DOCKET NO. 88 - An application of Metro Mobile CTS of New Haven, Inc., for a Certificate of Environmental Compatibility and Public Need for cellular telephone antennas and associated equipment in the Town of Southbury, Connecticut.	:	Connecticut Siting Council
	:	March 3, 1988

FINDINGS OF FACT

1. Metro Mobile CTS of New Haven, Inc. (Metro Mobile), in accordance with provisions of Sections 16-50z of the Connecticut General Statutes (CGS) applied to the Connecticut Siting Council (Council) on November 6, 1987, for a Certificate of Environmental Compatibility and Public Need (Certificate) for the construction, operation, and maintenance of a telecommunication tower and associated equipment to provide Domestic Public Cellular Radio Telecommunication Service (cellular service) in the Town of Southbury, Connecticut, within the New Haven Connecticut New England County Metropolitan Area (NECMA). (Record)
2. The fee as prescribed by Section 16-50v-1 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 Southbury tower sites on January 4, 1988. During this inspection, Metro Mobile flew a balloon at each site representative of the height 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 this application in the Southbury Town Hall on January 4, 1988, beginning at 2:00 p.m. and continuing at 6:30 p.m. (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. (Record)
6. The Department of Environmental Protection (DEP) filed written comments with the Council pursuant to Section 16-50j of the CGS on December 30, 1987. (Record)
7. The Council took administrative notice of the Findings of Fact, Opinion, and Decision and Order in Docket 75 and Docket 79, and of FCC OST Bulletin 65, October 1985. (Tr., pp. 30, 35, 140)
8. 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 is connected to a central switching point containing electronic apparatus uniting the cells into a system. Mobile units are limited by the FCC to a maximum of seven watts of effective radiated power. (Docket 79, Finding 8)

9. The FCC requires that a licensee serve at least 75 percent of its licensed service area within three years of obtaining an original construction permit or risk losing the authorization. (Docket 79, Finding 9)

10. Cellular service is a mobile telephone service. To date, the Department of Public Utility Control (DPUC) has regulated mobile telephone service. Eventually, cellular service could replace the less effective, existing simplex mobile service. The FCC has classified cellular service as a form of basic local exchange service. (Docket 79, Finding 10)

11. The FCC has determined that a national public need exists to improve the present mobile telephone service, due to the current system's limited capacity, long waiting lists nationally, and poor quality service, which have created congested channels and long waiting times. (Docket 79, Finding 11)

12. 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. (Docket 79, Finding 12)

13. 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. (Docket 79, Finding 13)

14. Applicants for FCC cellular system authorizations are not required to demonstrate a public need for cellular service, because the FCC has exercised its primary jurisdiction to determine that there is a need for cellular service generally and to encourage the development of cellular service nationwide. (Docket 79, Finding 14)

15. The FCC has acknowledged state jurisdiction with respect to charges, classifications, practices, facilities, and services offered by licensed carriers. (Docket 79, Finding 15)

16. According to FCC rules, two licenses are available for award in each NECMA to provide competition. One is initially awarded to a wireline company, the other to a non-wireline company. (Docket 79, Finding 16)

17. The FCC defines a "reliable service contour" as an area having a signal quality greater than or equal to 39 dBu. The FCC requires 75 percent coverage of the cellular geographic service area. (Docket 79, Finding 17)

18. In its search for a tower site in the Southbury area, Metro Mobile investigated 23 potential sites. These sites were rejected for reasons including inadequate coverage, unavailability, and dense residential development. (Metro Mobile 1, Attachment 1, pp. 1-3)

19. Metro Mobile and its competitor, SNET Cellular, Inc. (SNET) had proposed to construct a tower for joint use in Southbury to the Southbury Planning Commission. The Town Planning Commission voted to recommend against leasing town-owned property on Kettletown Road for a tower because, in the opinion of that Commission, such a tower would be "...too big, too visible, not good for the surrounding neighborhood..." and that such a tower might need replacement in five to ten years. (Metro Mobile Late File 10; SNET Late File 1; Tr., p. 148)

20. Coverage from an existing 100-foot tower in Heritage Village within Southbury would be inadequate to meet the coverage objectives of Metro Mobile. Use of this tower would result in a gap in coverage in the Exit 11 area of Route I-84. (Metro Mobile Late File 5)

21. The proposed and alternative SNET towers in Docket 90 would be too far to the west of the required coverage area to overlap with coverage from Metro Mobile's existing Naugatuck site. (Tr., p. 37)

