

Attachment 1

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Statement of Public Need

The proposed facility will provide reliable in-building and wireless communications services in the area generally south of Interstate 95 extending from Fog Plain Road to Broad Street, including areas along Routes 1 and 85. This area of the City hosts various stores and commercial businesses, as well as to many local residences, schools, institutions and recreational areas. A facility is required by AT&T in this part of New London in conjunction with other existing and proposed facilities to provide reliable service to the public. Attached is a radio frequency report providing details of AT&T's need in this area including coverage maps depicting coverage from AT&T's existing facilities in this area as well as the anticipated coverage from the proposed site.



RADIO FREQUENCY ENGINEERING REPORT

Proposed New London, CT Wireless Facility - S2838 Bates Woods Park, New London, CT



Prepared by:

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Table of Contents

1. Overview.....	3
2. Introduction.....	3
3. Coverage Objective.....	3
4. Summary.....	6
5. Statement of Certification	6
6. Attachments.....	7

List of Tables

Table 1: Area Coverage Analysis.....	4
Table 2: Population Coverage Analysis.....	5
Table 3: Average Daily Traffic.....	5
Table 4: List of Existing & Proposed Sites.....	5

List of Attachments

Map 1: Current Coverage at New London, CT	7
Map 2: Composite Coverage with S2838 @ 112' AGL	8

Overview

This document is provided in support of AT&T's proposal to operate a ground mounted, wireless telecommunication facility in New London, CT.

This document addresses AT&T's need for the proposed facility and validates that there are no other existing structures that meet AT&T's coverage objective for this area. The proposed facility located at Bates Woods Park in the city of New London at a proposed antenna centerline height of 112 feet above ground level will best address the coverage objective and provide the needed interconnectivity to AT&T's existing neighboring sites and surrounding communities.

Introduction

As enabled under its Federal Communications Commission ("FCC") Licenses, AT&T seeks to design its wireless network to provide reliable and adequate wireless services to its customers, whether those customers are on the street, in a vehicle, or in a building. Providing reliable and adequate service to its customers in each context is critical for AT&T to provide the quality of wireless service that customers demand, and to meet objectives of Congress that a robust, competitive and low cost wireless communications capacity be developed to serve the entire nation.

In order to build out its network and meet customer demand for voice and data services, AT&T must have in place a system of low power "cell sites" to serve portable wireless communication handsets and mobile telephones. A typical cell site, such as the one proposed, consists of antenna mounted to a building, tower, church or other structure. The antennas are connected to radio operating equipment housed at or near the structure.

To maintain effective, reliable and uninterrupted service, there must be a continuous series of cell sites located within close proximity to each other so as to overlap in a system comparable to a honeycomb pattern. If there is no cell site available to accept/receive the signal, network service to the mobile telephone/data service will terminate involuntarily. Accordingly, the overlap of coverage is necessary for the signal to transfer from one cell to another cell site seamlessly and without involuntary termination.

A number of factors determine the distance between the cell sites, including, but not limited to, topography, physical obstructions, foliage, antenna height, operating frequency and line-of-site.

Coverage Objective

AT&T currently has one existing facility in New London that serves some parts of the city, with additional coverage provided by AT&T cell sites from neighboring towns of Waterford and Groton. The existing facility in New London is located at 26 Washington Street (AT&T site CT2080).

Map 1, titled, “Current Coverage at New London, CT”, is a propagation plot that depicts current coverage at New London and the neighboring towns. In Map 1 northern part of New London has marginal or very poor coverage and areas where there is no coverage at all. It also shows that there is inadequate coverage overlap between existing sites CT2080, CT5221 and CT5738.

In the map, “green” (\Rightarrow -74 dBm) represents “in-building” coverage which allows for signal penetration losses (solid walls, partitions, etc.) of 10 dB. Color “yellow” represents “in-vehicle” (\Rightarrow -82 dBm) which takes into account 5 to 8 dB of vehicle penetration attenuation.

