DOCKET NO. 100 - AN APPLICATION OF SNET CELLULAR, INC., FOR A CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AND PUBLIC NEED FOR CELLULAR TELEPHONE ANTENNAS AND ASSOCIATED EQUIPMENT IN THE TOWN OF TOLLAND, CONNECTICUT.

CONNECTICUT SITING COUNCIL

January 5, 1989

FINDINGS OF FACT

1. SNET Cellular, Inc., (SNET) in accordance with the provisions of Sections 16-50g to 16-50z of the Connecticut General Statutes (CGS) applied to the Connecticut Siting Council (Council) on July 28, 1988, for a Certificate of Environmental Compatibility and Public Need (Certificate) for the construction, operation, and maintenance of a telecommunications tower and associated equipment to provide domestic public cellular radio telecommunication service (cellular service) in the Town of Tolland within the Hartford New England County Metropolitan area (Hartford NECMA) (Record)

2. The fee as prescribed by Section 16-50v-1a of the Regulations of State Agencies (RSA) accompanied the application. (Record)

3. The Council and its staff made an inspection of the proposed and alternative Tolland tower sites on November 2, 1988. This inspection was publicly noticed in the Manchester Journal Enquirer on October 24, 1988. During the field review SNET flew balloons at the proposed and alternative sites at heights representative of the proposed and alternative towers. (Record)

4. Pursuant to Section 16-50m of the CGS, the Council, after giving due notice thereof, held a public hearing on the proposed and alternative tower sites on November 2, 1988, beginning at 3:00 P.M. and continuing at 6:30 P.M. the same day in the auditorium of the Tolland High School, Tolland, Connecticut. (Record)

5. The parties in the proceeding are the applicant and those persons and organizations whose names are listed in the Decision and Order which accompanies these Findings of Fact. (Record)

6. The Department of Environmental Protection filed written comments with the Council pursuant to Section 16-50j of the CGS, in a letter dated October 19, 1988. (Record)

7. Cellular service consists of small overlapping broadcast regions, two to ten miles in diameter, known as cells. Each cell is served by a transmitter limited by the Federal Communications Commission (FCC) to no more than 100 watts effective radiated power per channel. Each cell has a central switching point containing electronic equipment uniting the cells into a system. (SNET I, Section II, p. 2)

8. The FCC determined that a need existed to relieve the congestion on conventional two-way radio mobile systems throughout the United States. (SNET 1, Section IV, p.10)

9. The FCC determined a public need existed to improve the mobile telephone service, due to that system's limited capacity, long waiting lists nationally, and poor quality service, which created congested channels and long waiting times. (SNET 1, Section IV, p. 10)

10. The FCC has pre-empted the state's regulation of cellular service in three major areas: technical standards, market structure, and State certification prior to federal application for a construction permit. (SNET 1, Section III, p. 4)

11. The FCC has established the technical standards for cellular service to ensure the efficient use of the allotted frequency spectrum and to ensure nationwide compatibility. (SNET 1, Section III, p. 4)

12. The FCC granted SNET cellular radio authorization for the Hartford NECMA on December 8, 1983. (SNET 1, Testimony, p. 3)

13. SNET considered five potential tower sites in the Tolland area: an existing 180-foot lattice tower on Bald Hill Road owned by the Tolland County Mutual Aid Service; two rest areas owned by the State of Connecticut along I-84, one mile west of Exit 70; an existing monopole owned by the State Department of Transportation (DOT) on Jared Sparks Road in Willington; an existing tower on Bald Hill Road owned by Station WFSB; and an existing tower on Cosgrove Road in Willington used by Metro Mobile CTS for cellular transmission. (SNET 1, Section VI, pp. 3-4; Tr., pp. 30-31)

14. The five potential tower sites were rejected for the following reasons: the Tolland County Mutual Aid Service tower was determined to be too far to the north and west to provide adequate coverage and would result in a 1.6 mile gap of coverage along I-84; the State rest area property has low elevation and provides inadequate coverage; the DOT monopole would not provide adequate coverage along I-84; the WFSB site did not provide adequate coverage, especially along I-84; the Metro Mobile CTS site would leave portions of I-84 to the west without coverage. (SNET 1, Section VI, pp. 3-4; Tr., pp.32-34; SNET 2, Q.13)

15. The proposed or alternative SNET tower sites in Tolland would provide cellular coverage to State Routes 22, 44, 74, 195, and I-84 within the towns of Tolland, Willington, and the northern portions of Coventry and Mansfield. Either site would overlap with existing coverage from a site in South Windsor to the west. (SNET 1, Testimony, p. 5; SNET 1, Section VI, p. 1, p. 10; SNET 2, Q. 2)

16. The proposed Tolland site is a 150-foot by 150-foot parcel of land approximately 1300 feet west of the intersection of Ruops Road and Barbara Road in Tolland. SNET has an option to lease this parcel, which is owned by Albert and Helen Ruops. (SNET 1, Section VI, p. 1, p. 14, p. 16)

