ATTACHMENT 10

Visual Assessment & Photo-Simulations

CT757 - KENT
BALD HILL ROAD
KENT, CT 06785-1319

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February 2020

VISUAL ASSESSMENT & PHOTO-SIMULATIONS

Homeland Towers ("Homeland") is seeking a Certificate of Environmental Compatibility and Public Need from the Connecticut Siting Council (the "Council") for the development of a new wireless communications facility (the "Facility") off Bald Hill Road in Kent, Connecticut (the "Host Property"). At the request of Homeland, All-Points Technology Corporation, P.C. ("APT") completed this assessment to evaluate the potential visual effects of the proposed Facility from within a two-mile radius (the "Study Area"). The Study Area includes the neighboring municipality of Warren (to the east).

Project Undertaking

Homeland plans to construct the proposed Facility in the northwestern portion of the Host Property (the "Site"). The Facility would include a 154-foot tall steel monopole within an approximate 60-foot by 70-foot gravel base, fenced equipment compound. The base of the Facility would be constructed at an approximate elevation of 1300 feet above mean sea level ("AMSL") and the highest antenna platform would be installed such that the tops of the panel antennas would be flush with the top of the monopole. Antennas for Town of Kent municipal services will extend above the top of the tower to a height of approximately 174 feet above ground level ("AGL"). The Facility has been designed to accommodate multiple service providers as well as the municipal antennas. Access to the Site would be provided over a new, 12-foot wide gravel access driveway that extends westward to the Site from Bald Hill Road.

Project Setting

The Host Property is located along the west side of Bald Hill Road and north of Segar Mountain Road (CT Route 341) in the southeastern portion of Kent. It is privately-owned undeveloped wooded land. Generally, land use within the immediate vicinity of the Site is a mix of forested land, residential development and the Kenmont Kenwood Camp. Single-family residentially-developed properties are located east, southeast, south and immediately surrounding the Host Property. The Kenmont Kenwood Camp is located north of the Host Property.

The topography within the Study Area consists of rolling to steep hills surrounding the Host Property and extending to the north, east and southwest, with generally level terrain to the south/southeast on Richards Road in the vicinity of South Spectacle Pond. Ground elevations range from approximately 450 feet AMSL to approximately 1320 feet. Tree cover within the Study Area (consisting of predominantly mixed deciduous hardwoods and conifers) occupies approximately 6,300 acres (±78%) of the 8,042-acre Study Area.

Methodology

APT used the combination of a predictive computer model, in-field analysis, and a review of various data sources to evaluate the visibility associated with the proposed Facility on both a quantitative and qualitative basis. The predictive model provides a measurable assessment of visibility throughout the entire Study Area, including private properties and other areas inaccessible for direct observations. The

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in-field analyses included a balloon float and field reconnaissance of the Study Area to record existing conditions, verify results of the model, inventory seasonal and year-round view locations, and provide photographic documentation from publicly accessible areas. A description of the procedures used in the analysis is provided below.

Preliminary Computer Modeling

To conduct this assessment, a predictive computer model was developed specifically for this project using ESRI's ArcMap GIS[1] software and available GIS data. The predictive model incorporates Project and Study Area-specific data, including the site location, its ground elevation and the proposed Facility height, as well as the surrounding topography, existing vegetation, and structures (the primary features that can block direct lines of sight).

A digital surface model ("DSM"), capturing both the natural and built features on the Earth's surface, was generated for the extent of the Study Area utilizing State of Connecticut 2016 LiDAR[2] LAS[3] data points. LiDAR is a remote-sensing technology that develops elevation data by measuring the time it takes for laser light to return from the surface to the instrument's sensors. The varying reflectivity of objects also means that the "returns" can be classified based on the characteristics of the reflected light, normally into categories such as "bare earth," "vegetation," "road," or "building." Derived from the 2016 LiDAR data, the LAS datasets contain the corresponding elevation point data and return classification values. The Study Area DSM incorporates the first return LAS dataset values that are associated with the highest feature in the landscape, typically a treetop, top of a building, and/or the highest point of other tall structures.

Once the DSM was generated, ESRI's Viewshed Tool was utilized to identify locations within the Study Area where the proposed Facility may be visible. ESRI's Viewshed Tool predicts visibility by identifying those cells[4] within the DSM that can be seen from an observer location. Cells where visibility was indicated were extracted and converted from a raster dataset to a polygon feature which was then overlaid onto an aerial photograph and topographic base map. Since the DSM includes the highest relative feature in the landscape, isolated "visible" cells are often indicated within heavily forested areas (e.g., from the top of the highest tree) or on building rooftops during the initial processing. It is recognized that these areas do not represent typical viewer locations and overstate visibility. As such, the resulting polygon feature is further refined by extracting those areas. The viewshed results are also cross-checked against the most current aerial photographs to assess whether significant changes (a new housing development, for example) have occurred since the time the LiDAR-based LAS datasets were captured.

The results of the preliminary analysis are intended to provide a representation of those areas where portions of the Facility *may* potentially be visible to the human eye without the aid of magnification, based

[1] ArcMap is a Geographic Information System desktop application developed by the Environmental Systems Research Institute for creating maps, performing spatial analysis, and managing geographic data.

[2] Light Detection and Ranging

[3] An LAS file is an industry-standard binary format for storing airborne LiDAR data.

[4] Each DSM cell size is 1 square meter.

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on a viewer eye-height of five (5) feet above the ground and the combination of intervening topography, trees and other vegetation, and structures. However, the Facility may not necessarily be visible from all locations within those areas identified by the predictive model, which has limitations. For instance, it is important to note that the computer model cannot account for mass density, tree diameters and branching variability of trees, or the degradation of views that occur with distance. As a result, some areas depicted on the viewshed maps as theoretically offering potential visibility of the Facility may be over-predicted because the quality of those views is not sufficient for the human eye to recognize the Facility or discriminate it from other surrounding or intervening objects.

Seasonal Visibility#

Visibility also varies seasonally with increased, albeit obstructed, views occurring during "leaf-off" conditions. Beyond the variabilities associated with density of woodland stands found within any given Study Area, each individual tree also has its own unique trunk, pole timber and branching patterns that provide varying degrees of screening in leafless conditions which, as introduced above, cannot be precisely modeled. Seasonal visibility is therefore estimated based on a combination of factors including the type, size, and density of trees within a given area; topographic constraints; and other visual obstructions that may be present. Taking into account these considerations, areas depicting seasonal visibility on the viewshed maps are intended to represent locations from where there is a potential for views through intervening trees, as opposed to indicating that leaf-off views will exist from within an entire seasonally-shaded area.

To refine the estimate of seasonal visibility through the trees, forested areas were manually adjusted to eliminate 500-foot wide areas of vegetation surrounding the Facility and perimeters of forested areas with otherwise unimpeded aspects toward the site. This distance, although considered conservative, is based on 20+ years of field experience and observations, and assumes that a person standing within a forested area will not be able to discern an object like the Facility beyond 500 feet. Depending on the density of the intervening tree canopy and understory of the surrounding woodlands, it is assumed that some locations (but not all) within 500 feet could provide visibility of at least a portion of the Facility during "leaf-off" conditions.

Balloon Float and Field Reconnaissance

To supplement and fine tune the results of the computer modeling efforts, APT completed in-field verification activities consisting of a balloon float, vehicular and pedestrian reconnaissance, and photo-documentation. The balloon float and field review were completed on April 11, 2019. The balloon float consisted of raising a brightly colored, approximately four-foot diameter, helium-filled balloon tethered to a string height of ±150 feet AGL[5] at the Site. Weather conditions were favorable for the in-field activity with calm winds and overcast skies.

[5] The top of the balloon represented the top of the monopole and top of the antennas.

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Once the balloon was secured, APT conducted a Study Area reconnaissance by driving along local and State roads and other publicly accessible locations and walking several public trail systems to document and inventory where the balloon could be seen above and through the tree canopy and other visual obstructions. Visual observations from the reconnaissance were also used to evaluate the results of the preliminary visibility mapping and identify any discrepancies in the initial modeling.

Photographic Documentation and Simulations

During the Study Area reconnaissance, APT obtained photo-documentation of representative locations where the balloon was visible. At each photo location, the geographic coordinates of the camera's position were logged using global positioning system ("GPS") technology. Photographs were taken with a Canon EOS 6D digital camera body[6] and Canon EF 24 to 105 millimeter ("mm") zoom lens. APT typically uses a standard focal length of 50mm to present a consistent field of view. On occasion, photos are taken at lower focal lengths to provide a greater depth of field and to provide context to the scene by including surrounding features within the photograph. During this evaluation, nine (9) photographs were taken at a 24mm focal length as noted in the table (Table 1 – Photo Locations) on the following pages.

Photographic simulations were generated to portray scaled renderings of the proposed Facility from twelve (12) locations presented herein where the Facility may be recognizable above or through the trees. Using field data, site plan information and 3-dimensional (3D) modeling software, spatially referenced models of the site and Facility were generated and merged. The geographic coordinates obtained in the field for the photograph locations were incorporated into the model to produce 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, which were ultimately composited and merged with the existing conditions photographs (using Photoshop image editing software). The scale of the subjects in the photograph (the balloon) and the corresponding simulation (the Facility) is proportional to their surroundings.

For presentation purposes in this report, the photographs were produced in an approximate 7-inch by 10.5-inch format. When reproducing the images in this format size, we believe it is important to present the largest view while providing key contextual landscape elements (existing developments, street signs, utility poles, etc.) so that the viewer can determine the proportionate scale of each object within the scene.

Photo-documentation of the field reconnaissance and photo-simulations of the proposed Facility are presented in the attachment at the end of this report. The field reconnaissance photos that include the balloon in the view provide visual reference points for the approximate height and location of the proposed Facility relative to the scene.

[6] The Canon EOS 6D is a full-framed camera which includes a lens receptor of the same size as the film used in 35mm cameras. As such, the images produced are comparable to those taken with a conventional 35mm camera.

All simulations were created to represent the proposed monopole height of 154' AGL. The photo-simulations are intended to provide the reader with a general understanding of the different view characteristics associated with the Facility from various locations. Photographs were taken from publicly-accessible areas and unobstructed view lines were chosen wherever possible.

The following table summarizes the photographs and simulations presented in the attachment to this report, and includes a description of each location, view orientation, distance from where the photo was taken relative to the proposed Facility, and the general characteristics of the view. The photo locations are depicted on the photolog and viewshed maps provided as attachments to this report.

