Visual Assessment & Photo-Simulations

HADDAM SOUTH
OLD CHESTER ROAD NORTH
HADDAM, CT

Prepared For:

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VISUAL ASSESSMENT & PHOTO-SIMULATIONS

Project Setting

The Host Property is a ±6-acre wooded parcel. The proposed Facility would be located in the northern corner of the Host Property (the "Site"). Access to the Site would be gained over an adjacent parcel jointly owned by the owner of the Host Property. Land use in the immediate vicinity consists of a mix of commercial/retail development to the east along the Route 154 corridor, residential development to the north, and large tracts of forested State and municipal land to the south and west. The Camp Bethel Historic District is located to the northeast. The East Haddam Historic District is located across the Connecticut River east of the Site. Portions of Routes 154 and 148 are designated scenic roads.

The topography within the Study Area consists of relatively hilly terrain. Ground elevations range from sea level along the Connecticut River approximately 0.6-mile east of the Site to approximately 580 feet above mean sea level ("AMSL") approximately 1.4 miles southwest of the Site. Tree cover within the Study Area (consisting primarily of mixed deciduous hardwoods with interspersed stands of conifers) occupies approximately 5,951 acres (or ±74%) of the 8,042-acre Study Area. Open water accounts for approximately 867 acres, with ±82% of that on the Connecticut River.

Project Undertaking

Site Plan Drawings ("Permitting Documents;" prepared by APT dated December 10, 2024) document the Site location at a ground elevation of approximately 114 feet AMSL. The Facility would include a 140-foot-tall steel monopole (to be painted brown) located within a ±43-foot by ±80-foot gravel compound surrounded by a chain link fence. Anchor tenant Cellco Partnership, d/b/a Verizon Wireless ("Verizon") intends to install antennas at a centerline height of 135′ above ground level ("AGL") with associated ground-mounted equipment, including a 50-kW diesel fueled generator, to be placed within the compound. Cables would extend from the ground equipment via an overhead ice bridge and routed within the monopole to the antenna array. The access drive would be initially over an existing paved/gravel driveway from Saybrook Road before transitioning to a new gravel access drive terminating at the compound. Utilities would be routed underground from a new utility pole to be installed on the west side of Old Chester Road North and traverse underground westward to the Facility. The Facility has been designed to accommodate multiple service providers in addition to Verizon.

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 analysis consisted of a balloon float and field reconnaissance of the Study Area to record existing conditions, verify results of the model, inventory areas of visibility, 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 Facility 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," "surface water" 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.

[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.

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 aerial photograph and topographic base maps. 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, 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 its limitations. For instance, the computer model cannot account for mass density, tree diameters and branching variability of trees, or the degradation of views that occurs with distance. As a result, some areas depicted on the viewshed analysis maps as theoretically offering potential visibility of the Facility may be over-predictive 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 variabilities associated with the density of woodland stands found within a 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. Considering these dynamics, areas depicting seasonal visibility on the Viewshed Analysis 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.

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

Balloon Float and Field Reconnaissance

To supplement the results of the computer modeling efforts, APT completed in-field verification activities on November 20, 2024 consisting of a balloon float, vehicular and pedestrian reconnaissance, and photo-documentation. The balloon float involved raising a brightly-colored, approximately 4-foot diameter, helium-filled balloon tethered to a string height of ±140 feet AGL[5] at the proposed Site. APT conducted a Study Area reconnaissance by driving publicly accessible roads to inventory where the balloon could, and could not, be seen. APT also employed the use of a drone to document views and non-visible locations of the proposed Facility from above the water of the Connecticut River. Visual observations from the reconnaissance were used to evaluate the results of the preliminary visibility mapping, including identifying any overt discrepancies in the initial modeling, and to obtain photo-documentation from representative locations within the Study Area.

Photographic Documentation and Simulations

Photographs were taken with a Canon EOS 6D digital camera body[6] and Canon EF 24 to 105 millimeter ("mm") zoom lens. The coordinates of the proposed tower location were entered as a "waypoint" into a handheld global positioning system ("GPS") device, with the "find" tool on the GPS unit then used to provide the distance and orientation to the balloon position. The geographic coordinates of each photo location were recorded as meta data using GPS technology internal to the camera.

APT typically uses a standard focal length of 50 mm 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, one (1) photograph was taken at a 24 mm focal length and two (2) photographs were taken at a 35 mm focal length. In addition to the terrestrial photographs, two (2) photographs taken via drone over the Connecticut River are included in the attachments to this report. Those photographs were taken at a 9 mm focal length as depicted on the attached table.

Photographic simulations were generated to portray scaled renderings of the proposed Facility from 15 locations presented herein where the Facility will be recognizable above or seasonally, 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

[5] The bottom of the balloon represented the top of the monopole.

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

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 Adobe 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. In one instance where the balloon was visible in the field but heavily obscured by intervening vegetation, a simulation was not produced. Accordingly, Photo Location 18 has been labeled as "obscured". Furthermore, simulations were not produced for the two (2) photographs taken by drone. The scale of the simulation at a 9 mm focal length would not provide a representative depiction of the Facility.

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 development, 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. The corresponding photo-simulations depict the proposed monopole and antennas. 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.

Each photograph and simulation location, view orientation and distance relative to the Site, and the general characteristics of the view are summarized in the attachment to this report. A photolog depicting the locations of each photograph, corresponding photo-simulations, and viewshed maps are also provided in the attachment.

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 majority of visibility occurs generally to the east of Route 154 and over the Connecticut River. Near views adjacent to the commercial corridor of Route 154 represent the main viewpoints where the monopole would extend above the tree line (see Photos 5, 6, 7, and 11 through 15). The Study Area to the west of the Site is dominated by a tall ridgeline which effectively blocks views from that direction.

As seen in the attached photo-simulations, several factors substantially reduce the visual impact of the monopole when seen from locations to the east. The Facility would be backdropped by a heavily wooded ridgeline and the monopole would not be silhouetted against the sky. Further, painting the monopole brown allows it to blend in with the surrounding tree cover. This natural screening can be observed as near as 0.25-mile from the Site (see Photo 10). Views over the Connecticut River will benefit from the same natural screening features as depicted in the two (2) drone shots provided in the attachment, photos 28D and 29D.

No schools or commercial child day care centers are located within 250 feet of the proposed Facility and neither are located in the Study Area. Franklin Academy is approximately 2.3-miles southeast of the Site at 140 River Road in East Haddam. The closest commercial child day care is A First Start Preschool located at 499 Town Street in East Haddam, approximately 2.8-miles northeast of the Site.

Overall, combined visibility of the Facility occurs over approximately 6% (±485 acres) of the 8,042-acre Study Area, almost evenly distributed between seasonal and year-round visibility (±242 and ±243 acres, respectively). Views from the Camp Bethel Historic District were heavily obscured or non-existent. Views from the East Haddam Historic District and along Route 148 are minimal, primarily seasonal in nature, and backdropped by the forested hillside surrounding the Site. Based on the results of this visual assessment, it is our opinion that the proposed Facility would not appear out of context with the character of the Study Area or significantly diminish the scenic qualities of the surrounding landscape.

Limitations

The Viewshed Analysis 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. 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 mostly sunny skies.

