

*Proposed Wireless
Telecommunications Facility*

95 Balance Rock Road
Hartland, Connecticut

Prepared for **New Cingular Wireless PCS, LLC**
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Visual Resource Evaluation

New Cingular Wireless PCS, LLC (“AT&T”) seeks approval from the Connecticut Siting Council for a Certificate of Environmental Compatibility and Public Need for the construction of a wireless telecommunications facility (“Facility”) to be located on property at 95 Balance Rock Road in the Town of Hartland, Connecticut (identified herein as the “host property”). Initially, AT&T selected a site location on the host property approximately 200 feet north of Balance Rock Road (the “Proposed Site”). AT&T subsequently identified a second location for consideration (“Potential Alternate Site”) on the host property roughly 500 feet north of Balance Rock Road and approximately 495 feet northeast of the originally Proposed Site. This Comparative Visual Resource Evaluation was conducted to assess the visibility of the two candidate site locations within a two-mile radius (“Study Area”). The Study Area also includes a small portion of the neighboring municipality of Granville, Massachusetts to the north. Attachment A contains a map that depicts the location of the proposed Facility and the limits of the Study Area.

Project Introduction

A proposed Facility at either candidate site location would include the installation of a 190-foot tall monopole tower with associated ground equipment to be located at its base. The monopole and ground equipment would be situated within a fence-enclosed compound. The originally proposed Facility would be located at a ground elevation of approximately 1,100 feet Above Mean Sea Level (AMSL) and the potential alternate site would be located at a ground elevation of approximately 1,135 feet AMSL. Access to either of the two candidate sites would be provided via a proposed, 12-foot wide gravel driveway that would extend to the respective compound areas in a northerly direction from Balance Rock Road.

Site Description and Setting

Identified in the Town of Hartland Tax Assessor’s records as Map 16/Block 07/Lot 038, the host property consists of approximately 12.1 acres of mostly wooded and undeveloped land. A rustic cabin, situated approximately 180 feet north of Balance Rock Road, and an adjacent shooting range are currently located on the host property. Land use within the general vicinity of the proposed candidate site locations and host property consists primarily of the undeveloped woodlands and low-density residential development. In total, the Study Area features approximately 43 linear miles of roadways, including portions of State Routes 20, 179 and 539.

The topography within the Study Area is characterized by rolling hills with ground elevations that range from approximately 525 feet AMSL to approximately 1,320 feet AMSL. The Study Area contains approximately 508 acres of surface water, dominated in large measure by the Barkhamsted Reservoir located roughly one mile to the west of the host property. The tree cover within the Study Area consists of mixed deciduous hardwood species interspersed with stands of mature evergreens and occupies approximately 7,060 acres of the 8,042-acre study area (88%). During the in-field activities associated with this

analysis, a laser range finder was used to determine the average tree canopy height throughout the Study Area. Numerous trees were selected for measurement and the average tree canopy was determined to be 65 feet.



METHODOLOGY

In order to represent the visibility associated with the proposed Facility, VHB uses a two-fold approach incorporating both a predictive computer model and in-field analysis. The predictive model is employed to assess potential visibility throughout the entire Study Area, including private property and/or otherwise inaccessible areas for field verification. A “balloon float” and Study Area drive-through reconnaissance are also conducted to obtain locational and height representations, back-check the initial computer model results and provide documentation from publicly accessible areas. Results of both activities are analyzed and incorporated into the final viewshed map. A description of the methodologies used in the analysis is provided below.

Visibility Analysis

VHB uses ArcGIS® Spatial Analyst, a computer modeling tool developed by Environmental Systems Research Institute, Inc., to calculate the areas from which at least the top of the proposed Facility is expected to be visible. Project- and Study Area-specific data were incorporated into the computer model, including Facility height, locations and ground elevations, underlying and surrounding topography and existing vegetation. Information used in the model included Connecticut LiDAR¹-based digital elevation data and a digital forest (or tree canopy) layer developed for the Study Area. The LiDAR-based Digital Elevation Model (DEM) represents ten-foot spatial resolution elevation information for the state of Connecticut that was derived through the spatial interpolation of airborne LiDAR-based data collected in the year 2000 and has a horizontal resolution of ten (10) feet. The LiDAR-based data was edited in 2007 made available by the University of Connecticut through its Center for Land Use Education and Research (CLEAR). To create the forest layer, mature trees and woodland areas depicted on aerial photographs (ranging in dates from 2004 to 2008) were manually digitized (hand traced) in ArcGIS®, creating a geographic data layer for inclusion in the computer model. The black and white, digital aerial photographs, obtained from the Connecticut Department of Transportation, were flown in the spring of 2004 and selected for use in this analysis because of their image quality and depiction of pre-leaf emergence (i.e., “leaf-off”) conditions. These photographs are half-foot pixel resolution. The more recent aerial photographs (2006 and 2008) were overlaid and evaluated to identify any new development resulting in the removal of trees.

