

TECHNICAL REPORT to the TOWN OF NORTH HAVEN

PHOENIX PARTNERSHIP, LLC PROPOSED NORTH HAVEN TELECOMMUNICATIONS FACILITY

50 DEVINE STREET NORTH HAVEN, CONNECTICUT

Phoenix Partnership, LLC 112 Washington Ave North Haven, CT 06473

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Introduction

Phoenix Partnership, LLC ("Phoenix") hereby submits this Technical Report to the Town of North Haven (the "Town") pursuant to Connecticut General Statutes § 16-50/. Phoenix proposes to install a wireless telecommunications facility (the "Facility") on an approximately 6 acre parcel located at 50 Devine Street, North Haven, Connecticut, 06473, and owned by 424 Chapel Street LLC (the "Devine Street Site" or the "Site"). The Facility will consist of a 120 ft. monopole structure (the "Tower") with antennas attached thereto and related equipment on the ground at the base of a concrete equipment pad. The Facility, if approved, would allow wireless carriers, specifically Pocket Communications ("Pocket"), to provide wireless communications service in this area of the Town.

This Technical Report provides the Town with information concerning the need for the proposed Facility (Section 1), the site selection process (Section 2), the Facility design and any environmental effects associated with the proposed Facility (Section 3).

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

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

Attention:

Julie D. Kohler, Esq. Jesse A. Langer, Esq.

SECTION 1

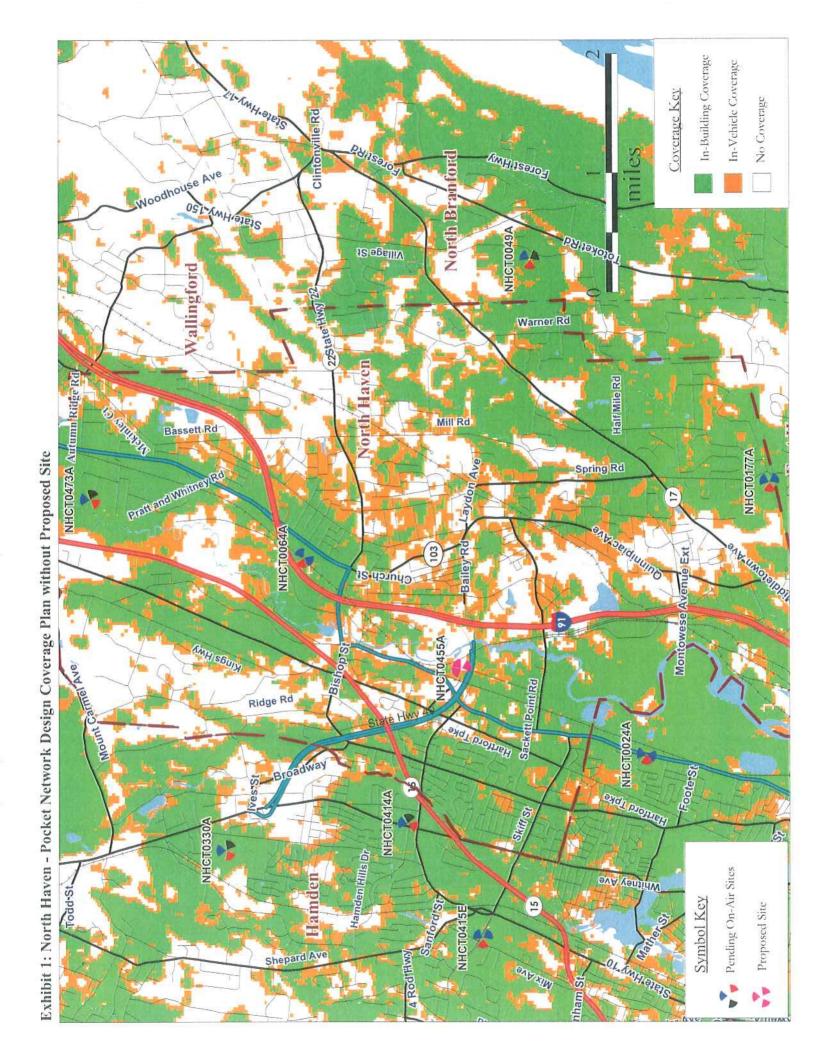
Site Justification

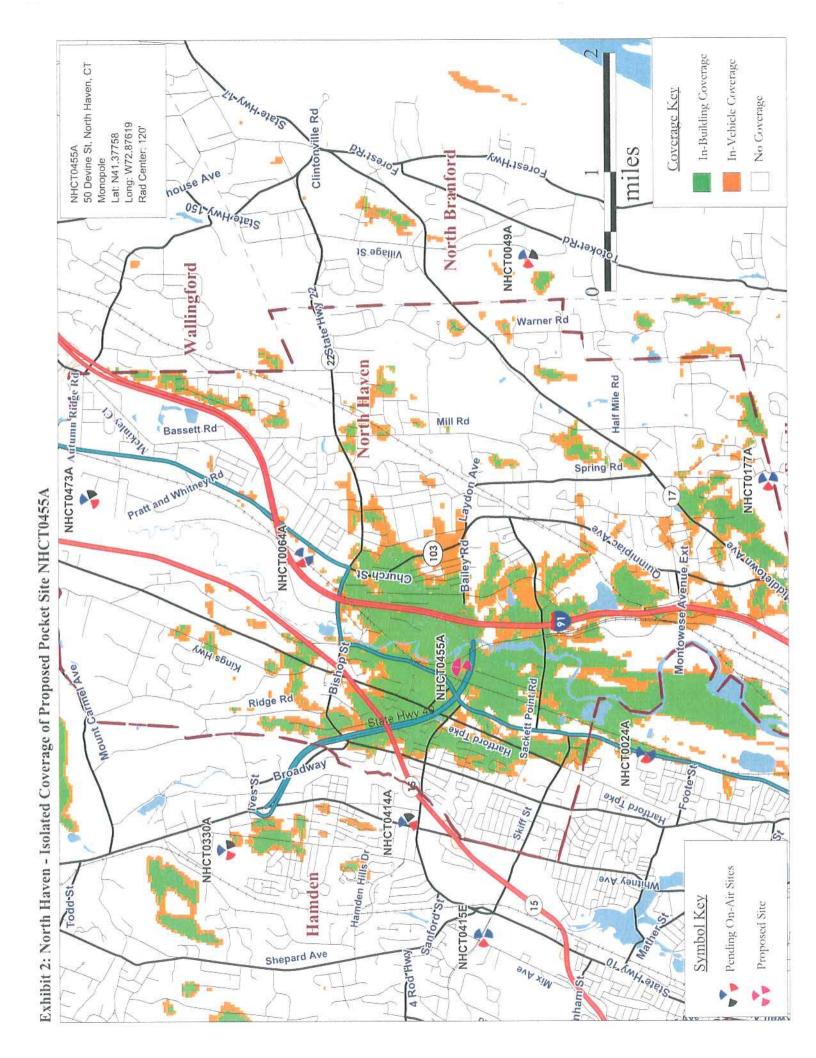
The proposed Devine Street Site is necessary to increase wireless service availability in the central part of the Town. The Devine Street Site is necessary to increase wireless service availability for the residences and non-residences in the area as well as on Interstate 91, State Highway 40 and Wilbur Cross Parkway (State Highway 15).

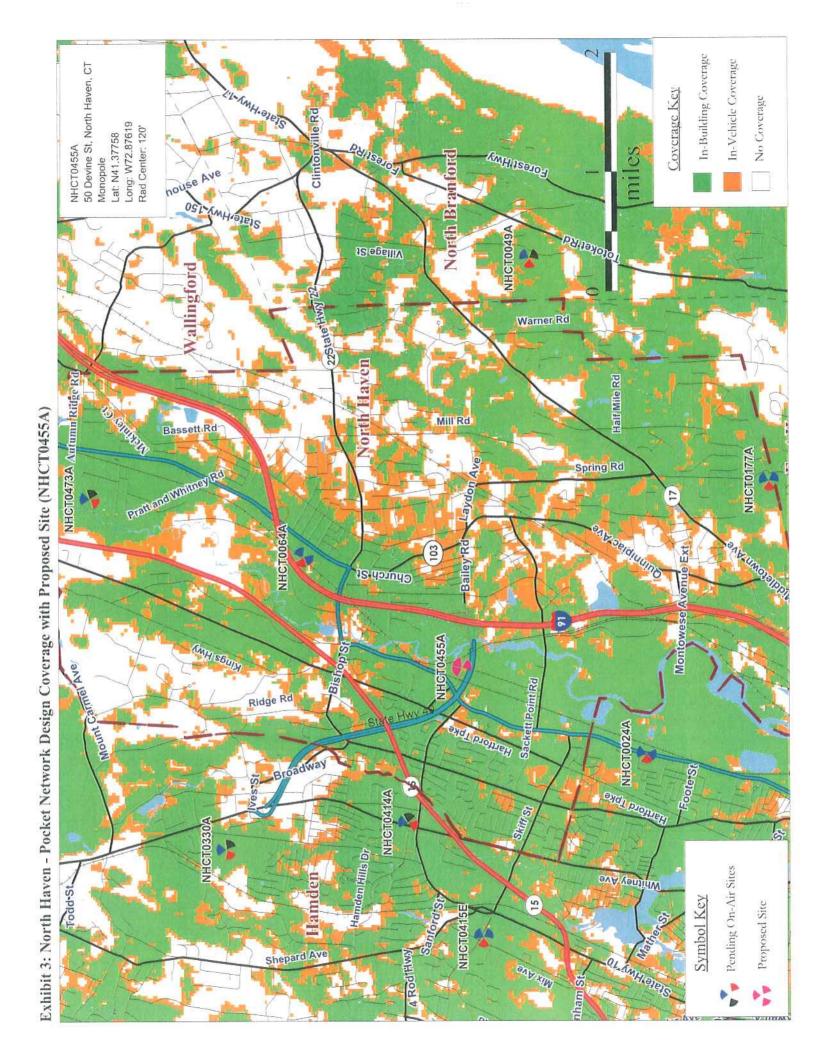
Included herein are propagation plots prepared by Pocket that depict the following: (1) coverage from existing and approved surrounding sites; (2) predicted coverage from the proposed Site with antennas mounted at 117' above grade level ("AGL"); and (3) coverage from the proposed Site with existing and approved sites.

Together, these propagation plots clearly demonstrate the need for a site in the area and the effectiveness of the proposed Site in meeting the need for wireless service in this central area of the Town.

ATTACHMENT A







SECTION 2

Site Search Process and Selection

Section 16-50j-74(j) of the Regulations of Connecticut State Agencies requires the applicant to submit a statement that describes "the narrowing process by which other possible sites were considered and eliminated." In accordance with this requirement, 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 are provided below.

As a tower developer, Phoenix seeks out a site in an area based on its knowledge and understanding of existing weaknesses in the systems of the several wireless carriers operating in the area and/or consultation with individual carriers. A target area is chosen central to the area in which the coverage and/or capacity needs have been identified. 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. Phoenix's goal is to locate sites that will provide for orderly integration into the existing wireless systems of multiple carriers. In this case, Pocket had previously initiated a search for a site in this area and identified the proposed location. Subsequently, Pocket agreed to pursue development of a site through Phoenix.

Phoenix is sensitive to State and local desires to minimize the construction of new towers, and does not initiate searches in areas with known acceptable structures. In the area of the Town, which is the subject of this site search, there are no existing towers, transmission line structures or other suitable structures. Any existing towers are too far from the target area to provide coverage specifically to the target area. This includes two towers at exit 12 in the Town, located at 95T and 117 Washington Avenue, and another tower at exit 9 in the Town, located at 120 Universal Drive.

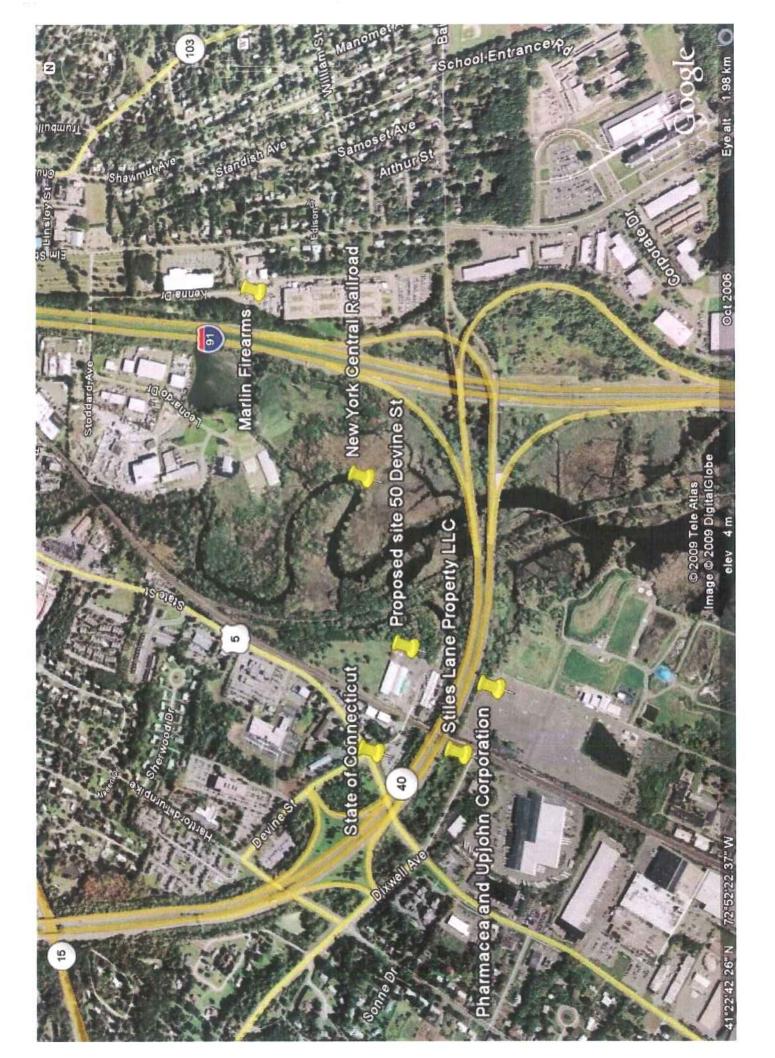
In general, Phoenix first studies the area to determine whether there are industrial or commercial areas or areas which have appropriate environmental and land use characteristics. Potential locations are studied by radio frequency engineers to determine whether the locations will meet the technical requirements for a site in the area. The list of potential locations is further refined based on the willingness of property owners to make their property available. Analysis of potential environmental effects and benefits may further narrow the alternatives. In each site search, the weight afforded to relevant factors may vary depending on the nature of the area and the availability of potential sites.