ATTACHMENTS

Photo Locations

Photo	Location	Orientation	Distance	Visibility
1	ROUTE 82	NE	+/- 0.98 MILE	NOT VISIBLE
2	SAYBROOK ROAD	NW	+/- 1.15 MILES	NOT VISIBLE
3	SAYBROOK ROAD	NW	+/- 1.13 MILES	YEAR ROUND
4	SAYBROOK ROAD	NW	+/- 0.96 MILE	NOT VISIBLE
5	SAYBROOK ROAD	NW	+/- 0.64 MILE	YEAR ROUND
6	SAYBROOK ROAD	NW	+/- 0.43 MILE	YEAR ROUND
7	SAYBROOK ROAD	NW	+/- 0.26 MILE	YEAR ROUND
8	THE RIVERHOUSE AT GOODSPEED STATION	WSW	+/- 0.39 MILE	NOT VISIBLE
9	BRIDGE ROAD	SW	+/- 0.32 MILE	YEAR ROUND
10	BRIDGE ROAD	SW	+/- 0.25 MILE	YEAR ROUND
11	MOBIL GAS STATION - ADJACENT TO HOST PROPERTY**	SSW	+/- 425 FEET	YEAR ROUND
12	BROOKES COURT	S	+/- 0.21 MILE	SEASONAL
13	BROOKES COURT	S	+/- 0.21 MILE	YEAR ROUND
14	THE ADEL CENTER	SSE	+/- 0.31 MILE	YEAR ROUND
15	THE ADEL CENTER AT SAYBROOK ROAD	SSE	+/- 0.28 MILE	YEAR ROUND
16	SAYBROOK ROAD	SSE	+/- 0.40 MILE	NOT VISIBLE
17	CAMP BETHEL*	SSW	+/- 0.45 MILE	NOT VISIBLE
18	CAMP BETHEL ROAD	SSW	+/- 0.42 MILE	OBSCURED
19	RUTTY FERRY ROAD	S	+/- 1.12 MILES	NOT VISIBLE
20	HADDAM VIEW HEIGHTS	S	+/- 1.00 MILE	NOT VISIBLE
21	MAIN STREET	SSW	+/- 1.16 MILES	NOT VISIBLE
22	MAIN STREET	SW	+/- 0.94 MILE	NOT VISIBLE
23	NATHAN HALE SCHOOLHOUSE MUSEUM	SW	+/- 0.84 MILE	SEASONAL

** Photograph was taken at 35 mm focal length.*

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

Photo Locations Continued

Photo	Location	Orientation	Distance	Visibility
24	MAIN STREET*	WSW	+/- 0.82 MILE	NOT VISIBLE
25	MAIN STREET	WSW	+/- 0.80 MILE	YEAR ROUND
26	GELSTON HOUSE	WSW	+/- 0.79 MILE	SEASONAL
27	CONNECTICUT RIVER ROAD	WSW	+/- 0.82 MILE	YEAR ROUND
28D	CONNECTICUT RIVER PHOTO TAKEN WITH DRONE +/- 15 FEET ABOVE WATER	WNW	+/- 0.82 MILE	SEASONAL
29D	CONNECTICUT RIVER PHOTO TAKEN WITH DRONE +/- 15 FEET ABOVE WATER	WSW	+/- 0.73 MILE	YEAR ROUND

