TECHNICAL REPORT
to the
TOWN OF STONINGTON
(Village of Pawcatuck)

T-MOBILE NORTHEAST LLC
(T-MOBILE)

PROPOSED STONINGTON
MONOPOLE TOWER TELECOMMUNICATIONS FACILITY

166 PAWCATUCK AVENUE
STONINGTON, CONNECTICUT
(Village of Pawcatuck)

T-Mobile Northeast LLC
35 Griffin Road South
Bloomfield, Connecticut 06002

Table of Contents

Introduction

T-Mobile Northeast LLC, a subsidiary of T-Mobile USA, Inc. d.b.a. T-Mobile ("T-Mobile") hereby submits this Technical Report to the Town of Stonington pursuant to General Statutes § 16-50*l*. T-Mobile proposes to install a wireless telecommunications facility (the "Facility") on an approximately 5.02 acre parcel located at 166 Pawcatuck Avenue and owned by Warren D. Main and Patricia L. Main (the "Property" or the "Site"). The Facility will consist of a 120 foot monopole structure, with antennas mounted at a centerline of approximately 116'9" feet above grade level ("AGL"), and related equipment at the base of the tower on a concrete equipment pad. The Facility, if approved, would provide wireless communications service in this area of Stonington, particularly in the Village of Pawcatuck.

The purpose of this Technical Report is to provide the Town of Stonington with information concerning the Facility. Section One addresses the need for the proposed Facility. Section Two details the site selection process, including an analysis of other sites considered and rejected by T-Mobile. Section Three describes the design for the Facility and the environmental effects, if any, associated with the proposed Facility.

Correspondence and/or communications regarding this Technical Report should be addressed to the attorneys for T-Mobile:

Cohen and Wolf, P.C.
1115 Broad Street
Bridgeport, CT 06604
(203) 368-0211

Attention: Julie D. Kohler, Esq.
Monte E. Frank, Esq.
Jesse A. Langer, Esq.

SECTION 1

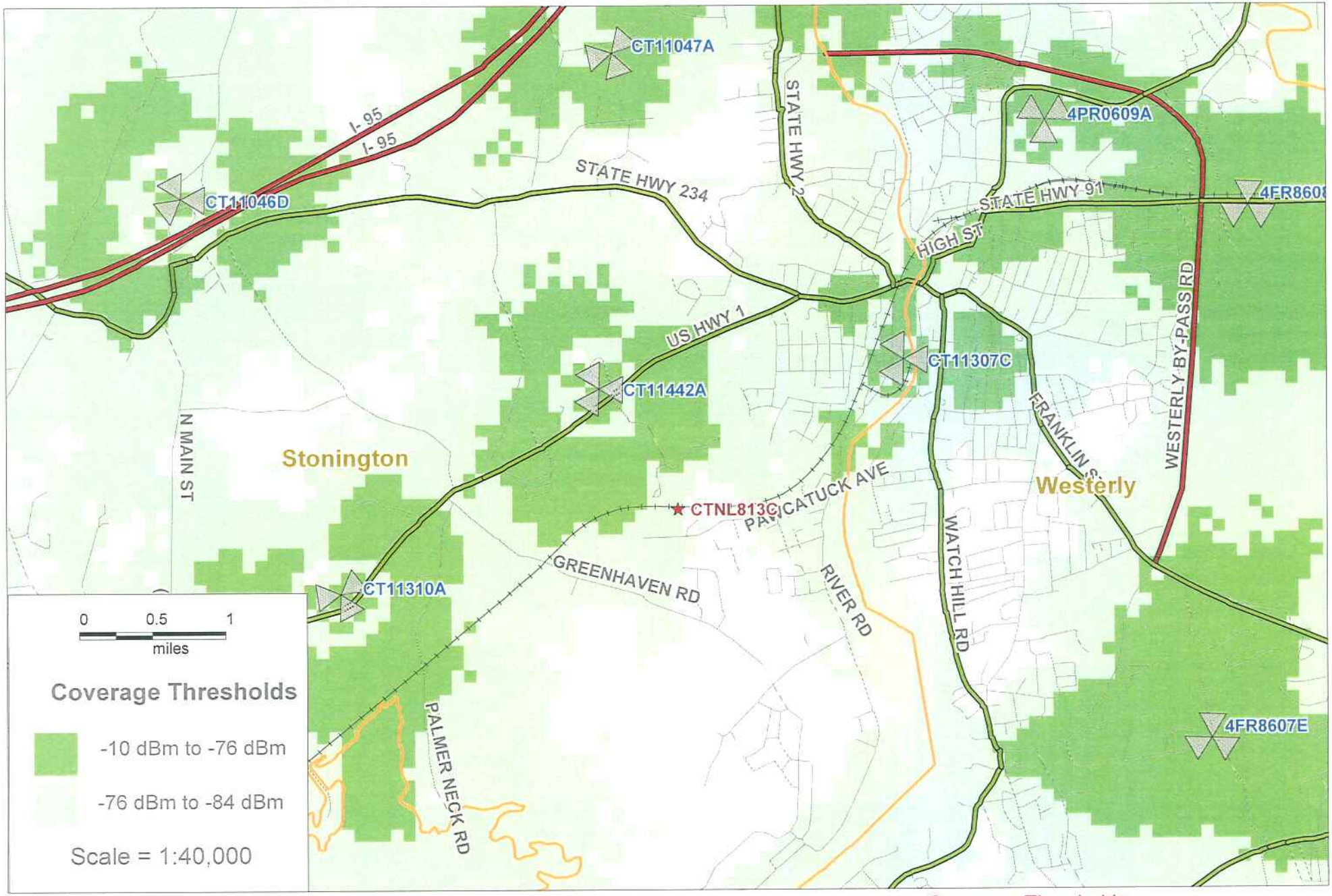
Site Justification

The proposed Facility is necessary to enhance wireless service availability to existing and future T-Mobile wireless device users. Enhanced coverage provided by the Facility will allow T-Mobile subscribers to use voice and data services reliably as well as to connect to Emergency 911 services. The proposed Facility is part of a series of facilities T-Mobile is proposing in the State to fill coverage gaps along the Amtrak rail line. The intended coverage area of the Facility includes the portion of the Amtrak rail line which travels through this section of Stonington as well as to residents in the easterly section of Stonington, particularly the Village of Pawcatuck, along the border of Westerly, Rhode Island. The Facility would enhance wireless service availability south of Interstate 95 along Pawcatuck Avenue, River Road and Greenhaven Road.

Included herein are propagation plots prepared by T-Mobile that depict (1) coverage from existing and approved surrounding sites; (2) predicted coverage from the proposed Site with antennas mounted at an approximate centerline of 116'9" AGL; and (3) coverage from the proposed Site with the existing and approved sites.

Together, these propagation plots demonstrate the need for a site in the area of the proposed Facility and the effectiveness of the proposed Facility in meeting the need for wireless service in this area of Stonington.

