ORIGINAL

DOCKET NO. 137 - An application of Metro Mobile CTS of Hartford, Inc., for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance, and operation of cellular facilities in the Towns of East Hartford, South Windsor, and Windsor, Connecticut.

Connecticut

Siting

Council

November 14, 1990

FINDINGS OF FACT

1. Metro Mobile of CTS Hartford, 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 May 17, 1990, for a Certificate of Environmental Compatibility and Public Need (Certificate) for the construction, operation, and maintenance of two telecommunications towers and associated equipment to provide increased domestic public cellular radio telecommunications service (cellular service) in the Towns of Windsor, South Windsor, and/or East Hartford, within the Hartford, Connecticut, New England County Metropolitan Area (NECMA). (Record)

2. Public Notice of the application, as required by CGS section 16-50l, was published twice in the Journal Inquirer and Hartford Courant. (Record)

3. The Council and its staff made inspections at the proposed and alternate cell sites in Windsor, South Windsor, and East Hartford, Connecticut, on August 15, 1990. During the field review, Metro Mobile flew balloons at each proposed and alternate cell site to simulate the height of each proposed and alternate tower. (Record)

4. Pursuant to CGS Section 16-50m, the Council, after giving due notice thereof, held a public hearing for the proposed application on August 15, 1990, beginning at 3:30 p.m., and reconvening at 7:00 p.m., in the South Windsor Town Hall Council Chambers, 1540 Sullivan Avenue, South Windsor, Connecticut. (Record)

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

6. The 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 and consulted with public officials from each town. (Metro Mobile V)

8. In 1981, the Federal Communications Commission (FCC) recognized the public need for technical improvement, wide-area coverage, high quality service, and establishing a competitive market for mobile telephone service. (Metro Mobile I, p.7; Docket 126, Finding of Fact 8)

9. The FCC has exercised its primary jurisdiction in determining need for the provision of cellular service, and the applicant is not required to demonstrate a public need for the service. (Metro Mobile I, p.7)

10. The FCC has determined that for the public interest two licenses would be granted to encourage competition in providing cellular service in each market area. One license is awarded to a wireline company, the other to a non-wireline company. (Metro Mobile I, p.7; Docket 126, Finding of Fact 10)

11. The FCC pre-empts state regulations in determining technical standards and a competitive market structure. (Metro Mobile I, p.8)

12. The FCC rules permit a licensee to modify its system, including the addition of new cell sites without prior approval by the FCC as long as the licensee's authorized service area is not enlarged. The proposed cell sites in this application would not enlarge Metro Mobile's authorized service area. (Metro Mobile I, p.9)

13. Cellular service consists of small overlapping broadcast regions. These regions or cells are limited in size by the location of a potential site within a cellular grid, its availability, its environmental compatability, and constraints imposed by laws of radio propagation. The system design provides for frequency reuse and handoff capability and must be able to accept orderly system expansion. (Metro Mobile I, tab 11, pp.2,3 & 6; Docket 126, Finding of Fact 12)

14. In selecting a cell site, Metro Mobile found no existing structures of adequate height, structural strength, or space availability in or near the search areas. (Metro Mobile I, Table 11, p.8)

15. The proposed or alternate sites would be sectorized, providing for a maximum call handling capacity by dividing a geographic service area into six areas or

29. The topographic elevation at the proposed site is 60 feet above mean sea level (AMSL). (Metro Mobile I, tab 1, p.6)

30. The proposed East Hartford site is on level terrain within a landscaped area of fruit and evergreen trees that do not exceed 20 feet in height. (Metro Mobile tab 5; DEP letter dated July 10, 1990)

31. The existing zoning of the proposed site is industrial (I-2 zone). Existing adjacent land uses include low density residential development (R-2 zone) to the south and east and industry (I-2 zone) to the north and west. (Transcript, p.133)

32. Utilities to the proposed East Hartford site would come in from Dolores Drive. (Metro Mobile I, tab 1, p.7)

33. Two transmit and six transmit/receive antennas, approximately 13 and 11 feet in length, respectively, would be mounted at the top of the proposed tower for an overall tower height of 113 feet above ground level (AGL). (Metro Mobile I, tab 1, p.8; Metro Mobile III, Q.10)

