



**TECHNICAL REPORT  
to the  
TOWN OF TRUMBULL**

**T-MOBILE NORTHEAST LLC  
(T-MOBILE)**

**PROPOSED TRUMBULL  
MONOPOLE TOWER TELECOMMUNICATIONS FACILITY**

**158 EDISON ROAD  
TRUMBULL, CONNECTICUT**

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

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## 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 Trumbull (“Town”) pursuant to General Statutes § 16-50f. T-Mobile proposes to install a wireless telecommunications facility (the “Facility”) on an approximately 2.30 acre parcel located at 158 Edison Road and owned by the Town (the “Property” or the “Site”). The Facility would consist of a 150 foot monopole structure, with an antenna array mounted on the tower at a centerline of approximately 140 feet above grade level (“AGL”), and related equipment located nearby on a concrete equipment pad. The tower would also accommodate a regional dispatch platform, which would enhance the coverage for emergency services in the area. The Facility, if approved, would provide wireless communications service in this area Trumbull.

The purpose of this Technical Report is to provide the Town 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.  
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 would allow T-Mobile subscribers to use voice and data services reliably as well as to connect to Emergency 911 services. The intended coverage area of the Facility includes sections around Route 15 (Merritt Parkway), Main Street and Highgate Road. Additionally, the Facility would enhance the coverage for emergency services in the area. Finally, the Facility would provide capacity relief for the current sites that presently cover this area from outlying areas.

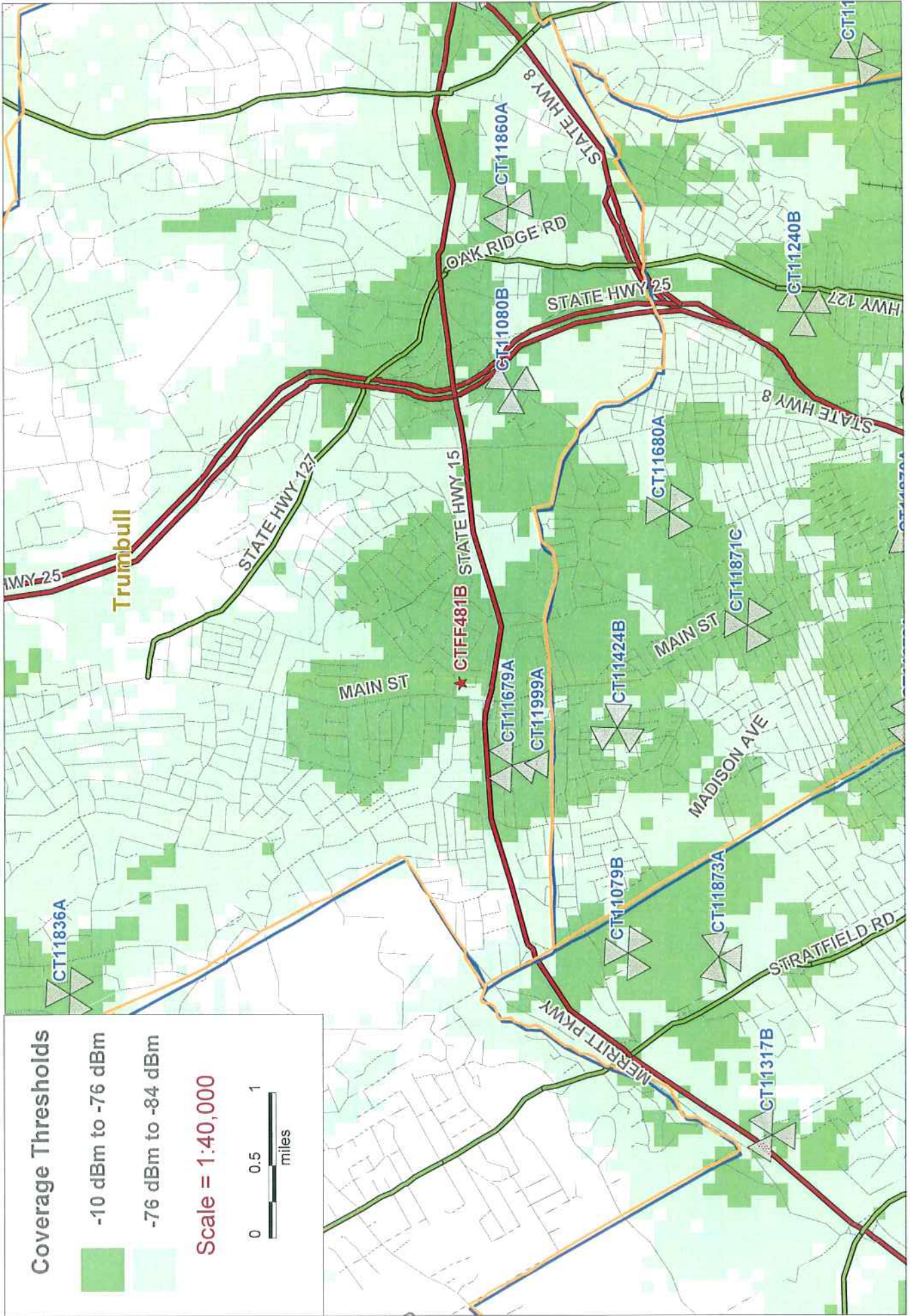
Included herein are propagation plots prepared by T-Mobile that depict (1) coverage from existing and approved surrounding sites; (2) predicted coverage from the proposed Site with an antenna array mounted on the monopole at 140 feet AGL; and (3) coverage from the proposed Site with the existing and 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 Trumbull.

# **ATTACHMENT A**







**Coverage Thresholds**

- 10 dBm to -76 dBm
- 76 dBm to -84 dBm

Scale = 1:40,000



**- T-Mobile--**  
 Existing T-Mobile On Air Coverage  
 With CTFF481B @ 140'

**Coverage Thresholds**  
 Dark Green - In Building Coverage  
 Light Green - In Vehicle Coverage



## SECTION 2

### Site Search Process and Selection

General Statutes § 16-50I (e) requires T-Mobile to provide the Town 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. 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 area 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 Trumbull, which is the subject of this site search. The nearest towers and suitable structures are already in use by T-Mobile. Moreover, any other existing towers are too far from the target area to provide coverage specifically to the

target area. Finally, there are no other suitable areas of commercial or industrial use in or near the target area.