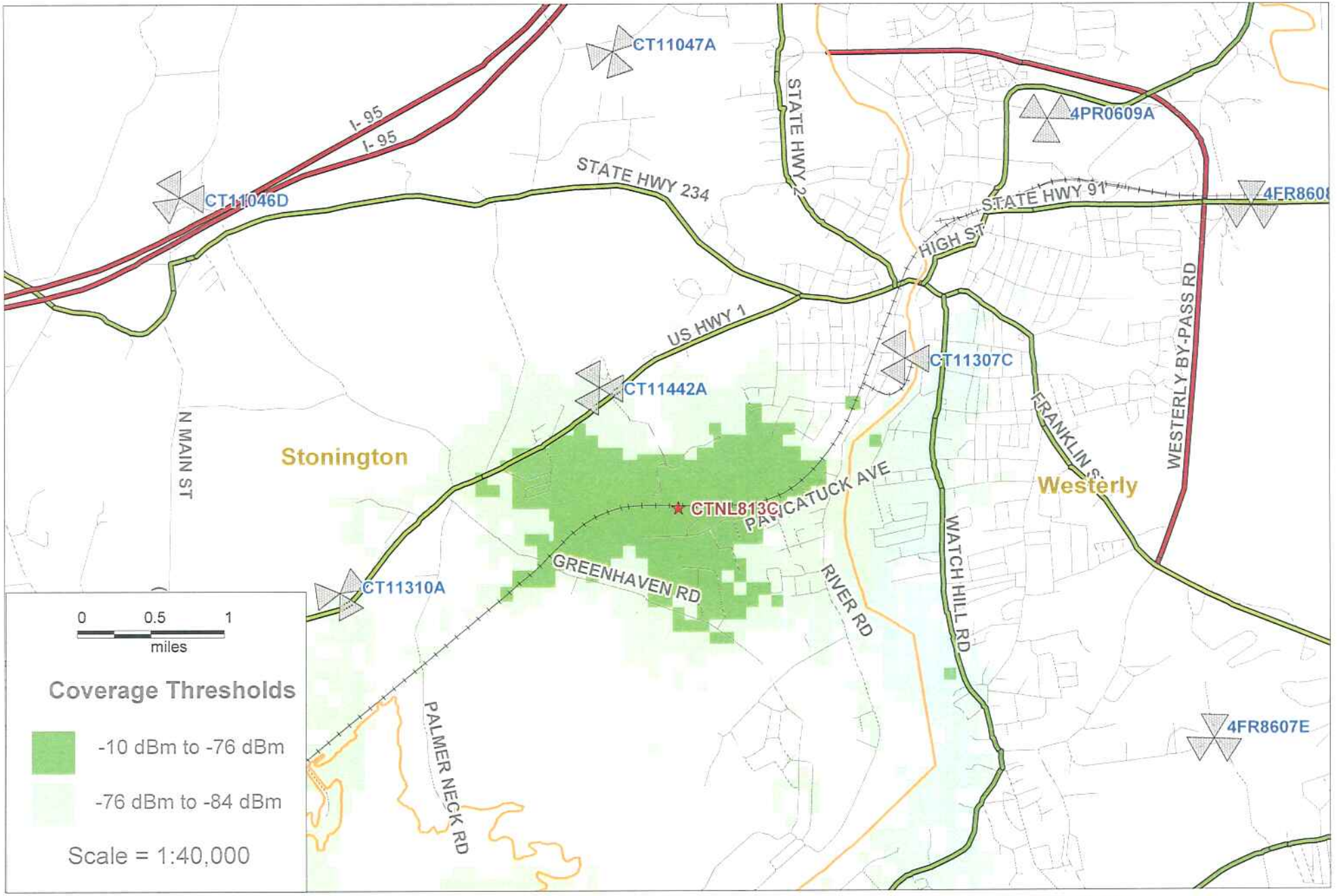
ATTACHMENT A



N

-T-Mobile-- Existing T-Mobile On Air Coverage

Coverage Thresholds
Dark Green - In Building Coverage
(-10 dBm to -76 dBm)
Light Green - In Vehicle Coverage
(-76 dBm to -84 dBm)

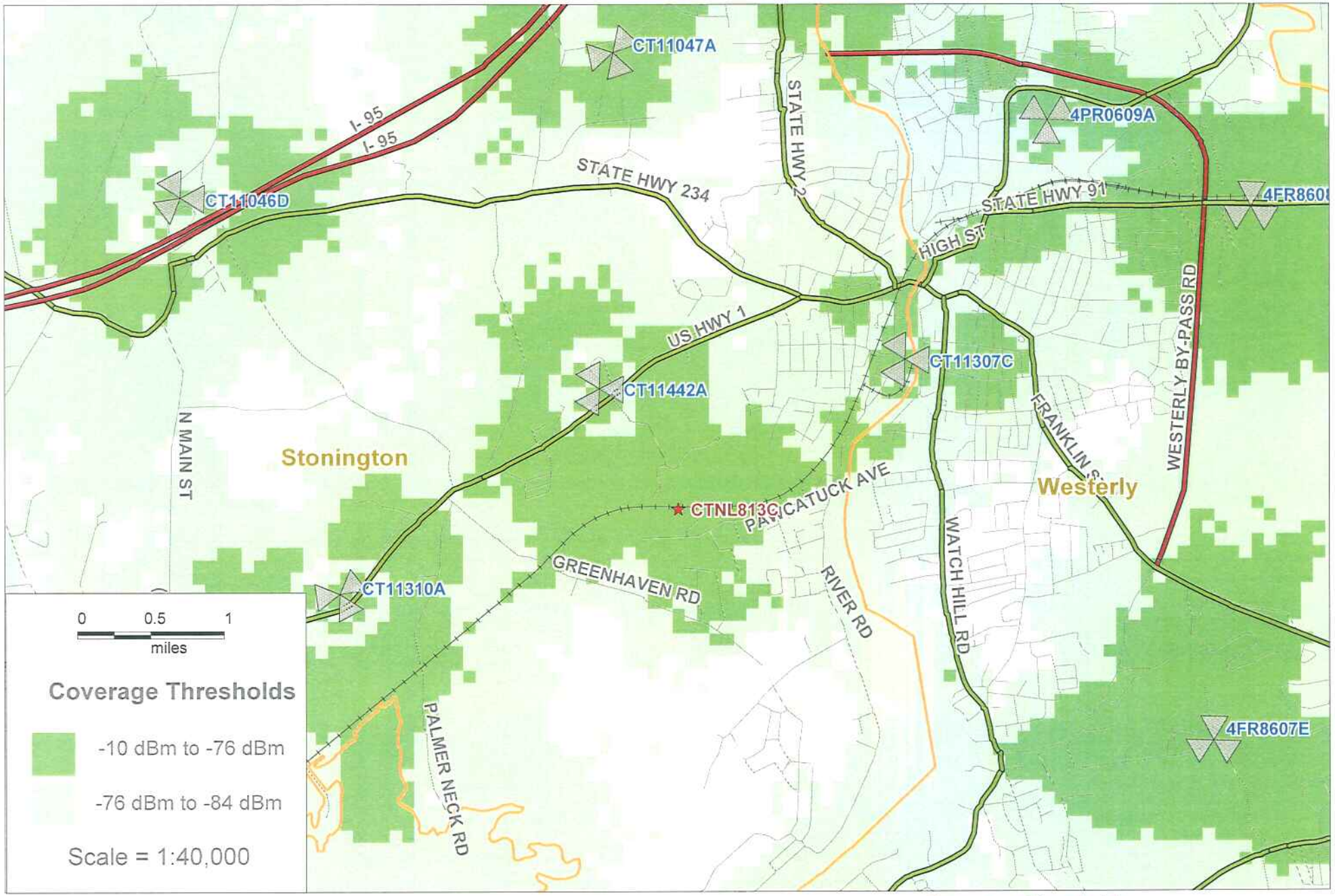


N

-T-Mobile--

T-Mobile Proposed CTNL813C
@ 117' 9" AGL

Coverage Thresholds
Dark Green - In Building Coverage
(-10 dBm to -76 dBm)
Light Green - In Vehicle Coverage
(-76 dBm to -84 dBm)



N

-T-Mobile-

Existing T-Mobile On Air Coverage With CTNL813C @ 117' 9" AGL

Coverage Thresholds
Dark Green - In Building Coverage
(-10 dBm to -76 dBm)
Light Green - In Vehicle Coverage
(-76 dBm to -84 dBm)

SECTION 2

Site Search Process and Selection

General Statutes § 16-*50l* (e) requires T-Mobile to provide the Town of Stonington with a technical report considering, *inter alia*, "the site selection process." When filing its application for a certificate of environmental compatibility and public need with the Connecticut Siting Council, T-Mobile must include a statement that describes "the narrowing process by which other possible sites were considered and eliminated." Regs., Conn. State Agencies § 16-50j-74(j). In accordance with these requirements, this Technical Report details the description of the general site search process, the identification of the target search area and the alternative locations considered for development of the proposed Facility.

As a wireless carrier licensed by the Federal Communications Commission ("FCC"), T-Mobile investigates prospective sites in an area based upon the needs of its wireless infrastructure. T-Mobile chooses a target area central to the area in which it has identified coverage and/or capacity needs after extensive research of that particular area. The area targeted is the geographical location where the installation of a site would, based on general radio frequency engineering and system design standards, likely address the identified problem (the "search ring"). T-Mobile's goal is to locate sites that will remedy coverage or capacity issues, and cause the least environmental impact. In this case, T-Mobile has searched for a site in this area, and has identified the Property as the best possible location for a wireless facility.