The locations considered and the reasons locations other than the proposed Devine Street Site were not selected are outlined below:

- 1. <u>Commercial property, 41 Stiles Lane</u>. This is a large parcel owned by Pharmacea and Upjohn Company (c/o Pfizer). The property is apparently used for manufacturing activities and is secured with a security gate. The property owners have not responded to correspondence sent by Phoenix.
- 2. <u>Stiles Lane Company, 33 Stiles Lane</u>. The property owners have not responded to correspondence sent by Phoenix.
- 3. Marlin Firearms, 100 Kenna Drive. On November 13, 2000, the Town's Planning and Zoning Commission denied a site plan application submitted by AT&T Wireless Services regarding a proposed tower for this property. One of the concerns cited was the visual impact to nearby residents. The landowner has indicated it will not sign a lease until the Town demonstrates clear support for the project. Regardless, as evidenced by the Commission's letter, this property is within close proximity to nearby residential properties. It is also near wetlands. After reviewing both sites, Phoenix is confident that the Devine Street Site will have little or none of the visual impact that the Commission was concerned about with the Marlin Firearms site.
- 4. New York Central Lines LLC, (Map 52, Lots 1 and 2). These parcels are directly adjacent to the proposed Site. The parcels, however, are not suitable because of existing wetlands and salt marsh.

As a result, Phoenix has determined that the property owned by 424 Chapel Street LLC at 50 Devine Street, North Haven, Connecticut, 06473 (the "Property") is superior to other properties in the area. The Property is an approximately 6 acre parcel, significantly larger than others in the area. The Property is not adjacent to any residential neighborhoods. The existing vegetation and Route 40 affords the Property with significant screening. In addition, Phoenix will utilize an existing driveway for access to the Site.

ATTACHMENT B





TOWN OF NORTH HAVEN

MEMORIAL TOWN HALL / 18 CHURCH STREET NORTH HAVEN, CONNECTICUT 06473



REPLY TO:

PLANNING & ZONING COMMISSION

Tel. (203) 239-5321 Fax (203) 234-2130

November 20, 2000

Neil J. Alexander, Esquire Cuddy & Feder & Worby LLP 90 Maple Avenue White Plains, New York 10601-5196

Re: #P2000-40 Site Plan application of AT&T Wireless Services, Inc., relative to 100 Kenna Drive, (Maps 52 & 59, Route 3), (126 Bailey Road). Plan Entitled: AT&T Wireless PCS, LLC, Unmanned Wireless Communication Equipment Site, "Site No. CT-108", 100 Kenna Drive, North Haven, Connecticut 06473, Prepared By Tectonic Engineering Consultants P.C., Dated 2/4/00, Rev. 9/8/00. Scale 1" = 100'. IL-80/R-20 Zoning Districts.

Dear Attorney Alexander:

Please be advised that during the deliberation session of the Planning & Zoning Commission meeting held on Monday, November 13, 2000, the Commission unanimously voted to deny the above referenced application for the following reasons:

- The Commission recognizes the need for the proposed tower but feels that the applicant has not exhausted all avenues to research alternative sites that are less offensive/obtrusive to the nearby residential areas.
- 2. The Visual Resource Evaluation photograph location views submitted (Exhibit E) were inconclusive. Photographs from additional advantage points in the surrounding area, particularly within the residential zone, should be provided.

Please note that the Commission is receptive to additional tower height if warranted due to geographic conditions at alternative sites, contingent on topography, site location and other applicable application considerations.

JP/ts

cc: First Selectman
Engineering Dept.
Building Dept.
CERTIFIED MAIL R/R

Very truly yours, Zenne Pulleyn

Jeanne Pulleyn, Secretary Planning & Zoning Commission

SECTION 3

PROPOSED SITE

50 Devine Street North Haven, Connecticut

Land of 424 Chapel Street LLC

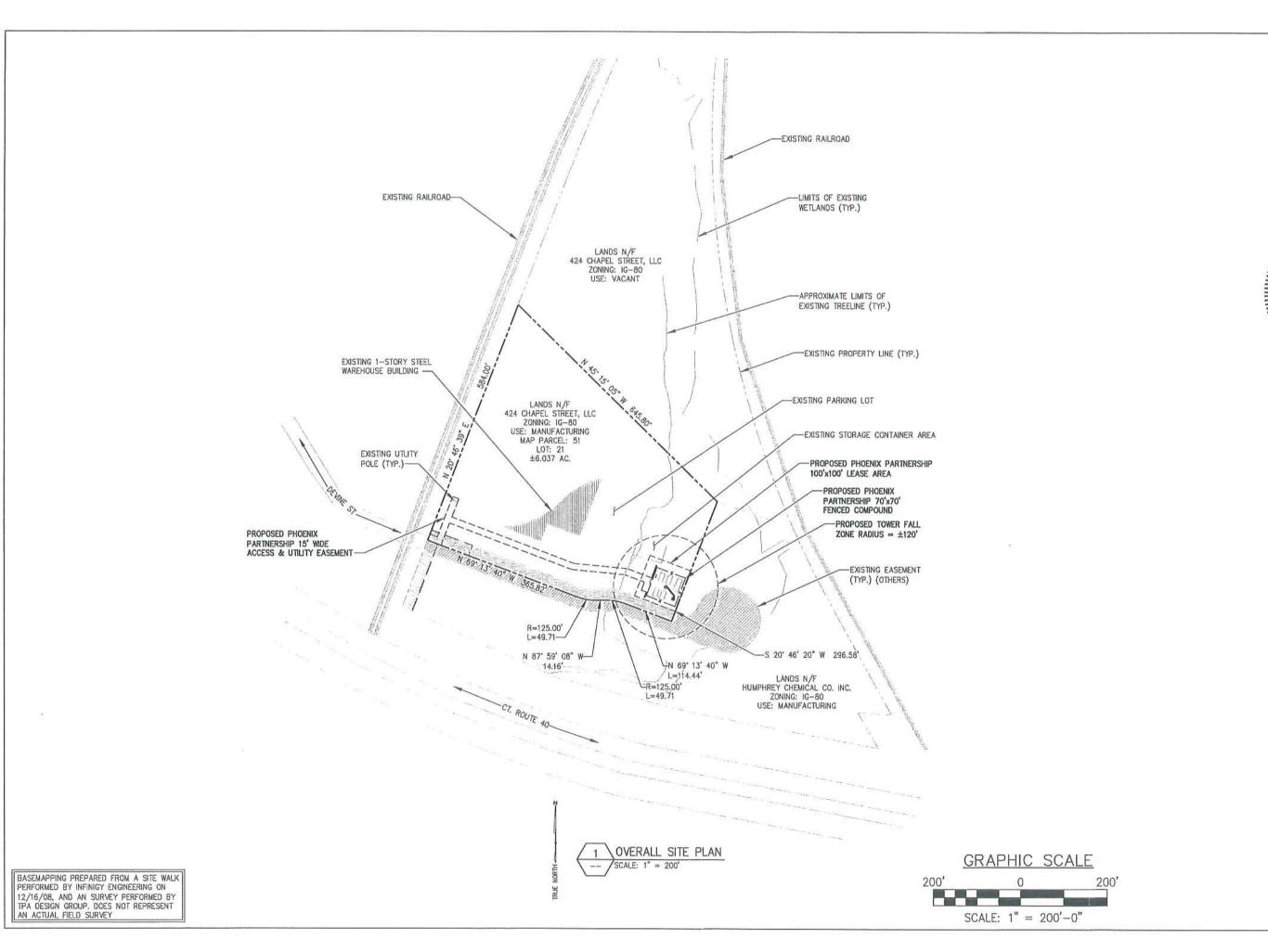
> Parcel 51/Lot 21 6.037 Acres

GENERAL FACILITY DESCRIPTION

The proposed Devine Street Site is a 10,000 square foot leased area located in the south eastern portion of an approximately 6 acre parcel at Devine Street in North Haven. The Facility would consist of a 120 ft. monopole structure with antennas secured by a flush mount. The monopole would accommodate 3 additional sets of antennas.

Related equipment cabinets would be placed in a compound within the leased area. The equipment would be surrounded by an 8-foot high chain link fence. Vehicle access to the Site would extend from Devine Street, which is to the east of the proposed tower location. Underground utility connections would extend from existing service along the southerly portion of the leased area.

ATTACHMENT C



C 5 % CONALLY, 0 ISSUED FOR REVIEW SKB 05/26/ Drawn: SKB Date: 05/26/09 Designed: AST Date: 05/26/09 Checked: \$38 Date: 05/28/09 NORTH HAVEN **CTNH 101** 50 DEVINE ST. NORTH HAVEN, CT 06473

Phoenix Partnership

Drawing Scale: AS NOTED Date:

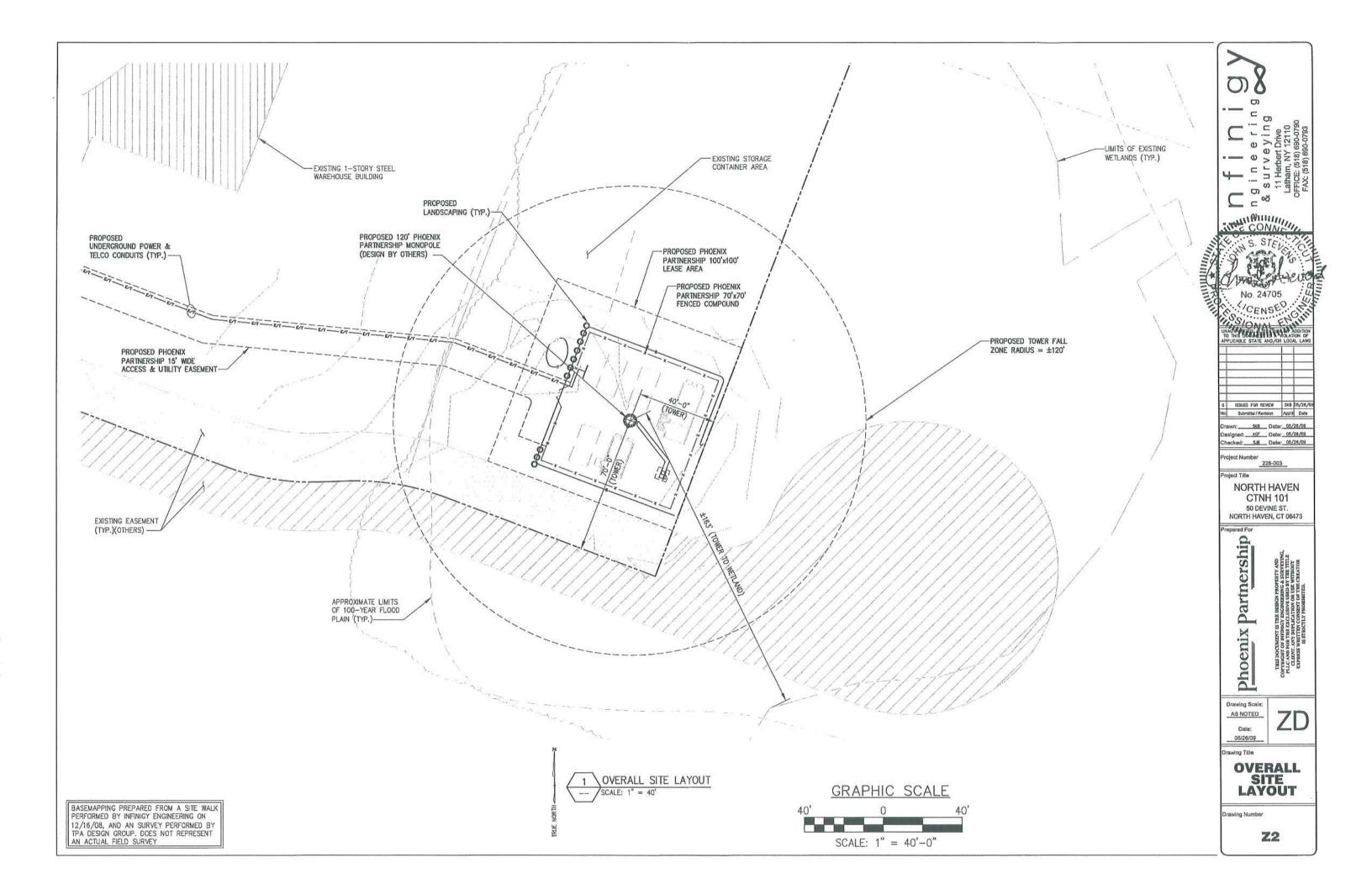
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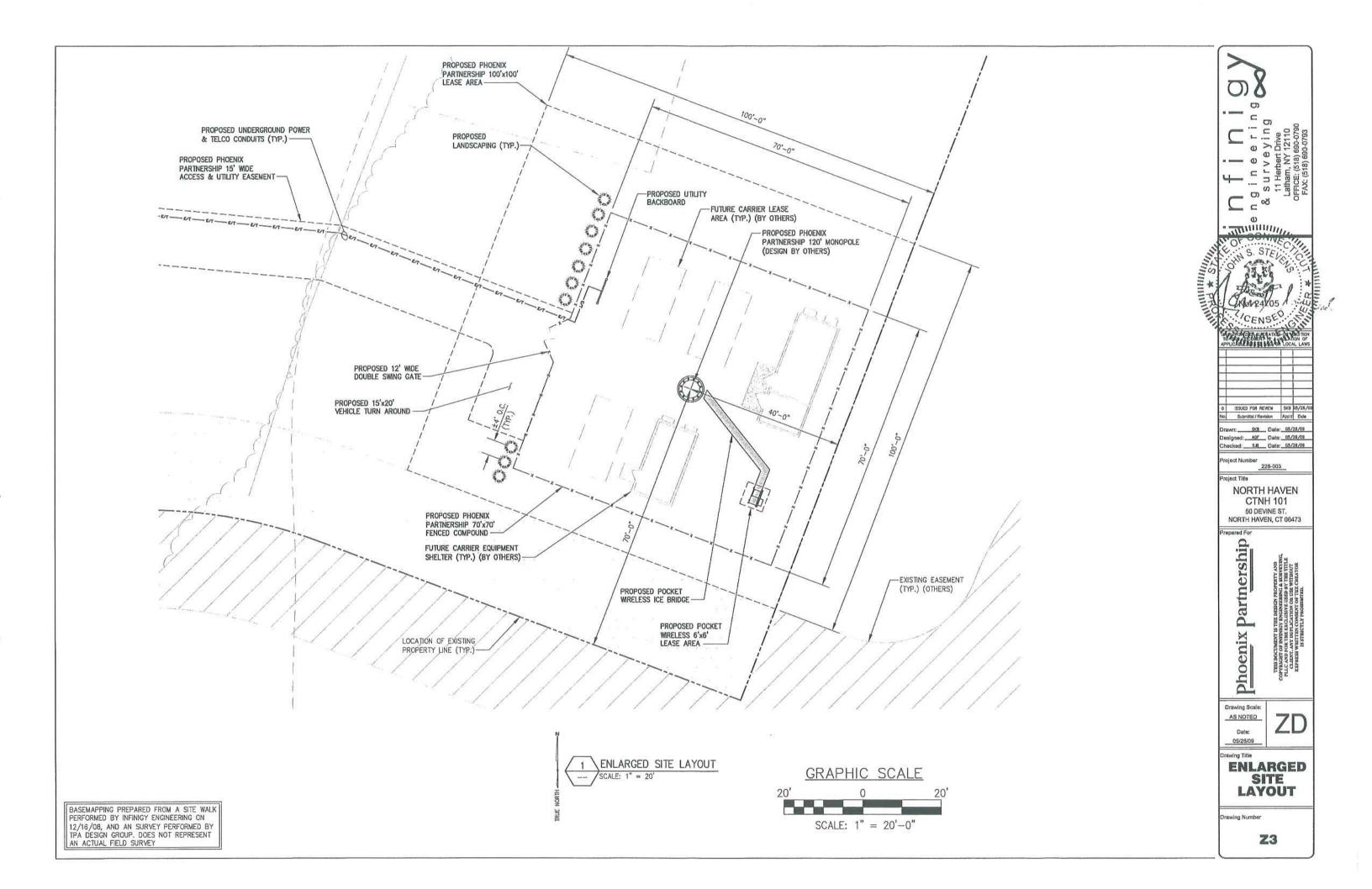
awing Title