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

1. 5663 Main Street. This parcel hosts a small two-story building that is used as a deli. The Town requested that T-Mobile not consider this parcel, which is located in a residential area.

2. 100 Middlebrooks Ave. This parcel hosts the Long Hill Baptist Church. T-Mobile's radio frequency ("RF") engineers reviewed the Church's steeple and determined that the height was insufficient to afford adequate coverage to the subject area. T-Mobile's RF engineers also determined that a tower on this parcel would have to be between 140 and 160 feet AGL.

3. 100 Quality Street. This parcel hosts a Stop & Shop plaza. T-Mobile's RF engineers reviewed the plaza's 25 foot rooftop and determined that it is too far north to provide coverage to the coverage objective.

4. 250 Middlebrooks Ave. This parcel hosts the Town's Emergency Medical Services. The Town did not want to execute a lease with T-Mobile for the construction of a new tower on this parcel.

5. Town owned property across from Town Hall. The Town did not want to execute a lease with T-Mobile for the construction of a new tower on this parcel. There are no suitable existing structures for co-location on this parcel.

6. 366 Church Hill Road. This parcel hosts the Town's Department of Public Works/Highway Garage. There are no suitable structures on this parcel for co-location. The Town did not want to execute a lease with T-Mobile for the construction of a new tower on this parcel.

7. 5866 Main Street, Town Hall. This parcel hosts the Town Hall. T-Mobile's RF engineers reviewed the cupola and determined that the height was insufficient to afford adequate coverage to the target area.

8. 5958 Main Street. This parcel hosts the Grace Episcopal Church. This parcel is located too far north to achieve coverage for the subject area with the available height. This site is located at the edge of coverage from existing sites CT11200 and CT11961.

Consequently, T-Mobile has determined that the Property is superior to the other properties in the area. The Property is well developed and currently hosts the Trumbull Police Department. There are no wetland systems on or near the Property. Access is across an existing bituminous driveway and parking lot. T-Mobile would not have to remove any trees and the installation of the Facility would require minimal intrusion. Additionally, the Facility would host Fire, EMS and regional dispatch antennae, which would enhance the coverage for emergency services in the area.

