ATTACHMENT 2

ATTACHMENT 2
Statement of Public Need

The proposed facility will provide wireless communications service along South Street, West Purchase Road, Perkins Road, Brown Brook Road and other roads, properties and homes in the northern Southbury area as well as southern Roxbury. The facility is needed by AT&T in conjunction with other existing and approved facilities in Southbury, Roxbury, Newtown and Woodbury. Attached is a Radio Frequency Engineering Report with coverage plots depicting the "Current Coverage" provided by AT&T's existing facilities in this area of the state and "Proposed Coverage" as predicted from the proposed facility at 257 Perkins Road together with coverage from existing and approved (to be constructed) adjacent sites. As clearly demonstrated by these materials, a facility in this area of Southbury is required for AT&T to serve this public in this portion of the Town.

RADIO FREQUENCY ENGINEERING REPORT

Proposed Southbury, CT Wireless Facility - S2040 - Southbury, CT

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Overview

This document is provided in support of AT&T's proposal to operate a ground mounted, wireless telecommunication facility in Southbury, 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 257 Perkins Road in the town of Southbury at a proposed antenna centerline height of 166 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 a couple of existing facilities in Southbury that serve some parts of the town, with additional coverage provided by AT&T cell sites from neighboring towns of Roxbury and Bridgewater.

Map 1, titled, “AT&T Current Coverage at Southbury, CT”, is a propagation plot that depicts current coverage at Southbury and the neighboring towns. In Map 1 North-Western part of Southbury 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 S1876 (Approved), CT1271 and CT2126.

In the map, “green” (=>-74 dBm) represents “in-building” coverage which allows for signal penetration losses (solid walls, partitions, etc.) of 10 dB. Color “yellow” represents “in-vehicle” (=>-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:

- Perkins Rd., Southbury, CT
- Gilbert Rd., Southbury, CT
- South St., Roxbury, CT
- Lower River Rd., Roxbury, CT
- W Purchase Rd., Southbury, CT
- Brown Brook Rd., Southbury, CT
- Berry Rd., Roxbury, CT
- Lower Falls Rd., Roxbury, CT
- New Rd., Southbury, CT
- Turril Brook Dr., Southbury, CT

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, “AT&T Proposed plus Approved Coverage with S2040 at Southbury, CT @ 166’ AGL”, shows the AT&T coverage at Southbury 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 30.79 square miles of Southbury and the proposed site will cover an additional 2.44 square miles, a gain of 7.93% relative to current coverage which also equates to 6.10% of the total area of Southbury, CT.

Area Coverage (sq mi)					
Southbury Total Area	**Area covered by existing sites (=> -82 dBm)**	**Area not covered (< -82 dBm)**	**Area that will be covered with the proposed site (=> -82 dBm)**	**Remaining Area not covered (< -82 dBm)**	**Proposed Area Gain**
40.02	30.79	9.23	33.23	6.79	2.44

Table 2 below shows the population analysis (2008 Census Block Data) for current and proposed coverage. AT&T currently covers 18,110 of Southbury population and the proposed site will cover an additional 619, a gain of 2.83% relative to population currently covered which also equates to 6.22% of Southbury total population.

Population Coverage (2008 Census Block Data)					
Southbury 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**
21,864	18,110	3,754	18,729	3,135	619

Table 3 below includes AT&T's existing surrounding sites.

Site ID	Longitude	Latitude	Address	Town	State	Structure Type	Antenna Centerline (ft)
S1876	-73.262811	41.514953	SOUTHBURY ROAD	ROXBURY	CT	MONOPOLE	170
CTV1271	-73.333903	41.466947	24 DINGLEBROOK LANE	NEWTOWN	CT	MONOPOLE	150
CTV2066	-73.220735	41.521998	103 GREAT HOLLOW ROAD	WOODBURY	CT	MONOPOLE	137
CTV2086	-73.205555	41.471186	231 KETTLETOWN ROAD	SOUTHBURY	CT	MONOPOLE	185
CTV2126	-73.244999	41.459964	HORSE FENCE HILL ROAD	SOUTHBURY	CT	MONOPOLE	154

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 Southbury. In other words, existing sites and facilities will not cover the gap in AT&T's service in this area of Southbury.

