

DOCKET NO. 151 - An application of Springwich Cellular Limited Partnership for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance, and operation of a cellular telephone telecommunications tower, associated equipment, and building in the Town of Rocky Hill, Connecticut. The facility is proposed to be constructed on property owned by the Connecticut Light and Power Company (CL&P) located on West Street, adjacent to the CL&P substation at Exit 23 off Route 91.

Connecticut
Siting
Council

August 18, 1992

Findings of Fact

Introduction

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 March 20, 1992, for a Certificate of Environmental Compatibility and Public Need (Certificate) for the construction, operation, and maintenance of a telecommunications facility in the Town of Rocky Hill, Connecticut, to expand and improve cellular service in Hartford County within the Hartford New England County Metropolitan Area (NECMA). The proposed site would be within property owned by Connecticut Light and Power Company (CL&P) adjacent to the existing CL&P Rocky Hill Substation on West Street. (Springwich 1, Section I, p. 1)
2. Public notice of the application as required by CGS section 16-501(b) was published in the Hartford Courant and the Middletown Press on March 13 and 14, 1992. (Springwich 1, Section I, pp. 5 and 6)
3. Pursuant to CGS section 16-50m, after giving due notice thereof, the Council held a public hearing on the application on June 10, 1992, beginning at 3:00 P.M., and reconvening at 7:00 P.M., in Activity Room 1, Community Center, Church Street, Rocky Hill, Connecticut. (Council Hearing Notice, p. 1)
4. The Council and its staff made an inspection of the proposed site on June 10, 1992. (Council Hearing Notice, p. 3)

5. Pursuant to CGS 16-501(e), the Applicant provided a technical report to and consulted with public officials from the Town of Rocky Hill, Connecticut. (Springwich 1, Section VI, p. 29; Springwich 2; Springwich 5, Q. 15, Attachment pp. 3, 4)
6. On December 21, 1984, the Southern New England Telephone Company (SNET) received an operating license (radio station authorization) from the Federal Communications Commission (FCC) to construct and operate cellular telephone telecommunications facilities in the Hartford NECMA within which the Town of Rocky Hill is located. This license has subsequently been transferred to Springwich. (Springwich 1, Section I, p. 3; Springwich 1, Section VI, p. 27)
7. Radio station authorization from the FCC for the cell site in this application will be applied for by Springwich if a Certificate is granted in this application by the Council. (Springwich 1, Section I, p. 3)
8. 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. In addition, the FCC has determined that there is a general public need for cellular service and applicants for cellular licenses are not required to demonstrate a general public need for cellular service to state regulators. (Springwich 1, p. 3; Springwich 1, Section III, pp. 3, 4)

Need

9. 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 and uninterrupted service can be provided throughout a service area (hand-off). (Springwich 1, pp. 2, 3; Springwich 1, Section II, pp. 2, 3)
10. The proposed Rocky Hill facility would provide improved cellular coverage to Interstate 91 (I-91), Routes 3, 9, 15, 99, and 160, and the downtown area of Rocky Hill. The Rocky Hill facility would interconnect with existing adjacent facilities in Berlin, Portland, and Hartford (South) to provide hand-off and improved coverage to locations not presently served by these existing facilities. (Springwich 1, pp. 4, 5; Springwich 1, Section VI, pp. 1, 30; Springwich 5, Q. 1E; Springwich 6, Q. 24; Tr. 32-36, 81-91)

11. Areas along streets and roads, particularly in Rocky Hill, where coverages would be improved by service from the proposed facility, include:

Route 3	2.50 miles
Route 9	1.00 miles
Route 15	0.25 miles
Route 99	2.00 miles
Route 160	1.50 miles
Route I-91	4.50 miles

(Springwich 1, Section VI, p. 9; Springwich 5, Q. 1E, Springwich 6, Q. 24A)

12. The proposed Rocky Hill facility would also serve to relieve the Hartford (South) cell site, which handles overflow from the existing Hartford (Main) cell site, and occasionally experiences call blockage during peak calling hours. (Springwich 1, Section VI, p. 1)
13. The average and peak number of cellular calls experienced by the existing Hartford (South), Berlin, and Portland sites during March and April 1992, were as follows:

