

# **SUPPLEMENTAL TECHNICAL REPORT**

**For the Proposed Construction, Operation and Maintenance of a  
Telecommunications Facility**

**Rich Road  
Thompson, Connecticut**

**Filed By:**

**MCF Communications bg, Inc.  
733 Turnpike Street – Suite 105  
North Andover, MA 01845  
(978) 687-2536**

**and**

**Omnipoint Communications, Inc.  
35 Griffin Road South  
Bloomfield, CT 06002**

# Telecommunications Facility Technical Report for Thompson, CT

## I. INTRODUCTION

MCF Communications bg, Inc. (“MCF”) and Omnipoint Communications, Inc., a subsidiary of T-Mobile USA, Inc. d/b/a T-Mobile (hereinafter “T-Mobile”) (collectively the “Applicants”), respectfully submit this Supplemental Technical Report with attachments (“Report”) to the Town of Thompson (the “Town”), pursuant to Connecticut General Statutes (“C.G.S.”) §§ 16-50g *et seq.*, as amended. This submission pertains to an application to be filed with the Connecticut Siting Council (“Council”) for a Certificate of Environmental Compatibility and Public Need (“Application” or “Certificate”) that will allow MCF to construct, operate and maintain a wireless telecommunications facility and associated equipment (“Facility”) near I-395 exit 100 in Thompson, Connecticut. T-Mobile is committed to locating on the Facility and will serve as an anchor tenant. The proposed Facility is a necessary component in T-Mobile’s network plan to provide personal wireless communication services in the State of Connecticut, specifically in the Thompson area. This application falls within the jurisdiction of the Council pursuant to C.G.S. §§ 16-50i (a)(6), 16-50k and 16-50x.

The purpose of this Report is to provide the Town with information concerning the public need for the Facility, the site selection process and any environmental effects associated with the proposed construction, operation and maintenance of the Facility.

## II. SUMMARY OF PROPOSAL

### A. Applicant

MCF is a stock corporation organized and existing under the laws of the Commonwealth of Massachusetts with its principal office located at 733 Turnpike Street, North Andover, MA 01845. MCF develops, owns, manages and markets communication sites in the New England states for the wireless communication companies, and is its sole business in the state of Connecticut. Based on experience in the Radio Broadcast Industry since the mid 1980’s, MCF was established in 1998 to focus on the growing wireless communication industry. It has

developed over 30 sites throughout the New England region, and worked with most of the mobile communication service providers including co-applicant T-Mobile.

T-Mobile is a federally licensed provider of wideband PCS services in the State of Connecticut and in other areas. It is a Delaware Corporation with a principal place of business at 12920 S.E. 38<sup>th</sup> Street, Bellevue, Washington 98006 and has offices in Connecticut at 35 Griffin Road South, Bloomfield, CT 06002.

**B. Background**

Originally, on September 25, 2006, MCF submitted a technical report for the development of a telecommunications facility on Wilsonville Road ("Original Report"). In the Original Report, MCF proposed to construct a telecommunications facility on private property located at 0 Wilsonville Road. On or about September 25, 2006, MCF met with Town officials to discuss the Original Report. During the course of MCF's municipal consultation, town officials indicated to MCF that the Town was interested in locating a facility on Town-owned property in the vicinity of Site A ("Site B"). Pursuant to the requirements of C.G.S. § 8-24, MCF attended a town meeting on November 21, 2006 where MCF presented its proposal to the Town and the Town's citizens had the opportunity to voice their opinion and vote on the proposal. Subsequently, the town approved the lease for Site B and MCF and the Town entered into lease negotiations and executed a lease for the development of a facility on Town property located off of Rich Road.

**C. Proposed Facility**

The property on which the Facility would be located is an 8 acre, wooded parcel with access from Rich Road, in Thompson. This parcel is owned by the Town and is recorded in the Town of Thompson Land Records, Volume 75 at Page 87 and located on Tax Map 97, Block 28, Lot 7. The Property is in the R-40, residential zoning district, and the Site is located east of the Interstate 395 exit 100 N on-ramp. It is approximately 34' higher in elevation (626' AMSL) and is approximately 1800' north of the originally-proposed location.

MCF proposes to build a Facility on the area of the Property approximately 150 feet from the road so as to be completely surrounded by existing trees. As demonstrated on the plans attached hereto as Attachment A, it proposes to construct a 150 foot tall steel monopole in an approximately 4,900 (70' x 70') square foot compound area. The equipment compound will be

enclosed by the proposed 8 foot tall security fence. The Facility would be designed to accommodate space for T-Mobile at 147' AGL, Verizon Wireless at 137' AGL and two additional wireless carriers. Vehicular access to the Site is proposed via 132' long gravel access driveway from Rich Road.

Utility service for the Site will extend underground from existing utility service poles along the road. No water or sanitary facilities are required and once built, the Facility will generate minimal traffic because each of the collocating entities will only need to visit the site about once a month to perform routine maintenance and inspection. The proposed Facility provides a valuable opportunity for tower sharing in northern Thompson and the area of Interstate 395, as there are presently no existing structures of any significant height to allow the collocation of wireless carriers.

### **III. CONNECTICUT SITING COUNCIL JURISDICTION AND PROCEDURE**

As discussed below, the location and type of the proposed Facility is within the exclusive jurisdiction of the Council pursuant to the Public Utility Environmental Standards Act, C.G.S. §§ 16-50g *et seq.*, C.G.S. §§ 16-50i (a) (6), 16-50k, and 16-50x (a). The Council has jurisdiction over all facilities defined in C.G.S. § 16-50i (a). This jurisdiction includes “telecommunication towers . . . used in a cellular system, as defined by the Code of Federal Regulations Title 47, Part 22 . . . .” C.G.S. § 16-50i (a) (6).

