



November 5, 2015

Members of the Siting Council
Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051

RE: Request to Reopen Docket 339 dated November 29, 2007 regarding:

Notice of Exempt Modification
640 Hilliard Street
Manchester, CT 06040
T-Mobile Site #: CTHA071D_L700

Members of the Siting Council:

The above referenced telecommunications facility was approved on November 29, 2007 as referenced in the Council's Docket 339. A Notice of Exempt Modification was submitted October 7, 2015 by SBA Communications as applicant, on behalf of T-Mobile, and in this case tower owner SBA Infrastructure, LLC.

SBA received correspondence on October 19, 2015 requesting a revised configuration with flush-mounted antennas in order for the application to be processed. The request references the second condition of the original approval which states that, "all antennas on this tower shall be flush mounted and color thereof [brown] to match the monopole." While the Notice of Exempt Modification shows "paint-to-match (monopole brown)", T-Mobile is proposing the use of T-Arm mounts for the completion of its LTE rollout at this site.

SBA respectfully requests that the Council consider removing the requirement that all antennas on this telecommunications facility be flush-mounted.

T-Mobile proposes to add three antennas to meet increased consumer usage and demand and to optimize E911 data transfer speed and capacity

The 640 Hilliard Street site sits in a heavily trafficked area serving Route 6, Middle Turnpike and the surrounding areas of Manchester. While the Council originally found that "the proposed flush mounted antennas would be adequate to satisfy the anticipated traffic for the site," wireless technologies and consumer demand have greatly increased. Improved methods for delivering wireless services and mobile broadband speeds have been necessitated by public need and desire for optimized coverage and functionality. With new methodology has come the need for increased antenna installations and related infrastructure for all carriers, including T-Mobile.

In the years since the original approval of this facility, it has become commonplace for carriers to require more tower and ground space for equipment utilizing multiple frequency licenses supporting 2G/3G legacy technologies and newer LTE/4G systems. It can be expected that competing carriers already providing coverage from the existing tower will likely see to deploy additional antenna infrastructure in the near future, and there is a finite amount of space available.

If carriers are required to flush-mount antennas for multiple frequency licenses maintaining legacy technologies and providing for newer LTE/4G technologies, a resulting occurrence could be higher towers and/or more towers due to reduced opportunities for shared use of a tower. Here SBA and T-Mobile are actively seeking a scenario to upgrade a tower with the least impact on available carrier space.

While T-Mobile has already deployed the best available dual-band antennas with integrated remote radio units (RRU) concealed inside the antenna to support 2G and 3G technologies, there currently is no commercially available and functionally equivalent (based on RF performance metrics) integrated antenna/RRU combination with tri-band capabilities that can support all three technologies (2G, 3G and LTE/4G) and all three frequencies (1900 MHz, 2100 MHz and 700 MHz).

Therefore, the addition of a separate and independent T-Mobile LTE/4G antenna collocating at the same tower height with the existing T-Mobile 2G/3G antenna is required to deploy the 700 MHz spectrum license with an adequate coverage footprint and signal strength that provides for adequate and reliable connectivity to other 700 MHz LTE/4G technology sites.

Utilizing an additional and separate tower mounting height to support an additional flush-mounted LTE/4G antenna array is not a reasonably practicable and functionally equivalent alternative. An additional lower mounting height would provide reduced coverage footprint and would also limit space for collocation by other tower technologies, an additional higher mounting height potentially would require an extended tower height.

T-Mobile's proposed work will not present any known changes to environmental conditions

T-Mobile's proposed modifications present no known material changes to environmental conditions from those as documented in the Council's original Findings of Fact. The proposed work is not thought to have any substantial adverse environmental impact.

The operation of T-Mobile's new antennas will not increase the total radio frequency electromagnetic power density at the site to a level at or above the applicable standards. The anticipated Maximum Composite contributions from the T-Mobile facility are only 1.95% of the allowable FCC established general public limit. The anticipated composite MPE value for this site assuming all carriers present is 2.84% of the allowable FCC established general public limit sampled at the ground level.

