

### CONNECTICUT SITING COUNCIL

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March 4, 2010

TO:

Parties and Intervenors

FROM:

S. Derek Phelps, Executive Director

RE:

**DOCKET NO. 385** – T-Mobile Northeast, LLC application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance and management of a telecommunications facility located at 23 Stonybrook Road,

Stratford, Connecticut.

By its Decision and Order dated February 25, 2010, the Connecticut Siting Council granted a Certificate of Environmental Compatibility and Public Need for the construction, maintenance and management of a telecommunications facility located at 23 Stonybrook Road, Stratford, Connecticut.

Enclosed are the Council's Findings of Fact, Opinion, and Decision and Order.

SDP/RDM/jbw

Enclosures (3)

c: State Documents Librarian



STATE OF CONNECTICUT	
ss. New Britain, Connecticut	:
COUNTY OF HARTFORD	)

I hereby certify that the foregoing is a true and correct copy of the Findings of Fact, Opinion, and Decision and Order issued by the Connecticut Siting Council, State of Connecticut.

ATTEST:

S. Derek Phelps
Executive Director
Connecticut Siting Council

I certify that a copy of the Findings of Fact, Opinion, and Decision and Order in Docket No. 385 has been forwarded by Certified First Class Return Receipt Requested mail, on March 4, 2010, to all parties and intervenors of record as listed on the attached service list, dated September 9, 2009.

ATTEST:

Lisa Fontaine Fiscal Administrative Assistant Connecticut Siting Council

# LIST OF PARTIES AND INTERVENORS SERVICE LIST

Status Granted	Document Service	Status Holder (name, address & phone number)	Representative (name, address & phone number)
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**DOCKET NO. 385** – T-Mobile Northeast LLC application for a } Connecticut Certificate of Environmental Compatibility and Public Need for Siting the construction, maintenance and management telecommunications facility located at 23 Stonybrook Road, Council Stratford, Connecticut. }

February 25, 2010

## **Findings of Fact**

## Introduction

- 1. T-Mobile Northeast LLC (T-Mobile), in accordance with the provisions of Connecticut General Statutes (CGS) §§ 16-50g through 16-50aa, applied to the Connecticut Siting Council (Council) on September 2, 2009 for the construction, maintenance, and management of a 100-foot wireless telecommunications facility located at 23 Stonybrook Road in Stratford, Connecticut. (T-Mobile 1, p. 1)
- 2. T-Mobile is a Delaware corporation with an office in Bloomfield, Connecticut. T-Mobile is licensed by the Federal Communications Commission (FCC) to construct and operate a personal wireless service system in Connecticut. (T-Mobile 1, p. 2)
- 3. The purpose of the proposed facility is to provide wireless service for T-Mobile to residential areas in the area of Broadbridge Road, Franklin Avenue, and Route 108 north of Route 1 in Stratford. (T-Mobile 1, pp. 4-5)
- 4. Pursuant to CGS § 16-50m, the Council, held a public hearing on December 8, 2009, beginning at 3:00 p.m. and continuing at 7:00 p.m. at the Birdseye Municipal Complex, 468 Birdseye Street, Stratford, Connecticut. (Transcript 1 – 12/08/09, 3:00 p.m. [Tr. 1], Tr. 1, p. 2; Transcript 2 – 12/08/09, 7:15 p.m. [Tr. 2], p. 2)
- 5. The Council and its staff conducted an inspection of the proposed site on December 8, 2009. beginning at 2:00 p.m. The applicant flew a four-foot diameter balloon at the site from 12:00 p.m. to 4:30 p.m. to simulate the height of the proposed tower. The balloon was flown at its intended height of 100 feet above ground level (agl) during the field review. (T-Mobile 6)
- 6. Notice of the application was sent to all abutting property owners by certified mail. Three notices were unclaimed. Public notice of the application was published in the Connecticut Post on July 26 and July 28, 2009. (T-Mobile 1, Tab F; T-Mobile 2, Q. 1)
- 7. T-Mobile installed a four-foot by six-foot sign on the property at the intersection of Stonybrook Road and Broadbridge Avenue. The sign presented information regarding the proposed project and Council's public hearing. (T-Mobile 3)
- 8. Pursuant to CGS § 16-50l(b), T-Mobile provided notice to all federal, state and local officials and agencies listed therein. (T-Mobile 1, Tab E)

#### **State Agency Comment**

- 9. Pursuant to General Statutes § 16-50j(h), on October 28, 2009 and December 9, 2009, the following State agencies were solicited to submit written comments regarding the proposed facility: Department of Environmental Protection (DEP), Department of Public Health (DPH), Council on Environmental Quality (CEQ), Department of Public Utility Control (DPUC), Office of Policy and Management (OPM), Department of Economic and Community Development (DECD), the Department of Transportation (DOT) and the Department of Agriculture (DOAg). (Record)
- 10. The Council received a written response from the DOT's Bureau of Engineering and Highway Operations on December 1, 2009, stating that the DOT had no comment. (Record)
- 11. No response was received from the DPH, DOAg, DEP, CEQ, DPUC, OPM, or DECD. (Record)

# **Municipal Consultation**

- 12. On May 28, 2009, T-Mobile submitted a technical report to James Miron, Mayor of the Town of Stratford. T-Mobile discussed the project with Gary Lorenston, Planning and Zoning Administrator, and Brian Carey, Conservation Administrator, on July 28, 2009. (T-Mobile 1, p. 17; T-Mobile 3, Vergati Q. 9)
- 13. The Town did not comment on the proposal. (T-Mobile 1, p. 17; T-Mobile 3, Vergati O. 9)
- 14. T-Mobile offered the town lease-free space on the tower for municipal service antennas. The town did not respond to this offer. (T-Mobile 1, p. 8; T-Mobile 3, Vergati Q. 10; Tr. 1, pp. 21-22)
- 15. On December 28, 2009, T-Mobile sent correspondence to the new town administration that described the proposed facility and invited the town to comment. The town did not comment. (T-Mobile late file January 7, 2010; Record)