Table 1 – Photo Locations

View	Location	Orientation	Distance to Site	Visibility
1	Cobble Road^	Southeast	±1.48 Miles	Not Visible
2	Kenmont Road	Southeast	±0.85 Mile	Not Visible
3	Gorham Road	Southwest	±1.47 Miles	Not Visible
4	Segar Mountain Road	Southwest	±1.05 Miles	Not Visible
5	Davis Road^	Southwest	±0.40 Mile	Not Visible
6	Kenmont Road^	South	±0.30 Mile	Not Visible
7	Davis Road**	Southwest	±0.21 Mile	Not Visible
8	Davis Road	West	±0.13 Mile	Seasonal
9	Segar Mountain Road	West	±0.24 Mile	Not Visible
10	Segar Mountain Road	West	±0.21 Mile	Seasonal
11	Segar Mountain Road	West	±0.20 Mile	Not Visible
12	Bald Hill Road	Southwest	±412 Feet	Seasonal
13	Bald Hill Road	West	±265 Feet	Seasonal
14	Bald Hill Road^	Northwest	±454 Feet	Seasonal
15	Richards Road at Segar Mountain Road^	Northwest	±0.18 Mile	Seasonal
16	Stone Fences Lane	Northeast	±0.35 Mile	Not Visible
17	Stone Fences Lane*	Northeast	±0.32 Mile	Balloon Visible Through Trees
18	Segar Mountain Road	Northeast	± 0.46 Mile	Not Visible
19	Segar Mountain Road	Northeast	± 0.53 Mile	Year Round
20	Segar Mountain Road^	Northeast	± 0.58 Mile	Not Visible
21	Iron Mountain Road	Northeast	±0.78 Mile	Not Visible
22	Ten Rod Road	Northeast	±1.45 Miles	Not Visible
23	Ten Rod Road	Northeast	±1.63 Miles	Year Round
24	Jennings Road	Northeast	±1.59 Miles	Not Visible
25	Richards Road	North	±1.19 Miles	Not Visible

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Photo	Location	Orientation	Distance to Site	Visibility
26	Oak Ridge Road*	North	± 0.84 Mile	Balloon Visible Through Trees
27	Oak Ridge Road	Northwest	± 0.85 Mile	Not Visible
28	Richards Road	Northwest	± 0.43 Mile	Year Round
29	Richards Road	Northwest	±0.57 Mile	Year Round
30	Spectacle Ridge Road at Richards Road^	Northwest	±0.70 Mile	Not Visible
31	Spectacle Ridge Road	Northwest	±0.72 Mile	Seasonal
32	Spectacle Ridge Road	Northwest	±0.79 Mile	Seasonal
33	Spectacle Ridge Road	Northwest	±0.80 Mile	Not Visible

**Photo-simulation was not prepared due to heavily obstructed views*

***Photograph was taken at 24 mm focal length but adjusted to 35 mm focal length*

^Photograph was taken at 24 mm focal length

Final Visibility Mapping

Information obtained during the field reconnaissance was incorporated into the mapping data layers, including observations of the field reconnaissance, the photograph locations, areas that experienced recent land use changes and those places where the initial model was found to over or under-predict visibility. Once the additional data was integrated into the model, APT recalculated the visibility of the proposed Facility within the Study Area.

Conclusions

As presented on the attached viewshed maps, the most prominent views of the Facility would be limited to select locations along Richards Road and on North Spectacle and South Spectacle Ponds. Additional year-round views would occur from select areas inside the Kenmont Kenwood Camp, in the vicinity of the intersection at Segar Mountain Road and South Road, and in the area of Jennings Road. Year-round views from North Spectacle and South Spectacle Ponds comprise ±46 acres and ±63 acres, respectively, over open water. In general, the combination of topography and the presence of mature trees in the immediate area of the Host Property serves to minimize the extent of year-round visibility. Views from nearby residential properties should not increase substantially beyond those depicted in the attachment.

Based on observations made along Spectacle Ridge Road during the field reconnaissance, where seasonal (“leaf-off”) views were photo-documented, it is evident that some properties fronting the west shoreline of South Spectacle Pond will have direct lines of sight towards the Facility.

Based on the reconnaissance of local hiking trails, which are heavily wooded and offer minimal unobstructed vistas towards the Site, no views of the Facility are anticipated.

Predicted year-round visibility of the proposed Facility is estimated to include approximately 131 acres (1.62% of the 8,042-acre Study Area). Approximately 109 acres of the predicted year-round visibility

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occurs over open water on North Spectacle and South Spectacle Ponds. Predicted seasonal visibility is estimated to include an additional ±55 acres (0.68% of the Study Area).

Proximity to Schools And Commercial Child Day Care Centers

There are no schools or commercial child day care centers within 250 feet of the Host Property or within the Study Area. The Kent Center School is located approximately 2.8 miles west of the Site at 9 Judd Avenue in Kent. The nearest commercial child day care center, Kent Education Center and Nursery School, is located approximately 2.6 miles west of the Site at 6 Bridge Street in Kent. No views of the Facility are anticipated from either location.

Limitations

The viewshed maps presented in the attachment to this report depict areas where the proposed Facility may potentially be visible to the human eye without the aid of magnification based on a viewer eye-height of five (5) feet above the ground and intervening topography, tree canopy and structures. This analysis may not account for all visible locations, as it is based on the combination of computer modeling, incorporating aerial photographs, and in-field observations from publicly-accessible locations. No access to private properties was provided to APT personnel. This analysis does not claim to depict the only areas, or all locations, where visibility may occur; it is intended to provide a representation of those areas where the Facility is likely to be seen.

The photo-simulations provide a representation of the Facility under similar settings as those encountered during the field review and reconnaissance. Views of the Facility can change throughout the seasons and the time of day, and are dependent on weather and other atmospheric conditions (e.g., haze, fog, clouds); the location, angle and intensity of the sun; and the specific viewer location. Weather conditions on the day of the field review included calm winds and overcast skies.

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ATTACHMENTS

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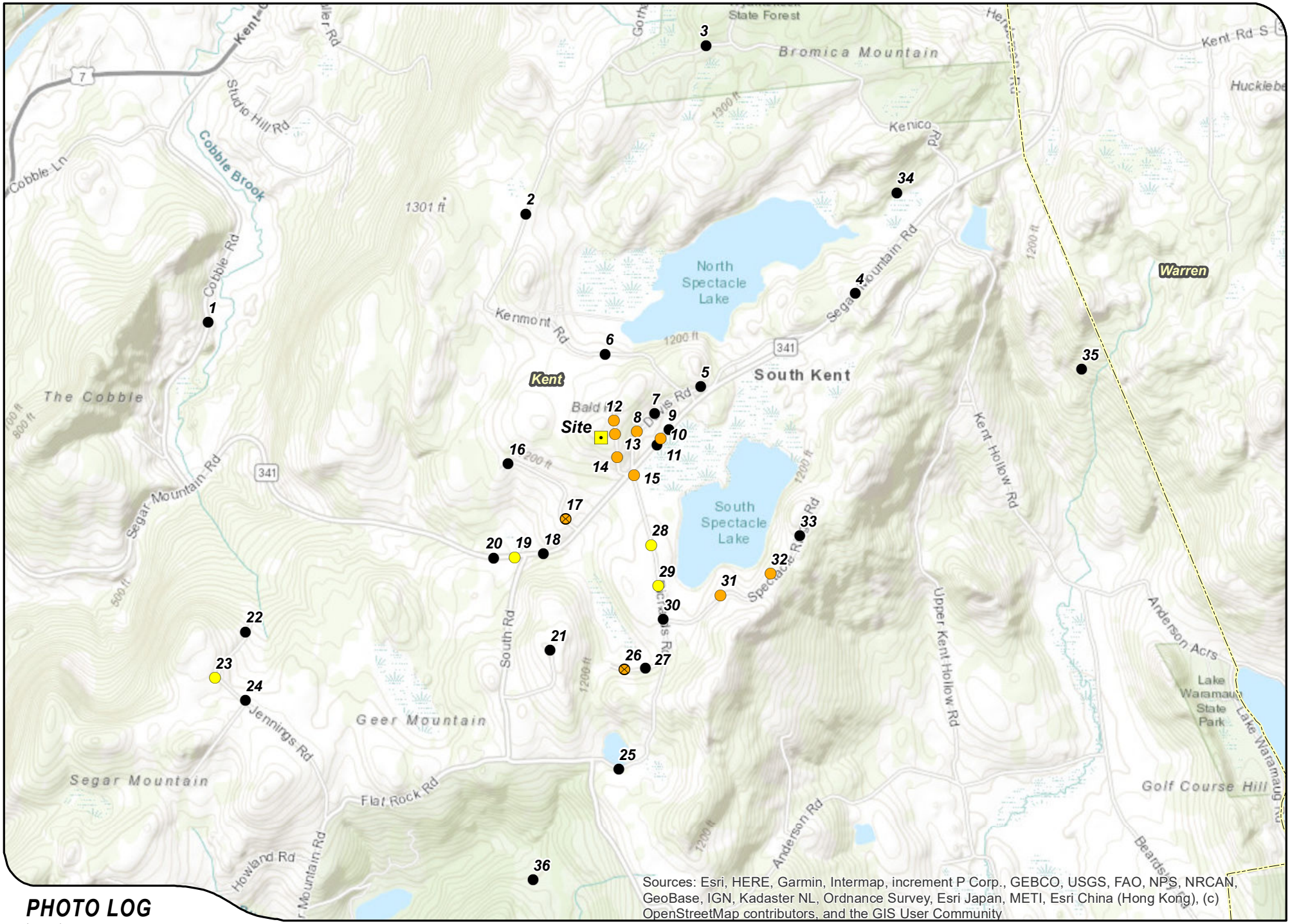

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

PHOTO LOG

Legend

- Site
- Visible
- Seasonal
- Balloon Visible Through Trees
- Not Visible
- Municipal Boundary

1 inch = 2,350 feet

2,350 1,175 0 2,350 Feet

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 4/11/2019 24mm Focal Length

DOCUMENTATION

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
1	**COBBLE ROAD**	**SOUTHEAST**	**+/- 1.48 MILES**	**NOT VISIBLE**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 4/11/2019

DOCUMENTATION

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
2	**KENMONT ROAD**	**SOUTHEAST**	**+/- 0.85 MILE**	**NOT VISIBLE**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 4/11/2019

DOCUMENTATION

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
3	**GORHAM ROAD**	**SOUTHWEST**	**+/- 1.47 MILES**	**NOT VISIBLE**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 4/11/2019

DOCUMENTATION

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
4	**SEGAR MOUNTAIN ROAD**	**SOUTHWEST**	**+/- 1.05 MILES**	**NOT VISIBLE**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

24mm Focal Length

PHOTOGRAPHED ON 4/11/2019

DOCUMENTATION

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
5	**DAVIS ROAD**	**SOUTHWEST**	**+/- 0.40 MILE**	**NOT VISIBLE**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 4/11/2019

24mm Focal Length

DOCUMENTATION

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
6	**KENMONT ROAD**	**SOUTH**	**+/- 0.30 MILE**	**NOT VISIBLE**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

35mm Focal Length

PHOTOGRAPHED ON 4/11/2019

DOCUMENTATION

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
7	**DAVIS ROAD**	**SOUTHWEST**	**+/- 0.21 MILE**	**NOT VISIBLE**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 4/11/2019

DOCUMENTATION

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
8	**DAVIS ROAD**	**WEST**	**+/- 0.13 MILE**	**SEASONAL**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