34. The fall zone of the proposed East Hartford tower would encompass three properties owned by Walter Demusz (Lessor), Burnham Business Park Associates, and Daniel Filimeno. Metro Mobile's equipment building and a small concrete building on the Lessor's property would be the only structures within the fall zone. (Metro Mobile III, Q.7, Attachment 5)

35. At the proposed East Hartford site the tower could be moved to the opposite corner and the building rotated 90 degrees clockwise so that the tower fall zone would only include the lessor's property and Delores Street. (Transcript, p.113)

36. At the proposed East Hartford site there are nine residences within a 1000-foot radius of the proposed tower. The nearest residence is located 620 feet from the proposed tower. (Metro Mobile I, tab 5, p.2)

37. The Town of East Hartford is not in favor of the proposed East Hartford site because of the close proximity of the proposed facility to a low density residential area. (Transcript p.40)

38. An existing 21-inch clay pipe crosses Metro Mobile's leased parcel at the proposed East Hartford site. The Town of East Hartford plans to abandon this drainage pipe. Runoff that previously flowed through this

Windsor, and Windsor proposed and alternate towers. No obstruction marking or lighting would be necessary for any of the proposed or alternate towers. (Metro Mobile I, tabs 1 and 2, p.12, tabs 6 and 7, p.13)

23. There are no known extant populations of federally endangered and threatened species or Connecticut "species of special concern" occurring at the East Hartford, South Windsor, and Windsor proposed and alternate sites. However, DEP records indicate that the federally endangered bald eagle may use large trees to perch during the winter in the vicinity of the Windsor alternate site. The DEP's Wildlife Division notes that "work activity west of the railroad tracks will not seriously effect wintering eagles." (Metro Mobile VI; DEP letters dated May 14 and May 31, 1990.)

Proposed East Hartford Tower Site

24. The proposed East Hartford cell site would be located to the rear of 303 Burnham Street, East Hartford. The proposed site is a 60-foot by 60-foot leased parcel within a 2.8 acre parcel owned by Walter Demusz. The large lot is used for manufacturing. The proposed tower would be located approximately 12.5 feet east of Dolores Drive, approximately 605 feet south of Burnham Street, approximately 162 feet west of an abutting property owned by Jene E. Britton, and approximately 12.5 feet north of an abutting property owned by Walter Demusz. (Metro Mobile I, tab 1, p.1, tab 5, p.1; Metro Mobile 3, Q.7, attachment 5)

25. At the proposed East Hartford site a 100-foot, self-supporting monopole tower and 20-foot by 40-foot equipment building would be constructed on the leased parcel. (Metro Mobile I, tab 1, p.1)

26. The preferred access to the proposed East Hartford site would be directly from Dolores Drive, a private road owned by Burnham Business Park Associates, which may be accepted as a public road by the Town of East Hartford. If this access does not become available, an alternate access approximately 600 feet in length could be constructed along an easement on the western property line of Walter Demusz parallel to Delores Drive extending from Burnham Street to the proposed cell site. (Metro Mobile I, tab 1, p.1; Metro Mobile IV, Q.10)

27. Dolores Drive was approved by the East Hartford Planning and Zoning Commission and was built within the last two years. The Town of East Hartford has yet to accept this road for public use. (Transcript, pp.139-141)

29. The topographic elevation at the proposed site is 60 feet above mean sea level (AMSL). (Metro Mobile I, tab 1, p.6)

30. The proposed East Hartford site is on level terrain within a landscaped area of fruit and evergreen trees that do not exceed 20 feet in height. (Metro Mobile tab 5; DEP letter dated July 10, 1990)

31. The existing zoning of the proposed site is industrial (I-2 zone). Existing adjacent land uses include low density residential development (R-2 zone) to the south and east and industry (I-2 zone) to the north and west. (Transcript, p.133)