OVERALL SITE PLAN

rawing Number

Z1





SITE EVALUATION REPORT

I. LOCATION

- A. <u>COORDINATES</u>: N 41° 22' 39.36" W 72° 52' 33.78"
- B. GROUND ELEVATION: 8.0' ± AMSL
- USGS MAP: USGS 7.5 quadrangle for Mount Caramel, New Haven, Branford, Wallingford, CT
- D. <u>SITE ADDRESS</u>: 50 Devine Street, North Haven, CT 06473
- E. <u>ZONING WITHIN ¼ MILE OF SITE</u>: Zoning within a quarter mile of the proposed Site is primarily general industrial (IG-80). The closest residential zone is on the opposite side of Route 40.

II. DESCRIPTION

- A. <u>SITE SIZE</u>: 70' X 70' fenced compound within 100 X 100 leased area.
- B. TOWER TYPE/HEIGHT: Monopole 120' height
- C. <u>SITE TOPOGRAPHY AND SURFACE</u>: The topography of the Site is relatively level. The Site is partially developed and partially wooded.
- D. <u>SURROUNDING TERRAIN, VEGETATION, WETLANDS, OR WATER</u>: The Site contains sparse vegetation. The Site area is surrounded largely by developed commercial or industrial properties.
- E. <u>LAND USE WITHIN ¼ MILE OF SITE</u>: Much of the land within a quarter mile of the Site is commercial or industrial. There is an isolated residential property near the Site, but it is nestled in between commercial properties. The nearest residential neighborhoods are beyond a quarter of a mile on the other side of Route 40.

III. FACILITIES

- A. POWER COMPANY: United Illuminating
- B. <u>POWER PROXIMITY TO SITE</u>: Power is available from a transformer to a point on the Property near the proposed Site.
- C. TELEPHONE COMPANY: TBD.
- D. PHONE SERVICE PROXIMITY: Same as power.
- E. <u>VEHICLE ACCESS TO SITE</u>: Vehicle access to the Site would extend from Devine Street, which is to the east of the proposed tower location, across the southerly portion of the Site.
- F. OBSTRUCTION: TBD.
- G. <u>CLEARING AND FILL REQUIRED</u>: The Site is balanced with about 95 cubic yards of fill. No cut is required.

IV. LEGAL

- A. PURCHASE [] LEASE [X]
- B. OWNER: 424 Chapel Street LLC
- C. ADDRESS: 424 Chapel Street, North Haven, CT 06511
- D. DEED ON FILE AT: Town of North Haven

FACILITIES AND EQUIPMENT SPECIFICATION (NEW TOWER & EQUIPMENT)

I. TOWER SPECIFICATIONS:

A. MANUFACTURER: TBD

B. TYPE: Monopole

C. HEIGHT: 120'

D. DIMENSIONS: TBD.

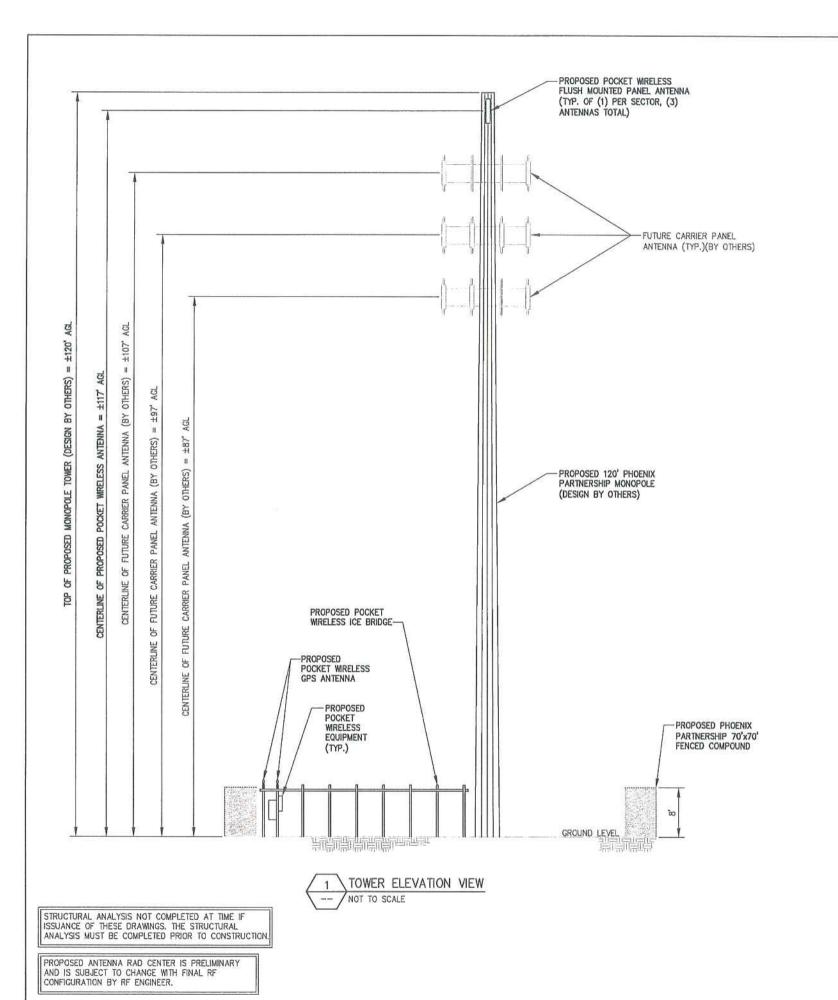
II. TOWER LOADING:

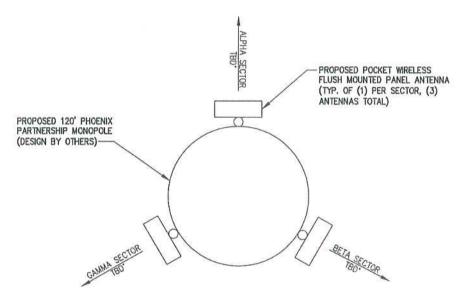
- A. Pocket
 - 1. MODEL: Three sectors, one antenna per sector.
 - 2. POSITION ON TOWER: Antenna centerline of 117' AGL on tower
 - 3. TRANSMISSION LINES: up to 6.
- B. Future Carriers TBD

III. ENGINEERING ANALYSIS AND CERTIFICATION:

In accordance with the 2005 Connecticut State Building Code and the Electronic Industries Association Standard EIA/TIA-222-G "Structural Standards for Steel Antenna Towers and Antenna Support Structures" for New Haven County, the tower would be designed to withstand pressures equivalent to a 105 MPH wind. The foundation design would be based on soil conditions at the Site.

ATTACHMENT D





2 ANTENNA SPECIFICATIONS
-- NOT TO SCALE

CONNE CONNE ISSUED FOR REVIEW SKB 05/26/0 rawn: 5X8 Date: 05/25/09 esigned: AGF Date: 05/25/09 hecked: SB Date: 05/25/09 NORTH HAVEN **CTNH 101** 50 DEVINE ST. NORTH HAVEN, CT 06473 Phoenix Partnership Drawing Scale;

AS NOTED

Date:
05/25/09

Z

Drawing Title

ELEVATION VIEW & DETAILS

Drawing Number

Z5

ENVIRONMENTAL ASSESSMENT STATEMENT

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 proposed Site. No significant changes to surface features (e.g. wetland fill, deforestation, water diversion) will result in connection with the proposed Site. No wetland areas or water courses are located at or near the proposed Site. The equipment used will discharge no pollutants to wetland and watercourse areas or to area groundwater. Best management practices will be used during construction to control storm water and erosion.

B. AIR QUALITY

Under ordinary operating conditions, the equipment that would be used at this proposed Site would emit no air pollutants of any kind. For limited periods during power outages, Pocket might choose to utilize a portable back-up generator.

C. LAND

Minimal grading would be required for development of the equipment compound and construction of the stone enclosure. Minimal tree removal or relocation would be required. The remainder of the Property would remain unchanged by the construction and operation of the Site.

D. NOISE

The equipment to be in operation at the proposed Site after construction would emit no noise other than from cooling fans within the equipment cabinets. A portable generator might be employed during power outages. Some noise is anticipated during Facility construction, which is expected to take approximately four to six weeks.

E. POWER DENSITY

The worst-case calculation of power density for operation of Phoenix's antennas at the Facility would be approximately 5.24% of the applicable FCC/ANSI standards. A report including calculations and explanations of the calculations is included herein.

F. VISIBILITY

Phoenix assessed the potential visibility of the proposed monopole tower within an approximate five mile radius using a computer-based, predictive viewshed model and a balloon float. Infinigy prepared a Visual Resource Evaluation Report (the "Report"), which contains detailed documentation regarding the visibility assessment of the Site. As shown in the viewshed model and the Report, areas with visibility are limited, with the majority of those areas consisting of transportation corridors such as Route 91, Route 40 and Route 5. These areas are within a one mile radius of the proposed Site. The proposed tower will not be visible from a distance of two miles or greater. Only a limited number of residences will have year round views of the proposed tower. The Viewshed Map is attached hereto.

II. SCENIC, NATURAL, HISTORIC & RECREATIONAL VALUES

A NEPA study has been completed for this site and a determination of no adverse impact has been reached. See NEPA Summary attached.

ATTACHMENT E



C Squared Systems, LLC 920 Candia Road Manchester, NH 03109 Phone: (603) 657 9702

support@csquaredsystems.com

Calculated Radio Frequency Emissions



NHCT0455A

50 Devine Street, North Haven, CT

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1. Introduction

The purpose of this report is to investigate compliance with applicable FCC regulations for the proposed Pocket antennas to be installed on the proposed monopole at 50 Devine Street, North Haven, CT.

These calculations assume that the antennas are operating at 100 percent capacity, that all antenna channels are transmitting simultaneously, and that the radio transmitters are operating at full power. Obstructions (trees, buildings etc.) that would normally attenuate the signal are not taken into account. As a result, the predicted signal levels are much more conservative (higher) than the actual signal levels will be from the finished installation.

Public exposure to radio frequencies is regulated and enforced in units of microwatts per square centimeter (mW/cm²). The number of mW/cm² emitted is called the power density. The general population exposure limit for the cellular band is 0.567-0.593 mW/cm², and the general population exposure limit for the PCS/AWS band is 1.0 mW/cm². Because each carrier will be using different frequency bands, and each frequency band has different exposure limits, it is necessary to report percent of MPE rather than power density.