¹ LiDAR is an acronym for Light Detection and Ranging. It is a technology that utilized lasers to determine the distance to an object or surface. LiDAR is similar to radar, but incorporates laser pulses rather than sound waves. It measures the time delay between transmission and reflection of the laser pulse.

Once the specific data layers were entered, the ArcGIS® Spatial Analyst Viewshed tool was applied to achieve an estimate of locations where the proposed Facility could be visible. First, only topography was used as a possible visual constraint; the tree canopy was omitted to evaluate potential visibility with no intervening vegetative screening. The initial omission of this data layer resulted in an excessively conservative prediction, but it provided an opportunity to identify areas within potential direct lines of sight of the Facility.

The forest data layer was then overlaid and built into the DEM, using a conservative average tree canopy height of 50 feet, to establish a baseline assessment of intervening vegetation. The resultant preliminary viewshed map was used during the in-field activities to compare the outcome of the initial computer modeling with observations of the balloon float to identify any significant deviations that may have occurred due to land use changes. Information obtained from the field reconnaissance was ultimately incorporated into the model to refine the viewshed map.

The average tree canopy height was also refined based on information collected in the field using a combination of a hand-held laser range finder, clinometer and comparative observations. The revised average tree canopy height, in this case 65 feet, was then incorporated into the model and the results displayed on the viewshed map. The forested areas were overlaid on the DEM with a height of 65 feet added to the base elevation and the visibility from within the Study Area calculated.

As a final step, the forested areas were extracted from the areas of visibility, using a conservative assumption that a person standing within the forest will not be able to view the proposed Facility beyond a distance of approximately 500 feet. Depending on the density of the intervening tree canopy and understory of the surrounding woodlands, it is assumed that some locations within this distance could provide visibility of at least portions of the proposed Facility at any time of the year. In “leaf-on” conditions, this distance may be overly conservative for most locations. However, for purposes of this analysis, it was reasoned that forested land beyond 500 feet of the proposed Facility would consist of light-impenetrable trees of a uniform height.

Also included on the map is a data layer, obtained from the State of Connecticut Department of Environmental Protection (“CTDEP”), which depicts various land and water resources such as parks and forests, recreational facilities, dedicated open space, CTDEP boat launches and other categories. Lastly, based on a review of information published by the Connecticut Department of Transportation (ConnDOT) and discussions with municipal officials in Hartland, VHB has determined that there are no state- or locally-designated scenic roads contained within the Study Area. Further, based on publicly-available information there are no ConnDOT Scenic Lands within the Study Area.

Balloon Float and Study Area Reconnaissance

On December 30, 2010 Vanasse Hangen Brustlin Inc., (VHB) conducted balloon floats at both candidate locations to further evaluate the potential viewshed of the sites within the Study Area. The balloon floats consisted of raising and maintaining four-foot diameter, helium-filled weather balloons at both sites at a height of 190 feet. A red balloon was flown at the Proposed Site and a black balloon was flown at the Potential Alternate Site location. Once the balloon was secured, VHB staff conducted a drive-by reconnaissance along the roads located within the Study Area to evaluate the results of the preliminary viewshed map and to document where the balloon was, and was not, visible above and/or through the tree canopy. VHB staff also hiked portions of the Tunxis Trail (part of the Connecticut Blue Blaze Trail System) and the Falls Brook Trail. During the balloon float, the temperature was approximately 40 degrees Fahrenheit with calm wind conditions and sunny skies.

Photographic Documentation

During the balloon float, VHB personnel drove the public road system and hiked portions of the two trails identified above to inventory those areas where the balloon was visible. The balloon was photographed from a number of representative vantage points to document the actual view towards the proposed Facility. VHB field personnel were also invited to obtain photographs from several private properties located along Balance Rock Road (Views 2 through 7). Locations where the balloon was not visible are also included. The locations of the photos are described in the table below:

View	Location	Orientation	Dist. To Prop. Site	Dist. To Alt. Site	Visibility
1	Intersection of North Hollow Road (Route 20) and Balance Rock Road	W	± 0.43-Mile	± 0.35-Mile	Non-Visible
2	Front Deck of #64 Balance Rock Road	NW	± 0.17-Mile	± 0.14-Mile	Seasonal (Prop)
3	Front Porch of #72 Balance Rock Road	NW (Prop)/N (Alt.)	± 0.09-Mile	± 0.13-Mile	Seasonal
4	Rear Yard of #72 Balance Rock Road	NW (Prop)/N (Alt.)	± 0.10-Mile	± 0.15-Mile	Year-Round (Prop) Seasonal (Alt)
5	Driveway of #88 Balance Rock Road	NE	± 0.07-Mile	± 0.16-Mile	Non-Visible (Prop) Seasonal (Alt)
6	Front Yard of #88 Balance Rock Road	NE	± 0.11-Mile	± 0.21-Mile	Non-Visible (Prop) Seasonal (Alt)
7	Rear Yard of #88 Balance Rock Road	NW	± 0.13-Mile	± 0.23-Mile	Year-Round (Prop) Non-Visible (Alt)
8	*Balance Rock Road Cul-de-Sac	NE	± 0.06-Mile	± 0.18-Mile	Seasonal
9	Existing Woods Road to Ski Cabin At Intersection with Tunxis Trail	NE	± 0.14-Mile	± 0.25-Mile	Seasonal (Prop) Non-Visible (Alt)
10	Existing Woods Road Leading to Ski Cabin	NE	± 0.20-Mile	± 0.31-Mile	Seasonal (Prop) Non-Visible (Alt)