SIMULATION

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
8	**DAVIS ROAD**	**WEST**	**+/- 0.13 MILE**	**SEASONAL**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 4/11/2019

DOCUMENTATION

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
9	**SEGAR MOUNTAIN ROAD**	**WEST**	**+/- 0.24 MILE**	**NOT VISIBLE**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 4/11/2019

DOCUMENTATION

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
10	**SEGAR MOUNTAIN ROAD**	**WEST**	**+/- 0.21 MILE**	**SEASONAL**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

SIMULATION

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
10	**SEGAR MOUNTAIN ROAD**	**WEST**	**+/- 0.21 MILE**	**SEASONAL**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 4/11/2019

DOCUMENTATION

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
11	**SEGAR MOUNTAIN ROAD**	**WEST**	**+/- 0.20 MILE**	**NOT VISIBLE**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 4/11/2019

DOCUMENTATION

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
12	**BALD HILL ROAD**	**SOUTHWEST**	**+/- 412 FEET**	**SEASONAL**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

SIMULATION

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
12	**BALD HILL ROAD**	**SOUTHWEST**	**+/- 412 FEET**	**SEASONAL**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 4/11/2019

DOCUMENTATION

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
13	**BALD HILL ROAD**	**WEST**	**+/- 265 FEET**	**SEASONAL**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

SIMULATION

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
13	**BALD HILL ROAD**	**WEST**	**+/- 265 FEET**	**SEASONAL**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 4/11/2019

24mm Focal Length

DOCUMENTATION

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
14	**BALD HILL ROAD**	**NORTHWEST**	**+/- 454 FEET**	**SEASONAL**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

SIMULATION

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
14	**BALD HILL ROAD**	**NORTHWEST**	**+/- 454 FEET**	**SEASONAL**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 4/11/2019

24mm Focal Length

DOCUMENTATION

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
15	**CORNER OF RICHARDS ROAD AND SEGAR MOUNTAIN ROAD**	**NORTHWEST**	**+/- 0.18 MILE**	**SEASONAL**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

SIMULATION

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
15	**CORNER OF RICHARDS ROAD AND SEGAR MOUNTAIN ROAD**	**NORTHWEST**	**+/- 0.18 MILE**	**SEASONAL**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 4/11/2019

DOCUMENTATION

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
16	**STONE FENCES LANE**	**NORTHEAST**	**+/- 0.35 MILE**	**NOT VISIBLE**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 4/11/2019

DOCUMENTATION

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
17	**STONE FENCES LANE**	**NORTHEAST**	**+/- 0.32 MILE**	**BALLOON VISIBLE THROUGH TREES**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 4/11/2019

DOCUMENTATION

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
18	**SEGAR MOUNTAIN ROAD**	**NORTHEAST**	**+/- 0.46 MILE**	**NOT VISIBLE**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 4/11/2019

DOCUMENTATION

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
19	**SEGAR MOUNTAIN ROAD**	**NORTHEAST**	**+/- 0.53 MILE**	**YEAR ROUND**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

SIMULATION

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
19	**SEGAR MOUNTAIN ROAD**	**NORTHEAST**	**+/- 0.53 MILE**	**YEAR ROUND**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 4/11/2019 24mm focal Length

DOCUMENTATION

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
20	**SEGAR MOUNTAIN ROAD**	**NORTHEAST**	**+/- 0.58 MILE**	**NOT VISIBLE**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 4/11/2019

DOCUMENTATION

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
21	**IRON MOUNTAIN ROAD**	**NORTHEAST**	**+/- 0.78 MILE**	**NOT VISIBLE**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 4/11/2019

DOCUMENTATION

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
22	**TEN ROD ROAD**	**NORTHEAST**	**+/- 1.45 MILES**	**NOT VISIBLE**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 4/11/2019

DOCUMENTATION

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
23	**TEN ROD ROAD**	**NORTHEAST**	**+/- 1.63 MILES**	**YEAR ROUND**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

SIMULATION

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
23	**TEN ROD ROAD**	**NORTHEAST**	**+/- 1.63 MILES**	**YEAR ROUND**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 4/11/2019

DOCUMENTATION

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
24	**JENNINGS ROAD**	**NORTHEAST**	**+/- 1.59 MILES**	**NOT VISIBLE**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 4/11/2019

DOCUMENTATION

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
25	**RICHARDS ROAD**	**NORTH**	**+/- 1.19 MILES**	**NOT VISIBLE**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 4/11/2019

DOCUMENTATION

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
26	**OAK RIDGE ROAD**	**NORTH**	**+/- 0.84 MILE**	**BALLOON VISIBLE THROUGH TREES**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 4/11/2019

DOCUMENTATION

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
27	**OAK RIDGE ROAD**	**NORTHWEST**	**+/- 0.85 MILE**	**NOT VISIBLE**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 4/11/2019

DOCUMENTATION

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
28	**RICHARDS ROAD**	**NORTHWEST**	**+/- 0.43 MILE**	**YEAR ROUND**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

SIMULATION

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
28	**RICHARDS ROAD**	**NORTHWEST**	**+/- 0.43 MILE**	**YEAR ROUND**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 4/11/2019

DOCUMENTATION

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
29	**RICHARDS ROAD**	**NORTHWEST**	**+/- 0.57 MILE**	**YEAR ROUND**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

SIMULATION

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
29	**RICHARDS ROAD**	**NORTHWEST**	**+/- 0.57 MILE**	**YEAR ROUND**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 4/11/2019

24mm Focal Length

DOCUMENTATION

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
30	**SPECTACLE RIDGE ROAD AT RICHARDS ROAD**	**NORTHWEST**	**+/- 0.70 MILE**	**NOT VISIBLE**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 4/11/2019

DOCUMENTATION

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
31	**SPECTACLE RIDGE ROAD**	**NORTHWEST**	**+/- 0.72 MILE**	**SEASONAL**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

SIMULATION

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
31	**SPECTACLE RIDGE ROAD**	**NORTHWEST**	**+/- 0.72 MILE**	**SEASONAL**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 4/11/2019

DOCUMENTATION

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
32	**SPECTACLE RIDGE ROAD**	**NORTHWEST**	**+/- 0.79 MILE**	**SEASONAL**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

SIMULATION

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
32	**SPECTACLE RIDGE ROAD**	**NORTHWEST**	**+/- 0.79 MILE**	**SEASONAL**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 4/11/2019

DOCUMENTATION

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
33	**SPECTACLE RIDGE ROAD**	**NORTHWEST**	**+/- 0.80 MILE**	**NOT VISIBLE**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 1/18/2020

DOCUMENTATION

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
34	**WEST ASPETUCK SCENIC WETLANDS PRESERVE - HIKING TRAIL**	**SOUTHWEST**	**+/- 1.38 MILES**	**NOT VISIBLE**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

24mm Focal Length

PHOTOGRAPHED ON 1/18/2020

DOCUMENTATION

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
35	**EAST KENT HAMLET NATURE PRESERVE**	**WEST**	**+/- 1.75 MILES**	**NOT VISIBLE**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

24mm Focal Length

PHOTOGRAPHED ON 1/18/2020

DOCUMENTATION

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
36	**IRON MOUNTAIN PRESERVE**	**NORTH**	**+/- 1.60 MILES**	**NOT VISIBLE**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

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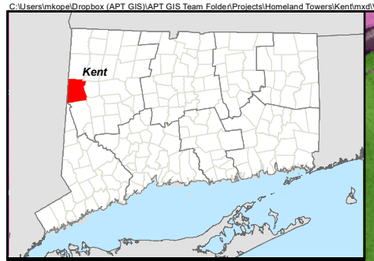
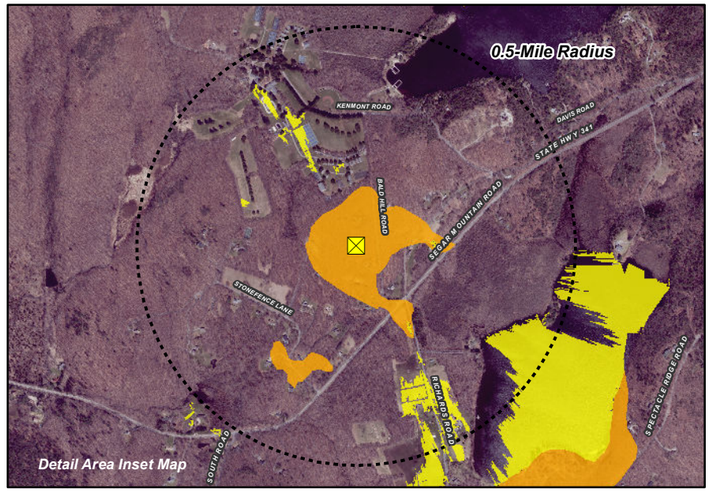


Statewide and Regional Overview Map



Detail Area Inset Map

Viewshed Analysis Map

Proposed Wireless Telecommunications Facility
CT757 - Kent
Bald Hill Road
Kent, Connecticut

Proposed facility height is 153 feet AGL.
Forest canopy height is derived from LiDAR data.
Study area encompasses a two-mile radius and includes 8,042 acres.
Map information field verified by APT on April 11, 2019
Base Map Source: 2019 Aerial Photograph (CTECO)
Map Date: February 2020

Legend

- Proposed Site
- Study Area (2-Mile Radius)

Photo Locations (April 11, 2019)

- Not Visible
- Balloon Visible Through Trees
- Seasonal Visibility
- Year-Round Visibility
- Predicted Year-Round Visibility (131 Acres; *46 Acres and 63 Acres Over Open Water on N. Spectacle Pond and S. Spectacle Pond, Respectively)
- Areas of Potential Seasonal Visibility (55 Acres)
- Municipal Boundary
- Trail
- Scenic Highway
- DEEP Boat Launches
- Municipal and Private Open Space Property
- State Forest/Park

Protected Open Space Property

- Federal
- Land Trust
- Municipal
- Private
- State

Data Sources:

Physical Geography / Background Data

A digital surface model (DSM) was created from the State of Connecticut 2016 LiDAR LAS data points. The DSM captures the natural and built features on the Earth's surface.

Municipal Open Space, State Recreation Areas, Trails, County Recreation Areas, and Town Boundary data obtained from CT DEEP.
Scenic Roads: CTDOT State Scenic Highways (2015); Municipal Scenic Roads (compiled by APT)

Dedicated Open Space & Recreation Areas

Connecticut Department of Energy and Environmental Protection (DEEP): DEEP Property (May 2007; Federal Open Space (1997); Municipal and Private Open Space (1997); DEEP Boat Launches (1994)

Connecticut Forest & Parks Association, Connecticut Walk Books East & West

Other

CTDOT Scenic Strips (based on Department of Transportation data)

Notes

***Not all the sources listed above appear on the Viewshed Maps. Only those features within the scale of the graphic are shown.*

Limitations

This map depicts areas where the proposed Facility may potentially be visible to the human eye without the aid of magnification based on a viewer eye-height of 5 feet above the ground and intervening topography, tree canopy and structures. This analysis may not account for all visible locations, as it is based on the combination of computer modeling, incorporating the DSM, 2016 digital aerial photographs, and in-field observations from publicly-accessible locations. No access to private properties beyond the Host Property was provided to APT personnel. This analysis does not claim to depict the only areas, or all locations, where visibility may occur; it is intended to provide a representation of those areas where the Facility is likely to be seen.