<u>Facility</u>	<u>Daily Average</u>	<u>Peak Hour</u>
Hartford (South)	8,234	815
Berlin	5,829	609
Portland	1,377	147

(Springwich 5, Q. 8)

14. The search area for the proposed facility contained approximately 750 acres (0.6 mile radius from the proposed site) and focused on the area near Exit 23 off I-91. Factors used by Springwich to determine a site location included a site of approximately one quarter acre in size, land availability, terrain, non-residentially used land, reasonable cost, and the need to cover specific areas in Rocky Hill without interference from other cell sites. (Springwich 1, Section VI, pp. 1-3; Springwich 5, Q. 4; Tr. 2, pp. 32-35)
15. No existing tower sites were within or adjacent to the proposed facility's search area. (Springwich 1, Section VI, p. 2; Springwich 3)

Tower and Antennas

16. A 100-foot self-supporting, steel monopole tower and an adjoining equipment building would be constructed on the proposed 50-foot by 70-foot tower site. The tower would be designed according to Electronic Industries Association Standard 222-D specifications to withstand 100 mile per hour (mph) winds with one half inch of radial ice. Without radial ice, the proposed tower could withstand 115 mph winds. The tower would be painted a blue-grey color to blend against the background of the sky. (Springwich 1, Section V, pp. 3, 4, 8; Springwich 1, Section VI, pp. 1, 4, 19, 22, 28; Springwich 5, Q. 11)
17. The tower would be designed to support a minimum of four and a maximum of six, 13-foot omni-directional whip antennas and one paging antenna on a triangular support structure. The antennas and support structure would add 20 feet to the overall tower height, making the total height of the proposed structure with all appurtenances 120 feet above ground level. (Springwich 1, Section V, pp. 3, 5; Springwich 1, Section VI, p. 20)
18. The fall zone of the proposed tower would lie entirely within CL&P's property which would remain undeveloped except for the proposed tower and Springwich's proposed equipment building. (Springwich 1, Section V, p. 4; Springwich 5, Q. 1C Attachment)

Power Densities

19. The proposed site would be a sectorized cell site using 45 cellular channels operating at 100 watts of effective radiated power, and one paging channel. (Springwich 1, Section II, p. 2; Springwich 1, Section III, p. 4; Springwich 1, Section VI, p. 3)
20. The calculated electromagnetic radio frequency power density at the base of the proposed tower, assuming all channels are operating simultaneously at maximum allowable power, would be 0.29705 mW/cm^2 . The American National Standards Institute safe limit standard, as adopted by the State of Connecticut under CGS section 22a-162 for 880 MHz frequencies used by cellular facilities, is 2.933 mW/cm^2 . (Springwich 1, Section IV, pp. 8, 9; Springwich 1, Section VI, p. 23)

Site Description

21. The proposed tower site is a 50-foot by 70-foot parcel located approximately 450 feet east of Exit 23 off I-91 and 165 feet north of West Street, Rocky Hill, within 12 acres of land owned by CL&P. The site is adjacent to and about 200 feet south of CL&P's Rocky Hill Substation, which provides electric service to the area. The tower site is located in a wooded area of the substation site

and is 203 feet above mean sea level. (Springwich 1, Section VI, pp. 1, 5, 8, 11, 12, 14, 15, 22, 28, 31; Springwich 5, Q. 1C Attachment, Q. 10 Attachment)

