DOCKET NO. 38

AN APPLICATION SUBMITTED BY CONTINENTAL CABLEVISION OF CONNECTICUT, INC., FOR A CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AND PUBLIC NEED FOR THE ERECTION OF A COMMUNITY ANTENNA TELEVISION TOWER IN THE TOWN OF ENFIELD.	:	CONNECTICUT SITING COUNCIL
	:	March 14, 1984

F I N D I N G S O F F A C T

1. Continental Cablevision of Connecticut, Inc., (Continental) in accordance with provisions of Section 16-50k et seq. of the General Statutes of Connecticut (CGS) revised to 1983 and Sections 16-50j-70 et seq. of the Regulations of Connecticut State Agencies (RSA), applied to the Connecticut Siting Council (Council) on December 1, 1983, for a Certificate of Environmental Compatibility and Public Need (Certificate) for a community antenna television tower and associated equipment in the Town of Enfield. (Record)
2. The fee as prescribed by Section 16-50v-1 of the RSA accompanied the application. (Record)
3. The application was accompanied by proof of service as required by Section 16-501 of the CGS. (Record)
4. An affidavit of newspaper notice as required by Section 16-501 of the CGS was also filed. (Record)
5. Pursuant to Section 16-50m of the CGS, the Council, after giving due notice thereof, held a public hearing at the Enfield Town Hall, in Enfield, Connecticut, on January 25, 1984, at 7:00 P.M. (Record)
6. On January 25, 1984, members of the Council made a field inspection of the proposed site and surrounding area. (Record)

7. The parties to the proceeding are the applicant, Continental Cablevision of Connecticut, Inc., and those persons and organizations whose names are listed in the Decision and Order which accompanies these findings. (Record)

8. The following state agencies filed written comments with the Council pursuant to Section 16-50j(g) of the CGS: the Department of Transportation, the Department of Economic Development, and the Department of Environmental Protection. (Record)

9. The Department of Economic Development examined the docket and concluded that the proposal is compatible with the environment while providing service to many homes. (Record)

10. State Senator Cornelius O'Leary filed a limited appearance stating that the proposed facility would not be incompatible with the proposed Scantic River Park. (Record)

11. On December 23, 1982, Continental received a certificate of public convenience and necessity from the Department of Public Utility Control (DPUC) to serve CATV Area 11, which consists of the towns of East Granby, East Windsor, Enfield, Granby, Hartland, Somers, Stafford, Suffield, Union, and Windsor Locks. (Continental 1, p. 1; DPUC Docket 81-08-11, decision)

12. The proposed Enfield facility would be a CATV hub site which would serve the towns of Enfield and East Windsor, a densely populated part of the CATV Area 11 franchise, by receiving microwave signals from the head-end facility in Stafford, Connecticut; from Springfield, Massachusetts; and from Hartford, Connecticut. The tower would transmit local and educational programming via

microwave to Stafford for distribution throughout the system. (Continental 1, pp. 3, 5, 9)

13. There are approximately 13,500 households in the Enfield area. (Tr. 1/25/84, p. 110)

14. Continental will offer universal service to all franchise area residents. It is estimated that there are 34,000 homes in the franchise area. (Continental 2, Q. 1)

15. An estimated 60% to 65% of the total homes in CATV Area 11 would receive service. This number of subscribers would keep the franchise economically viable. (Continental 2, Q. 1)

16. Customers adding pay T.V. channels to their expanded basic monthly service could average a monthly charge ranging from $25.00 to $30.00. (Continental 2, Q. 1)

17. Continental will provide as part of their system two institutional channels which will provide telecommunications capability between city halls, police stations, fire departments, and other public buildings as they become wired throughout the franchise. (Continental 2, Q. 1)

18. The Continental system is designed so that each town has the ability to transmit local programming to subscribers throughout the franchise. Continental plans to serve all subscribers in each town from the same distribution point. (Continental 2, Q. 16)

19. The proposed microwave interconnection with the Hartford CATV area franchise, Times Mirror Corp., has not been established. Times Mirror will share local and educational programming via one signal to Enfield. (Continental 2, Q. 20, Tr. 1/25/84, pp. 52, 55, 56)