0 0.25 0.5 1 Miles

HOMELAND TOWERS

ALL-POINTS TECHNOLOGY CORPORATION

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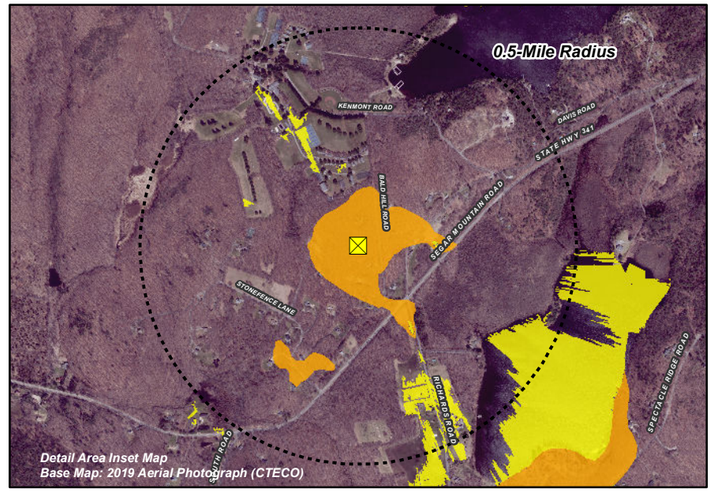
Statewide and Regional Overview Map



Detail Area Inset Map
Base Map: 2019 Aerial Photograph (CTECO)

Viewshed Analysis Map

Proposed Wireless Telecommunications Facility
CT757 - Kent
Bald Hill Road
Kent, Connecticut

Proposed facility height is 153 feet AGL.
Forest canopy height is derived from LiDAR data.
Study area encompasses a two-mile radius and includes 8,042 acres.
Map information field verified by APT on April 11, 2019
Base Map Source: USGS 7.5 Minute Topographic Quadrangle Map, Ellsworth, CT (1969) and Kent, CT (1971)
Map Date: February 2020

Legend

- Proposed Site
- Study Area (2-Mile Radius)

Photo Locations (April 11, 2019)

- Not Visible
- Seasonal Visibility
- Balloon Visible Through Trees
- Year-Round Visibility
- Predicted Year-Round Visibility (131 Acres; *46 Acres and 63 Acres Over Open Water on N. Spectacle Pond and S. Spectacle Pond, Respectively)
- Areas of Potential Seasonal Visibility (55 Acres)
- Municipal Boundary
- Trail
- Scenic Highway
- DEEP Boat Launches
- Municipal and Private Open Space Property
- State Forest/Park

Protected Open Space Property

- Federal
- Land Trust
- Municipal
- Private
- State

Data Sources:

Physical Geography / Background Data

A digital surface model (DSM) was created from the State of Connecticut 2016 LiDAR LAS data points. The DSM captures the natural and built features on the Earth's surface.

Municipal Open Space, State Recreation Areas, Trails, County Recreation Areas, and Town Boundary data obtained from CT DEEP. Scenic Roads: CTDOT State Scenic Highways (2015); Municipal Scenic Roads (compiled by APT)

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Connecticut Forest & Parks Association, Connecticut Walk Books East & West

Other

CTDOT Scenic Strips (based on Department of Transportation data)

Notes

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Limitations

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0 0.25 0.5 1 Miles

HOMELAND TOWERS

ALL-POINTS TECHNOLOGY CORPORATION

Visual Assessment & Photo-Simulations

KENT
93 RICHARDS ROAD
KENT, CT 06785

Prepared For:

Homeland Towers
9 Harmony Street
2nd Floor
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All-Points Technology Corporation, P.C.
567 Vauxhall Street Extension – Suite 311
Waterford, CT 06385

February 2020

VISUAL ASSESSMENT & PHOTO-SIMULATIONS

Homeland Towers ("Homeland") is seeking a Certificate of Environmental Compatibility and Public Need from the Connecticut Siting Council (the "Council") for the development of a new wireless communications facility (the "Facility") at 93 Richards Road in Kent, Connecticut (the "Host Property"). At the request of Homeland, All-Points Technology Corporation, P.C. ("APT") completed this assessment to evaluate the potential visual effects of the proposed Facility from within a two-mile radius (the "Study Area"). The Study Area includes the neighboring municipalities of Warren (to the east) and Washington (to the southeast).

Project Undertaking

Homeland plans to construct the proposed Facility in the northeastern portion of the Host Property (the "Site"). The Facility would include a 154-foot tall steel monopole within an approximate 60-foot by 60-foot gravel base, fenced equipment compound. The base of the Facility would be constructed at an approximate elevation of 1345.5 feet above mean sea level ("AMSL") and the highest antenna platform would be installed such that the tops of the panel antennas would be flush with the top of the monopole. Antennas for Town of Kent municipal services will extend above the top of the tower to a height of approximately 174 feet above ground level ("AGL"). The Facility has been designed to accommodate multiple service providers as well as the municipal antennas. Access would be provided over an existing gravel access driveway that extends eastward to the Site from Richards Road.

Project Setting

The Host Property is located along the east side of Richards Road in the southeastern portion of Kent. It is privately-owned and developed with a residence, commercial building and material storage yard. Residential properties are located north and west of the Host Property. Land to the south and west is wooded and mostly undeveloped. The Kenmont Kenwood Summer camp is located approximately 1.05 miles north of the Host Property.

The topography within the Study Area consists of rolling to steep hills surrounding the Host Property, with generally level terrain to the north/northwest on Richards Road and in the vicinity of South Spectacle Pond. Ground elevations range from approximately 552 feet AMSL in the northwestern portion of the Study Area to approximately 1368 feet AMSL with the highest point found approximately 0.2-mile northeast of the Site. Tree cover within the Study Area (consisting of predominantly mixed deciduous hardwoods and conifers) occupies approximately 5,986 acres (±74.4%) of the 8,042-acre Study Area.

Methodology

APT used the combination of a predictive computer model, in-field analysis, and a review of various data sources to evaluate the visibility associated with the proposed Facility on both a quantitative and qualitative basis. The predictive model provides a measurable assessment of visibility throughout the entire Study Area, including private properties and other areas inaccessible for direct observations. The in-field analyses included a crane test and field reconnaissance of the Study Area to record existing

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conditions, verify results of the model, inventory seasonal and year-round view locations, and provide photographic documentation from publicly accessible areas. A description of the procedures used in the analysis is provided below.

Preliminary Computer Modeling

To conduct this assessment, a predictive computer model was developed specifically for this project using ESRI's ArcMap GIS[1] software and available GIS data. The predictive model incorporates Project and Study Area-specific data, including the site location, its ground elevation and the proposed Facility height, as well as the surrounding topography, existing vegetation, and structures (the primary features that can block direct lines of sight).

A digital surface model ("DSM"), capturing both the natural and built features on the Earth's surface, was generated for the extent of the Study Area utilizing State of Connecticut 2016 LiDAR[2] LAS[3] data points. LiDAR is a remote-sensing technology that develops elevation data by measuring the time it takes for laser light to return from the surface to the instrument's sensors. The varying reflectivity of objects also means that the "returns" can be classified based on the characteristics of the reflected light, normally into categories such as "bare earth," "vegetation," "road," or "building." Derived from the 2016 LiDAR data, the LAS datasets contain the corresponding elevation point data and return classification values. The Study Area DSM incorporates the first return LAS dataset values that are associated with the highest feature in the landscape, typically a treetop, top of a building, and/or the highest point of other tall structures.

Once the DSM was generated, ESRI's Viewshed Tool was utilized to identify locations within the Study Area where the proposed Facility may be visible. ESRI's Viewshed Tool predicts visibility by identifying those cells[4] within the DSM that can be seen from an observer location. Cells where visibility was indicated were extracted and converted from a raster dataset to a polygon feature which was then overlaid onto an aerial photograph and topographic base map. Since the DSM includes the highest relative feature in the landscape, isolated "visible" cells are often indicated within heavily forested areas (e.g., from the top of the highest tree) or on building rooftops during the initial processing. It is recognized that these areas do not represent typical viewer locations and overstate visibility. As such, the resulting polygon feature is further refined by extracting those areas. The viewshed results are also cross-checked against the most current aerial photographs to assess whether significant changes (a new housing development, for example) have occurred since the time the LiDAR-based LAS datasets were captured.

The results of the preliminary analysis are intended to provide a representation of those areas where portions of the Facility *may* potentially be visible to the human eye without the aid of magnification, based on a viewer eye-height of five (5) feet above the ground and the combination of intervening topography,

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[1] ArcMap is a Geographic Information System desktop application developed by the Environmental Systems Research Institute for creating maps, performing spatial analysis, and managing geographic data.

[2] Light Detection and Ranging

[3] An LAS file is an industry-standard binary format for storing airborne LiDAR data.

[4] Each DSM cell size is 1 square meter.

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trees and other vegetation, and structures. However, the Facility may not necessarily be visible from all locations within those areas identified by the predictive model, which has limitations. For instance, it is important to note that the computer model cannot account for mass density, tree diameters and branching variability of trees, or the degradation of views that occur with distance. As a result, some areas depicted on the viewshed maps as theoretically offering potential visibility of the Facility may be over-predicted because the quality of those views is not sufficient for the human eye to recognize the Facility or discriminate it from other surrounding or intervening objects.

Seasonal Visibility#

Visibility also varies seasonally with increased, albeit obstructed, views occurring during "leaf-off" conditions. Beyond the variabilities associated with density of woodland stands found within any given Study Area, each individual tree also has its own unique trunk, pole timber and branching patterns that provide varying degrees of screening in leafless conditions which, as introduced above, cannot be precisely modeled. Seasonal visibility is therefore estimated based on a combination of factors including the type, size, and density of trees within a given area; topographic constraints; and other visual obstructions that may be present. Taking into account these considerations, areas depicting seasonal visibility on the viewshed maps are intended to represent locations from where there is a potential for views through intervening trees, as opposed to indicating that leaf-off views will exist from within an entire seasonally-shaded area.

To refine the estimate of seasonal visibility through the trees, forested areas were manually adjusted to eliminate 500-foot wide areas of vegetation surrounding the Facility and perimeters of forested areas with otherwise unimpeded aspects toward the site. This distance, although considered conservative, is based on 20+ years of field experience and observations, and assumes that a person standing within a forested area will not be able to discern an object like the Facility beyond 500 feet. Depending on the density of the intervening tree canopy and understory of the surrounding woodlands, it is assumed that some locations (but not all) within 500 feet could provide visibility of at least a portion of the Facility during "leaf-off" conditions.