AT&T determined that significant coverage gaps exist particularly in the following roads:

- Jefferson Ave
- US HW 1 (Colman St.)
- Chester St
- Broad St
- Williams St
- Vauxhall St

Improving the coverage on above mentioned roads would not only benefit commuters but also provides better signal penetration on houses and other establishments within the area as well. Map 2, titled, “Composite Coverage with S2838 @ 112’ AGL”, shows the AT&T coverage at New London with the proposed facility turned on. Comparing Map 1 and Map 2, clearly shows the roads mentioned above that will have coverage after adding the proposed site. This would mean better quality and uninterrupted service for subscribers travelling between these roads as well as better signal penetration for houses, business establishments, etc. The following tables will show the area and population in this area that will have service from the proposed facility

Table 1 below shows the area analysis for current and proposed coverage. AT&T currently covers 5.31 square miles of New London and the proposed site will cover an additional 0.81 square miles, a gain of 15.18% relative to current coverage which also equates to 11.13% of the total area of New London.

Area Coverage (sq mi)					
New London Total Area	Area covered by existing sites (\Rightarrow -82 dBm)	Area not covered ($<$ -82 dBm)	Area that will be covered with the proposed site (\Rightarrow -82 dBm)	Remaining Area not covered ($<$ -82 dBm)	Proposed Area Gain
7.24	5.31	1.93	6.12	1.13	0.81

Table 2 below shows the population analysis (2008 Census Block Data) for current and proposed coverage. AT&T currently covers 25,046 of New London population and the proposed site will cover an additional 3,292, a gain of 13.14% relative to population currently covered which also equates to 10.51% of New London total population.

Population Coverage (2008 Census Block Data)					
New London Total Population	Population covered by existing sites (=> -82 dBm)	Population not covered (< -82 dBm)	Population that will be covered with the proposed site (=> -82 dBm)	Remaining Population not covered (< -82 dBm)	Proposed Population Gain
31,336	25,046	6,290	28,338	2,998	3,292

Table 3 below shows the roads that will be covered by proposed site with average daily traffic data available from CT DOT website.

Street Name	Average Daily Traffic (2011)
Jefferson Ave., New London, CT	16,000
US HW 1 (Colman St.), New London, CT	13,600
Chester St., New London, CT	13,200
Broad St., New London, CT	8,200
Williams St., New London, CT	6,600
Vauxhall St., New London, CT	4,200

Table 4 below includes AT&T's existing surrounding sites.

Site ID	Longitude	Latitude	Address	Town	State	Structure Type	Antenna Centerline (ft)
CT1270	-72.166669	41.330264	51 DANIELS AVE	WATERFORD	CT	SELF SUPPORT	170
CT2023	-72.124613	41.329114	15 MINER LN	WATERFORD	CT	MONOPOLE	153
CT2080	-72.097866	41.353893	26 WASHINGTON ST	NEW LONDON	CT	ROOFTOP	191
CT5220	-72.150499	41.354692	41 MANITOCK HILL RD	WATERFORD	CT	SELF SUPPORT	97
CT5221	-72.139299	41.373892	53 DAYTON RD	WATERFORD	CT	SELF SUPPORT	155
CT5223	-72.073336	41.361936	25-39 BROAD ST EXT	GROTON	CT	ROOFTOP	59
CT5729	-72.068302	41.341302	295 MERIDEN ST	GROTON	CT	WATER TANK	84
CT5738	-72.080897	41.380295	29 SKYVIEW TERRACE	GROTON	CT	WATER TANK	80

Summary

The significant coverage gap seen on Map 1, demonstrates the need for an additional site within the area. It clearly shows that current coverage does not provide sufficient coverage overlap between the sites within New London. In other words, existing sites and facilities will not cover the gap in AT&T's service in this area of New London.

Statement of Certification

I certify to the best of my knowledge that the statements in this report are true and accurate.



