VELCO New Haven Operations Facility

New Haven, Vermont

Aesthetic Analysis Report

November 14, 2019

Prepared For:

vermont electric power company
VELCO

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LANDSCAPE ARCHITECTURE & PLANNING

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A. Introduction

T.J. Boyle Associates, LLC ("TJB"), a landscape architecture and planning firm located in Burlington, Vermont, was retained by Vermont Transco LLC and Vermont Electric Power Company, Inc. (collectively, "VELCO"), to conduct a visual analysis to evaluate potential impacts for a proposed operations facility in the Town of New Haven, Vermont (the "Project" or "New Haven Operations Facility"). The host town and relevant physiographic region of Vermont are identified in *Figure 1*. The aesthetic analysis determines whether changes to the landscape's visual character attributable to the proposed Project are adverse, and if so, whether they are also undue. This report presents the findings and conclusions of the aesthetic analysis.

T.J. Boyle Associates has conducted field visits, analyzed GIS data, aerial photography and detailed design plans to best understand the Project and how it may alter the visual character of the landscape for which it is proposed.

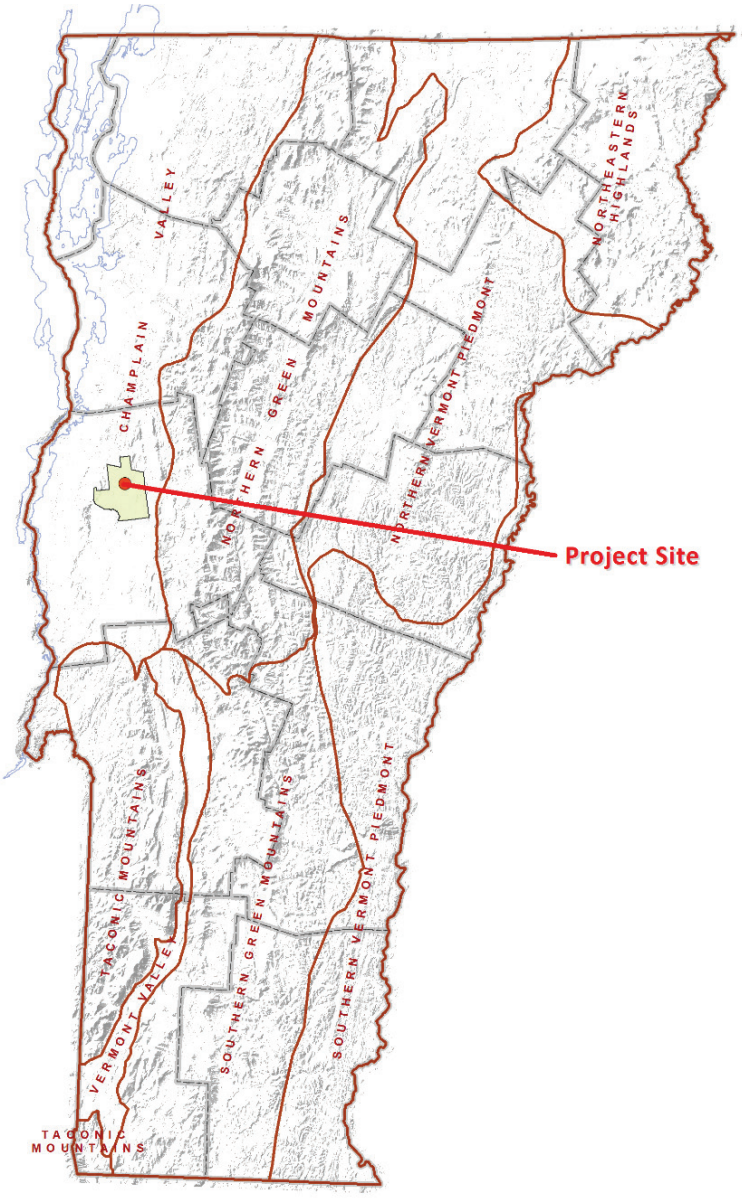

Figure 1: The Project is located in the Town of New Haven (Green) in the Champlain Valley Physiographic Region of Vermont

B. Project Description

VELCO is seeking authorization from the Vermont Public Utility Commission ("Commission") to construct the proposed New Haven Operations Facility at 760 Route 17 (Main Street) in the Town of New Haven, Vermont (the "Project"). The Project would generally consist of an 18,000 square foot, two-story building (the "Main Building") located on five acres of a larger 100-acre parcel, setback on the south side of Main Street/Route 17 in New Haven. The Project is also near VELCO's existing New Haven substation. The Main Building has been designed to resemble a traditional Vermont barn with dark red matte finish in order to blend in with the rural surroundings of the site. Consistent with VELCO's vision of a sustainable Vermont, the building design would incorporate energy efficiency and environmental sustainability principles to the greatest extent economically feasible. Key exterior Project components include:

(i) A back-up generator building (the "Generator Building") to the immediate east of the Main Building;

(ii) Mechanical equipment surrounded by a retaining wall located on the western side of the Main Building;

(iii) Solar panels installed on the roof of the Main Building for onsite energy consumption;

(iv) An eight-foot tall, chain link security fence surrounding the Main Building, the generators, and the mechanical equipment;

(v) Site access provided from Route 17 via an existing driveway extending to a new parking area; and

(vi) Two redundant and independent, three-phase electric distribution services with power transformers supplied from Green Mountain Power Corporation ("GMP").

The main purpose of the Project is to serve as VELCO's Backup Control Center ("BCC") for operating the transmission system. In addition, the Project would include a Secondary Data Center, a system operator training facility, an emergency response center, and general conference and office space for utility-related meetings.

The Project location is depicted in *Figure 2*.

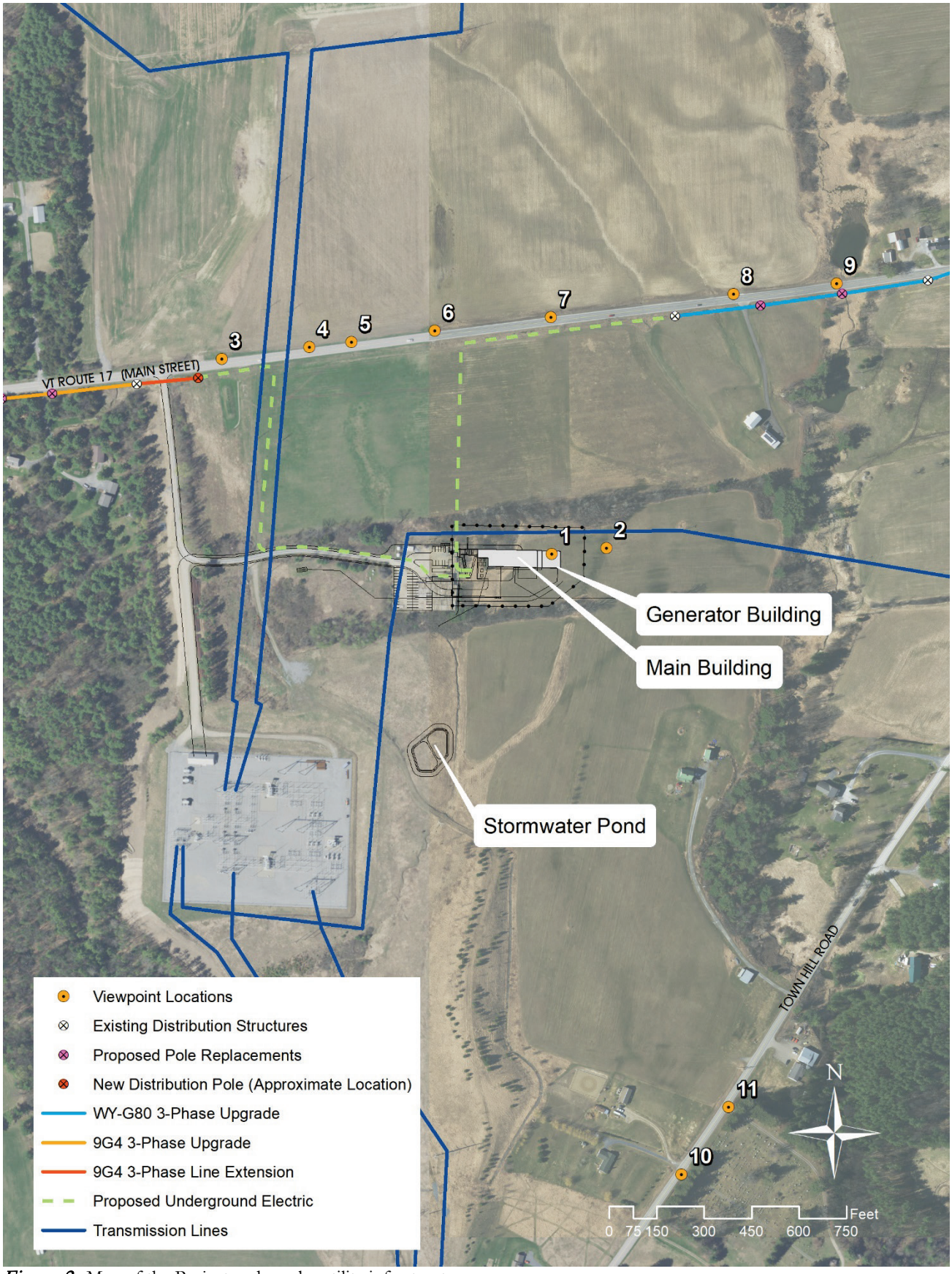

Figure 2: Map of the Project and nearby utility infrastructure.

C. Methodology

Section 248(b)(5) of Title 30, Vermont Statutes Annotated requires the Commission to make a finding that a proposed electrical transmission Project would not have an undue adverse effect on aesthetics, as outlined in the so-called "Quechee Lakes Decision."[1] As explained in the Commission's order in Docket No. 6860, the Commission applies the Quechee Test in Section 248 proceedings, as follows:

> The Public Service Board has adopted the Environmental Board's Quechee analysis for guidance in assessing the aesthetic impacts of proposed projects under Section 248. We have previously explained the components of the Quechee analysis as follows:
>
> > In order to reach a determination as to whether the project would have an undue adverse effect on the aesthetics of the area, the Board employs the two-part test first outlined by the Vermont Environmental Board in Quechee, and further defined in numerous other decisions.
> >
> > Pursuant to this procedure, first a determination must be made as to whether a project would have an adverse impact on aesthetics and the scenic and natural beauty. In order to find that it would have an adverse impact, a project must be out of character with its surroundings. Specific factors used in making this evaluation include the nature of the project's surroundings, the compatibility of the project's design with those surroundings, the suitability of the project's colors and materials with the immediate environment, the visibility of the project, and the impact of the project on open space.
> >
> > The next step in the two-part test, once a conclusion as to the adverse effect of the project has been reached, is to determine whether the adverse effect of the project is "undue." The adverse effect is considered undue when a positive finding is reached regarding any one of the following factors:
> >
> > 1. Does the project violate a clear, written community standard intended to preserve the aesthetics or scenic beauty of the area?
> >
> > 2. Have the applicants failed to take generally available mitigating steps which a reasonable person would take to improve the harmony of the project with its surroundings?
> >
> > 3. Does the project offend the sensibilities of the average person? Is it offensive or shocking because it is out of character with its surroundings or significantly diminishes the scenic qualities of the area?
>
> Our analysis, however, does not end with the results of the Quechee test. Instead, our assessment of whether a particular project would have an "undue" adverse effect on aesthetics and scenic or natural beauty is "significantly informed by overall societal benefits of the project." (In re Petition of Tom Halnon, CPG NM-25, Order of 3/15/01 at 10-11.)[2]

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[1] Quechee Lakes Corporation, Applications #3W0411-EB and #3W0439-EB at pgs. 18-20

[2] Petitions of Vermont Electric Power Company, Inc. (VELCO), Vermont Transco, Docket No. 6860, Vt. Pub. Serv. Bd. (Jan. 28, 2005) at 79-80.

T.J. Boyle Associates interprets the first prong of the Quechee test to first require an assessment of a given project's visibility. Visibility establishes the underlying method for which all visual aesthetics are evaluated to comply with the purpose of the Quechee Test. For instance, a project's design, materials and colors may be completely out of character with its surroundings, but if such project is not visible to the general public (or "average person"), then there would be no adverse visual effect. Likewise, when a project is determined to be out of character with its surroundings, one solution compatible with the Quechee Test involves obfuscating the project with landscape mitigation or other screening, which itself is a simple reduction or occlusion of project visibility. In this way, TJB interprets the first prong of the Quechee Test to be asking, "What is the project's visibility, and is that visibility out of character with its surroundings?" In our experience, if the Quechee Test were not interpreted in this way then a given project could be considered adverse even if it was completely invisible from surrounding areas, which would be an unreasonable interpretation and inconsistent with the purpose of the test.

Our study area for potential adverse aesthetic effects of substations and similar transmission facilities tends to extend approximately two miles from a project location. This distance tells us whether a proposed project is, or is not, visible from prominent or protected locations in the study area, or, perhaps more importantly, if a project itself is in a prominent or highly visible location.

