

DOCKET NO. 86 - An application of Metro Mobile CTS of Fairfield County, Inc., for a Certificate of Environmental Compatibility and Public Need for cellular telephone antennas and associated equipment in the Towns of Greenwich and Fairfield, Connecticut. : Connecticut Siting Council : February 17, 1988

FINDINGS OF FACT

1. Metro Mobile CTS of Fairfield County, Inc. (Metro Mobile) 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 October 20, 1987, for a Certificate of Environmental Compatibility and Public Need (Certificate) for the construction, operation, and maintenance of cellular telephone antenna towers and associated equipment to provide domestic public cellular radio telecommunications service from sites in the towns of Greenwich, Fairfield, and Wilton, Connecticut, within the Bridgeport New England County Metropolitan Area (Bridgeport 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 Fairfield and Wilton sites on December 14, 1987. The Council and its staff inspected the proposed and alternative Greenwich sites on December 21, 1987. (Record)

4. Pursuant to Section 16-50m of the CGS, the Council, after giving due notice thereof, held public hearings on this application on December 14, 1987, beginning at 4:00 p.m. and continuing at 6:30 p.m. in the Middlebrook Middle School in Wilton, and on December 21, 1987, beginning at 3:30 p.m. in the Central Junior High School, Greenwich, Connecticut. (Record)
5. On January 29, 1988, Metro Mobile withdrew the two Wilton sites proposed in the application and a second alternative Wilton site proposed by Metro Mobile on January 21, 1988. Metro Mobile refiled these three Wilton sites with the Council as Docket 94. (Record)
6. The parties in this proceeding are the applicant and those persons and organizations whose names are listed in the Decision and Order which accompanies these findings. (Record)
7. The Department of Environmental Protection (DEP) filed written comments on this application with the Council on December 9, 1987, pursuant to Section 16-50j of the CGS. (Record)
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 30 dBu. The FCC requires 75 percent coverage of the cellular geographic service area. (Docket 79, finding 17)

18. In its search for tower sites in the Greenwich area, Metro Mobile examined 44 sites. These were rejected for reasons including a lack of interest in leasing by property owners, inadequate coverage, access problems, residential surroundings, and lack of suitable visual shielding. (Metro Mobile 1, Attachment 1, pp. 1-4)
19. The proposed A - Greenwich site (Riversville) is a 50-foot by 50-foot parcel of land 100 feet west of the Merritt Parkway and 1,000 feet east of Riversville Road on property owned by the Greenwich Council of the Boy Scouts of America, Inc. (Metro Mobile 1, Exhibit 1, p.5)
20. The proposed Riversville site is 250 feet southwest of an existing cellular tower built by New York SMSA Limited Partnership (New York SMSA) after receiving a Certificate from the Council on July 9, 1985. This tower is a 150-foot monopole. (Metro Mobile 1, Exhibit 1, p.5; Docket 50, finding 23)
21. The proposed Riversville site has an elevation of 220 feet above mean sea level (AMSL) and is within a residential RA-4 zoning district. (Metro Mobile 1, Exhibit 1, p. 14, p. 20)
22. There are 48 residences within a 2,000-foot radius of the proposed Riversville site, the nearest being 550 feet to the southwest. (Metro Mobile 1, Exhibit 1, p. 6)

23. A 150-foot monopole is proposed for the Riversville site. Metro Mobile would allow this monopole to weather to a dull gray color and plant evergreens for screening. Including antennas, the proposed structure would have a total height of 159 feet. Eleven-foot transmit antennas would be mounted 148 feet above ground level (AGL). (Metro Mobile 1, Exhibit 1, p. 6; Metro Mobile 1, Exhibit E, pp. 16, 18, pp. 36-37)
24. The Merritt Parkway would be within the fall zone of this tower. (Metro Mobile Late File 15)
25. Access to the proposed Riversville site would be over a proposed easement area which would be an extension of the roadway leading to the existing cellular tower. (Metro Mobile 1, Exhibit 1, p.5)
26. Some clearing of the trees would be required on the proposed Riversville site and right-of-way. Metro Mobile would construct a temporary bridge over an existing bridge on the Boy Scout property. This bridge would be needed to prevent damage by vehicles using the roadway to the proposed site. The temporary bridge would be removed after construction has been completed. (Metro Mobile 1, Exhibit 1, p.5)