Crane Test and Field Reconnaissance

To supplement and fine tune the results of the computer modeling efforts, APT completed in-field verification activities consisting of a crane test, vehicular and pedestrian reconnaissance, and photo-documentation. The crane test and field review were completed on January 18, 2020. The crane test consisted of raising a brightly-colored, approximately 4' by 4' flag with a crane to a height of approximately 154 feet AGL[5] at the Site. Weather conditions were favorable for the in-field activity with calm winds and overcast skies. The Town of Kent provided public notice of the event.

[5] The top of the flag represented the top of the monopole and top of the antennas.

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Once the flag was raised, APT conducted a Study Area reconnaissance by driving along local and State roads and other publicly accessible locations and walking several public trail systems to document and inventory where the flag could be seen above and through the tree canopy and other visual obstructions. Visual observations from the reconnaissance were also used to evaluate the results of the preliminary visibility mapping and identify any discrepancies in the initial modeling.

Photographic Documentation and Simulations

During the Study Area reconnaissance, APT obtained photo-documentation of representative locations where the flag was visible. At each photo location, the geographic coordinates of the camera's position were logged using global positioning system ("GPS") technology. Photographs were taken with a Canon EOS 6D digital camera body[6] and Canon EF 24 to 105 millimeter ("mm") zoom lens. APT typically uses a standard focal length of 50mm to present a consistent field of view. On occasion, photos are taken at lower focal lengths to provide a greater depth of field and to provide context to the scene by including surrounding features within the photograph. During this evaluation, ten (10) photographs were taken at a shorter focal length as noted in the table (Table 1 – Photo Locations) on the following pages, including two (2) taken over North and South Spectacle Ponds with a DJI Phantom 4 Pro drone that has an attached camera with a 9mm lens.

Photographic simulations were generated to portray scaled renderings of the proposed Facility from twenty-four (24) locations presented herein where the Facility may be recognizable above or through the trees. Using field data, site plan information and 3-dimensional (3D) modeling software, spatially referenced models of the site and Facility were generated and merged. The geographic coordinates obtained in the field for the photograph locations were incorporated into the model to produce 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, which were ultimately composited and merged with the existing conditions photographs (using Photoshop image editing software). The scale of the subjects in the photograph (the flag) and the corresponding simulation (the Facility) is proportional to their surroundings.

For presentation purposes in this report, the photographs were produced in an approximate 7-inch by 10.5-inch format. When reproducing the images in this format size, we believe it is important to present the largest view while providing key contextual landscape elements (existing developments, street signs, utility poles, etc.) so that the viewer can determine the proportionate scale of each object within the scene.

Photo-documentation of the field reconnaissance and photo-simulations of the proposed Facility are presented in the attachment at the end of this report. The field reconnaissance photos that include the crane boom and flag in the view provide visual reference points for the approximate height and location of the proposed Facility relative to the scene. Note in several photographs, a red balloon can also be seen in

[6] The Canon EOS 6D is a full-framed camera which includes a lens receptor of the same size as the film used in 35mm cameras. As such, the images produced are comparable to those taken with a conventional 35mm camera.

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the view. A neighboring property owner was responsible for independently raising this balloon, which in no way represents the proposed Facility discussed in the report.[7]

All simulations were created to represent the proposed monopole height of 154' AGL. The photo-simulations are intended to provide the reader with a general understanding of the different view characteristics associated with the Facility from various locations. Photographs were taken from publicly-accessible areas and unobstructed view lines were chosen wherever possible.

The following table summarizes the photographs and simulations presented in the attachment to this report, and includes a description of each location, view orientation, distance from where the photo was taken relative to the proposed Facility, and the general characteristics of the view. The photo locations are depicted on the photolog and viewshed maps provided as attachments to this report.

Table 1 – Photo Locations

Photo	Location	Orientation	Distance to Site	Visibility
1	Anderson Acres Road	Southwest	± 1.63 Miles	Year Round
2	Anderson Acres Road at Kent Hollow Road*	Southwest	± 1.40 Miles	Not Visible
3	Beardsley Road	Northwest	± 1.51 Miles	Year Round
4	Beardsley Road	Northwest	± 1.81 Miles	Year Round
5	Beardsley Road	Northwest	± 2.10 Miles	Not Visible
6	Beardsley Road, Washington	Northwest	± 2.34 Miles	Year Round
7	Tanguay Road	Northwest	± 1.85 Miles	Year Round
8	Kent Hollow Road	Northwest	± 1.49 Miles	Seasonal
9	Kent Hollow Road	Northwest	± 1.22 Miles	Year Round
10	Straight Road	Northwest	± 1.07 Miles	Not Visible
11	Kent Hollow Road	Northwest	± 1.02 Miles	Year Round
12	Kent Hollow Road at Anderson Road	Northwest	± 1.02 Miles	Not Visible
13	Kent Hollow Road	Northwest	± 1.14 Miles	Year Round
14	Kent Hollow Road*	Northwest	± 1.18 Miles	Not Visible
15	Upper Kent Hollow Road	West	± 0.90 Mile	Year Round
16	Upper Kent Hollow Road	Southwest	± 0.90 Mile	Year Round
17	East Kent Hamlet Nature Preserve – Hiking Trail**	Southwest	± 1.78 Miles	Not Visible
18	Kenico Road at Segar Mountain Road**	Southwest	± 2.03 Miles	Not Visible

Table continued on following page

[7] Neither APT nor Homeland were made aware of this activity prior to observing it in the field on the day of the noticed crane test. No information was provided as to the specific location flown, its ground elevation or the height at which the balloon was tethered.

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Photo	Location	Orientation	Distance to Site	Visibility
19	West Aspetuck Scenic Wetlands Preserve – Hiking Trail	Southwest	± 1.94 Miles	Not Visible
20	Segar Mountain Road	South	± 1.19 Miles	Year Round
21	South Spectacle Pond^	South	± 0.87 Mile	Year Round
22	North Spectacle Pond^	South	± 1.53 Miles	Not Visible
23	Kenmont Kenwood Camp – North Spectacle Pond*	Southeast	± 1.35 Miles	Not Visible
24	Kenmont Kenwood Camp	Southeast	± 1.37 Miles	Not Visible
25	Segar Mountain Road	Southeast	± 1.64 Miles	Not Visible
26	Bald Hill Road at Segar Mountain Road	Southeast	± 0.80 Mile	Year Round
27	Richards Road	Southeast	± 0.49 Mile	Year Round
28	Spectacle Ridge Road	Southeast	± 0.24 Mile	Seasonal
29	Richards Road	Southeast	± 0.16 Mile	Seasonal
30	Oak Ridge Road	Southeast	± 0.34 Mile	Seasonal
31	Richards Road	Northeast	± 0.19 Mile	Seasonal
32	Richards Road	Northeast	± 0.46 Mile	Year Round
33	Treasure Hill Road	Northeast	± 0.52 Mile	Seasonal
34	Anderson Road	North	± 0.91 Mile	Not Visible
35	Ore Hill Road	Northeast	± 1.75 Miles	Not Visible
36	Geer Mountain Road	Northeast	± 1.68 Miles	Year Round
37	Flat Rock Road	Northeast	± 1.10 Miles	Not Visible
38	South Road at Iron Mountain Road**	East	± 0.74 Mile	Not Visible
39	Jennings Road	Northeast	± 1.45 Miles	Not Visible
40	Brown Road	East	± 1.71 Miles	Year Round
41	Ten Rod Road	East	± 1.74 Miles	Not Visible
42	Segar Mountain Road*	Southeast	± 0.84 Mile	Not Visible
43	Iron Mountain Preserve – Hiking Trail**	Northeast	± 0.91 Mile	Not Visible

**Photograph was taken at 35 mm focal length*

***Photograph was taken at 24 mm focal length*

^*Photograph taken at 9 mm focal length*

Final Visibility Mapping

Information obtained during the field reconnaissance was incorporated into the mapping data layers, including observations of the field reconnaissance, the photograph locations, areas that experienced recent land use changes and those places where the initial model was found to over or under-predict visibility. Once the additional data was integrated into the model, APT recalculated the visibility of the proposed Facility within the Study Area.

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Conclusions

As presented on the attached viewshed maps, the most prominent views of the Facility would be from areas approximately 0.5 to 1 mile north of the Site, including portions of Richards Road and northern portions of South Spectacle Pond, and Upper Kent Hollow Road to the east. See photos 27, 21 and 15, respectively, for representative views. Year-round visibility extends to the west and east of both roadways at distances. Intermittent year-round views also extend to select locations at distances of 1 mile and beyond along Beardsley Road, Segar Mountain Road, Geer Mountain Road, and Jennings Road as documented in Photos 3, 20, 36 and 39.

Seasonally, when the leaves are off the deciduous trees, visibility would mostly be concentrated areas within ±0.5 mile of the Facility, including areas north around South Spectacle Pond, open fields located west of Richards Road and Treasure Hill Road.

Based on the reconnaissance of local hiking trails, which are heavily wooded and offer minimal unobstructed vistas towards the Site, no views of the Facility are anticipated.

Predicted year-round visibility of the proposed Facility is estimated to include approximately 205 acres (2.55% of the 8,042-acre Study Area). Approximately 54 acres of the predicted year-round visibility occurs over open water on South Spectacle Pond. Predicted seasonal visibility is estimated to include an additional ±96 acres (1.19% of the Study Area).

Proximity to Schools And Commercial Child Day Care Centers

There are no schools or commercial child day care centers within 250 feet of the Host Property or within the Study Area. The Kent Center School is located approximately 3.2 miles northwest of the Site at 9 Judd Avenue in Kent. The nearest commercial child day care center, Kent Education Center and Nursery School, is located approximately 3.3 miles northwest of the Site at 6 Bridge Street in Kent. No views of the Facility are anticipated from either location.

Limitations

The viewshed maps presented in the attachment to this report depict areas where the proposed Facility may potentially be visible to the human eye without the aid of magnification based on a viewer eye-height of five (5) feet above the ground and intervening topography, tree canopy and structures. This analysis may not account for all visible locations, as it is based on the combination of computer modeling, incorporating aerial photographs, and in-field observations from publicly-accessible locations. No access to private properties was provided to APT personnel[8]. This analysis does not claim to depict the only

[8] The Kenmont Kenwood Camp provided APT personnel with access to their property for photos 22, 23 and 24.

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areas, or all locations, where visibility may occur; it is intended to provide a representation of those areas where the Facility is likely to be seen.

The photo-simulations provide a representation of the Facility under similar settings as those encountered during the field review and reconnaissance. Views of the Facility can change throughout the seasons and the time of day, and are dependent on weather and other atmospheric conditions (e.g., haze, fog, clouds); the location, angle and intensity of the sun; and the specific viewer location. Weather conditions on the day of the field review included calm winds and overcast skies.