**SECTION 3**

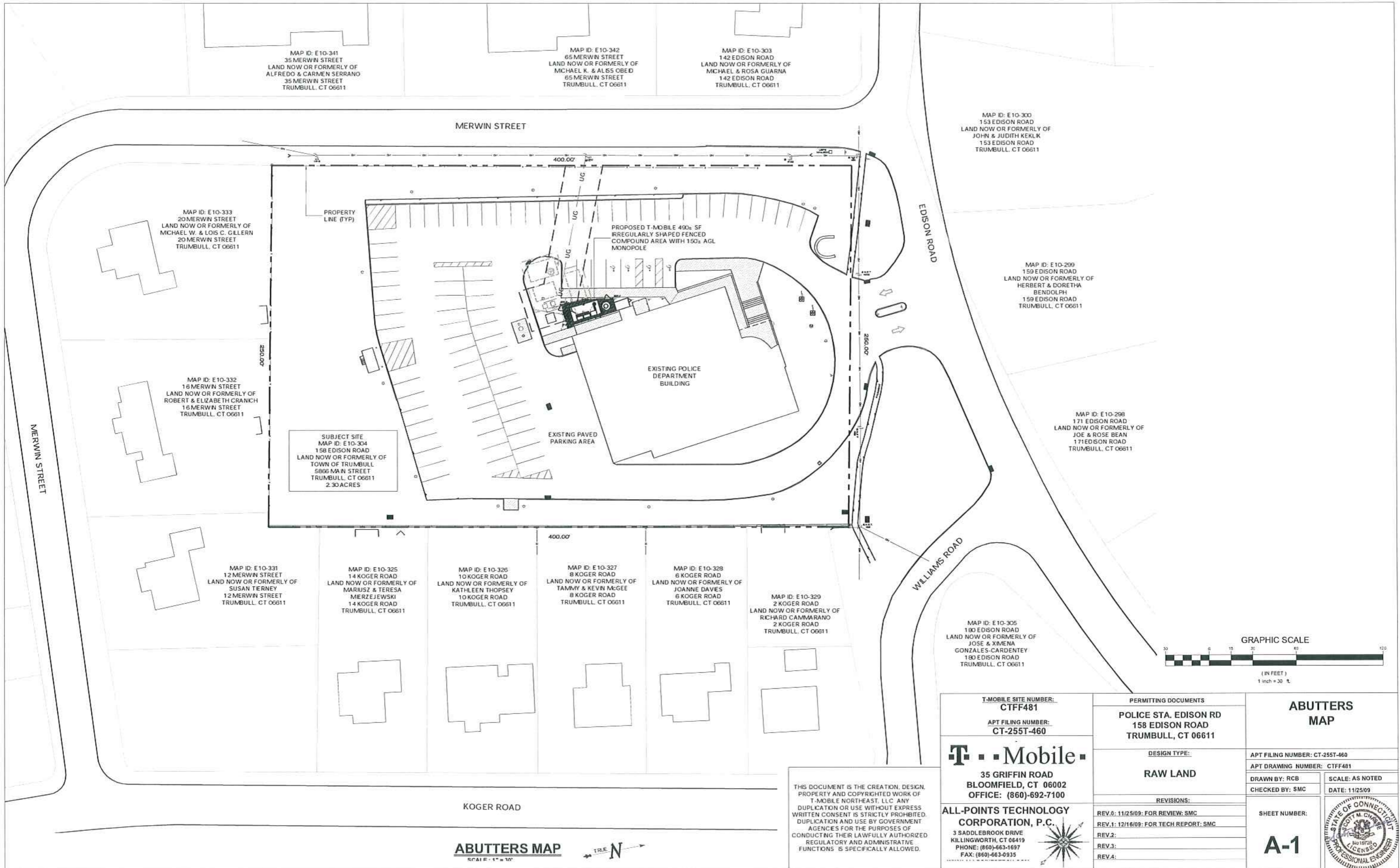
**PROPOSED SITE**

**158 Edison Road  
Trumbull, Connecticut**

Land of  
The Town of Trumbull

Map E10/Block 304/Lot 000  
2.30 Acres

# **ATTACHMENT B**

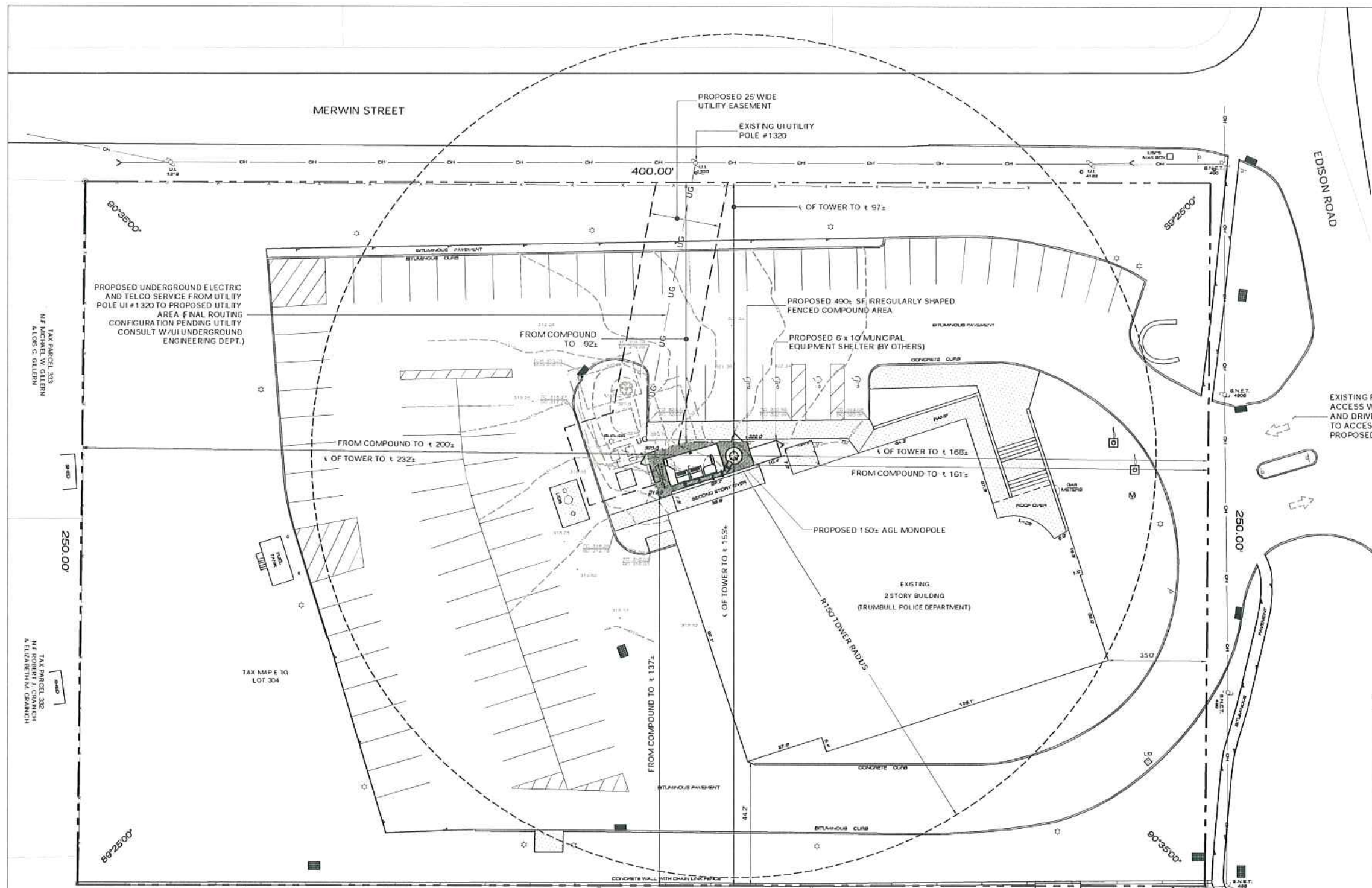


**ABUTTERS MAP**  
SCALE: 1" = 30'

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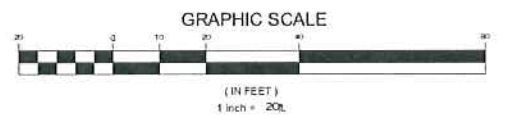
<b>T-Mobile</b> 35 GRIFFIN ROAD BLOOMFIELD, CT 06002 OFFICE: (860)-692-7100	<b>T-MOBILE SITE NUMBER:</b> CTFF481	<b>PERMITTING DOCUMENTS</b> POLICE STA. EDISON RD 158 EDISON ROAD TRUMBULL, CT 06611	<b>ABUTTERS MAP</b>
	<b>APT FILING NUMBER:</b> CT-255T-460	<b>DESIGN TYPE:</b> RAW LAND	APT FILING NUMBER: CT-255T-460 APT DRAWING NUMBER: CTFF481 DRAWN BY: RCB CHECKED BY: SMC
<b>ALL-POINTS TECHNOLOGY CORPORATION, P.C.</b> 3 SADDLEBROOK DRIVE KILLINGWORTH, CT 06419 PHONE: (860)-663-1697 FAX: (860)-663-0935	<b>REVISIONS:</b> REV.0: 11/25/09: FOR REVIEW: SMC REV.1: 12/16/09: FOR TECH REPORT: SMC REV.2: REV.3: REV.4:	SCALE: AS NOTED DATE: 11/25/09	SHEET NUMBER: <b>A-1</b>





**NOTES**

- 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 25, 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: RESURVEY OF REFERENCE MAP A'  
  
HORIZONTAL ACCURACY CLASS: A-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.
- LOT AREA = 99,995 SQUARE FEET OR 2.30 ACRES.
- ALL MONUMENTATION FOUND OR SET ON THE SUBJECT PREMISES IS DEPICTED HEREON.
- NORTH REFERS APPROXIMATELY TO REFERENCE MAP B'.
- REFERENCE MAPS:  
A) MAP OF (CHESTNUT HILL SCHOOL LOT) PROPERTY IN TRUMBULL, CONN., FOR FRANCIS E. BEACH, SCALE 1"=40', PREPARED BY A.D. FULLER, DATED MARCH 13, 1929, AND FILED AS MAP NO. 121 WITH THE TRUMBULL TOWN CLERK.  
B) PARKWAY VILLAGE, PLAN 2, PLAN OF BUILDING LOTS IN TRUMBULL, CONN., FOR THE BRIDGEPORT CITY TRUST CO. TRUSTEES, PREPARED BY FULLER & CO., INC. ENGINEERS & SURVEYORS, SCALE 1"=100', DATED MAY 18, 1939 AND FILED AS MAP NO. 209 WITH THE TRUMBULL TOWN CLERK.
- PARCEL OWNER OF RECORD: TOWN OF TRUMBULL  
5866 MAIN STREET  
TRUMBULL, CT 06611  
  
