DOCKET NO. 142 - An application of Springwich Limited Partnership for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance, and operation of a cellular telephone tower and associated equipment in the Town of Pomfret, Connecticut.

Connecticut

Siting

Council

June 20, 1991

FINDINGS OF FACT

1. The Springwich Cellular Limited Partnership (Springwich), in accordance with provisions of section 16-50g to 16-50z of the Connecticut General Statutes (CGS), applied to the Connecticut Siting Council (Council) on February 15, 1991, for a Certificate of Environmental Compatibility and Public Need (Certificate) for the construction, maintenance, and operation of a telecommunications facility in the Town of Pomfret, Connecticut, to provide cellular service in the Windham Rural Service Area (RSA). (Springwich I, Section I, p. 1)

2. Public notice of the application, as required by CGS section 16-50l(b), was published in the Norwich Bulletin on February 8 and 9, 1991. (Springwich I, Section I, p. 6)

3. The Council and its staff made inspections of the proposed prime and alternate sites in Pomfret, Connecticut, on April 22, 1991. During the field inspection, Springwich flew balloons at the proposed prime and alternate sites in order to simulate the height of the proposed prime and alternate towers. (Record)

4. Pursuant to CGS section 16-50m, the Council, after giving due notice thereof, held a public hearing for the proposed application on April 22, 1991, beginning at 3:40 p.m., and reconvening at 7:00 p.m., in the Pomfret Community School cafeteria, 20 Pomfret Street, Pomfret Center, Connecticut. (Record)

5. The only party to the proceeding is the applicant. (Record)

6. The Connecticut Department of Environmental Protection (DEP) filed written comments with the Council pursuant to CGS section 16-50j. (Record)

7. Pursuant to CGS 16-50l(e), the applicant provided a technical report to and consulted with public officials from the Town of Pomfret Connecticut. (Springwich I, p. 8; Springwich II)

8. An application by SNET Cellular, Inc., (SCI) proposing construction, maintenance, and operation of two cellular telephone service facilities in the Windham RSA was submitted to the Council on September 29, 1989 (Docket 127). At a public meeting on November 22, 1989, the Council ruled to dismiss Docket 127 without prejudice until SCI received the necessary Federal Communications Commission (FCC) licenses to construct and operate in the Windham RSA. (Record)

9. On January 13, 1989, the Southern New England Telephone Company (SNET) submitted applications to the FCC for Radio Station Authorization to serve the Windham RSA. Springwich, a subsidiary of SNET, received the operating license for the Windham RSA on November 28, 1990. (Springwich I, p. 4; Springwich I, Section I, p. 3; Springwich I, Section V, p. 29)

10. On January 13, 1989, SNET applied for FCC authorization of the proposed prime site in this application. The FCC granted an approval for a Pomfret site on July 18, 1990, and issued the approval on July 25, 1990. (Springwich I, p. 5; Springwich I, Section I, p. 3; Springwich VI, Q. 19)

11. The FCC has determined that there is a general public need for cellular service. Applicants for cellular licenses are not required to demonstrate a public need for cellular service to state regulators. (Springwich I, p. 3; Springwich I, Section III, p. 3-4)

12. The FCC has promulgated regulations for cellular telephone service in the following areas: technical standards and market structure. (Springwich I, p. 3; Springwich I, Section III, p. 3-4)

13. Cellular service consists of low power transmitter/receiver stations called cell sites. These cell sites cover a geographic area, typically two to ten miles in diameter, called a cell. 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 I p. 2-3; Springwich I, Section II, p. 2-3)

14. The Springwich cellular system's transmitters operate at no more than 100 watts of effective radiated power per channel. The FCC allows up to 500 watts of effective radiated power per channel in order to cover a larger geographical area; however, the local terrain and possible inter-system interference problems preclude the use of wattages over 100 watts in Connecticut. (Springwich I,

Section II, p. 2; Springwich I, Section III, p. 4; Springwich IV, Q. 3; Transcript, p. 44-45)

15. 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 the frequency spectrum. The 25 mHz spectrum provides 416 two-way radio channels for each carrier. (Springwich I, p. 3; Springwich I, Section III, p. 3; Springwich VI, Q. 18)

16. SCI submitted a Notice of Construction to the Federal Aviation Administration (FAA) on August 28, 1989, for a 180-foot tower located at the proposed Pomfret prime site found in this application. No obstruction marking or lighting would be needed for the proposed tower at the specified height. Springwich would submit a revised Notice of Construction to the FAA if the proposed prime site is approved. A new Notice of Construction would be submitted to the FAA if the proposed alternate site were approved. (Springwich I, p. 5; Springwich I, Section V, p. 5; Springwich I, Section VI, p. 29-30; Springwich IV, Q. 12)

17. Construction at the proposed prime or alternate sites in Pomfret would have no effect on Federally Endangered and Threatened Species or Connecticut Species of Special Concern. (Springwich IV, Q. 13, Letter from DEP Natural Resources Center; Transcript, p. 31)