11	Existing Woods Road Leading to Ski Cabin	NE	± 0.32-Mile	± 0.43-Mile	Seasonal (Prop) Non-Visible (Alt)
12	Ski Cabin	NE	± 0.41-Mile	± 0.51-Mile	Non-Visible
13	Falls Brook Trail Vista	SE	± 1.74-Mile	± 0.80-Mile	Non-Visible
14	Route 20	SE	± 1.43-Mile	± 1.46-Mile	Year-Round
15	Route 20	SE	± 1.63-Mile	± 1.61-Mile	Seasonal
16	North Hollow Road at Entrance to Tunxis Trailhead	S	± 0.42-Mile	± 0.33-Mile	Non-Visible
17	North Hollow Road at Wilderness School	SW	± 0.41-Mile	± 0.29-Mile	Non-Visible
18	Walnut Hill Road	NW	± 0.83-Mile	± 0.90-Mile	Non-Visible
19	Hartland School	NW	± 1.18-Mile	± 1.20-Mile	Non-Visible
20	Adjacent to #67 Hartland Boulevard	NW	± 1.45-Mile	± 1.45-Mile	Non-Visible
21	Adjacent to Berg Field	NW	± 1.52-Mile	± 1.53-Mile	Non-Visible

*Note: 24 mm lens setting employed to provide a greater field of view given the aspect and distance between the candidate site locations and the photographic locations.

Photographs of the balloon from the view points listed above were taken with a Nikon D-3000 digital camera body equipped with a Nikon 18-135 mm zoom lens. For the purposes of this analysis, a lens setting of 50 mm was utilized to obtain views of the balloon from distances beyond 0.50-mile, "The lens that most closely approximates the view of the unaided human eye is known as the normal focal-length lens. For the 35 mm camera format, which gives a 24x36 mm image, the normal focal length is about 50 mm." A lens setting of 24 mm was employed to obtain photographs of the balloon from locations less than 0.50 mile from the sites to provide a greater field of view given the aspect and distance between the sites and the photographic locations.

The locations of the photographic points are recorded in the field using a GPS-enabled tablet computer and were subsequently plotted on the maps contained in the attachments to this document.

Photographic Simulation

Photographic simulations were generated for the representative locations where one or both of the balloons was visible during the in-field activities. The photographic simulations portray a scaled rendering of the proposed Facility from these locations, with four wireless service providers represented. Using field data, site plan information and 3-dimension (3D) modeling software, a spatially referenced model of the site area was generated. Geographic coordinates (latitude and longitude) were collected in the field for all of the photograph locations via GPS and later used to generate virtual camera positions within the spatial 3D model. Photo simulations were then created using a combination of renderings generated in the 3D model and photo rendering software programs. The balloon was included in the

² Warren, Bruce. *Photography*, West Publishing Company, Eagan, MN, c. 1993, (page 70).

photographs to provide a visual marker and to cross-reference the height and proportions of the proposed Facility. A photolog map and the simulations are contained in Attachment A.