In conducting the Quechee Analysis and preparing this report, four distinct methods have been used: (1) background data collection, (2) GIS viewshed analysis mapping, (3) field investigation, and (4) project visualization. The GIS viewshed mapping and field investigation are used to identify areas with potential visibility of the substation. The background data and field investigation are used to characterize the study area. The project visualization is used to study and convey the visibility and character of the Project within its surroundings. All four methods are used to evaluate whether there are in fact 'adverse' impacts and if so, whether those impacts could be considered 'undue.'

(1) **Background Data Collection.** Standard data that can help describe the landscape of the Project site, the surrounding area, and the Project are assembled. These data include available Project plans and details, aerial photography, topographical maps, Geographical Information System ("GIS") data including digital elevation model data, water and land cover information, transportation data and primary building data (public, commercial, residential), as well as applicable land use planning documents such as the town plan and the regional plan.

(2) **GIS Viewshed Analysis.** Following the background data collection, ESRI ArcGIS software is used to calculate a GIS viewshed or visibility analysis of potential visibility of the Project. Viewshed analysis can identify areas that have potential views of a project such as a substation, and when mapped it shows the potential area where the substation may be visible. The analysis applies a line-of-sight method from a prescribed point or points representing the Project (such as the top of substation equipment) to all other locations within a designated study area. *Figure 3* illustrates how line-of-sight helps determine visibility. The analysis results (portrayed as two viewshed maps), and background data review form the basis for organizing the field investigation.

a. A "Terrain Viewshed" map (see Appendix A, Map 2) represents how landform may block views of Project upgrades. This analysis only accounts for intervening landform and does not incorporate how vegetation, buildings, hedgerows, street trees or any other vegetation or buildings would screen visibility of the Project. However, to facilitate interpretation of the results, the map differentiates between areas with and without forest cover, since there would be no distant views if one is standing in the forest. This map represents the maximum area from which the Project could be visible, and in almost every case overstates the probable visibility.

b. A "Vegetated Viewshed." Map (see Appendix A, Map 3) represents a "Vegetated Viewshed." This map shows how vegetation, buildings and other obstructions in the landscape may act in addition to landform to block views of the Project. The data used to identify obstructions is based on LiDAR and DEM information available through the Vermont Center for Geographic Information. LiDAR data allows a much more accurate Vegetated Viewshed, as data include specific structure and vegetation elevation. This map is a more realistic representation of the area from which the Project is potentially visible.

When properly taken into consideration, these maps indicate areas most likely to have views, emphasizing areas vulnerable to the greatest impacts while also identifying areas that are unlikely to have views. The assumptions used to calculate these maps are conservative and tend to over-estimate Project visibility. Rather than serving as a final result, these maps are primarily used in preparation of the field investigation, which more fully evaluates the landscape context, views, and potential impacts based on the visibility indicated on the maps. Therefore, it is inappropriate to use these maps as the only basis to evaluate visual extent and impacts. *Figure 3* illustrates the difference between the Terrain Viewshed and the Vegetated Viewshed maps.

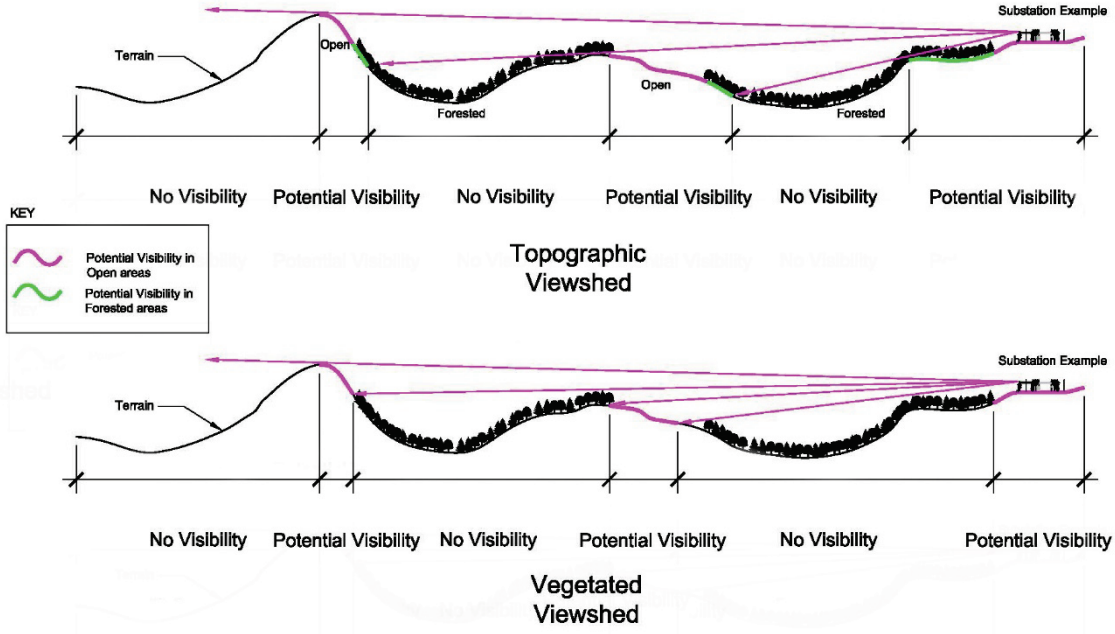

Figure 3: Terrain Viewshed and Vegetated Viewshed Diagrams. (Please note this diagram is for illustrative purposes only to describe the results of a typical GIS Viewshed analysis and is not representative of the proposed Project.)

(3) Field Investigation. The viewshed maps are used to focus the field investigation on areas most likely to have views of the Project. For the line rebuilds, the public roadways under and around the line were visited to determine visibility. The purpose of the field investigation is to:

a. Verify potential visibility, including visibility as indicated on any viewshed maps

b. Photograph views toward the Project from areas of visibility and any other nearby sensitive areas as needed (cemeteries, parks, public facilities, etc.)

c. Photographically document the landscape's visual character within the study area

d. Record notes concerning each viewpoint as appropriate

e. Identify the location of photograph viewpoints using a global positioning system ("GPS") unit

On completion of the field investigation, the GPS data is transferred to a GIS database and synchronization of the data and photograph locations are verified. Photo locations and the actual photos are coordinated through indexed viewpoint numbers. Documentation of the field investigation is then prepared, which includes: (1) mapping of the routes traveled and locations of photograph viewpoints, displayed on mapping within Appendix A, and (2) a catalog of photography included as Appendix B. Appendix B includes a series of panoramic views to provide context of the surrounding conditions, and single-frame photographs to represent views to the Project. Unless otherwise noted, single-frame photos utilize a focal length approximately equivalent to 50mm on a 35mm film or FX digital single lens reflex camera, which is considered a 'normal lens'. Using a normal lens reproduces a field of view that generally looks "natural" to a human observer. Panoramic views result in significant spatial distortion but are beneficial by providing a very wide field of view to illustrate the existing surroundings.

(4) **Project Visualization.** It is normally helpful to create visualizations as an aid to evaluate visual impacts. In many situations, GIS information prepared with the viewshed analysis can also be used to help create realistic photographic quality simulations of a Project. The specific selection of a simulation viewpoint is based on the extent of the Project's visibility, the probable frequency and sensitivity of viewers, and the availability of a suitable photograph from the field investigation. There may be more than one viewpoint for a particular Project component. However, each simulation attempts to illustrate the most visible condition for the area it represents. The following process is used to create the simulation.

a. Three-dimensional computer-aided design ("CAD") drawings of the proposed Project elements and site plan are obtained or created.

b. The CAD data is georeferenced to aerial photographs of the area, and reference markers representing fixed landscape elements visible in the photograph are added (i.e. existing buildings, utility poles, etc...)

c. A viewpoint or camera view including optical characteristics of the lens used to take the photograph is created within the CAD drawing and a perspective image of the proposed Project is produced that matches the photograph.

d. The perspective image is introduced as an independent layer into the digital image file of the simulation photograph. The reference markers are used to evaluate the accuracy of the perspective settings. The settings of the perspective drawing are fine-tuned to ensure the reference markers coincide with the photograph.

e. Elements of the perspective drawing that would be visible are rendered into the photograph using texture and colors that occur on the site or are specified in the Project documents or from other similar projects.

Photo simulations for the Project are included in Appendix D, Photographic Simulations.

TJB evaluates data from the steps above and compares existing conditions with plans for the proposed Project. The following sections of this report describe in detail the collection and evaluation of data and the resulting conclusions.

D. Quechee Test Part I

The Project is proposed in the Town of New Haven, within the Addison County portion of the Champlain Valley region. Overwhelmingly, the area is characterized by agricultural uses, interspersed with gently rolling hills. The Village of New Haven is less than one-half mile east of the Project. New Haven Junction is roughly one mile west of the Project. Adjacent to the Project property there is a major electrical transmission substation and several transmission lines. Immediately north of the Project is Vermont Route 17, or Main Street. Town Hill Road proceeds in a northeast / southwest orientation, south of the Project. US Route 7, or the Ethan Allen Highway is west of the Project site. In the immediate vicinity of the Project, there are large agricultural fields directly north of the Project, along the opposite side of Vermont Route 17, which is bookended with rural residential properties to the east and west. The area directly to the west of the Project site has mature woods, and the areas south and east contain a mix of smaller fields, rural or low-density residential properties, and smaller wooded areas. Within the larger study area, there is a mix of land uses, including commercial, industrial, residential, and agricultural uses.

i. Evaluation of Visibility

As noted above, GIS viewshed mapping was utilized as a preliminary evaluation method to understand potential visibility of the Project. Field investigation found that the GIS viewsheds are mostly accurate, although limitations in available GIS data and conservative assumptions overestimate potential visibility. Overall, there would be intermittent views of the Project from nearby portions or Vermont Route 17 and Town Hill Road. Some very limited views would be possible from US Route 7 and North Street. Images from Viewpoint 1 (Appendix B), are taken from near the center of the Project site and include two 180-degree panoramic images that create a full 360-degree view towards the surrounding area. These photos help to illustrate how surrounding obstructions would screen the Project.

Vermont Route 17: Vermont Route 17 or Main Street, is a two-lane state highway. It runs directly north of the Project and connects between the Village of New Haven and New Haven Junction. In the larger context, Route 17 connects with New York State Route 185, by the Lake Champlain Bridge. To the east, it provides access to Vermont Route 100 in Waitsfield. Near the Project, Route 17 is mostly characterized as an agricultural setting and is noted in the Town Plan as a scenic corridor. Views from Vermont Route 17 are illustrated by Viewpoints 3 through 9 in Appendix B.

The Main Building and Generator Building would be setback over 650 feet south of Vermont Route 17. The Project would retain an existing hedgerow immediately north of the development area, which would help to screen and soften views of the building. Still, portions of the Main Building and Generator Building would have differing degrees of visibility from Vermont Route 17 for a stretch of roadway up to 2,000 feet. A combination of landform and existing vegetation would largely screen other Project components, such as parking and other vehicle areas, fencing, and exterior mechanical equipment. To better understand how the Project would appear from Vermont Route 17, a series of photographic simulations are provided in Appendix D. Simulations 1 and 2 were prepared during leaf-on conditions, immediately northwest of the Project. An additional photo simulation will be prepared to represent leaf-off conditions and will be available subsequent to the submission of the CPG application. As illustrated by the simulations, existing vegetation would screen large portions of the buildings, although gaps in mature vegetation, and leaf-off conditions would allow intermittent and/or partial views of the Project for passing travelers on Vermont Route 17. To help further screen and soften views of the Project, proposed landscape mitigation plantings are proposed to reinforce the existing hedgerows. A detailed Landscape Mitigation Plan is provided in Appendix C. In addition, existing GMP distribution lines along Route 17, both east and west of the Project that would service the Project are readily visible along the side of the road. These distribution lines would be upgraded from single-phase to three-phase in order to meet the Projects needs. Connection to the Project would be done by underground

lines, except for a very small overhead extension at the existing access drive to the New Haven substation. This will require a single new distribution pole, west of the existing drive.

Town Hill Road: Town Hill Road is a two-lane paved, class 2 town highway. It connects between the Village of New Haven to US Route 7 to the southwest, and provides access to a combination of agricultural and rural residential properties. Near to the Project site, there are predominantly rural residential properties, set between open fields along Town Hill Road. The Evergreen Cemetery is also within this area, along the opposite side of the road, southeast of the Project. Existing VELCO transmission lines, including 115 kV and 345 kV lines cross Town Hill Road, south of the Project. Viewpoints 10 through 13 illustrate the character along Town Hill Road and views towards the Project.