20. The transmission of television signals by AML microwave requires a path unobstructed by trees or terrain. (Continental 2, Q. 1)

21. In order to maintain minimal signal quality, only two point-to-point relays of a microwave signal are possible. (Continental 2, Q. 1)

22. The entire franchise area would be hard-wired with overhead lines where utility poles now exist and underground where other utilities are currently underground. (Continental 2, Q. 1)

23. The industry standard for the maximum number of cascading amplifiers is between twenty-five and thirty, beyond which signal quality degrades below acceptable levels. (Continental 2, Q. 1)

24. The distance from the Springfield facility into Longmeadow, Massachusetts, (north of Enfield) places that cable run near its furthest limit and illustrates why hard wire is not an option between the Springfield and Enfield facilities. (Tr. 1/25/84, pp. 106, 107)

25. The Springfield transmitting facility is located approximately 2-3 miles east of Springfield center and north of Longmeadow, Massachusetts. The land is leased from the City of Springfield. The tower is owned by Continental Cablevision. (Tr. 1/25/84, p. 103)

26. The City of Springfield exerts no controlling authority over the Springfield facility's operations. (Tr. 1/25/84, p. 104)

27. The signals between Springfield and Enfield would establish two-way sharing of community oriented programming and educational programming. Also, WPIX channel 11 from New York would be sent via this interconnection. This signal cannot be received via

satellite in Stafford. (Tr. 1/25/84, p. 104)

28. The WPIX channel 11 signal is intially sent via microwave to Springfield from Pellum Ridge in Amherst, Massachusetts, via a common carrier link from New York State. Channel 11 cannot be received off the air or by any other means by any other Continental facility in the state. (Continental 2, Q. 19; Tr. 1/25/84, pp. 104, 105)

29. If channel 11 is not available from Springfield, it may be possible to obtain it from a future Hartford CATV link. Final arrangements have not been made for interconnection with the Hartford CATV franchise area. (Continental 2, Q. 20; Tr. 1/25/84, pp. 106, 115)

30. A microwave connection between Springfield and Union is not possible without increasing the height of the Union tower. Continental has no leeway regarding the Springfield antenna height. (Tr. 1/25/84, pp. 107-108)

31. Continental made a commitment to the DPUC in its franchise application before that agency to provide a Springfield - Enfield interconnection. (Tr. 1/25/84, pp. 115, 116; Continental 2, Q. 19)

32. Continental has made a commitment for community programming from Channel 57, Springfield, accessed through the use of two remote mobile signal vans which would benefit Area 11 viewers. (Tr. 1/25/84, pp. 89, 119, 120)

33. A Springfield-Enfield interconnection is economically justifiable due to the local programming exchanges. The feed and carriers can be used in other applications and systems, and all system service operations will be converted by direct access to Continental's

computer system in Reading, Massachusetts, thereby eliminating or reducing the cost of leasing phone lines from Enfield to Reading. (Tr. 1/25/84, pp. 108, 109, 115, 116)

34. The proposed site is a 1.92 acre wooded plot approximately 2000 feet from the nearest paved road on a tract of town-owned property currently used as the town's landfill. (Continental 1, pp. 3, 5, Exhibits D, F)

35. The proposed facility would consist of one 190-foot guyed tower, three 10' microwave dish antennas, and one building with associated equipment. (Continental 1, p. 2, Exhibit C)

36. The proposed tower would be designed by Rohn Manufacturing in accordance with the Electronic Industries Association (EIA) structural standard RS-222-C, Zone B, which represents a 100 mph steady wind with ½ inch of radial ice buildup. (Continental 1, p. 2; EIA Standard RS-222-C)

37. There is potential for a cable system to interfere with aircraft navigation; however, the FCC has reviewed Continental's system and disallowed the use of two channels to prevent any interference with aircraft. (Continental 2, Q. 1)

38. A statewide cable television interconnection network could be accommodated by the proposed facilities without modification. (Tr. 12/15/83, p. 27)

39. The towers designed for Continental's requirements would have a 54% overbuild safety factor. (Continental 2, Q. 9; Tr. 12/15/83, pp. 10-11)