27. The ownership of the existing cellular tower on the Boy Scout property was expected to be transferred from New York SMSA to SNET Cellular, Inc. (SNET) prior to the end of January, 1988. (Metro Mobile Late File 16)
28. SNET is willing to consider the possibility of a lease for the sharing of the existing tower. Metro Mobile contends such use would be technically infeasible, as Metro Mobile would have to attach its antennas on this tower 125 feet AGL. The ground elevation at this site is 20 feet lower than at the site proposed by Metro Mobile, and a tower here would not meet Metro Mobile's desired coverage objectives. (Metro Mobile Late File 16)
29. The proposed Riversville tower would cover Greenwich portions of Route 1, the Merritt Parkway, Route I-95, and a portion of Long Island Sound. The coverage from this site would overlap with coverage from the existing Metro Mobile antenna site on the roof of the Greenwich Hospital. It would also overlap with one of the other two proposed Greenwich sites. (Metro Mobile 1, Exhibit 1, pp. 28-30)
30. The proposed Riversville tower would be partially visible from the northbound lanes of the Merritt Parkway, with no visibility approximately 25 percent of the distance from Riversville Road to the proposed site. A portion of the tower would be visible from the southbound lanes of the Merritt Parkway. The proposed tower would not be visible from Thunder Mountain Road, Memory Lane, Saddle Ridge Road,

Quail Road, Sherwood Avenue, Hycliff Road, or Porchuck Road. A Greenwich resident testified that the existing monopole on the Boy Scout property is visible from properties along Riversville Road, particularly during the winter months. (Tr., 12/21/87, pp. 144-146; (Metro Mobile 1, Exhibit 1, p.6; Tr., 12/21/87, pp. 232-233)

31. To aid in the assessment of the proposed tower visibility, Metro Mobile raised balloons at heights representative of the towers at the proposed Greenwich sites on the field review of December 21, 1987. (Record)
32. The proposed AC-Greenwich (Rockwood Lake) site is a 50-foot by 70-foot parcel of land 700 feet east of North Street, and 185 feet west of Rockwood Lake. The surrounding property is used by Greenwich Landscape Contractors, Inc. as a plant nursery. The property is owned by Din Gospodinoff. (Metro Mobile 1, Exhibit 2, pp. 1-3; Metro Mobile Late File 11)
33. The proposed Rockwood Lake site has an elevation of 350 feet AMSL and is zoned RA-4 residential. (Metro Mobile 1, Exhibit 2, p. 13, p. 20)
34. There are 15 residences within a 2,000-foot radius of the proposed Rockwood Lake site. The nearest residence is 350 feet southwest of the proposed site. Another residence is on abutting property to the northeast. (Metro Mobile 1, Exhibit 2, p.4, p.21)

35. The proposed Rockwood Lake tower would be a 160-foot monopole. Including antennas, it would be a 171-foot structure. One 6-foot diameter microwave dish would be attached 155 feet AGL on this tower. (Metro Mobile 1, Exhibit 2, pp. 15 - 16)
36. The nearest portion of the 300 acre Babcock Preserve is within 750 feet of the proposed Rockwood Lake tower site. (Metro Mobile 3, Q.2; Tr., 12/21/87, p. 112)
37. The property on which the proposed Rockwood Lake watershed site would be constructed is the subject of a Town of Greenwich wetland violation proceeding involving the filling of Rockwood Lake with soil and brush, and a lack of proper erosion controls on the construction site. As a result, this property is under an enforcement action of the Town of Greenwich Watercourses Agency. (Greenwich Late File 3; Tr., 12/21/87, pp. 41-47)
38. The Town of Greenwich Watercourses Agency has expressed concern regarding the construction of a tower on property adjacent to the Greenwich drinking water supply. (Tr. 12/21/87, pp. 41-47, p. 57)
39. Access to the proposed Rockwood Lake site would be over an existing gravel road. Utilities would be brought in to the proposed site along this road. (Metro Mobile 1, Exhibit 2, p.3)

40. The proposed Rockwood Lake tower would provide coverage to the Merritt Parkway, the northern section of Greenwich, the northwest portion of Stamford, and a portion of Long Island Sound. The proposed site would provide coverage which would overlap with the proposed Riversville Road site and a planned North Stamford site to the east. (Metro Mobile 1, Exhibit 2, pp. 28-29)
41. The top 80 feet of the proposed Rockwood Lake tower would be visible from South Stanwich Road along the section which crosses Rockwood Lake, and along this road from 100 feet to 600 feet east of North Street. During the winter the proposed tower would be visible from North Street, along South Stanwich Road, and along Taconic Road. The top 30 to 40 feet of the proposed tower would be visible from the entrance of the Babcock Preserve through a clearing. (Metro Mobile 1, Exhibit 2, p.4; Tr., 12/21/87, pp. 235-236)
42. The proposed AC/A Greenwich (Banksville) site is an irregularly shaped parcel 4200 square feet in size, owned by Pencho Gospodinoff, 800 west of North Street. The proposed site is 300 feet south of the New York state line in the Banksville section of Greenwich. (Metro Mobile 1, Exhibit 2A, pp. 1-4)
43. The proposed Banksville site has an elevation of 490 feet AMSL, and is zoned RA-4 residential. (Metro Mobile 1, Exhibit 2A, p.1, p.14)