CONCLUSIONS

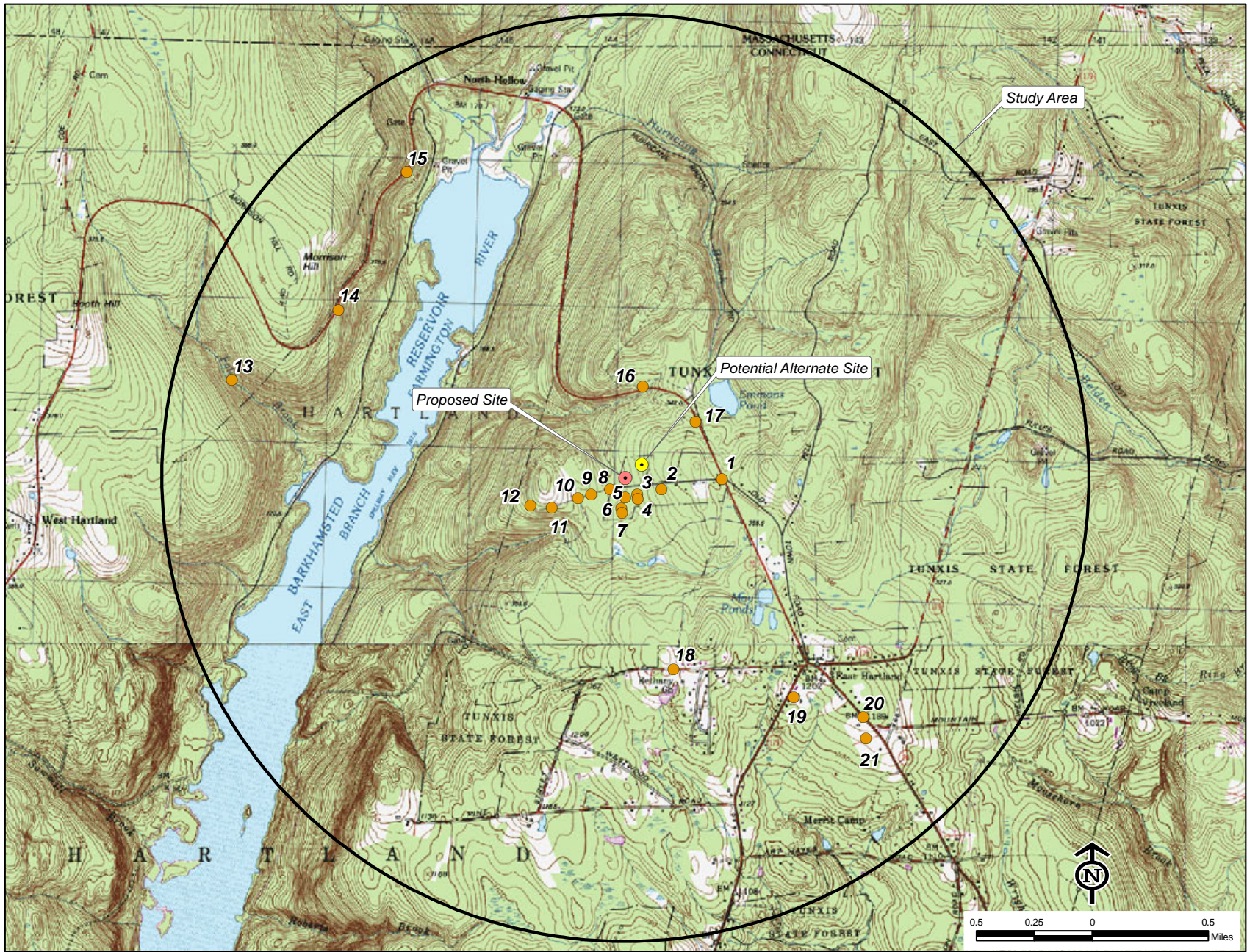
Based on this analysis, areas from where the proposed 190-foot tall Facility would be visible above the tree canopy comprise approximately 26 acres and approximately 4 acres for the Proposed Site and Potential Alternate Site, respectively, within the 8,042-acre Study Area. As depicted on the viewshed map (provided in Attachment B), most of the anticipated year-round visibility associated with either site location would occur over open water on the west side of Barkhamsted Reservoir and portions of the host property. A brief view of either location would also be achieved from an elevated portion of Route 20, west of the reservoir, approximately 1.5 mile away (Photo 14). VHB anticipates that year-round views associated with the originally Proposed Site would extend to two nearby residential properties located off Balance Rock Road (numbers 72 and 88). Year-round views of the Potential Alternate Site are not anticipated from any residential properties located within the Study Area. Overall, potential year-round views of either location would be limited to the areas described above by a combination of the intervening topography and vegetation found within the Study Area. This is particularly true within the general vicinity of the host property where an abundance of mature evergreens would serve to provide significant visual screening.

The viewshed map also depicts several additional areas where seasonal (i.e. during “leaf off” conditions) views are anticipated through the deciduous trees. These areas comprise approximately 21 acres for the Proposed Site and approximately 7 acres for the Potential Alternate Site. Areas of anticipated seasonal visibility associated with both site locations include select portions of Balance Rock Road within the immediate vicinity of the host property and a small stretch of Route 20 located roughly 1.60-mile to the northwest of the two site candidate locations (Photo 15). VHB estimates that seasonal views of the proposed site location may be achieved from one (1) residential property located off Balance Rock Road (number 64). Potential seasonal views of the potential alternate site location may extend to two (2) residential properties located off Balance Rock Road. Existing evergreen vegetation located within this area would provide significant screening, even during “leaf-off” conditions.

Attachment A

Photolog Documentation Map, Balloon Float Photographs, and Photographic Simulations

PHOTOLOG MAP



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LOCATION	ORIENTATION	SITE	DISTANCE TO SITE	VISIBILITY
INTERSECTION OF NORTH HOLLOW ROAD (ROUTE 20) & BALANCE ROCK ROAD	WEST	PROPOSED SITE	0.43 MILE +/-	NOT VISIBLE
		POTENTIAL ALTERNATE SITE	0.35 MILE +/-	NOT VISIBLE



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LOCATION	ORIENTATION	SITE	DISTANCE TO SITE	VISIBILITY
FRONT DECK OF #64 BALANCE ROCK ROAD	NORTHWEST	PROPOSED SITE	0.17 MILE +/-	SEASONAL
		POTENTIAL ALTERNATE SITE	0.14 MILE +/-	NOT VISIBLE