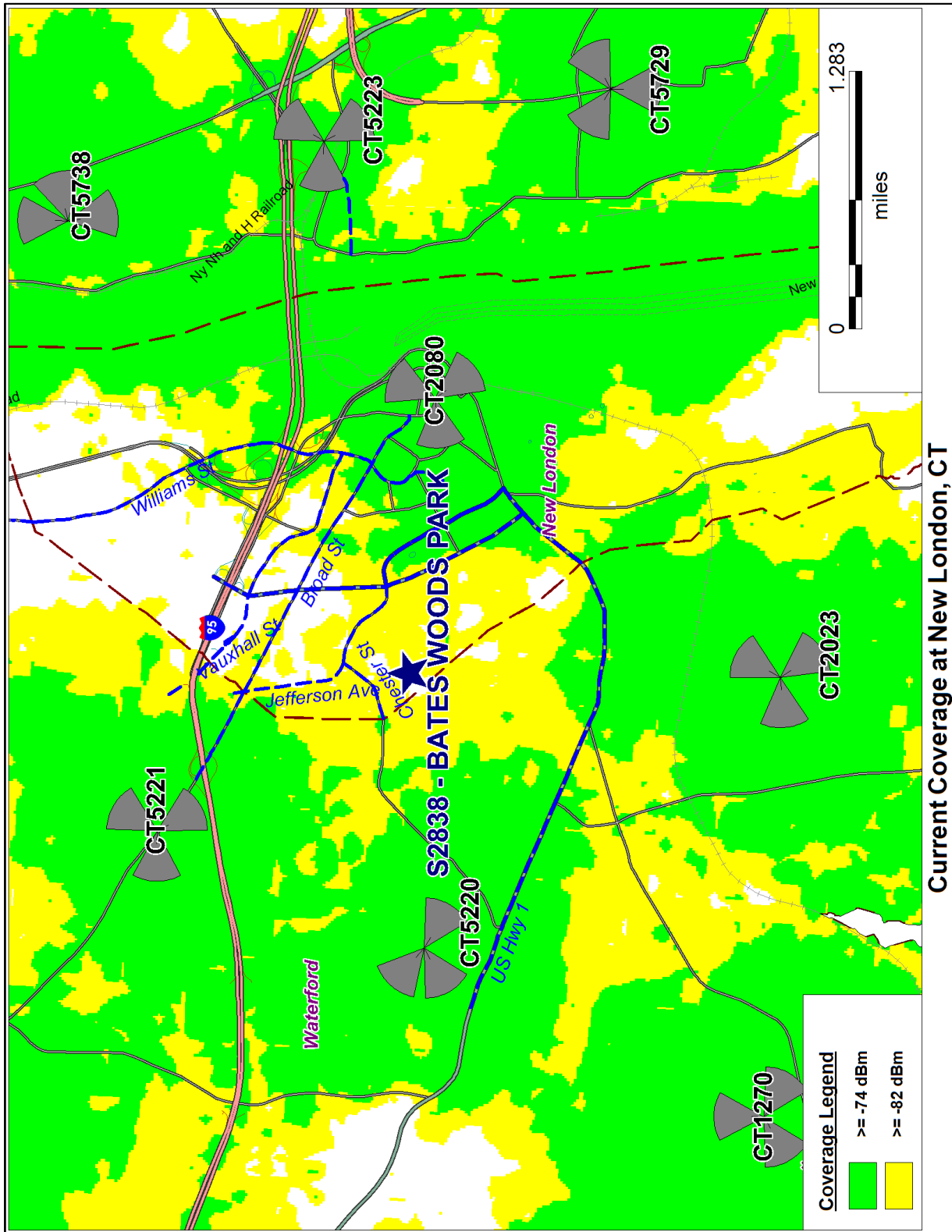
Michael Lawton
SAI Communications

April 12, 2013

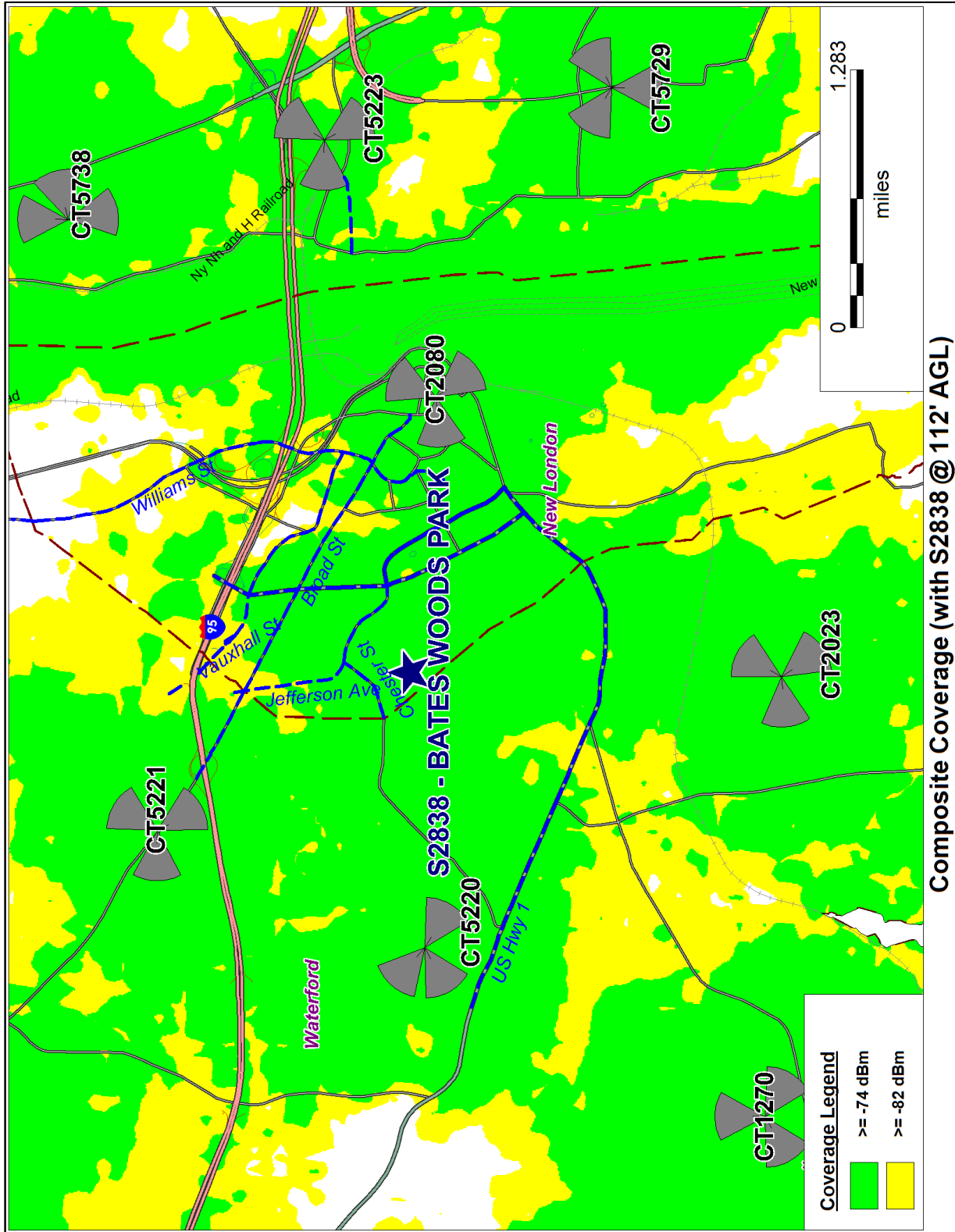
Date

Attachments

Map:1



Map:2





May 22, 2013

MCM Inc.
Attn: Mr. Christopher Gelinus
National Sales Manager
40 Woodland Street
Hartford, CT 06105

RE: New London – Bates Woods

Mr. Gelinus:

We have received your information regarding your proposed communication facility located at Bates Woods Park in New London Connecticut. T-Mobile is currently installed on the rooftop of the High School located at 220 Chester Street which is in close proximity to your proposed facility. Based on our review of this proposed structure we are in support of relocating from the High School location to this facility should it be approved by the Connecticut Siting Council.

T-Mobile currently does not have an open project for this relocation however we will be happy to revisit upon the outcome of your application with the Connecticut Siting Council.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Hans Fiedler'.

Hans Fiedler
Sr. Development Manger