44. Land to the north of the proposed Banksville site, in New York, is used as a garage and storage area. To the east are a shopping plaza and single-family residences. To the west are undeveloped parcels zoned RA-4. (Metro Mobile 1, Exhibit 2A, p. 21)
45. The proposed Banksville tower would be a 200-foot monopole; including antennas, it would be a 213-foot structure. One mid-intensity strobe light would be placed on the top of this tower, if required by the Federal Aviation Administration. (Metro Mobile 1, p.11; Metro Mobile 1, Exhibit 2A, p 17)
46. One hundred residences are within a 2,000-foot radius of the proposed Banksville site, the nearest of which is on the lessors parcel, 400 feet northeast of the proposed site. (Metro Mobile 1, Exhibit 2A, p.5)
47. The upper portion of the proposed Banksville tower would be most visible along North Street within 200 feet of the New York border. The proposed tower would be shielded by trees from the area of Conyers Farm, a residential development. During winter, the upper portion of the proposed tower would be visible through the trees from Cowdray Park Road, and along Hurlingham Drive. From Banksville Road, the top 80 feet of the proposed tower would be visible above the trees. (Tr., 12/21/87, pp. 233-234)

48. Metro Mobile plans to establish a microwave link between the roof top of the Greenwich Hospital and either the Rockwood Lake site, which is the preferred configuration, or the proposed Banksville site, the alternative configuration. The height of this tower would depend on whether the Council approves the proposed Rockwood Lake site, or whether it approves the proposed Banksville site. A 150-foot tower at the Riversville site could only be linked by land lines with a 160-foot tower at the proposed Rockwood Lake site. The Rockwood Lake site would in turn be linked via microwave dish to the Greenwich Hospital, which in turn would be linked via microwave to the existing Stamford roof top site. In the alternative configuration, a 200-foot tower at the proposed Banksville site would be linked via a microwave dish to a 180-foot Riversville tower which in turn would be connected via a microwave dish to the Greenwich Hospital. (Metro Mobile 1, p. 16; Metro Mobile 1, Exhibit H)
49. In the preferred configuration, a 6-foot microwave dish would be attached 155 AGL on the proposed Rockwood Lake tower. In the alternative configuration, two 6-foot dishes would be attached 175 feet AGL on the proposed Riversville tower, and a 6-foot dish would be attached 195 feet AGL on the proposed Banksville tower. (Metro Mobile 1, Exhibit H)

50. In response to inquiries by the public, Metro Mobile investigated the possibility of leasing Greenwich properties owned by the American Can Company and the Sacred Heart Convent. The American Can Company site would not complement coverage from the existing Greenwich Hospital site and the proposed Rockwood Lake site to provide the necessary coverage in the area. A coverage gap of one-half mile along the Merritt Parkway would result. Additionally, use of this site might cause frequency coordination problems in New York. The Sacred Heart property is not available for lease. (Metro Mobile Late File 14)
51. In its search for a tower site in the Fairfield area, Metro Mobile investigated 34 sites. These sites were rejected for reasons including an unwillingness by property owners to lease or sell property, dense residential development, low elevation, and inadequate coverage. (Metro Mobile 1, Attachment 2, pp. 1-3)
52. The proposed Fairfield site is a 70-foot by 70-foot parcel of land 30 feet north of Cross Highway. The proposed site is owned by Victor J. Newton. (Metro Mobile 1, Exhibit 3, p. 1, p. 4)
53. The proposed Fairfield site is adjacent to the Merritt Parkway and is zoned AAA residential. (Metro Mobile 1, Exhibit 3, p. 4)