All applicants for a Certificate of Environmental Compatibility and Public Need are required, at least 60 days prior to filing an application with the Council, to (1) make a good faith effort to consult with the municipality in which a Facility will be located regarding the selected sites, and (2) provide a technical report to Town officials. C.G.S. § 16-50l. The Town may choose to conduct public hearings and meetings as it deems necessary for it to advise the applicant of its recommendations concerning the proposed facility. Within 60 days of the initial consultation, the Town shall issue its recommendations. Within 15 days of filing an application with the Council, the applicant must provide the Council with (1) the technical report submitted to the Town and (2) a summary of the Town’s comments and recommendations.

As set forth herein, MCF is providing substantial documentation regarding all aspects of this project, thus satisfying this municipal notice requirement and wishes to receive comment from the Town.

MCF plans to submit its application to the Council by July 1, 2007, or sooner if the Town waives the rest of the municipal consultation period. Upon receipt of an application, the Council will assign a docket number and set a hearing date. At that time, the Town may choose to become an intervenor or a party to the proceedings. Other procedures followed by the Council include serving the applicant and other participants with interrogatories, holding a pre-hearing conference, and conducting a public hearing. The public hearing on this application would be held at a location in the Town of Thompson. Once the public hearing is completed, the Council will issue findings of fact, an opinion, and a decision and order, which can include issuing a Certificate for the Facility or a variation thereto. Prior to construction, the Council will require MCF to submit a Development and Management Plan, which is a final site development plan showing the location of structures and details of site development such as grading and landscaping. Upon receiving Council approval, MCF will submit a building permit application to the Town building official.

The procedures described above are governed by the Connecticut General Statutes, the Regulations of Connecticut State Agencies, and the Connecticut Siting Council's Rules of Practice.

#### **IV. COMPLIANCE WITH MUNICIPAL CONSULTATION CRITERIA**

The statutory municipal consultation and notice requirements can be satisfied by this comprehensive submissions and any subsequent information requested of or provided by MCF. Compliance with these requirements is specifically set forth below including all materials filed with the Town to date.

##### **A. Information Regarding Public Need**

In 1996, the United States Congress recognized a nationwide need for high quality wireless telecommunication services. Through the Federal Telecommunications Act of 1996, Congress sought to promote competition, reduce regulation to encourage technical innovation, and

recognized the public need for quality nationwide wireless telecommunication services. MCF assists carriers in fulfilling their license requirements by providing them with a variety of services, including locating, leasing, zoning and constructing personal wireless facilities for the carriers' antennas and equipment. It also provides municipalities the opportunity and location to improve vital emergency services communication systems.

The proposed Facility is an integral component of T-Mobile's wireless network in this area of the State of Connecticut. Currently, T-Mobile experiences a gap in its network coverage in the northern part of Thompson, specifically along Interstate 395 and adjacent areas in this portion of Windham County. The proposed Facility in conjunction with other existing and future facilities in Thompson and surrounding towns, is needed by T-Mobile to provide its wireless services to people living in and traveling through this area of the State. Attached hereto as Attachment B are propagation maps from T-Mobile, demonstrating T-Mobile's need for a Facility in this area of Thompson.

#### **B. Information Regarding Site Selection Process**

Only after determining there to be no buildings or structures of sufficient height in or near this area did MCF search for an appropriate location for a new telecommunications facility that would serve the needs of multiple carriers. Its goal in selecting a site, such as that proposed herein, is to locate a facility in such a manner as to allow both the Town and telecommunication carriers to build and operate high-quality communication systems with the least environmental impact. MCF determined that the proposed Facility would satisfy this goal. Furthermore, this Facility will permit telecommunications carriers to provide coverage in the most inconspicuous manner possible because only one Facility is required, the monopole is as low as it can be while still providing the necessary coverage, and the site is proposed to be located in the middle of the wooded lot to minimize impact to residential receptors. The proposed Facility will provide opportunities for the carriers to provide wireless coverage. Additionally, by receiving a Certificate for this Facility, MCF can provide one telecommunications tower that can service the Town as well as multiple carriers, thus avoiding the proliferation of towers.

### **C. Information Regarding Environmental Effects of the Project**

The design of the proposed Facility was developed to meet the public need for high quality communications service while minimizing any potential environmental impacts. MCF has site plans and tower design prepared, as well as performing a visibility analysis.

#### **1. Visibility**

In order to investigate potential visual impacts, MCF retained Clough Harbor and Associates (“CHA”) to prepare a viewshed map to demonstrate areas that the proposed Facility would be visible from. CHA conducted a balloon float and prepared photographs to simulate the visibility of the proposed Facility from several locations.

As demonstrated in the viewshed map attached hereto as Attachment C, the proposed Facility will be an inconspicuous as possible while still providing adequate coverage for both T-Mobile and Verizon Wireless. The proposed Facility will be visible year-round from less than (5%) of the two mile study area. Views of the proposed monopole from the surrounding community are minimal as an additional (1%) of the study area may have some seasonal visibility. The majority (94%) of the two mile radius study is screened by topography, vegetation, and existing buildings.

The compound will have a de minimis visual impact as it will be screened by the existing dense vegetative screening provided by the wooded property. Accordingly, the proposed Facilities will not result in an unacceptable adverse visual impact.