DEED REF.: VOLUME 29, PAGE 587 (LAND RECORDS)
- NO EASEMENTS AFFECTING THE PROPERTY WERE FOUND.
- 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.
- 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
	GAS VALVE		TOP/BOTTOM OF CURB
	WATER VALVE		SPOT ELEVATION
	HANDICAP PARKING		CONCRETE
	PARKING STALL COUNT		GUY WIRE

TAX PARCEL 331 N.F. SUSAN M. TERNEY      TAX PARCEL 325 N.F. MARIUSZ P. MERZEJEWSKI & TERESA MERZEJEWSKA      TAX PARCEL 326 N.F. KATHLEEN J. THOPSEY      TAX PARCEL 327 N.F. TAMMY MCGEE & KEVIN MCGEE      TAX PARCEL 328 N.F. JOANNE M. DAVES      TAX PARCEL 329 N.F. RICHARD CAMMARANO

T-MOBILE SITE NUMBER:  
**CTFF481**

APT FILING NUMBER:  
**CT-255T-460**

**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

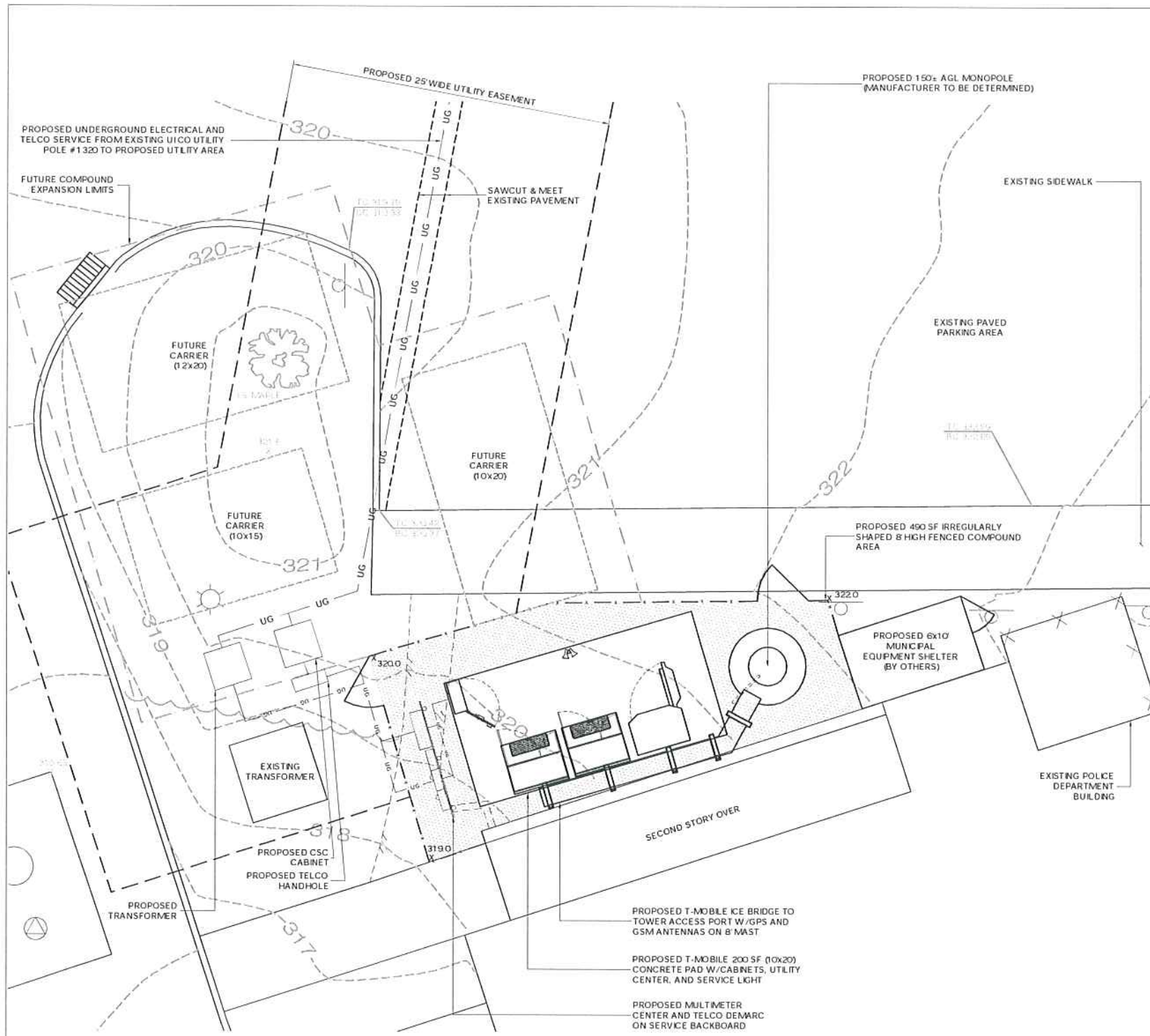
PERMITTING DOCUMENTS	
<b>POLICE STA. EDISON RD 158 EDISON ROAD TRUMBULL, CT 06611</b>	
DESIGN TYPE:	<b>RAW LAND</b>
REVISIONS:	REV. 0: 11/25/09; FOR REVIEW: SMC REV. 1: 12/16/09; FOR TECH REPORT: SMC REV. 2: REV. 3: REV. 4:

SITE PLAN	
APT FILING NUMBER: CT-255T-460	APT DRAWING NUMBER: CTFF481 SP-1
DRAWN BY: RCB	CHECKED BY: SMC
SCALE: AS NOTED	DATE: 11/25/09
SHEET NUMBER: <b>SP-1</b>	

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





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

**ENGINEERING ANALYSIS AND CERTIFICATION**

IN ACCORDANCE WITH THE 2005 CONNECTICUT STATE BUILDING CODE AND THE ELECTRONIC INDUSTRIES ASSOCIATION STANDARD EIA/TA-222-F STRUCTURAL STANDARDS FOR STEEL ANTENNA TOWERS AND ANTENNA SUPPORT STRUCTURES FOR FAIRFIELD COUNTY, THE TOWER WOULD BE DESIGNED TO WITHSTAND PRESSURES EQUIVALENT TO A MAXIMUM 110MPH WIND. THE FOUNDATION DESIGN WOULD BE BASED ON SOIL CONDITIONS AT THE SITE.