The FCC general population / uncontrolled limits set the maximum exposure to which most people may be subjected. General population / uncontrolled exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or cannot exercise control over their exposure.

Higher exposure limits are permitted under the occupational / controlled exposure category, but only for persons who are exposed as a consequence of their employment and who have been made fully aware of the potential for exposure (through training), and they must be able to exercise control over their exposure. General population / uncontrolled limits are five times more stringent than the levels that are acceptable for occupational, or radio frequency trained individuals.

The FCC describes exposure to radio frequency (RF) energy in terms of percentage of maximum permissible exposure (MPE) with 100% being the maximum allowed. Rather than the FCC presenting the user specification in terms of complex power density figures over a specified surface area, this MPE measure is particularly useful, and even more so when considering that power density limits actually vary by frequency because of the different absorptive properties of the human body at different frequencies.

Finally, it should be noted that the MPE limits adopted by the FCC for both general population / uncontrolled exposure and for occupational / controlled exposure incorporate a substantial margin of safety and have been established to be well below levels generally accepted as having the potential to cause adverse health effects.

2. FCC Guidelines for Evaluating RF Radiation Exposure Limits

In 1985, the FCC established rules to regulate radio frequency (RF) exposure from FCC licensed antenna facilities. In 1996, the FCC updated these rules, which were further amended in August 1997 by OET Bulletin 65 Edition 97-01. These new rules include limits for Maximum Permissible Exposure (MPE) for transmitters operating between 300 kHz and 100 GHz. The FCC MPE limits are based on exposure limits recommended by the National Council on Radiation Protection and Measurements (NCRP), the exposure limits developed by the Institute of Electrical and Electronics Engineers, Inc., (IEEE) and adopted by the American National Standards Institute (ANSI).

Attachment B contains excerpts from OET Bulletin 65 and defines the Maximum Exposure Limit. As shown in these excerpts, each frequency band has different exposure limits, requiring power density to be reported as a percent of Maximum Permissible Exposure (MPE) when dealing with carriers transmitting in different frequency bands.

3. RF Exposure Prediction Methods

The emission field calculation results displayed in the following figures were generated using the following formula as outlined in FCC bulletin OET 65:

Power Density =
$$\left(\frac{1.6^2 \times EIRP}{4\pi \times R^2}\right)$$

Where:

EIRP = Effective Isotropic Radiated Power

R = Radial Distance = $\sqrt{(H^2 + V^2)}$

H = Horizontal Distance from antenna

V = Vertical Distance from bottom of antenna

1.6 is the ground reflection factor

4. Calculation Results

Table 1 below outlines the power density information for the site.

Carrier	Antenna Height (Feet)	Operating Frequency (MHz)	Number of Trans.	Power (ERP) Per Transmitter (Watts)	Power Density (mw/cm ²)	Limit	%МРЕ
Pocket	120	2130-2133.75	3	631	0.0524	1.0000	5.24%

Table 1: Proposed Carrier Information

5. Conclusion

The above analysis verifies that emissions from the proposed site will be well below the maximum power density levels as outlined by the FCC in the OET Bulletin 65 Ed. 97-01. Even when using conservative methods, the cumulative power density from the proposed transmit antennas at the proposed facility is well below the limits for the general public. The highest expected percent of Maximum Permissible Exposure at the base of the tower is 5.24% of the FCC limit.

As noted in the introduction, obstructions (trees, buildings etc.) that would normally attenuate the signal are not taken into account. As a result, the predicted signal levels are more conservative (higher) than the actual signal levels will be from the finished installation.

6. Statement of Certification

I certify to the best of my knowledge that the statements in this report are true and accurate. The calculations follow guidelines set forth in ANSI/IEEE Std. C95.3, ANSI/IEE Std. C95.1 and FCC OET Bulletin 65 Edition 97-01.

Tony Wells

C Squared Systems

May 18, 2009

Date

Attachment A: References

OET Bulletin 65 - Edition 97-01 - August 1997 Federal Communications Commission Office of Engineering & Technology

ANSI C95.1-1982, American National Standard Safety Levels With Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 300 kHz to 100 GHz. IEEE-SA Standards Board

IEEE Std C95.3-1991 (Reaff 1997), IEEE Recommended Practice for the Measurement of Potentially Hazardous Electromagnetic Fields - RF and Microwave. IEEE-SA Standards Board

Attachment B: FCC Limits For Maximum Permissible Exposure (MPE)

(A) Limits for Occupational/Controlled Exposure

Frequency Range	Electric Field Strength (E)	Magnetic Field Strength (E)	Power Density (S)	Averaging Time E ² , H ² or S	
(MHz)	(V/m)	(A/m)	(mW/cm^2)	(minutes)	
0.3-3.0	614	1.63	(100)*	6	
3.0-30 1842/f 30-300 61.4		4.89/f	$(900/f^2)^*$	6	
		0.163	1.0		
300-1500	型	=	f/300	6	
500-100,000	-	S	5	6	

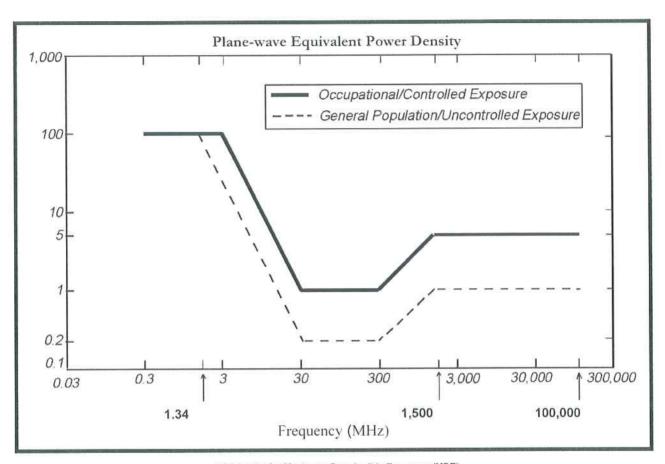
(B) Limits for General Population/Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (E) (A/m)	Power Density (S) (mW/cm²)	Averaging Time E ², H ² or S (minutes)	
0.3-1.34 614 1.34-30 824/f 30-300 27.5		1.63	(100)*	30	
		2.19/f	$(180/f^2)^*$	30 30	
		0.073	0.2		
300-1500	97	2 4 1	f/1500	30	
1500-100,000		1 (APC) 1 (APC)	1.0	30	

f = frequency in MHz * Plane-wave equivalent power density

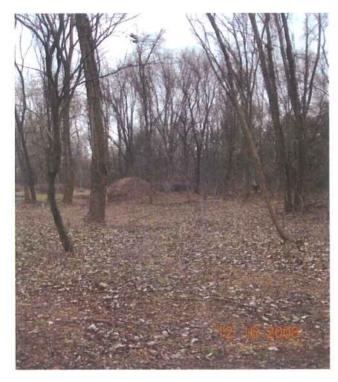
NOTE 1: Occupational/controlled limits apply in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure. Limits for occupational/controlled exposure also apply in situations when an individual is transient through a location where occupational/controlled limits apply provided he or she is made aware of the potential for exposure.

NOTE 2: General population/uncontrolled exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or can not exercise control over their exposure.



• FCC Limits for Maximum Permissible Exposure (MPE)

Visual Resource Evaluation Report



Proposed Telecommunication Facility

North Haven

50 Devine Street North Haven, Connecticut 06473

Prepared For:

Phoenix Partnership, LLC 110 Washington Avenue North Haven, CT 06473

Prepared By:

infinigy engineering & surveying

11 Herbert Drive Latham, New York 12110

Infinigy Project # 226-003

Site Report Issued:

May 5, 2009

Phoenix Partnership, LLC is currently proposing and seeking a permit for the construction of a 120-foot self supporting Monopole Telecommunications Facility to be located at 50 Devine Street in North Haven, Connecticut (Appendix A – Viewshed and Site Location Maps). *Infinigy Engineering & Surveying (Infinigy)* was retained by Phoenix Partnership, LLC, to conduct a Visual Resource Evaluation encompassing a five-mile radius (Study Area) from the Proposed Site known as North Haven.

The Proposed Project Facility includes a 120-foot monopole proximate to the eastern boundary of the Subject Property, adjacent to the eastern edge of existing pavement, in an area of known excavation and fill. The tower will be situated in the center of the 70-foot by 70-foot fenced equipment compound area. The proposed tower and fenced equipment compound are designed to provide space for future carrier's equipment and antenna structures. Access to the telecommunications facility will be from the existing paved parking areas. The proposed access and utility easement consists of a 15-foot wide access area and a 15-foot by 20-foot turn around area. The Site is located at an elevation of approximately 8 feet above mean sea level (AMSL).

PROJECT SITE SETTING

The Host Property consists of a ± 6.0 acre parent parcel of land zoned as General Industrial and identified on Tax Map Parcel #51, Lot# 021 on the current official tax map of the County of New Haven, is located between the former Humphrey Chemical Company, active portions of both ConRail and Amtrak Rail Lines and a vacant lot identified as "60 Devine Street" in the Town of North Haven, New Haven County, Connecticut. A Site Location Map is included in Appendix A. In addition to the proposed telecommunication facility, the host property is currently occupied by an approximately 40,000 square foot, single story steel warehouse building and associated asphalt driveways, and landscapes areas. Photographs of the proposed project area are included in Appendix C – Field Verified Viewshed Map.

The Site is generally characterized as a relatively level parcel consisting of a commercial building and surrounding asphalt parking and landscaped areas. Land use within the area surrounding the host parcel is a mixture of sparse residential, mixed commercial and light industrial uses. The topography of the Study Area is characterized by a north-south trending river valley area utilized as a transportation corridor surrounded by rolling hills and low mountain ridges. The overall topography of the area ranges in elevation from approximately 10 feet AMSL at the Project Site and along the Quinnipiac River to approximately 660 feet AMSL within Sleeping Giant State Park approximately 3.1 miles north of the Project Site.

The existing vegetative cover within the Study Area can be described as a combination of dense urban setting uses along the river valley and transportation corridor interspersed with lighter density residential communities towards the elevated areas further from the Project Site. The highland areas of the Study Area are comprised of mixed deciduous and coniferous (evergreen) forest.

To estimate the visibility associated with the Site, *Infinigy* evaluates the Project Site in two phases consisting of determining potential visibility using topographic relief as well as vegetative cover and a field investigation to verify the results of the topographic mapping. Zones of potential visibility within the Study Area are identified during the predictive mapping that is completed. Utilizing the visibility report generated by through topographic mapping and conservative tree cover estimates, *Infinigy* conducts a field investigation known as a "balloon float" to verify the findings of the visibility report. During the balloon float, a thorough drive through field investigation of the Study Area is completed to verify the visibility data, field check tower height, location and structure representations as well as document publicly accessible areas through a photographic log. Data obtained during the field investigation is analyzed and incorporated into the final viewshed map (Appendix A – Site Location Map).

COMPUTER MODELING VISIBILITY ANALYSIS

A computer modeling tool, ESRI's ArcView Spatial Analyst software, is utilized to calculate the areas from which the Site is expected to be visible. Information specific to the Site such as tower height and structure, significant objects and/or structures that would obstruct potential views, ground elevation, and surrounding topography is entered into the computer modeling program and interpreted during the modeling process.

Subsequent to data entry, constraints are applied to the computer model to more accurately define the potential visibility of the Site within the Study Area. During the initial computer analysis, the tree canopy is omitted and the only visual constraint evaluated is topography. This initial analysis provides a reference point that can be used to assist in the determination of seasonal visibility fluctuations. The actual average tree height for the Study Area is determined during the field investigation by visually inspecting the thoroughfares. The average tree canopy height, in the case of the proposed North Haven site, was determined to be 50 feet, was then incorporated into the final Viewshed Map.

An additional data layer depicting significant resource areas such as State Forests and Parks, recreational facilities, registered Historic sites, open space lands and other sensitive receptors was obtained from the Connecticut State Department of Environmental Protection (CTDEP). The data layer is added to the Viewshed map and is useful in identifying potential impacts to sensitive receptors within the Study Area.

STUDY AREA FIELD INVESTIGATION & BALLOON FLOAT

On April 24, 2009 *Infinigy* verified the computer modeling report and evaluated the potential visibility of the proposed Site by conducting a field investigation of the Study Area including a balloon float and drive through reconnaissance survey. The balloon float consists of fully inflating, raising and maintaining a tethered, 10-foot by 3-foot diameter weather balloon at the proposed Site at a height of 120 feet. The balloon was then stabilized while *Infinigy* personnel drove through local public thoroughfares throughout the Study Area to field verify

the visibility map and inventory areas of visibility. On the day of the field investigation, the temperature was approximately 71 degrees and the skies were clear and sunny with approximate wind speeds of 2 mph out of the south southwest.

PHOTOGRAPHIC EVALUATION LOG

In an effort to further define and evaluate the Viewshed map result, during the field investigation; *Infinigy* personnel conducted a drive through reconnaissance survey throughout the Study Area. Emphasis was placed on residential areas and additional areas that were determined to be potentially sensitive view shed receptors. Photographs were taken from a variety of locations, settings and vantage points to assist in evaluating where the balloon was visible from, including factors such as visibility above and below the tree canopy. A photographic log was maintained including locations, orientation and environmental factors, if applicable.

Photographs of the balloon from the locations summarized in the table below were taken with a NIKON Coolpix 7600 7.1 Megapixel camera which has a focal length equivalent to 35 mm camera with 38 to 115 mm zoom. Research suggests that the lens that most closely represents the unaided human eye is known as normal focal length lens. For a 35mm camera which produces a 24 x 36 mm image, the normal focal length is approximately 50mm. For the purposes of the Visual Resource Evaluation, the optical zoom lens for the NIKON Coolpix 7600 was set at the 50mm range for the purposes of most accurately representing the unaided human eye.