The Main and Generator Buildings would be setback roughly 1,350 feet at the closest location along Town Hill road. However, areas with the greatest potential for visibility are from further south; at least 1,700 feet from the main structures. Views would be most possible from the area near Evergreen Cemetery for up to a 600-foot stretch. Visibility from further south would be screened by a substantial berm and plantings that were installed as mitigation measures when the existing substation and 245 kV line were installed. Intervening landform and an existing hedgerow, south of the development area, would significantly screen and soften views of Project components. Photo Simulation 3 in Appendix D illustrates how the Project would appear in views from Town Hill Road. As shown in the simulation, existing landform would screen the lower level of the Main Building, including service doors, exterior mechanical equipment, the majority of the Generator Building, as well as parking and other vehicle areas. To help further screen and soften views of the Project, proposed landscape mitigation plantings are proposed to reinforce the existing hedgerows. A detailed Landscape Mitigation Plan is provided in Appendix C.

US Route 7: US Route 7 or the Ethan Allen Highway is a major north / south transportation corridor in western Vermont that extends the length of the State. Near the Project, it switches between two to three lanes, three lane portions include turning lanes at the intersection with Vermont Route 17, a northbound passing lane north of New Haven Junction, and a south bound passing lane, south of New Haven Junction. Near the Project, there is a mix of agricultural, industrial, commercial and low or rural density residential uses along US Route 7.

The Vegetated Viewshed Map indicates potential intermittent visibility for rough 1-mile, south of the Project, near the intersection with Town Hill Road. Field investigation found that intervening vegetation, not fully represented in GIS data, provide additional screening than indicated on the viewshed maps. Viewpoints 15 and 16 are taken from slightly north of the intersection with Town Hill Road on US Route 7 and illustrate how mature vegetation would screen the Project from these sections of road. Notice how only the very tops of the tallest structures within the substation and transmission lines are visible. From Viewpoint 14, however, views of the Project would be possible. As illustrated in the single-frame image from Viewpoint 14, visibility of greater portions of the existing substation and transmission lines are possible from US Route 7, slightly south of the intersection with Town Hill Road. Views would be approximately 9,000 feet from the Project, and large portions of Project components would still be screened by surrounding vegetation and landform. The Project would be seen at a distance, within the context of other development, include several large barns, similar in appearance to the Main Building. Some degree of visibility would be possible for up to an approximately 1,000-foot stretch along US Route 7, near Viewpoint 14. Although the Project would be visible, it would not be a very noticeable element within the landscape from US Route 7. Views are distant and the Project would be seen within the context of existing development surrounding the Project site. Detailing of

the Main Building would allow the Project to harmonize with the surrounding land uses within these views. In time, proposed mitigation plantings would also provide additional screening from this location.

North Street: North Street begins from Vermont Route 17 at the center of New Haven Village and proceeds north. Near the Project, it is a paved surface, two-lane class 2 town highway. Within the Village area there are a variety of uses along North Street, including residential, the Beeman Elementary School, and the New Haven Community Building, which includes the Community Library and Town Offices. Continuing north there is a mix of low and rural density residential and agricultural use.

Within the village area, a combination of existing structures and landscape vegetation screen views towards the Project area. Continuing north, between residential properties and farm complexes, large agricultural fields come to the edge of the road. At two locations open fields allow views towards the southwest and towards the Project location. Viewpoints 17 and 18 are taken from North Street and illustrate views towards the Project. Views would be similar to those from Vermont Route 17, although from greater distances and for shorter durations. Views from North Street would be significantly screened and softened by intervening vegetation and landform. Propose landscape mitigation plantings would further screen views from North Street.

Other Surrounding Roads and Public Areas: Other locations were investigated, including South Street, but primarily also other portions of Vermont Route 17, Town Hill Road, US Route 7, and North Street. As indicated by the Vegetated Viewshed Map, Appendix B, visibility from theses areas are screened by intervening obstructions, primarily dense and mature vegetation.

ii. Private Properties

While the Project is setback from surrounding properties, there are abutting residences that would have visibility. In particular, two residences, one east and the other southeast, would have views at similar distances. The closest residence is east of the Project and accessed from Vermont Route 17. The Generator Building is closest to this residence but would still be separated by over 700 feet. Views from the residential structure would be at an obscure angle through the existing hedgerow, north of the Project. The next closest residence is southeast of the Project and accessed from Town Hill Road. It is only slightly further from the Project, approximately 730 feet from the Generator Building. The existing hedgerow south of the Project would help screen and soften views from this residence.

Other residences south of the Project, would be further separated, and views would be further screened by landform and additional vegetation. Other surrounding residences would mostly be screened by surrounding obstructions. Landscape mitigation plantings have been specifically arranged to help further screen and soften views from abutting residences.

iii. Suitability of Colors and Materials for the Project

The proposed Main Building would be the most significant visible component of the Project. The Main Building, which is designed to resemble a traditional Vermont barn, would have vertical siding with dark red matte finish. The roof would be a light gray metal and would have solar panels on the southern exposure. The Main Building would incorporate features to harmonize with the style of the surrounding agricultural architecture, such as a steeply pitched roof, gable ends with window's peaks, white trim, and a regular spacing of square clerestory windows. Other materials include the gravel for roads and parking areas, retaining walls with stone veneer, black vinyl chain link perimeter fence, metal louvers on the Generator Building, and electrical transformer and heating and/or air conditioning units. Much of this later infrastructure would not be visible from roads and properties as a result of the Project design. Upgrades to the GMP distribution

network to the east and west of the Project site will utilize similar conductors and pole structures and will not introduce roadside distribution lines where none currently exist.

In review, the Project has intentionally incorporated materials and colors to help the Project to harmonize with the surrounding landscape. Many colors and materials that would be in contrast, are well screened from surrounding roads and properties. For these reasons, the Project's colors and materials are considered compatible with the surroundings.

iv. Impact on Open Space

Previous Act 250 and Section 248 decisions do not clearly define what is meant by the term "open space," and some regional plans and town plans have differing definitions of open space, if any at all. The Addison County Regional Plan, adopted July 18, 2018 (the "Regional Plan")[3] and the Town of New Haven Town Plan, adopted March 7, 2017 (the "Town Plan")[4] do not clearly define "open space", although both plans frequently use the term. The United States Environmental Protection Agency, Region 1, New England provides the following description of 'What is Open Space / Green Space'.

> Open space is any open piece of land that is undeveloped (has no buildings or other built structures) and is accessible to the public. Open space can include:
>
> - Green space (land that is partly or completely covered with grass, trees, shrubs, or other vegetation). Green space includes parks, community gardens, and cemeteries.
> - Schoolyards
> - Playgrounds
> - Public seating areas
> - Public plazas
> - Vacant lots
>
> Open space provides recreational areas for residents and helps to enhance the beauty and environmental quality of neighborhoods. But with this broad range of recreational sites comes an equally broad range of environmental issues. Just as in any other land uses, the way parks are managed can have good or bad environmental impacts, from pesticide runoff, siltation from overused hiking and logging trails, and destruction of habitat.[5]

If the Project location were to be considered open space for the purposes of this review, it should be noted that the public has limited physical access to the property, which already contains significant electrical transmission infrastructure. The location of the proposed facilities is largely screened by existing vegetation and has minimal visual access from public locations. The Project as proposed would not have an adverse effect on open space.

v. Summary of Potential Adverse Impacts

In review of potential adverse impacts to the aesthetics and scenic or nature beauty of the surrounding area, the Project would be visible from the surrounding landscape. The Project would have the greatest effect in views from Vermont Route 17 and Town Hill Road and from the two closest residences described above.

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[3] http://54.172.27.91/Downloads/reg_plan/Regional_Plan_7_18_2018_updated_5_2019.pdf

[4] https://www.newhavenvt.com/vertical/sites/%7B95C9AC24-F92E-457E-9A2F-56C2E251493B%7D/uploads/New_Haven_Town_Plan_adopted_March_7_2017.pdf

[5] https://www3.epa.gov/region1/eco/uep/openspace.html

The Project incorporates several measures to limit visibility and to help the Project fit with the character of the surrounding landscape. However, because it introduces a new visual element to an existing mostly-undeveloped rural environment, we conclude that the for the purposes of the Quechee test, the Project would have an adverse impact.

E. Quechee Test Part II

Since the Project is considered adverse, the Project was evaluated under the second part of the Quechee Test to determine if impacts may be considered undue. The following sections evaluate the Project under each of the three components of the second part of the test as outline in the methodology section. This review did not find the Project to violate any of the three criteria.

i. Community Standards

Although Section 248 does not require local permitting of projects seeking a Certificate of Public Good, local plans and regulations are reviewed under the second part of the *Quechee* analysis (described in Section II of this Report) where it has been determined that a project may have a potential adverse visual impact. Under *Quechee*, this involves an assessment as to whether or not a project violates a clear, written community standard intended to preserve the aesthetics or scenic beauty of the area. The Public Utility Commission has previously concluded that "[i]n order for a provision to be considered a clear, written community standard, it must be 'intended to preserve the aesthetics or scenic beauty of the area' where the proposed project is located and must apply to specific resources in the proposed project area" (*Petition of Georgia Mountain Community Wind, LLC, Docket No. 7508, Order of Vt. Pub. Serv. Bd. Jun. 11. 2010 at 52)*. There, the Commission clarified that "The general scenic resource protection policies contained in these documents are not focused on a particular scenic resource and, in any case, do not offer specific guidance or measures to protect that resource. Therefore, we conclude that the regional and town plans do not set forth any clear, written community standards" (*Id. at 53*). More recently, the Commission has further clarified that any such standard must expressly "designate the [project] parcel as a scenic resource worthy of protection." *Petition of Rutland Renewable Energy, LLC*, Docket No. 8188, Order of 3/11/15 at 85-86.

For the New Haven Operations Facility, available local and regional planning documents were reviewed to determine if the Project would violate a clear written community standard. These include the Addison County Regional Plan, adopted July 18, 2018 (the "Regional Plan") and the Town of New Haven Town Plan, adopted March 7, 2017 (the "Town Plan"). A review of these plans pertaining to aesthetics or the Project site are as follows. Excerpted pages from each of the respective plans can be found in Appendix E – Regional Plan Excerpts, and Appendix F – Town Plan Excerpts.

REGIONAL PLAN

The Regional Plan offers an overview of the community needs at large while deferring to the local towns for specific implementation and enforcement. There is not a clear written standard within the Regional Plan to protect the aesthetics and scenic and natural beauty at the Project site. Some language of the Regional Plan pertaining to aesthetics is as follows:

2A. IMPLEMENTATION PLAN

2A.2 IMPLEMENTATION PLAN RECOMMENDED ACTIONS

B. Natural Resources

Scenic Resources

2. Use ACRPC's mapping resources and expertise to encourage communities to identify areas of high scenic value through an inclusive public process;

3. Ensure that new commercial scale telecommunication towers, wind energy towers, solar facilities and other commercial scale energy generation sites and transmission corridors conduct proper siting analyses, including the technical feasibility of burying transmission lines, designed to encompass the lifecycle of the infrastructure and to address scenic resources, wildlife habitat and impacts on agricultural soils and forestry resources;

(Regional Plan at 2A-3)

4. NATURAL RESOURCES

4.1 SURFACE AND GROUNDWATER RESOURCES

A. Summary

The region's surface and ground water resources are essential to its people, economy, and environment. They influence the cultural, social, economic, and environmental landscape of the region and offer scenic beauty and recreational opportunities.

(Regional Plan at 4-3)

D. Documentation & Analysis

Surface waters provide or support many facets of our culture in the Addison Region. Among those are […] scenic amenities […]

Lake Champlain

…The Lake is divided into five distinct areas, each with different physical and chemical characteristics and water quality. These lake segments include: the South Lake (Addison County portions) […]

Table 1: Other Lakes And Ponds In The Region

Waterbody	Acreage
Lake Dunmore	1,035
Fern Lake	69
Cedar Lake	118
Johnson Pond	34
Mud Pond	26
Richville Pond	160
Silver Lake	104
Spruce Pond	25
Sugar Hill Reservoir	58
Bristol Pond	199

(Regional Plan at 4-8)

4.2 AGRICUTURAL RESOURCES

B. Agricultural Lands Goals and Objectives

Goals

A. Preserve prime, statewide, and locally important agricultural land.

To meet this Goal it is our Objective to:

a) Recognize the diverse values and benefits provided to the public by agricultural land (including but not limited to: food, energy, and fiber production, scenic and cultural landscapes for residents and visitors, and recreational opportunities).

(Regional Plan at 4-26)

D. Documentation & Analysis

Farmland is an important resource in Addison County. It provides a base for the agricultural economy and preserves the scenic landscapes that characterize the region.

(Regional Plan at 4-29)

4.3 FOREST RESOURCES

B. Forest Resources Goals and Objectives

Goals

B. To manage, maintain, and improve the resources and services forest areas provide.

To meet this Goal it is our Objective to:

a) Recognize and maintain the diverse benefits provided to the public by forestland, including:

- scenic working landscapes;

(Regional Plan at 4-42)

4.5 SCENIC RESOURCES

B. Scenic Resource Goals

A) Maintain the existing character of the region by encouraging agriculture and forestry activities as a part of the working landscape and similarly encourage commercial and industrial activities to locate within existing business centers.