** Photograph was taken at 35 mm focal length.*

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

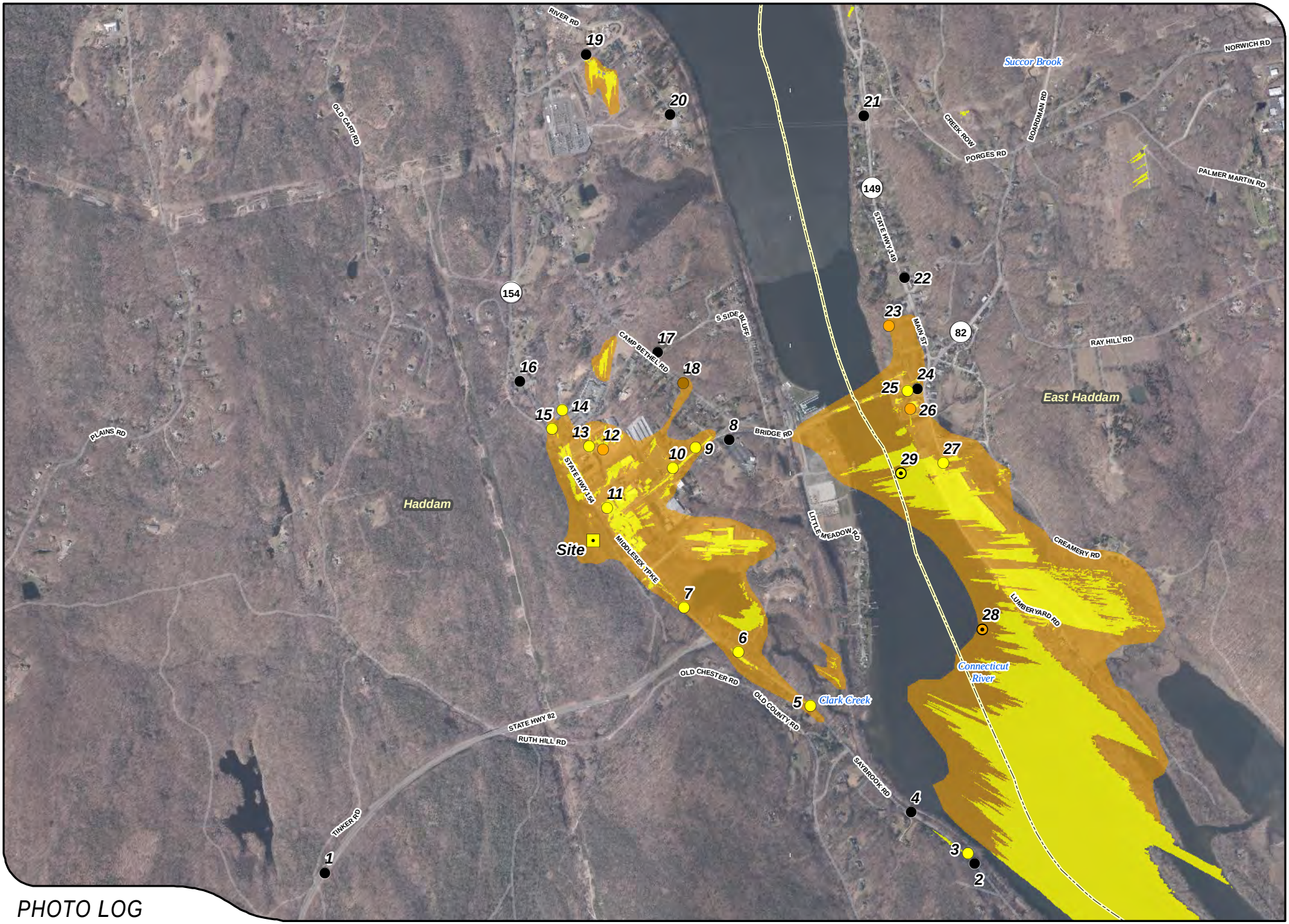

PHOTO LOG

Legend

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

Drone Photos

- Seasonal
- Year-Round

- *Areas of Potential Seasonal Visibility
- *Predicted Year-Round Visibility

**Visibility layers obtained from viewshed analysis mapping contained in this document*

N W E S

1 inch = 1,500 feet

1,500 750 0 1,500 Feet

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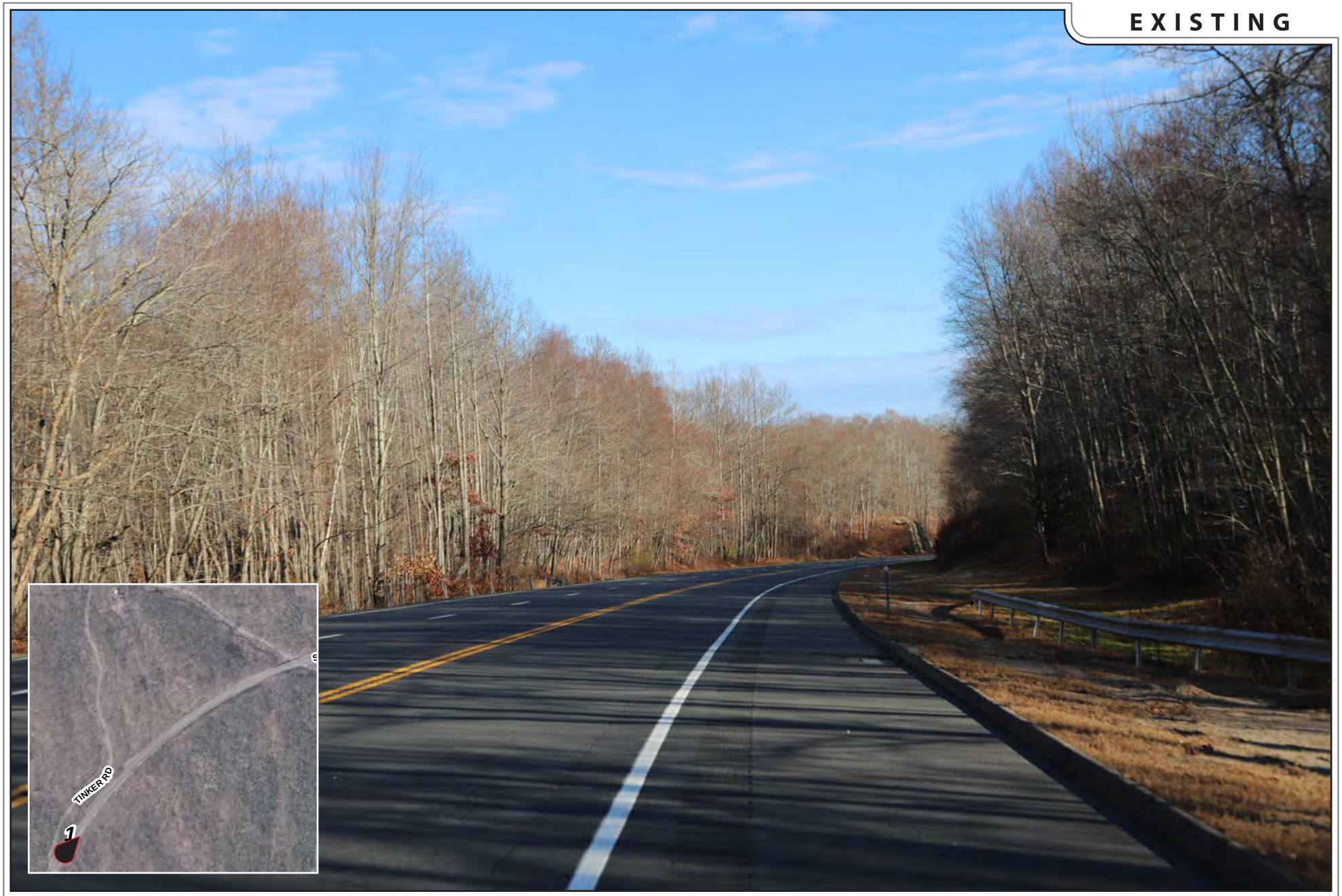
HOMELAND TOWERS

EXISTING



PHOTOGRAPHED ON 11/20/2024

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
1	**ROUTE 82**	**NE**	**+/- 0.98 MILE**	**NOT VISIBLE**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

EXISTING

PHOTOGRAPHED ON 11/20/2024

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
2	**SAYBROOK ROAD**	**NW**	**+/- 1.15 MILES**	**NOT VISIBLE**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

EXISTING

PHOTOGRAPHED ON 11/20/2024

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
3	SAYBROOK ROAD	NW	+/- 1.13 MILES	YEAR ROUND

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PROPOSED

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
3	**SAYBROOK ROAD**	**NW**	**+/- 1.13 MILES**	**YEAR ROUND**

EXISTING

PHOTOGRAPHED ON 11/20/2024

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
4	**SAYBROOK ROAD**	**NW**	**+/- 0.96 MILE**	**NOT VISIBLE**

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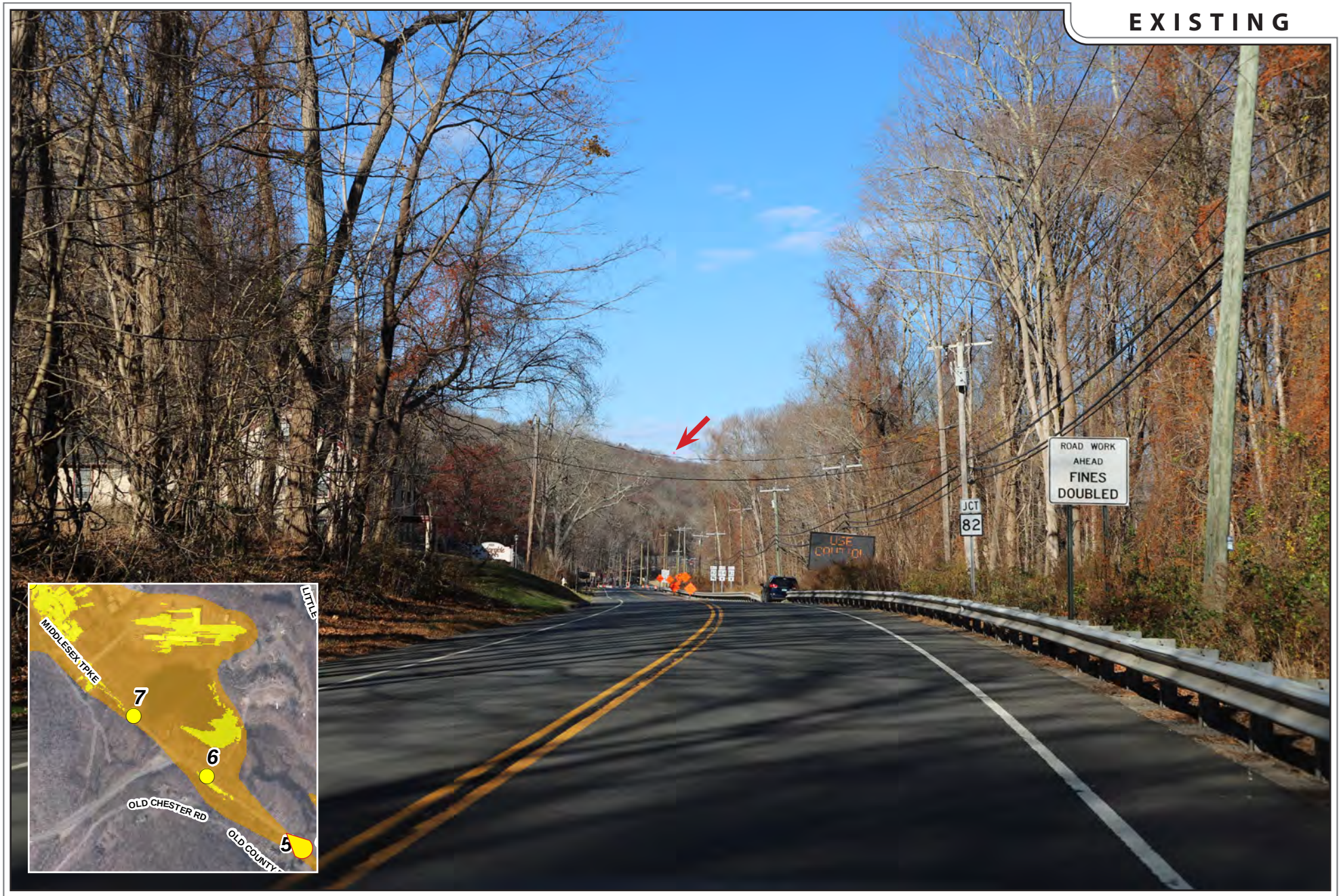
HOMELAND TOWERS

EXISTING



PHOTOGRAPHED ON 11/20/2024

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
5	SAYBROOK ROAD	NW	+/- 0.64 MILE	YEAR ROUND