T-Mobile is sensitive to State and local desires to minimize the construction of new towers, and it does not pursue development of a new facility where an acceptable existing structure can be found. In general, T-Mobile's site acquisition personnel study the area in and near the search ring to determine whether any suitable structure exists. If T-Mobile cannot find a structure with appropriate height and structural capabilities, it turns to industrial and commercial areas or individual parcels that have appropriate environmental and land use characteristics. The list of potential locations is limited by the willingness of property owners to make their properties available for a telecommunications facility. Radio frequency engineers study potentially suitable and available locations to determine whether those locations will meet the technical requirements for a telecommunications facility. The list of possible alternative sites may be further narrowed by T-Mobile's analysis of potential environmental effects and benefits. The weight given to relevant factors varies for each search, depending on the nature of the area and the availability of potential sites.

There are no existing towers, transmission line structures or other suitable structures in the area of Stonington, particularly the village of Pawcatuck, which is the subject of this site search. Moreover, any existing towers are too far from the target area to provide coverage specifically to the target area. The nearest towers and suitable structures are already in use by T-Mobile. There are no suitable areas of commercial or

industrial use in or near the target area. Finally, the Site abuts the Amtrak rail line, which is an important component of the coverage goal.

T-Mobile considered several other locations that might have addressed the coverage gap in this area of Stonington. The reasons T-Mobile did not select any of these locations are outlined below:

1. Pawcatuck Thread Mill, 12 River Road. This property hosts the Pawcatuck Thread Mill, which is being developed into apartments and stores. The existing building is four stories high with a five story penthouse on the northwest corner of the building. T-Mobile reviewed the building to determine whether a facility located on the rooftop would provide adequate coverage for the Amtrak rail line. T-Mobile concluded that the rooftop is too far to the southeast to afford adequate coverage to the Amtrak rail line — an important component of T-Mobile's coverage goal.

2. Highland Homestead Inc, 170 Pawcatuck Avenue. This property abuts the property of the proposed Facility. This property does not host any suitable structures to mount a telecommunication facility and, therefore, would require the construction of a tower. T-Mobile contacted the owners of this property, but they were not interested in leasing land to T-Mobile to construct a telecommunications tower.

3. First Student Bus Company, 50 Extrusion Drive. This property hosts an existing light duty lattice tower, which is approximately forty-five feet high. T-Mobile contacted the owners of this property, but they were not interested in having T-Mobile replace the existing tower with a higher telecommunications facility which would be needed to address T-Mobile's coverage goal.

4. Davis Standard, LLC, 1 Extrusion Drive. This property hosts an existing one story building. T-Mobile reviewed the building to determine whether a facility located on the rooftop would provide adequate coverage for the Amtrak rail line. T-Mobile concluded that the rooftop is too low to afford adequate coverage to the Amtrak rail line — an important component of T-Mobile's coverage goal.

5. End South Broad Street Amtrak Right of Way Parcel. There are no suitable structures on this property for a telecommunications facility and, therefore, this site would require the construction of a tower. Access to the parcel is across property owned by the Town of Stonington. T-Mobile met with the First Selectman, the Honorable Edward Haberek, Jr., about a prospective facility on this property. The Town was not interested in constructing a facility on this alternative site because it would be within the vicinity of a school and park. The Town asked T-Mobile to consider alternate locations for a telecommunications facility.

6. South Broad Street, Town of Stonington Sewer. This property hosts the Town's pump station. There is an existing light duty lattice tower, which is approximately twenty-five feet high. T-Mobile concluded that the existing lattice tower is too short to meet its coverage goals, and the tower is structurally inadequate to support

T-Mobile antennas. T-Mobile met with the First Selectman, the Honorable Edward Haberek, Jr., about a prospective facility on this property. The Town decided not to pursue this alternative site because it would be within the vicinity of a school and park. The Town asked T-Mobile to consider alternate locations for a telecommunications facility.

7. 151 Greenhaven Road, Town of Stonington. This property hosts an existing old lattice tower, which is approximately thirty feet high. The tower is no longer in use. T-Mobile reviewed the existing tower to determine if it could serve as a site suitable to provide coverage for this area of Stonington. T-Mobile concluded that the lattice tower is too far to the southwest to afford adequate coverage to the Amtrak rail line — an important component of T-Mobile's coverage goal.

Consequently, T-Mobile has determined that the property located at 166 Pawcatuck Avenue is superior to the other properties in the area. The Property is zoned RR-80 and is 5.02 acres. The Property is currently used as a single family residence and farm. It also abuts the Amtrak rail line, which is an important component of T-Mobile's coverage goal - to provide service to the Amtrak line throughout Connecticut. Access to the proposed tower would be across an existing gravel driveway owned by the property owner and across an existing cleared field. T-Mobile would add a gravel driveway, which would connect the existing driveway to the Facility. T-Mobile would not have to remove any trees to construct the Facility. The proposed Facility would be approximately 650 feet from Pawcatuck Avenue with excellent screening from mature trees. The property immediately to the north of the proposed Facility is heavily wooded. So far, Verizon has expressed an interest to co-locate on the proposed tower. T-Mobile is in contact with other licensed carriers to assess their needs.

SECTION 3

PROPOSED SITE

166 Pawcatuck Avenue
Stonington, Connecticut
(Village of Pawcatuck)

Land of
Warren D. Main and Patricia L. Main

Map 26/Block 2/ Lot 1
5.02 Acres

ATTACHMENT B

MAP ID: 25-1-19-1
176 SOUTH BROAD STREET
LAND NOW OR FORMERLY OF
TOWN OF STONINGTON
HIGH SCHOOL
176 SOUTH BROAD STREET
STONINGTON, CT 06378

MAP ID: 25-1-19-2
166 SOUTH BROAD STREET
LAND NOW OR FORMERLY OF
TOWN OF STONINGTON
HUMAN SERVICES BUILDING
166 SOUTH BROAD STREET
STONINGTON, CT 06378

MAP ID: 25-1-19-3
SOUTH BROAD STREET
LAND NOW OR FORMERLY OF
TOWN OF STONINGTON
152 ELM STREET
STONINGTON, CT 06378

MAP ID: 25-1-19-4
SOUTH BROAD STREET
LAND NOW OR FORMERLY OF
TOWN OF STONINGTON
152 ELM STREET
STONINGTON, CT 06378

MAP ID: 25-1-19-6
SOUTH BROAD STREET
LAND NOW OR FORMERLY OF
TOWN OF STONINGTON
SEWER
152 ELM STREET
STONINGTON, CT 06378

N

LAND NOW OR FORMERLY OF
NATIONAL RAILROAD PASSENGER SERVICE

SUBJECT SITE
MAP ID: 26-2-1
166 PAWCATUCK AVENUE
LAND NOW OR FORMERLY OF
WARREN D. & PATRICIA L. MAIN
166 PAWCATUCK AVENUE
PAWCATUCK, CT 06379
5.02 ACRES

PROPOSED T-MOBILE 30'x 70' LEASE AREA AND 30'x 60' FENCED COMPOUND AREA WITH 120± AGL MONOPOLE

PROPOSED GRAVEL ACCESS DRIVE

WETLAND LIMIT (TYP.)

TWO STORY GARAGE

ONE STORY RESIDENCE

PROPERTY LINE (TYP.)

EXISTING ACCESSWAY TO PROPOSED SITE

DIRT DRIVE

MAP ID: 35-2-6-1
170 PAWCATUCK AVENUE
LAND NOW OR FORMERLY OF
HIGHLAND HOMESTEAD INC. &
BARRY L. MAIN
170 PAWCATUCK AVENUE
PAWCATUCK, CT 06379

MAP ID: 35-2-6-2
PAWCATUCK AVENUE
LAND NOW OR FORMERLY OF
HIGHLAND HOMESTEAD INC. &
BARRY L. MAIN
170 PAWCATUCK AVENUE
PAWCATUCK, CT 06379

MAP ID: 35-2-6-3
PAWCATUCK AVENUE
LAND NOW OR FORMERLY OF
TOWN OF STONINGTON
STONINGTON, CT 06378

MAP ID: 35-2-6-4
PAWCATUCK AVENUE
LAND NOW OR FORMERLY OF
HIGHLAND HOMESTEAD INC. &
BARRY L. MAIN
170 PAWCATUCK AVENUE
PAWCATUCK, CT 06379

MAP ID: 26-2-2
160 PAWCATUCK AVENUE
LAND NOW OR FORMERLY OF
CLYDE S. JR. & BARBARA A.
DANIELS
160 PAWCATUCK AVENUE
STONINGTON, CT 06379

MAP ID: 26-2-3
156 PAWCATUCK AVENUE
LAND NOW OR FORMERLY OF
MICHAEL & BONNIE J. STEWART
156 PAWCATUCK AVENUE
STONINGTON, CT 06379