To meet this Goal it is our Objective to:

a) Keep agricultural land and forested lands in profitable and productive use to maintain a critical part of the Region's scenic resources.

B) Development in areas of high scenic value due to scenic views or historic significance should minimize adverse impact on views and areas of historic significance.

To meet this Goal it is our Objective to:

a) Encourage the use of materials, architectural styles, color schemes, lighting fixture, building mass, scale and other design elements to promote aesthetic compatibility with surrounding uses to avoid adverse visual impacts.

c) Encourage siting of new buildings in settings which preserve the scenic quality of lakeshores and ridgelines.

(Regional Plan at 4-73)

C. Scenic Resources Recommended Actions

3) Encourage the use of plantings to soften building edges, direct views and reduce runoff in parking lots.

5) Encourage communities to identify areas of high scenic value through an inclusive public process.

9) Locate utility poles and lines in areas lower than the principle view, require plantings to shield properties from visual impact. Line burial should be considered when feasible.

(Regional Plan at 4-75)

D. Scenic Resources Documentation & Analysis

[…] While few town plans have established specific scenic overlay districts, all town plans have reinforced the desire to maintain the rural character of the landscape…

[…] The following is a list of considerations for review:

Unique or Prominent Landscapes

Such areas are generally accepted as areas of scenic significance and should be addressed in any review.:

(1) shore lands immediate to public lakes, rivers, or ponds;

(2) areas immediately adjacent to scenic corridors;

(3) prominent ridgelines, mountain tops, or excessively steep slopes that can be readily viewed from public corridors;

(4) exceptional agricultural and historic areas, recognized as outstanding resource values;

(5) areas within or immediately adjacent to natural areas (i.e. wetlands) designated by the State; and

(6) areas of high scenic quality which are publicly recognized as exceptionally.

[…] There are many project reviews that have involved the use of the Quechee analysis. These reviews become quite detailed with several experts testifying on the quality of visual resources Generally, a good practice is to follow the recommendation noted earlier: Describe the resource, Identify the sensitivities, and Prescribe the Protections as a clear community standard.

(Regional Plan at 4-76 to 4-80)

7. UTILITIES, FACILITIES AND SERVICES

7.2 ENERGY

E. Land Uses, Targets and Strategies

Regional Standards for Siting Energy Generation and Transmission Projects

The Addison County Regional Planning Commission supports responsibly sited and developed renewable energy projects within its boundaries. It desires to maintain the working landscape, adopted conservation and habitat protection measures and scenic rural views important to its tourism economy and rural cultural aesthetic. Not all industrial or community scale generation or transmission projects proposed can meet this standard. In order to not unduly impact the community values and aesthetics of the Region this Plan intends to protect, projects must meet the following Regional Standards in order to be considered "orderly development" supported by this Plan:

(Regional Plan at 7-93)

Transmission:

A. Siting:

Good sites have one or more of the following characteristics:

- Systems located in close proximity to existing larger scale, commercial, industrial or agricultural buildings;
- Proximity to existing hedgerows or other topographical features that naturally screen the proposed corridor from view from at least two sides;
- Shared or neighboring ROW with other transmission or transportation infrastructure

Poor Sites have one or more of the following characteristics:

- No natural screening;
- Topography that causes the lines to be visible against the skyline from common vantage points like roads or neighborhoods;
- A location in proximity to and interfering with a significant viewshed. The Addison County Regional Plan has chosen not to include any viewsheds at the Regional level. However, it recognizes that many of its member municipalities have defined locally significant viewsheds. Where that has occurred, this Plan should be read to incorporate those significant local viewsheds;
- The removal of productive agricultural land from agricultural use;

- Height and Scale: The historical working landscape that defines the Region is dominated by viewsheds across open fields to wooded hillsides and eventually the Green Mountains or Lake Champlain and the Adirondacks. Rural structures like barns fit into the landscape because their scale and mass generally do not impact large tracts of otherwise open land. Industrial scale transmission lines may need to be limited in height and scale, and/or have their height and scale broken by screening to fit in with the landscape in any given municipality. At the Regional level, Commercial transmission projects with tower heights greater than 72 feet are higher than the tree line and nearly all other structure within the Region. They cannot be adequately screened or mitigated to blend into the Region's landscape and are therefore must be designed to travel underground or to limit the total height of the structures to 72 feet.

B. Mitigation methods:

In addition to properly siting a project, transmission developers must take appropriate measures from the list below to reduce the impact of the project:

- Consider burying the transmission infrastructure in sensitive areas;
- Locate the structures on the site to keep them from being "skylined" above the horizon from public and private vantage points;
- Shorter towers may be more appropriate in certain spaces than taller towers to keep the project lower on the landscape;
- Developers are encouraged to increase setbacks away from public roads to reduce the views of the infrastructure;
- Use the existing topography, development or vegetation to screen and/or break the mass of the transmission facility;
- In the absence of existing natural vegetation, the commercial development must be screened by native plantings beneficial to wildlife and pollinators that will grow to a sufficient height and depth to provide effective screening within a period of 5 years. Partial screening to break the mass of the site and to protect public and private views of the project may be appropriate;
- Use black or earth tone materials that blend into the landscape instead of metallic or other brighter colors.

(Regional Plan at 7-96 to 7-97)

9. UTILITIES, FACILITIES AND SERVICES

B. Consistency with Title 24 VSA § 4302

GOAL 5

To identify, protect and preserve important natural and historic features of the Vermont landscape including:

C. Significant Scenic Roads, Waterways and Views

The Scenic Resources subsection, (page 4.8-1) identifies the general landscape as an integral part of the scenic character of the region and supports continuation of working agriculture and managed forestry practices as the most essential ingredient in maintaining the scenic quality of the Addison Region. This would include stream and shoreland buffers as part of riparian wildlife corridors supported in the natural areas and wildlife policies. Ridgeline

protection measures are also supported. No recommendations for Outstanding Resource Waters or Wild and Scenic Rivers have been made in this plan.

(Regional Plan at Consistency p.6 to p.7)

The Addison County Regional Plan covers a wide range of topics for the region including land use, housing, economics, cultural resources and other community issues. As is often true of Regional Plans, encouragement is offered for the constituent towns to review their own needs and desires, and generally does not incorporate specific guidelines or restrictions. Scenic Quality is clearly noted as an important resource within the region; however, the Regional Plan does not include an inventory of specific scenic resources and it does not provide specific guidance or measures to protect designated scenic resource. It does offer guidance for constituent towns of what they should consider as scenic resources, and methods and restriction of how scenic quality might be preserved and protected. The Regional Plan also encourages the development of well-thought-out energy projects, while avoiding or mitigating negative impacts. A review of the various Regional Plan maps did not reveal any specific protections or significant scenic resources on or adjacent to the proposed Project location.

TOWN PLAN

INTRODUCTION

New Haven's past and present form the foundation for our vision of our future. Our Town Plan contains policies and recommendations based on that vision to guide future development in the Town. For more than 250 years, New Haven's economy, land use, character and way of life has been and remains strongly linked to agriculture. We have a fervent desire to continue this strong agricultural and rural heritage and the scenic cultural and natural landscape it creates…

[…] This Town Plan reflects New Haven's very strong support of farming and scenic vistas, and the cultural, economic and visual benefits that agricultural use provides […]

[…] The primary purpose of the Town Plan is to assess the Town's present condition, describe the community's desires for the future, and provide recommendations governing future changes and development to protect the Town's natural, agricultural, historic and scenic resources, public health, safety and welfare, and property values.

(Town Plan at 3)

POLICIES AND GOALS

24 VSA §4382(a)(1)

Goal 1. To protect New Haven's scenic, rural and agricultural character while supporting a diverse range of housing options and business opportunities.

Objective B. Promote sustainable development, reinforcing traditional land use patterns and Town development policies, maximizing energy efficiency and conservation through weatherization of existing structures and appropriate siting and design of new structures.

Goal 2. To preserve and promote the economic viability of agriculture.

Objective G. Support the actions of landowners, land trusts and other parties to permanently protect agricultural and scenic land through voluntary conservation easements, and explore ways for the Town to participate or assist in these efforts.

Goal 4. To protect the natural, cultural, historic and aesthetic resources which create the Town's unique character and sense of identity.

Objective A. Maintain the natural appearance of ridges and steep slopes by restricting development that degrades scenic and environmental quality.

Objective B. Site future land development below ridgelines, and require design that precludes new structures from being visible against the skyline from public vantage points.

Objective D. Support the efforts of landowners, land trusts and other parties to permanently protect ecologically sensitive and significant natural and scenic areas through voluntary conservation easements or purchase of land for conservation purposes.

Objective I. Recognize that the beauty of the Town's pastoral landscape is a result of generations of farming, and support continued agricultural use, efforts to conserve land, preservation of historic buildings and careful siting of new development within scenic viewsheds.

Objective J. Site and design future land development to prevent adverse visual impacts on public vantage points including roadways, Town lands, recreation facilities and Town trails, scenic viewsheds, and surrounding private properties.

Objective M. Establish a Town conservation fund to serve as a source of funding to permanently conserve areas with valuable agricultural, scenic, and/or natural resource qualities.

Goal 7. To encourage energy conservation and the responsible development and use of renewable energy sources in a manner that preserves New Haven's rural landscape and character.

Objective C. Site and design all energy and utility projects, including generation, transmission or distribution facilities, to preclude adverse impacts on public health, safety and welfare (including economic impacts), the Town's historic and planned pattern of development, environmentally sensitive areas, prime agricultural soils, and New Haven's most highly valued natural, cultural and scenic resources, consistent with the adopted plan policies and community standards for energy development, resource protection and land conservation.

(Town Plan at 7 to 11)

LOCAL ECONOMY AND ECONOMIC DEVELOPMENT

24 VSA §4382(a)(11)

Agricultural Sector

> […] The highly scenic, intact rural landscapes throughout New Haven contribute substantially to the quality of life in the Town and enhance local property values. New Haven's scenic landscapes also enhance the quality of life for state residents from surrounding towns who regularly travel our roads -- particularly Route 7 and Route 17 – and attract visitors and tourists from near and far…

(Town Plan at 22)

> […] Fragmentation of farmland -- cutting up of larger parcels and interspersing non-farm uses such as residential, commercial, industrial or utility development -- diminishes the farming options and economies of scale for future farmers, degrades the scenic and cultural heritage values of the landscape, and diminishes environmental values including grassland bird habitat…
>
> […] Density-based zoning tools also provide a means for permitting flexible development to maintain open land for farming, environmental protection and scenic viewsheds. Scenic viewshed protection, discussed below, also helps protect the Town's agricultural lands and the valuable aesthetic effects of open farmland.

(Town Plan at 24)

Business Sectors

> Note Regarding Maps:
>
> A map of potential energy generational facilities development sites has been created for the Town by the Addison County Regional Planning Commission, but it was not correlated to the Town's parcel map, and did not include layers related to utility constraints (GMP solar map red lines, and the three-phase power line map) or the Town's scenic and historic resources.
>
> Over the next few years from the adoption of this Plan, the Town, through the Planning Commission, will work with Regional Planning and VTRANS to update the base maps; to produce maps affiliated with the upcoming scenic resources and town lands management planning; and to map potential energy facilities development sites that incorporate the Town's designated scenic, cultural and historic resources as well as utility constraints.

(Town Plan at 25)

UTILITY AND FACILITIES PLAN

24 VSA §4382(a)(4):

Other Community Resources

Recreation

> New Haven has one legal trail, which connects Route 17 near the Addison County Field Days site with Pearson Road […]

[…] The trail is open to pedestrian, bicycle and equestrian use, and to snowmobiles when snow cover allows. The views from the midpoint, which is an elevated section, are quite beautiful and encompass the rolling hills around the scenic Field Days valley (described more specifically in the Scenic Viewsheds section), providing a popular spot for picnics.

New Haven's many small dirt roads, with their generally slow traffic and many scenic views, provide ample opportunity for recreational walking, running and horseback riding…

(Town Plan at 34)

EDUCATION FACILITIES PLAN

24 VSA §4382(a)(6)

Bicycle Travel, Walking and Horseback Riding

Bicycling is a popular activity in New Haven, particularly on the Town's scenic back roads.

(Town Plan at 42)

ENERGY PLAN

24 VSA §4382(a)(9) and

24 V.S.A. § 4348a(a)(3)

Town residents have repeatedly expressed their fervent desire to minimize or preclude the negative impact of both utility infrastructure and non-utility generation facilities on the Town's scenic landscape, agricultural soils and economy.

(Town Plan at 44)

Background: New Haven's Experience with Utility and Non-Utility Energy Projects

In 2009, VELCO completed a major upgrade to its transmission infrastructure within the Town, including the addition of a 345 kV line and construction of a much larger substation off Route 17 west of the Village Center […]

[…] the massive power line today creates a garish contrast with New Haven's stunning visual landscape, particularly from certain views on Route 7 and as they cross Main Street (Route 17) just west of the Village Center.