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ATTACHMENTS

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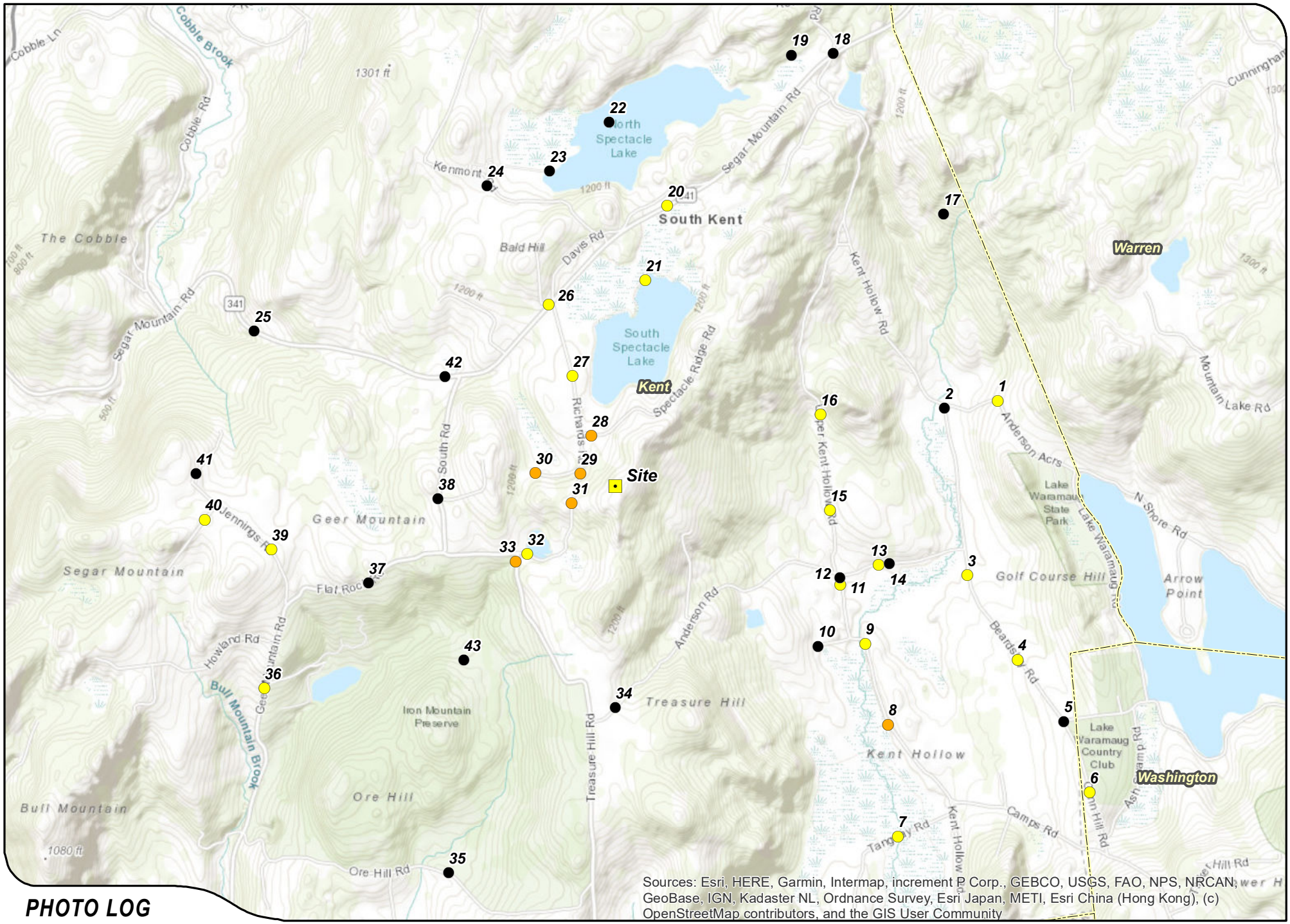

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

PHOTO LOG

Legend

Site · Year-Round · Seasonal · Not Visible · Municipal Boundary

1 inch = 2,700 feet

2,700 1,350 0 2,700 Feet

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 1/18/2020

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
1	**ANDERSON ACRES ROAD**	**SOUTHWEST**	**+/- 1.63 MILES**	**YEAR ROUND**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PROPOSED

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
1	**ANDERSON ACRES ROAD**	**SOUTHWEST**	**+/- 1.63 MILES**	**YEAR ROUND**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

3.5mm Focal Length

PHOTOGRAPHED ON 1/18/2020

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
2	**ANDERSON ACRES ROAD AT KENT HOLLOW ROAD**	**SOUTHWEST**	**+/- 1.40 MILES**	**NOT VISIBLE**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 1/18/2020

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
3	**BEARDSLEY ROAD**	**NORTHWEST**	**+/- 1.51 MILES**	**YEAR ROUND**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PROPOSED

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
3	**BEARDSLEY ROAD**	**NORTHWEST**	**+/- 1.51 MILES**	**YEAR ROUND**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 1/18/2020

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
4	**BEARDSLEY ROAD**	**NORTHWEST**	**+/- 1.81 MILES**	**YEAR ROUND**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PROPOSED

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
4	**BEARDSLEY ROAD**	**NORTHWEST**	**+/- 1.81 MILES**	**YEAR ROUND**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 1/18/2020

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
5	**BEARDSLEY ROAD**	**NORTHWEST**	**+/- 2.10 MILES**	**NOT VISIBLE**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 1/18/2020

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
6	**BEARDSLEY ROAD**	**NORTHWEST**	**+/- 2.34 MILES**	**YEAR ROUND**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PROPOSED

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
6	**BEARDSLEY ROAD**	**NORTHWEST**	**+/- 2.34 MILES**	**YEAR ROUND**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 1/18/2020

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
7	**TANGUAY ROAD**	**NORTHWEST**	**+/- 1.85 MILES**	**YEAR ROUND**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PROPOSED

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
7	**TANGUAY ROAD**	**NORTHWEST**	**+/- 1.85 MILES**	**YEAR ROUND**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 1/18/2020

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
8	**KENT HOLLOW ROAD**	**NORTHWEST**	**+/- 1.49 MILES**	**SEASONAL**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PROPOSED

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
8	**KENT HOLLOW ROAD**	**NORTHWEST**	**+/- 1.49 MILES**	**SEASONAL**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 1/18/2020

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
9	**KENT HOLLOW ROAD**	**NORTHWEST**	**+/- 1.22 MILES**	**YEAR ROUND**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PROPOSED

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
9	**KENT HOLLOW ROAD**	**NORTHWEST**	**+/- 1.22 MILES**	**YEAR ROUND**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 1/18/2020

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
10	**STRAIGHT ROAD**	**NORTHWEST**	**+/- 1.07 MILES**	**NOT VISIBLE**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 1/18/2020

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
11	**KENT HOLLOW ROAD**	**NORTHWEST**	**+/- 1.02 MILES**	**YEAR ROUND**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PROPOSED

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
11	**KENT HOLLOW ROAD**	**NORTHWEST**	**+/- 1.02 MILES**	**YEAR ROUND**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 1/18/2020

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
12	**KENT HOLLOW ROAD AT ANDERSON ROAD**	**NORTHWEST**	**+/- 1.02 MILES**	**NOT VISIBLE**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 1/18/2020

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
13	**KENT HOLLOW ROAD**	**NORTHWEST**	**+/- 1.14 MILES**	**YEAR ROUND**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PROPOSED

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
13	**KENT HOLLOW ROAD**	**NORTHWEST**	**+/- 1.14 MILES**	**YEAR ROUND**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

EXISTING

PHOTOGRAPHED ON 1/18/2020

35mm Focal Length

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
14	**KENT HOLLOW ROAD**	**NORTHWEST**	**+/- 1.18 MILES**	**NOT VISIBLE**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 1/18/2020

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
15	**UPPER KENT HOLLOW ROAD**	**WEST**	**+/- 0.90 MILE**	**YEAR ROUND**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PROPOSED

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
15	**UPPER KENT HOLLOW ROAD**	**WEST**	**+/- 0.90 MILE**	**YEAR ROUND**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 1/18/2020

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
16	**UPPER KENT HOLLOW ROAD**	**SOUTHWEST**	**+/- 0.90 MILE**	**YEAR ROUND**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PROPOSED

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
16	**UPPER KENT HOLLOW ROAD**	**SOUTHWEST**	**+/- 0.90 MILE**	**YEAR ROUND**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

EXISTING

PHOTOGRAPHED ON 1/18/2020

24mm Focal Length

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
17	**EAST KENT HAMLET NATURE PRESERVE**	**SOUTHWEST**	**+/- 1.78 MILES**	**NOT VISIBLE**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

24mm Focal Length

PHOTOGRAPHED ON 1/18/2020

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
18	**KENICO ROAD AT SEGAR MONTAIN ROAD**	**SOUTHWEST**	**+/- 2.03 MILES**	**NOT VISIBLE**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 1/18/2020

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
19	**WEST ASPETUCK SCENIC WETLANDS PRESERVE - HIKING TRAIL**	**SOUTHWEST**	**+/- 1.94 MILES**	**NOT VISIBLE**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 1/18/2020

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
20	**SEGAR MOUNTAIN ROAD**	**SOUTH**	**+/- 1.19 MILES**	**YEAR ROUND**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PROPOSED

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
20	**SEGAR MOUNTAIN ROAD**	**SOUTH**	**+/- 1.19 MILES**	**YEAR ROUND**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 1/18/2020 9mm Focal Length (Photographed with Drone)

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
21	**SOUTH SPECTACLE POND**	**SOUTH**	**+/- 0.87 MILES**	**YEAR ROUND**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PROPOSED

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
21	**SOUTH SPECTACLE POND**	**SOUTH**	**+/- 0.87 MILES**	**YEAR ROUND**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 1/18/2020 9mm Focal Length (Photographed with Drone)

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
22	**NORTH SPECTACLE POND**	**SOUTH**	**+/- 1.53 MILES**	**NOT VISIBLE**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

3.5mm Focal Length

PHOTOGRAPHED ON 1/18/2020

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
23	**KENMONT KENWOOD CAMP - NORTH SPECTACLE POND**	**SOUTHEAST**	**+/- 1.35 MILES**	**NOT VISIBLE**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 1/18/2020

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
24	**KENMONT KENWOOD CAMP**	**SOUTHEAST**	**+/- 1.37 MILES**	**NOT VISIBLE**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 1/18/2020

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
25	**SEGAR MOUNTAIN ROAD**	**SOUTHEAST**	**+/- 1.64 MILES**	**NOT VISIBLE**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 1/18/2020

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
26	**BALD HILL ROAD AT SEGAR MONTAIN ROAD**	**SOUTHEAST**	**+/- 0.80 MILE**	**YEAR ROUND**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PROPOSED

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
26	**BALD HILL ROAD AT SEGAR MONTAIN ROAD**	**SOUTHEAST**	**+/- 0.80 MILE**	**YEAR ROUND**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 1/18/2020

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
27	**RICHARDS ROAD**	**SOUTHEAST**	**+/- 0.49 MILE**	**YEAR ROUND**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PROPOSED

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
27	**RICHARDS ROAD**	**SOUTHEAST**	**+/- 0.49 MILE**	**YEAR ROUND**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 1/18/2020