MAP ID: 26-2-4
PAWCATUCK AVENUE
LAND NOW OR FORMERLY OF
TOWN OF STONINGTON
152 ELM STREET
STONINGTON, CT 06378

MAP ID: 26-2-7
144 PAWCATUCK AVENUE
LAND NOW OR FORMERLY OF
ALAN D. & JILL N.M. MAIN
144 PAWCATUCK AVENUE
PAWCATUCK, CT 06379

MAP ID: 26-2-10
PAWCATUCK AVENUE
LAND NOW OR FORMERLY OF
WARREN D. MAIN
166 PAWCATUCK AVENUE
STONINGTON, CT 06379

PAWCATUCK AVENUE

HAWLEY STREET

MAP ID: 26-1-7
PAWCATUCK AVENUE
LAND NOW OR FORMERLY OF
MICHAEL J. & BONNIE J. STEWART
156 PAWCATUCK AVENUE
PAWCATUCK, CT 06379

MAP ID: 26-1-5
161 PAWCATUCK AVENUE
LAND NOW OR FORMERLY OF
MICHAEL J. & LAURA J. STEWART
161 PAWCATUCK AVENUE
PAWCATUCK, CT 06379

ABUTTERS MAP

SCALE: 1" = 60'

GRAPHIC SCALE
60 0 30 60 120 240
(IN FEET)
1 inch = 60 ft.

T-MOBILE SITE NUMBER:
CTNL813A

APT FILING NUMBER:
CT-255T-520

T-Mobile
35 GRIFFIN ROAD
BLOOMFIELD, CT 06002
OFFICE: (860)-692-7100

ALL-POINTS TECHNOLOGY CORPORATION, P.C.
3 SADDLEBROOK DRIVE
KILLINGWORTH, CT 06419
PHONE: (860)-663-1697
FAX: (860)-663-0935

PERMITTING DOCUMENTS
AMTRAK STONINGTON 3
166 PAWCATUCK AVENUE
PAWCATUCK, CT 06379

DESIGN TYPE:
RAW LAND

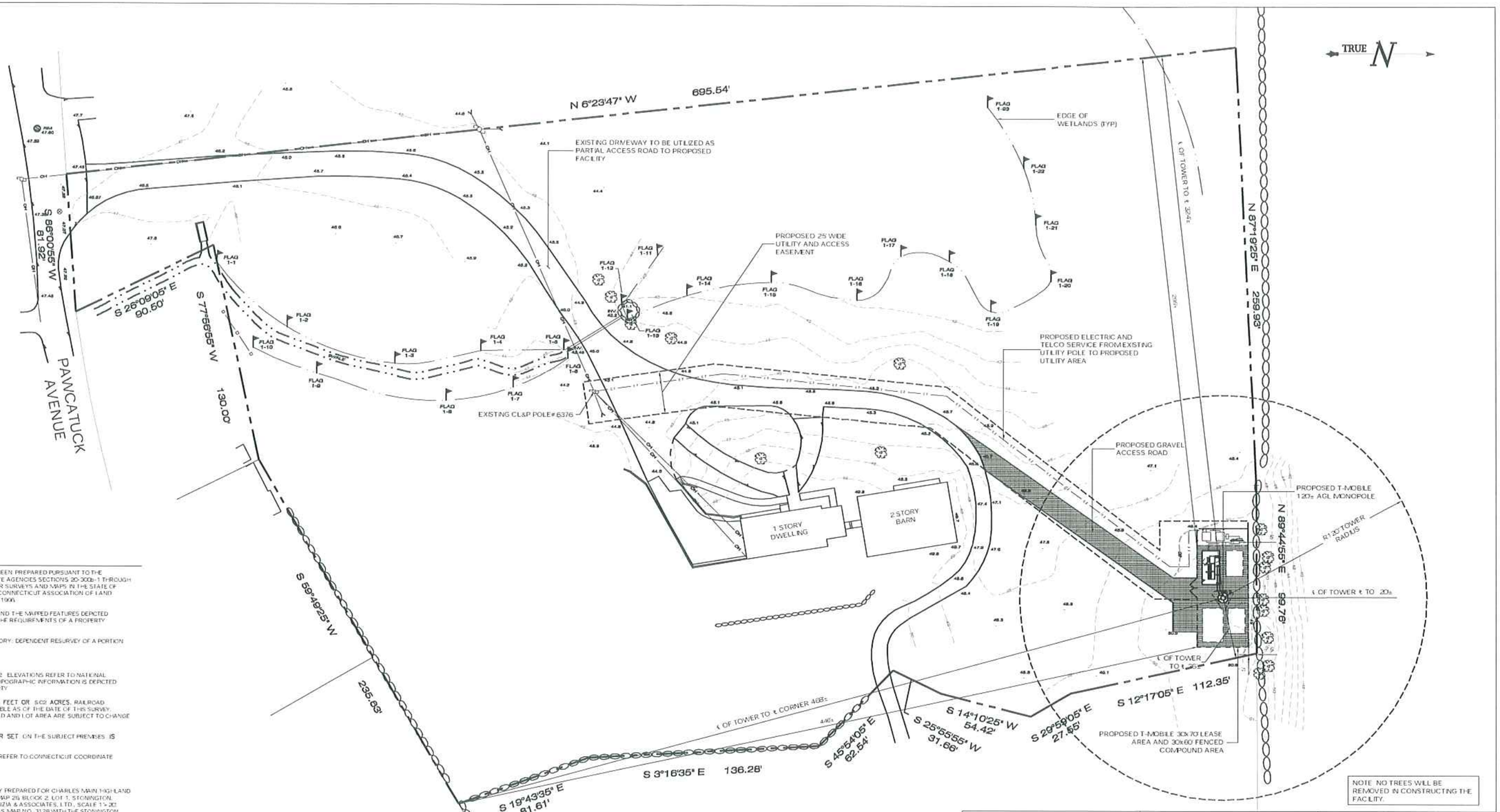
REVISIONS:
REV.0: 09/15/09: FOR REVIEW: SMC
REV.1: 09/18/09: FOR TECH REPORT: SMC
REV.2:
REV.3:
REV.4:

ABUTTERS MAP

APT FILING NUMBER: CT-255T-520
APT DRAWING NUMBER: CTNL813A
DRAWN BY: RCB
CHECKED BY: SMC
SCALE: AS NOTED
DATE: 09/15/09

SHEET NUMBER:
A-1

SCOTT M. CHASE
No 19728
LICENSED
PROFESSIONAL ENGINEER
STATE OF CONNECTICUT



NOTES

1. THIS MAP AND SURVEY HAVE BEEN PREPARED PURSUANT TO THE REGULATIONS OF CONNECTICUT STATE AGENCIES SECTIONS 20-300b-1 THROUGH 20-300b-20 AND THE "STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT," AS ADOPTED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC. ON SEPTEMBER 26, 1996.

THE TYPE OF SURVEY PERFORMED AND THE MAPPED FEATURES DEPICTED HEREON ARE IN ACCORDANCE WITH THE REQUIREMENTS OF A PROPERTY SURVEY

BOUNDARY DETERMINATION CATEGORY: DEPENDENT RESURVEY OF A PORTION OF REFERENCE MAPS 'A' & 'B'

HORIZONTAL ACCURACY CLASS: A-2

2. VERTICAL ACCURACY CLASS: T-2. ELEVATIONS REFER TO NATIONAL GEODETIC VERTICAL DATUM 1929. TOPOGRAPHIC INFORMATION IS DEPICTED ONLY FOR A PORTION OF THE PROPERTY

3. LOT AREA = ± 218,680 SQUARE FEET OR ±5.02 ACRES. RAILROAD RIGHT-OF-WAY MAPPING NOT AVAILABLE AS OF THE DATE OF THIS SURVEY. METES AND BOUNDS ALONG RAILROAD AND LOT AREA ARE SUBJECT TO CHANGE UPON RECEIPT OF SUCH MAPPING.

4. ALL MONUMENTATION FOUND OR SET ON THE SUBJECT PREMISES IS DEPICTED HEREON.

5. NORTH ARROW AND BEARINGS REFER TO CONNECTICUT COORDINATE SYSTEM OF 1927

6. REFERENCE MAPS:

(A) MONUMENTED PERIMETER SURVEY PREPARED FOR CHARLES MAIN HIGHLAND HOMESTEAD, PAWCATUCK AVENUE, MAP 26, BLOCK 2, LOT 1, STONINGTON, CONNECTICUT," PREPARED BY CHERENZIA & ASSOCIATES, LTD., SCALE 1"=20', DATED AUGUST 20, 1996, AND FILED AS MAP NO. 3128 WITH THE STONINGTON TOWN CLERK.