22. The nearest CL&P electric line cable serving the Rocky Hill Substation is approximately 130 feet west and north of the proposed site, and outside of the tower's fall zone. Springwich considered the proximity of the electric cables, structures, and substation in determining the location of the proposed facility. The proposed site's location is in compliance with CL&P's restrictions for use of the property. (Springwich 5, Q. 1D Attachment; Springwich 6, Q. 27; Tr. 1, pp. 14-16)
23. Springwich has obtained a preliminary agreement with CL&P for use of the CL&P property off West Street, Rocky Hill, to lease the proposed site location and obtain a right-of-way for access off West Street. (Springwich 1, Section VI, p. 25; Springwich 6, Q. 23)
24. The proposed cell site is located in a R-20 Residential zoning district. The nearest residence is 300 feet east of the site within the Raintree Condominium Associates, Inc. residential complex. There are 78 residences and a 251 room motel within a 1000-foot radius circle of the proposed site. (Springwich 1, Section VI, pp. 8, 12, 15; Springwich 5, Q. 3)
25. A drainage area parallel to the access road on the south side of the proposed site would collect site runoff; however, Springwich determined from Town of Rocky Hill Inland Wetland Maps that no wetland areas existed on the proposed site. (Springwich 5, Q. 1C and 1D; Department of Environmental Protection (DEP) letter, dated May 18, 1992; Tr. 1, pp. 16-19, 60-62)
26. Effects on the environment from construction and operation of the proposed facility would include site and driveway clearing, preparation of the driveway, grading of the proposed tower site, and tower visibility. (Springwich 1, Section VI, pp. 31, 32; DEP Letter, dated May 18, 1992, received May 20, 1992)
27. An existing paved road from West Street to the CL&P substation would be used to gain entrance to the CL&P property. An approximately 210-foot long by 12-foot wide accessway to the proposed tower site would be constructed along an unused driveway previously used by CL&P to access part of the substation. The driveway would be cleared of vegetation, existing blacktop removed, and the roadway graded and surfaced with a minimum of eight inches of gravel. Existing cable guide rails and posts would remain in place. (Springwich 1, Section VI, pp. 2, 11, 14, 18; Springwich 5, Q. 1D Attachment; Tr. 1, pp. 15, 17, 18)

28. A 12-foot by 26-foot, pre-fabricated one-story equipment building would be placed on the proposed site to house Springwich cellular telephone equipment. The building would be heated and cooled electrically. Security and fire alarms would be installed in the equipment building. No water would flow into or out of the structure. An emergency generator could be used, but would not be permanently installed on-site. (Springwich 1, Section V, pp. 1, 2, 6, 7; Springwich 1, Section VI, pp. 1, 2, 11, 17, 19; Springwich 5, Q. 12)
29. The proposed site would be enclosed by an eight-foot high chainlink fence topped with three strands of barbed wire. (Springwich 1, Section VI, p. 31; Springwich 5, Q. 10 Attachment)
30. Utility lines to the proposed equipment building would be buried along the accessway, a distance of approximately 260 feet from the nearest utility pole on West Street. No gas or water lines would be needed for the proposed facility. (Springwich 1, Section VI, pp. 11, 14; Springwich 5, Q. 1D Attachment)
31. The proposed site would be cleared of vegetation and boulders before construction of the proposed facility. An additional three to five feet of space outside the new fence would also be cleared for construction access. Springwich would only clear the minimum number of trees necessary to construct the proposed facility. The enclosed area would be covered by one-inch crushed stone, four inches deep. (Springwich 1, Section VI, p. 23; Springwich 5, Q. 10 Attachment, Q. 13; Tr. 1, pp. 15, 16, 63)
32. Trees bordering the proposed tower site along West Street and toward the existing substation would provide a natural buffer to shield the proposed tower and equipment building. The tallest trees surrounding the proposed facility are about 80 feet in height. Springwich would also plant shrubs along the West Street side of the site to help shield the proposed facility from view. (Springwich 1, Section VI, pp. 21; Springwich 5, Q. 1D Attachment, Springwich 5, Q. 13; Tr. 1, p. 31)
33. Areas disturbed by construction would be landscaped, loamed, and seeded. Springwich would use erosion and sedimentation controls, such as staked haybales, fabric barriers or culverts, to control runoff water during construction. Controls to collect and dispose of water runoff to existing drainage areas would be engineered in accordance with the Connecticut Soil and Erosion Control Guidelines. (Springwich 1, Section V, pp. 2; Tr. 1, pp. 16-20)