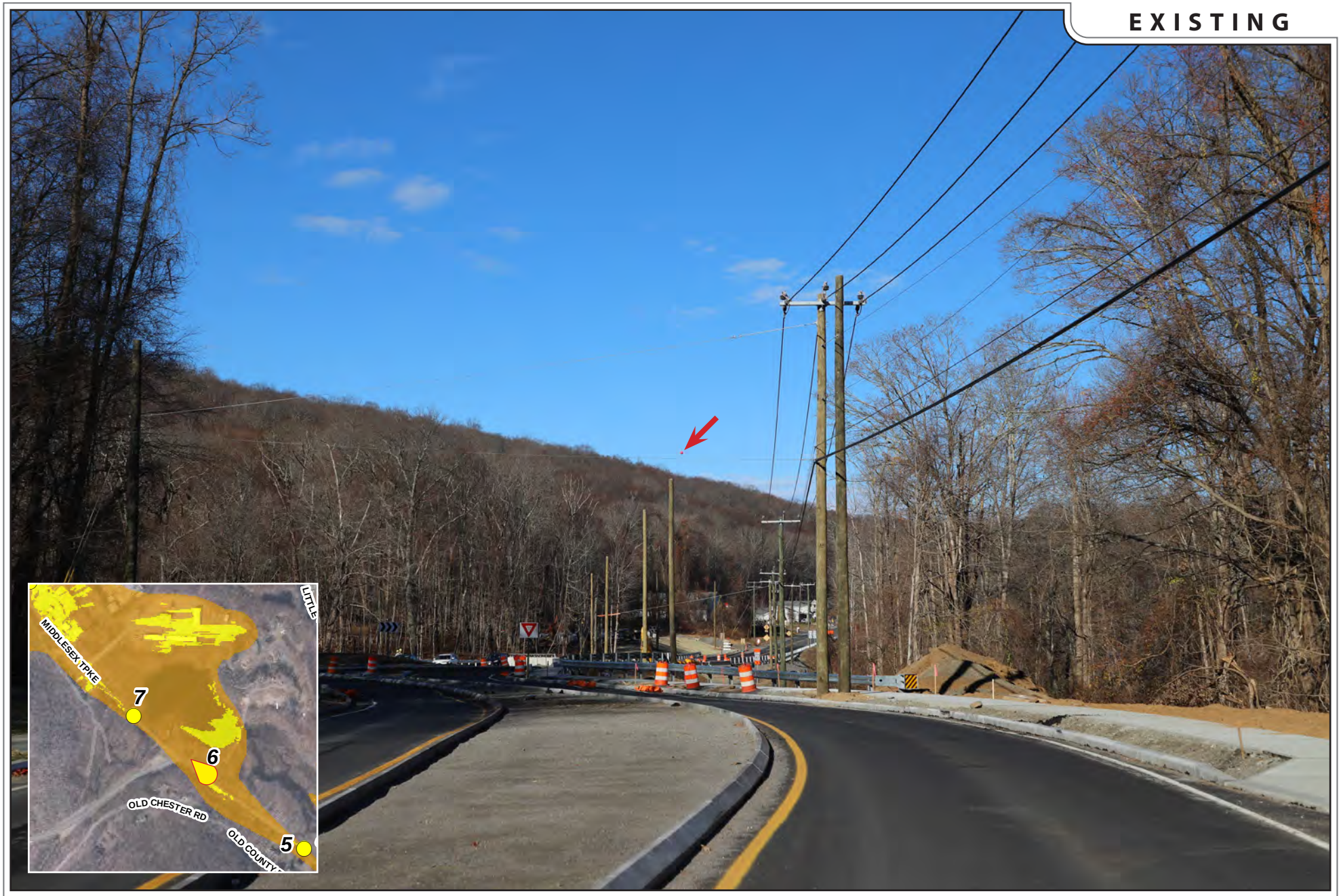
ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PROPOSED

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
5	**SAYBROOK ROAD**	**NW**	**+/- 0.64 MILE**	**YEAR ROUND**

EXISTING



PHOTOGRAPHED ON 11/20/2024

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
6	SAYBROOK ROAD	NW	+/- 0.43 MILE	YEAR ROUND

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PROPOSED

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
6	**SAYBROOK ROAD**	**NW**	**+/- 0.43 MILE**	**YEAR ROUND**

EXISTING

PHOTOGRAPHED ON 11/20/2024

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
7	**SAYBROOK ROAD**	**NW**	**+/- 0.26 MILE**	**YEAR ROUND**

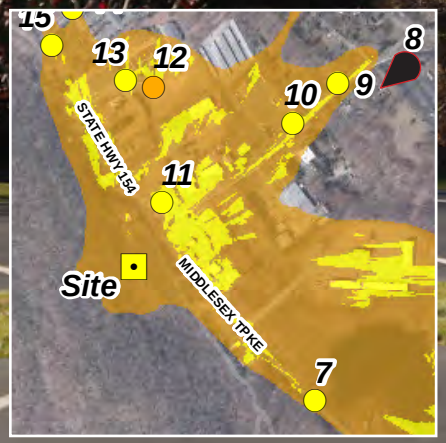
ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PROPOSED

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
7	**SAYBROOK ROAD**	**NW**	**+/- 0.26 MILE**	**YEAR ROUND**

EXISTING



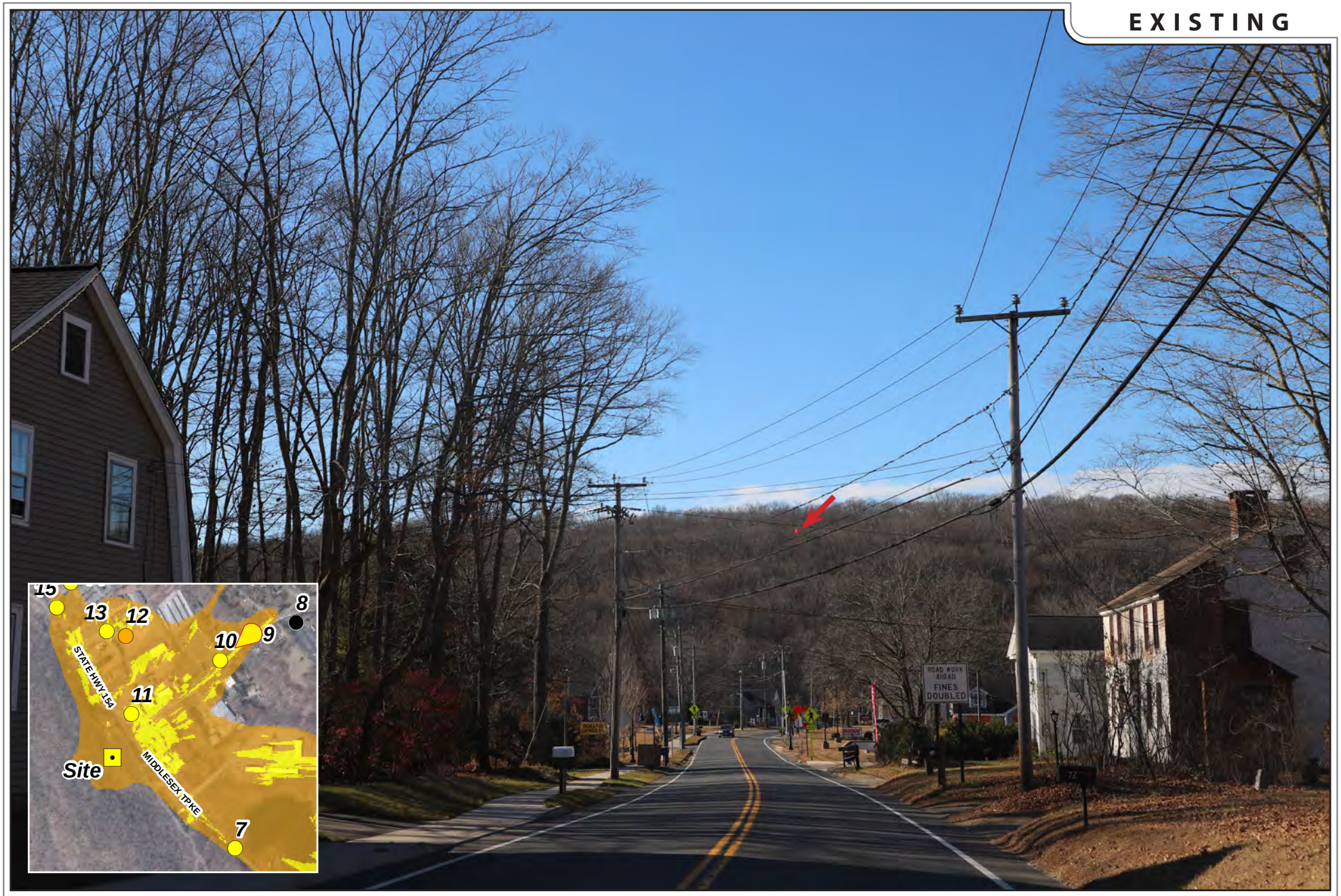
PHOTOGRAPHED ON 11/20/2024

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
8	THE RIVERHOUSE AT GOODSPEED STATION	WSW	+/- 0.39 MILE	NOT VISIBLE

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

EXISTING



PHOTOGRAPHED ON 11/20/2024

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
9	BRIDGE ROAD	SW	+/- 0.32 MILE	YEAR ROUND