#### **2. Power Density**

In August, 1996, the FCC adopted a hybrid ANSI/NCRP Standard for exposure to Radio Frequency (RF) emissions from telecommunications facilities. The ANSI standard was adopted by Connecticut in C.G.S. §§ 22a-162 and 22a-162a “for the purpose of preventing possible harmful effects in human beings from exposure to electromagnetic fields in the frequency range of 300 kilohertz (KHz) to 100 gigahertz (GHz). . .”

To demonstrate potential compliance with the applicable standards, MCF will provide the Town maximum power density calculations for the proposed Facility. The power density calculations are conservative, worst-case approximations for RF power density levels at the closest accessible point to the antennas (in this case, at the base of the tower) and with all antennas transmitting simultaneously on all channels at full power. MCF will have the analysis

prepared for this Site once it obtains all of the necessary information regarding co-locator equipment, but it will show the levels are well below requirements due to the proposed antenna height above ground ( more than 10 meters ).

### **3. Other Potential Impacts**

CHA, on behalf of MCF, analyzed the proposed Facility to determine if any other environmental impact would result. Included in this analysis is an examination of ten (10) criteria specified under the National Environmental Policy Act (NEPA), including wilderness areas, wildlife preserves, endangered species, historic places, Indian Religious, floodplains, wetlands and high intensity white lights. This NEPA report is pending but no impacts are expected.

In addition, the Site is not located in a 100 year flood zone and no wetlands or watercourses were identified (or delineated) within the proposed development area. The limits of disturbance of all construction activities will be confined to the minimum extent possible. If soil and erosion controls are necessary, all measures shall be installed in accordance with the "Connecticut Guidelines for Soil Erosion and Sediment Control" (Revised 2002).

Furthermore, the proposed Facility will be passive in nature. It will not create any smoke, ash, heat, glare, pollution, or noise and no sanitary facilities are required. No hazardous substances will be located at the Facility. The Facility will not require marking or lighting and will not require notice to the Federal Aviation Administration.

Based on the above, MCF submits that the proposed Facility will not result in any significant adverse environmental impacts.

## V. CONCLUSION

Based on the information and documentation contained in this Report, MCF submits that the construction of the proposed Facility in Thompson will not have a substantial adverse environmental effect. Further, it will alleviate the Town's struggle to remediate inadequate emergency services coverage and will allow the provision of wireless coverage to an area in which such reliable coverage is lacking. As this Facility provides collocation opportunities for four carriers, MCF's proposal fulfills the legislative mandate to eliminate the unnecessary proliferation of telecommunications towers in Connecticut.

Specifically, MCF submits that it has demonstrated (1) the public need for the Facility for wireless telecommunication coverage; (2) that the proposed Facility will not result in any adverse environmental impacts; (3) that the shared use of the Facility is feasible; and (4) that the proposed Facility will not substantially affect the scenic, historic, recreational or ecological quality of the site. Finally, the proposed Facility will help provide a level of service in Thompson that is commensurate with current public demand for telecommunications service, as well as to meet such demand for the foreseeable future.

Correspondence and/or communications regarding this report may be addressed to applicant's attorney:

Cohen and Wolf, P.C.

1115 Broad Street

P.O. Box 1821

Bridgeport, CT 06601-1821

Attn: Julie D. Kohler, Esq (203) 368-0211

With a copy of all correspondence to:

MCF Communications bg, Inc.

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North Andover, MA 01845

Attn: Michael McFadden (978) 687-2536

## **Communication Tower Technical Report for Thompson CT**

**Location: I-395 near Exit 100, Thompson CT  
Town Owned Lot off Rich Rd**

### **Attachments Included:**

**A) Site Plans**

**B) Propagation Maps from T-Mobile**

**C) Viewshed Map**



CLOUGH HARBOUR & ASSOCIATES LLP

**Site Name: Thompson**

**Site Address: Rich Road, Thompson, CT 06277**

**Access distances:**

Distance of access over new gravel driveway: 132'

Total distance of site access: 132'

**Distance to Nearest Wetlands:**

194' to the wetlands to the southwest

**Distance to Property Lines:**

370' to the northern property boundary

150' to the southern property boundary

442' to the western property boundary

150' to the eastern property boundary

**Residence Information:**

There are 21 residences within 1,000' feet of the tower. The closest residence is 243' to the northeast.