[…] While Townspeople recognize the necessity of utility infrastructure, it is evident that the Town is bearing a disproportionate share of the adverse impacts of utility development (overloaded distribution lines and substation infrastructure, degradation of nearby property values through inserting industrial facilities in residential zones, diminishment of cultural, environment and scenic resources including aesthetics and loss of open lands and farmlands, impact on wildlife habitat and critical agricultural economy, and potential impacts on the future of land use planning and development patterns) designed primarily to serve development outside the Town, and in many cases outside the county or State. It is the Town's objective to

ensure that all reasonable measures are taken to mitigate any further adverse impacts on the Town from utility and non-utility energy facilities, including generation, transmission and distribution infrastructure, particularly with respect to protecting the high quality of the Town's scenic character[…]

(Town Plan at 49 to 51)

Siting, Screening And Performance Standards Applicable To All Utility/§248 Projects In New Haven

The Town's experience with recent projects (further described in the Energy Plan section) has led to the following specific standards to be required of any utilities or other §248 developers, including energy, fuel, and communications project developers, to limit and mitigate impacts on the Town's health, safety and scenic character.

- Aesthetics. Utility and other §248 infrastructure must be sited in a manner that minimizes impacts on scenic views, public highways, and nearby property owners. Each project must incorporate screening that breaks up the visible area of the project in a manner that: prevents unobstructed views of the project; mitigates adverse aesthetic impacts on views from residences, public highways and recreation resources; and harmonizes the project with the character of the surrounding landscape and neighborhood including historic and scenic resources and natural areas. All projects must comply with the requirements of any duly adopted siting and screening bylaws or ordinances.

(Town Plan at 71 to 72)

NATURAL RESOURCES

SCENIC RESOURCES

The mandate of New Haven's residents is clear: Protect the Town's scenic resources. The beauty of New Haven greatly enhances the quality of life for residents as well as anyone passing through the Town whether on a daily commute or a once-in-a-lifetime vacation.

(Town Plan at 89)

Farmland plays a significant role in New Haven's scenic richness. Town residents recognize the value of not only protected the scenic qualities of farmland, but in ensuring the economic viability of local farms. Residents have proposed a variety of possible economic approaches to protecting the Town's cultural heritage farming landscape, while also supporting farm families.

Much of the Town's most valuable scenic resources are located within the Rural Planning Area, and more specifically within the RA Zoning District. New Haven's density-based zoning and preclusion of most non-agricultural commercial and industrial uses within the RA Zoning District provides significant protection to these scenic resources. Design and siting standards, as discussed in the Rural Planning Area segment of this Town Plan, as well as the siting and screening standards delineated in the Energy Plan segment of this Town Plan, also help to

protect the Town's substantial aesthetic assets. The Town's dark sky policy will help protect night time aesthetics as well.

Several local and state resources form the foundation for future planning for protection of New Haven's rich aesthetic resources. These include: a scenic viewsheds map developed by two former members of the planning commission, which is available at the Town Offices; a Route 7 corridor study done in conjunction with the Planning Commission, also available at the Town Offices; an extensive statewide visual resource guide developed by T.J.Boyle for the Vermont Public Service Board in the 1970s (utilized by several towns in Vermont such as Whiting to define their scenic areas; the book is out of print, and attempts will be made to ensure a copy is available at the Town Offices); and the 1991 Vermont Agency of Natural Resources publication, Vermont's Scenic Landscapes: A Guide for Growth and Protection by Elizabeth Courtney (also out of print, and attempts are being made to secure a copy for the Town Offices). Other resources include the National Park Service guidance documents for identifying and preserving cultural landscapes.

Over the next few years, the Town will study these resources and engage the community to develop a scenic resource protection plan. Potential tools to be considered will include economic incentive and support measures.

In the meantime, the Town has long designated three roadways in the Town as scenic corridors: the Otter Creek Highway (Route 17 west of New Haven Junction); Main Street (Route 17 east of New Haven Junction); and the Ethan Allen Highway (Route 7, excluding the highway commercial and industrial zones). The vistas from these scenic corridors are scenic viewsheds and must be maintained and preserved.

Due to the cultural, economic, agricultural and aesthetic significance of the Addison County Farm and Field Days, and the role the intact cultural landscape surrounding that location plays in the value of the Field Days site, the views from Otter Creek Highway and Field Days Road are designated as scenic viewsheds and must be maintained and preserved.

In 2004, New Haven Valley View, a joint project of the Champlain Valley Greenbelt Alliance and the MALT, was conserved to maintain a sweeping vista along Route 7 in New Haven of the Bristol Cliffs and Green Mountains. The 60-acre property was slated for development until MALT and CVGA raise the necessary funds to protect it and help keep Vermont, and New Haven, open and scenic.

Seven million people travel Route 7 each year. This view, along with one in Shelburne preserved by the Dexter Fund were noted as two of the most important individual vistas seen from Route 7 between Burlington and Middlebury.

The views from Main Street (Route 17) are those specifically referenced by PSB Chairman Dworkin in the VELCO case, quoted above.

South Street, running parallel to Route 7 and connecting the Village Center with River Road, is also designated a scenic corridor. The view from South Street which looks back to the New Haven Valley View is also designated a scenic viewshed.

These designated scenic viewsheds are to be maintained and preserved. This does not mean that development within these viewsheds is prohibited; it means that development within these viewsheds must be appropriately sited and scaled, and if necessary augmented with visual

mitigation such as landscaping in a naturalized style that harmonizes with the hedgerows, forest blocks or other landscape features in which it is to be located.

The Town shall amend its zoning bylaws to implement this designation of scenic viewsheds. The Town will also explore additional measures for scenic viewshed protection including economic incentive and support measures.

These scenic viewsheds are primarily located within the Rural Planning District; specific design standards relative to that district for the purpose of maintaining New Haven's scenic beauty are contained in the Rural Planning District section of this Town Plan.

(Town Plan at 90 to 94)

CULTURAL RESOURCES: ADDISON COUNTY FARM & HOME FIELD DAYS, INC.

The preservation of agriculture, and protection of the natural, cultural, historic and aesthetic resources that create the town's unique character and sense of identity are evident in Field Days as they have been since its inception […]

[…] The view of this pastoral landscape from this highly public location of the Field Days fairgrounds, as well as along Route 17 -- the Otter Creek Highway -- approaching and leaving the fair, is an iconographic reflection of the cultural heritage of the Town of New Haven and of the farmlands of Addison County. The valley that comprises this viewshed is characterized by the 1971 TJ Boyle inventory as highly scenic as well as fragile -- intrusion of elements inconsistent with the rural character of this landscape will significantly degrade its quality as an intact rural landscape. New Haven supports and will continue to support the presence of the Addison County Fair and Field Days fairgrounds as well as the Field Days event and additional agriculture-related events in this location. The scenic viewshed surrounding the Field Days fairgrounds shall be preserved. No uses other than farm and related residences shall be permitted within this viewshed, and these uses shall be sited and designed to minimize visual impact from the fairgrounds and Route 17 to the greatest extent feasible.

(Town Plan at 96 to 97)

LAND USE PLAN

24 VSA §4382(a)(2)

Land Use and Rural Character

The primary land use goal of this Town Plan, which is widely supported by residents, is the protection of New Haven's rural character, including its agriculturally-based cultural heritage landscape, agriculture and other local business based economy, and the high quality of intact scenic landscape and viewsheds that exist and are maintained by these factors.

(Town Plan at 99)

The "view from the road" is extremely important in establishing the Town's rural character. Together with scenic viewshed protections, subdivision review, PUD and conditional use

review, which can require screening and design elements to mitigate visual impact, density-based residential zoning and the prohibition of incompatible uses from the RA zone helps preserve New Haven's visual and cultural heritage landscape.

Signs and Junk

Inappropriate signs as well as 'junk' such as garbage or excessive numbers of unregistered vehicles diminish the aesthetic beauty, quality of life and property values of the Town. During the planning process for this Town Plan, several residents encouraged the Town to clarify and bolster enforceability of zoning regulations in regards to both junk and business signs, particularly lighted signs and mobile signs. It is the Town's policy to protect the aesthetic elements of the community in all zones, and not only in designated scenic viewsheds or noted scenic resource areas. The Town will revisit its zoning regulations regarding signage and junk to bolster this protection.

(Town Plan at 101)

LAND USE PLANNING AREAS

Rural Planning Area

Character. The rural planning area is the heart of New Haven's scenic and cultural resources. This area defines the cultural heritage and quality of life of the Town, and contributes immensely to the Town's agricultural economy and robust property values. The character of this area is agricultural and rural residential with relatively low- to medium-density residential development typically sited close to Town roads or on private roads. Flexible, density-based residential development standards in this area, together with preclusion of non-compatible land uses, will be implemented through subdivision and zoning regulations to preserve farm land and scenic viewsheds.

(Town Plan at 107)

Specific design standards shall apply to new development in the Rural Planning Area in recognition of the existence of a concentration of agricultural and forest lands to protect the extraordinary scenic resources such lands and uses provide. Any land use in this area, including single- family dwellings, shall require approval under those regulatory guidelines. Development other than agricultural structures or single family residences developed on lots existing as of January 1, 2017 in this area shall not be sited in prominently visible locations on hillsides or ridgelines, and shall, at a minimum, utilize earth tone colors and non- reflective materials on exterior surfaces of all structures, and must minimize clearing of natural vegetation. Agricultural structures and single family residences shall be encouraged to follow the same guidelines, and/or to harmonize the structure with the surrounding built and natural environment.

(Town Plan at 108)

RECOMMENDED ACTIONS

IMPLEMENTATION 24 VSA §4382(a)(7)

New Haven sets ambitious goals for itself in the coming years to implement the ideas, policies and goals set out in this plan.

Action 1. The Town's zoning and subdivision regulations need to be updated by the New Haven Planning Commission. This Town Plan specifically speaks to a need for the following:

C. Require thoughtful planning and design of development to protect designated scenic views of open land and mountains so valued by residents of successive generations and by visitors.

(Town Plan at 115)

Action 2. Town Administration

G. Adopt design standards for the Rural Planning Area to protect the extraordinary scenic resources such lands and uses provide.

Action 3. Conservation and Energy

B. Work to identify, map and protect significant scenic viewshed resources.

C. Explore options for a Town Conservation Fund and other methods of pursuing economic support for landowners, particularly farmers, for viewshed and conservation protection.

(Town Plan at 117)

The New Haven Town Plan repeatedly notes that one of the most important goals of the plan is to protect the Town's scenic resources. This is a theme that is carried through many sections. Several statements and goals emphasize the importance to preserve the agricultural character of the town. However, there is not a comprehensive inventory of scenic resources. In the Town Plan, the Scenic Resources section notes that the town will develop a scenic resource protection plan over the next few years. To the best of my understanding that has not been completed. The Town Plan goes on to state that "in the meantime, the Town has long designated three roadways in the Town as scenic corridors", one of which is described as Main Street, or Route 17, east of New Haven Junction. Route 17 extends roughly 3 ¾ miles east from New Haven Junction to the town line. The Project site is located along the south side of Route 17, approximately 1 mile east of New Haven Junction. The Town Plan continues that explain that "these designated scenic viewsheds are to be maintained and preserved. This does not mean that development within these viewsheds is prohibited; it means that development within these viewsheds must be appropriately sited and scaled, and if necessary augmented with visual mitigation such as landscaping in a naturalized style that harmonizes with the hedgerows, forest blocks or other landscape features in which it is to be located." The Project is located within the Rural Planning Area, as illustrated on figure 28, Land Use Planning Areas Map, within the Land Use Plan Chapter. Under the section with discusses the Rural Planning Area, it notes that "development other than agricultural structures or single family residences developed on lots existing as of January 1, 2017 in this area shall not be sited in prominently visible locations on hillsides or ridgelines, and shall, at a minimum, utilize earth tone colors and non- reflective materials on exterior surfaces of all structures, and must minimize clearing of natural vegetation."

These portions of the Town Plan which discuss the designated scenic corridors and methods of protecting those scenic resources would be the closest guidelines that might be considered a written community standard relevant to the Project. However, the Project site is not specifically designated as a scenic resource, and other portions of the Town Plan appear to acknowledge the visual character of existing transmission infrastructure at the site. Even so, the Project as proposed would meet the intent of these goals. The Project is appropriately sited. It is not proposed in a prominently visual location. Portions of the building would be dug into the landform and the Project retains and utilizes surrounding hedgerows to screen Project components. The form of the building and proposed colors would help the Project to harmonize with the character of the surrounding area.