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PROPOSED

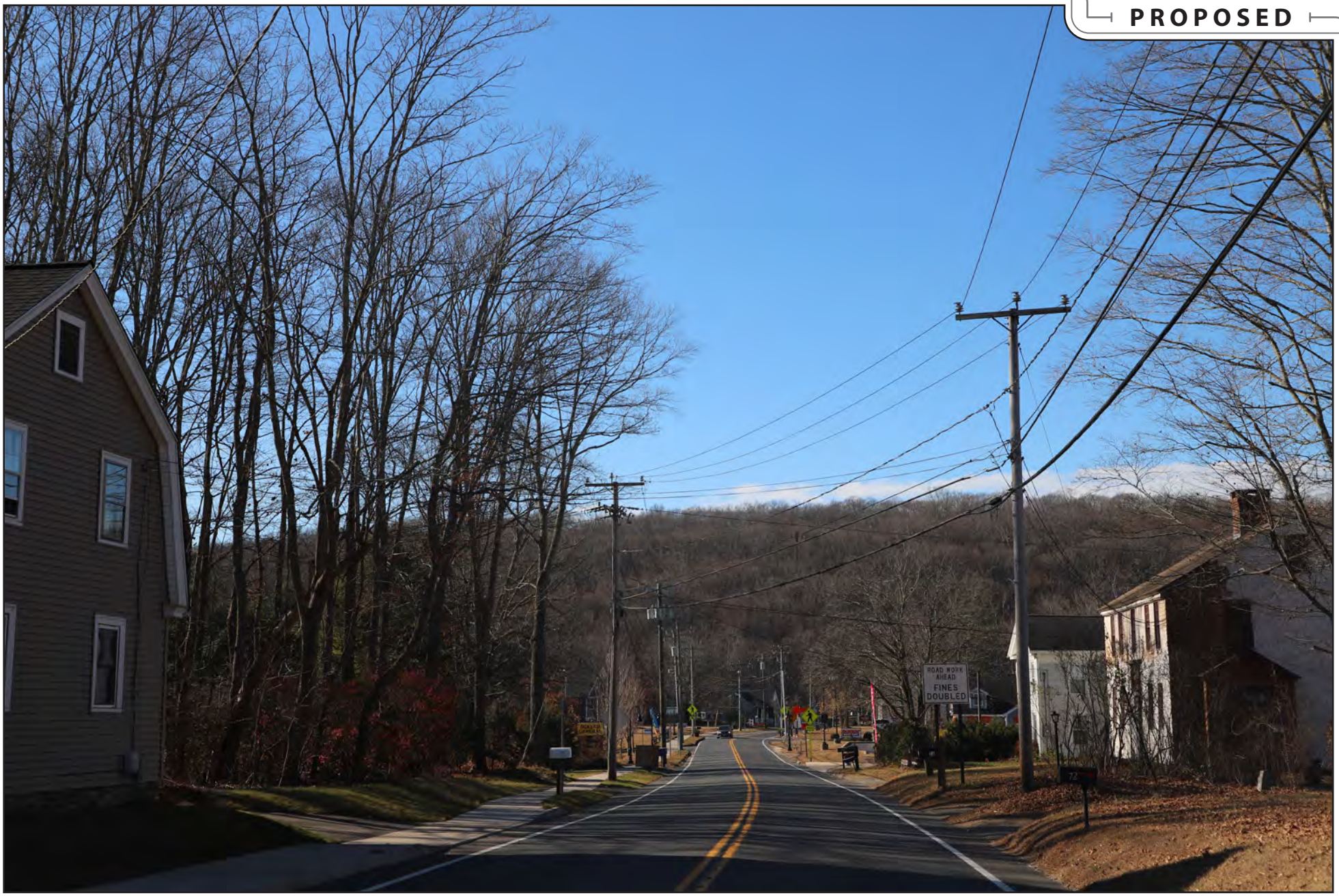
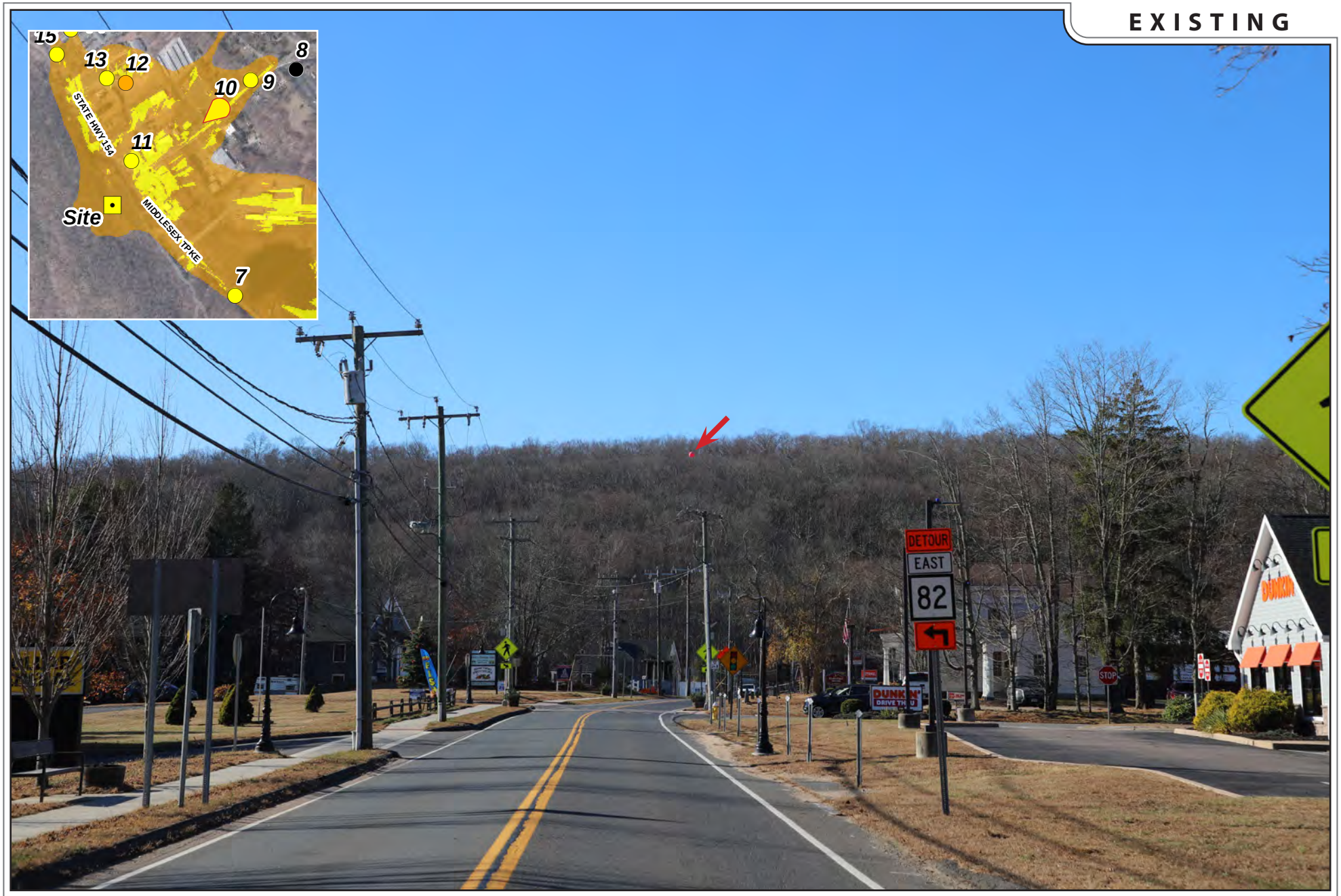


PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
9	**BRIDGE ROAD**	**SW**	**+/- 0.32 MILE**	**YEAR ROUND**

EXISTING



PHOTOGRAPHED ON 11/20/2024

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
10	**BRIDGE ROAD**	**SW**	**+/- 0.25 MILE**	**YEAR ROUND**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PROPOSED

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
10	**BRIDGE ROAD**	**SW**	**+/- 0.25 MILE**	**YEAR ROUND**