40. Continental's plans call for 10' dishes with radomes at the 185', 175', and 150' levels. (Continental 1, p. 2)

41. The dish to link the proposed facility to Stafford would function at an above ground elevation of 80 feet. (Continental 2, Q. 17)
42. A tower of 85-90 feet would be sufficient to interconnect the proposed Enfield hub site to the Stafford head-end. (Tr. p. 54)
43. The proposed tower could not be shorter than 190 feet and still provide a link to the existing Springfield tower. (Tr. p. 57)
44. The Springfield link dish could not be placed higher on the existing tower at that location. (Continental 2, Q. 18)
45. The design of this facility enabled Continental to reduce the height of their head-end tower in Stafford from 400' to 150'. (Continental 1, p. 5)
46. Access to the site area would be via an existing dirt road along which electric utility service already exists. (Continental 1, p. 3)
47. The trees surrounding the proposed site are approximately 60 feet tall. (Tr. p. 53)
48. The nearest residence is 0.42 miles from the proposed site. (Continental 2, Q. 12)
49. There are no wetlands or water courses on or within 100 feet of the proposed site. (Continental 2, Q. 13)
50. Electric service to and cable service from the proposed site would be through an area forested with trees which are at least as tall as the utility poles would be. (Tr. p. 113)
51. Test borings conducted at the proposed site indicate that blasting would not be necessary. (Continental 2, Q. 9)
52. Some selective tree removal would be required at the proposed site. (Continental, p. 5)

53. The site would be fenced to restrict access by unauthorized persons. (Tr. p. 99)

54. If FAA did not require the proposed tower to be painted aviation orange and white, it would be unpainted. (Tr. p. 97)

55. The town's holdings off Town Farm Road (which include the proposed site) have been utilized for landfill purposes since 1967. The proposed site is not within the current dumping area of the town's landfill plot. (Tr. p. 75, 85)

56. The use of a portion of the town's landfill area for the proposed facility would not affect the life expectancy of the landfill operation. (Tr. pp. 76-77)

57. The proposed facility is not a permitted land use under Enfield's current zoning ordinance which classifies this site as R-44 for residential use. (Continental 2, Q. 11)

58. After consideration of the town's future plans for recreational use of the area, the proposed site has been agreed upon by the Town of Enfield. (Tr. pp. 71-72)

59. The proposed tower site is not within the Scantic River floodplain which is the primary area now being considered for a state park for passive recreation. (Tr. pp. 18, 22, 25, 32, 38)

60. The proposed Scantic River State Park has been under study since a feasibility study was authorized by the state legislature in 1967. A master plan was developed for the park by 1968. Within the last five years some land acquisition has taken place. (Tr. pp. 17-18; DEP Comments, 1/9/84)

61. Approximately 325 acres of a proposed 3000 acres has been purchased within the Scantic River corridor. No funds currently

exist for additional acreage. (Tr. p. 24; DEP Comments, 1/9/84; DEP Comments, 2/8/84)

62. A CATV tower would be more compatible with the commercial setting of the Niblick Road site than with the proposed site, although a tower at that site would have visual impact on the Town of Enfield. (DEP Comments, 1/9/84; Tr. p. 19, 74)

63. The longest cable run planned from the proposed facility is 9.9 miles (into the Town of East Windsor) and would require 22 amplifiers in cascade. (Continental 2, Q. 8)

64. The Windsor Locks portion of the franchise could not be served from the proposed facility due to the length of the cable run and the necessary number of amplifiers. (Continental 2, Q. 16)

65. The proposed site is approximately 8.8 miles from the Stafford head-end; therefore, the Enfield area could not be served from the head-end by an overhead cable. A microwave interconnection is the best technological method to serve the area. (Continental 1, p. 7; Continental 2, Exhibit O)

66. Four existing towers within a ten mile radius of the proposed site are unsuitable for the company's needs. (Continental 1, p. 7)

67. Continental originally considered placing the Enfield tower next to its planned office in the Enfield Industrial Park off Niblick Road, but test borings indicated that the soil would not support the required 260' tower with a conventional foundation. The proposed site allows a shorter and less visible tower at less cost. (Continental 1, p. 8; Continental 5; Continental 6)