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
28	**SPECTACLE RIDGE ROAD**	**SOUTHEAST**	**+/- 0.24 MILE**	**SEASONAL**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PROPOSED

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
28	**SPECTACLE RIDGE ROAD**	**SOUTHEAST**	**+/- 0.24 MILE**	**SEASONAL**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 1/18/2020

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
29	**RICHARDS ROAD**	**SOUTHEAST**	**+/- 0.16 MILE**	**SEASONAL**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PROPOSED

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
29	**RICHARDS ROAD**	**SOUTHEAST**	**+/- 0.16 MILE**	**SEASONAL**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 1/18/2020

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
30	**OAK RIDGE ROAD**	**SOUTHEAST**	**+/- 0.34 MILE**	**SEASONAL**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PROPOSED

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
30	**OAK RIDGE ROAD**	**SOUTHEAST**	**+/- 0.34 MILE**	**SEASONAL**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 1/18/2020

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
31	**RICHARDS ROAD**	**NORTHEAST**	**+/- 0.19 MILE**	**SEASONAL**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PROPOSED

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
31	**RICHARDS ROAD**	**NORTHEAST**	**+/- 0.19 MILE**	**SEASONAL**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 1/18/2020

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
32	**RICHARDS ROAD**	**NORTHEAST**	**+/- 0.46 MILE**	**YEAR ROUND**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PROPOSED

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
32	**RICHARDS ROAD**	**NORTHEAST**	**+/- 0.46 MILE**	**YEAR ROUND**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 1/18/2020

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
33	**TREASURE HILL ROAD**	**NORTHEAST**	**+/- 0.52 MILE**	**SEASONAL**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PROPOSED

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
33	**TREASURE HILL ROAD**	**NORTHEAST**	**+/- 0.52 MILE**	**SEASONAL**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 1/18/2020

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
34	**ANDERSON ROAD**	**NORTH**	**+/- 0.91 MILE**	**NOT VISIBLE**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 1/18/2020

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
35	**ORE HILL ROAD**	**NORTHEAST**	**+/- 1.75 MILES**	**NOT VISIBLE**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 1/18/2020

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
36	**GEER MOUNTAIN ROAD**	**NORTHEAST**	**+/- 1.68 MILES**	**YEAR ROUND**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PROPOSED

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
36	**GEER MOUNTAIN ROAD**	**NORTHEAST**	**+/- 1.68 MILES**	**YEAR ROUND**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 1/18/2020

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
37	**FLAT ROCK ROAD**	**NORTHEAST**	**+/- 1.10 MILES**	**NOT VISIBLE**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 1/18/2020

24mm Focal Length

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
38	**SOUTH ROAD AT IRON MOUNTAIN ROAD**	**EAST**	**+/- 0.74 MILE**	**NOT VISIBLE**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 1/18/2020

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
39	**JENNINGS ROAD**	**NORTHEAST**	**+/- 1.45 MILES**	**YEAR ROUND**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PROPOSED

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
39	**JENNINGS ROAD**	**NORTHEAST**	**+/- 1.45 MILES**	**YEAR ROUND**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 1/18/2020

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
40	**BROWN ROAD**	**EAST**	**+/- 1.71 MILES**	**YEAR ROUND**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PROPOSED

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
40	**BROWN ROAD**	**EAST**	**+/- 1.71 MILES**	**YEAR ROUND**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PHOTOGRAPHED ON 1/18/2020

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
41	**TEN ROD ROAD**	**EAST**	**+/- 1.74 MILES**	**NOT VISIBLE**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

3.5mm Focal Length

PHOTOGRAPHED ON 1/18/2020

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
42	**SEGAR MOUNTAIN ROAD**	**SOUTHEAST**	**+/- 0.84 MILE**	**NOT VISIBLE**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
43	**IRON MOUNTAIN PRESERVE**	**NORTHEAST**	**+/- 0.91 MILE**	**NOT VISIBLE**

PHOTOGRAPHED ON 1/18/2020

35mm Focal Length

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

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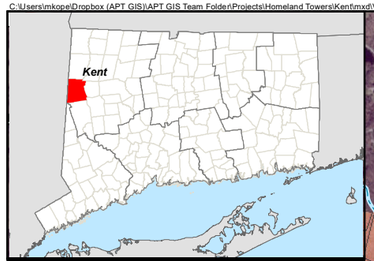
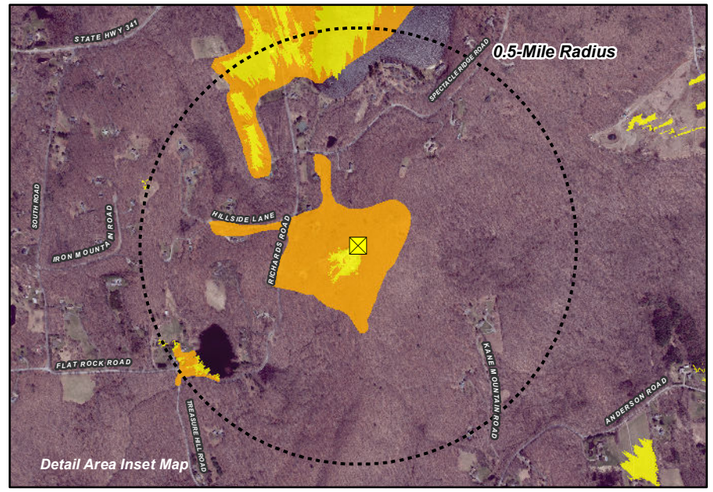


Statewide and Regional Overview Map



Detail Area Inset Map

Viewshed Analysis Map

Proposed Wireless Telecommunications Facility
CT757 - Kent
93 Richards Road
Kent, Connecticut

Proposed facility height is 154 feet AGL.
Forest canopy height is derived from LiDAR data.
Study area encompasses a two-mile radius and includes 8,042 acres.
Map information field verified by APT on January 18, 2020
Base Map Source: 2019 Aerial Photograph (CTECO)
Map Date: February 2020

Legend

- Proposed Site
- Study Area (2-Mile Radius)

Photo Locations (January 18, 2020)

- Not Visible
- Seasonal Visibility
- Year-Round
- Predicted Year-Round Visibility (205 Acres; +/- 54 acres occurs over South Spectacle Pond)
- Areas of Potential Seasonal Visibility (96 Acres)
- Municipal Boundary
- Trail
- Scenic Highway
- DEEP Boat Launches
- Municipal and Private Open Space Property
- State Forest/Park

Protected Open Space Property

- Federal
- Land Trust
- Municipal
- Private
- State

Data Sources:

Physical Geography / Background Data

A digital surface model (DSM) was created from the State of Connecticut 2016 LiDAR LAS data points. The DSM captures the natural and built features on the Earth's surface.

Municipal Open Space, State Recreation Areas, Trails, County Recreation Areas, and Town Boundary data obtained from CT DEEP. Scenic Roads: CTDOT State Scenic Highways (2015); Municipal Scenic Roads (compiled by APT)

Dedicated Open Space & Recreation Areas

Connecticut Department of Energy and Environmental Protection (DEEP): DEEP Property (May 2007; Federal Open Space (1997); Municipal and Private Open Space (1997); DEEP Boat Launches (1994)

Connecticut Forest & Parks Association, Connecticut Walk Books East & West

Other

CTDOT Scenic Strips (based on Department of Transportation data)

Notes

***Not all the sources listed above appear on the Viewshed Maps. Only those features within the scale of the graphic are shown.*

Limitations

This map depicts areas where the proposed Facility may potentially be visible to the human eye without the aid of magnification based on a viewer eye-height of 5 feet above the ground and intervening topography, tree canopy and structures. This analysis may not account for all visible locations, as it is based on the combination of computer modeling, incorporating the DSM, 2016 digital aerial photographs, and in-field observations from publicly-accessible locations. No access to private properties beyond the Host Property was provided to APT personnel. This analysis does not claim to depict the only areas, or all locations, where visibility may occur; it is intended to provide a representation of those areas where the Facility is likely to be seen.

0 0.25 0.5 1 Miles

HOMELAND TOWERS

ALL-POINTS TECHNOLOGY CORPORATION

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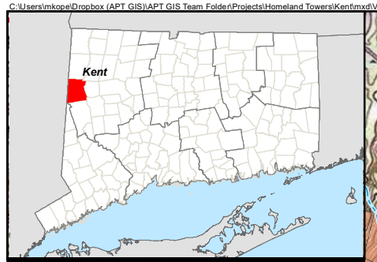
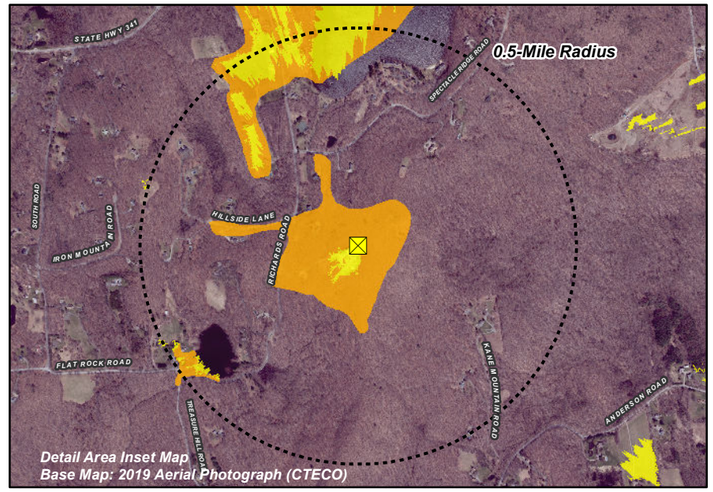


Statewide and Regional Overview Map



Detail Area Inset Map
Base Map: 2019 Aerial Photograph (CTECO)

Viewshed Analysis Map

Proposed Wireless Telecommunications Facility
CT757 - Kent
93 Richards Road
Kent, Connecticut

Proposed facility height is 154 feet AGL.
Forest canopy height is derived from LiDAR data.
Study area encompasses a two-mile radius and includes 8,042 acres.
Map information field verified by APT on January 18, 2020
Base Map Source: USGS 7.5 Minute Topographic Quadrangle Maps, Ellsworth, CT (1969) and Kent, CT (1971)
Map Date: February 2020

Legend

- Proposed Site
- Study Area (2-Mile Radius)

Photo Locations (January 18, 2020)

- Not Visible
- Seasonal Visibility
- Year-Round
- Predicted Year-Round Visibility (205 Acres; +/- 54 acres occurs over South Spectacle Pond)
- Areas of Potential Seasonal Visibility (96 Acres)
- Trail
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- Federal
- Land Trust
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Physical Geography / Background Data

A digital surface model (DSM) was created from the State of Connecticut 2016 LiDAR LAS data points. The DSM captures the natural and built features on the Earth's surface.