EXISTING

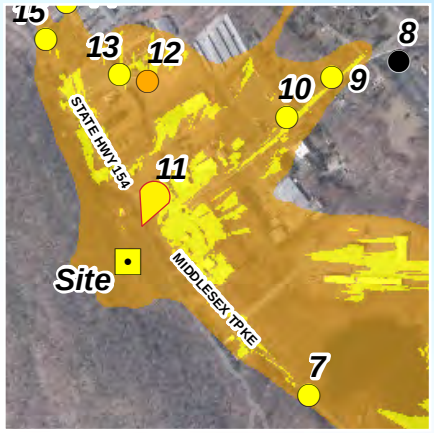


PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
11	MOBIL GAS STATION - ADJACENT TO HOST PROPERTY	SSW	+/- 425 FEET	YEAR ROUND

PHOTOGRAPHED ON 11/20/2024

24mm Focal Length

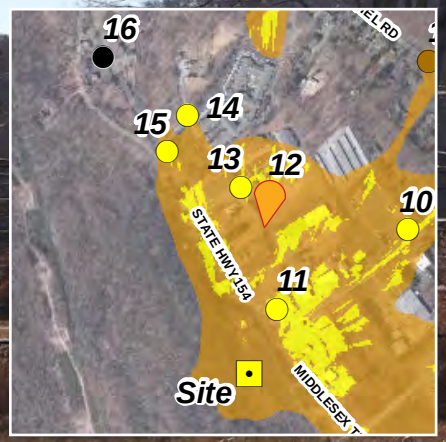
ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PROPOSED

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
11	**MOBIL GAS STATION - ADJACENT TO HOST PROPERTY**	**SSW**	**+/- 425 FEET**	**YEAR ROUND**

EXISTING



PHOTOGRAPHED ON 11/20/2024

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
12	BROOKES COURT	S	+/- 0.21 MILE	SEASONAL

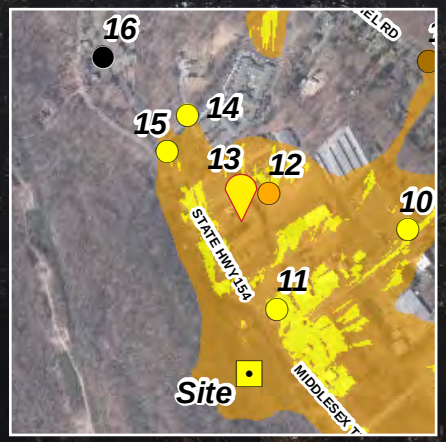
ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PROPOSED

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
12	**BROOKES COURT**	**S**	**+/- 0.21 MILE**	**SEASONAL**

EXISTING



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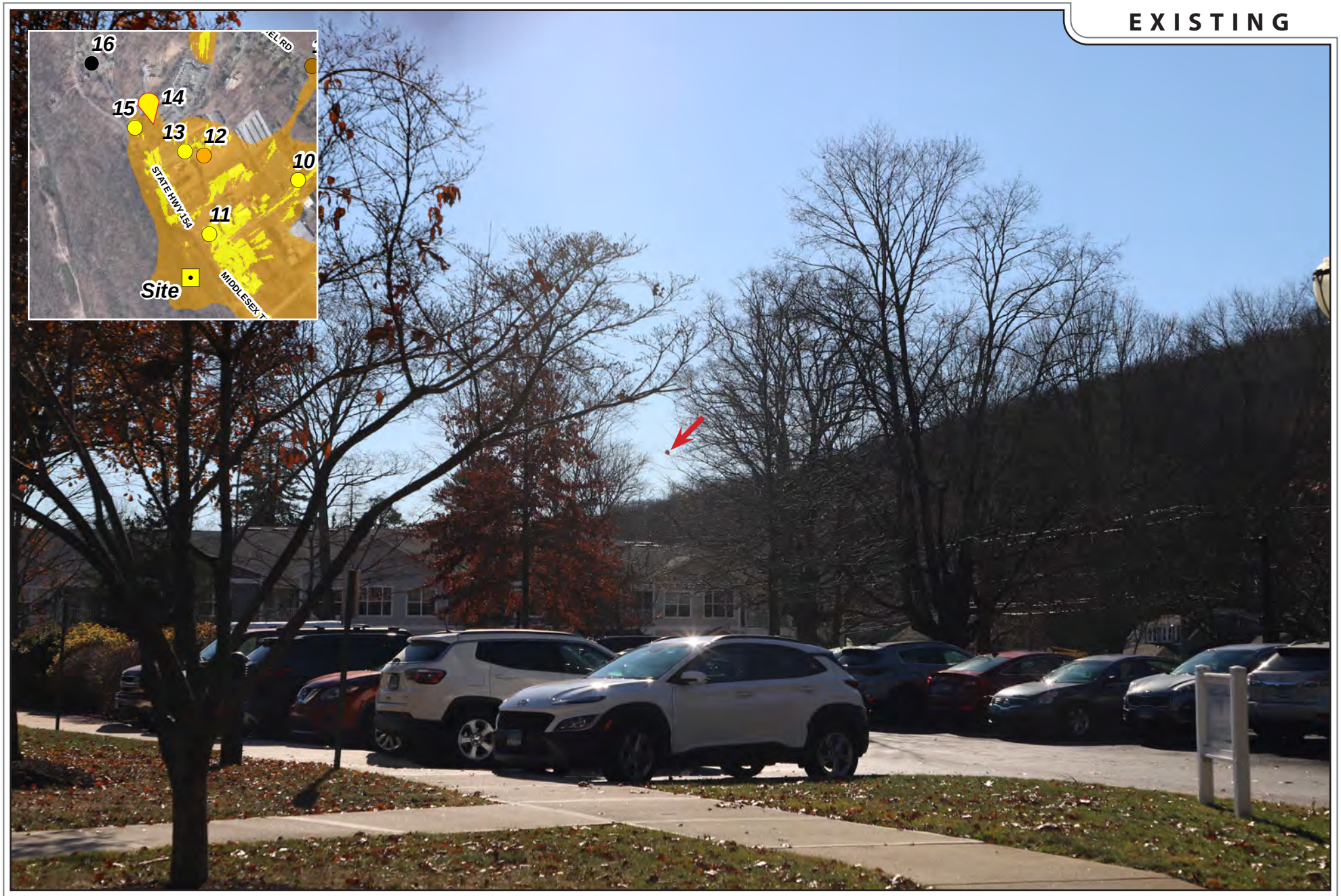


PHOTOGRAPHED ON 11/20/2024

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
14	THE ADEL CENTER	SSE	+/- 0.31 MILE	YEAR ROUND

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PROPOSED

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
14	**THE ADEL CENTER**	**SSE**	**+/- 0.31 MILE**	**YEAR ROUND**

EXISTING

PHOTOGRAPHED ON 11/20/2024

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
15	THE ADEL CENTER AT SAYBROOK ROAD	SSE	+/- 0.28 MILE	YEAR ROUND

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PROPOSED

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
15	**THE ADEL CENTER AT SAYBROOK ROAD**	**SSE**	**+/- 0.28 MILE**	**YEAR ROUND**

EXISTING

PHOTOGRAPHED ON 11/20/2024

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
16	**SAYBROOK ROAD**	**SSE**	**+/- 0.40 MILE**	**NOT VISIBLE**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

EXISTING

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
17	**CAMP BETHEL**	**SSW**	**+/- 0.45 MILE**	**NOT VISIBLE**

PHOTOGRAPHED ON 11/20/2024 35mm Focal Length

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

EXISTING

PHOTOGRAPHED ON 11/20/2024

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
18	**CAMP BETHEL ROAD**	**SSW**	**+/- 0.42 MILE**	**OBSCURED**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

EXISTING

PHOTOGRAPHED ON 11/20/2024

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
19	**RUTTY FERRY ROAD**	**S**	**+/- 1.12 MILES**	**NOT VISIBLE**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

EXISTING

PHOTOGRAPHED ON 11/20/2024

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
20	**HADDAM VIEW HEIGHTS**	**S**	**+/- 1.00 MILE**	**NOT VISIBLE**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