**Tree Removal Count:**

Three 6" Oak Trees

One 8" Pine Tree

Eight 8" Oak Trees

Three 10" Oak Trees

Seven 12" Oak Trees

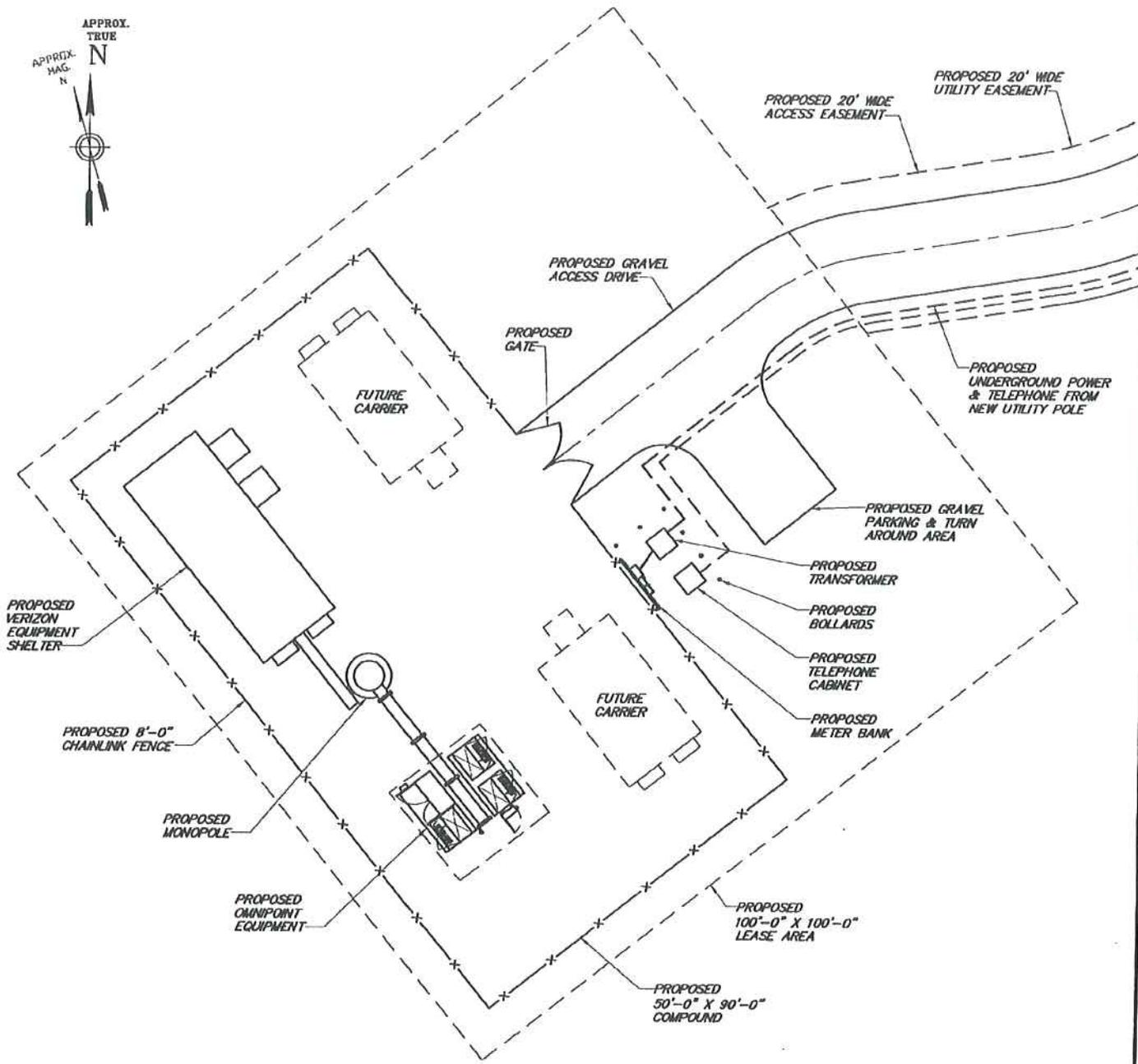


**MCF Communications, Inc.**  
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**CHA**  
 GLOUCESTER HARBOR & ASSOCIATES, L.P.  
 1700 WEST 10TH AVENUE, SUITE 200  
 DENVER, COLORADO 80202  
 WWW.CHASURVEYING.COM

CHA PROJECT NO.  
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312	06/01/31	REVISED
313	06/28/31	REVISED
314	07/25/31	REVISED
315	08/22/31	REVISED
316	09/19/31	REVISED
317	10/16/31	REVISED
318	11/13/31	REVISED
319	12/10/31	REVISED



1 COMPOUND PLAN  
 SCALE: 1" = 20'  
 0 10 20  
 SCALE IN FEET

BASEMAP NOTES:  
 1. BASEMAP INFORMATION OBTAINED FROM A SURVEY PERFORMED BY CLOUGH HARBOUR & ASSOCIATES LLP IN AUGUST 2007.