During the Study Area field investigation, the latitude and longitude of each photograph were recorded using a handheld GPS receiver unit. The geographic coordinate data of each location was then plotted on the Photo Location Map, included as Appendix B.

Photo	View Direction	Location	Coordinates	Visible	
1	West	Route 40 North	N 41° 22'589"	Visible	
(Simulation 1)		Ramp	W 72 °52'297"		
2 (Simulation 2)	NNE	Route 5	N 41° 22'383" W 72° 53'097"	Visible	
3 (Simulation 3)	East	Devine Street	N 41° 22'677" W 72° 52'737"	Visible	
4	SSW	Route 5	N 41° 23'438" W 72° 52'313"	Not Visible	
5 (Simulation 4)	Southeast	Hartford and Devine Street	N 41° 22'889" W 72° 52'972"	Visible	
6	Southeast	Route 15 and Ridge Road Overpass	N 41° 23'162" W 72° 53'383"	Not Visible	
7 (View Attached)	SW	Stoddard Avenue and Elm	N 41° 23'168" W 72° 51'819"	Not Visible Screened by vegetation	
8 (View Attached)	Northwest	North Haven High School	N 41° 22'389" W 72° 51'823"	Limited visibility through winter vegetation	
9 (View Attached)	NNE	Route 5	N 41° 20'924" W 72° 53'589"	Limited visibility through winter vegetation	
10 (View Attached)	NNE	Route 5	N 41 22'027" W 72° 53'240"	Not Visible	
11	SSE	Hartford Turnpike	N 41° 24'979" W 72° 51'720"	Not Visible	
12	SSE	Corner of Mount Carmel Road and Hartford Turnpike	N 41° 25'965" W 72 51'149"	Not Visible	
13	South	Mansfield and Kings Highway	N 41° 23'970" W 72° 52'954"	Not Visible	
14	WSW	Mill Road School	N 41° 23'139" W 72° 50'313"	Not Visible	
15 (View Attached)	South	Route 5	N 41° 23'139" W 72° 52'469"	Visible	
16 (View Attached)	South	Route 5	N 41° 22'912" W 72° 52'599"	Limited visibility through winter vegetation	
17 (Simulation 5)	South	Route 5	N 41° 22'826" W 72° 52'630"	Limited visibility through winter vegetation	

PHOTOGRAPHIC SIMULATION METHODOLOGY

The proposed Tower is constructed in 3D modeling software according to client specifications which include variables such as tower height and structure, various antennae design layouts and associated ground equipment. Terrain and aerial imagery are imported from public sources. The proposed tower is then located at the appropriate ground location at the latitude and longitude coordinates provided by the client.

Cameras are then set up within the modeling software using coordinates provided to match locations of file photography. The "virtual camera" view moves the proposed tower to the appropriate distance and elevation relative to the viewer as well as the approximate view to the left or right. Field Photography is subsequently imported into the modeling software to align the proposed tower with the balloon in the image. This is done to more accurately assess the proposed location, as the modeling software assumes the balloon will be centered in the field of view. The proposed Tower, now accurately constructed as a 3D model within the software, is exported out of the modeling software using the camera shots created with the 'virtual camera" set up to match field photo locations. Using 2D graphics software, the field photography and 3D modeling data are combined, removing data that would not be visible due to tree lines or structures (aerial photography is used to determine locations of obstructions relative to tower) and adding light and shadows.

Infinigy utilizes the location of the balloon as well as the simulation methodology previously discussed to accurately simulate the visual presence the tower will have from that location.

Photographic simulations were generated for five (5) of the seventeen (17) locations identified above. Additionally, locations where the proposed tower was field verified to be visible or areas of significance, were enhanced to identify the location of the proposed tower and included within Appendix D - Photographs & Simulations. The photographic simulations represent an accurately scaled depiction of the proposed monopole tower. The locations and the orientations of the simulation photos are detailed below:

- 1. View from Route 40 North Ramp facing west
- 2. View from Route 5 facing North Northeast
- 3. View from Devine Street facing East
- 4. View from Hartford Street and Devine Street facing Southeast
- 5. View from Route 5 facing South

The Viewshed Map presents a conservative description of the analysis within the five (5) mile Study Area through publicly available thoroughfares. Based upon this analysis, any area where the data illustrates any portion of the proposed structure is visible is presented as a "visible" area. At the time of the site investigation the seasonal conditions were winter, leaf off conditions, which typically provides the "worst-case" scenario for determining potential visibility.

In addition to the protected Municipal and Non-municipal properties that are identified on the Viewshed Map, the map also illustrates the areas where views of the proposed structure are blocked due to topography (lavender), vegetation and/or structures (dark gray hatching) and where the proposed structure *will be* visible (pink).

Based upon this analysis, the proposed structure will not be visible in areas located at a distance of two (2) miles or greater from the proposed site. For this reason and to more accurately represent the acreage determinations that are discussed below, the total acreage referenced for the Study Area that is further discussed below is based upon a two (2) mile (approximately 8,042 acres) radius instead of the initial five (5) mile radius. Based upon this two (2) mile Study Area, areas from which the proposed structure will be visible above or through the tree canopy, during leaf off conditions, comprise approximately 78 acres, less than one percent of the 8,042 acre Study Area. Of this total, approximately 6 acres are situated on the host parcel known as "50 Devine Street" which consists mainly of a developed commercial and light industrial area.

As illustrated on the Viewshed Map, the majority of the area from which the proposed structure will be visible is within the one (1) mile radius and is confined to the transportation corridors of Route 91, Route 40 and Route 5 with the exception of smaller areas of visibility located to the north and southeast. Additionally, along the transportation corridors the view is largely confined to the elevated highways and overpasses. It is estimated that only limited residences within the Study Area will have year round views of the proposed structure. These residences are located along Route 5 within mixed commercial/residential areas.

No views of the proposed structure are anticipated from the Pines Bridge Historic District located approximately 0.70 miles north, the Wilbur Cross Highway or the surrounding Sleeping Giant, Quinnipiac or Wharton Brook State Parks located between two (2) and five (5) miles to the north.

The majority of the areas where the proposed structure will be visible are transportation corridors and commercially dense areas with only limited residential uses. Based upon this visual analysis, the proposed 120' monopole will not have a significant adverse impact on the surrounding area.

APPENDICES

Appendix A – Site Location Map

Appendix B – Photo Location Map

Appendix C – Field Verified Viewshed Map

Appendix D - Photographs & Simulations

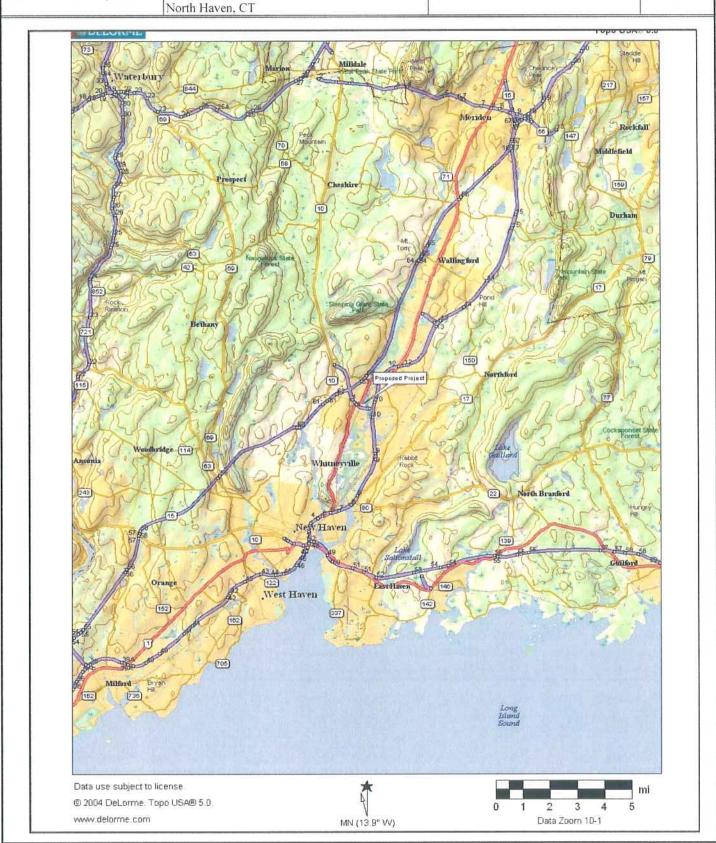
APPENDIX A SITE LOCATION MAP



11 Herbert Drive Latham, New York 12110

SITE LOCATION MAP

CLIENT NAME: Phoenix Partnership, LLC SITE LOCATION: 50 Devine Street PROJECT NAME: North Haven PROJECT NO. 226-003



APPENDIX B PHOTO LOCATION MAP



11 Herbert Drive Latham, New York 12110

PHOTO LOCATION MAP 2 MILE RADIUS

Phoenix Partnership, LLC

PROJECT NO.: 226-003 PROJECT NAME: North Haven SITE LOCATION: 50 Devine Street North Haven, CT CLIENT NAME:

72"52'30 83" W

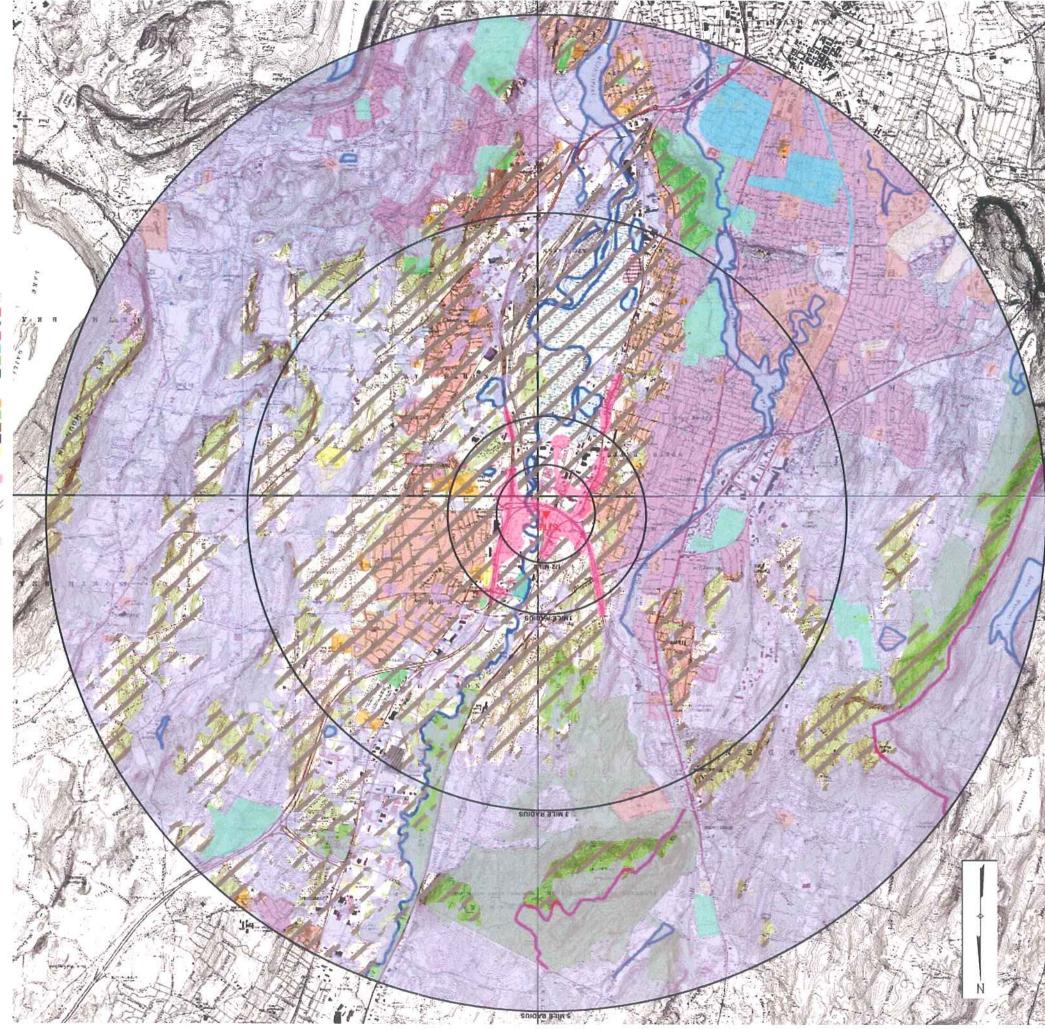


11 Herbert Drive Latham, New York 12110

PHOTO LOCATION MAP **5 MILE RADIUS**

PROJECT NO.: 226-003 PROJECT NAME: North Haven SITE LOCATION: 50 Devine Street North Haven, CT CLIENT NAME: Phoenix Partnership, LLC

APPENDIX C FIELD VERIFIED VIEWSHED MAP





COMPLETED BY:

Proposed tower is blocked
by topography - will not be
visible from these areas.
tall structures or buildings.
Wisible areas
Visible areas
Protected Properties (Municipal)
Cemetery
Cemetery
Conservation
Existing Preserved Open Space
School
School
School
State Park
Historic Preserve
State Park
Malerbody
Wetlands
Wetlands