32. Utilities to the proposed East Hartford site would come in from Dolores Drive. (Metro Mobile I, tab 1, p.7)

33. Two transmit and six transmit/receive antennas, approximately 13 and 11 feet in length, respectively, would be mounted at the top of the proposed tower for an overall tower height of 113 feet above ground level (AGL). (Metro Mobile I, tab 1, p.8; Metro Mobile III, Q.10)

34. The fall zone of the proposed East Hartford tower would encompass three properties owned by Walter Demusz (Lessor), Burnham Business Park Associates, and Daniel Filimeno. Metro Mobile's equipment building and a small concrete building on the Lessor's property would be the only structures within the fall zone. (Metro Mobile III, Q.7, Attachment 5)

35. At the proposed East Hartford site the tower could be moved to the opposite corner and the building rotated 90 degrees clockwise so that the tower fall zone would only include the lessor's property and Delores Street. (Transcript, p.113)

36. At the proposed East Hartford site there are nine residences within a 1000-foot radius of the proposed tower. The nearest residence is located 620 feet from the proposed tower. (Metro Mobile I, tab 5, p.2)

37. The Town of East Hartford is not in favor of the proposed East Hartford site because of the close proximity of the proposed facility to a low density residential area. (Transcript p.40)

38. An existing 21-inch clay pipe crosses Metro Mobile's leased parcel at the proposed East Hartford site. The Town of East Hartford plans to abandon this drainage pipe. Runoff that previously flowed through this

21-inch pipe would be diverted to a newly installed 24-inch pipe from a catch basin located north of the proposed site on the Lessor's property to a new catch basin on Dolores Drive. Metro Mobile could not identify any existing drainage easements or other rights-of-way associated with the existing 21-inch clay pipe. (Metro Mobile Late File 10)

39. The total estimated costs of construction, to be incurred by Metro Mobile, for the proposed East Hartford site would be:

Radio equipment	$483,400
Tower and antennas	$33,360
Power systems	$12,000
Building costs	$68,300
Site preparation/Installation	$134,000
Total	$731,060

(Metro Mobile, tab 1, p.9)

Alternate South Windsor Tower Site

40. As an alternate to the proposed East Hartford cell site, Metro Mobile proposes a cell site in South Windsor. The alternate South Windsor cell site would be located to the rear of 190 Burnham Street, South Windsor. The alternate South Windsor site would be a 35-foot by 70-foot leased parcel within a larger 1.04 acre parcel owned by Abraham Glassman. The remainder of the lot is used for industrial purposes. The proposed tower would be located approximately 15 feet east of abutting property owned by the State of Connecticut, approximately 10 feet south of abutting property owned by Meyer Gage Co., Inc., 100 feet west of abutting property owned by Albert B. Meyer, and approximately 382 feet north of Burnham Street. (Metro Mobile I, tab 2, p.1, tab 5, p.10; Metro Mobile III. Q.7, Attachment 5)

41. A 110-foot, self-supporting monopole tower and 20-foot by 40-foot equipment building would be constructed on the alternate South Windsor site. (Metro Mobile I, tab 2, p.1)

42. Access to the alternate South Windsor site would be over an existing driveway along the eastern property boundary on the lessor's property. (Metro Mobile I, tab.2, p.1; Metro Mobile II, Q.7)

43. The topographic elevation at the alternate site is 54 feet AMSL. (Metro Mobile I, tab 2, p.6)

44. The alternate South Windsor tower would be located on relatively level terrain within a partially cleared area

north of the existing parking area. White pine trees approximately 15 inches to 20 inches in diameter border the site to the north. (Metro Mobile I, tab 2, p.6, and DEP letter dated July 10, 1990)

45. The fall zone of the alternate South Windsor tower would encompass seven properties owned by Abraham Glassman (Lessor); Albert B. Meyer; Meyer Gage Co., Inc.; State of Connecticut; Consolidated Rail Corporation; Richard and Bernice A. Tonucci; and Arthur and Agnes Spielman. The north corner of the Lessor's building and Metro Mobile's equipment building would be the only structures within the fall zone. (Metro Mobile III, Q.7, Attachment 5)

46. The existing zoning of the alternate South Windsor site is industrial. Use of surrounding properties is for industry and commercial development. (Metro Mobile I, tab 2, p.6)