#### **Public Need for Service**

- 16. In 1996, the United States Congress recognized a nationwide need for high quality wireless telecommunications services, including cellular telephone service. Through the Federal Telecommunications Act of 1996, Congress seeks to promote competition, encourage technical innovations, and foster lower prices for telecommunications services. (Council Administrative Notice Item No. 7)
- 17. In issuing cellular licenses, the Federal government has preempted the determination of public need for cellular service by the states, and has established design standards to ensure technical integrity and nationwide compatibility among all systems. T-Mobile is licensed by the FCC to provide wireless service to Fairfield County. (Council Administrative Notice Item No. 7; T-Mobile 1, p. 6)
- 18. The Telecommunications Act of 1996 prohibits local and state entities from discriminating among providers of functionally equivalent services. (Council Administrative Notice Item No. 7)
- 19. The Telecommunications Act of 1996, a Federal law passed by the United States Congress, prohibits any state or local entity from regulating telecommunications towers on the basis of the environmental effects of radio frequency emissions to the extent that such towers and equipment comply with FCC's regulations concerning such emissions. This Act also blocks the Council from prohibiting or acting

- with the effect of prohibiting the provision of personal wireless service. (Council Administrative Notice Item No. 7)
- 20. In an effort to ensure the benefits of wireless technologies to all Americans, Congress enacted the Wireless Communications and Public Safety Act of 1999 (Enhanced 911 Act) The purpose of this legislation was to promote public safety through the deployment of a seamless, nationwide emergency communications infrastructure that includes wireless communications services. (T-Mobile 1, pp. 5-6)
- 21. The site would provide Enhanced 911 service to the proposed service area. (T-Mobile 1, p. 6)

## T-Mobile - Existing and Proposed Wireless Coverage

- 22. T-Mobile is licensed by the FCC to provide service in the 1900 MHz frequency range. (T-Mobile 3 Heffernan, Q. 5)
- 23. T-Mobile designs and operates at the following signal-level thresholds: in-vehicle service is -84 dBm and in-building service is -76 dBm. (T-Mobile 3 Heffernan, Q. 6)
- 24. T-Mobile currently has degraded coverage along portions of North Avenue, Nichols Avenue, Broadbridge Avenue, Wiklund Avenue, London Terrace and surrounding areas with signal levels ranging from -84 dBm to -110 dBm (refer to Figures 6 & 7). The area is predominately residential. (T-Mobile 2, Q. 10; Tr. 1, pp. 85-86)
- 25. T-Mobile experiences a drop-call percentage of 1.4% in the proposed service area. Some characteristics of degraded service that are not quantified as part of drop-call statistics include delayed calls, calls that do not connect and poor call quality. (T-Mobile late file 01/07/10; Tr. 1, pp. 87-89)
- 26. Installing antennas at 97 feet agl would provide reliable service to the proposed service area. The coverage footprint is approximately 3.5 square miles at -84 dBm. Approximately 2.4 square miles of this coverage would be in areas served by adjacent T-Mobile facilities; thus an additional 1.9 square miles of adequate coverage would be provided by the site in the proposed service area (refer to Figure 8). (T-Mobile 2, Q. 10; Tr. 2, pp. 29-30)
- 27. The proposed site would off-load some call traffic from adjacent T-Mobile facilities, thus enhancing in-building service to areas currently served by these facilities. (Tr. 1, pp. 19-20)
- 28. Reducing the tower height to 90 feet would cause a slight degradation of coverage along the periphery of the coverage footprint for both in-vehicle and in-building coverage (refer to Figure 9). In-building coverage would be reduced along the east edge of the coverage footprint including the Summer Street-Johnson Avenue area, the Nichols Avenue-North Avenue area, Nichols Avenue-Meadowbrook Road area, and the Legion Avenue area. (T-Mobile 3, Q. 10)

#### **Site Selection**

29. T-Mobile established a search ring for the proposed service area in September of 2005. The search was centered in the Broadbridge Avenue and Stonybrook Road area. (T-Mobile 3, Vergati Q. 6)

- 30. The search for a site that would improve service included the possibility of modifying existing adjacent T-Mobile facilities, identification of potential structures that could be used for telecommunications purposes, and the examination of area properties, including municipal parcels, to identify potential telecommunications sites. (T-Mobile 1, p. 7; Tr. 1, pp. 62-66)
- 31. Stonybrook Park, a town park, is located south of the proposed site. The town was not interested in leasing space there for a telecommunications facility. (T-Mobile 1, Tab B; Tr. 1, p. 30)
- 31. The nearest T-Mobile facilities to the proposed site include a rooftop facility at the Sikorsky property, approximately 0.7 miles to the northeast, and a rooftop facility on Barnum Drive, approximately 0.8 miles to the south. Coverage from these sites or other nearby sites does not extend to the proposed service area. (T-Mobile 1, Tab J; Tr. 1, pp. 56-58, 63, 66-67)
- 32. T-Mobile did not identify any structures in the search area that would be suitable for a telecommunications facility. (T-Mobile 1, Tab J)
- 33. After determining there were no viable structures within the search area, T-Mobile searched for properties suitable for tower development. T-Mobile investigated six different locations and selected one for tower development. The five rejected locations and reasons for their rejection are as follows:
  - a) 2336 Broadbridge Avenue parcel too small to accommodate a tower (0.37-acre) and rooftop too low for a roof mount (20 feet agl);
  - b) Sikorsky Facility, 3191 Broadbridge Avenue T-Mobile has a rooftop facility at this location;
  - c) 1700 Broadbridge Avenue would not meet coverage objectives;
  - d) 55 Singer Court- too close to Sikorsky facility, coverage would be redundant;
  - e) Northeast Utilities transmission tower on Line # 1710– would not meet coverage objectives. (T-Mobile 1, Tab J)
- 34. Two other properties mentioned as possible candidates during the hearing, Remington Woods, a condominium development, approximately 0.6 miles northwest of the site, and Clover Field, a town park approximately 0.5 miles southeast of the site, are in areas already served by existing T-Mobile facilities. (Council Administrative Notice Item No. 17; Tr. 2, pp. 32-34, 41-42)
- 35. The search ring was not centered along Nichols Avenue (approximately 2,000 feet east of the site) since the general area there is zoned residential with small lots. Larger parcels in the area consist of town-owned education facilities. The town was not responsive to leasing any town property for telecommunications facilities. (T-Mobile 1 b, Zoning Map; T-Mobile late file 01/07/10; Tr. 1, p. 30; Tr. 2, p. 24)

#### **Facility Description**

- 36. The proposed facility is located on a 0.73-acre parcel identified as 23 Stonybrook Road, Stratford. The parcel consists of three different tax lots: lots 12, 13 and 16. The tower site would be located in the southwest corner of the parcel, on tax lot 13 (refer to Figures 1 & 2). Bruce Brook is located immediately to the southeast on town property. (T-Mobile 1, Tab B; T-Mobile 2, Q. 2)
- 37. The tower is approximately 28 feet north of property owned by the Town of Stratford that is identified as a right-of-way for Ruth Street. Stonybrook Park is south of the right-of-way. The tower is 31 feet east of the Miranda property. (T-Mobile 1, Tab B)
- 38. The parcel is zoned heavy commercial (CC). (T-Mobile 1, p. 9)