**SITE AREAS & VOLUMES OF EARTHWORK**

SITEWORK SHALL ENTAIL APPROXIMATELY 40 CUBIC YARDS OF CUT AND 40 CY FILL. APPROXIMATELY 10 CUBIC YARDS OF CRUSHED STONE SHALL BE BORROWED TO CONSTRUCT THE COMPOUND.

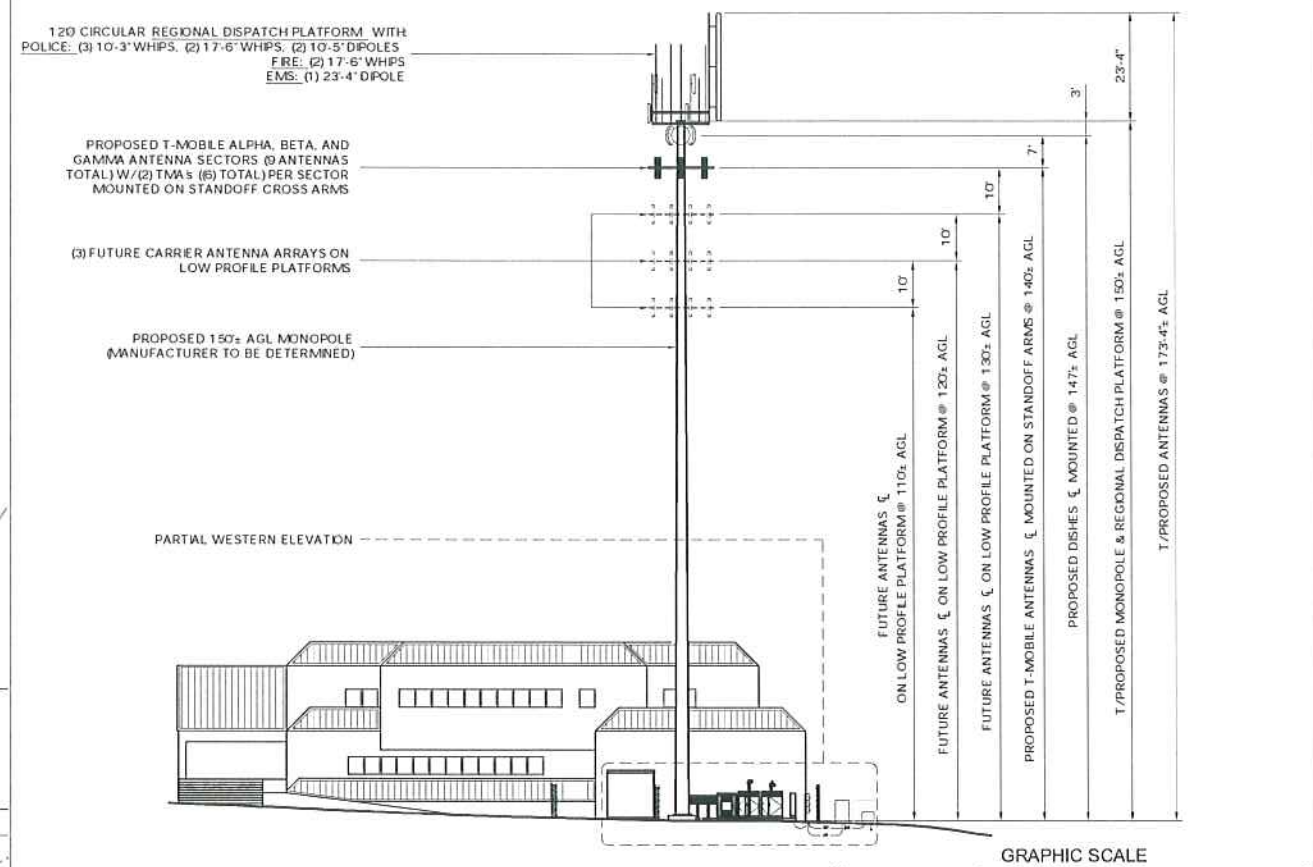
**WORK AREA SLOPES:**  
EXISTING - 12%  
PROPOSED - 8%

TOTAL AREA OF DISTURBANCE = 2,000± SF

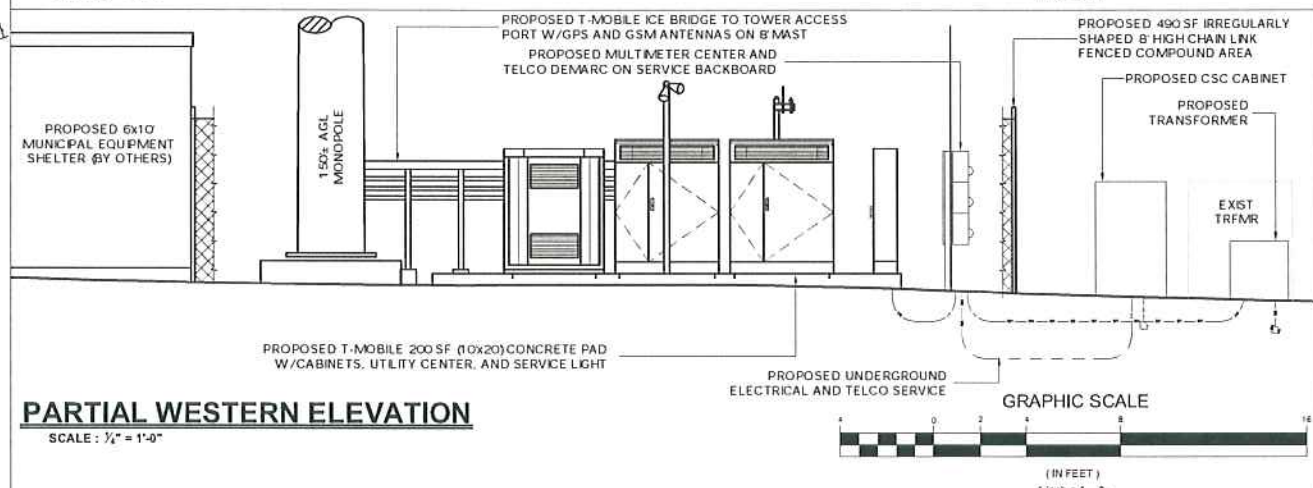
**STORMWATER VELOCITY:**  
PRIOR TO GROUND COVER = 6 FT/SEC  
FOLLOWING GROUND COVER = 5.5 FT/SEC