(B) PLAN SHOWING PROPERTY TO BE CONVEYED BY CHARLES N. MAIN SR. TO WARREN D. AND PATRICIA MAIN, PAWCATUCK AVE., PAWCATUCK, CONN." PREPARED BY ROSSI & LEWIS ENGINEERS, SCALE 1"= 40', DATED AUGUST, 1966 AND FILED AS MAP NO. 1048 WITH THE STONINGTON TOWN CLERK

7. PARCEL OWNERS OF RECORD:

WARREN D. MAIN & PATRICIA L. MAIN
166 PAWCATUCK AVENUE
PAWCATUCK, CT 06379

8. NO EASEMENTS AFFECTING THE PROPERTY WERE FOUND

9. WETLAND FLAGS SET BY: VANASSE, HANGEN, BRUSTLIN, INC. ON AUGUST 28, 2009.

10. THE OFFSETS OR DIMENSIONS SHOWN FROM STRUCTURES TO THE PROPERTY LINES ARE FOR A SPECIFIC PURPOSE AND USE. THEY ARE NOT INTENDED TO GUIDE IN THE ERECTION OF FENCES, RETAINING WALLS, POOLS, PATIOS, PLANTING AREAS, ADDITIONS TO BUILDINGS, OR ANY OTHER CONSTRUCTION.

11. SUBSURFACE AND ENVIRONMENTAL CONDITIONS WERE NOT EXAMINED OR CONSIDERED AS PART OF THIS SURVEY.

LEGEND

CURB		DRAINAGE INLET /STRUCTURE	
DROP CURB		CATCH BASIN	
WALL		SIGN	
STONE WALL		LIGHT POLE	
EDGE OF PAVEMENT		UTILITY POLE	
OVERHEAD WIRES		STOCKADE FENCE	
STRUCTURE - MANHOLE		CONTOURS	23 / 65
GAS VALVE		TOP-BOTTOM OF CURB	TC 69.00 / BC 24.00
WATER VALVE		SPOT ELEVATION	55.43
HANDICAP PARKING		CONCRETE	
PARKING STALL COUNT	20	GUY WIRE	

GRAPHIC SCALE

(IN FEET)
1 inch = 30ft.

NOTE: NO TREES WILL BE REMOVED IN CONSTRUCTING THE FACILITY.

T-MOBILE SITE NUMBER:
CTNL813A

APT FILING NUMBER:
CT-255T-520

T-Mobile
35 GRIFFIN ROAD
BLOOMFIELD, CT 06002
OFFICE: (860)-692-7100

ALL-POINTS TECHNOLOGY CORPORATION, P.C.
3 SADDLEBROOK DRIVE
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PHONE: (860)-663-1697
FAX: (860)-663-0935

PERMITTING DOCUMENTS

AMTRAK STONINGTON 3
166 PAWCATUCK AVENUE
PAWCATUCK, CT 06379

DESIGN TYPE:

RAW LAND

REVISIONS:

REV.0: 09/15/09: FOR REVIEW: SMC
REV.1: 09/18/09: FOR TECH REPORT: SMC
REV.2:
REV.3:
REV.4:

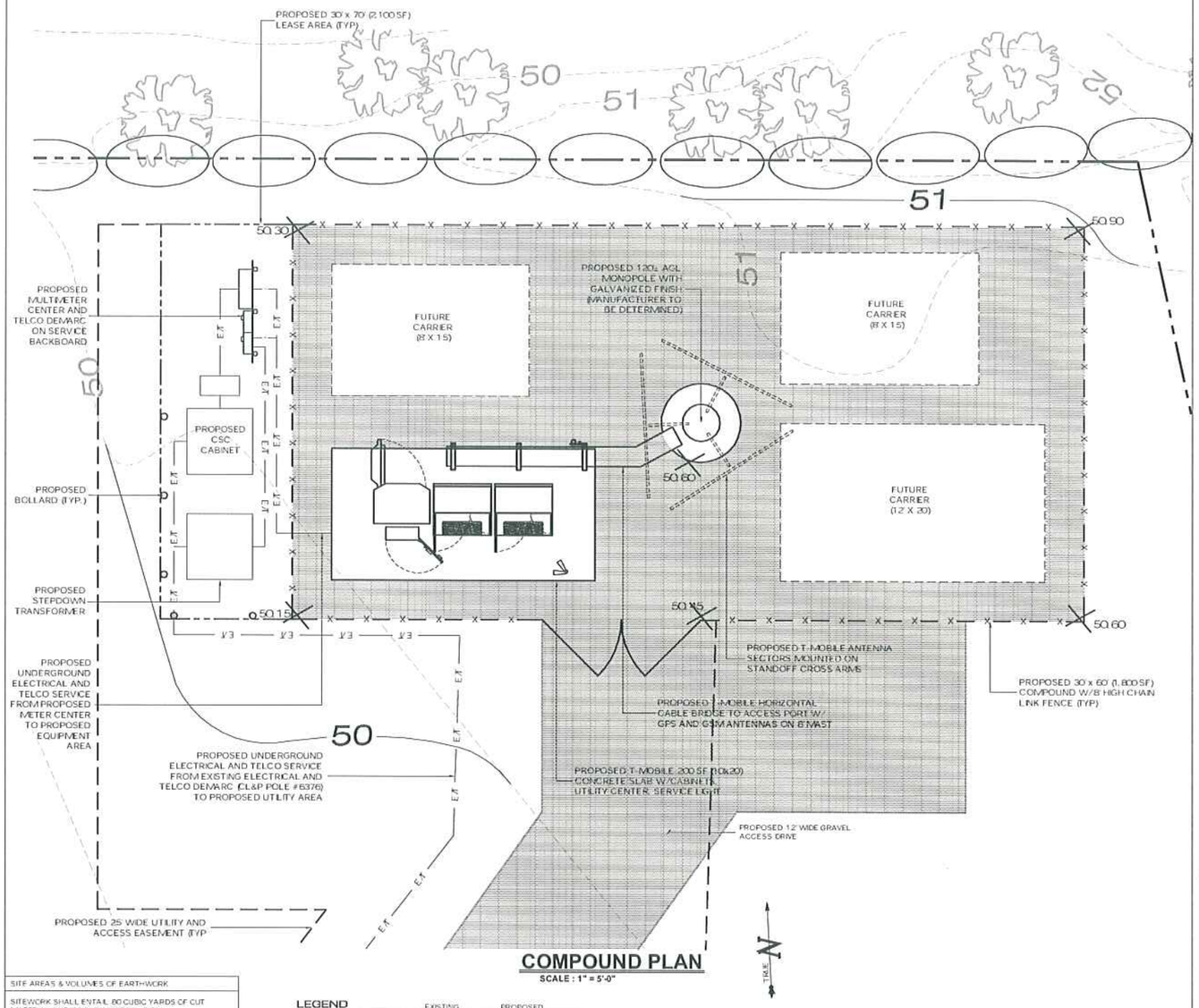
SITE PLAN

APT FILING NUMBER: CT-255T-520
APT DRAWING NUMBER: CTNL813A SP-1
DRAWN BY: RCB
SCALE: AS NOTED
CHECKED BY: SMC
DATE: 09/15/09

SHEET NUMBER:

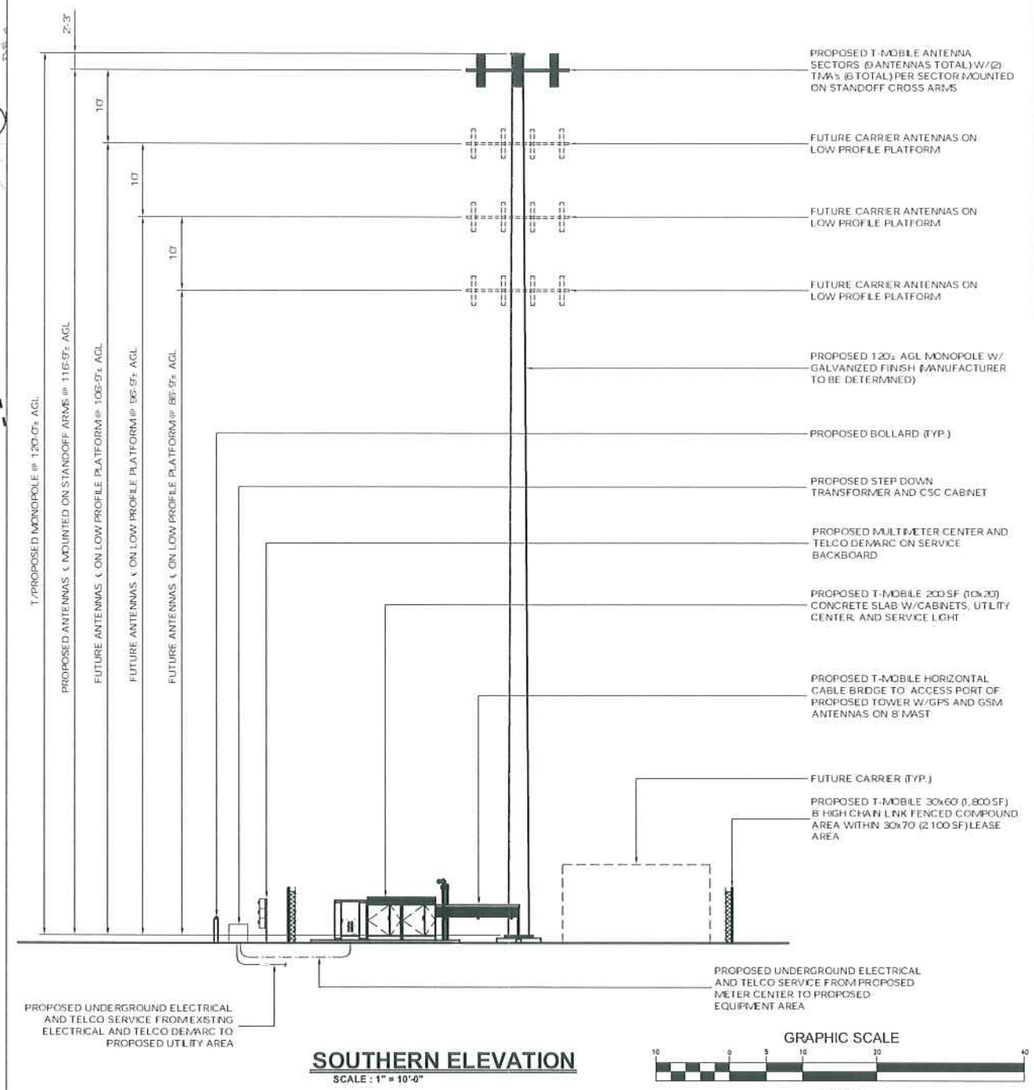
SP-1

SCOTT M. CHASE — STATE OF CONNECTICUT — No.19729 — LICENSED PROFESSIONAL ENGINEER



COMPOUND PLAN
SCALE : 1" = 5'-0"

GRAPHIC SCALE
5 0 2.5 5 10 20
(IN FEET)
1 inch = 5 ft.



SOUTHERN ELEVATION
SCALE : 1" = 10'-0"

GRAPHIC SCALE
10 0 5 10 20 40
(IN FEET)
1 inch = 10 ft.

SITE AREAS & VOLUMES OF EARTHWORK

SITEWORK SHALL ENTAIL 80 CUBIC YARDS OF CUT MATERIAL AND 80 CUBIC YARDS OF FILL. APPROXIMATELY 90 CUBIC YARDS OF CRUSHED STONE SHALL BE BORROWED TO COMPLETE THE ENTRANCE ROAD AND COMPOUND. THE 80 CY OF CUT MATERIAL WILL BE STRIPPED TOPSOIL.

WORK AREA SLOPES:
EXISTING - 2%
PROPOSED - 1-2%

TOTAL AREA OF DISTURBANCE = 9,500± SF

STORMWATER VELOCITY:
PRIOR TO GROUND COVER = < 2.0 FT./SEC.
FOLLOWING GROUND COVER = < 2.0 FT./SEC.

GROUND COVER TO BE ESTABLISHED AS FOLLOWS:
- WHITE CLOVER @ 0.2# /1000 SF
- TALL FESCUE @ 4.5# /1000 SF
- RYEGRASS @ 0.1# /1000 SF

LEGEND

	EXISTING	PROPOSED
CHAIN LINK FENCE	—X—	—X—
OVERHEAD WIRES	—OH—	
UTILITY POLE	○	
CONTOUR	— 87 —	— 88 —
SPOT ELEVATION	87.48	+88.0
ELECTRIC CONDUIT		—E/T—
TREE		
GRAVEL		

ENGINEERING ANALYSIS AND CERTIFICATION

IN ACCORDANCE WITH THE 2005 CONNECTICUT STATE BUILDING CODE AND THE ELECTRONIC INDUSTRIES ASSOCIATION STANDARD EIA/TIA-222-F STRUCTURAL STANDARDS FOR STEEL ANTENNA TOWERS AND ANTENNA SUPPORT STRUCTURES" FOR NEW LONDON COUNTY, THE TOWER WOULD BE DESIGNED TO WITHSTAND PRESSURES EQUIVALENT TO A MAXIMUM 120 MPH WIND. THE FOUNDATION DESIGN WOULD BE BASED ON SOIL CONDITIONS AT THE SITE.

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REV.2:
REV.3:
REV.4:

COMPOUND PLAN & TOWER ELEVATION

APT FILING NUMBER: CT-255T-520
APT DRAWING NUMBER: CTNL813A
DRAWN BY: RCB
SCALE: AS NOTED
CHECKED BY: SMC
DATE: 09/15/09

SHEET NUMBER:
SP-2

STATE OF CONNECTICUT — SCOTT M. CHASE — No. 19738 — LICENSED PROFESSIONAL ENGINEER

GENERAL FACILITY DESCRIPTION

The proposed Site is a 2,100 square foot leased area located in the northeastern portion of an approximately 5.02 acre parcel at 166 Pawcatuck Avenue in Stonington, Connecticut, particularly in the Village of Pawcatuck. The Property is currently used as a residence and farm. The Facility would consist of a 120 foot monopole structure with antennas mounted on standoff cross arms. The monopole would accommodate T-Mobile, Verizon and two other carriers.

Related equipment cabinets would be placed within the compound in the center of the leased area. The equipment would be surrounded by an eight foot chain link fence. Access to the proposed tower would be across an existing gravel driveway owned by the property owner and across an existing cleared field. T-Mobile would install a gravel driveway, which would connect the existing driveway to the Facility. Underground utility connections would extend from existing service originating at Pawcatuck Avenue.

SITE EVALUATION REPORT

I. LOCATION

A. COORDINATES: 41°21'37.75" N
71°51'08.75"W

B. GROUND ELEVATION: 51' ± AMSL

C. USGS MAP: USGS 7.5 quadrangle for Watch Hill, Rhode Island (1984)

D. SITE ADDRESS: 166 Pawcatuck Avenue
Stonington, CT 06379

E. ZONING WITHIN ¼ MILE OF SITE: The areas to the north, east and south are zoned for residential use (80,000 square feet for each area). The area to the west is zoned for industrial and manufacturing uses.

II. DESCRIPTION

A. SITE SIZE: 30' x 60'

LESSOR PARCEL: 30' x 70'

B. TOWER TYPE/HEIGHT: 120' Monopole

C. SITE TOPOGRAPHY AND SURFACE: The subject site is located on a parcel currently used for a residence and a farm. The topography is generally flat, sloping slightly from north to south.

D. SURROUNDING TERRAIN, VEGETATION, WETLANDS, OR WATER: The existing terrain is a grassed field, which is adjacent to an existing residence and the Amtrak right of way. There is an existing wetland area located approximately 165 feet to the southwest of the proposed Facility. The proposed gravel driveway would be located approximately seventy-five from the existing wetland area.

E. LAND USE WITHIN ¼ MILE OF SITE: The property to the north includes the Amtrak rail line and some municipal facilities (High School, Human Services Building and vacant land). The property to the south and to the east is used for single family residences. The property to the west is either vacant or used for farming.

III. FACILITIES

A. POWER COMPANY: CL&P

B. POWER PROXIMITY TO SITE: 390'±

C. TELEPHONE COMPANY: AT&T

D. PHONE SERVICE PROXIMITY: 390'±

E. VEHICLE ACCESS TO SITE: Access to the proposed tower would be across an existing gravel driveway owned by the property owner and across an existing cleared field. T-Mobile would install a gravel driveway, which would connect the existing driveway to the Facility.