- 39. The parcel contains a two-story commercial building, approximately 15 feet above grade, fronting Stonybrook Road. Paved parking areas and access ways surround the building. The tower site would be located approximately 110 feet south of the existing building, in a paved area used to store dumpsters. (T-Mobile 1, Tab B, Tab M; T-Mobile 2, Q. 3)
- 40. T-Mobile proposes to construct a 100-foot unipole at the site. A unipole is a monopole that conceals flush-mounted panel antennas within a fiberglass type casing. The tower would be designed in accordance with the Electronic Industries Association Standard ANSI/TIA-222-F. (T-Mobile 1, p. 8, Tab B)
- 41. The tower is approximately 82 feet east of the Miranda residence and 120 feet southeast of the Torres residence at 65 Stonybrook Road. (T-Mobile 1, Tab B; Tr. 1, p. 102)
- 42. The tower setback radius would extend onto the Miranda property by 69 feet and onto town property by 72 feet. The tower could be designed with a pre-engineered fault to prevent encroachment onto these adjacent properties in the event of a tower failure. (T-Mobile 1, Tab B; T-Mobile 3, Q. 11; Tr. 1, p. 102)
- 43. T-Mobile proposes to paint the unipole white. (T-Mobile 1, Tab 10; Tr. 1, p. 28)
- 44. The unipole would be able to support three levels of interior flush-mounted panel antennas. The flush-mount design can only accommodate three panel antennas at each level. The tower would be constructed in accordance with the Electronic Industries Association standard ANSI/TIA-222-F. (T-Mobile 1, p. 8, Tab B)
- 45. T-Mobile proposes to install three panel antennas at the 97-foot and 87-foot levels of the tower. The 77-foot level of the tower would be available to another telecommunications carrier. (T-Mobile 1, Tab B)
- 46. Clearwire, a telecommunications provider operating in Connecticut, is interested in the 77-foot level of the tower. Clearwire is conducting tests to confirm if the site fits into their coverage network. Clearwire typically uses flat-panel antennas and round dish antennas in their network, but their requirements at this site are unknown. T-Mobile would be willing to construct a regular monopole with antennas flush-mounted on the exterior of the tower to provide mounting flexibility for Clearwire. The exterior flush mounts would also allow T-Mobile to make minor modifications to their antennas, such as tilt, to increase site performance, if necessary. (T-Mobile 1, p. 6; Tr. 1, pp. 24-26, 92-94; Tr. 2, pp. 27-28)
- 47. The top diameter of the unipole would be 26 to 30 inches. The top diameter of a monopole with exterior flush-mounted antennas would be 18 to 21 inches. (Tr. 1, pp. 92-93)
- 48. Whip antennas, typically used for municipal emergency services, could be accommodated on a unipole or a regular monopole. (Tr. 1, pp. 22-23)
- 49. T-Mobile proposes to construct a 26-foot by 50-foot equipment compound at the base of the tower, sufficient to accommodate ground equipment for T-Mobile and one other carrier. T-Mobile would install three equipment cabinets on a concrete slab within the compound. (T-Mobile 1, Tab B)
- 50. An eight-foot high chain link fence would enclose the compound. (T-Mobile 1, p. 8)

- 51. Four trash bins are located in the area where the compound is proposed. The bins would be re-located exterior to the northeast side of the compound, partially blocked from view from the west by the compound and a wood fence. (T-Mobile 1, Tab B; Tr. 2, p. 38)
- 52. Access to the compound would be from an existing parking lot on the property. (T-Mobile, 1, Tab B)
- 53. T-Mobile anticipates a technician would visit the site once every four weeks to service equipment. (T-Mobile 1, p. 13)
- 54. Overhead utilities would service the compound from existing service on Stonybrook Road. A new pole would be installed east of the compound. T-Mobile could install the utilities underground. (T-Mobile 1, Tab B; Tr. 1, p. 98)
- 55. The compound is oriented in a north-south direction along the west property line (Miranda property). The compound is approximately 12 feet from the property line. (T-Mobile 1, Tab B)
- 56. T-Mobile could relocate the compound in an east-west orientation to increase the distance from the tower to the adjacent property line by 50 feet. (Tr. 1, pp. 95-98; Tr. 2, pp. 13, 37-38)
- 57. If the compound was relocated, the trash bins would be placed behind the commercial building on the site and enclosed by fencing to the west, obscuring direct views from the street and from properties to the west. (Tr. 2, pp. 38-39)
- 58. There are 263 residential units (single family, two-family) within 1,000 feet of the tower site. (T-Mobile 1, Tab L)
- 59. Land use within a quarter-mile of the site consists of residential, recreational (town park), and several commercial properties. (T-Mobile 1, Tab B, Tab P)
- 60. The tower site is located at an elevation of 77 feet above mean sea level (amsl) at 41° 12' 11.8" north latitude and 73° 08' 55" west longitude. Surrounding terrain is generally flat to rolling. Trees in the area range from 55 to 65 feet in height. (T-Mobile 1, Tab M; Tr. 1, p. 34)
- 61. The estimated construction cost of the facility is:

Tower and foundation	\$71,000.
Site development	68,000.
Utility installation	39,000.
Ground equipment, coax	70,000.