**GROUND COVER TO BE ESTABLISHED AS FOLLOWS:**  
- WHITE CLOVER @ 0.20# / SF  
- TALL FESCUE @ 0.45# / SF  
- RYEGRASS @ 0.10# / SF

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**WESTERN ELEVATION**  
SCALE: 1" = 20'-0"



**PARTIAL WESTERN ELEVATION**  
SCALE: 1/2" = 1'-0"

<p>T-MOBILE SITE NUMBER: <b>CTFF481</b></p> <p>APT FILING NUMBER: <b>CT-255T-460</b></p> <p><b>T-Mobile</b></p> <p>35 GRIFFIN ROAD BLOOMFIELD, CT 06002 OFFICE: (860)-692-7100</p> <p><b>ALL-POINTS TECHNOLOGY CORPORATION, P.C.</b></p> <p>3 SADDLEBROOK DRIVE KILLINGWORTH, CT 06419 PHONE: (860)-663-1697 FAX: (860)-663-0935</p>	<p>PERMITTING DOCUMENTS</p> <p><b>POLICE STA. EDISON RD 158 EDISON ROAD TRUMBULL, CT 06611</b></p>	<p><b>COMPOUND PLAN &amp; TOWER ELEVATION</b></p>
	<p>DESIGN TYPE:</p> <p><b>RAW LAND</b></p>	<p>APT FILING NUMBER: CT-255T-460 APT DRAWING NUMBER: CTFF481 DRAWN BY: RCB CHECKED BY: SMC DATE: 11/25/09</p>
<p>REVISIONS:</p> <p>REV.0: 11/25/09: FOR REVIEW: SMC REV.1: 12/16/09: FOR TECH REPORT: SMC REV.2: REV.3: REV.4:</p>	<p>SHEET NUMBER: <b>SP-2</b></p>	<p>STATE OF CONNECTICUT PROFESSIONAL ENGINEER</p>



## GENERAL FACILITY DESCRIPTION

The proposed Site would consist of a 490 square feet area, which would include the monopole structure and T-Mobile's equipment pad. Adjacent to T-Mobile's equipment pad would be an area reserved for the equipment pads of three additional carriers. The Site would be located in the center of an approximate 2.30 acre parcel at 158 Edison Road in Trumbull, Connecticut. The Property is currently hosts the Trumbull Police Department. The monopole structure would be 150 feet high with T-Mobile's antenna array mounted on the tower with stand-off cross arms at a height of 140 feet. The tower would also host a regional dispatch platform and antennae, which would be placed at the top of the structure. The proposed tower would replace an existing lattice tower located in the center of the Property.

Related equipment cabinets would be placed nearby. The equipment would be surrounded by an eight foot chain link fence. Access to the proposed tower would be across an existing bituminous driveway and parking area. Utility connections would extend from Merwin Street.

## SITE EVALUATION REPORT

### I. LOCATION

- A. COORDINATES: 41°14'03.67" N  
73°13'07.54" W
- B. GROUND ELEVATION: 322' ± AMSL
- C. USGS MAP: USGS 7.5 quadrangle for Bridgeport, Connecticut (1984)
- D. SITE ADDRESS: 158 Edison Road  
Trumbull, CT 06611
- E. ZONING WITHIN ¼ MILE OF SITE: The areas to the north, east and west are zoned for residential use. The area to the south is zoned for residential and commercial.

### II. DESCRIPTION

- A. SITE SIZE: 490 square feet
- B. TOWER TYPE/HEIGHT: 150 foot monopole
- C. SITE TOPOGRAPHY AND SURFACE: The subject site is located on a parcel currently used by the Town as a police department. The topography slopes from the north to the southeast.
- D. SURROUNDING TERRAIN, VEGETATION, WETLANDS, OR WATER: The existing terrain consists largely of a bituminous parking area, sidewalk and landscaped lawn used for the Trumbull Police Department. There are no existing wetland areas on the Property or within the vicinity of the Property. The nearest wetland system is approximately 175 feet from the Property.
- E. LAND USE WITHIN ¼ MILE OF SITE: The areas to the east and west are used for residential purposes. The areas to the south are used for residential and a municipal park. The areas to the south are used for residential and Route 15.

III. FACILITIES

- A. POWER COMPANY: UI
- B. POWER PROXIMITY TO SITE: 111'±
- C. TELEPHONE COMPANY: AT&T
- D. PHONE SERVICE PROXIMITY: 111'±
- E. VEHICLE ACCESS TO SITE: Access to the proposed tower would be across an existing bituminous driveway and parking area.
- F. OBSTRUCTION: Existing 100' lattice tower, which T-Mobile would remove.
- G. CLEARING AND FILL REQUIRED: The total area of disturbance would be 2,000 square feet. The Facility would require 40 cubic yards of fill material, 40 cubic yards of cut and 10 cubic yards of crushed stone. T-Mobile would not have to remove any trees.

IV. LEGAL

- A. PURCHASE [ ] LEASE [X]
- B. OWNER: Town of Trumbull
- C. ADDRESS: 5866 Main Street, Trumbull, Connecticut 06611
- D. DEED ON FILE AT: Volume 29, Page 587

**FACILITIES AND EQUIPMENT SPECIFICATION  
(TOWER & EQUIPMENT)**

I. TOWER SPECIFICATIONS

- A. MANUFACTURER: TBD
- B. TYPE: Monopole
- C. HEIGHT: 150'
- D. DIMENSIONS: The bottom of the monopole would have an approximate 42" maximum outer diameter and the top of the monopole would have an approximate 21" outer diameter.

