

An application of Metro : Docket No. 107
Mobile CTS of Hartford, Inc., for
a Certificate of Environmental : Connecticut
Compatibility and Public Need : Siting
for cellular telephone antennas and : Council
associated equipment in the Town of
Bloomfield, Connecticut. : 6 July 1989

FINDINGS of FACT

1. Metro Mobile CTS of Hartford, Inc., in accordance with provisions of sections 16-50g to 16-50z of the Connecticut General Statutes (CGS), applied to the Connecticut Siting Council (Council) on January 9, 1989, for a Certificate of Environmental Compatibility and Public Need (Certificate) for the construction, maintenance, and operation of telecommunication antennas, associated equipment, and a building to provide Domestic Public Cellular Radio Telecommunication Service (cellular service) in the Hartford, Connecticut, New England County Metropolitan Area("Hartford NECMA"). (Record)
2. The application was accompanied by proof of service as required by section 16-501 of the CGS. (Record)
3. The fee as prescribed by section 16-50v of the Regulations of State Agencies (RSA) accompanied the application. (Record)
4. Affidavit of newspaper notice as required by section 16-501 of the CGS was supplied by the applicant. Newspaper notice of this application was published twice by the applicant in the Hartford Courant. (Metro Mobile 1, Exhibit B, p.5)

5. The Council and its staff inspected the proposed cell site in the Town of Bloomfield, Connecticut on April 3, 1989.
(Record)
6. Pursuant to section 16-50m of the CGS, the Council, after giving due notice thereof, held a public hearing on this application on April 3, 1989, at 3:30 P.M. and 6:30 P.M. in the Bloomfield Community Center in Bloomfield, Connecticut. (Record)
7. The parties to the proceeding are the applicant and those persons and organizations whose names are listed in the Decision and Order which accompanies these findings.
(Record)
8. The Department of Environmental Protection (DEP) filed written comments with the Council pursuant to section 16-50j of the CGS. (Record)
9. Conventional mobile telephone service has been limited by insufficient frequency availability, inefficient frequency use, and poor quality of service. These limitations have resulted in congestion, blocking of transmission, interference, lack of coverage, and high costs. (Metro Mobile 1, p.6)
10. In 1981, the Federal Communications Commission (FCC) recognized a national need for technical improvement, wide area coverage, high quality service, and competitive pricing in mobile telephone service.
(Metro Mobile 1, p.6)

11. The FCC has determined that the public interest requires two licenses for cellular service be made available in each market area or NECMA to provide competition. One license is awarded to a wireline company, the other to a non-wireline company. (Metro Mobile 1, p.6; Docket 58, Finding 22)
12. The FCC has pre-empted State regulation in determining that a public need currently exists for cellular service, setting technical standards for that service, and establishing a competitive market. (Docket 58, Findings 17, 18, and 22; Metro Mobile 1, p.7)
13. 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 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 effective radiated power. (Docket 58, Finding 13; Metro Mobile 1, Testimony, pp.2-7)
14. Cell site locations are limited by a basic need for a 10 percent to 20 percent overlap of coverage between cell sites. Cell sites must be located so that continuous coverage to vehicles is provided. (Metro Mobile 1, Testimony, pp. 6 and 7)
15. The proposed Bloomfield telecommunication site would interface with the existing Hartford and Farmington cell sites. (Metro Mobile 1, p.17)

16. The proposed Bloomfield site would provide coverage west of Talcott Ridge along Routes 10, 44, 167, 177, and 202, as well as areas of Avon, Canton, and Simsbury where coverage is presently not available. (Metro-Mobile 1, p.17)
17. Metro Mobile considered and rejected 16 sites along the Talcott Mountain ridge in its site search. Generally, site selection is limited by service requirements, elevation, terrain, and surrounding land use. (Metro Mobile 1, Testimony, pp.4-6)
18. The 16 sites that were investigated were rejected for one of the following reasons: a) existing towers were structurally insufficient to support cellular antennas; b) previous application of a tower site denied by the Council; c) unwillingness of landowners or tower owners to lease or sell property or tower space; and d) unacceptable potential for interference or inadequate coverage to meet Metro Mobile's operating criteria. (Metro Mobile 1, Testimony, Attachment 1, pp.1 and 2)
19. Metro Mobile proposes to construct a cellular telephone telecommunications facility on the property of the Talcott Mountain Science Center for Student Involvement, Inc. (Science Center) in Bloomfield. The proposed site would not require construction of a new tower. However, six antennas would be mounted on an existing 60-foot tower and a one-story electronics building would be constructed on a 30 foot by 50 foot leased parcel of land near the tower. (Metro Mobile 1, p.4)