TEGEND

APRIL 29th, 2009

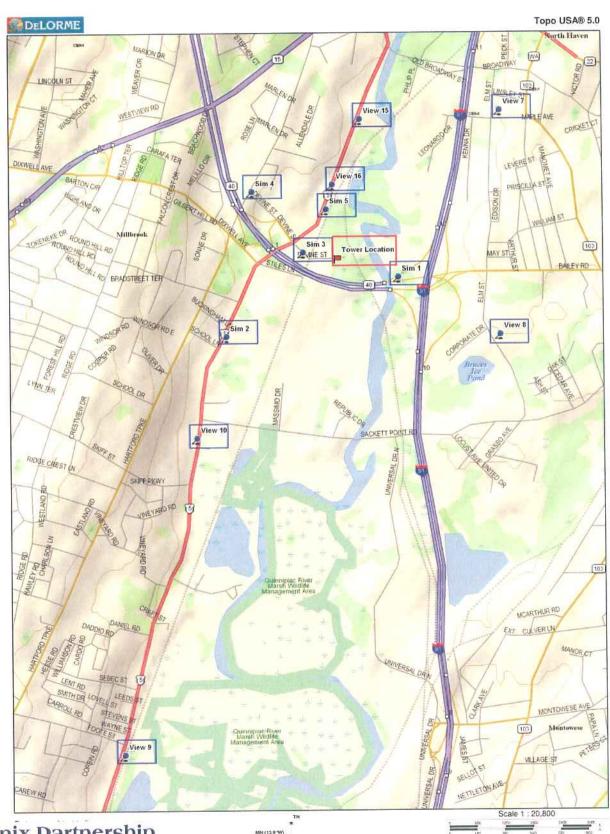
M: 72-52-33.8 NEW HAVEN, CT 06473 NORTH HAVEN

bbodosed heighl 150, 2-MITE AIEMSHED

VALUE AND ALE MENTED

APPENDIX D PHOTOGRAPHS AND SIMULATIONS

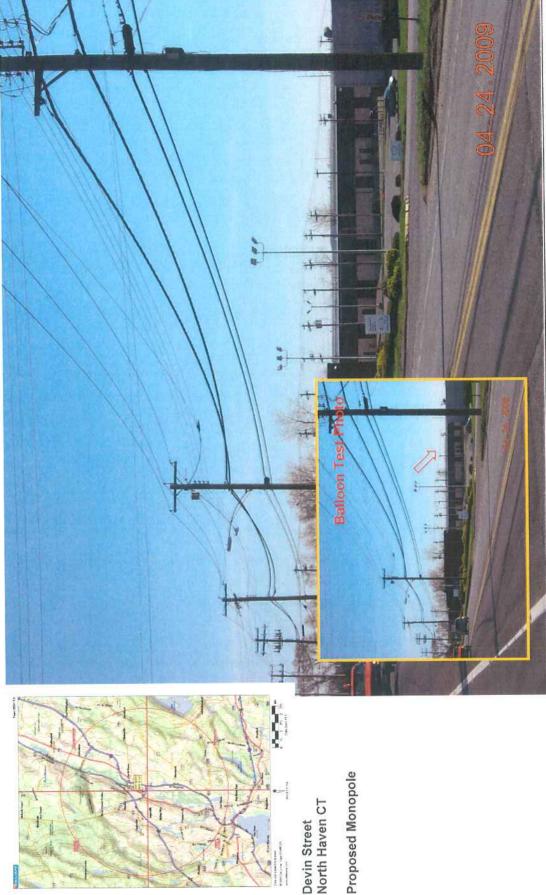
Photographic Locations





Phoenix Partnership

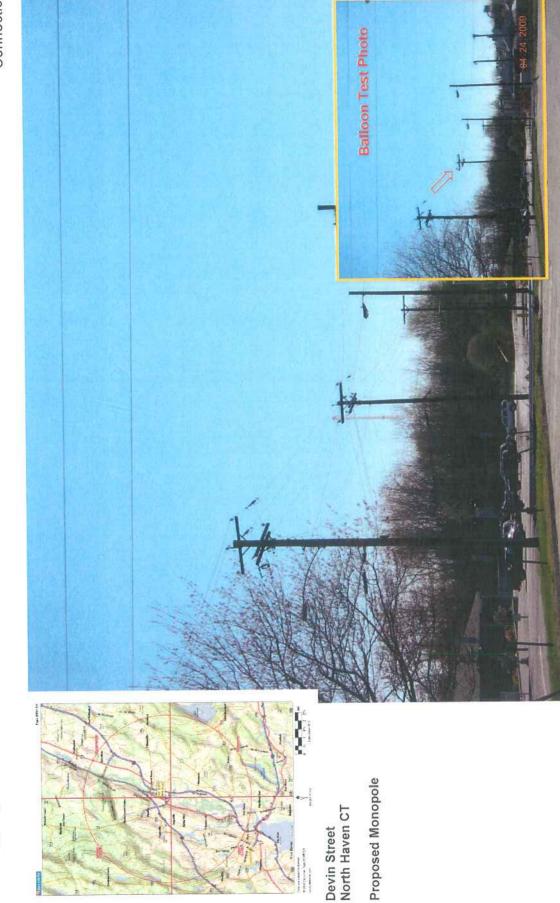
PHOTO TAKEN FROM ROUTE 40 NORTH RAMP, LOOKING WEST. DISTANCE FROM THE PHOTOGRAPH LOCATION TO THE PROPOSED SITE IS 0.24 MILE+/-



Devin Street North Haven CT

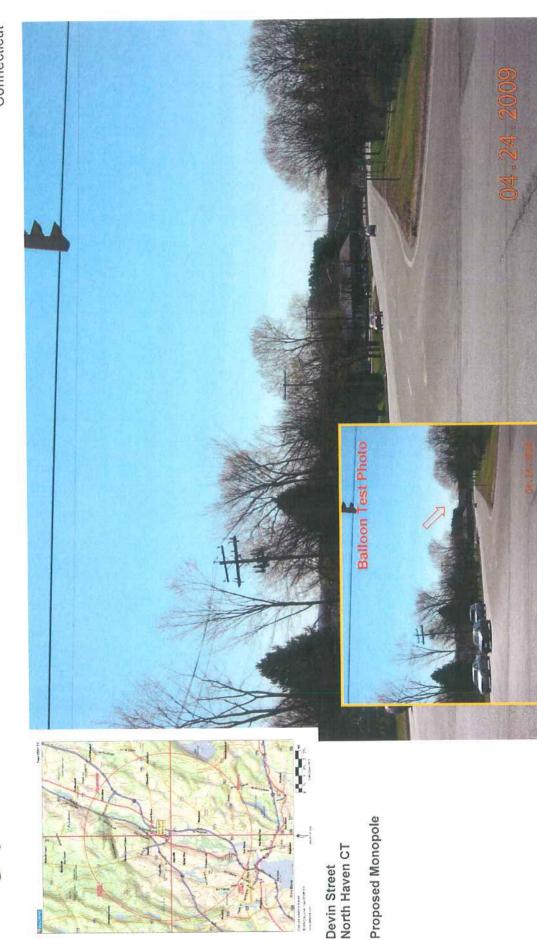
Phoenix Partnership

PHOTO TAKEN FROM ROUTE 5, LOOKING NORTH NORTHEAST. DISTANCE FROM THE PHOTOGRAPH LOCATION TO THE PROPOSED SITE IS 0.56 MILE+/-



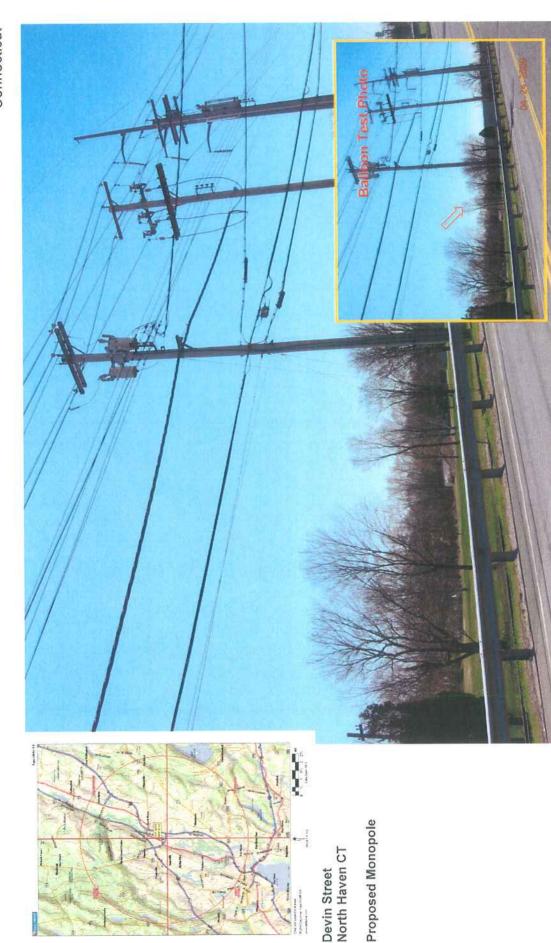
Phoenix Partnership PHOTO

PHOTO TAKEN FROM DEVINE STREET, LOOKING EAST.
DISTANCE FROM THE PHOTOGRAPH LOCATION TO THE PROPOSED SITE IS 0.15 MILE+/-



Phoenix Partnership

PHOTO TAKEN FROM HARTFORD DRIVE AND DEVINE STREET, LOOKING SOUTHEAST. DISTANCE FROM THE PHOTOGRAPH LOCATION TO THE PROPOSED SITE IS 0.44 MILE+/-



Phoenix Partnership PHG

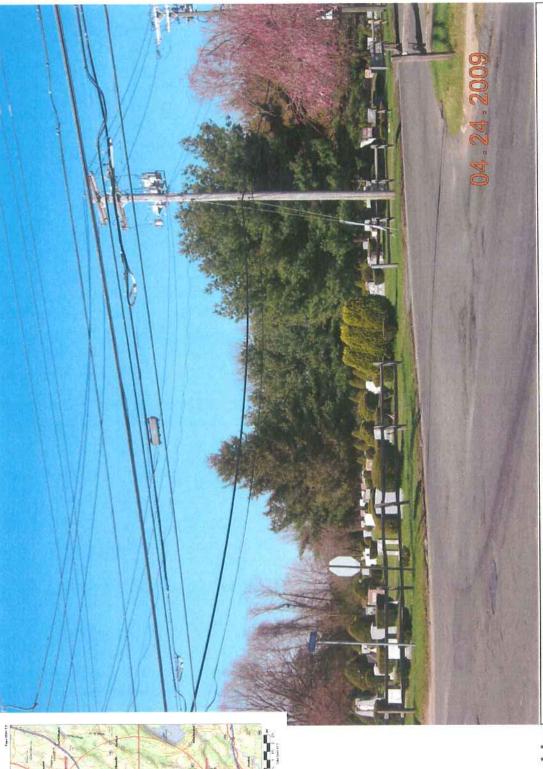
PHOTO TAKEN FROM ROUTE 5, LOOKING SOUTH.

DISTANCE FROM THE PHOTOGRAPH LOCATION TO THE PROPOSED SITE IS 0.20 MILE+/-



Devin Street North Haven CT

Proposed Monopole



Phoenix Partnership

PHOTO TAKEN FROM STODDARD AVENUE AND ELM, LOOKING SOUTHWEST. BALLOON NOT VISIBLE. DISTANCE FROM THE PHOTOGRAPH LOCATION TO THE PROPOSED SITE IS 0.87 MILE+/-

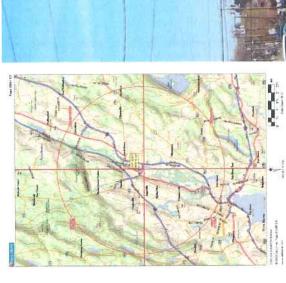


Devin Street North Haven CT Proposed Monopole

Phoenix Partnership

PHOTO TAKEN FROM NORTH HAVEN HIGH SCHOOL, LOOKING NORTHWEST.

DISTANCE FROM THE PHOTOGRAPH LOCATION TO THE PROPOSED SITE IS 0.71 MILE+/-





Proposed Monopole



PHOTO TAKEN FROM ROUTE 5, LOOKING NORTH.

DISTANCE FROM THE PHOTOGRAPH LOCATION TO THE PROPOSED SITE IS 2.18 MILE+/-

Phoenix Partnership

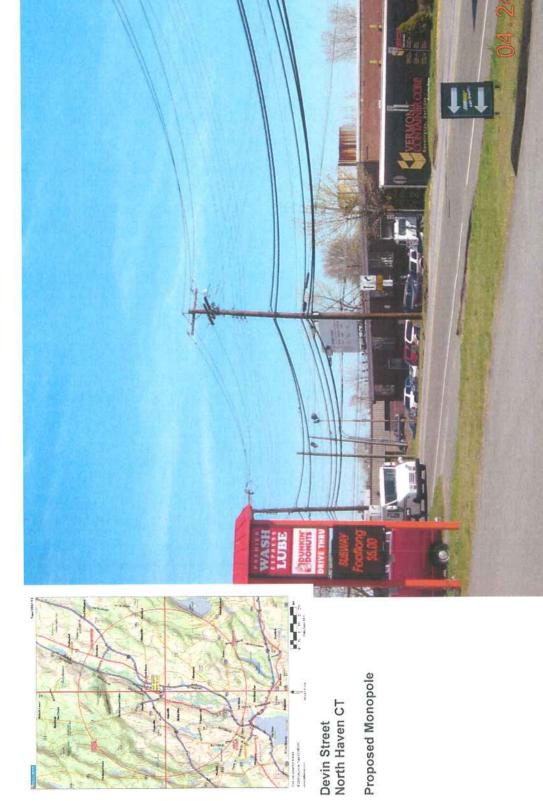
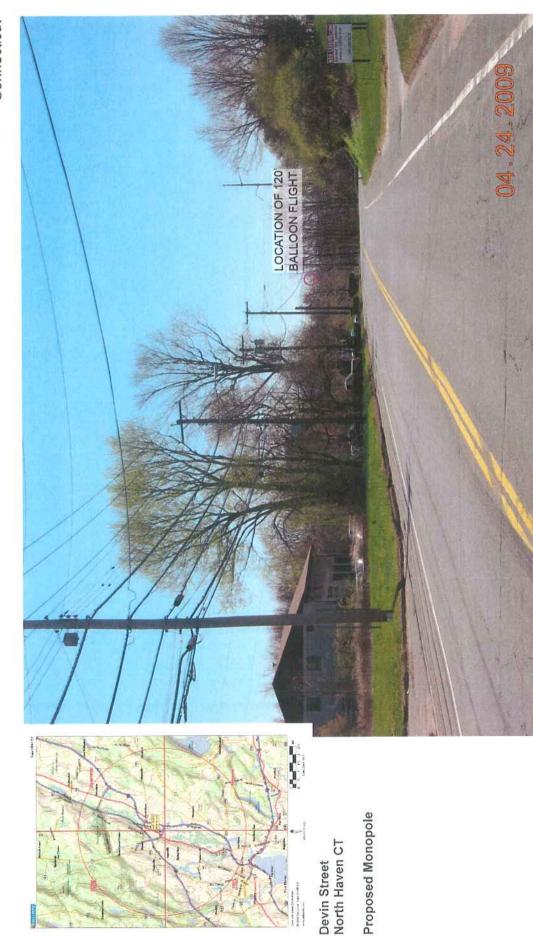


PHOTO TAKEN FROM ROUTE 5, LOOKING NORTHEAST. BALLOON NOT VISIBLE.