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CHA PROJ. NO. 14957-1006

**MCF Communications, Inc.**

733 TURNPIKE STREET, SUITE 105  
 NORTH ANDOVER, MA 01845  
 OFFICE: (978) 887-2538  
 FAX: (978) 258-8850

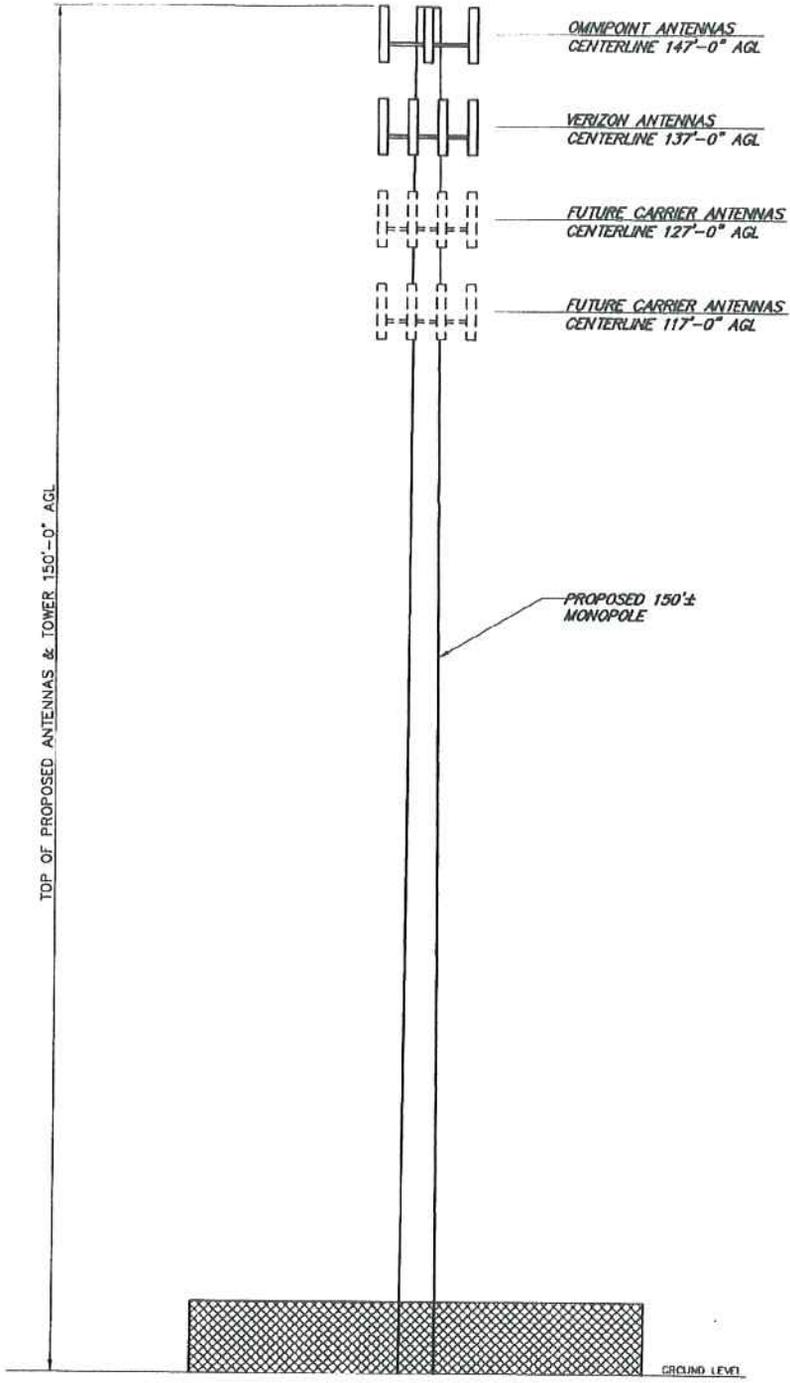
SITE NAME:  
**THOMPSON**

SITE ADDRESS:  
**RICH ROAD  
 THOMPSON, CT 06277  
 WINDHAM COUNTY**

SHEET TITLE:  
**COMPOUND PLAN**

DATE:  
**04/27/07**

REVISION:  
**0**



1 TOWER ELEVATION  
 SCALE: 1" = 20'  
 0 10 20  
 SCALE IN FEET

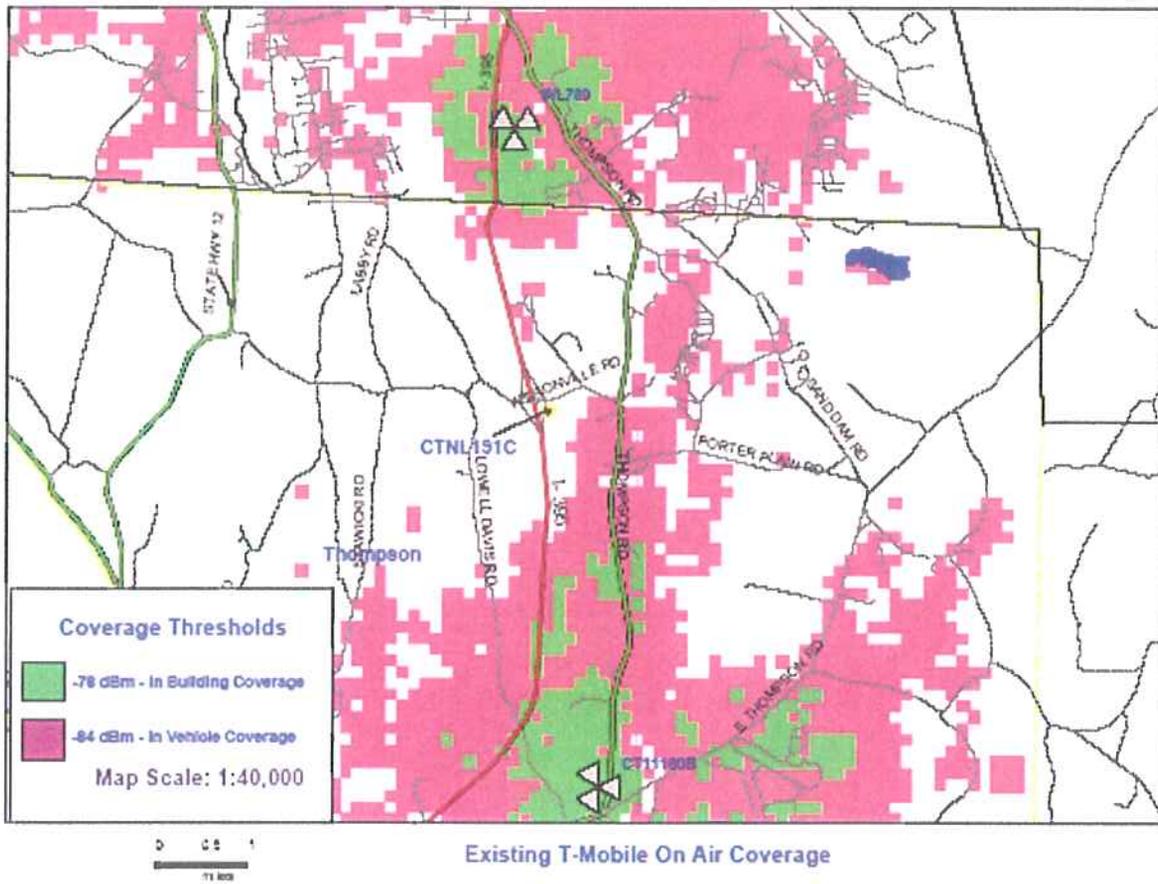
<p>Design Copyright © 2007 Clough Harbour &amp; Associates LLP</p>  <p><b>CHA</b>          CLOUGH HARBOUR &amp; ASSOCIATES LLP          2138 Giles Deane Highway, Suite 213 - Rocky Hill, CT 06067-2338          Mbr: (860) 257-4557 - www.cloughharbour.com</p> <p>CHA, PROJ. NO. - 14937-1000</p>	<p><b>MCF Communications, Inc.</b>          733 TURNPIKE STREET, SUITE 105          NORTH ANDOVER, MA 01845          OFFICE: (978) 687-2536          FAX: (978) 258-8850</p>	<p>SITE NAME:          THOMPSON</p>	<p>SHEET TITLE:          TOWER ELEVATION</p>
		<p>SITE ADDRESS:          RICH ROAD          THOMPSON, CT 06277          WINDHAM COUNTY</p>	<p>DATE:          04/27/07</p>
		<p>REVISION:          0</p>	