<u>Total estimated cost</u> \$248,000. (T-Mobile 1, p. 18; Tr. 1, p. 74)

# **Environmental Concerns**

- 62. The proposed facility would have no adverse effect on historic, architectural or archeological resources listed in or eligible for the National Register of Historic Places. (T-Mobile 1, Tab N)
- 63. The site is not within any designated area indicating the presence of Federally threatened or endangered species or State endangered, threatened or special concern species. (T-Mobile 1, Tab N)

- 64. No trees would be removed to develop the site. If the site were re-aligned in an east-west direction, a few trees along the bank of Bruce Brook would have to be trimmed for clearance. (T-Mobile 1, Tab B; Tr. 1, p. 96)
- 65. Development of the compound would not directly affect any wetlands or watercourses. Bruce Brook is located 51 feet from the southeast corner of the compound. The brook is located down a steep embankment along the property line. If the compound were realigned in an east-west direction, the brook would be 36 feet from the southeast corner of the compound. (T-Mobile 1, Tab B; Tr. 1, p. 9; Tr. 2, p. 35)
- 66. The site is within the town's 100-foot upland review area (wetland buffer zone). (T-Mobile late file 01/07/10, Letter from Dean Gustafson)
- 67. The site is within a 100-year floodplain. The site is two to three feet above the base flood elevation of 74 feet, so that the proposed development would not adversely affect the flood storage capacity of the flood zone. T-Mobile would file the project with the Department of Environmental Protection Flood Division for a flood zone impact determination. (T-Mobile 1, p. 14; T-Mobile late file 01/07/10, Dean Gustafson; Tr. 2, pp. 25-26)
- 68. Erosion and sedimentation controls and other best management practices would be established and maintained for the duration of site construction. (T-Mobile 1, p. 16)
- 69. Aircraft hazard obstruction marking or lighting of the tower is not required or proposed. (T-Mobile 1, pp. 17-18; Tr. 1, pp. 74-75)
- 70. The cumulative worst-case maximum power density from the radio frequency emissions from the operation of the proposed T-Mobile antennas is calculated to be 14.3% of the standard for Maximum Permissible Exposure, as adopted by the FCC, at the base of the proposed tower. This calculation was based on methodology prescribed by the FCC Office of Engineering and Technology Bulletin No. 65E, Edition 97-01 (August 1997) that assumes all antennas would be pointed at the base of the tower and all channels would be operating simultaneously, which creates the highest possible power density levels. Under normal operation, the antennas would be oriented outward, directing radio frequency emissions away from the tower, thus resulting in significantly lower power density levels in areas around the tower base. (T-Mobile late file 01/07/10)
- 71. Operation of the tower would not affect other equipment used by the public, such as garage door openers and televisions. T-Mobile antennas are permitted to operate in very specific frequency bands, as specified by the FCC, whereas other equipment operates in completely different frequency bands. (Tr. 2, pp. 31-32)

## **Visibility**

72. The proposed tower would be visible year-round from approximately 10 acres within a quarter mile of the site (refer to Figure 3). The tower would be seasonally visible from an additional 37 acres within a quarter mile of the site. (T-Mobile 1, Tab M)

73. Visibility of the proposed tower from specific locations within a quarter-mile radius of the site is as follows:

Specific Location and Area Receptors	Visible	Approximate Portion of Tower Visible	Approx. Distance from Tower*
Intersection of London Terrace and Broadbridge Avenue (commercial area)	Yes	50 feet – unobstructed	0.08 mile east
Intersection of North Avenue and Broadbridge Avenue (residential area)	Yes	30 feet – unobstructed	0.25 mile southeast
Broadbridge Avenue immediately north of Stonybrook Road (residential and commercial area)  Refer to Figure 4	Yes	50 feet – unobstructed	0.1 miles north
Klondike Street at #214 (residential area)	Yes	10 feet - unobstructed	0.13 mile south
Barnum Terrace south of Yukon Street (residential area)	Yes	20 feet- unobstructed	0.2 mile south
Barnum Terrace (residential area)	Yes	30 feet – unobstructed	0.1 mile south
Stonybrook Park (public park)	Yes	15 feet – unobstructed	0.07 mile south
Intersection of Stonybrook Road and Eaton Street (residential area)  Refer to Figure 5	Yes	60 feet – unobstructed	0.06 mile northwest
Intersection of Marcroft Street and Chevvy Street	Yes	60 feet – unobstructed	0.17 mile northeast
Marcroft Street (commercial and residential area)	Yes	50 feet- unobstructed	0.11 mile northeast
Viele Street south of Marcroft Street	Yes	40 feet - unobstructed	0.11 mile northeast

(T-Mobile 1, Tab M)

\* 0.1 mile = 528 feet.

74. The tower would be visible year-round from 51 residential properties within a quarter-mile of the site, as follows:

Street	No. of Residences
Stonybrook Road	6
Broadbridge Avenue	8
North Avenue	2
North Terrace	2
Marcroft Street	8
Viele Street	4
Eaton Street	2
Yukon Street	6
Klondike Street	4
Barnum Terrace	9

(T-Mobile 1, Tab M)

- 75. The residence at 55 Stonybrook Road, immediately west of the site and set back from Stonybrook Road, would have a view of the entire tower and compound. T-Mobile could install fencing with privacy slats and vegetative screening along the property line to screen the compound area. T-Mobile would be willing to paint the tower any color to help it blend in with the surroundings. (T-Mobile 1, Tab M; Tr. 1, pp. 27-28, 30-31)
- 76. Re-locating the compound and tower in an east-west configuration would slightly decrease the visibility of the site from 55 Stonybrook Road. The tower would be approximately 50 feet farther from this property. (Tr. 2, p. 37-38)
- 77. The residence at 65 Stonybrook Road, immediately northwest of the site and fronting Stonybrook Road, would have views of the compound and most of the tower. (Tr. 1, p. 31)
- 78. The residence at 56 Stonybrook Road, across the street from the driveway and parking lot of the site, would have open views of the compound and tower. (Tr. 1, p. 31)
- 79. The tower would not be visible from any known hiking trails maintained by the DEP or the Connecticut Forest and Parks Association. The tower would be visible from Stonybrook Park immediately south of the site. The four-acre park contains field and playground areas. (T-Mobile 1 c, Plan of Conservation and Development, Tab M; Tr. 1, pp. 32-33)
- 80. The tower would not be visible from any scenic roads or historic districts. (T-Mobile 1, Tab M)

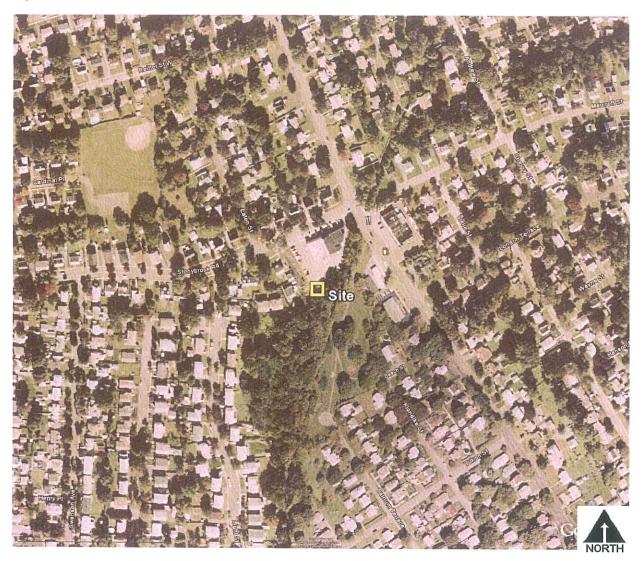


Figure 1: Location of site at 23 Stonybrook Road, Stratford. (T-Mobile 1, Tab B)