T-Mobile's proposed work will not present any significant adverse visual impact on the surrounding areas

To add the proposed T-Arm configuration will not have any significant adverse visual impact on the surrounding areas. The antennas should result in only marginal additional visibility from areas that already have views of the existing tower. The proposed work would not require any Federal Aviation Administration obstruction marking or lighting.

The antenna mounting configuration as proposed utilizes a compact T-Arm mount with a face-frame width of only 5.5 feet providing a horizontal side-to-side antenna separation distance of 4 feet between the adjacent existing 2G/3G dual-band antenna and additional the LTE/4G single-band 700 MHz antenna. The T-Arm standoff projection from the face of the monopole is only 14 inches which is the minimum practicable distance needed to maintain an adequate and safe OSHA-compliant vertical climbing passage (between the apex of the adjacent T-Arm frames) to the top of

the tower. Any reduction in the T-Arm standoff distance would impede the climbing passage space and compromise the safety of tower maintenance personnel.

T-Mobile's proposed modification is consistent with necessary changes being made to existing site configurations

When the Council's original decision for the 640 Hilliard Street site was made, carriers often stated that, in the future; 1) flush mount antenna configurations might require more than one vertical elevation of a tower per carrier to address capacity; 2) specific changes in customer demand for services could require additional antennas; and 3) technological advances in the coming years might not be deliverable with flush mount only antenna configuration on towers.

While flush mount antenna configurations still have an obvious place in select environments and T-Mobile will continue to propose them in such settings, the utility and viability of flush mount antenna configurations have become severely lessened. Limitations requiring flush mount antennas on existing tower sites can represent significant setbacks to shared use of tower structures by multiple carriers and impose substantial operational constraints on the delivery of enhanced wireless services to the public and to our E911 systems.

Given the above, and in light of T-Mobile's efforts to quickly address increased speed and capacity at the 640 Hilliard Street site, SBA respectfully requests the Council's review of the original approval. We ask that the Council consider reissuing the Certificate of Environmental Compatibility and Public Need removing the requirement for flush-mounted antennas at this telecommunications facility.

Respectfully submitted,



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CERTIFICATION OF SERVICE TO ALL PARTIES, INTERVENORS AND
ABUTTING PROPERTY OWNERS

I hereby certify that a copy of the foregoing letter was sent by certified mail, return receipt requested to each of the following:

~~Optasite, Inc.~~ (now SBA Infrastructure, LLC)
(Tower Owner)
33 Boston Post Road West, Suite 320
Marlboro MA 01752
[Notice coming from SBA / no service needed]

~~Omnipoint Communications, Inc.~~ (now T-Mobile)
100 Filley Street
Bloomfield, CT 06002
c/o Julie Kohler, Esq.
Carrie L. Larson, Esq.
Cohen and Wolf, P.C.
1115 Broad Street
Bridgeport, CT 06604

T-Mobile
Mark Richard
Development Project Manager
35 Griffin Road South
Bloomfield, CT 06002

Hilliard Mills, LLC
(Premises)
370 Adams Street
Manchester, CT 06042
(Mailing)
642 Hilliard Street
Manchester, CT 06042

Leonard E. Belcher, Inc.
(Premises)
330 Adams Street
Manchester, CT 06042
(Mailing)
615 St. James Avenue
Springfield, MA 01109



Town of Manchester
(Premises)
809 Hilliard Street
Manchester, CT 06042
(Mailing)
41 Center Street
Manchester, CT 06042

SJD Property Management, LLC
302 Adams Street
Manchester, CT 06042

Martin Torres and Dawn Mateo
(Premises)
340 Adams Street
Manchester, CT 06042
(Mailing)
346 Adams Street
Manchester, CT 06042

Dated: November 5, 2015

By: 
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