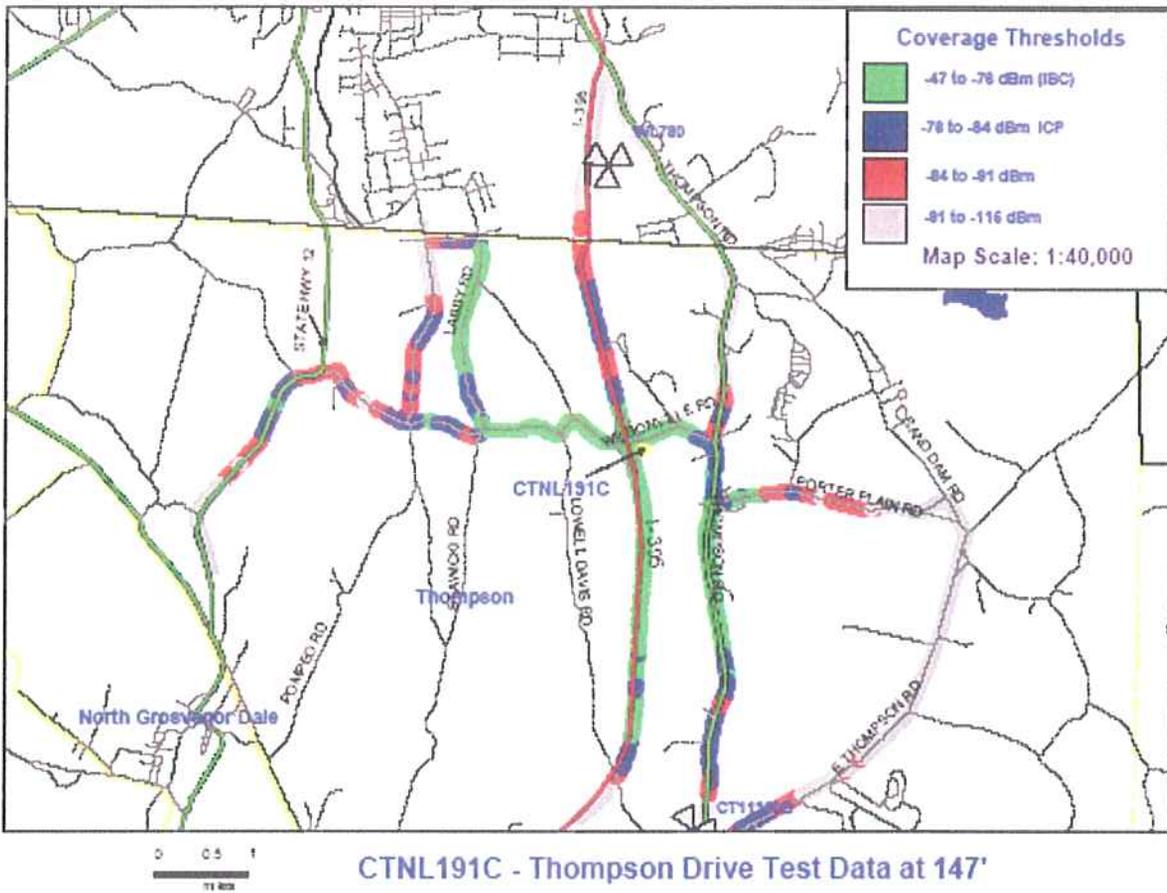
Plots 6 through 11 show existing coverage and existing coverage with drive test data overlaid at the five test heights.