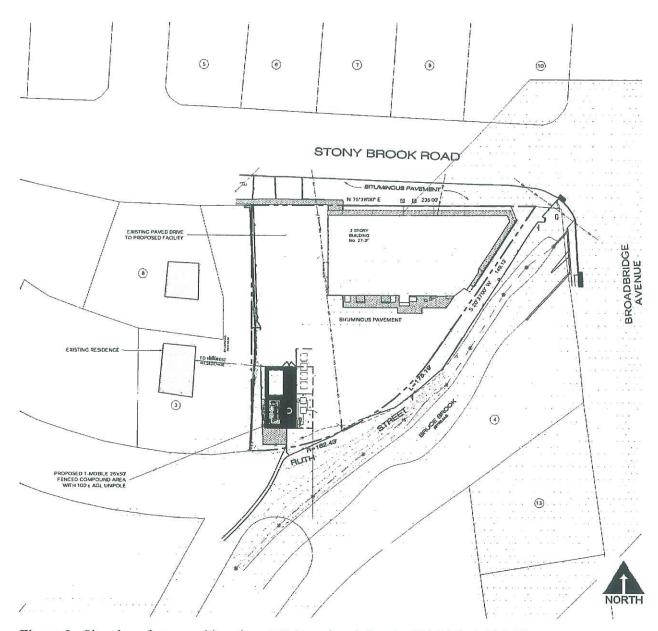


Figure 2: Site plan of proposed location at 23 Stonybrook Road. (T-Mobile 1, Tab B)

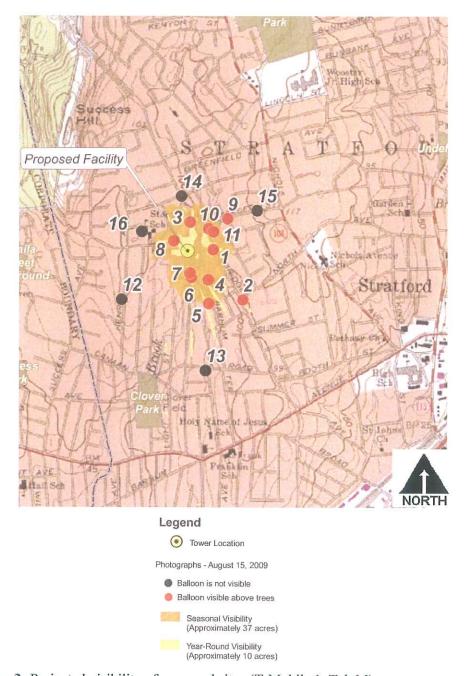
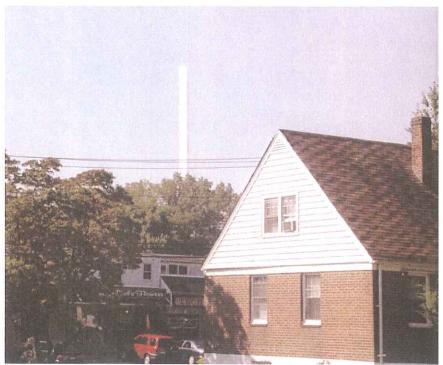
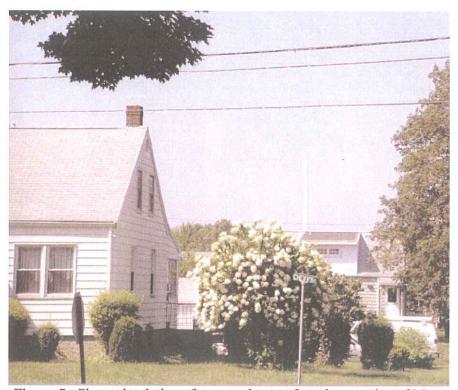


Figure 3: Projected visibility of proposed site. (T-Mobile 1, Tab M)



**Figure 4:** Photo-simulation of proposed tower from Broadbridge Avenue north of Stonybrook Road (location 3 on Figure 3). (T-Mobile 1, Tab M)



**Figure 5:** Photo-simulation of proposed tower from intersection of Marcroft Street and Chevvy Street (location 9 on Figure 3). (T-Mobile 1, Tab M)

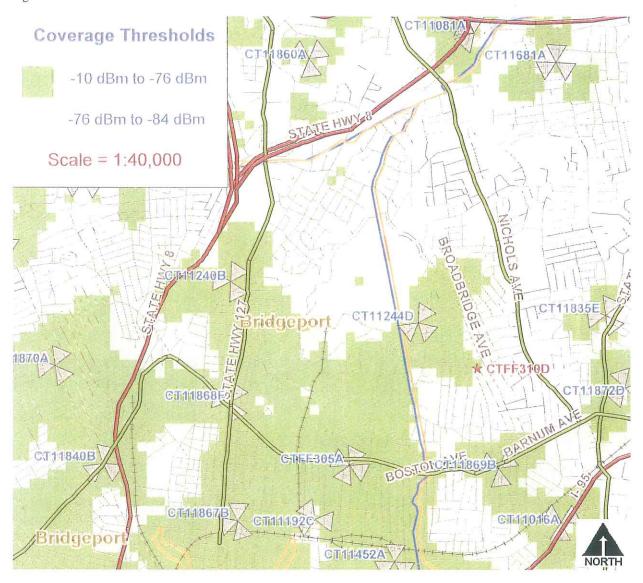
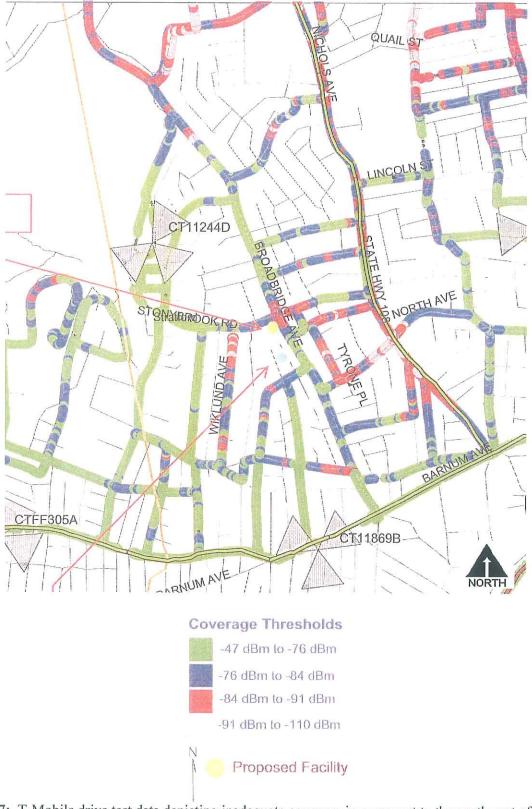
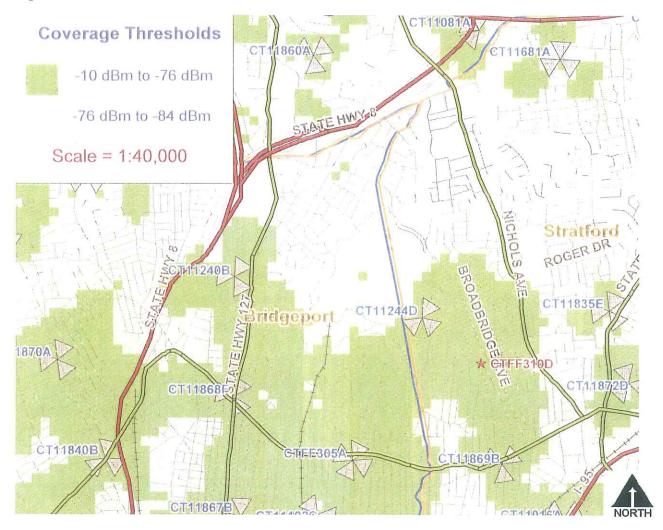