F. OBSTRUCTION: N/A

G. CLEARING AND FILL REQUIRED: The total area of disturbance would be 9,500 square feet. The Facility would require eighty cubic yards of cut and ninety cubic yards of fill material. T-Mobile would not have to remove any trees.

IV. LEGAL

A. PURCHASE [ ] LEASE [X]

B. OWNER: Warren D. Main and Patricia L. Main

C. ADDRESS: 166 Pawcatuck Avenue, Stonington, Connecticut 06379

D. DEED ON FILE AT: Volume 399, Page 684

FACILITIES AND EQUIPMENT SPECIFICATION
(TOWER & EQUIPMENT)

I. TOWER SPECIFICATIONS

A. MANUFACTURER: TBD

B. TYPE: Monopole

C. HEIGHT: 120'

D. DIMENSIONS: Approximately 36" outer diameter at the bottom of the tower and approximately 21" outer diameter at the top of the tower.

II. TOWER LOADING

A. T-MOBILE

1. MODEL: 2 Nortel BTS S12000 Equipment Cabinets
   1 ERICSON BTS 3106 Equipment Cabinet
   1 Transtector 1101-781-200MG Power Telco Cabinet

2. DIMENSIONS: BTS S1200: 4'-5" x 3'-11" x 5'-9"
   BTS 3106: 4'-3" x 2'-4" x 5'-4"
   Power Telco Cabinet: 2'-6" x 1'-2" x 5'-4"

3. ANTENNAS: Nine antennas total with 2 TMA's (6 total) per sector mounted on stand-off cross arms.

4. TOWER POSITION: 116'9" AGL

5. TRANSMISSION LINES: 18 lines

B. FUTURE CARRIERS – 3 additional carriers

III. ENGINEERING ANALYSIS AND CERTIFICATION:

In accordance with the 2005 Connecticut State Building Code and the Electronic Industries Association Standard EIA/TIA-222-F "Structural Standards for Steel Antenna Towers and Antenna Support Structures" for New London County, the tower would be designed to withstand pressures equivalent to a maximum 120 MPH wind. The foundation design would be based on soil conditions at the Site.

ENVIRONMENTAL ASSESSMENT STATEMENT

I. PHYSICAL IMPACT

A. WATER FLOW AND QUALITY

No water flow and/or water quality changes are anticipated as a result of the construction or operation of the Facility. The construction, operation and maintenance of the Facility would not adversely impact any wetlands. There is a narrow forested wetlands system on the subject property. It starts along the southern property line and south of the existing gravel driveway. The proposed gravel driveway, which would connect the existing driveway and the Facility, would be seventy-five feet from the wetland system and the Facility itself would be 165 feet from the wetland system. The distance separating the Facility from the wetland system and the implementation of proper sedimentation and erosion controls would prevent any likely adverse impact. *See* attached Wetlands Compliance Letter. T-Mobile would implement Best Management Practices during construction to control storm water and erosion.

B. AIR QUALITY

Under ordinary operating conditions, the equipment that would be used at this Facility would emit no air pollutants of any kind. For limited periods during power outages, a portable generator might be utilized.

C. LAND

Minimal clearing and grading would be required for development of the proposed Site. *See* the Site Evaluation Report, *supra*. The Facility would not require the removal of any trees. The remainder of the Property would remain unchanged by the construction and operation of the Site.

D. NOISE

The Facility equipment after construction would not emit any noise other than the installed heating, air conditioning and ventilation systems. A portable generator might be employed during power outages. Some noise is anticipated during Facility construction, which is expected to take approximately eight weeks.

E. POWER DENSITY

The worst-case calculation of power density for operation of T-Mobile's antennas at the Facility would be approximately 8.6489% of the applicable FCC/ANSI standards. *See* attached Power Density Calculations.

F. VISIBILITY

The Facility would have a minimal visual impact on the surrounding area. Only 107 acres of the 8,042 study area would have potential year round views of the Facility. These areas include the immediate vicinity of the Facility and some intermittent areas to the south of the Facility. There are also some areas of potential year round visibility to the northwest of the Facility. *See* attached Preliminary Viewshed Analysis.

II. SCENIC, NATURAL, HISTORIC & RECREATIONAL VALUES

T-Mobile has retained EBI Consulting ("EBI") to evaluate the Facility in accordance with the FCC's regulations implementing the National Environmental Policy Act of 1969 ("NEPA"). Once EBI completes the NEPA report, T-Mobile will file the report with the application for Certificate of Environmental Compatibility and Public Need. EBI, however, has issued a preliminary determination that the proposed Facility will not implicate any of the criteria outlined in § 1.1307(a) of the NEPA, particularly items (1) through (8), and that an Environmental Assessment is not required. Furthermore, based on EBI's preliminary review and archaeological assessment, even though tribal consultation is incomplete and SHPO concurrence has yet to be granted, it is unlikely that the proposed Facility would impact Native American religious sites and historic resources. *See attached Low Potential Impact Letter*

III. STONINGTON ZONING REGULATIONS

Although the Connecticut Siting Counsel has exclusive jurisdiction over telecommunication facilities pursuant to General Statutes § 16-50x, T-Mobile has reviewed the Stonington Zoning Regulations ("Zoning Regulations"). The proposed Facility would meet nearly all of the goals enumerated in § 7.17.1, particularly the objectives to encourage joint use and to minimize environmental and visual impacts. The Facility would also comply with most of the Zoning Regulation's requirements for telecommunications facilities. For example:

Section 7.17.3.3 and 7.17.3.4. The Facility would comply with all FCC and Federal Aviation Administration ("FAA") regulations, as well as with Connecticut Building Code requirements.

Section 7.17.6.4. As discussed *supra*, there are no suitable existing towers or structures that can accommodate T-Mobile's coverage goals.

Section 7.17.7.1. In the unlikely event that the tower should fail, there would be no residential structures within the tower's fall zone. Although the Facility would not comply with all of the setbacks usually required for RR-80 zoned property, the Facility would be set back approximately 765 feet from Pawcatuck Avenue and well screened by mature vegetation.

Section 7.17.7.2. The Facility would comply with all FAA regulations. Unless required by the FAA, the tower would not be artificially lighted. The Facility would minimize any negative visual impacts.

Section 7.17.7.3. The Facility would not require any tree removal. Additionally, existing mature vegetation would provide excellent screening. The anticipated visual impact would be minimal.

Section 7.17.7.4. The Facility and related equipment would be secured by an eight foot chain link fence.

IV. STONINGTON INLAND WETLAND REGULATIONS

Although the Connecticut Siting Counsel has exclusive jurisdiction over telecommunication facilities pursuant to General Statutes § 16-50x, T-Mobile has reviewed the Stonington Inland Wetland Regulations ("Regulations"). The Regulations define a "regulated activity" as "[a]ny operation within or use of a wetland or watercourse involving removal or deposition of material, or any obstruction, construction, alteration or pollution, of such wetlands or watercourses, or within 100 feet of any wetland or watercourse . . . ." Although some of the disturbance resulting from the construction of the Facility would fall within the definition of a "regulated activity," the construction, operation and maintenance of the Facility would most likely not affect the wetland system located on the Property. The proposed gravel driveway, which would connect the existing driveway and the Facility, would be seventy-five feet from the wetland system and the Facility itself would be 165 feet from the wetland system. The distance separating the Facility from the wetland system and the implementation of proper sedimentation and erosion controls would prevent any likely adverse impact. *See* attached Wetlands Compliance Letter.