EXISTING

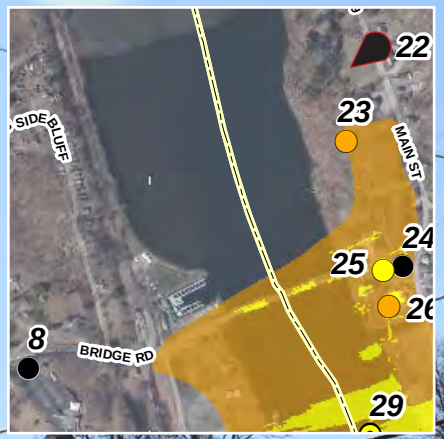
PHOTOGRAPHED ON 11/20/2024

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
21	**MAIN STREET**	**SSW**	**+/- 1.16 MILES**	**NOT VISIBLE**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

EXISTING



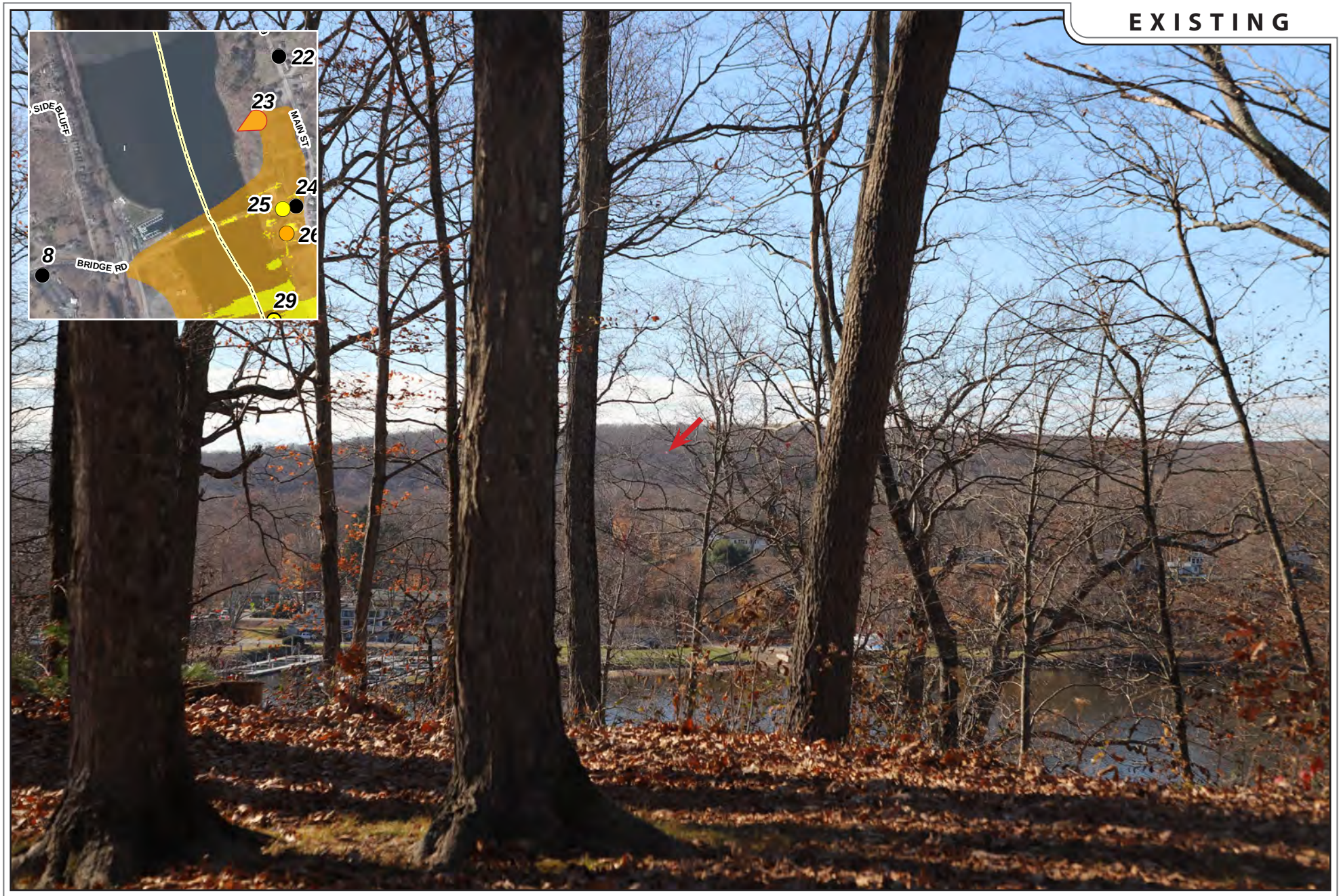
PHOTOGRAPHED ON 11/20/2024

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
22	**MAIN STREET**	**SW**	**+/- 0.94 MILE**	**NOT VISIBLE**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

EXISTING



PHOTOGRAPHED ON 11/20/2024

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
23	**NATHAN HALE SCHOOLHOUSE MUSEUM**	**SW**	**+/- 0.84 MILE**	**SEASONAL**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PROPOSED

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
23	**NATHAN HALE SCHOOLHOUSE MUSEUM**	**SW**	**+/- 0.84 MILE**	**SEASONAL**

EXISTING

PHOTOGRAPHED ON 11/20/2024

35mm Focal Length

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
24	**MAIN STREET**	**WSW**	**+/- 0.82 MILE**	**NOT VISIBLE**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

EXISTING

PHOTOGRAPHED ON 11/20/2024

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
25	**MAIN STREET**	**WSW**	**+/- 0.80 MILE**	**YEAR ROUND**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

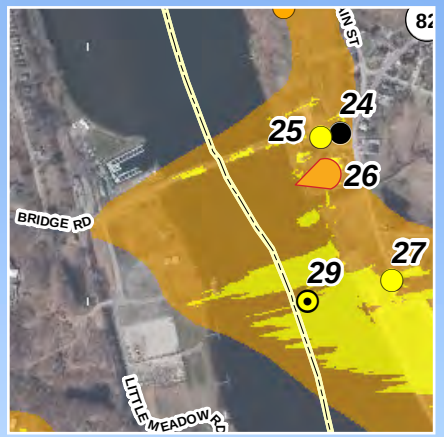
PROPOSED

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
25	**MAIN STREET**	**WSW**	**+/- 0.80 MILE**	**YEAR ROUND**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

EXISTING



PHOTOGRAPHED ON 11/20/2024

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
26	**GELSTON HOUSE**	**WSW**	**+/- 0.79 MILE**	**SEASONAL**

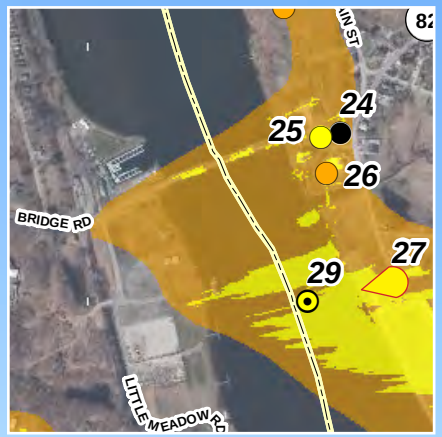
ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PROPOSED

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
26	**GELSTON HOUSE**	**WSW**	**+/- 0.79 MILE**	**SEASONAL**

EXISTING



PHOTOGRAPHED ON 11/20/2024

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
27	**CONNECTICUT RIVER ROAD**	**WSW**	**+/- 0.82 MILE**	**YEAR ROUND**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

PROPOSED

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
27	**CONNECTICUT RIVER ROAD**	**WSW**	**+/- 0.82 MILE**	**YEAR ROUND**

EXISTING

9mm Focal Length

PHOTOGRAPHED ON 11/20/2024

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
28D	**CONNECTICUT RIVER** **PHOTO TAKEN WITH DRONE +/- 15 FEET ABOVE WATER**	**WNW**	**+/- 0.82 MILE**	**SEASONAL**