17. The proposed site is within a 93-acre parcel of land which is zoned R-1. (SNET 1, Section VI, p. 16)

18. The proposed site has an elevation of 700 feet above mean sea level. (SNET 1, Section VI, p. 16)

19. There are eight homes within a 1,000-foot radius of the proposed site. (SNET 2, Q. 10)

20. The proposed tower would be 235 feet from the nearest travelled portion of I-84. Land east of the proposed site is owned by the DOT and is undeveloped. (SNET 2, Q.1, Q.8)

21. A new 350-foot access road would be constructed into the proposed site. Utilities would be installed above ground. (SNET 1, Section VI, p. 16)

22. Trees surround most of the proposed site. Approximately 30 trees would be removed in the construction of the proposed facility and its access road. (SNET 1, Section VI, p. 16; SNET 2, Q.9)

23. SNET would construct a 150-foot monopole and associated equipment building at the proposed site. Including antennas, the proposed tower structure would have a total height of 167 feet. The tower would not be obstruction marked or lighted. (SNET 2, Q. 4)

24. The Town of Tolland is in the process of negotiating with the owner of the proposed site for possible construction of a new school on the 93-acre parcel. (SNET 2, Q.5; Tr., pp. 15-16)

25. The alternative Tolland tower site is a 100-foot by 100-foot site on the same 93-acre parcel of land as the proposed site. It is approximately 1600 feet west-southwest of the proposed site. (SNET 1, Section VII, p. 1, p. 7)

26. The alternative site has an elevation of 670 feet above mean sea level, 30 feet less than that of the proposed site. (SNET 1, Section VII, p. 1, p. 7)

27. There are 13 homes within a 1000-foot radius of the alternative site. (SNET 2, Q. 10)

28. The alternative tower would be 260 feet from the nearest travelled portion of I-84. (SNET 2, Q. 1)

29. A new 900-foot access road would be constructed into the alternative site. Utilities would be brought in above ground. (SNET 1, Section VII, p. 7)

30. Trees surround most of the alternative site. Construction of the alternative site and access road would require the removal of approximately six to ten trees. (SNET 1, Section VII, p. 7; SNET 2, Q. 9)

31. SNET would construct a 180-foot monopole and associated equipment building at the alternative site. The alternative tower would be a 197-foot structure, including antennas. (SNET 1, Section V, p. 4; SNET 1, Section VII, p.1)

32. The proposed or alternative site monopole would be painted a mixed blue-grey color. The six omnidirectional whip antennas, 12 feet in length and three inches in diameter would be mounted on the monopole. The antennas would be mounted on a triangular support structure. The antennas and support structure would add 17 feet to the total height of the tower. (SNET 1, Section V, pp. 3-4)

33. A single-story 21-foot by 24-foot building to house electronic equipment would be constructed at the proposed or alternative site. A fence would surround the tower and equipment building. (SNET 1, Section V, p.1)

34. The proposed 150-foot tower would be visible from Vaalcom Road, and from portions of Old Cathole Road, Cora Road, and Route 195. The tower would be visible from I-84 for a distance of two and one-half to three miles in each direction. The tower would not be visible from the intersection of Alfred Road and Center Road, from the intersection of Ruops Road and Barbara Road, or from Ryan Road. (SNET 2, Q.6; Tr., pp. 18-20)

35. The alternative 180-foot tower would be visible from Route 195, Old Cathole Road, Cora Road, Vaalcom Road, and Castle Road. The tower would be visible along I-84 for a distance of two and one-half to three miles in each direction. The tower would not be visible from Center Road, Alfred Road, Ryan Road, Barbara Road, or Ruops Road. (SNET 2, Q.6; Tr., p. 18, p. 20)

36. The Connecticut and American National Standards Institute (ANSI) safety level for electromagnetic radio frequency radiation is 2.933 mW/cm^2 for the proposed broadcast frequency. The power density level at the base of the proposed tower would be 0.0963 mW/cm^2. The power density level at the base of the alternative tower would be 0.0686 mW/cm^2. Both calculations are worst-case assumptions. (SNET 1, Section VI, p. 25; SNET 1, Section VII, p. 8)

37. There are no inland wetlands on either site or access route. The Skunkamaug Marsh, which is included in the State's Natural Area Inventory, lies approximately one half mile to the north of the proposed and alternative sites. Neither site drains toward this marsh. (SNET 2, Q. 11; Tr., pp. 20-21; DEP Comments of 10/19/88)

38. There are no existing populations of federally endangered and threatened species or Connecticut species of special concern occurring at or adjacent to the proposed or alternative sites. (SNET 2, Q. 16)

39. Construction of the proposed or alternative tower and associated equipment building would have no effect on historic, architectural, or archaeological resources listed on or eligible for the National Register of Historic Places. (SNET 2, Q. 17)

40. Facility costs at the proposed tower site are estimated as follows:

Radio equipment	$179,515.00
Antenna equipment and mast	39,900.00
Power and common equipment	171,570.00
Land and building	215,400.00
Miscellaneous	77,700.00
Total Cost	$684,085.00

(SNET 1, Section VI, p. 26)

41. Facility costs at the alternative tower site are estimated as follows:

Radio equipment	$179,515.00
Antenna equipment and mast	49,900.00
Power and common equipment	171,570.00
Land and building	200,400.00
Miscellaneous	77,700.00
Total Cost	$679,085.00

(SNET 1, Section VII, p. 9)