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 S12000: 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: An array consisting of alpha, beta and gamma sectors (9 antennae total) with 2 TMA per sector (6 total) mounted on standoff cross arms.
- 4. TOWER POSITION: 140' AGL to the center of the antenna array
- 5. TRANSMISSION LINES: 24 lines

B. TOWN OF TRUMBULL

- 1. MODEL: 1 Equipment Shelter 6'x x 10'  
3 Whip Antennas 10'-3"  
4 Whip Antennas 17'-6"  
2 Dipole Antennas 10'-3"  
1 Dipole Antenna 23'-4"

2. TOWER POSITION: 150' platform mount (tower) / 173'-4" ± to top of whip antennas.

C. 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 Fairfield County, the tower would be designed to withstand pressures equivalent to a maximum 110 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 are no existing inland wetlands on the Property. The nearest wetland system is 175 feet to the southeast of the Property. 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 ten weeks.

#### E. POWER DENSITY

The worst-case calculation of power density for operation of T-Mobile's antennas at the Facility would be approximately 5.7022% of the applicable FCC/ANSI standards. See attached Power Density Calculations.

F. VISIBILITY

The attached preliminary viewshed demonstrates that only 48 acres of the 8,042 acre study area (two mile radius) would have year-round views of portions of the Facility. The regional dispatch antennae account for an additional 16 acres of year-round views. Most of these views would be open water views on the Long Island Sound. Accordingly, the Facility would have a minimal visual impact. See attached Preliminary Viewshed.

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*

# **ATTACHMENT C**





November 23, 2009

*Vanasse Hangen Brustlin, Inc.*

Ref: 40505.14

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

Re: Wetland Inspection  
T-Mobile Site No. CTFF481 – Police Sta Edison Rd  
158 Edison Road, Trumbull, Connecticut

Dear Mr. Chasse:

Vanasse Hangen Brustlin, Inc. (VHB) has completed on-site investigations on November 22, 2009 to determine if wetlands and/or watercourses are located on the above-referenced Site. VHB has relied upon the accuracy of information provided by All-Points Technology Corp., P.C. (refer to attached Site Plan) regarding the proposed lease area and utility easement locations for identifying wetlands and watercourses within and proximate to said locations.

VHB understands that T-Mobile proposes to construct a wireless telecommunications facility in the central portion of 158 Edison Road in Trumbull, Connecticut (the "Site"). The entire subject property is developed with the Trumbull Police Department building and paved parking area and entrance drive off Edison Road. An existing 100 foot lattice tower is located along the western exterior building wall. This tower will be removed and replaced with a 150 foot monopole tower within an existing lawn area along the western exterior building wall just south of the existing lattice tower. No wetlands or watercourses were identified (or delineated) on the subject property. The nearest wetland is a disturbed wetland area associated with the front yard of an existing residence located approximately 175 feet southeast of the subject property across Merwin Street. Soils classified on the subject property are generally consistent with published data consisting of well drained developed soils classified as Charlton-Urban land complex (soil symbol – 260). A copy of the soil survey is enclosed. Therefore, the proposed development will not directly or indirectly affect wetlands or watercourses.

If you have any questions concerning this matter do not hesitate to contact me.

Very truly yours,

VANASSE HANGEN BRUSTLIN, INC.

  
Dean Gustafson  
Professional Soil Scientist

Enclosures

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## Connecticut Market



### Worst Case Power Density

**Site:** CTFF481B  
**Site Address:** 158 Edison Road  
**Town:** Trumbull  
**Tower Height:** 150 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	160 ft.	Cable Length	160 ft.
Antenna Height	140.0 ft.	Antenna Height	140.0 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	1.8560 dB	Total Cable Loss	1.8560 dB
Total Attenuation	6.3560 dB	Total Attenuation	3.3560 dB
Total EIRP per Channel (In Watts)	54.65 dBm 292.03 W	Total EIRP per Channel (In Watts)	60.66 dBm 1165.36 W
Total EIRP per Sector (In Watts)	63.69 dBm 2336.25 W	Total EIRP per Sector (In Watts)	63.67 dBm 2330.72 W
nsg	11.6440	nsg	14.6440
Power Density (S) = 0.028545 mW/cm <sup>2</sup>		Power Density (S) = 0.028477 mW/cm <sup>2</sup>	
		8	5.7022%

Equation Used :

$$S = \frac{(1000)(grf)^2 (Power) \cdot 10^{(nsg/10)}}{4\pi (R)^2}$$

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

*Preliminary Viewshed Analysis  
150 Feet AGL and 174 Feet AGL  
Proposed T-Mobile Wireless  
Telecommunications Facility  
CTFF481  
158 Edison Road  
Trumbull, Connecticut*