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

EXISTING

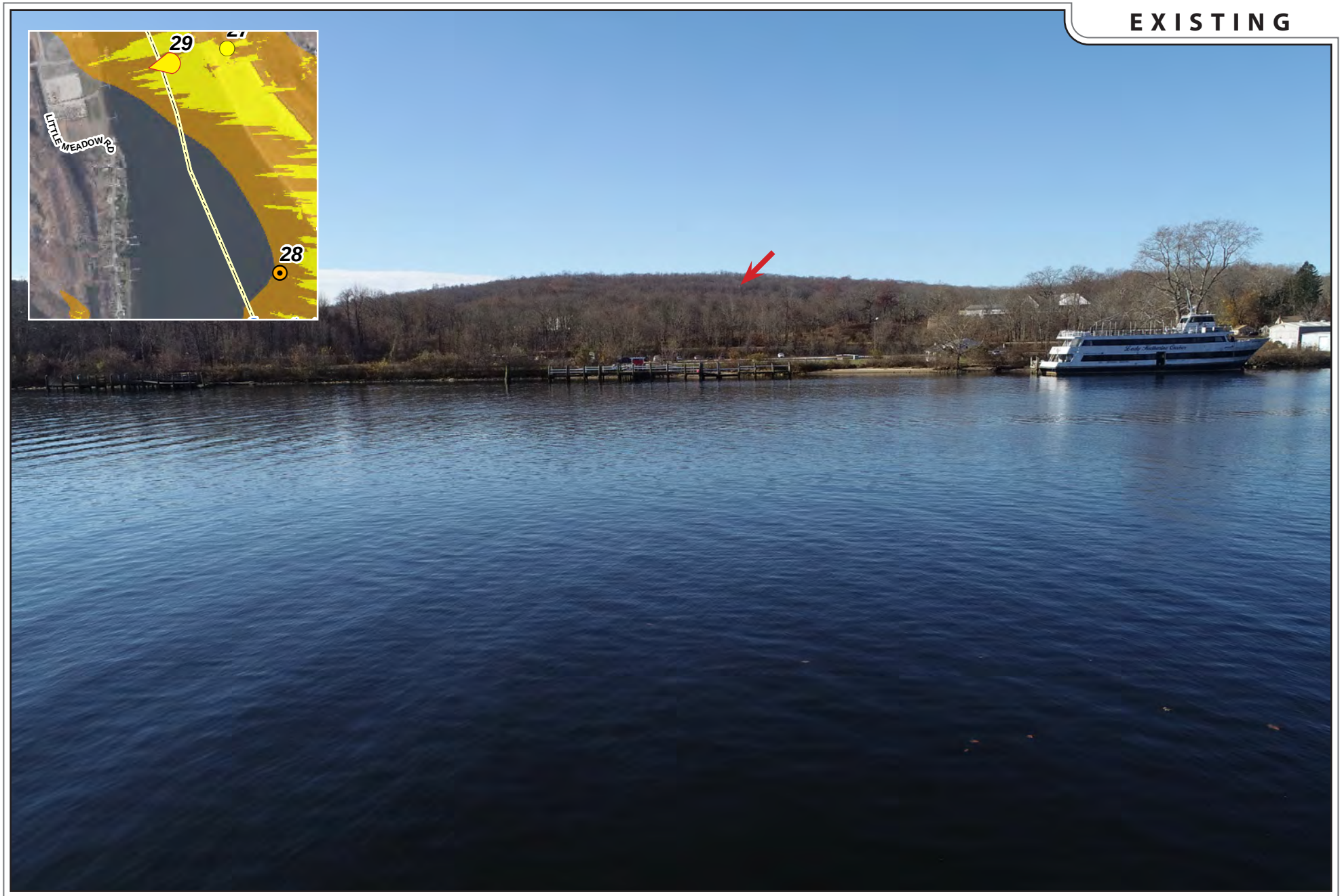


PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
29D	**CONNECTICUT RIVER** **PHOTO TAKEN WITH DRONE +/- 15 FEET ABOVE WATER**	**WSW**	**+/- 0.73 MILE**	**YEAR ROUND**

PHOTOGRAPHED ON 11/20/2024

9mm Focal Length

ALL-POINTS TECHNOLOGY CORPORATION

HOMELAND TOWERS

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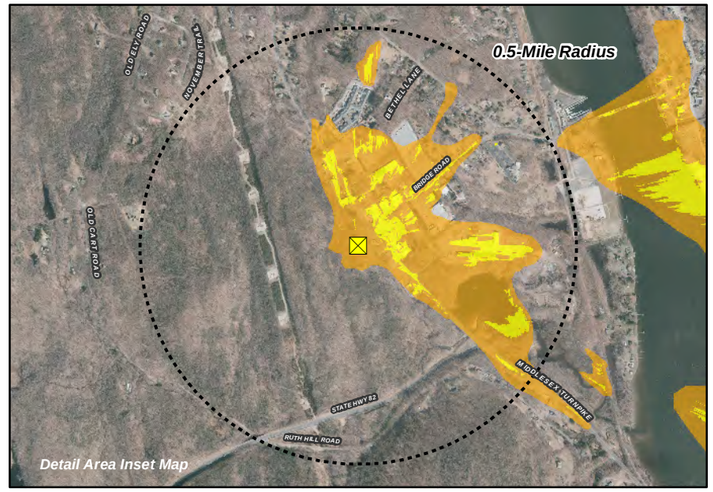
Statewide and Regional Overview Map



Viewshed Analysis Map

Proposed WirelessTelecommunications Facility
Haddam South
Old Chester Road North
Haddam, Connecticut

Proposed facility height is 140 feet AGL.
Forest canopy height is derived from LiDAR data.
Study area encompasses a two-mile radius and includes 8,042 acres.
Existing conditions field verified by APT on November 20, 2024
Base Map Source: 2023 Aerial Photograph (CTECO)
Map Date: December 2024

Legend

- Proposed Site
- Study Area (2-Mile Radius)
- Areas of Potential Seasonal Visibility (242 Acres)
- Predicted Year-Round Visibility (243 Acres)

Photo Locations (November 20, 2024)

- Not Visible
- Seasonal
- Obscured
- Year-Round

Drone Photos

- Seasonal
- Year-Round

- Trail
- Scenic Highway
- Municipal Boundary
- NRHP Historic District
- 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, 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

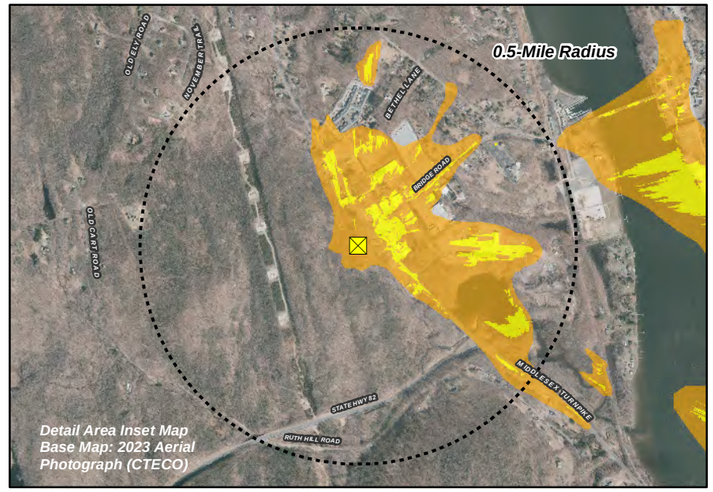
This map depicts areas where the proposed Facility may potentially be visible to the human eye without the aid of magnification based on a viewer eye-height of 5 feet above the ground and intervening topography, tree canopy and structures. This analysis is intended to provide a representation of those areas where the Facility is likely to be visible.

0.5 0.25 0 0.5 Miles

ALL-POINTS TECHNOLOGY CORPORATION

C:\Users\mkope\APT GIS Dropbox\APT GIS Team Folder\Projects\Homeland Towers\Haddam South\mxd\Haddam South_Viewshed USGS.mxd

Statewide and Regional Overview Map



Detail Area Inset Map
Base Map: 2023 Aerial Photograph (CTECO)

Viewshed Analysis Map

Proposed WirelessTelecommunications Facility
Haddam South
Old Chester Road North
Haddam, Connecticut

Proposed facility height is 140 feet AGL.
Forest canopy height is derived from LiDAR data.
Study area encompasses a two-mile radius and includes 8,042 acres.
Existing conditions field verified by APT on November 20, 2024
Base Map Source: Deep River, CT (1984) and Haddam, CT (1971)
Map Date: December 2024

Legend

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- Obscured
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Drone Photos

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- Year-Round

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- Municipal Boundary
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0.5 0.25 0 0.5 Miles

ALL-POINTS TECHNOLOGY CORPORATION