47. Utilities would be supplied to the alternate South Windsor site via an underground line along a 340-foot easement from Burnham Street. (Metro Mobile I, tab 5, p.10)

48. Two transmit and six transmit/receive antennas, approximately 13 and 11 feet in length, respectively, would be mounted at the top of the alternate South Windsor tower for an overall height of 123 feet AGL. (Metro Mobile I, tab 2, p.8; Metro Mobile III, Q.10)

49. At the alternate South Windsor site there are nine residences within 1000-feet of the proposed tower. The nearest residence is located 300 feet from the proposed tower. (Metro Mobile I, tab 5, p.11)

50. The Town of South Windsor does not object to the alternate South Windsor tower site; however, concerns related to visibility of the facility and power density emissions were stated. (Transcript pp. 32-37)

51. The estimated costs of construction, to be incurred by Metro Mobile, for the alternate South Windsor site would be:

Radio equipment		$483,400
Tower and antenna		$38,320
Power systems		$12,000
Building costs		$68,300
Site preparation/Installation		$159,000
	Total	$761,020

(Metro Mobile I, tab 2, p.9)

Proposed East Hartford and Alternate South Windsor Sites

52. The proposed East Hartford or alternate South Windsor site would provide additional cellular traffic handling capacity and provide cellular service along U.S. Routes 5, 6, 44A, and Interstate Routes 91, 291, and 384. The proposed or alternate site would off-load traffic from the existing Hartford and Vernon cell sites, the approved Manchester cell site, and a proposed Windsor cell site. (Metro Mobile I, tab 2, p.22)

53. Fourteen sites were considered and twelve sites were rejected by Metro Mobile for the proposed East Hartford and alternate South Windsor site. Reasons for rejection are:
a) landowners unwilling to lease or sell land for construction of a cell site,
b) conflict with residential subdivision and/or industrial park development, and
c) close proximity to residences and wetlands.
(Metro Mobile I, tab 3)

54. According to the Connecticut Historical Commission, the proposed East Hartford and alternate South Windsor cell sites would have "no impact with respect to historic, architectural, or archaeological resources listed on or eligible for the National or State Register of Historic Plans". (Metro Mobile I, tab 4)

55. With 90 channels operating simultaneously at maximum power, the worst case electromagnetic radio frequency power density level would be 0.1526 milliwatts per square centimeter (mW/cm^2) at the base of the proposed East Hartford tower and 0.1239 mW/cm^2 at the base of the alternate South Windsor tower. The American National Standards Institute (ANSI) Safety Standard for the proposed frequency level 870-880 MHz, as adopted by the State of Connecticut pursuant to DEP regulations, is 2.92 mW/cm^2. (Metro Mobile I, tab 5, pp.2 and 11).

Proposed Windsor Tower Site

56. The proposed Windsor cell site would be located within a 34.43 acre recreation parcel, known as the L.P. Wilson Community Center, 599 Matianuck Avenue, Windsor, Connecticut. The proposed site would be a 50-foot by 60-foot leased parcel and the proposed tower would be located approximately 125 feet west of a soccer field sideline and approximately 285 feet east of the nearest property line. (Metro Mobile I, tab 10, p.1, tab 6, p.1; Metro Mobile III, Q.7, Attachment 5)

57. A proposed 100-foot, self-supporting monopole tower and a 20-foot by 30-foot equipment building would be constructed on the proposed Windsor leased parcel. (Metro Mobile I, tab 6, p.1, tab 10, p.1)

58. The proposed Windsor site access would be along a 20-foot wide by 655-feet long easement from the southwest corner of the Community Center parking lot to the leased parcel between soccer and baseball playing fields. Pre-formed concrete pads (lawn pavers) would be installed, backfilled, and seeded for approximately 100 feet from the parking lot providing a stabilized vegetated accessway. All disturbed areas within the accessway would be loamed and seeded once site construction is complete. (Metro Mobile I, tab 6, p.5 and 7; Metro Mobile III, Q.7, attachment 5)