The Regional Plan and Town Plan both recognize the presence and importance of scenic resources within the area. Review of the Regional Plan did not find any clear written community standards; the Regional Plan provides guidance for its constituent towns to identify, designate and provide protection of scenic resources within each of their communities. Although the Town Plan does not include a comprehensive inventory of scenic resources, in does designate Route 17 as a scenic corridor adjacent to the Project. It does not specifically designate the Project site as a scenic resource. Regardless of designation, the Project meets the measures that the plan describes to protect scenic quality. This review determined that the Project does not violate a clear written community standard intended to preserve the aesthetics or scenic beauty of the area.

ii. Project Mitigation

Reasonable mitigation measures have been incorporated with the Project. Site selection and location of the Project within the property are some of the most important mitigating elements. It is proposed at a site that is currently in use for electrical transmission and includes a major substation and transmission lines. The specific location of the Project is setback from nearby roads and surrounding properties, and it takes advantage of surrounding vegetation to help screen and soften views of the proposed building and other elements. The following provides a detailed list of mitigation which has been incorporated with the Project:

i. The Project would be collocated at the location of the New Haven Substation and essentially at the site of existing electrical transmission infrastructure. The Project would be able to utilize an existing access road to avoid additional curb cuts off of Vermont Route 17.

ii. The Project is setback from nearby roads and residences. The proposed Main Building is setback over 650 feet from Vermont Route 17, the closest road to the Project, and over 700 feet from the closest residential structure.

iii. The Project is sited to take advantage of existing vegetation in order to screen and soften views of the new facility. The majority of two hedgerows would be retained, one north of the Project area and one south. Both hedgerows run east to west.

iv. The Project is designed to blend with the vernacular of the surrounding the area. The Main Building would have an agricultural appearance similar to many barns in the surrounding area.

v. The Main Building would be partially dug into a gentle hillside. This would help to reduce the overall height of the structure, particularly from Vermont Route 17. This design would also place service doors and mechanical components to the south side of the building and at the bottom of retaining walls. This configuration would substantially reduce visibility of these components.

vi. Electrical service to the facility would utilize GMP's existing distribution network in the nearby area. Necessary three-phase upgrades would utilize existing structures and service to the facility would be installed underground.

vii. To help screen and soften views of the Project that would be created, a combination of 97 deciduous and evergreen trees are proposed to supplement the existing hedgerows north and south of the facility, and to create a new line of trees to the east. Plantings would be field located after construction to be most effective.

The proposed mitigation measures being implemented allow the Project to successfully integrate with the landscape. The Project incorporates generally available mitigating steps which a reasonable person would take to improve the harmony of the Project with its surroundings.

iii. Shocking or Offensive

When evaluating whether a project would offend the sensibilities of the average person, the criteria to make this assessment is related back to the first part of the Quechee Test: how the project 'fits' within its surroundings. Maybe best stated in PUC Rule 5.112, "a project would be found to offend the sensibilities of the average person if the project would be so out of character with its surroundings or so significantly diminish the scenic qualities of the area as to be offensive or shocking to the average person. In determining whether a project would offend the sensibilities of an average person, the Commission would consider the perspective of an average person viewing the project from both adjoining residences and from public vantage points." An "average person" is considered a disinterested party, not an affected neighbor.

This assessment found the Project would result in an adverse impact under the first part of the Quechee Test, however, the degree of adversity would be low.

- Visibility of the Project would be relatively limited, mostly to short sections along Vermont Route 17 and Town Hill Road.
- The Project would be setback from nearby roads and properties.
- Where visibility of the Project would be possible, significant mitigation measures have been incorporated to reduce the extent of visibility and allow the Project to fit into the character of the surrounding area.
- The Project is located adjacent to existing electrical transmission infrastructure, including a major substation and transmission lines.
- Associated upgrades of GMP distribution lines would simply rebuild the existing single-phase to three-phase lines, which are similar in appearance and typical along roadways near the Project and throughout Vermont.

In addition, the Project has been presented to the Town of New Haven at multiple public meetings. The town has generally expressed their support for the Project. For these reasons, the Project would not offend the sensibilities of the average person and would not be offensive or shocking. It would not appear significantly out of character with its surroundings or significantly diminish the scenic qualities of the area in which it is proposed.

F. Conclusion

The Project was found to result adverse impacts to the aesthetics and the scenic and natural beauty of the areas in which it is located. This is due to the Project introducing a new visual element onto a mostly undeveloped site. However, as discussed in the evaluation of impacts and in the discussion of mitigation, the Project incorporates several measures to make it compatible with the character of the area. Review of the Project under the second part of the Quechee Test found that the Project would not be undue.

- Based on the review of regional and town plans, the Project would not violate any clear written community standard intended to preserve the aesthetics or scenic or natural beauty of the area.
- The applicants have incorporated generally available mitigating steps. Mitigation includes the location and siting of the Project, the architectural detailing of the buildings, retention of existing vegetation, and proposed mitigation planting to further screen and soften views that would be created.
- The Project would not offend the sensibilities of the average person. The Project would have relatively limited visibility, and mitigation measures would along the Project to fit into the character of the area. The Project is also located adjacent to other existing electrical transmission infrastructure.

In conclusion, the VELCO New Haven Operations Facility meets the Quechee Test insofar as its impact on aesthetics would not be unduly adverse.

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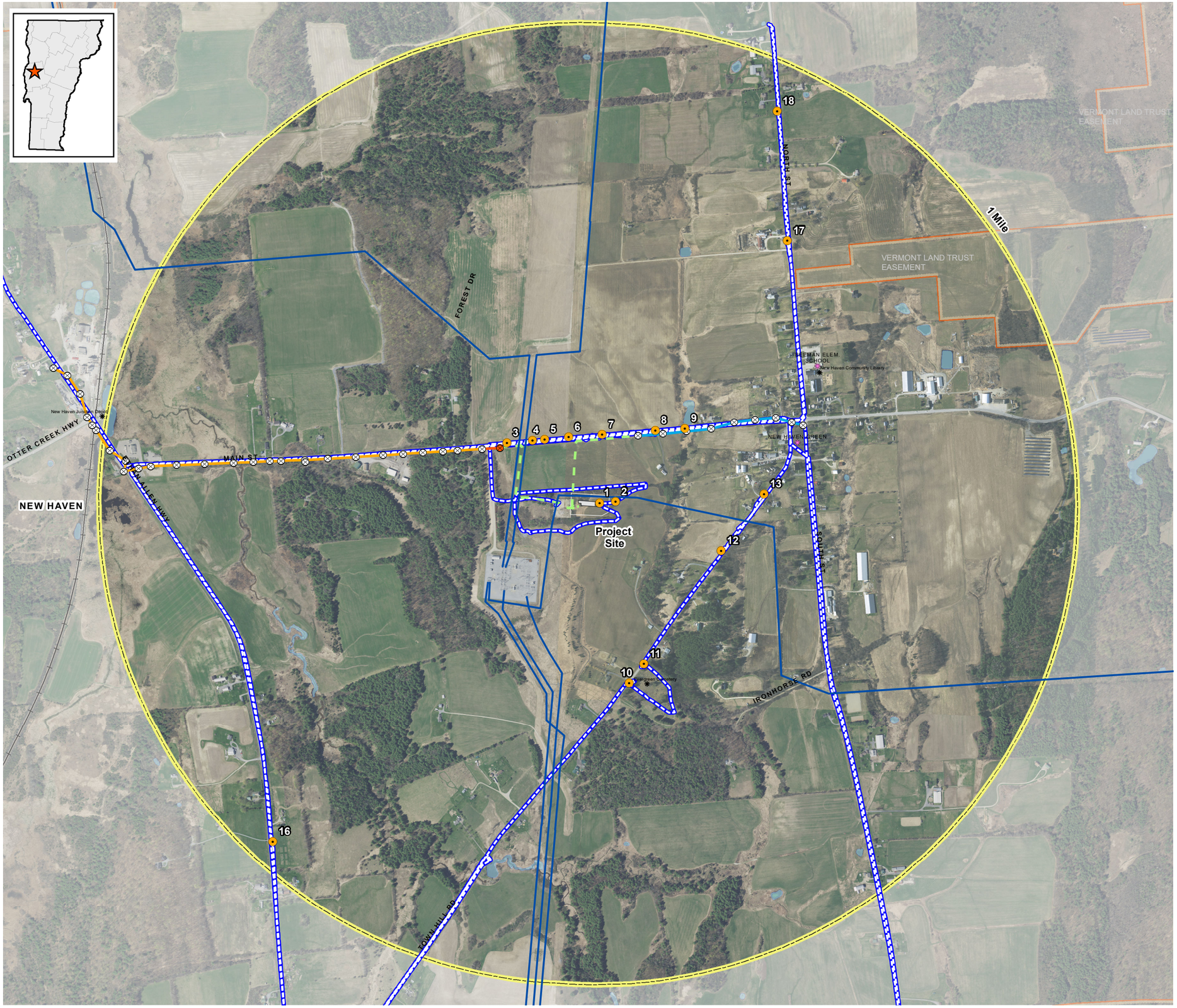
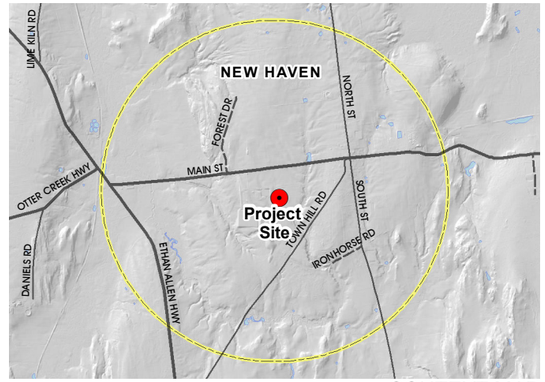
Appendix A
Project Maps





CONTEXT MAP

VELCO New Haven Operations Facility

Appendix A

MAP 1: AERIAL CONTEXT MAP

November 2019

LEGEND

- Viewpoint Locations
- Landmarks
- Recreation Sites
- Existing Poles
- New Distribution Pole (Approximate Location)
- Inventory Route
- WY-G80 3-Phase Upgrade
- 9G4 3-Phase Upgrade
- 9G4 3-Phase Line Extension
- Proposed Underground Electric
- Transmission Lines
- 1-Mile Radius
- Town Boundary
- Vermont Protected Lands
- Hydrology

NORTH

0 0.25 Miles

Service Layer Credits: VCGI

T.J. BOYLE ASSOCIATES
LANDSCAPE ARCHITECTURE & PLANNING

Appendix B
Photographic Inventory

Viewpoint 1: Approximately 180° panoramic view from within the Project site towards the eastern end of the proposed Main Building location. This view pans from roughly east (left) to west (right) and shows the surrounding area south of the Project site.

Viewpoint 1: Approximately 180° panoramic view from within the Project site towards the eastern end of the proposed Main Building location. This view pans from roughly west (left) to east (right) and shows the surrounding area south of the Project site.

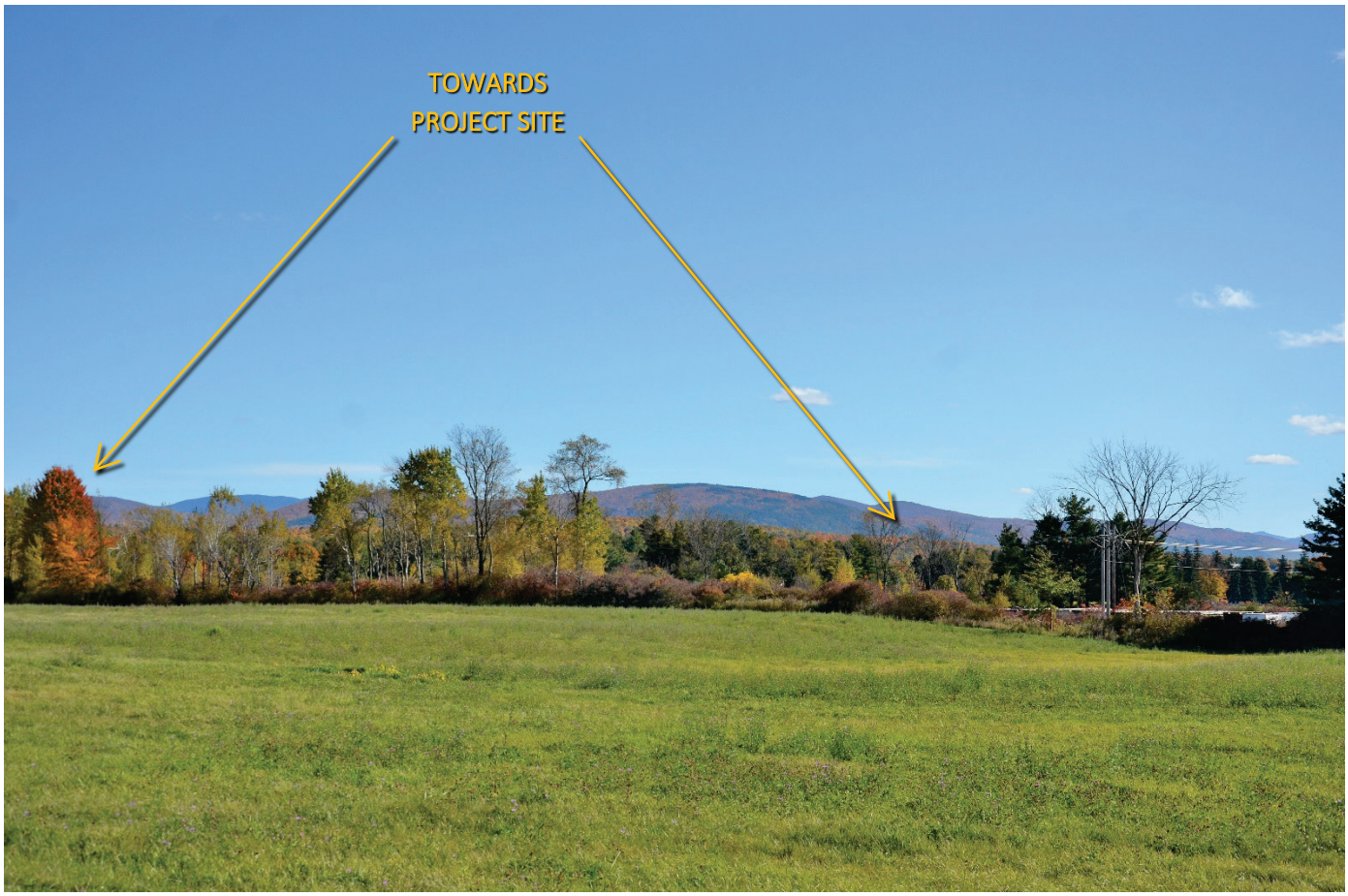
Viewpoint 2: Approximately 180° panoramic view from within the Project site, slightly east of the development area. This view pans from roughly east (left) to west (right) and shows the surrounding area south of the Project site.