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LOCATION	ORIENTATION	SITE	DISTANCE TO SITE	VISIBILITY
FRONT DECK OF #64 BALANCE ROCK ROAD	NORTHWEST	PROPOSED SITE	0.17 MILE +/-	SEASONAL

View 3 Proposed Site

PHOTOGRAPHIC DOCUMENTATION



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LOCATION	ORIENTATION	SITE	DISTANCE TO SITE	VISIBILITY
FRONT PORCH OF #72 BALANCE ROCK ROAD	NORTHWEST	PROPOSED SITE	0.09 MILE +/-	SEASONAL



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LOCATION	ORIENTATION	SITE	DISTANCE TO SITE	VISIBILITY
FRONT PORCH OF #72 BALANCE ROCK ROAD	NORTHWEST	PROPOSED SITE	0.09 MILE +/-	SEASONAL



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LOCATION	ORIENTATION	SITE	DISTANCE TO SITE	VISIBILITY
FRONT PORCH OF #72 BALANCE ROCK ROAD	NORTHWEST	POTENTIAL ALTERNATE SITE	0.13 MILE +/-	SEASONAL

View 3 Potential Alternate Site

PHOTOGRAPHIC SIMULATION



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LOCATION	ORIENTATION	SITE	DISTANCE TO SITE	VISIBILITY
FRONT PORCH OF #72 BALANCE ROCK ROAD	NORTHWEST	POTENTIAL ALTERNATE SITE	0.13 MILE +/-	SEASONAL



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LOCATION	ORIENTATION	SITE	DISTANCE TO SITE	VISIBILITY
REAR YARD OF #72 BALANCE ROCK ROAD	NORTHWEST	PROPOSED SITE	0.10 MILE +/-	YEAR ROUND



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LOCATION	ORIENTATION	SITE	DISTANCE TO SITE	VISIBILITY
REAR YARD OF #72 BALANCE ROCK ROAD	NORTHWEST	PROPOSED SITE	0.10 MILE +/-	YEAR ROUND



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LOCATION	ORIENTATION	SITE	DISTANCE TO SITE	VISIBILITY
REAR YARD OF #72 BALANCE ROCK ROAD	NORTH	POTENTIAL ALTERNATE SITE	0.15 MILE +/-	SEASONAL

View 4 Potential Alternate Site

PHOTOGRAPHIC SIMULATION



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LOCATION	ORIENTATION	SITE	DISTANCE TO SITE	VISIBILITY
REAR YARD OF #72 BALANCE ROCK ROAD	NORTH	POTENTIAL ALTERNATE SITE	0.15 MILE +/-	SEASONAL



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LOCATION	ORIENTATION	SITE	DISTANCE TO SITE	VISIBILITY
DRIVEWAY OF #88 BALANCE ROCK ROAD	NORTHEAST	POTENTIAL ALTERNATE SITE	0.16 MILE +/-	SEASONAL



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LOCATION	ORIENTATION	SITE	DISTANCE TO SITE	VISIBILITY
DRIVEWAY OF #88 BALANCE ROCK ROAD	NORTHEAST	POTENTIAL ALTERNATE SITE	0.16 MILE +/-	SEASONAL



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LOCATION	ORIENTATION	SITE	DISTANCE TO SITE	VISIBILITY
FRONT YARD OF #88 BALANCE ROCK ROAD	NORTHEAST	PROPOSED SITE	0.11 MILE +/-	NOT VISIBLE
		POTENTIAL ALTERNATE SITE	0.21 MILE +/-	SEASONAL



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LOCATION	ORIENTATION	SITE	DISTANCE TO SITE	VISIBILITY
FRONT YARD OF #88 BALANCE ROCK ROAD	NORTHEAST	PROPOSED SITE	0.11 MILE +/-	NOT VISIBLE
		POTENTIAL ALTERNATE SITE	0.21 MILE +/-	SEASONAL



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LOCATION	ORIENTATION	SITE	DISTANCE TO SITE	VISIBILITY
REAR YARD OF #88 BALANCE ROCK ROAD	NORTH	PROPOSED SITE	0.13 MILE +/-	YEAR ROUND
		POTENTIAL ALTERNATE SITE	0.23 MILE +/-	NOT VISIBLE



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LOCATION	ORIENTATION	SITE	DISTANCE TO SITE	VISIBILITY
REAR YARD OF #88 BALANCE ROCK ROAD	NORTH	PROPOSED SITE	0.13 MILE +/-	YEAR ROUND
		POTENTIAL ALTERNATE SITE	0.23 MILE +/-	NOT VISIBLE



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LOCATION	ORIENTATION	SITE	DISTANCE TO SITE	VISIBILITY
BALANCE ROCK ROAD CUL-DE-SAC (24mm Focal Length)	NORTHEAST	PROPOSED SITE	0.06 MILE +/-	SEASONAL
		POTENTIAL ALTERNATE SITE	0.18 MILE +/-	SEASONAL