DISTANCE FROM THE PHOTOGRAPH LOCATION TO THE PROPOSED SITE IS 0.94 MILE+/-

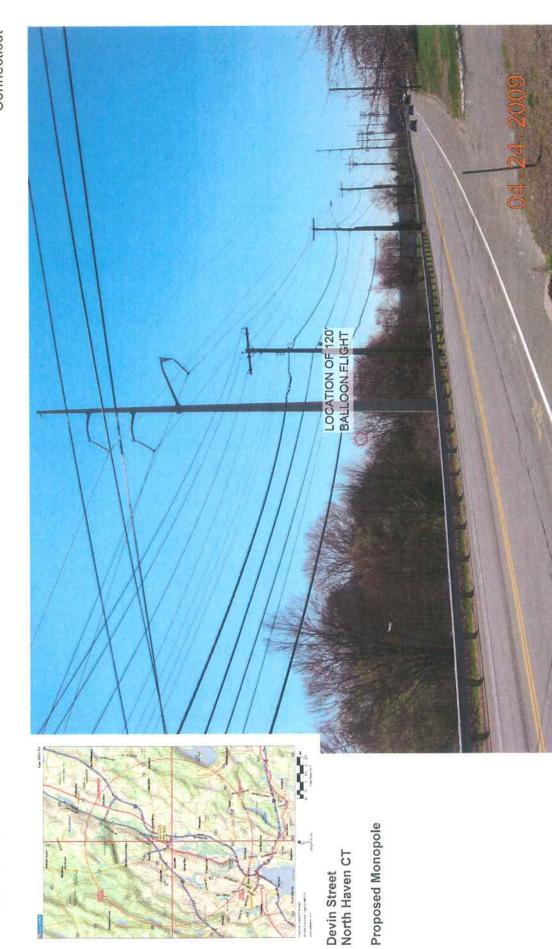
Phoenix Partnership



Phoenix Partnership

PHOTO TAKEN FROM ROUTE 5, LOOKING SOUTH.

DISTANCE FROM THE PHOTOGRAPH LOCATION TO THE PROPOSED SITE IS 0.55 MILE+/-



Phoenix Partnership

PHOTO TAKEN FROM ROUTE 5, LOOKING SOUTH.

DISTANCE FROM THE PHOTOGRAPH LOCATION TO THE PROPOSED SITE IS 0.29 MILE+/-

National Environmental Policy Act (NEPA) Screening Report



Prepared For:

Florida Tower Partners, LLC 401 N. Cattleman Road, Ste. 305 Sarasota, FL 34232

50 Devine Street

J. Cohn and Sons 50 Devine Street North Haven, Connecticut 06473

Infinigy Project # 226-003

Site Report Issued: April 2, 2009

FCC NEPA Summary Report (47 CFR Subpart I, Chapter I, Sections 1.1301 – 1.1319)

NATIONAL ENVIRONMENTAL POLICY ACT (NEPA)

The National Environmental Policy Act (NEPA) of 1969, the basic national charter for protection of the environment, requires all Federal agencies to incorporate environmental considerations into the decision making process. As a licensing agency, the Federal Communications Agency (FCC) requires all of its licensees, such as wireless communication service provider facilities, to review the potential environmental consequences of their proposed actions. The FCC's regulations for implementing NEPA are found at Title 47 of the Code of Federal Regulations, Part 1, Subpart I, rule sections 1,1301 to 1,1319.

The FCC NEPA regulations define specific situations under §1.1306 that "categorically exclude" certain undertakings from "environmental processing" all actions except those actions specifically identified and defined under §1.1307. Therefore, it is understood that if a proposed facility project site does not and of the listed categories identified in §1.1307, the project is deemed to have *No Significant Impact* and no submission or further action with regard to the FCC is required. However, it is recommended that the client maintain copies of the documentation supporting the finding of No Significant Impact in the event that the information is requested by the FCC (§1.13079).

For applications where it is determined the proposed project may have a significant impact as defined under \$1.1308, The FCC's NEPA regulations require license applicants to prepare an Environmental Assessment (EA) and file the EA with the FCC for review by the FCC Enforcement Division. If, after consulting with all appropriate agencies, the Enforcement Division determines that the proposed project will have significant impact upon the environment, the licensee is given the opportunity to mitigate the environmental effects and amend its original application. If the Environmental Division agrees that the mitigation measures taken eliminate the negative environmental impacts they will issue a Finding of No Significant Impact (FONSI) and approve the application.

If the Enforcement Division determines a FONSI is not applicable the applicant must prepare an Environmental Impact Statement (EIS) under §1.1304.

Pursuant to the FCC's regulations, the NEPA Screening prepared by *Infinigy* provides a determination of whether the proposed telecommunications facility will have a significant impact on the environment and therefore be categorically excluded from further environmental processing or review.

Under FCC NEPA regulation §1.1307, an Environmental Assessment must be prepared for any project site that meets one of the following listed conditions:

- · Facility is located in an officially designated wilderness area
- Facility is located in an officially designated wildlife preserve
- Facilities that will likely affect listed, threatened or endangered species or designated critical habitats; are likely to jeopardize the continued existence of any proposed threatened or endangered species or designated critical habitats or likely to result in the destruction or adverse modification or proposed critical habitats as defined within the Endangered Species Act of 1973.
- Facilities that may affect districts, sites, buildings or other structures that are considered significant in American history, architecture, archaeology, and engineering or culture that are listed or are eligible for listing in the National Register of Historic Places.

- · Facilities that may affect religious Indian religious sites.
- Facilities located within a flood plain.
- · Facilities that involve significant changes in surface features.
- Antenna towers equipped with high intensity white lights tat are located within a residential neighborhood.
- Facilities that may result in human exposure to radiofrequency radiation in excess of the applicable safety standards (§1.1307).

This NEPA Screening Report has been prepared for the proposed telecommunications facility known as FTP/White Horse Pike and is a summary of the actions *Infinigy* undertook to ensure that the proposed FTP telecommunications facility would not significantly impact any of the FCC NEPA items referenced above.

PROJECT SUMMARY

Infinigy has completed the NEPA Screening for the proposed Florida Tower Partners, LLC project site known as FTP/Devine Street located at 50 Devine Street in North Haven, New Haven County, Connecticut. The Subject Property for the proposed telecommunications facility is situated within an industrial/commercial area. The area surrounding the Subject Property is composed primarily of commercial and industrial uses and limited residential structures. The Subject Property is within a highly urbanized and developed area.

The Subject Property consists of a ± 6.0 acre parent parcel of land, specifically, the proposed seventy by seventy foot (70° X 70°) compound and surrounding lease area, zoned as General Industrial. Florida Tower Partners proposes to install a 150-foot monopole proximate to the eastern boundary of the Subject Property, adjacent to the eastern edge of existing pavement, in an area of known excavation and fill. The tower will be situated in the center of the 70-foot by 70-foot fenced equipment compound area. The proposed tower and fenced equipment compound are designed to provide space for future carrier's equipment and antenna structures. Access to the telecommunications facility will be from the existing paved parking areas. The proposed access and utility easement consists of a 15-foot wide access area and a 15-foot by 20-foot turn around area

SUMMARY OF FINDINGS

§1.1307 (a) (1) OFFICIALLY DESIGANTED WILDERNESS AREA

According to a review of the Land Resources Map (Appendix F) and the Department of Agriculture's list of wilderness areas (http://www.wilderness.net/index.cfm?fuse=NWPS). the Project Site is not located in an officially designated wilderness area. In addition, according to *Infinigy's* review of available on-line resources, the Project Site is not located in a National Park (www.nps.gov/gis), NPS Interactive Map Center), a designated Scenic and Wild River (http://www.rivers.gov/wildriverslist.html), a land area managed by the Bureau of Land Management (www.blm.gov/nhp/facts/index.htm), or within ½ mile of a National Scenic Trail as identified by the National Park Service (http://www.nps.gov/ncrc/programs/nts/nts_trails.html).

It is the opinion of *Infinigy* that the proposed project will have no significant impact with regard to this FCC NEPA regulatory item.

§1.1307 (a) (2) OFFICIALLY DESIGNATED WILDLIFE PRESERVE

According to a review of the Department of Interior, Department of Fish and Wildlife Service's Wildlife Refuge Profile Page for Connecticut, the Project Site is not located in an officially designated wildlife preserve. In addition, according to Infinigy's review of available on-line resources, the Project Site is not located in a United States Fish and Wildlife Service National Wildlife Refuge (http://www.fws.gov/refuges/profiles/index.cfm?id=53546).

It is the opinion of *Infinigy* that the proposed project will have no significant impact with regard to this FCC NEPA regulatory item.

§1.1307 (a) (3) <u>LISTED, THREATENED OR ENDANGERED SPECIES/DESIGNATED</u> CRITICAL HABITATS

Section 1.1307(a)(3) of the Commission's rules, 47 C.F.R. §1.1307(a)(3), requires applicants, licensees, and tower owners (Applicants) to consider the impact of proposed facilities under the Endangered Species Act (ESA), 16 U.S.C. s. 1531 et seq. Applicants must determine whether any proposed facilities may affect listed, threatened or endangered species or designated critical habitats, or are likely to jeopardize the continued existence of any proposed threatened or endangered species or designated critical habitats. Applicants are also required to notify the FCC and file an environmental assessment if any of these conditions exist.

According to the US Department of Interior Fish and Wildlife Services "Service Guidance on the Siting, Construction, Operation and Decommissioning of Communications Towers" the construction of new towers creates a potentially significant impact on migratory birds, especially some 350 species of night-migrating birds. The Guidance document further states that The Migratory Bird Treaty Act (16 U.S.C. 703-712) prohibits the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests, except when specifically authorized by the Department of the Interior. While the Act has no provision for allowing unauthorized take, it must be recognized that some birds may be killed at structures such as communications towers even if all reasonable measures to avoid it are implemented. The Service's Division of Law Enforcement carries out its mission to protect migratory birds not only through investigations and enforcement, but also through fostering relationships with individuals and industries that proactively seek to eliminate their impacts on migratory birds. While it is not possible under the Act to absolve individuals or companies from liability if they follow these recommended guidelines, the Division of Law Enforcement and Department of Justice have used enforcement and prosecutorial discretion in the past regarding individuals or companies who have made good faith efforts to avoid the take of migratory birds.

In an effort to streamline the evaluation process and aid in the siting of proposed facilities, the following voluntary guidelines and recommendations were established:

- Any company/applicant/licensee proposing to construct a new communications tower should be strongly encouraged to co-locate the communications equipment on an existing communication tower or other structure (e.g., billboard, water tower, or building mount). Depending on tower load factors, from 6 to 10 providers may collocate on an existing tower.
- 2. If collocation is not feasible and a new tower or towers are to be constructed, communications service providers should be strongly encouraged to construct towers no more than 199 feet above ground level (AGL), using construction techniques which do not require guy wires (e.g., use a lattice structure, monopole, etc.). Such towers should be unlighted if Federal Aviation Administration regulations permit.
- 3. If constructing multiple towers, providers should consider the cumulative impacts of all of those towers to migratory birds and threatened and endangered species as well as the impacts of each individual tower.
- 4. If at all possible, new towers should be sited within existing "antenna farms" (clusters of towers). Towers should not be sited in or near wetlands, other known bird concentration areas (e.g., state or Federal refuges, staging areas, rookeries), in known migratory or daily movement flyways, or in habitat of threatened or endangered species. Towers should not be sited in areas with a high incidence of fog, mist, and low ceilings.
- 5. If taller (>199 feet AGL) towers requiring lights for aviation safety must be constructed, the minimum amount of pilot warning and obstruction avoidance lighting required by the FAA should be used. Unless otherwise required by the FAA, only white (preferable) or red strobe lights should be used at night, and these should be the minimum number, minimum intensity, and minimum number of flashes per minute (longest duration between flashes) allowable by the FAA. The use of solid red or pulsating red warning lights at night should be avoided. Current research indicates that solid or pulsating (beacon) red lights attract night-migrating birds at a much higher rate than white strobe lights. Red strobe lights have not yet been studied.
- 6. Tower designs using guy wires for support which are proposed to be located in known raptor or water bird concentration areas or daily movement routes, or in major diurnal migratory bird movement routes or stopover sites, should have daytime visual markers on the wires to prevent collisions by these diurnally moving species. (For guidance on markers, see Avian Power Line Interaction Committee (APLIC). 1994. Mitigating Bird Collisions with Power Lines: The State of the Art in 1994. Edison Electric Institute, Washington, D.C., 78 pp, and Avian Power Line Interaction Committee (APLIC). 1996. Suggested Practices for Raptor Protection on Power Lines. Edison Electric Institute/Raptor Research Foundation, Washington, D.C., 128 pp. Copies can be obtained via the Internet at http://www.eei.org/resources/pubcat/enviro/, or by calling 1-800/334-5453).
- 7. Towers and appendant facilities should be sited, designed and constructed so as to avoid or minimize habitat loss within and adjacent to the tower "footprint". However, a larger tower footprint is preferable to the use of guy wires in construction. Road access and fencing should be minimized to reduce or prevent habitat fragmentation and disturbance, and to reduce above ground obstacles to birds in flight.
- 8. If significant numbers of breeding, feeding, or roosting birds are known to habitually use the proposed tower construction area, relocation to an alternate site should be recommended. If this is

- not an option, seasonal restrictions on construction may be advisable in order to avoid disturbance during periods of high bird activity.
- 9. In order to reduce the number of towers needed in the future, providers should be encouraged to design new towers structurally and electrically to accommodate the applicant/licensee's antennas and comparable antennas for at least two additional users (minimum of three users for each tower structure), unless this design would require the addition of lights or guy wires to an otherwise unlighted and/or unguyed tower.
- 10. Security lighting for on-ground facilities and equipment should be down-shielded to keep light within the boundaries of the site.
- 11. If a tower is constructed or proposed for construction, Service personnel or researchers from the Communication Tower Working Group should be allowed access to the site to evaluate bird use, conduct dead-bird searches, to place net catchments below the towers but above the ground, and to place radar, Global Positioning System, infrared, thermal imagery, and acoustical monitoring equipment as necessary to assess and verify bird movements and to gain information on the impacts of various tower sizes, configurations, and lighting systems.
- 12. Towers no longer in use or determined to be obsolete should be removed within 12 months of cessation of use.