18. Construction at the proposed prime or alternate sites in Pomfret would have no effect on historic, architectural, or archeological resources listed on or eligible for the National Register of Historic Places. (Springwich IV, Q. 14, Letter from Connecticut Historical Commission)

19. Construction at the proposed prime or alternate sites in Pomfret would have no effect on any state parks or recreational program. (Springwich IV, Q. 14, Letter from DEP Bureau of Parks & Forests)

Proposed Pomfret Prime and Alternate Sites

20. The proposed Pomfret prime or alternate facility would provide new coverage along 4.4 miles of Interstate 395, 2.5 miles of Route 6, 2.5 miles of Route 12, 5.0 miles of Route 44, 8.6 miles of Route 101, 3.8 miles of Route 106, 1.4 miles of Route 171, one mile of Route 197, and the town centers of East Killingly, Dayville, Abington, Woodstock, East Woodstock, Pomfret, and parts of Putnam while providing hand-off capability with the existing Ashford, Brooklyn, and Thompson facilities. (Springwich I, p. 5; Springwich I, Section VI, p. 1; Transcript, p. 19)

21. The proposed Pomfret prime or alternate facility would have twelve channels providing a maximum call handling capability of 360 calls per hour. The expected initial call load would be five to six calls per hour. (Springwich IV, Q. 4; Transcript, p. 20)

22. Six sites were considered by Springwich, four were rejected. Reasons for rejection were:

    a) the site would not provide adequate coverage; and
    b) visual impacts on residential development.

    Springwich found no existing towers or buildings in or near the search area high enough for adequate signal propagation. (Springwich I, Section VI, p. 3-4)

23. A 150-foot monopole tower is proposed for either the Pomfret prime or alternate site. The tower would be designed to withstand 125 mile per hour winds while covered with two inches of radial ice. (Springwich I, Section V, p. 3-4; Springwich I, Section VI, p. 1; Springwich I, Section VII, p. 11)

24. At the top of the proposed Pomfret prime or alternate tower, Springwich would mount a minimum of four and a maximum of six 13-foot omni-directional "whip" antennas and one message alert antenna on a triangular support structure. The support structure and the antennas would add 17 feet to the overall tower height, thus making the tower and antennas a total of 167 feet above ground level (AGL). (Springwich I, Section V, p. 5)

25. At the proposed Pomfret prime or alternate sites, Springwich would place a 12-foot wide by 26-foot long by 10-foot 10-inch high equipment building. The building would be outfitted with security and fire alarms. An eight-foot high galvanized chain-link fence with three strands of barbed wire on the top would be placed around the perimeter of the site. Springwich would use green vinyl coated fence if requested. (Springwich I, Section V, p. 1-2, 6-7; Springwich I, Section VII, p. 1, 15; Springwich IV, Q. 11; Transcript, p. 30)

26. At the proposed Pomfret prime or alternate sites, Springwich would landscape the site, including the addition of shrubs along the site perimeter. (Springwich I, Section V, p. 2; Transcript, p. 29)

27. Vehicular access to the proposed Pomfret prime site would be from Tyrone Road along approximately 2000 feet of an existing dirt drive. Vehicular access to the proposed Pomfret alternate site would be from Tyrone Road along approximately 1900 feet of the same existing dirt drive as would be used for the prime site, and then 250 feet along a new access road. The lower portion of the existing dirt

drive (approximately 1425 feet) would be filled with gravel as needed. The remaining upper portion of the drive would be reconstructed with gravel. Springwich would also consider paving the entire access road. (Springwich I, Section VI, p. 3; Springwich V; Transcript, p. 28)

28. Utility lines for the proposed Pomfret prime facility would be routed overhead approximately 2000 feet from Tyrone Road. Utility lines for the proposed Pomfret alternate facility would be routed approximately 1900 feet overhead from Tyrone Road and then underground for approximately 250 additional feet from the access road to the site. (Springwich I, Section VI, p. 17; Springwich IV, Q. 10; Transcript, p. 29-30)

29. The estimated cost to place direct buried utilities to either the proposed Pomfret prime or alternate sites would be $89,000. If conduit were needed to place the utilities underground, the cost would be an additional $46,000. (Springwich IV, Q. 10)

30. The power density for the simultaneous operation of 45 channels and one message alert channel at 100 watts at 150 feet AGL (antenna centerline height-162 feet AGL) would be 0.11676 mW/cm^2 at the cell site fence and 0.00193 mW/cm^2 at the nearest dwelling for the proposed Pomfret prime site, and 0.11676 mW/cm^2 at the cell site fence and 0.00155 mW/cm^2 at the nearest dwelling for the proposed Pomfret alternate site. Pursuant to CGS section 22a-162, the current Connecticut power density standard for the frequencies used by cellular telephone service is 2.933 mW/cm^2. (Springwich I, Section VI, p. 25; Springwich I, Section VII, p. 9)

Proposed Pomfret Prime Site

31. The proposed Pomfret prime site would be located approximately 2000 feet west of Tyrone Road, Pomfret on a 94-acre, residentially-zoned parcel owned by Denis and Delores Morissette. The parcel is presently used for agriculture. The cell site would consist of a 75-foot by 75-foot parcel along the southern property line of a corn field, adjacent to wooded property owned by Pomfret School, Inc. (Springwich I, Section VI, p. 1, 3, 16, 24)