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LOCATION	ORIENTATION	SITE	DISTANCE TO SITE	VISIBILITY
BALANCE ROCK ROAD CUL-DE-SAC (24mm Focal Length)	NORTHEAST	PROPOSED SITE	0.06 MILE +/-	SEASONAL
		POTENTIAL ALTERNATE SITE	0.18 MILE +/-	SEASONAL



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LOCATION	ORIENTATION	SITE	DISTANCE TO SITE	VISIBILITY
BALANCE ROCK ROAD CUL-DE-SAC (24mm Focal Length)	NORTHEAST	PROPOSED SITE	0.06 MILE +/-	SEASONAL
		POTENTIAL ALTERNATE SITE	0.18 MILE +/-	SEASONAL



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LOCATION	ORIENTATION	SITE	DISTANCE TO SITE	VISIBILITY
EXISTING WOODS ROAD LEADING TO SKI CABIN AT INTERSECTION WITH TUNXIS TRAIL	NORTHEAST	PROPOSED SITE	0.14 MILE +/-	SEASONAL
		POTENTIAL ALTERNATE SITE	0.25 MILE +/-	NOT VISIBLE



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LOCATION	ORIENTATION	SITE	DISTANCE TO SITE	VISIBILITY
EXISTING WOODS ROAD LEADING TO SKI CABIN AT INTERSECTION WITH TUNXIS TRAIL	NORTHEAST	PROPOSED SITE	0.14 MILE +/-	SEASONAL
		POTENTIAL ALTERNATE SITE	0.25 MILE +/-	NOT VISIBLE



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LOCATION	ORIENTATION	SITE	DISTANCE TO SITE	VISIBILITY
EXISTING WOODS ROAD LEADING TO SKI CABIN	NORTHEAST	PROPOSED SITE	0.20 MILE +/-	SEASONAL
		POTENTIAL ALTERNATE SITE	0.31 MILE +/-	NOT VISIBLE



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LOCATION	ORIENTATION	SITE	DISTANCE TO SITE	VISIBILITY
EXISTING WOODS ROAD LEADING TO SKI CABIN	NORTHEAST	PROPOSED SITE	0.20 MILE +/-	SEASONAL
		POTENTIAL ALTERNATE SITE	0.31 MILE +/-	NOT VISIBLE



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LOCATION	ORIENTATION	SITE	DISTANCE TO SITE	VISIBILITY
EXISTING WOODS ROAD LEADING TO SKI CABIN	NORTHEAST	PROPOSED SITE	0.32 MILE +/-	SEASONAL
		POTENTIAL ALTERNATE SITE	0.43 MILE +/-	NOT VISIBLE



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LOCATION	ORIENTATION	SITE	DISTANCE TO SITE	VISIBILITY
EXISTING WOODS ROAD LEADING TO SKI CABIN	NORTHEAST	PROPOSED SITE	0.32 MILE +/-	SEASONAL
		POTENTIAL ALTERNATE SITE	0.43 MILE +/-	NOT VISIBLE



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LOCATION	ORIENTATION	SITE	DISTANCE TO SITE	VISIBILITY
SKI CABIN	NORTHEAST	PROPOSED SITE	0.41 MILE +/-	NOT VISIBLE
		POTENTIAL ALTERNATE SITE	0.51 MILE +/-	NOT VISIBLE



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LOCATION	ORIENTATION	SITE	DISTANCE TO SITE	VISIBILITY
FALLS BROOK TRAIL VISTA	SOUTHEAST	PROPOSED SITE	1.74 MILES +/-	NOT VISIBLE
		POTENTIAL ALTERNATE SITE	1.80 MILES +/-	NOT VISIBLE



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LOCATION	ORIENTATION	SITE	DISTANCE TO SITE	VISIBILITY
ROUTE 20	SOUTHEAST	PROPOSED SITE	1.43 MILES +/-	YEAR ROUND
		POTENTIAL ALTERNATE SITE	1.46 MILES +/-	YEAR ROUND



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LOCATION	ORIENTATION	SITE	DISTANCE TO SITE	VISIBILITY
ROUTE 20	SOUTHEAST	PROPOSED SITE	1.43 MILES +/-	YEAR ROUND
		POTENTIAL ALTERNATE SITE	1.46 MILES +/-	YEAR ROUND



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LOCATION	ORIENTATION	SITE	DISTANCE TO SITE	VISIBILITY
ROUTE 20	SOUTHEAST	PROPOSED SITE	1.43 MILES +/-	YEAR ROUND
		POTENTIAL ALTERNATE SITE	1.46 MILES +/-	YEAR ROUND



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LOCATION	ORIENTATION	SITE	DISTANCE TO SITE	VISIBILITY
ROUTE 20	SOUTHEAST	PROPOSED SITE	1.63 MILES +/-	SEASONAL
		POTENTIAL ALTERNATE SITE	1.61 MILES +/-	SEASONAL

View 15 Proposed Site

PHOTOGRAPHIC SIMULATION



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LOCATION	ORIENTATION	SITE	DISTANCE TO SITE	VISIBILITY
ROUTE 20	SOUTHEAST	PROPOSED SITE	1.63 MILES +/-	SEASONAL
		POTENTIAL ALTERNATE SITE	1.61 MILES +/-	SEASONAL