59. The proposed Windsor site is zoned NZ (Public and Quasi Public Zoning). Land within a quarter mile radius of the proposed Windsor site is zoned for residential and agricultural uses. (Metro Mobile I, tab 6, p.6)

60. The topographic elevation at the proposed Windsor site is 94 feet AMSL. (Metro Mobile I, tab 6, p.6)

61. The proposed Windsor cell site would be within a wooded area with trees standing approximately 40 to 80 feet high. The proposed Windsor site is approximately 30 feet north of an intermittent stream and a wetland borders the site on three sides. The northwest and southwest corners of the leased parcel are approximately 14 and 17 feet, respectively, from the wetland boundaries. (Metro Mobile I, tab p.7; Metro Mobile III, Q.7; Metro Mobile IV, Q.4)

62. The Town of Windsor has an approved option/lease and has secured a Windsor Inland Wetlands and Watercourse permit for the proposed Windsor site. No Army Corps of Engineer permit would be required. (Metro Mobile I, tab 6, p.6 and 7; Metro Mobile II, Q.2, Attach 2; Metro Mobile IV, Q.19)

63. Trees and understory growth would be removed within a 70-foot by 105-foot "clearing limit" area of the proposed Windsor site. No trees of significant size would be removed, but branch pruning might be needed to provide clearance for construction of the proposed tower. (Metro Mobile I, tab 10, p.2, Metro Mobile IV, Qs.3 and 7; Transcript pp.96 and 97)

64. Utilities would be brought into the proposed Windsor site underground along the 20-foot wide utility and access strip from an existing utility pole located on the Community Center property. (Metro Mobile I, tab 6, p.7; Metro Mobile III, Q.7, attachment 5)

65. Metro Mobile would not construct the proposed Windsor site during the Town's soccer season. Routine maintenance would be planned not to interfere with lessor's use of the playing fields. (Transcript pp. 73 and 74)

66. The fall zone of the proposed Windsor tower would be on the lessor's property. Metro Mobile's equipment building would be the only structure within the fall zone. (Metro Mobile III, Q.7, Attachment 5)

67. Two transmit and six transmit/receive antennas, approximately 13 and 11 feet in length, respectively, would be mounted at the top of the proposed Windsor tower for an overall tower height of 113 feet AGL. (Metro Mobile I, tab 6, p.9; Metro Mobile III, Q.10)

68. Approximately 61 residences are located within a 1,000 foot radius of the proposed Windsor tower. The closest residence is approximately 380 feet west of the proposed tower. The L.P. Wilson Community Center is approximately 620 feet northeast of the proposed tower. (Metro Mobile I, tab 10, p.3)

69. The total estimated costs of construction, to be incurred by Metro Mobile, for the proposed Windsor site would be:

Radio Equipment	$491,600
Tower and Antenna	$33,360
Power Systems	$12,000
Building	$68,300
Site Preparation/Installation	$169,000
Total	$774,260

(Metro Mobile I, tab 6, p.10)

Alternate Windsor Tower Site

70. As an alternative to the proposed tower site , Metro Mobile proposes an alternate site on a 2.0 acre vacant lot at 280 T East Barber Street, Windsor, Connecticut, owned by Norman Grady and Stanley Cohen. The alternate tower would be 130 feet south of East Barber Street and approximately 130 feet east of abutting property owned by Vincent Spern and Salvatore Santangelo. (Metro Mobile I, tab 7, p.1; Metro Mobile III, Q.7, attachment 5)

71. A 130-foot, self-supporting monopole tower and a 14-foot by 40-foot equipment building would be constructed on the leased lot of the alternate Windsor site. (Metro Mobile I, tab 7, p.1)

72. A new gravel driveway approximately 10 feet in length would be constructed from East Barber Street to the gate of the leased parcel and would serve as a vehicle access to the alternate Windsor site. (Metro Mobile III, Q.7, attachment 5)

73. The topographic elevation of the alternate Windsor tower site is 32 feet AMSL. (Metro Mobile I, tab 7, p.6)

74. The alternate site is zoned I-1 (industrial). Other zones surrounding the alternate Windsor site are industrial, residential, and agricultural. Also, the cell site is located within a 100-year flood plain. (Metro Mobile I, tab 7, pp.6 and 7)