According to a letter received from the Department of Interior, Fish and Wildlife Service New England Field Office dated February 23, 2009, applicants are encouraged to review and adhere to the procedures set forth in Endangered Species Consultation Project Review for Projects with Federal Involvement (available on-line at

http://www.fws.gov/northeast/newenglandfieldoffice/EndangeredSpec-Consultation.htm). The letter further stated:

"Future Coordination with the Office Relative to New Communication Facilities"

We have determined that proposed projects are not likely to adversely impact any federally listed or proposed species when the following steps are taken to evaluate new communication facilities:

- 1. If the facility will be installed within or on an existing structure, such as in a church steeple or on the roof of an existing building, no further consultation with this office is necessary. Similarly, new antennas or towers in urban and other developed areas, in which no natural vegetation will be affected, do not require further review.
- 2. If the above criteria cannot be met, your review of our lists of threatened and endangered species locations within Vermont, New Hampshire, Rhode Island, Connecticut and Massachusetts may confirm that no federally-listed endangered or threatened species are known to occur in the town of county where the project is proposed.
- 3. If a listed species is present in the town or county where the project is proposed, further review of our lists of threatened and endangered species may allow you to concluded that suitable habitat for the species will not be affected. Based upon past experiences, we anticipate that there will be few, if any, projects that are likely to impact piping plovers, roseate terns, bog turtles, Jesup's milk-vetch, or other such species that are found on coastal beaches, riverine habitats or in wetlands because communication towers typically are not located in these habitats.

For projects that meet the above criteria, there is no need to contact this office for further project review. A copy of this letter should be retained in your file as the Service's determination that no listed species are present, or that listed species in the general area will not be affected. Due to the

high workload associated with responding to many individual requests for threatened and endangered species information, we will no longer be providing response letters for activities that meet the above criteria. This correspondence and the species lists remain valid until January 1, 2010. "

Additionally, in a letter dated February 3, 2009 Ms. Dawn M. McKay, a Biologist with the State of Connecticut Department of Environmental Protection stated, "According to our information there are no extant populations of federal or State Endangered, Threatened or Special Concern Species that occur on this property."

It is the opinion of *Infinigy* that the proposed project will have no significant impact with regard to this FCC NEPA regulatory item.

§1.1307 (a) (4) SECTION 106 CONSULATION

In 1966, the implementation of the National Historic Preservation Act (NHPA) successfully delegated Section 106 compliance to the individual State Historic Preservation Offices. The NHPA requires Federal agencies to consider the effects of discretionary Undertakings on Historic Properties that are included or eligible for inclusion in the National Register of Historic Places. In March 2005, the FCC adopted the National Programmatic Agreement (NPA) which effectively:

- excludes from Section 106 review certain Undertakings involving the construction and modification of Facilities, and
- streamlines and tailors the Section 106 review process for other Undertakings involving the construction and modification of Facilities.

Undertakings that fall within the Exclusions listed in the NPA III.A through III.F are exempt from Section 106 review by the SHPO/THPO, the FCC and the Council on Environmental Quality (CEQ). Thus, these excluded Undertakings shall not be submitted to the SHPO/THPO for review. Determinations that an exemption applies to an Undertaking and the supporting documentation should be retained by the Applicant. The NPA does not require the use of Secretary of Interior qualified staff to determine whether an exclusion applies.

If, upon review of the Exclusions listed in the NPA the applicant determines that the proposed telecommunication project does not fall within the Exclusion identified in the NPA, the applicant must initiate the Consultation process as set forth in Section 106 through submission of the appropriate FCC Form 620 (New Tower Construction) or FCC Form 621 (Co-location).

Infinigy reviewed the proposed project plans against the Exclusions of the Nationwide Programmatic Agreement Regarding the Section 106 National Historic Preservation Act review process (NPA). *Infinigy* concluded that the proposed tower construction does not meet any of the Exclusions listed in Section III of the NPA. Therefore, consultation with the New Jersey State Historic Preservation Office (SHPO) was required.

On January 8, 2009, *Infinigy* contracted Heritage Consultants, LLC to perform an evaluation of the proposed Project Site for the likelihood of containing archaeological resources. According to the report prepared by Heritage Consultants dated January 23, 2009, the findings concluded that,

"Due to the degree of disturbances noted within the currently proposed project area, it is highly unlikely that intact cultural remains exist within the Area of Potential Effect. It is the professional opinion of Heritage Consultants, LLC that additional archaeological investigations of the proposed telecommunications tower located at 50 Devine Street in North Haven, Connecticut are not warranted."

Infinigy's submitted project plans, the results of the archaeological survey, and a request for comment

on FCC Form 620 to the Connecticut SHPO on March 10, 2009. In a letter dated March 12, 2009 referencing the "50 Devine Street, North Haven, CT" project, from Mr. David Bahlman, the Deputy State Historic Preservation Officer of the Connecticut Commission on Culture and Tourism the following was stated;

"The State Historic Preservation Office has reviewed the above named project. This office expects that the proposed undertaking will have no effect on historic, architectural, or archeological resources listed on or eligible for the National Register of Historic Places."

It is the opinion of *Infinigy* that the proposed project will have no significant impact with regard to this FCC NEPA regulatory item.

In the unlikely event that unanticipated Historic Properties, cultural artifacts, archeological deposits, or human remains are inadvertently encountered during the proposed construction and associated excavation activities, Florida Tower Partners, LLC must halt activities immediately and contact the appropriate local officials and state agencies, in accordance with Federal and State regulations (36 CFR 800.13(b)).

§1.1307 (a) (5) INDIAN RELIGIOUS SITES

Based on the requirements of the Nationwide Programmatic Agreement Regarding the Section 106 National Historic Preservation Act Review Process (NPA), applicants must demonstrate "good faith efforts' to identify and Indian tribe or Native Hawaiian Organization (NHO) that attaches religious or cultural significance to Historic Properties that may be affected by the Undertaking. As stated within the FCC regulations, use the of FCC's Tower Construction Notification System (TCNS) to initiate consultation with Indian Tribes and NHO's, "shall constitute a reasonable and good faith effort with respect to ensuring Section 106 compliance *Infinigy* determined that Tribal and NHO Consultation was required for this project because the proposed tower construction did not meet Exclusions A, B, C or F of the NPA.

Infinigy submitted documentation regarding the proposed project to the FCC's Tower Construction Notification System (TCNS). On December 29, 2009 the FCC's TCNS sent the project information to Tribes listed on their database who have indicated that they have a geographic interest in the area of the proposed Project site. Additionally, if required *Infinigy* submitted follow-up requests for comment to each of the Tribes indicated by the TCNS to have a potential interest in the area of the project.

Tribal communication to date for this project is summarized in the following table.

Tribe Name	Initial Notification (via TCNS)	Response to Initial Contact	Second Contact Attempt	Response	Recommended Action
Mashantucket Pequot Tribe	12/29/2008	Interested in Consulting (TCNS Exclusion).	N/A	Letter rec'd 1/30/2009 – No Impact	No Further Action
Sequahna Mars - Narragansett Indian Tribe	12/29/2008	January 3, 2009 – Indicated interest and requested additional information (via TCNS).	Additional Requests via Email provided by Tribe: 01/30/2009 02/16/2009 03/16/2009 03/27/2009	No Response	No Further Action

In the unlikely event that unanticipated Historic Properties, cultural artifacts, archeological deposits, or human remains are inadvertently encountered during the proposed construction and associated excavation activities, Florida Tower Partners must halt activities immediately and contact the appropriate tribal governments, local officials and state agencies, in accordance with Federal and State regulations (36 CFR 800.13(b)).

It is the opinion of *Infinigy* that the proposed project will have no significant impact with regard to this FCC NEPA regulatory item.

Correspondence between *Infinigy* and the Tribes, including copies of the Tower Construction Notification System emails, follow-up correspondence, and Tribal responses are appended to this Report (Appendix E).

§1.1307 (a) (6) FEMA 100 YEAR FLOODPLAIN

Executive Order (EO) 11988 states that "each agency has a responsibility to evaluate the potential effects of any actions it may take in a floodplain; to ensure that its planning programs and budget request reflect consideration of flood hazards and floodplain management". Furthermore, EO 11988 Section 6 defines a "base flood" and "floodplain" as follows:

- The term "base flood" shall mean that flood which has a one percent or greater chance of occurrence in any given year.
- The term "floodplain" shall mean the lowland and relatively flat areas adjoining inland and coastal waters including flood prone areas of offshore islands, including at a minimum, that area subject to a one percent or greater chance of flooding in any given year.

In compliance with FCC 1.1307, Infinigy evaluated the potential that the proposed telecommunication facility would be located within the 100 year flood plain.

FEMA Floodplain Flood Insurance Rate Map data for Community Map #090086 Panel 0005B is attached as Appendix H. The proposed Project Site is not located within a 100-year floodplain. A USGS Topographic Map for the proposed project site is included in Appendix C.

It is the opinion of *Infinigy* that the proposed project will have no significant impact with regard to this FCC NEPA regulatory item.

§1.1307 (a) (7) IMPACTS TO SURFACE FEATURES

It is *Infinigy's* opinion that no documented or potential wetlands are located at or within a 100-foot radius of the proposed tower based upon the following facts:

- Limited or no hydric vegetation was observed at the tower site. Additionally, no surface water was observed at the proposed tower site.
- According to a review of the United States Fish and Wildlife National Wetlands Inventory
 Wetlands Mapper (information available online at
 http://wetlandsfws.er.usgs.gov/imf/imf.jsp?site=NWI_CONUS), no mapped wetlands are
 located at or within close proximity to the proposed tower site (Appendix H).
- According to the Natural Resources Conservation Service (NRCS) Web Soil Survey (WSS) website (http://websoilsurvey.nrcs.usda.gov/app/) the dominate soil composition in the vicinity of the Project Site is classified as Udorthents-Urban Land Complex (UdU). (Appendix C).

These soils are typically in areas of cut and fill. Where soil material has been removed, the material is typically similar in the subsoil or substratum of adjacent soils. In fill or disposal areas, the soil material has more variable characteristics because it usually consists of varying amounts of material from the subsoil and substratum of nearby soils. Slope is dominantly 2 to 6 inches, although it ranges from 0 to 10 percent.

Typically, the upper part 60 inches is silty clay loam, clay loam or silt loam. Some of the areas on terraces and flood plains have sandy and gravelly material. The available water capacity is variable, but it is dominantly low or very low in the root zone. Permeability is generally slow. The soil is firm and dense. Hard rains tend to seal the soil surface, reducing infiltration and restricting the emergence and growth of seedlings. In most areas, as with the proposed Project Site, these soils are at sites of new construction and many have little to no vegetative cover. Areas with these soils are very well suited for building sites.

The area proposed to be occupied by the Florida Tower Partner's telecommunications compound consists of previously disturbed and graded soils adjacent to an existing asphalt covered parking area. The proposed construction plans do not call for the removal of a significant amount of mature trees; therefore, the proposed installation will not result in deforestation. According to the proposed construction plans and onsite observations, surface water body diversion will not occur.

It is the opinion of *Infinigy* that the proposed project will have no significant impact with regard to this FCC NEPA regulatory item.

§1.1307 (a) (8) HIGH INTENSITY WHITE LIGHTS/RESIDENTIAL ZONING

The Federal Aviation Administration (FAA) requires the use of high intensity lights on towers over 499 feet above ground surface as part of aviation avoidance marking. Towers that are less than 499 feet above ground level are not required to be equipped with high intensity lights.

According to client representatives and site plans, the proposed installation is less than 499 feet above ground level and will not include high intensity white lights or be located in a residential neighborhood.

Based upon the information provided by FTP, it is the opinion of *Infinigy* that the proposed project will have no significant impact with regard to this FCC NEPA regulatory item.

\$1.1307 (a) (9) HUMAN RADIO FREQUENCY (RF) EXPOSURE

9a. Will the antenna structure equal or exceed total power (of all channels) of 2000 Watts ERP (3280 EIRP) and have antenna located less than 10 meters above the ground?

According to client representatives and site plans, the proposed installation will not include antennas located less than 10 meters above the ground and is therefore categorically excluded from additional RF compliance showings.

Based upon the information provided by FTP, it is the opinion of *Infinigy* that the proposed project will have no significant impact with regard to this FCC NEPA regulatory item.