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LOCATION	ORIENTATION	SITE	DISTANCE TO SITE	VISIBILITY
ROUTE 20	SOUTHEAST	PROPOSED SITE	1.63 MILES +/-	SEASONAL
		POTENTIAL ALTERNATE SITE	1.61 MILES +/-	SEASONAL



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LOCATION	ORIENTATION	SITE	DISTANCE TO SITE	VISIBILITY
NORTH HOLLOW ROAD AT ENTRANCE TO TUNXIS TRAIL	SOUTH	PROPOSED SITE	0.42 MILE +/-	NOT VISIBLE
		POTENTIAL ALTERNATE SITE	0.33 MILE +/-	NOT VISIBLE



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LOCATION	ORIENTATION	SITE	DISTANCE TO SITE	VISIBILITY
NORTH HOLLOW ROAD AT WILDERNESS SCHOOL	SOUTHWEST	PROPOSED SITE	0.41 MILE +/-	NOT VISIBLE
		POTENTIAL ALTERNATE SITE	0.29 MILE +/-	NOT VISIBLE



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LOCATION	ORIENTATION	SITE	DISTANCE TO SITE	VISIBILITY
WALNUT HILL ROAD	NORTHWEST	PROPOSED SITE	0.83 MILE +/-	NOT VISIBLE
		POTENTIAL ALTERNATE SITE	0.90 MILE +/-	NOT VISIBLE



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LOCATION	ORIENTATION	SITE	DISTANCE TO SITE	VISIBILITY
HARTLAND SCHOOL	NORTHWEST	PROPOSED SITE	1.18 MILES +/-	NOT VISIBLE
		POTENTIAL ALTERNATE SITE	1.20 MILES +/-	NOT VISIBLE



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LOCATION	ORIENTATION	SITE	DISTANCE TO SITE	VISIBILITY
ADJACENT TO #67 HARTLAND BOULEVARD	NORTHWEST	PROPOSED SITE	1.45 MILES +/-	NOT VISIBLE
		POTENTIAL ALTERNATE SITE	1.45 MILES +/-	NOT VISIBLE



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LOCATION	ORIENTATION	SITE	DISTANCE TO SITE	VISIBILITY
ADJACENT TO BERG FIELD	NORTHWEST	PROPOSED SITE	1.52 MILES +/-	NOT VISIBLE
		POTENTIAL ALTERNATE SITE	1.53 MILES +/-	NOT VISIBLE

Attachment B

Viewshed Map

*Comparative Viewshed Analysis
Proposed AT&T Wireless
Telecommunications Facility
Proposed Site Location and Potential Alternate Site Location
95 Balance Rock Road
Hartland, Connecticut*