54. The proposed Fairfield site has an elevation of 280 feet AMSL. An inland wetlands is approximately 10 feet east of the proposed site. The proposed 15-foot wide easement from Cross Highway would not cross this wetland. (Metro Mobile 1, Exhibit 3, p. 14, p. 21; Metro Mobile 3, Q. 4)
55. The proposed Fairfield tower would be a 160-foot monopole. Including antennas, this would be a 173-foot structure. Both the Cross Highway and the Merritt Parkway lie within the fall zone of this proposed tower. (Metro Mobile 1, Exhibit 3, p.16; Tr., 12/14/87, p.87; Metro Mobile Late File 15)
56. There are 50 residences within a 2,000-foot radius of the proposed Fairfield site, the nearest of which is 210 feet to the southwest. (Metro Mobile 1, Exhibit 3, p.5)
57. The proposed Fairfield tower would be most visible along the 700 feet of the Merritt Parkway nearest the proposed site. The top 40 feet of the proposed tower would be visible to motorists traveling south on the Merritt Parkway from 800 feet to 1,800 feet east of the proposed site. The proposed tower would be visible along Cross Highway at its intersection with Congress Street. It would also be visible from locations on Audubon Lane and Hillside Road. (Metro Mobile 1, Exhibit 3, p.5; Tr., 12/14/87, pp. 66-67)

58. The proposed Fairfield tower would provide coverage to the Merritt Parkway, Route I-95, and portions of the towns of Fairfield, Westport, Bridgeport, Monroe, Easton, and Trumbull. It would also provide coverage to a portion of Long Island Sound. (Metro Mobile 1, Exhibit 3, pp. 28-30)
59. The alternative Fairfield site is a 70-foot by 70-foot parcel of land 400 feet south of Wood House Road and 100 feet north of the Merritt Parkway. It is owned by Moitrayee Ghosh. (Metro Mobile 1, Exhibit 3A, p.1, p.3)
60. The alternative Fairfield site has an elevation of 330 feet AMSL, and is zoned AAA residential. (Metro Mobile 1, Exhibit 3A, p.3, p.13)
61. Access to the alternative Fairfield site would be established along the western boundary of the lessor's parcel north to Wood House Road, a distance of 400 feet. This would require extensive clearing of vegetation. Utilities would be brought in underground. (Metro Mobile 1, Exhibit 3A, p.21; Tr., 12/14/87, pp. 129-130)
62. The alternative Fairfield site is near a designated inland wetlands area. (Metro Mobile Late File 6)
63. The alternative Fairfield tower would be a 160-foot monopole. Including antennas, this would be a 173-foot structure. (Metro Mobile 1, Exhibit 3A, p. 15, p. 18)

64. There are 85 residences within a 2,000-foot radius of the alternative Fairfield site, the nearest of which is the owner's home, 300 feet to the north. Thirteen homes might be constructed on an adjacent parcel of land. (Metro Mobile 1, Exhibit 3A, p.4; Tr., 12/14/87, p. 133)
65. The Merritt Parkway would be within the fall zone of the alternative Fairfield tower. (Metro Mobile Late File 15)
66. The alternative Fairfield tower would be most visible along that portion of the Merritt Parkway 900 feet nearest the alternative site. Trees would shield a view of the tower from those traveling northward up to about 500 feet of the site. The view of the tower to those traveling southward would be more limited. During the winter, the tower might be visible through the trees, particularly from Wood House Road west of Town House Road. It would also be visible from the intersection of Town House Road and Princess Pine Lane. (Metro Mobile 1, Exhibit 3A, p.4; Tr., 12/14/87, pp. 67-68)
67. The alternative Fairfield site would provide coverage comparable to that expected from the proposed Fairfield site. (Metro Mobile 1, Exhibit 3A, p. 27)
68. Metro Mobile has not experienced any television or radio interference problems from its cellular facilities, which are compatible with television and radio frequencies. (Tr., 12/14/87, p. 150)

69. The expected electromagnetic radio frequency power densities would be as follows: at the proposed Greenwich Riversville site, for 60 channels operating at 100 watts 141 feet AGL on the 150-foot tower, 0.0424 mW/cm^2 ; at this same proposed site using a 180-foot tower with antennas mounted 171 feet AGL, 0.0288 mW/cm^2 ; at the proposed Rockwood Lake site with 90 channels operating at 100 watts 151 feet AGL on the proposed 160-foot tower, 0.0555 mW/cm^2 ; at the proposed Banksville site, with 90 channels operating at 100 watts 191 feet AGL on this tower, 0.0347 mW/cm^2 ; at both the proposed and alternative Fairfield sites, with 32 channels operating at 100 watts 160 feet AGL on both of these towers, 0.0176 mW/cm^2 (Metro Mobile 1, Exhibit 1, p. 6; Exhibit 1A, p. 2; Exhibit 2, p. 4; Exhibit 2A, p. 5; Exhibit 3, p. 4; Exhibit 3A, p. 3)
70. The expected power densities for the proposed and alternative sites in this application would be several orders of magnitude below the American National Standards Institute level of 2.933 mW/cm^2 for the proposed frequencies. (FCC Office of Science and Technology Bulletin 65, October 1985; Metro Mobile 1, p.23)
71. Two 11-foot (directional) 13-foot (directional), or 15-foot (omnidirectional whip) antennas would be mounted on platforms attached at the top of each proposed monopole. Three 12.5-foot directional transmit/receive antennas with reflectors would be mounted between the platforms. (Metro Mobile 1, p. 10)