Municipal Open Space, State Recreation Areas, Trails, County Recreation Areas, and Town Boundary data obtained from CT DEEP. Scenic Roads: CTDOT State Scenic Highways (2015); Municipal Scenic Roads (compiled by APT)

Dedicated Open Space & Recreation Areas

Connecticut Department of Energy and Environmental Protection (DEEP): DEEP Property (May 2007; Federal Open Space (1997); Municipal and Private Open Space (1997); DEEP Boat Launches (1994)

Connecticut Forest & Parks Association, Connecticut Walk Books East & West

Other

CTDOT Scenic Strips (based on Department of Transportation data)

Notes

***Not all the sources listed above appear on the Viewshed Maps. Only those features within the scale of the graphic are shown.*

Limitations

This map depicts areas where the proposed Facility may potentially be visible to the human eye without the aid of magnification based on a viewer eye-height of 5 feet, above the ground and intervening topography, tree canopy and structures. This analysis may not account for all visible locations, as it is based on the combination of computer modeling, incorporating the DSM, 2016 digital aerial photographs, and in-field observations from publicly-accessible locations. No access to private properties beyond the Host Property was provided to APT personnel. This analysis does not claim to depict the only areas, or all locations, where visibility may occur. It is intended to provide a representation of those areas where the Facility is likely to be seen.

0 0.25 0.5 1 Miles

HOMELAND TOWERS

ALL-POINTS TECHNOLOGY CORPORATION

COMPARATIVE VISUAL ASSESSMENT

Homeland Towers ("Homeland") is seeking a Certificate of Environmental Compatibility and Public Need from the Connecticut Siting Council (the "Council") for the development of a new wireless communications facility (the "Facility") in the southeastern portion of Kent, Connecticut. Homeland has selected two (2) candidate sites for consideration: Bald Hill Road ("Site A") and 93 Richards Road ("Site B").

At the request of Homeland, All-Points Technology Corporation, P.C. ("APT") evaluated the potential visual effects of a 154-foot tall steel monopole at each of the candidate Sites (individual reports are provided under separate cover). The proposed Site locations are depicted on the attached *Figure 1 – Site Location Map*. This report presents a summary of the individual assessments and a comparison of visual effects within two miles (the "Study Area") of each of the two (2) candidate sites.

APT used the combination of a predictive computer model, in-field analysis, and a review of various data sources to evaluate the visibility associated with the proposed Facility on both a quantitative and qualitative basis. The predictive model provides a measurable assessment of visibility throughout the entire Study Area, including private properties and other areas inaccessible for direct observations. The in-field analyses included a balloon float and field reconnaissance of Site A (completed on April, 2019 and supplemented on January 18, 2020) and a crane test and field reconnaissance of Site B (completed on January 18, 2020) to record existing conditions, verify results of the model, inventory seasonal and year-round view locations, and provide photographic documentation from publicly accessible areas[1].

Site Summaries

A summary of the configuration, setting, and predicted visual impacts of each Site is presented below.

Site A – Bald Hill Road, Kent

- **Property:**
  - 1.99-acres
  - Wooded parcel
- **Proposed Facility:**
  - 154-foot tall steel monopole
  - 60-foot by 70-foot gravel base, fenced equipment compound
  - Monopole at ground elevation of ±1,300 feet above mean sea level ("AMSL")
- **Setting:**
  - Residential properties located to north, east, south and west
  - Kenmont/Kenwood Camp located to the north beyond residences
  - Segar Mountain Road (CT-341) located to the south/southeast
- **Predicted Year-round Visibility:** ±131 acres (1.62% of the 8,042-acre Study Area), of which ±109 acres are over open water on North Spectacle and South Spectacle Ponds
- **Predicted Seasonal Visibility:** ±55 acres (0.68% of Study Area)
- **Nearest Day Care:** ±2.6 miles west
- **Nearest School:** ±2.8 miles west

[1] The Kenmont Kenwood Camp provided APT personnel with access to their property on January 18, 2020.

Site B – 93 Richards Road, Kent

- **Property:**
  - 6.82-acres
  - Residential
- **Proposed Facility:**
  - 154-foot tall steel monopole
  - 60-foot by 60-foot gravel base, fenced equipment compound
  - Monopole at ground elevation of ±1,345 feet AMSL
- **Setting:**
  - Residential properties located to north and west
  - Wooded area located to the south and east
  - South Spectacle Pond located to the north beyond residences
  - Segar Mountain Road (CT-341) located to the north
- **Predicted Year-round Visibility:** ±205 acres (2.55% of the 8,042-acre Study Area), of which ±54 acres are over open water on South Spectacle Pond
- **Predicted Seasonal Visibility:** ±96 acres (1.19% of Study Area)
- **Nearest Day Care:** ±3.3 miles northwest
- **Nearest School:** ±3.2 miles northwest

Comparative Analysis

The total area of predicted visibility is less for Site A (±186 acres) than for Site B (±301 acres), representing 2.3% and 3.7% of their Study Areas, respectively.

The majority of the predicted visibility associated with Site A is limited to open water on North and South Spectacle Ponds and south of the Site along Richards Road. Seasonally, when the leaves are off the deciduous trees, the Facility may be seen from some locations along and on either side of Bald Hill Road. Additional seasonal visibility may occur along the southeast shoreline of South Spectacle Pond.

Predicted visibility of Site B is primarily associated with stretches of Richards Road to the north, over South Spectacle Pond to the northeast, and farther to the east along Upper Kent Hollow and Kent Hollow Roads.

Based upon the balloon float, crane test and field reconnaissance, a significant portion of the predicted year-round visibility is over open water. It is evident that either Site would create “spot” or intermittent views from select locations along Jennings Road and Segar Mountain Road to the southwest.

The viewshed maps discussed herein are provided as attachments.

Limitations

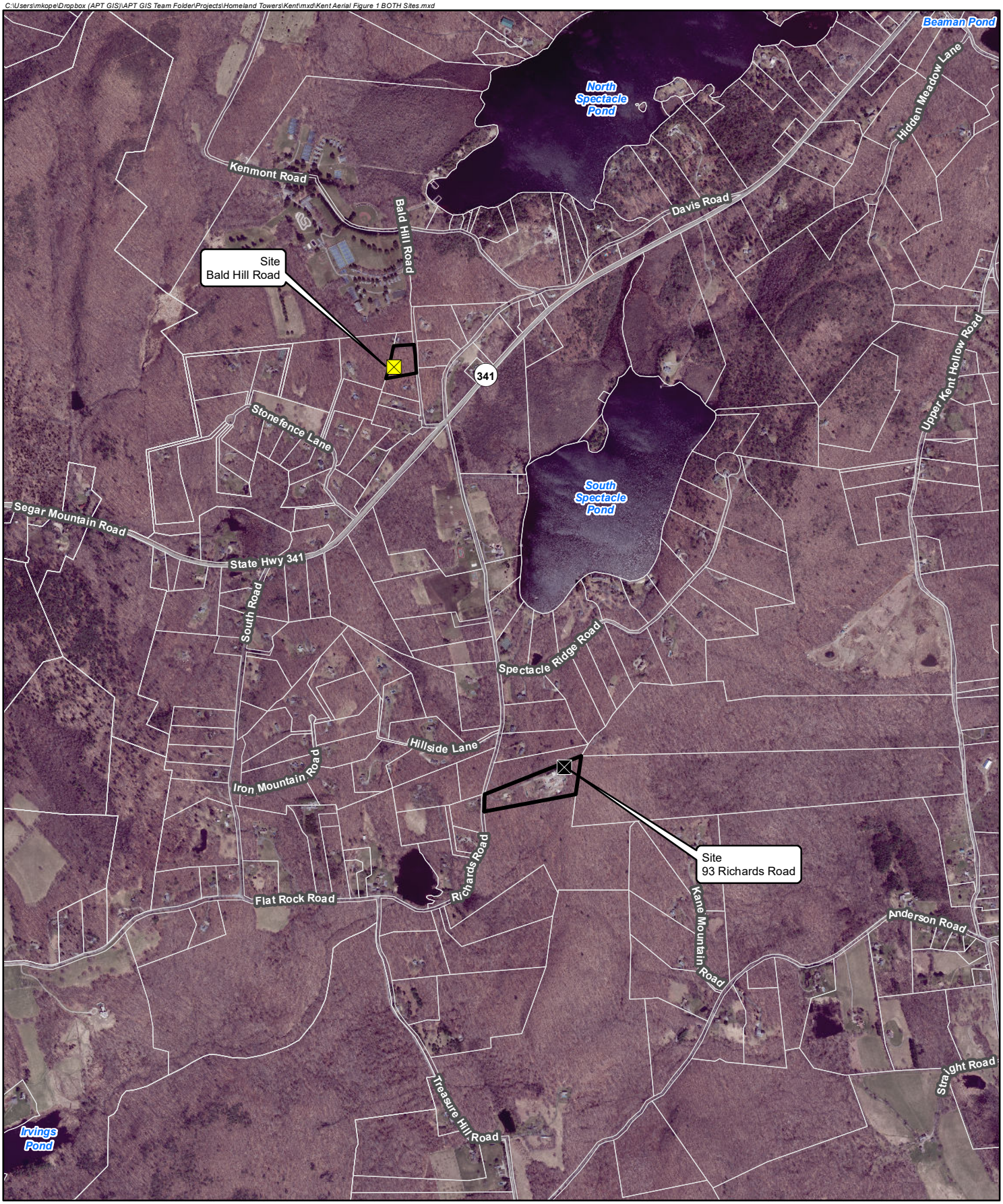
The viewshed maps presented in the attachment to this report depict areas where the proposed Facility may potentially be visible to the human eye without the aid of magnification based on a viewer eye-height of five (5) feet above the ground and intervening topography, tree canopy and structures. This analysis may not account for all visible locations, as it is based on the combination of computer modeling, incorporating aerial photographs, and in-field observations from publicly-accessible locations[2]. This analysis does not claim to depict the only areas, or all locations, where visibility may occur; it is intended to provide a representation of those areas where the Facility is likely to be seen.

The photo-simulations provide a representation of the Facility under similar settings as those encountered during the field review and reconnaissance. Views of the Facility can change throughout the seasons and the time of day, and are dependent on weather and other atmospheric conditions (e.g., haze, fog, clouds); the location, angle and intensity of the sun; and the specific viewer location. Weather conditions on both field review days included calm winds and overcast skies.

[2] For both sites, a significant portion of the predicted year-round visibility is over open water.

ATTACHMENTS

C:\Users\mkope\Dropbox (APT GIS)\APT GIS Team Folder\Projects\Homeland Towers\Kent\mxd\Kent Aerial Figure 1 BOTH Sites.mxd



Legend

- Site (Bald Hill Road)
- Site (93 Richards Road)
- Subject Property
- Approximate Parcel Boundary (CTDEEP GIS)

N
W E
S

1,500 750 0 1,500
Feet

Figure 1 - Site Location Map

Proposed Wireless
Telecommunications Facility
CT757-Kent
Bald Hill Road and
93 Richards Road
Kent, Connecticut

HOMELAND TOWERS

ALL-POINTS TECHNOLOGY CORPORATION

Map Notes:
Base Map Source: 2019 CT ECO Imagery
Map Scale:1 inch = 1,500 feet
Map Date: February 2020