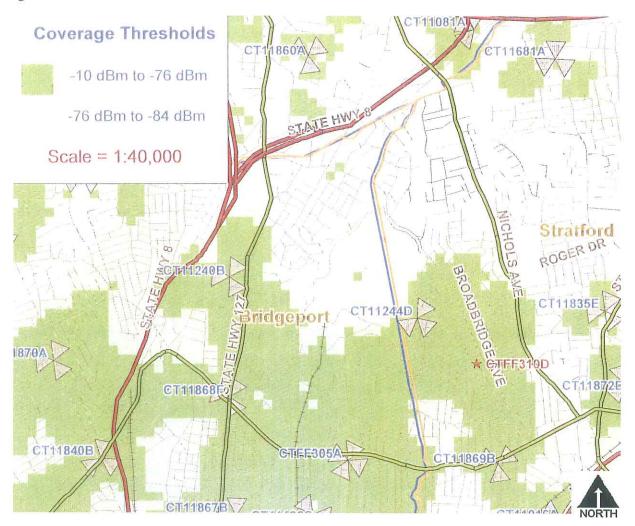
Figure 6: T-Mobile's existing wireless coverage. (T-Mobile 2, Q. 11)



**Figure 7:** T-Mobile drive test data depicting inadequate coverage in areas east to the southwest of the site. (T-Mobile 2, Q. 10)



**Figure 8:** T-Mobile's proposed wireless coverage with antennas mounted at 97 and 87 feet agl. (T-Mobile 2, Q. 11)



**Figure 9:** T-Mobile wireless coverage with antennas at 87 and 77 feet agl. (T-Mobile 1, Q. 11)

## **Opinion**

On September 2, 2009, T-Mobile Northeast LLC (T-Mobile) applied to the Connecticut Siting Council (Council) for a Certificate of Environmental Compatibility and Public Need (Certificate) for the construction, maintenance and management of a wireless telecommunications facility located at 23 Stonybrook Road in Stratford, Connecticut. The proposed facility would provide wireless service for T-Mobile to residential areas in the area of Broadbridge Avenue, Franklin Avenue, and Route 108 north of Route 1 in Stratford.

T-Mobile currently has no reliable, continuous in-building or in-vehicle coverage in the residentially developed Broadbridge Avenue-Route 108 area. The proposed site would provide 1.9 square miles of new, in-vehicle coverage to the proposed service area, extending well east of Route 108. In-building coverage would be more limited, with only portions of coverage extending east of Route 108. The proposed site would off-load some call traffic from adjacent T-Mobile facilities, thus enhancing in-building service to areas currently served by these facilities. An examination of coverage models indicates a lower tower height would diminish radio frequency signal strength around the periphery of the coverage footprint, substantially reducing in-building coverage in residential areas.

Based on existing coverage gaps in T-Mobile's network, the Council finds a need for a new facility. The site search area is heavily developed and predominately residential. Few commercial locations of sufficient size exist to accommodate a facility. Buildings in the area are of short height, precluding effective rooftop mounts. A town park exists immediately south of the proposed site but the town is not interested in leasing space for a tower. There are no other large parcels of land in the search area that would be suitable for a telecommunications facility and no structures exist that would be able to meet coverage objectives to the area.

T-Mobile proposes to construct a 100-foot monopole with interior flush-mounted antennas (unipole) and an associated compound on a 0.73-acre parcel developed with a small commercial shopping plaza. The plaza is located at the corner of Stonybrook Road and Broadbridge Avenue. The tower site is located to the rear of the plaza, in an open paved parking area used for the storage of trash bins. A residential neighborhood surrounds the site with the exception of a few commercial uses on Broadbridge Avenue and the town park to the south.

The proposed 100-foot unipole would feature interior, flush-mounted antennas and would be painted white. T-Mobile would install three panel antennas at the 97-foot and 87-foot levels of the tower. One additional level of antennas would be available at the 77-foot height. Clearwire, a telecommunications provider operating in Connecticut, has expressed interest at this height. Clearwire typically uses flat panel antennas and small dish antennas in their installations and could be limited by an interior flush-mount design.

The Council will order T-Mobile to install a monopole 100 feet in height with exterior flush-mounted antennas to allow for some antenna mounting flexibility for Clearwire, or another telecommunications provider, that otherwise would be encumbered by the interior antenna design.

Docket No. 385 Opinion Page 2

The proposed 26-foot by 50-foot equipment compound is oriented in a north-south direction 12 feet from the west property line (Miranda property). The tower would be 82 feet from the Miranda residence and 120 feet from the Torres residence at 65 Stonybrook Road. The Council will order T-Mobile to re-locate the compound and tower in an east-west configuration to increase the tower setback from these residences by approximately 50 feet.

