-for-one swapping of towers to improve coverage, expand cellular service, and avoid the construction of additional towers. Springwich has shared ten sites with Bell Atlantic Metro Mobile, five owned by Springwich and five owned by Metro Mobile. Springwich shares 24 of the 39 towers it owns with other parties. (Tr. pp. 15-20, 74, 75, 77, 196-198, 202-208)
48. Springwich is willing to share the proposed tower with a third party, including Litchfield County Cellular, Inc. (LCC), upon agreement of appropriate terms, conditions, and prices. (Springwich 3, Q-11, Letter to William R. Tobin, Jr., dated August 10, 1993, p. 9; Tr. pp. 15, 16)
49. The present design of the proposed Springwich tower site includes space or capacity for a third party's cellular antenna co-located 10 to 20 feet below the Springwich antenna array. Such an antenna arrangement would be necessary to prevent co-interference with each company's cellular operations. (Tr. pp. 53-56)
50. Springwich and LCC have an existing generic tower swapping and sharing agreement (Agreement), dated September 30, 1992, negotiated prior to the passing of Public Act 93-268 which became effective on October 1, 1993. The Agreement to potentially swap towers does not prevent Springwich and LCC from entering into other agreements to share towers. (Tr. pp. 22, 82-84) (Springwich 7, Q. 3; Tr. pp. 20-22, 78-83, 127, 180-182, 191, 192, 198-200, 202; Council's Docket No. 156, Finding of Fact No. 1, No. 94)
51. LCC is licensed by the FCC to be the non-wireline cellular provider and competitor of Springwich in the Litchfield RSA. LCC has expressed interest in sharing the South Kent School proposed site with Springwich. LCC needs a cell site in Kent to provide cellular coverage to the Kent area. LCC investigated developing a cellular site on a hill in Kent called "The Cobble", which was later withdrawn. (LCC 1, Attachment Letter dated April 8, 1993; Tr. pp. 128, 129, 147, 148, 200-202; Council's Docket No. 156, Findings of Fact No. 10)
52. An LCC Kent facility would need to hand-off to a New Milford site to provide continuous coverage from LCC's only active facility located in Torrington. LCC does not currently possess a cellular facility in New Milford. (Tr. pp. 148, 155)
53. LCC is willing to share an existing tower, swap towers with Springwich, or lease space on a tower for fair consideration including the proposed 180-foot Kent tower. The proposed tower would be technically adequate for LCC's cellular needs even if LCC's antennas are not mounted at the top. (Tr. pp. 148, 157, 158, 163, 201)

54. In early summer of 1992, the South Kent School offered a potential tower site on its property to LCC as an alternative to "The Cobble" site. When the South Kent School learned that LCC's initial interest in developing the site as a cellular facility had ceased in the late summer of 1992, the site was offered to Springwich. (Springwich 8, Q. 4, p. 2; LCC 8, Q. 4, Letter to South Kent School, dated August 8, 1992; Tr. pp. 210-212)
55. On July 20, 1993, the South Kent School signed a lease with Springwich as tenant for the proposed tower site. The lease provides for subletting the tower and land. South Kent School would accept LCC as a sub-tenant of the tower site. (Springwich 8, Q. 9, pp. 8, 10; Tr. pp. 15, 16, 211-213, 215-217)
56. No state or local governmental agencies have indicated an interest in sharing the proposed Kent facility. (Springwich 7, Q. 4)