### Plot 5



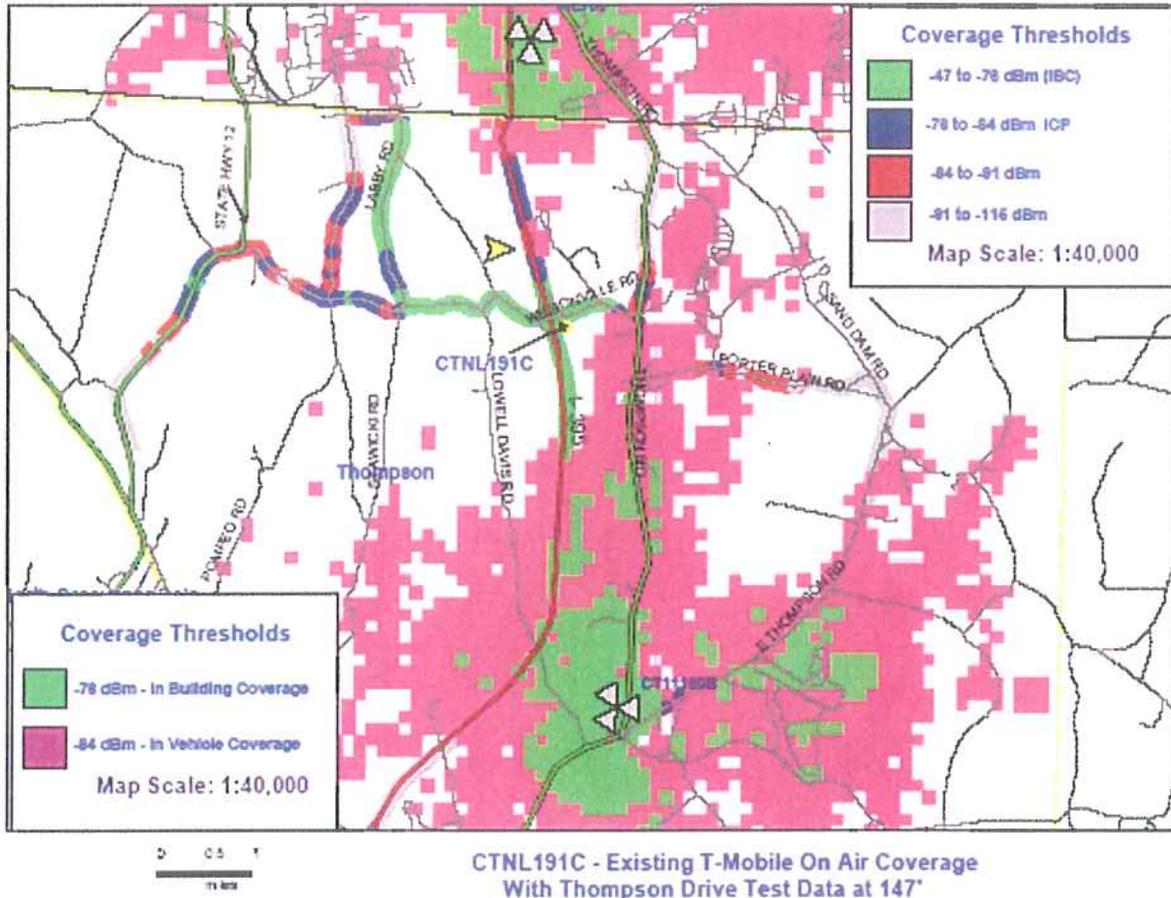
Plot 6 shows existing T-mobile on air coverage