Development of the site would require the trimming of several trees along the south property line. The site is not within any known habitat of federally threatened or endangered species or State endangered, threatened or special concern species. Development of the site would not affect any wetlands or watercourses or any archaeological or historic resources. Proper erosion and sedimentation control measures would be established during construction to protect storm water drainage systems and nearby Bruce Brook.

Although the tower is adjacent to residential areas, the tower is set back from residences to the greatest extent possible. There are 263 residential units (single family, multi-family) within 1,000 feet of the site. Mature wooded vegetation is located throughout the neighborhood, providing visual screening of the tower, especially in leaf-on conditions. Approximately 51 residences within a quarter-mile of the site would have year-round views of portions of the tower. Open views of the tower and compound would be possible from both the Miranda and Torres residences and from 56 Stonybrook Drive, across the street from the plaza entrance. The Council will order T-Mobile to enclose the compound with architecturally-treated fencing and install evergreen plantings along the west property line to provide visual screening for the Miranda and Torres residences. Furthermore, the trash bins would be re-located behind the plaza building, out of view from Stonybrook Road and away from the Miranda property

According to a methodology prescribed by the FCC Office of Engineering and Technology Bulletin No. 65E, Edition 97-01 (August 1997), the combined radio frequency power density levels of T-Mobile's antennas proposed to be installed on the tower have been calculated to amount to 14.3% of the FCC's Maximum Permissible Exposure, as measured at the base of the tower. This percentage is well below federal and state standards established for the frequencies used by wireless companies. The Telecommunications Act of 1996 prohibits any state or local agency from regulating telecommunications towers on the basis of the environmental effects of radio frequency emissions to the extent that such towers and equipment comply with FCC's regulations concerning such emissions. If federal or state standards change, the Council will require that the tower be brought into compliance with such standards. The Council will require that the power densities be recalculated in the event other carriers add antennas to the tower.

Based on the record in this proceeding, the Council finds that the effects associated with the construction, management, and maintenance of a telecommunications facility at the proposed site, including effects on the natural environment; ecological integrity and balance; public health and safety; scenic, historic, and recreational values; forests and parks; air and water purity; and fish and wildlife are not disproportionate either alone or cumulatively with other effects when compared to need, are not in conflict with policies of the State concerning such effects, and are not sufficient reason to deny this application. Therefore, the Council will issue a Certificate for the construction, maintenance, and management of a 100-foot telecommunications facility 23 Stonybrook Road in Stratford, Connecticut. The Council rejects the proposed unipole design and will order a monopole 100 feet in height and exterior flush mounts for all panel antennas. Additionally, the Council will order that the compound be re-located in an east-west configuration and that the tower is located maximum feasible distance from the west property line.

<b>DOCKET NO. 385</b> – T-Mobile Northeast LLC application for a	}	Connecticut
Certificate of Environmental Compatibility and Public Need for the construction, maintenance and management of a	}	Siting
telecommunications facility located at 23 Stonybrook Road, Stratford, Connecticut.	}	Council
**	2	February 25, 2010

#### **Decision and Order**

Pursuant to the foregoing Findings of Fact and Opinion, the Connecticut Siting Council (Council) finds that the effects associated with the construction, maintenance, and management of a telecommunications facility, including effects on the natural environment; ecological integrity and balance; public health and safety; scenic, historic, and recreational values; forests and parks; air and water purity; and fish and wildlife are not disproportionate, either alone or cumulatively with other effects, when compared to need, are not in conflict with the policies of the State concerning such effects, and are not sufficient reason to deny the application, and therefore directs that a Certificate of Environmental Compatibility and Public Need, as provided by General Statutes § 16-50k, be issued to T-Mobile Northeast LLC, hereinafter referred to as the Certificate Holder, for a telecommunications facility at 23 Stonybrook Road, Stratford, Connecticut.

The facility shall be constructed, operated, and maintained substantially as specified in the Council's record in this matter, and subject to the following conditions:

- 1. The tower shall be constructed as a monopole, no taller than necessary to provide the proposed telecommunications services, sufficient to accommodate the antennas of T-Mobile Northeast LLC and other entities, both public and private, but such tower shall not exceed a height of 100 feet above ground level. Panel antennas shall be installed in an exterior, flush mount configuration and such panel antennas shall not exceed a height of 100 feet above ground level.
- 2. The tower compound shall be oriented in an east-west configuration along the south property line. The tower shall be located to the maximum feasible distance from the west property line.
- 3. The Certificate Holder shall prepare a Development and Management (D&M) Plan for this site in compliance with Sections 16-50j-75 through 16-50j-77 of the Regulations of Connecticut State Agencies. The D&M Plan shall be served on the Town of Stratford for comment, and all parties and intervenors as listed in the service list, and submitted to and approved by the Council prior to the commencement of facility construction and shall include:
  - a) a final site plan(s) of site development to include specifications for the tower, tower foundation, antennas, equipment compound, radio equipment, access road, utility line, and landscaping;
  - b) construction plans for site clearing, grading, landscaping, water drainage, and erosion and sedimentation controls consistent with the <u>2002 Connecticut Guidelines for Soil Erosion and</u> Sediment Control, as amended.
  - c) details for the installation of architecturally-treated fencing around the compound and the installation of evergreen plantings along the west property boundary, where necessary to provide visual screening to the adjacent residences.

- 4. The Certificate Holder shall, prior to the commencement of operation, provide the Council worst-case modeling of the electromagnetic radio frequency power density of all proposed entities' antennas at the closest point of uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin No. 65, August 1997. The Certificate Holder shall ensure a recalculated report of the electromagnetic radio frequency power density be submitted to the Council if and when circumstances in operation cause a change in power density above the levels calculated and provided pursuant to this Decision and Order.
- 5. Upon the establishment of any new State or federal radio frequency standards applicable to frequencies of this facility, the facility granted herein shall be brought into compliance with such standards.
- 6. The Certificate Holder shall permit public or private entities to share space on the proposed tower for fair consideration, or shall provide any requesting entity with specific legal, technical, environmental, or economic reasons precluding such tower sharing.
- 7. The Certificate Holder shall provide reasonable space on the tower for no compensation for any Town of Stratford public safety services (police, fire and medical services), provided such use can be accommodated and is compatible with the structural integrity of the tower.
- 8. Unless otherwise approved by the Council, if the facility authorized herein is not fully constructed and providing wireless services within eighteen months from the date of the mailing of the Council's Findings of Fact, Opinion, and Decision and Order (collectively called "Final Decision"), this Decision and Order shall be void, and the Certificate Holder shall dismantle the tower and remove all associated equipment or reapply for any continued or new use to the Council before any such use is made. The time between the filing and resolution of any appeals of the Council's Final Decision shall not be counted in calculating this deadline.
- 9. At least one wireless telecommunications carrier shall install their equipment and shall become operational not later than 120 days after the tower is erected. Authority to monitor and modify this schedule, as necessary, is delegated to the Executive Director. The Certificate Holder shall provide written notice to the Executive Director of any schedule changes as soon as is practicable.
- 10. Any request for extension of the time period referred to in Condition 8 shall be filed with the Council not later than 60 days prior to the expiration date of this Certificate and shall be served on all parties and intervenors, as listed in the service list, and the Town of Stratford. Any proposed modifications to this Decision and Order shall likewise be so served.
- 10. If the facility ceases to provide wireless services for a period of one year, this Decision and Order shall be void, and the Certificate Holder shall dismantle the tower and remove all associated equipment or reapply for any continued or new use to the Council before any such use is made.
- 11. The Certificate Holder shall remove any nonfunctioning antenna, and associated antenna mounting equipment, within 60 days of the date the antenna ceased to function.