Viewpoint 2: Approximately 180° panoramic view from within the Project site, slightly east of the development area. This view pans from roughly west (left) to east (right) and shows the surrounding area south of the Project site.

Viewpoint 3: Approximately 180° panoramic view from Vermont Route 17, slightly northwest of the Project site. The existing access road is just west of this photo location. The view pans from roughly northeast (left) to southwest (right). The orange rectangle in this image represents the following photo, which is captured with a 50mm equivalent lens.

Viewpoint 3: View looking roughly southeast from Vermont Route 17, towards the Project site. This view is represented by the orange rectangle in the image above. (**see Appendix D, Simulation 1)**

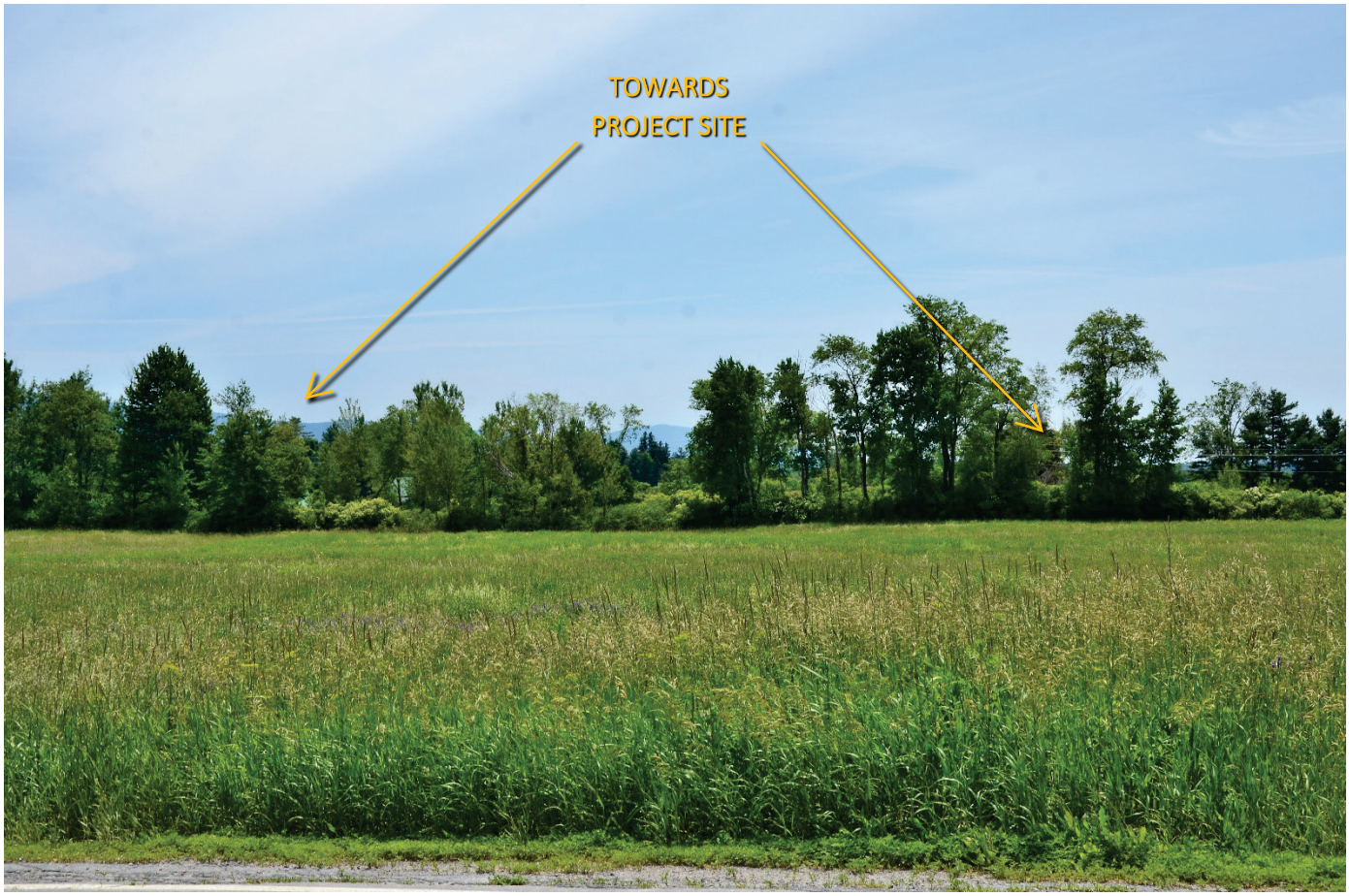
Viewpoint 3: View looking west along Vermont Route 17 at existing GMP line.



Viewpoint 4: Continuing east along Vermont Route 17, view looking southeast towards the Project site.

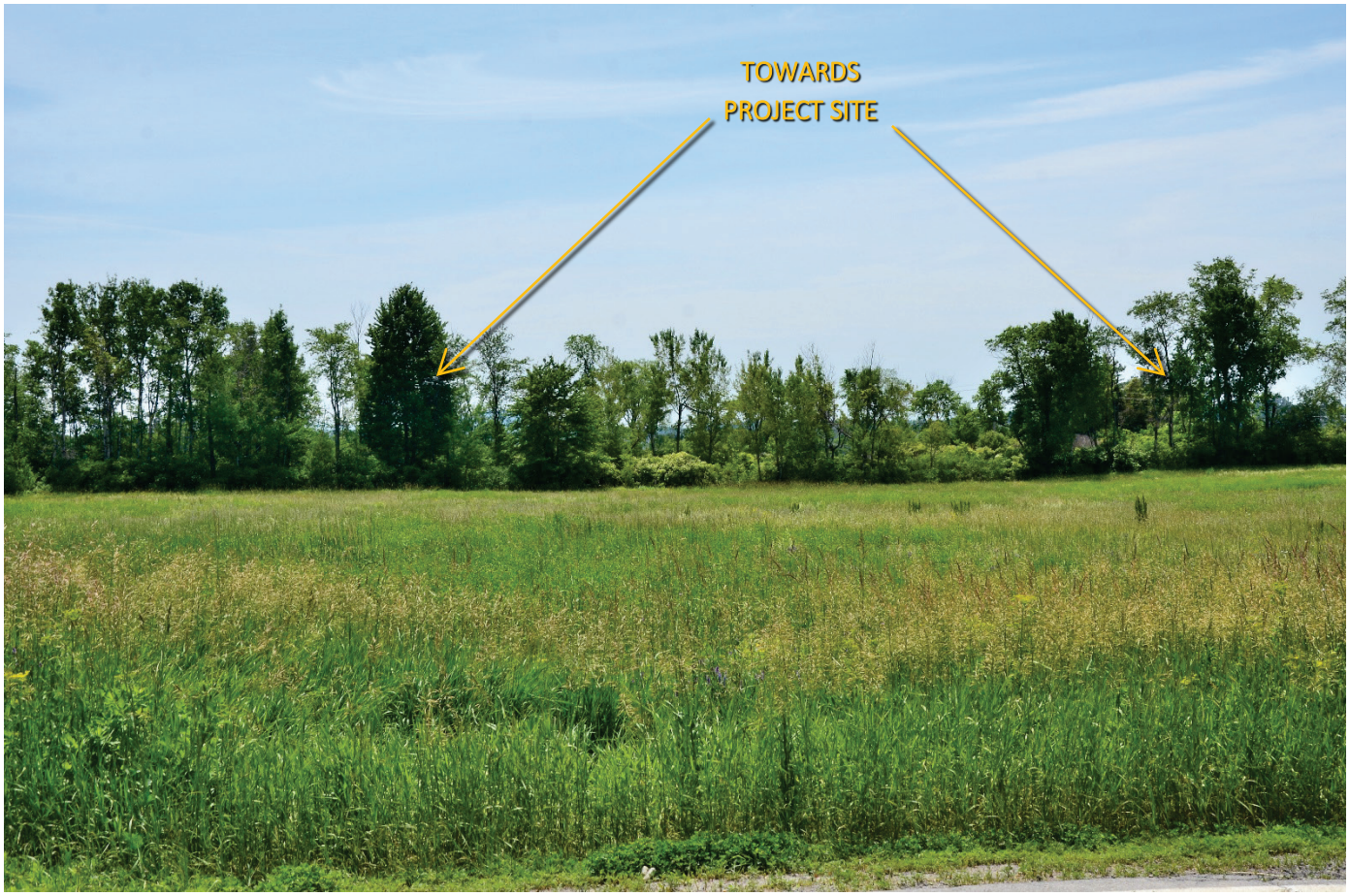
Viewpoint 5: Approximately 180° panoramic view from Vermont Route 17, east from viewpoints 3 and 4, but still slightly northwest of the Project site. The view pans from roughly east (left) to west (right). The orange rectangle in this image represents the following photo, which is captured with a 50mm equivalent lens.

Viewpoint 5: View looking roughly south and slightly east from Vermont Route 17 towards the Project site. This view is represented by the orange rectangle in the image above. (**see Appendix D, Simulation 2)**



Viewpoint 6: Continuing east along Vermont Route 17, roughly adjacent to the northwest corner of the Project site, looking south.

Viewpoint 6: Same view as above during leaf-off conditions.



Viewpoint 7: Continuing east along Vermont Route 17, north of the Project site, looking approximately south.

Viewpoint 7: Same view as above during leaf-off conditions.

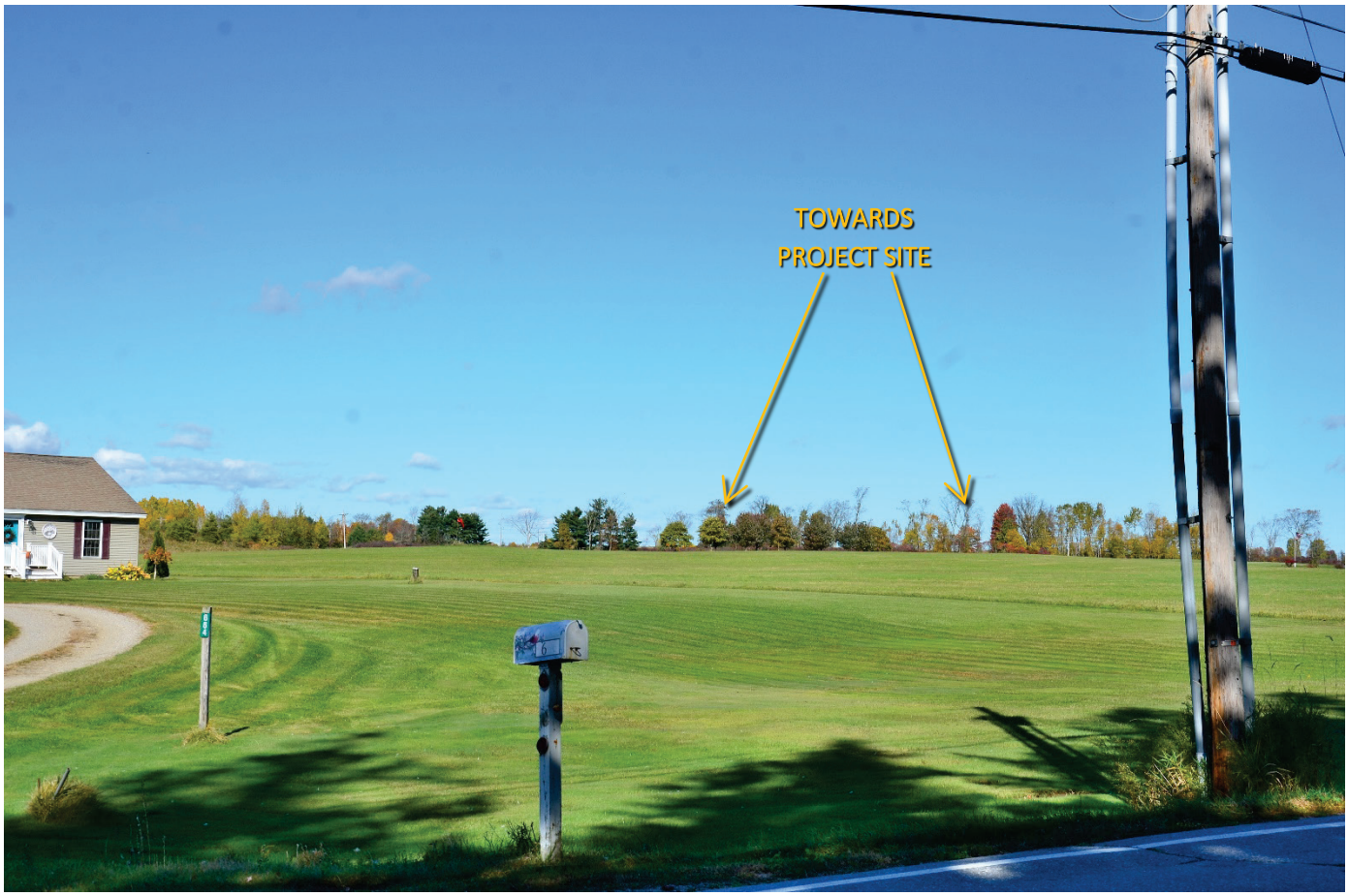
Viewpoint 8: Approximately 180° panoramic view from Vermont Route 17, northeast the Project site. This view pans from roughly east (left) to west (right). The orange rectangle towards the right of this image represents the following photo, which is captured with a 50mm equivalent lens.