72. A single-story electronics building would be constructed near the base of each proposed tower. The proposed Riversville, Fairfield, and alternative Fairfield buildings would have dimensions of 15.5 feet by 21 feet. The proposed Rockwood Lake and Banksville buildings would be 21-foot by 22.5-foot buildings. (Metro Mobile 1, p.11; Exhibit 1, p.19, Exhibit 2, p.19; Exhibit 2A, p.20; Exhibit 3, p.20, Exhibit 3A, p.19)
73. All of the proposed sites would be surrounded by an eight foot chain link fence with 12-inch security wire attached to the top. (Metro Mobile 1, p.11)
74. The State Historic Preservation Officer (SHPO) decided that the proposed Rockwood Lake and Banksville tower sites in Greenwich would have no effect on historic, architectural, or archaeological resources listed on or eligible for the National Register of Historic Places. (Metro Mobile 1, Exhibit E, pp. 36-37)
75. The proposed Riversville site in Greenwich and proposed and alternative Fairfield sites would have a visual effect on the Merritt Parkway. The SHPO recommends the proposed towers be allowed to weather to a dull gray color, that mature tree species be maintained as a buffer, and that additional trees be planted to increase screening. (Metro Mobile 1, Ex. E, pp. 36-37)

76. There are no known existing or historic records of species classified by the United States government as endangered or threatened, or species classified by the State of Connecticut as being of special concern, occurring at any of the sites proposed in this application. (Metro Mobile 1, Exhibit E, pp. 18-20)

77. The proposed Riversville Greenwich facility installation costs are estimated as follows:

Radio equipment	\$171,200.00;
Tower and antennas	44,100.00;
Power systems	6,000.00;
Equipment building	60,000.00;
Miscellaneous costs (including site preparation and installation)	<u>182,200.00;</u>
Total	\$463,500.00.

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

78. A 180-foot tower at the proposed Riversville site would have installation costs estimated as follows:

Radio equipment	\$171,200.00;
Tower and antennas	50,300.00;
Power systems	6,000.00;
Equipment building	60,000.00;
Miscellaneous costs (including site preparation and installation)	<u>182,200.00;</u>
Total	\$469,700.00.

(Metro Mobile 1, Exhibit 1A, p.10)

79. The proposed Rockwood Lake facility installation costs are estimated as follows:

Radio equipment	\$245,200.00;
Tower and antennas	46,700.00;
Power systems	12,000.00;
Equipment building	68,300.00;
Miscellaneous costs (including site preparation and installation)	<u>132,800.00;</u>
Total	\$505,000.00.

(Metro Mobile 1, Exhibit 2, p. 16)

80. The proposed Banksville facility installation costs are estimated as follows:

Radio equipment	\$245,200.00;
Tower and antennas	54,600.00;
Power systems	12,000.00;
Equipment building	68,300.00;
Miscellaneous (including site preparation and installation)	<u>162,800.00;</u>
Total	\$542,900.00.

(Metro Mobile 1, Exhibit 2A, p.17)

81. The proposed Fairfield facility installation costs are estimated as follows:

Radio equipment	\$245,200.00;
Tower and antennas	45,700.00;
Power systems	12,000.00;
Equipment building	60,000.00;
Miscellaneous (including site preparation and installation)	<u>137,800.00;</u>
Total	\$500,700.00.

(Metro Mobile 1, Exhibit 3, p. 17)

82. The alternative Fairfield facility installation costs are estimated as follows:

Radio equipment	\$245,200.00;
Tower and antennas	45,700.00;
Power systems	12,000.00;
Building	60,000.00;
Miscellaneous (site preparation installation)	<u>142,800.00;</u>
Total	505,700.00.

(Metro Mobile 1, Exhibit 3A, p. 16)