Docket No. 385 Decision and Order Page 3

12. In accordance with Section 16-50j-77 of the Regulations of Connecticut State Agencies, the Certificate Holder shall provide the Council with written notice two weeks prior to the commencement of site construction activities. In addition, the Certificate Holder shall provide the Council with written notice of the completion of site construction, and the commencement of site operation.

Pursuant to General Statutes § 16-50p, the Council hereby directs that a copy of the Findings of Fact, Opinion, and Decision and Order be served on each person listed below, and notice of issuance shall be published in the Connecticut Post.

By this Decision and Order, the Council disposes of the legal rights, duties, and privileges of each party named or admitted to the proceeding in accordance with Section 16-50j-17 of the Regulations of Connecticut State Agencies.

The parties and intervenors to this proceeding are:

**Applicant** 

T-Mobile Northeast LLC

Its Representative

Julie D. Kohler, Esq. Monte E. Frank, Esq. Jesse A. Langer, Esq. Cohen and Wolf, P.C. 1115 Broad Street Bridgeport, CT 06604

# **CERTIFICATION**

The undersigned members of the Connecticut Siting Council (Council) hereby certify that they have heard this case, or read the record thereof, in **DOCKET NO. 385** – T-Mobile Northeast, LLC application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance and management of a telecommunications facility located at 23 Stonybrook Road, Stratford, Connecticut, and voted as follows to approve the proposed telecommunications facility:

Council Members	Vo	te Cast
Daniel F. Caruso, Chairman		Yes
Colin C. Tait, Vice Chairman	( <b>%</b> )	Yes
Commissioner Kevin M. DelGobbo Designee: Wayne V. Estey		Yes
But Jolembiewshi  Commissioner Amey Marrella  Designee: Brian Golembiewski	UNI	Yes
Philip T. Ashton		Absent
Daniel P. Lynch, Jr.	1980	Yes
James J. Murphy, Ur.		Yes
Bushava Currier Bell Dr. Barbara Currier Bell		Yes
Edward S. Wilensky		Yes
Dated at New Britain, Connecticut, February 2	25, 20	010.



#### CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051
Phone: (860) 827-2935 Fax: (860) 827-2950
E-Mail: siting.council@ct.gov
Internet: ct.gov/csc

March 4, 2010

Julie D. Kohler, Esq. Monte E. Frank, Esq. Jesse A. Langer, Esq. Cohen and Wolf, P.C. 1115 Broad Street Bridgeport, CT 06604

RE:

**DOCKET NO. 385** – T-Mobile Northeast, LLC application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance and management of a telecommunications facility located at 23 Stonybrook Road, Stratford, Connecticut.

Dear Attorney Kohler, Attorney Frank, and Attorney Langer:

By its Decision and Order dated February 25, 2010, the Connecticut Siting Council (Council) granted a Certificate of Environmental Compatibility and Public Need (Certificate) for the construction, maintenance and management of a telecommunications facility located at 23 Stonybrook Road, Stratford, Connecticut.

Enclosed are the Council's Certificate, Findings of Fact, Opinion, and Decision and Order.

VIA WEST

Very traly yours.

Derek Phelps
Executive Director

SDP/RDM/jbw

Enclosures (4)





#### CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051 Phone: (860) 827-2935 Fax: (860) 827-2950 E-Mail: siting.council@ct.gov Internet: ct.gov/csc

#### CERTIFICATE

OF

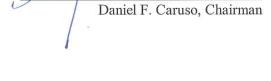
# ENVIRONMENTAL COMPATIBILITY AND PUBLIC NEED DOCKET NO. 385

Pursuant to General Statutes § 16-50k, as amended, the Connecticut Siting Council hereby issues a Certificate of Environmental Compatibility and Public Need to T-Mobile Northeast, LLC for the construction, maintenance and management of a telecommunications facility located at 23 Stonybrook Road, Stratford, Connecticut.

This Certificate is issued in accordance with and subject to the terms and conditions set forth in the Decision and Order of the Council on February 25, 2010.

By order of the Council,

February 25, 2010





## CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051 Phone: (860) 827-2935 Fax: (860) 827-2950 E-Mail: siting.council@ct.gov Internet: ct.gov/csc

March 4, 2010

TO:

Classified/Legal Supervisor

385091208 Connecticut Post

410 State Street Bridgeport, CT 06604

FROM:

Jessica Brito-Weston, Office Assistant

RE:

**DOCKET NO. 385** – T-Mobile Northeast, LLC application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance and management of a telecommunications facility located at 23 Stonybrook Road,

Stratford, Connecticut.

Please publish the attached notice as soon as possible, but not on Saturday, Sunday, or a holiday.

Please send an affidavit of publication and invoice to my attention.

Thank you.

**JBW** 





CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051 Phone: (860) 827-2935 Fax: (860) 827-2950 E-Mail: siting.council@ct.gov Internet: ct.gov/csc

#### NOTICE

Pursuant to General Statutes § 16-50p (e), the Connecticut Siting Council (Council) announces that, on February 25, 2010, the Council issued Findings of Fact, an Opinion, and a Decision and Order approving an application from T-Mobile Northeast, LLC for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance and management of a telecommunications facility located at 23 Stonybrook Road, Stratford, Connecticut.

This application record is available for public inspection in the Council's office, Ten Franklin Square, New Britain, Connecticut.