32. The topographic elevation at the proposed Pomfret prime site is 689 feet above mean sea level (AMSL). The total elevation of the proposed tower, including antennas (167 feet AGL), would be 856 feet AMSL. (Springwich I, Section VI, p. 16)

33. The fall zone of the proposed Pomfret prime tower would include the equipment building and part of the adjacent property owned by Pomfret School, Inc. (Springwich V)

34. There are 17 residences, one 30-unit apartment, and 11 other buildings within 2000 feet of the proposed Pomfret prime site. The nearest residence is located 1250 feet west of the proposed prime site. (Springwich IV, Q. 8)

35. One tree would be removed for a relocation of the access road to the proposed Pomfret prime site. No clearing or trimming of trees would be necessary for the utility easement. The proposed prime site would require no clearing or fill and only slight grading. (Springwich I, Section VI, p. 23; Springwich IV, Q. 9)

36. At the proposed Pomfret prime site, no effluent discharge, air pollution, or noise emissions would occur due to operations other than emissions from air conditioning units and temporary use of an emergency generator. (Springwich I, Section VI, p. 18-19)

37. Poorly drained wetland soils of the Ridgebury Series, located in the southwest corner of the proposed Pomfret prime site, constitute approximately 337.5 square feet (six percent) of the site. This section of inland wetland would be graded, but no building or tower foundations would be constructed upon it. (Springwich VII)

38. The total estimated costs of construction to be incurred by Springwich for the proposed Pomfret prime site would be:

a)	Radio Equipment	$ 179,515
b)	Antenna and Tower	57,000
c)	Power and Common	170,670
d)	Land and Building, including first year lease	275,000
e)	Miscellaneous	70,400
	TOTAL	$ 752,585

(Springwich I, Section VI, p. 26)

Proposed Pomfret Alternate Site

39. The proposed Pomfret alternate site would be located approximately 2000 feet west of Tyrone Road, Pomfret, and approximately 250 feet south of the proposed Pomfret prime site, on a 111-acre, residentially-zoned parcel owned by Pomfret School, Inc. This parcel is heavily treed and unused in the vicinity of the proposed alternate site. The cell site would consist of a 75-foot by 75-foot parcel that would not be adjacent to other properties. (Springwich I, Section VII, p. 1, 8)

40. The topographic elevation at the proposed Pomfret alternate site is 683 AMSL. The total elevation of the proposed alternate tower, including antennas (167 feet AGL) would be 850 feet AMSL. The proposed alternate tower would be six feet lower than the proposed prime tower, but this reduction would not have a noticeable effect on signal propagation. (Springwich I, Section VII, p. 1, 8)

41. The fall zone of the proposed Pomfret alternate tower would include the equipment building, but would remain on the lessor's property. (Springwich V)

42. There are 21 residences, one 30-unit apartment, and 11 other buildings within 2000 feet of the proposed Pomfret alternate site. The nearest residence is located 1350 feet northwest of the proposed alternate site. (Springwich IV, Q. 8)

43. Access to the proposed Pomfret alternate site would require the removal of one tree along the access road on the Denis and Delores Morissette property; and one tree greater than 12 inches in diameter and ten trees under ten inches in diameter on the Pomfret School, Inc., property. One ten-inch diameter tree and ten trees under ten inches in diameter would be removed for the underground utility easement. On the site itself, 25 trees under ten inches in diameter would be removed. Only minimal grading would be required for the proposed alternate site after the removal of the trees. (Springwich I, VII, p. 8; Springwich IV. Q. 9; Letter from DEP Commissioner, April 12, 1991)

44. Mature trees located around the proposed Pomfret alternate site, on the Pomfret School, Inc., property, are approximately 75 feet high. (Transcript, p. 45)

45. At the proposed Pomfret alternate site, no effluent discharge, air pollution, or noise emissions would occur due to operations other than emissions from air conditioning units and temporary use of an emergency generator. (Springwich I, Section VII, p. 15)

46. Poorly drained soils of the Ridgebury Series, located in the southwest corner of the proposed Pomfret alternate site, constitute approximately 618.75 square feet (11 percent) of the site. This section of inland wetland would be cleared and graded, but no building or tower foundations would be constructed upon it. (Springwich VII)

47. The First Selectman and the Pomfret Planning and Land Use Commission support the development of the proposed Pomfret alternate site because of the increased screening that the surrounding woodland would provide to the equipment building and the bottom half of the tower. (Transcript, p. 14-15, 41-43)

48. The total estimated costs of construction to be incurred by Springwich for the proposed Pomfret alternate site would be:

a)	Radio Equipment	$ 179,515
b)	Antenna and Tower	57,000
c)	Power and Common Equipment	170,670
d)	Land and Building, including first year lease	300,000
e)	Miscellaneous	70,400
		$ 777,585

(Springwich I, Section VII, p. 10)

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