22. The proposed Southbury tower site is a 50-foot by 80-foot parcel of land owned by Vincent and Jeanne S. Soares, on Luther Drive. (Metro Mobile, Exhibit 1, pp. 1-3, 20)

23. The proposed Southbury site is zoned R-60 Residential, and has an elevation of 690 feet above mean sea level (AMSL). (Metro Mobile, Exhibit 1, pp. 1, 14)

24. The proposed tower would be installed approximately 15 feet from the pavement of Luther Drive, in an area approximately 12 feet lower than the street level. Fill would be required to construct a parking lot along Luther Drive. A 10-to 12-foot retaining wall would be constructed to separate the parking lot from the building level. (Metro Mobile 1, Exhibit 1, p. 3)

25. There are approximately 70 residences within a 2,000-foot radius of the proposed Southbury site. The nearest home, owned by the lessor, is about 200 feet south of the proposed site. (Metro Mobile 1, Exhibit 1, p.4)

26. The proposed Southbury tower would be 55 feet from an existing Algonquin Gas Transmission Company (Algonquin) natural gas pipeline. Algonquin has requested that the Council require Metro Mobile to coordinate the design and installation of the tower grounding system with Algonquin, and that testing take place to verify the proper operation of the grounding system. Metro Mobile has stated it would submit a design for such a grounding system to Algonquin for approval. (Metro Mobile 1, Exhibit 1, p. 20; Metro Mobile 2, Q. 4; Tr., pp. 12, 20-22)

27. Pipelines are buried to a minimum depth of 30 inches below finished grade, according to applicable codes during the installation of this pipeline. (Metro Mobile Late File 12)

28. The proposed Southbury site tower would be a 100-foot monopole, which would be a 113-foot structure with antennas. Two 15-foot omnidirectional antennas would be attached 98 feet above ground level (AGL), and three 12.5-foot dual transmit/receive antennas would be mounted below the top of the monopole. Two triangular antenna arm platforms measuring 13.5 feet on a side would support the three transmit/receive antennas. (Metro Mobile 1, Exhibit 1, pp. 15-18)

29. The lessor of the proposed Southbury site has requested antenna and equipment space for amateur radio equipment on the proposed tower. (Metro Mobile 1, Exhibit 1, p. 20)

30. Both Luther Drive and the Algonquin gas pipeline would be within the fall zone of the proposed Southbury tower. (Metro Mobile Late File 4)

31. Painting and lighting would not be required on the proposed Southbury tower, according to the Federal Aviation Administration (FAA). (Metro Mobile 1, Exhibit 1, p. 14)

32. A single story, 21-foot by 22.5 foot electronics buildings would be constructed near the base of the proposed tower. Both the proposed tower and electronics building would be surrounded by an eight-foot chain link fence with security wire on top. To prevent unauthorized climbing of towers, Metro Mobile removes the first 20 feet of climbing rungs on monopoles. (Metro Mobile 1, p. 10; Docket 90 Tr., p. 111)

33. Approximately 10 to 80 feet of the proposed tower would be visible from Luther Drive from approximately 1/4 mile south of the proposed site to .1 mile north of the proposed site. About 10 to 60 feet of the proposed tower would be visible along 200 feet of Bagley Road. About 10 to 40 feet of the proposed tower would be visible along 500 feet of Fox Run Drive north of Painter Road. The proposed tower would not be visible from Bucks Hill Road, Skyview Drive, Homestead Drive, Railstone Drive, Watch Hill Drive, and Munn Road. (Metro Mobile 1, Exhibit, p.4; Tr., p.43, p.60)

34. The alternative Southbury tower site is a 50-foot by 70-foot parcel of land 80 feet south of Old Waterbury Road, and 100 feet from the nearest travelled portion of Route I-84. The proposed site is owned by Provoe Associates. (Metro Mobile 1, Exhibit 1A, p. 1, p. 4; Tr., pp. 25-26)

35. The alternative site is zoned M-2 Industrial and has an elevation of 670 feet AMSL. (Metro Mobile 1, Exhibit 1A, p. 4, p. 12)

36. Access into the alternative site would be along a 15-foot wide, 85-foot long easement from Old Waterbury Road. (Metro Mobile 1, Exhibit 1A, p.4)

37. There are approximately 17 residences within a 2,000-foot radius of the alternative site. The two nearest residences are about 900 feet from the alternative site (Metro Mobile 1, Exhibit 1A, p. 5)

38. The owner of the alternative site has plans to develop the remainder of this property into an office complex site. He offered Metro Mobile that portion of the property which did not lend itself to development. (Tr., pp. 134-135)