34. The proposed tower would be visible to: Raintree Condominiums, east of the site; the Corporate Ridge building and the Marriott Hotel, south of the site; some homes along Silo Drive, Butternut Lane, Evergreen Place, Basswood Court, and Hickory Lane north of the site; three homes on West Street, east of the site; traffic on I-91 west of the site; and Century Executive Park, west of the site. (Springwich 6, Q. 26; DEP Letter, dated May 18, 1991, received May 20, 1992)
35. Three nearby 81-foot, 91-foot, and 132-foot high lattice steel towers supporting CL&P's transmission line are located west and north of the site. (Springwich 1, Section VI, pp. 31, 32; Springwich 5, Q. 1C, Attachment C; DEP Letter, dated May 18, 1992)
36. Springwich submitted a notice of Proposed Construction or Alteration to the Federal Aviation Administration (FAA) on October 9, 1991, for approval of a structure with a total height of 120 feet above ground level including all appurtenances, for the proposed site. (Springwich 1, Section VI, p. 28)
37. On November 8, 1991, the FAA determined that the proposed Rocky Hill tower is not an obstruction and would not be a hazard to air navigation. Obstruction marking and lighting under FAA regulations would not be necessary. (Springwich 1, Section VI, pp. 27, 28)
38. Construction of the proposed tower site would have no effect on Federally Endangered and Threatened Species or Connecticut Species of Special Concern. (Springwich 1, Section VI, p. 31; Springwich 3, Q. 21)
39. Construction of the proposed tower site would have no effect on any sites having historical significance in the area. (Springwich 3, Q. 22, p. 2)
40. Construction of the proposed tower site would have no effect on any State Park and Recreation Programs in the area including Dinosaur State Park. (Springwich 3, Q. 20, p. 8; DEP Letter, dated May 18, 1992, received May 20, 1992)

Tower Sharing

41. The proposed tower would be designed to accommodate the antennas of other users of the facility including the Town of Rocky Hill and CL&P. Preliminary discussions with CL&P and the Town of Rocky Hill have indicated an interest in sharing the proposed facility but no final agreement has been reached with either entity. The site could provide space for a second equipment building,

approximately 10 feet by 10 feet, to contain the electronic equipment of CL&P and the Town of Rocky Hill. (Springwich 1, Section VI, pp. 4, 29, 32; Springwich 5, Q. 14; Springwich 6, Q. 24; Tr. 1, pp. 20-26, 29-31)

42. No persons or organizations other than the Town of Rocky Hill and CL&P have indicated any interest in sharing the proposed tower. (Springwich 5, Q. 14)

Schedule

43. Construction of the proposed facility would take approximately six weeks. Following testing, the proposed facility could be operational in November 1992. (Springwich 1, Section VI, p. 25)

Costs

44. Estimated construction costs for the proposed Rocky Hill site would include the following:

Radio equipment	\$179,515
Antennas and Tower	55,000
Power and Common Equipment	170,670
Land, Building*	275,000
Miscellaneous (including engineering, materials and installation)	<u>70,000</u>
Total	\$750,185

*Includes acquisition costs

(Springwich 1, Section VI, p. 24)

Alternative Sites

45. Springwich considered eight sites in the Rocky Hill area for the proposed facility and rejected seven sites for some of the following reasons: the design of an existing building would not structurally accommodate cellular electronic equipment; a site would require a tower taller than the proposed tower; topographical features would interfere with coverage; visibility from Dinosaur State Park; a site was outside the search area and would provide inadequate coverage; a site was too close to an existing facility and would create interference; and an existing roof-top tower would not structurally support cellular antennas. (Springwich 1, Section VI, pp. 3, 4; Springwich 5, Q. 2, Q. 16, Q. 17, Q. 18, Q. 19, Q. 20; Springwich 6, Q. 25; Tr. pp. 26-29, 32-34, 67-74)

46. Springwich presented no alternative site to the proposed facility. (Springwich 1, Section VI, p. 4)
47. The Town of Rocky Hill supports the construction of the proposed facility on CL&P's Rocky Hill Substation property. (Springwich 1, Section VI, p. 4; Springwich 5, Q. 10, Q. 14 and Q. 15 Attachment)

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