Statement of Certification

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

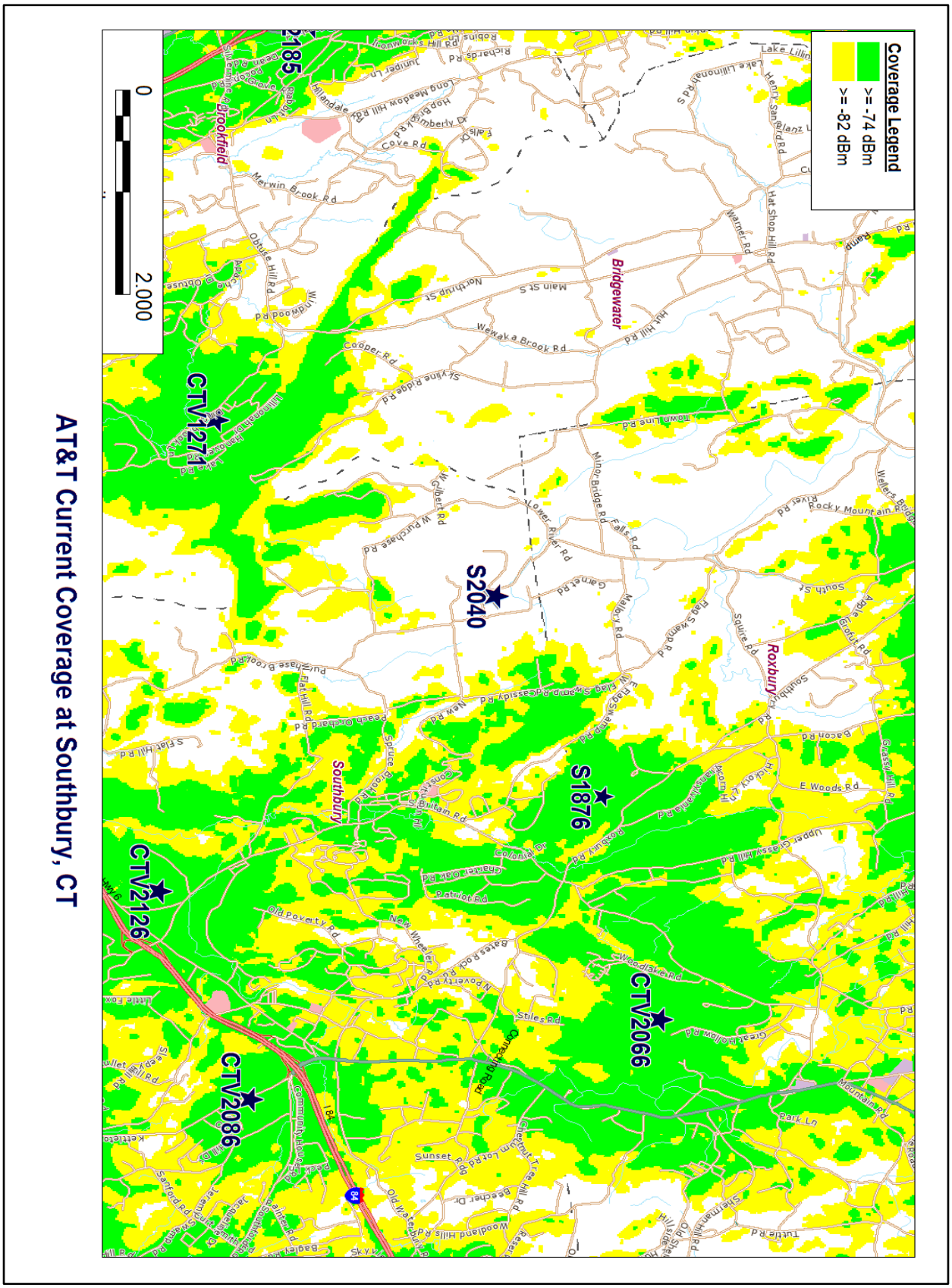
_____ October 11, 2013_____

Michael Lawton
SAI Communications

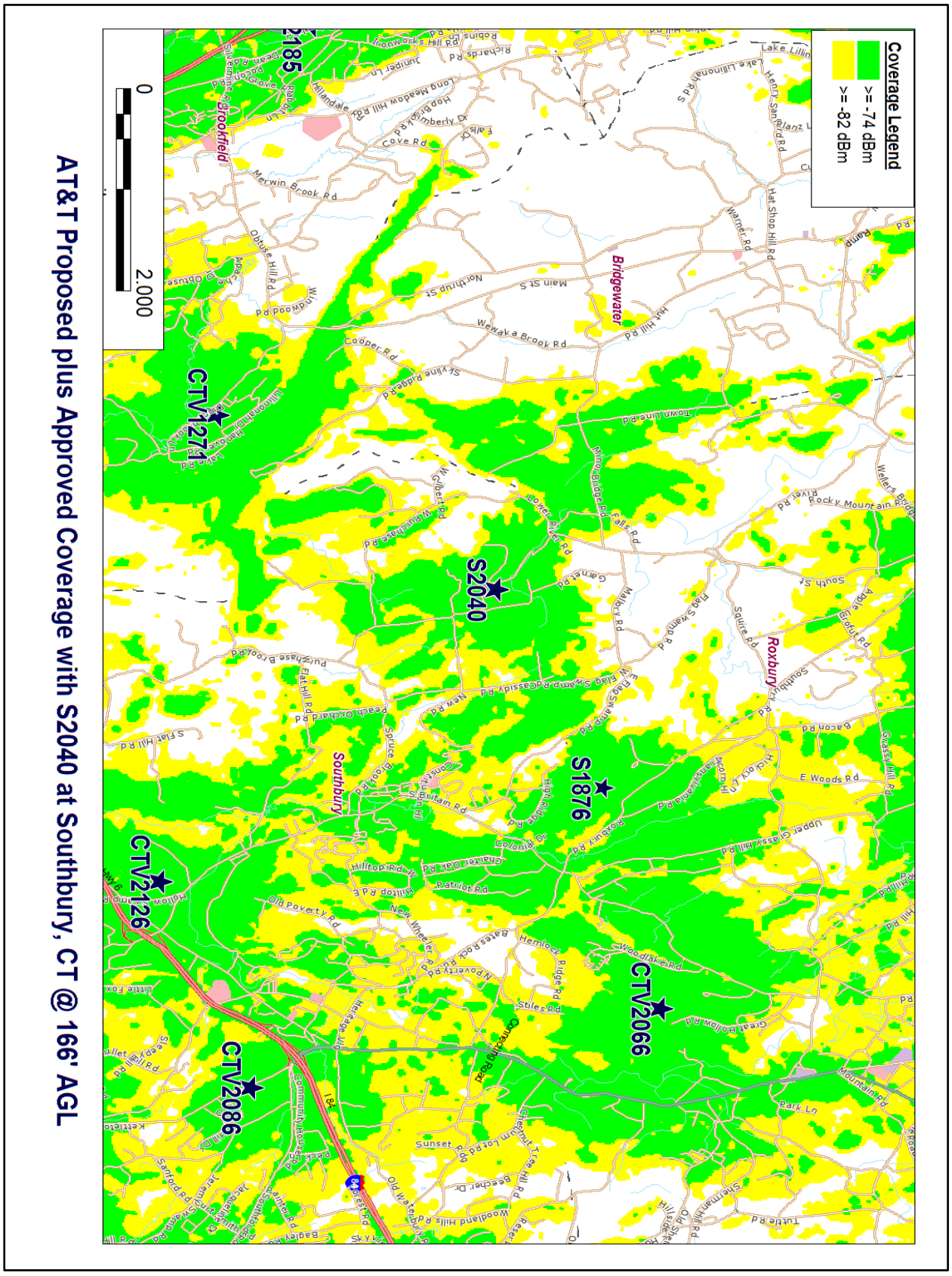
Date

Attachments

Map:1


AT&T Current Coverage at Southbury, CT
Coverage Legend
>= -74 dBm
>= -82 dBm
0
2.000
CTV1271
S2040
S1876
CTV2126
CTV2066
CTV2086
Bridgewater
Roxbury
Southbury

Map:2


AT&T Proposed plus Approved Coverage with S2040 at Southbury, CT @ 166' AGL
Coverage Legend
>= -74 dBm
>= -82 dBm
0
2.000
CTV1271
S2040
S1876
CTV2126
CTV2066
CTV2086
Brookfield
Bridgewater
Roxbury
Southbury