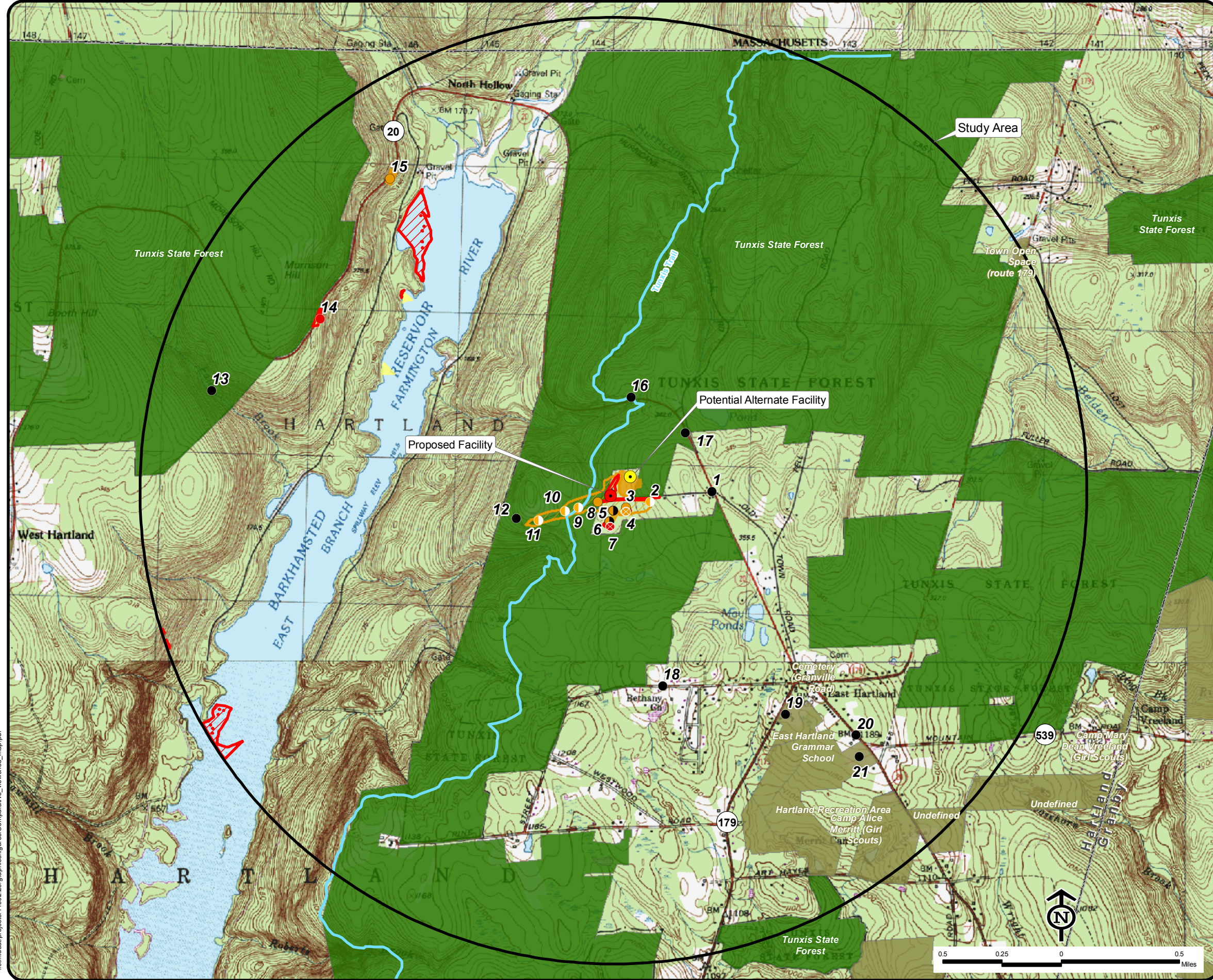
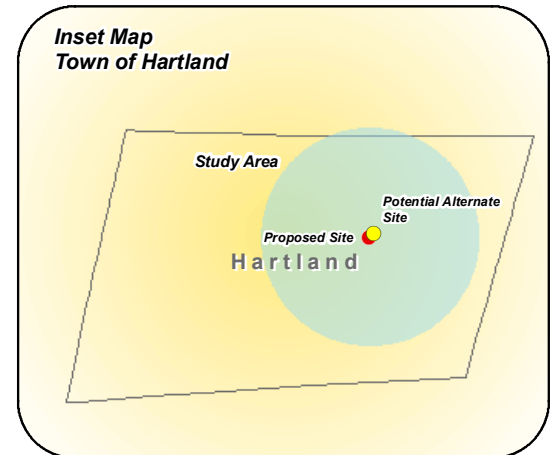
NOTE:
 - Viewshed analysis conducted using ESRI's Spatial Analyst.
 - Facility heights are 190 feet AGL.
 - Existing tree canopy height estimated at 65 feet.
 - Study Area is comprised of a two-mile radius surrounding the proposed facility and includes 8,042 acres of land.

DATA SOURCES:
 - Digital elevation model (DEM) derived from Connecticut LiDAR-based Digital Elevation Data (collected in 2000) with a 10-foot spatial resolution produced by the University of Connecticut and the Center for Land Use Education and Research (CLEAR); 2007
 - Forest areas derived from 2008 digital orthophotos with 1-meter pixel resolution; digitized by VHB, 2010
 - Base map comprised of New Hartford (1984) and West Granville (1971) USGS Quadrangle Maps
 - Municipal and Private Open Space data layer provided by CT DEP, 1997
 - Federal Open Space data layer provided by CT DEP, 2004
 - CT DEP Property data layer provided by CT DEP, April 2010
 - CT DEP boat launches data layer provided by CT DEP, Dec 2009
 - Scenic Roads layer derived from available State and Local listings

Map Compiled January, 2011

Legend

	Proposed Site Location		CT DEP Property (CT DEP, May 2010)
	Potential Alternate Site Location		State Forest
	Balloons are not visible		State Park
	Balloons are visible through trees		DEP Owned Waterbody
	Balloons are visible above trees		State Park Scenic Reserve
	Proposed site balloon visible through trees		Historic Preserve
	Proposed site balloon visible above trees		Natural Area Preserve
	Alternate site balloon visible through trees		Fish Hatchery
	Seasonal Visibility Area - Proposed Site (Approximately 21 acres)		Flood Control
	Year-Round Visibility - Proposed Site (Approximately 26 Acres)		Other
	Seasonal Visibility Area - Potential Alternate Site (Approximately 7 acres)		State Park Trail
	Year-Round Visibility - Potential Alternate Site (Approximately 4 Acres)		Water Access
	Protected Municipal and Private Open Space (CT DEP, 1997)		Wildlife Area
	Cemetery		Wildlife Sanctuary
	Preservation		
	Conservation		
	Existing Preserved Open Space		
	Recreation		
	General Recreation		
	School		
	Uncategorized		
	Federal Open Space (CT DEP, 2004)		
	Boat Launches (CT DEP, Dec 2009)		
	Scenic Road (State and Local)		
	Tunxis Trail (CT Blue Blaze)		
	Town Line		



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