Viewpoint 8: View looking roughly southwest from Vermont Route 17 towards the Project site. This view is represented by the orange rectangle in the image above.

Viewpoint 9: East of the Project site along Vermont Route 17, looking southwest.

Viewpoint 9: East of the Project site along Vermont Route 17, looking west at existing GMP distribution line.

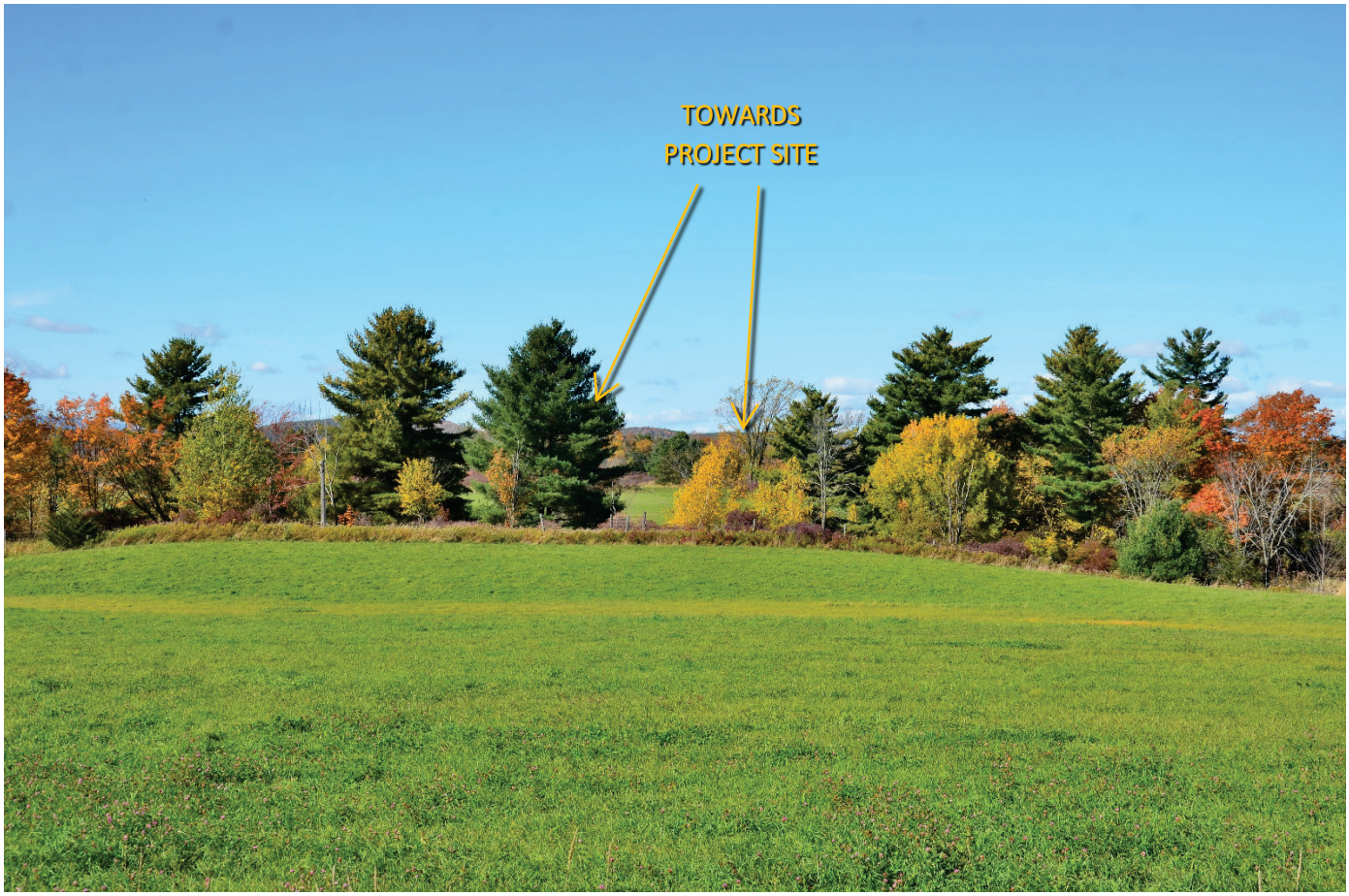
Viewpoint 9: East of the Project site along Vermont Route 17, looking east at existing GMP distribution line.



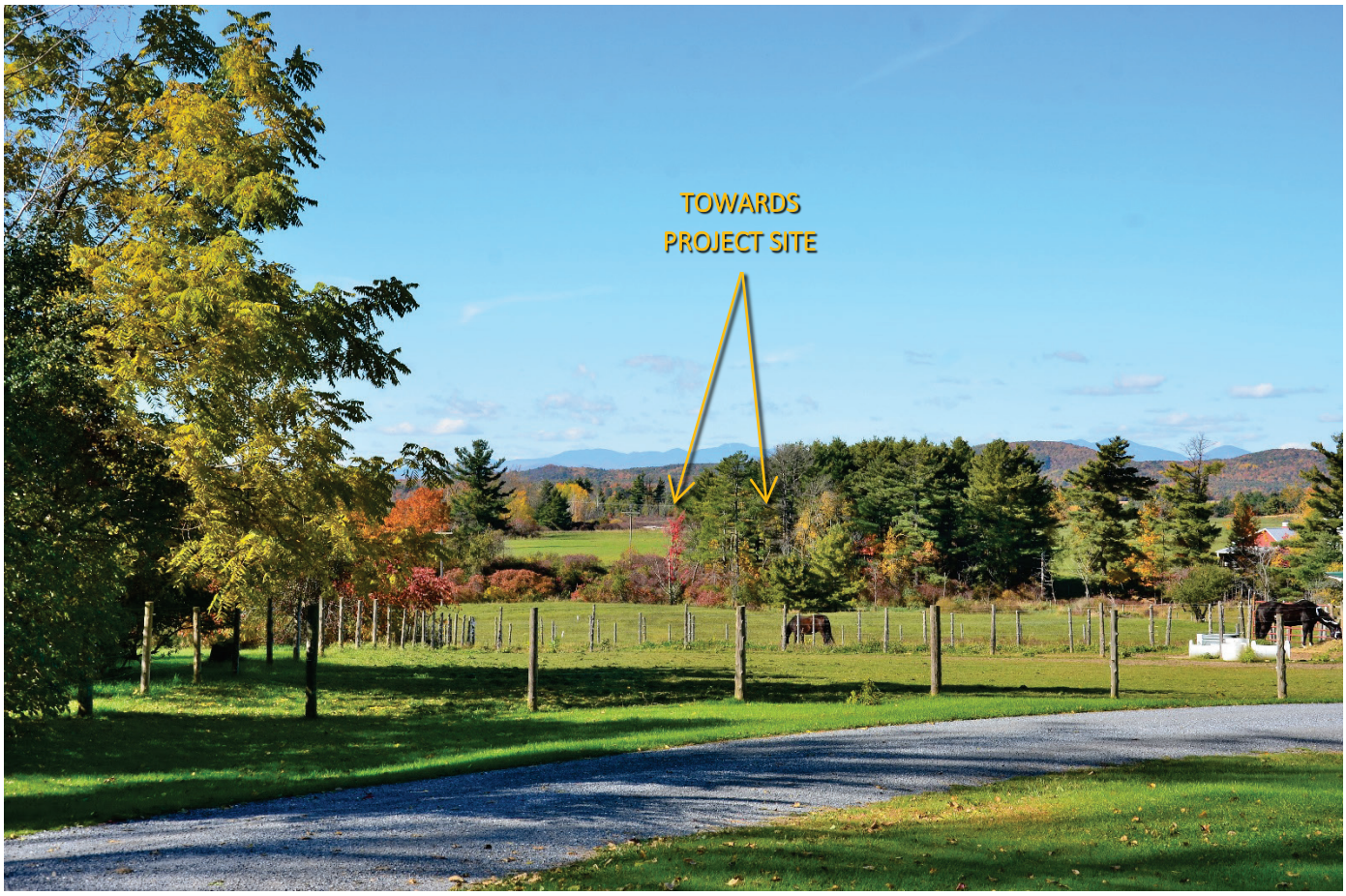
Viewpoint 10: South of the Project site on Town Hill Road looking north and slightly to the west.

Viewpoint 11: Approximately 180° panoramic view from Town Hill Road, south of the Project site. This view pans from roughly southeast (left) to northwest (right). The orange rectangle near the center of this image represents the following photo, which is captured with a 50mm equivalent lens.

Viewpoint 11: View from Town Hill Road, looking approximately north towards the Project site. This image is represented by the orange rectangle in the image above. (**see Appendix D, Simulation 3)**



Viewpoint 12: East of the Project site along Town Hill Road, looking approximately west.



Viewpoint 13: East of the Project site on Town Hill Road looking west.

Viewpoint 14: Approximately 180° panoramic view from US Route 7, south of the Project site. This view pans from roughly northwest (left) to the southeast (right). The orange rectangle near the center of this image represents the following photo, which is captured with a 50mm equivalent lens.

Viewpoint 14: View looking approximately north and slightly to the east from US Route 7 towards the Project site. This view is represented by the orange rectangle in the image above.

Viewpoint 15: View from US Route 7 continuing north and looking northeast towards the Project site.

Viewpoint 16: Further north along US Route 7, looking northeast towards the Project site.

Viewpoint 17: Approximately 180° panoramic view from North Street, northeast of the Project site. This view pans from roughly southeast (left) to northwest (right). The orange rectangle towards the left of this image represents the following photo, which is captured with a 50mm equivalent lens.

Viewpoint 17: View from North Street looking southwest towards the Project site. This view is represented by the orange rectangle in the image above.

Viewpoint 18: Further north on North Street, looking roughly southwest towards the Project site.

Appendix C
Landscape Mitigation Plan

Planting Schedule

Shade Trees

Qty.	Code	Botanical Name	Common Name	Type	Size	Spec	Notes
7	ARRS	ACER rubrum 'Red Sunset'	Red Sunset Maple	Large Shade Tree	2" cal.	B&B	
2	AS	ACER saccharum	Sugar Maple	Large Shade Tree	2.5" cal.	B&B	
15	QA	QUERCUS palustris	Pin Oak	Large Shade Tree	2.5" cal.	B&B	

Evergreen Trees

Qty.	Code	Botanical Name	Common Name	Type	Size	Spec	Notes
18	PG	PICEA glauca	White spruce	Large Evergreen Tree	7' Ht.	B&B	
48	PS	PINUS strobus	White Pine	Large Evergreen Tree	6' Ht.	B&B	
10	TC	TSUGA canadensis	Hemlock	Large Evergreen Tree	6' Ht.	B&B	

0 15' 30' 60'
SCALE 1" = 30'
(at 24" x 36" ONLY)

PLAN ISSUED 11/14/2019

revisions	date	revisions	date

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north

design by	drawn by	date	
mjb	jbo	11/14/2019	VELCO New Haven Operations Facility
checked by	**scale**		
mjb	1" = 30'		Landscape Mitigation Plan

sheet no: L-100