ATTACHMENT C

Connecticut Market

T-Mobile

Worst Case Power Density

Site:	CTNL813C
Site Address:	166 Pawcatuck Avenue
Town:	Stonington
Tower Height:	120 ft.
Facility Style:	Monopole

GSM Data		UMTS Data	
Base Station TX output	20 W	Base Station TX output	40 W
Number of channels	8	Number of channels	2
Antenna Model	APX16DWV-16DWV	Antenna Model	APX16DWV-16DWV
Cable Size	1 5/8 in.	Cable Size	1 5/8 in.
Cable Length	140 ft.	Cable Length	140 ft.
Antenna Height	117.8 ft.	Antenna Height	117.8 ft.
Ground Reflection	1.6	Ground Reflection	1.6
Frequency	1945.0 MHz	Frequency	2.1 GHz
Jumper & Connector loss	4.50 dB	Jumper & Connector loss	1.50 dB
Antenna Gain	18.0 dBi	Antenna Gain	18.0 dBi
Cable Loss per foot	0.0116 dB	Cable Loss per foot	0.0116 dB
Total Cable Loss	1.6240 dB	Total Cable Loss	1.6240 dB
Total Attenuation	6.1240 dB	Total Attenuation	3.1240 dB
Total EIRP per Channel	54.89 dBm	Total EIRP per Channel	60.90 dBm
(In Watts)	308.06 W	(In Watts)	1229.31 W
Total EIRP per Sector	63.92 dBm	Total EIRP per Sector	63.91 dBm
(In Watts)	2464.45 W	(In Watts)	2458.61 W
nsg	11.8760	nsg	14.8760
Power Density (S) =	0.043296 mW/cm^2	Power Density (S) =	0.043193 mW/cm^2
T-Mobile Worst Case % MPE =		8.6489%	

Equation Used :

$$S = \frac{(1000)(grf)^2 (Power)^* 10^{(n*g/10)}}{4\pi (R)^2}$$

Office of Engineering and Technology (OET) Bulletin 65, Edition 97-01, August 1997

Preliminary Viewshed Analysis
Proposed T-Mobile Wireless Telecommunications Facility
CTNL813C
166 Pawcatuck Avenue
Stonington, Connecticut

NOTE:
- Viewshed analysis conducted using ESRI's Spatial Analyst.
- Proposed Facility height is 120 feet.
- Existing tree canopy height estimated at 50 feet.
- Study Area is comprised of a two-mile radius surrounding the proposed facility and includes 8,042 acres of land.

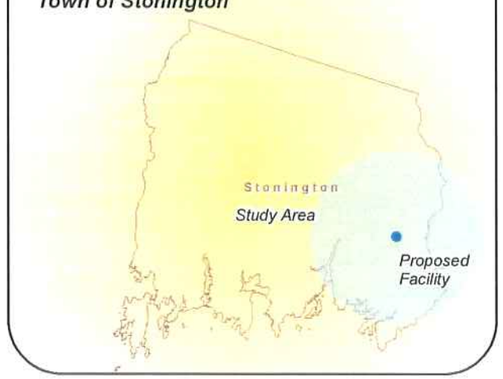
DATA SOURCES:
- Digital elevation model (DEM) derived from Connecticut LiDAR-based Digital Elevation Data (collected in 2000) with a 10-foot spatial resolution produced by the University of Connecticut and the Center for Land Use Education and Research (CLEAR); 2007
- Forest areas derived from 2006 digital orthophotos with 1-foot pixel resolution; digitized by VHB, 2009
- Base map comprised of Ashaway (1984), Mystic (1984) Old Mystic (1984) and Old Lyme (1970) USGS Quadrangle Maps
- Protected municipal and private open space properties and federal protected properties and data layers provided by CT DEP, 1997
- Protected CT DEP properties data layer provided by CTDEP, May 2007
- CT DEP boat launches data layer provided by CT DEP, 1994
- Scenic Roads layer derived from available State and Local listings.

Map Compiled September, 2009

Legend

- Proposed Site Location
- Year-Round Visibility (Approximately 107 acres)
- Protected Municipal and Private Open Space Properties (1997)
  - Cemetery
  - Preservation
  - Conservation
  - Existing Preserved Open Space
  - Recreation
  - General Recreation
  - School
  - Uncategorized
- CT DEP Protected Properties (2007)
  - State Forest
  - State Park
  - DEP Owned Waterbody
  - State Park Scenic Reserve
  - Historic Preserve
  - Natural Area Preserve
  - Fish Hatchery
  - Flood Control
  - Other
  - State Park Trail
  - Water Access
  - Wildlife Area
  - Wildlife Sanctuary
- Federal Protected Properties (1997)
- CT DEP Boat Launches (1994)
- Scenic Road (State and Local)
- Town Line

Inset Map
Town of Stonington



VHB T··Mobile·

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EBI CONSULTING
www.ebiconsulting.com

September 21, 2009

Ms. Jamie Ford
Project Coordinator
HPC Development, LLC
53 Lake Ave Ext.
Danbury, CT 06811

Subject: National Environmental Policy Act (NEPA) - Letter of Low Potential Impact
CTNL813 / Amtrak Stonington 3
166 Pawcatuck Avenue, Stonington, CT
EBI Project # 61091626

Dear Ms. Ford:

Attached please find our *National Environmental Policy Act (NEPA)* Letter of Low Potential Impact for the proposed telecommunications installation at the address noted above (the Subject Property). The purpose of this *letter is* to evaluate the above-referenced property for potential environmental and historical concerns specified by the Federal Communications Commission (FCC) in 47 CFR 1.1307.

As of the date of this *Report* Omnipoint Communications, Inc., a subsidiary of T-Mobile USA, Inc., d.b.a. T-Mobile, proposes to construct a 120-foot monopole tower within a 30-foot by 70-foot fenced lease area on the northeastern portion of the Subject Property. Nine antennas are proposed to mounted on the tower at an elevation of 116 feet 9 inches. Support equipment is proposed to be placed on a 10-foot by 20-foot concrete slab located in the southwest corner of the proposed compound. Utility cables will be routed along a proposed ice-bridge from the equipment to the monopole. Utility cables will run through an underground utility corridor from the equipment area to existing sources on the Subject Property. Access to the Project Site will be along a proposed gravel access drive commencing at Pawcatuck Avenue.

Based upon the results of our preliminary NEPA screening, it appears that the proposed installation will not impact any of the criteria as outlined in 1.1307(a) items (1) through (8) and preparation of an Environmental Assessment (EA) is not required; however, our Section 106 and Native American Indian consultation required under Section 1.1307(a) (4) & (5) of the FCC Rules is incomplete. Of importance, our Section 106 submission to the Connecticut State Historic Preservation Officer has not been complete. Our determination will be that the proposed undertaking will not have an adverse effect on aboveground historic resources and is not sensitive for the presence of significant prehistoric or historic archaeological resources.

Based on our preliminary review and archaeological assessment, there is a low potential that the proposed undertaking will impact listed historic resources and Native American religious sites.

Thank you for the opportunity to prepare this *Report,* and assist you with this project. Please call us if you have any questions or if we may be of further assistance.

Respectfully Submitted,

Michael Chun
Program Director
Direct# (646) 789-9206

Transportation
Land Development
Environmental
Services

Vanasse Hangen Brustlin, Inc.

54 Tuttle Place
Middletown, Connecticut 06457
860 632-1500
FAX 860 632-7879

Memorandum

To: Mr. Scott Chasse
All-Points Technology Corp., P.C.
3 Saddlebrook Drive
Killingworth, CT 06419

Date: September 15, 2009

Project No.: 40505.11

From: Dean Gustafson
Professional Soil Scientist

Re: Wetland Compliance
T-Mobile Site No. CTNL813A
Amtrak Stonington 3
166 Pawcatuck Avenue
Pawcatuck, Connecticut

Vanasse Hangen Brustlin, Inc. (VHB) previously completed on-site investigations to determine if wetlands and/or watercourses are located on the above-referenced Site.

The Site was inspected on August 28, 2009. The property is improved with a residence and small farming operation located on the north side of Pawcatuck Avenue and south of the Amtrak railroad tracks. Based on a review of plans prepared by All-Points Technology Corporation, P.C. (latest revised date 09/15/09) VHB understands that T-Mobile proposes to construct a wireless communications facility just north of the site's residence and outbuilding in the northeast corner of the subject property adjacent to the Amtrak railroad tracks. One inland wetland system was identified in proximity to the proposed wireless telecommunications facility. A narrow forested wetland system starts along the south property line, south of the existing gravel driveway that serves the residence. Seasonal flows are conveyed in a man-made channel (intermittent watercourse feature) to a 15-inch reinforced concrete pipe under the driveway. The outfall from the culvert sheet flows over an existing hayfield located west of the proposed wireless telecommunications facility. Disturbed wetland soil profiles were observed within the hayfield providing evidence of historic grading and possible drainage within the wetland system that now functions as a mowed hayfield. The proposed gravel access drive to the proposed wireless telecommunications facility from the existing gravel driveway is located approximately 75 feet east of the hayfield/wetland water tank parcel. The proposed facility is located in an upland hayfield approximately 165 feet east of the hayfield/wetland.

Due to the distance separating the proposed T-Mobile facility from the nearest wetland resource area and with proper sedimentation and erosion controls installed for construction, no likely adverse impact to nearby wetlands will result from the proposed development.