68. A CATV microwave tower is guyed at 80% of its height. (Tr. p. 66)

69. The anchors for a 260' guyed tower at the Niblick Road site could not be contained within Continental's property. (Continental 6)

70. A self-supporting (free standing) tower would be necessary at the Niblick Road site rather than the guyed tower proposed. (Tr. p. 63)

71. The construction of Continental's headquarters building on Niblick Road is too far advanced to economically re-engineer the structure to accommodate the roof mounting of the required tower. (Continental 7)

72. Continental plans to mount the town of Enfield Police antenna on the proposed tower, so long as it would not interfere with the performance of Continental's functions. (Continental 1, p. 3; Tr. p. 53)

73. The Enfield Police antenna planned for installation on the proposed tower would be a permitted land use under the current Enfield Zoning Ordinance because essential community services are exempt from zoning. (Continental 2, Q. 11)

74. Continental will apply for a microwave license from the Federal Communications Commission (FCC) and has requested a ruling from the Federal Aviation Administration as to whether the tower requires lighting. (Continental 1, p. 7)

75. The estimated costs of erecting a tower at the landfill site totals $110,700, including,

Engineering and site improvements	$16,000;
Tower foundations	$10,500;
Tower 190' guyed and erected	$29,500;
AML dishes and receiver	$22,000;
Building and standby power	$10,400;
Electronic and miscellaneous equipment	$22,300.

(Continental Late File Exhibit 5, Continental 1, Exhibit C)

76. The incremental cost to design a tower structure at the proposed site capable of withstanding Zone B wind loading with a 1" radial ice loading is $4,746.00; the total incremental cost for such a tower would be $20,574.00. (Continental 2, Q. 7)

77. The estimated costs of erecting a 260' tower at the office site on Niblick Road total $302,700, including,

Engineering and site improvements	$ 20,000;
Tower foundations	$100,000;
260' tower self-support, erected	$128,000;
Building and standby power	$ 10,400;
AML dishes and receiver	$ 22,000;
Electronic and miscellaneous equipment	$ 22,300.

(Continental 5)

78. The estimated costs for installing utility services by pole line into the Enfield landfill are $2,577.50. Included costs are,

4 poles @ $380 each	$1,520.00;
1 deadend guy @ $245	$ 245.00;
650' single phase electric cable @ $1.25/ft	$ 812.50.

(Continental 2, Exhibit M; Continental 2, Q. 10)

79. The estimated additional costs to bury utility services and TV transmission cables from the nearest existing pole into the landfill site, a distance of 600', is $9,586.43. Costs included are,

Entrenching machine @ 10/ft	$6,000.00;
600' N/U burial cable @ $3.35/ft	$2,010.00;
600' PVC conduit @ $1/ft	$ 600.00;
Other equipment, tree clearing, labor	$ 976.43.

(Continental 1, Exhibit L; Continental 2, Q. 10)

80. The cost to bury electric power would be $3.35 per foot for the 600' distance into the site from the nearest pole line. (Tr. 1/25/84, pp. 111-112; Continental 2, Exhibit L)

81. The cost of buried TV transmission cable is approximately double the cost of aerial cable due to the specifications of jacketed

cable. (Tr. 1/25/84, pp. 113-114)

82. The cost to lease the landfill tower site from the Town of Enfield would be $200/month. Continental owns the land on Niblick Road where its office building is to be located. (Tr. 1/25/84, p. 78)

83. The costs of the equipment in Springfield for transceiving signals to and from Enfield will be allocated to Connecticut subscribers and would approximate the costs of the Enfield transceiving equipment, estimated between $15,000 and $20,000. (Tr. 1/25/84, p. 109)

84. The proposed tower may be visible from portions of Abbe Road, Powder Hill Road, Raffia Road, and Town Farm Road. (Continental 2, Q. 4)

85. The microwave power density at the proposed Enfield site would be several orders of magnitude below any existing or proposed standards. (Continental 3; Tr. pp. 51-53)

86. There are no known hazards to human health associated with the low levels of microwave power density expected to occur at this facility. (Continental 1, p. 8)

87. The signals that would be sent to and received from Hartford would carry only one channel and would have little if any effect on the total power density for the site. (Tr. p. 52)