39. The alternative tower would be a 230-foot monopole, and, including antennas, would be a 243-foot structure. Two 15-foot omnidirectional antennas would be attached 228 feet AGL, and six 11.5-foot dual transmit/receive antennas would be mounted below the top of the tower. Two triangular antenna arm platforms measuring 13.5 feet on a side would support the three transmit/receive antennas. (Metro Mobile Late File 3, pp. 14-16)

40. A 21-foot by 22.5-foot equipment building would be constructed near the base of the alternative tower. (Metro Mobile Late File 4, p. 1)

41. The alternative site is 1.6 miles north of Oxford Airport. Metro Mobile has not yet received FAA approval for the construction of the alternative Southbury tower. It has received a preliminary determination from the FAA that a 207-foot structure, including antennas, would not constitute an obstruction to aerial navigation. In a limited appearance dated February 3, 1988, Oxford Airport Manager Peter Zguzenski stated that a 243-foot structure would violate Oxford Airport airspace by 36 feet. Metro Mobile has requested further study of this height limitation from the FAA. Metro Mobile believes this study would be completed by early March, 1988. (Metro Mobile 1, Exhibit 1A, p. 12; Metro Mobile Late File 14; Zguzenski letter of February 3, 1988).

42. Metro Mobile maintains that a tower with a height of 220 feet or lower at the alternative tower site would result in a gap of one mile between exits 14 and 15 on Route I-84. (Metro Mobile Late File 11)

43. Approximately 100 feet to 170 feet of the alternative tower would be visible along Route I-84 between Bucks Hill Road and Benson Road. About 100 feet to 170 feet of the tower would be visible from Southford Road from .4 miles northeast of Judd Road. Along 400 feet of Old Waterbury Road near Route 188, 70 feet to 170 feet of the tower would be visible above the trees. The tower would be visible above the trees. The tower would not be visible above the tree line from Reservoir Road, Tuttle Road, and most of Judd Road. (Metro Mobile Late File 3, Exhibit 1A, p.5)

44. Old Waterbury Road and a Route I-84 westbound entrance ramp would be within the fall zone of the alternative tower. (Metro Mobile Late File 4)

45. Either the proposed or alternative Southbury tower site would provide coverage to Route I-84 in the Southbury area and overlap with the existing Naugatuck site to the east and the proposed Newtown site to the west. (Metro Mobile 1, p. 13; Metro Mobile 1, Exhibit 1, p. 29; Metro Mobile 1, Exhibit 1A, p. 27)

46. The electromagnetic ratio frequency power density (power density) at the proposed Southbury site, with 90 channels broadcasting at 100 watts 91 feet AGL, would be 0.1528

mW/cm^2. The power density for the alternative Southbury site, with 90 channels broadcasting at 100 watts 221 feet AGL, would be 0.0259 mW/cm^2. Based on these conservative assumptions, the power densities at these sites would be well below the American National Standards Institute safety standard of 2.933 mW/cm^2 for the proposed frequencies. (Metro Mobile 1, Exhibit 1, p.4; Metro Mobile 1, Exhibit 1A, p. 4; FCC OST Bulletin, October, 1985)

47. There are no inland wetlands at the proposed or alternative Southbury sites. (Metro Mobile 2, Q.3)

48. There are no known existing or historic records of species classified by the United States government as endangered or threatened, or of species classified by the State of Connecticut as being of special concern, occurring at the proposed or alternative Southbury sites. (Metro Mobile 1, Exhibit E, p. 4)

49. The proposed or alternative Southbury tower sites would have no effect upon historic, architectural, or archaeological resources listed on or eligible for the National Register of Historic Places. (Metro Mobile 1, Exhibit E, pp. 8-9)

50. The proposed Southbury facility installation costs are estimated as follows:

Radio equipment	$175,300.00;
Tower and antennas	37,300.00;
Power systems	6,000.00;
Equipment Building	68,300.00;
Miscellaneous (including site preparation and installation)	182,200.00;
Total	$469,100.00.

(Metro Mobile 1, Exhibit 1, p. 17)

51. The alternative Southbury facility installation costs are estimated as follows:

Radio Equipment	$175,300.00;
Tower and antennas	87,600.00;
Power systems	6,000.00;
Equipment building	68,300.00;
Miscellaneous (including site preparation and installation)	157,200.00;
Total	$494,400.00.

(Metro Mobile Late File 3, Exhibit 1A, p. 15)