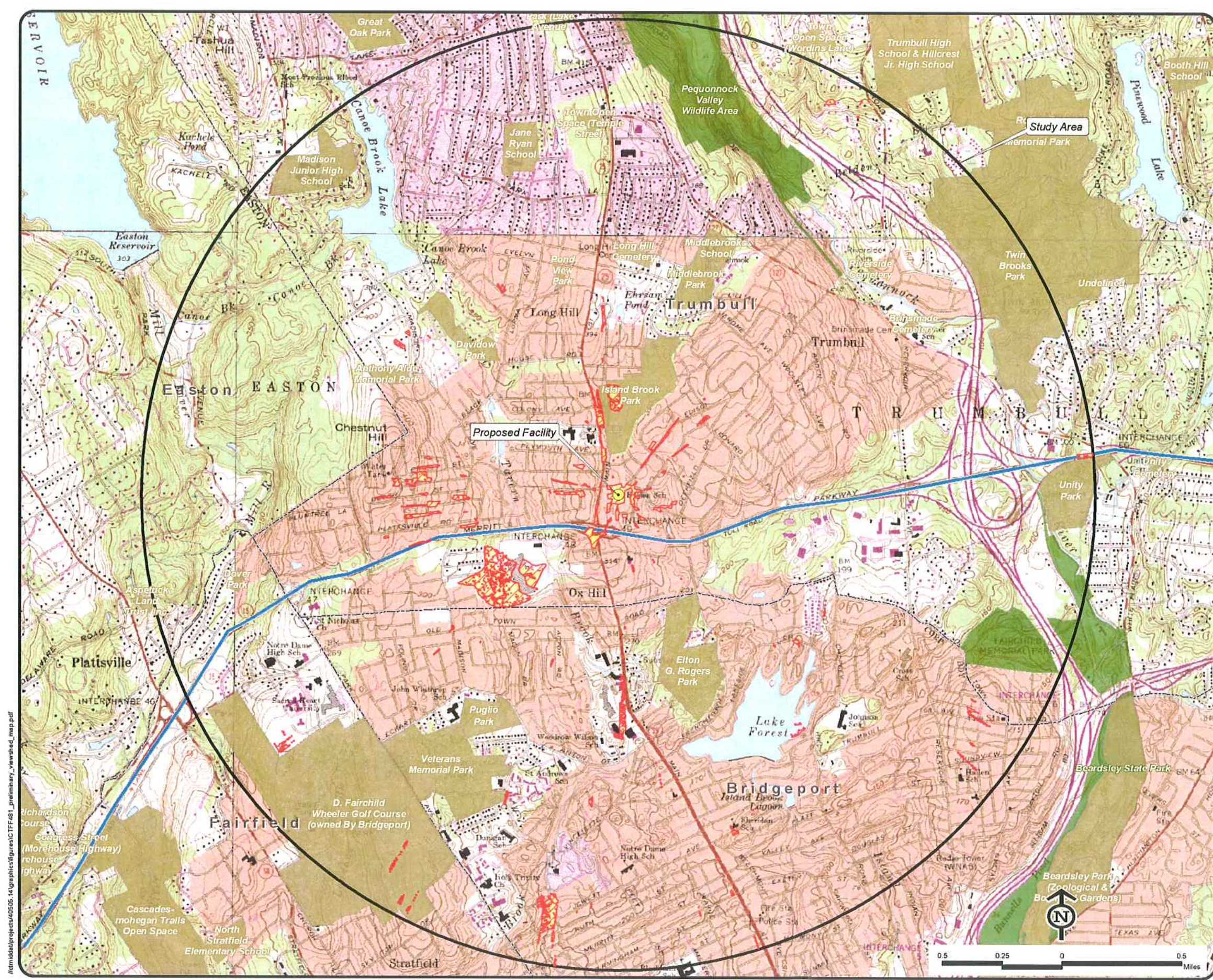
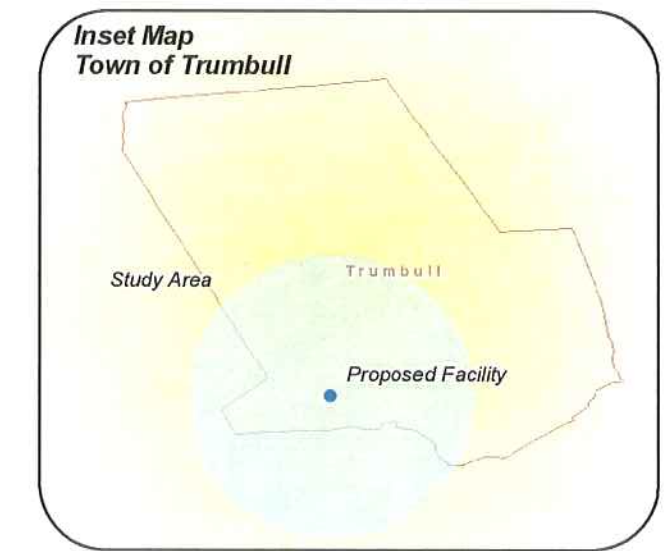
NOTE:  
 - Viewshed analysis conducted using ESRI's Spatial Analyst.  
 - Proposed Facility height is 150 feet (174 feet to top of antennas).  
 - Existing tree canopy height estimated at 50 feet.  
 - Study Area is comprised of a two-mile radius surrounding the proposed facility and includes 8,042 acres 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 Botsford (1984), Bridgeport (1984), Long Hill (1984) and Westport (1971) 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 December, 2009

**Legend**

- |  |   |  |                                     |
|--|---|--|-------------------------------------|
|  | Tower Location  |  | CT DEP Protected Properties (2007)  |
|  | Year-Round Visibility At 150 Feet AGL (Approximately 48 acres)  |  | State Forest                        |
|  | Year-Round Visibility At 174 Feet AGL to Account For Emergency Services Platform (Approximately 64 acres) |  | State Park                          |
|  | Protected Municipal and Private Open Space Properties (1997)  |  | DEP Owned Waterbody                 |
|  | Cemetery  |  | State Park Scenic Reserve           |
|  | Preservation  |  | Historic Preserve                   |
|  | Conservation  |  | Natural Area Preserve               |
|  | Existing Preserved Open Space   |  | Fish Hatchery                       |
|  | Recreation  |  | Flood Control                       |
|  | General Recreation  |  | Other                               |
|  | School  |  | State Park Trail                    |
|  | Uncategorized   |  | Water Access                        |
|  |   |  | Wildlife Area                       |
|  |   |  | Wildlife Sanctuary                  |
|  |   |  | Federal Protected Properties (1997) |
|  |   |  | CT DEP Boat Launches (1994)         |
|  |   |  | Scenic Road (State and Local)       |
|  |   |  | Town Line                           |



I:\mtd\projects\050505\_14\graphics\figures\CTFF481\_preliminary\_viewshed\_map.pdf

December 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  
CTFF481 / POLICE STA EDISON RD  
158 Edison Road, Trumbull, CT  
EBI Project # 61096787

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, T-Mobile Northeast, LLC, proposes to construct a new 150' (47.2m) monopole and associated equipment within a proposed 490 square foot fenced compound in the central portion of the subject property, which is an approximately 2.3 acre lot improved with the Trumbull Police Station. Additionally, municipal antennas mounted atop the monopole will bring the total height of the structure to 173'4" (52.8m). Utilities will be routed underground to the northwest, parallel to existing underground utility conduit, to an existing utility pole on Merwin Street. Access to the Project Site will be via the existing paved drive and parking area. Additional space for future lease areas (c. 1300 square feet (120.8m<sup>2</sup>)) is located to the west in the parking lot.

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, no historical resources were identified within a 0.5 mile area of potential effects and our archaeological assessment determined that it is unlikely that the proposed installation would adversely affect intact below-grade historic 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