20. Metro Mobile would construct a building, approximately 19 feet by 26 feet, to house the electronic equipment. The building would be custom-designed and built for the proposed site. (Metro Mobile 1, p.9)
21. Metro Mobile has executed an option to lease property for the proposed equipment building and holds a license to occupy space on the tower. (Metro Mobile 1, p.18)
22. The inside of the building would be partitioned off into two rooms, measuring 8 feet by 19 feet and 18 feet by 19 feet. Talcott Mountain Science Center would have use of the 8-foot by 19-foot room for storage of their weather monitoring equipment. (Tr. 4/3/89, pp. 25 and 26)
23. Metro Mobile would utilize the existing tower which currently has an 18-foot weather radar antenna mounted at the top and a six foot microwave dish at 55 feet, which would be moved to approximately the 35-foot level. The company proposes to attach four 11-inch by 20-inch panel transmit antennas at the 54-foot and 59-foot levels. Two 11-inch by 20-inch receive antennas, with reflectors, would be side mounted at the 49-foot level. (Metro Mobile 1, Exhibit 1 p.4; Tr. 4/3/89, pp.13 and 14.)
24. The site of the proposed equipment building is approximately 45 feet from the closest existing building of the Science Center and is vegetated with grasses and a few specimens of eastern red cedar. (Metro Mobile 1, Exhibit 1, Attachment; Tr. 4/3/89, pp. 36, 47 and 48)

25. Based on consultation with the Natural Diversity Data Base maintained by the Natural Resource Center, "there are no known extant populations of Federally Endangered and Threatened species or Connecticut 'species of special concern' at the site" (Metro Mobile 1, p.13 and Exhibit E, p.4)
26. The State Historic Preservation Office has determined that the project "will have no effect on historic, architectural, or archeological resources listed on or eligible for the National Register of Historic Places." (Metro Mobile 1, p.13 and 14; Exhibit E, p.8)
27. The existing tower is structurally sound to accept Metro Mobile's six additional telecommunication antennas with associated cable and withstand pressures equivalent to 90 MPH wind with 1/2 inch solid ice accumulation in accordance with Electronic Industries Association (EIA) Standards. (Metro Mobile 1, p.9; Metro Mobile 3, Q.1)
28. Access to the site would be via Montevideo Road over the lessor's improved driveway to an existing paved parking lot and over a proposed crushed stone walkway to the building. (Metro Mobile Exhibit 1, p.12; Tr., 4/3/89, p.49)
29. The Science Center is secured by a fence with an on-site night watchman. (Tr., 4/3/89, pp.33 and 47)
30. Metro Mobile would, in cooperation with the Science Center, relocate the proposed building within the leased parcel to minimize the clearing of the eastern red cedars and other vegetation. Also, they would erect a fence if requested to do so. (Tr., 4/3/89, pp.47 and 48.)

31. Metro Mobile would acquire an access easement for the cable tray connecting the proposed building to the tower. (Tr., 4/3/89, p.23)
32. The zoning of the proposed site is classified as R-80 Residential in the Town of Bloomfield. (Metro Mobile 1, Exhibit 1, p.11)
33. There are three residences located within a 1,000 foot radius of the proposed site. The nearest home is approximately 700 feet from the proposed site. (Metro Mobile 3, Q.4)
34. The proposed cell site is designed to handle 64 channels. (Tr., 4/3/89, p.42; Metro Mobile 1, Exhibit 1, p.3)
35. The electromagnetic radio frequency power density at the proposed site, assuming all channels operating simultaneously at maximum allowable power and broadcasting from the lowest set of antennas, would be 0.1542 mW/cm^2 , well below the ANSI Standard of 2.933 mW/cm^2 . (Metro Mobile 1, Exhibit 1, p.3)
36. Applicant's estimates of construction for the proposed cell site are as follows:

Radio Equipment Costs.....	\$346,400
Tower and Antenna Costs.....	\$8,900
Power System Costs.....	\$12,000
Building Costs.....	\$60,000
Miscellaneous (including site preparation and installation).....	<u>\$57,800</u>
Approximate Total Costs...	\$485,100

(Metro Mobile 1, p.18 and Exhibit 1, p.8)