75. At the alternate Windsor site, "controlled fill" would be necessary to raise the floor of the proposed equipment building approximately four feet above ground elevation to keep it above the 100-year flood plain. "Controlled fill" would be compacted, free draining soil (typically gravel). (Metro Mobile III Q.7, attachment 5; Metro Mobile IV, Q.23)

76. The alternate Windsor site is within a vacant parcel containing small trees and herbaceous growth. An inland wetland is located on the southern portion of the leased parcel. The wetlands are outside the proposed fenced facility and outside the construction area. No Inland Wetland and Watercourse permit would be necessary to develop this site. (Metro Mobile I, tab 7, p.7)

77. Utility connections to the alternate Windsor site would be from existing utility poles on the south side of East Barber Street. (Metro Mobile I, tab 7, p.1)

78. The fall zone of the alternate Windsor tower would be within the leased parcel. Metro Mobile's equipment building would be the only structure within the fall zone. (Metro Mobile I, tab 7, p.1)

79. The Connecticut River would be approximately 1,320 feet east of the alternate Windsor site. Also, 55 residences would be located within a 1,000-foot radius of the alternate tower with all being located west and north of the cell site. The closest residence would be 220 feet northwest of the alternate tower base. (Metro Mobile I, tab 7, p.7).

80. Two transmit and six transmit/receive antennas, approximately 13 and 11 feet in length, respectively, would be mounted at the top of the alternate Windsor tower for an overall tower height of 143 feet AGL. (Metro Mobile I, tab 7, p.9; Metro Mobile III, Q.10)

81. The total estimated costs of construction, to be incurred by Metro Mobile, for the alternate Windsor site would be:

Radio Equipment	$491,600
Tower and antenna	$39,800
Power systems	$12,000
Building	$68,300
Site preparation/Installation	$159,000
Total	$770,700.

(Metro Mobile I, tab 7, p.10)

Proposed and Alternate Windsor Sites

82. Ten sites were considered and eight sites were rejected by Metro Mobile for the proposed and alternate Windsor site. Reasons for rejection are:
    a) inability to co-exist on an AM transmitting tower,
    b) incompatible with existing and future land use by town and private landowners, and
    c) close proximity to residences.

(Metro Mobile I, tab 8)

83. According to the Connecticut Historical Commission, the proposed and alternate Windsor cell sites would have no effect with respect to historic, architectural, or archaeological resources. (Metro Mobile I, tab 9)

84. The proposed or alternate Windsor site would provide additional cellular traffic handling capacity and provide cellular service along U.S. Route 5, and Interstate Routes 84, 91, and 291. The proposed or alternate site would off-load traffic from existing cell sites in Hartford and Windsor, the approved northwest Hartford cell site, and the proposed East Hartford or alternate South Windsor cell site. (Metro Mobile I, tab 6, p.24)

85. Visibility of the proposed Windsor site would be limited due to the heavily wooded area. Approximately 20 feet of the proposed tower would rise above the tree tops. (Metro Mobile I, tab 6, p.7)

86. The alternate Windsor tower would be located in an open area along Interstate 291 and the Connecticut River. Although 60-foot to 80-foot trees would screen the alternate Windsor tower to river traffic, as much as 80 to 100 feet of the alternate tower would be visible to Sharson Park and a boat launch approximately 550 feet east of the alternate site. While some vegetative growth would help shield the tower to homes west of the tower, portions of the tower would be visible to adjacent residences. (Metro Mobile I, tab 10, pp.12 and 13).

87. With 90 channels operating simultaneously at maximum power, the worst case electromagnetic radio frequency power density level would be 0.1526 mW/cm^2 at the base of the proposed Windsor tower and 0.0863 mW/cm at the base of the alternate Windsor tower. The ANSI safety standard for the proposed frequency level, 870-880 MHz, as adopted by the State of Connecticut pursuant to DEP regulations is 2.92 MW/cm^2. (Metro Mobile I, tab 10, pp.2 and 12)