Plot 4

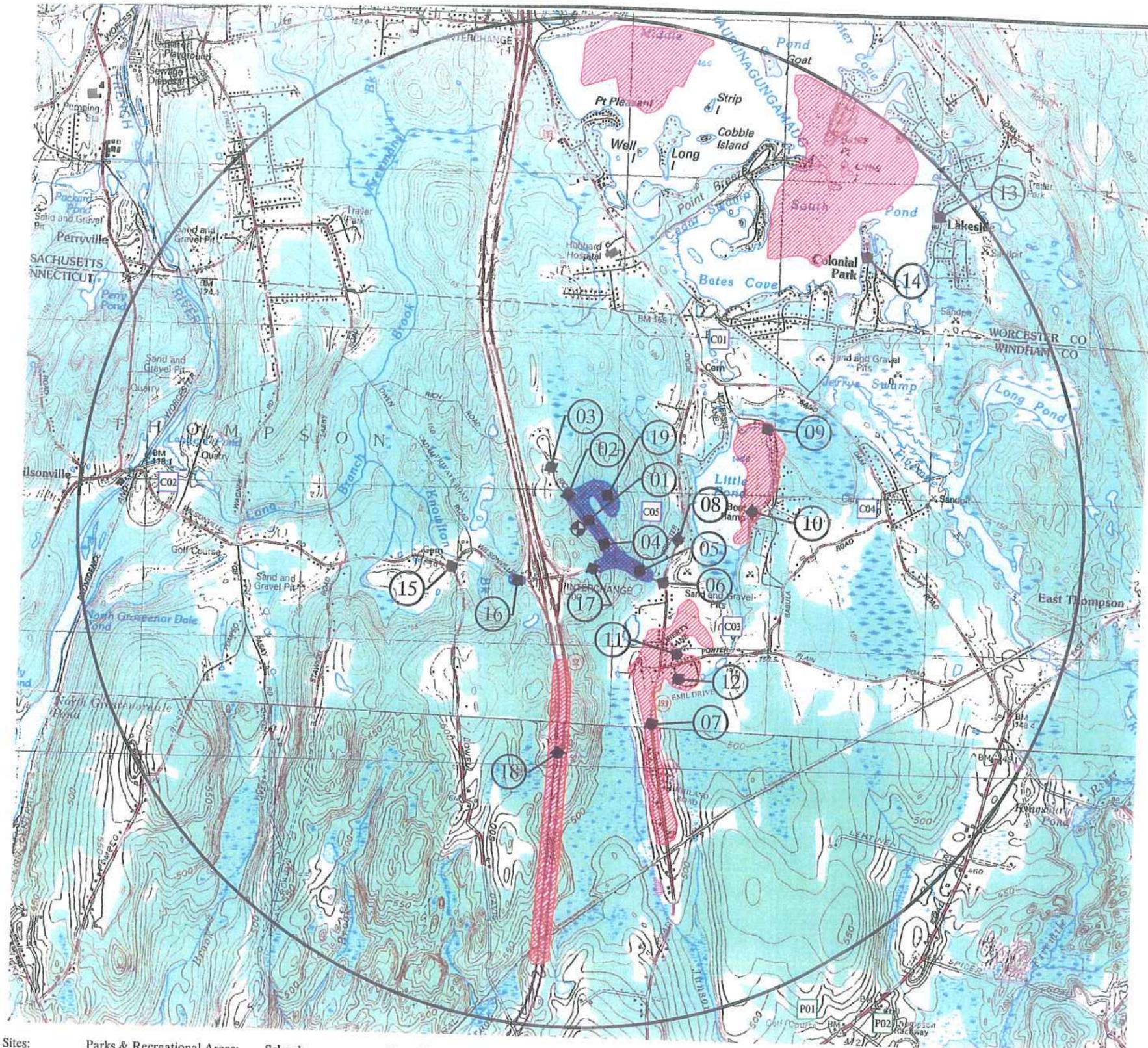


Plot 4 shows the results of the CTNL191C drive test at 147 feet AGL

## Plot 10



Plot 10 shows existing T-mobile on air coverage with the CTNL191C test site at 147 feet AGL. At 147 feet, the affected area identified in the 167 and 157 foot levels, which falls below the T-Mobile minimum signal level threshold of -84dBm, increases to roughly .4 miles. In this area, mobile and stationary system users will experience coverage degradation resulting in poor voice and data quality and potential dropped calls. Additionally, E-911 emergency calls placed in this area may not be successfully connected due to poor signal quality.



- NOTES:**
1. Only visible areas are shown on the map utilizing the process described in note 2. The remainder of the map has been estimated to be nonvisible utilizing the process described in note 3.
  2. Seasonal and year round areas of visibility were estimated from a field visual analysis within public R.O.W. and public properties. Areas shown on private property were interpolated from the field visual analysis.
  3. Nonvisible areas were estimated from a computer generated topography & vegetation analysis and field verification of vegetation & building screening within public R.O.W. and public properties. Vegetation limits were determined from 2004 aerial photos and is assumed to be 65' high. Verification of vegetation height, coverage, and type within private areas not visible from public R.O.W. or public properties was not field verified.
  4. Historical areas were determined from national and state historical registers.
  5. Parks, schools, cemeteries, and churches were determined from street maps and field observations.
  6. Scenic roads, if any, were determined from the CTDOT list of designated scenic roads and field observations.

**Legend**

	APPROXIMATE LOCATION OF PROPOSED MONOPOLE		COMPUTER SIMULATION PHOTOGRAPH LOCATION
	LIMIT OF SEASONAL TOWER VISIBILITY		LIMIT OF YEAR ROUND TOWER VISIBILITY
	CHURCH/CEMETERY		PARK
	HISTORICAL SITE		SCHOOL
TRAIL OR SCENIC ROAD			

**Visibility by Acreage**

ITEM	APPROXIMATE ACRES	% OF TOTAL AREA
2 MILE RADIUS AREA	8,053	100%
NOT VISIBLE DUE TO TOPOGRAPHY	2,038	25.3%
NOT VISIBLE DUE TO VEGETATION	5,591	69.3%
YEAR ROUND VISIBILITY	392	5%
SEASONAL VISIBILITY	32	0.40%

**Distances from Photo Locations to Tower**

PHOTO	DIST. (FT)	PHOTO	DIST. (FT)	PHOTO	DIST. (FT)
01	250	10	3,700	19	950
02	750	11	3,400		
03	1,400	12	3,800		
04	650	13	10,000		
05	1,600	14	8,300		
06	2,100	15	2,800		
07	4,400	16	1,700		
08	2,100	17	907		
09	4,500	18	4,800		

**2 MILE VIEWSHED ANALYSIS MAP  
THOMPSON - RICH ROAD  
VISUAL IMPACT ASSESSMENT**

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CHA Project No. 14957-1006-1491



- Historic Sites:**  
No historic sites are located within the 2 mile study area.
- Parks & Recreational Areas:**  
P01 Raceway  
P02 Thompson International Speedway
- Schools:**  
No schools are located within the 2 mile study area.
- Church/Cemetery:**  
C01 Bates Cemetery  
C02 Unnamed Cemetery  
C03 Unnamed Cemetery  
C04 Carpenter Cemetery  
C05 High Point Church
- Scenic Roads:**  
1. No roads within the 2 mile radius are listed on the CTDOT list of scenic roads.  
2. No scenic road sign designations were observed during the field visual analysis.

**Visibility by Residence**

STREET	RESIDENCES	STREET	RESIDENCES
WILSONVILLE ROAD	3(S)	EMIL DRIVE	14(Y)
RICH ROAD	6(S)	LIBERTY LANE	5(Y)
JULIETTE AVENUE	10(S)	PORTER PLAIN ROAD	7(Y)
THOMPSON ROAD	28(Y)	JEZISKI LANE	17(Y)
HIGHLAND ROAD	2(Y)	BATES POINT ROAD	23(Y)

(S) = SEASONAL VIEW  
(Y) = YEAR ROUND VIEW