

Flint Grid Energy Storage System

Exhibit P

Visual Resource Assessment

Case No. 21-1061-EL-BGN

Visual Resource Assessment

Flint Grid Energy Storage System

Jersey Township, Licking County, Ohio

Prepared for:

Flint Grid, LLC

4845 Pearl East Cir Ste 118
PMB 83662
Boulder, Colorado 80301-6112

Prepared by:



Environmental Design & Research

Midwest Region
5 E Long St Suite 700
Columbus, OH 43215
www.edrdpc.com

December 2021

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1.0 INTRODUCTION

1.1 Purpose of the Investigation

Environmental Design & Research, D.P.C. (EDR) was retained by Able Grid Energy (the Applicant) to prepare a Visual Resource Assessment (VRA) for the up to 200-megawatt (MW) Flint Grid Energy Storage Facility (the Project), proposed to be located in Jersey Township, Licking County, Ohio (see Figure 1.1).

Figure 1.1. Regional Project Location



Basemap: Esri ArcGIS Online "World Street Map" map service.

Recognizing these requirements, this VRA will:

- Describe the visible components of the proposed Project.
- Define the visual character of the visual study area (VSA).
- Inventory the existing VSRs within the VSA.
- Evaluate the potential visibility of the Project within the VSA.
- Create photographic simulations of the proposed Project from representative locations.
- Assess the visual impacts associated with the Project.
- Describe proposed mitigation measures that would be implemented to reduce/minimize potential visual impacts.

This VRA was prepared by a team of experienced visual resource experts in accordance with the policies, procedures, and guidelines contained in established visual resource assessment methodologies.

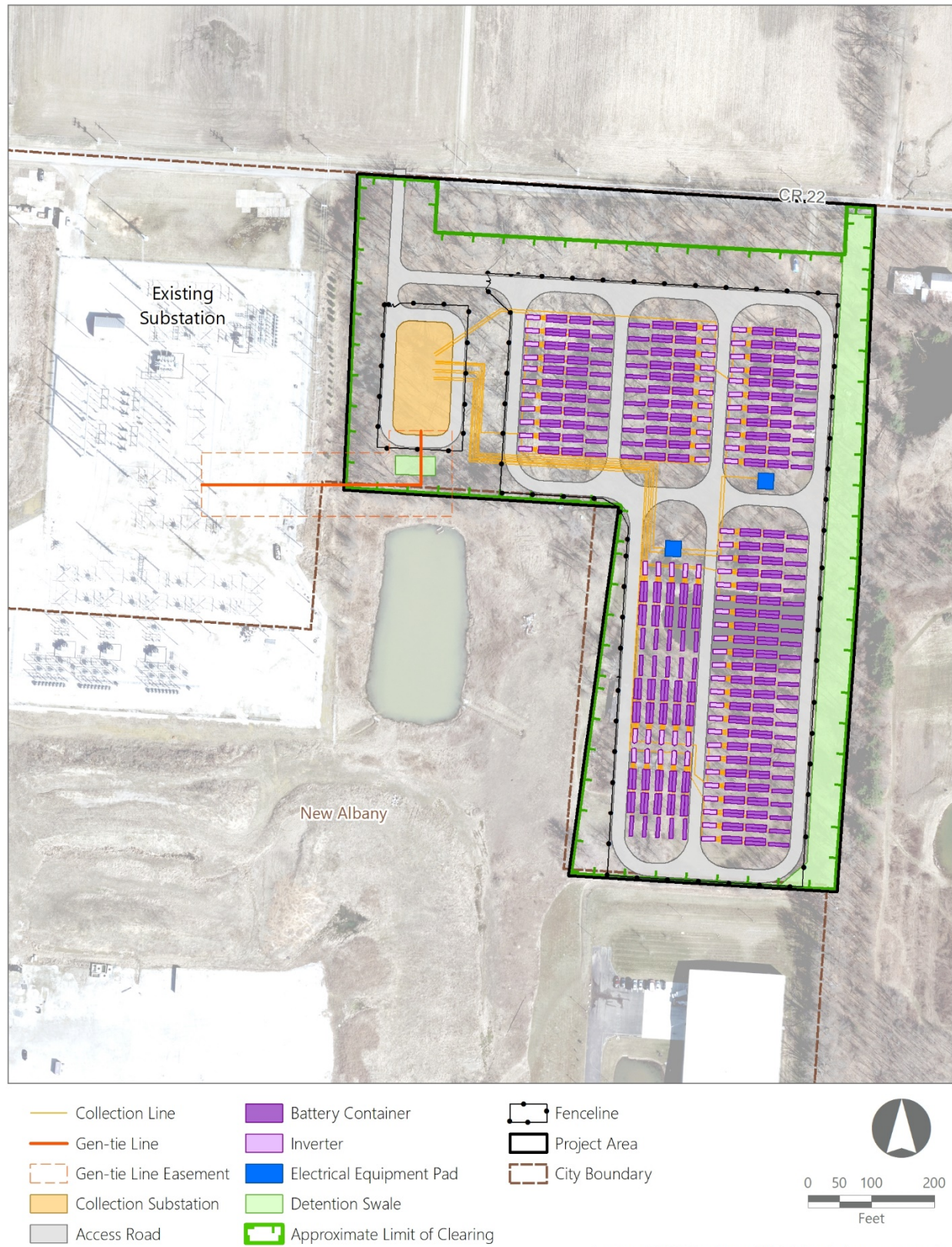
1.2 Project Location and Description

The Project is proposed to be sited on a wooded residential parcel located in Jersey Township adjacent to an industrial area at the edge of the City of New Albany in Licking County, Ohio. The parcels being considered for construction of the Project total approximately 14.9 acres (the Project Site). It is anticipated that the actual amount of land required to accommodate facility components is approximately 12.2 acres.

The proposed Project is an energy storage facility with a discharge capacity of up to 200 MW/4 hours (i.e., the Project can discharge up to 200 MW for a four hour period on one charge). The Project will draw energy from the regional grid through a gen-tie system to charge the energy storage system through a conversion to DC energy. The energy storage system will use shipping containers fitted with racks of lithium-ion batteries. To respond to fluctuations in demand and energy supply in the Ohio bulk power transmission system, the energy storage system will feed into the collection substation where voltage from the batteries will be stepped-up in order to allow connection to the regional electrical grid via a short gen-tie line to the point of interconnection (POI) at the existing Jug Street Road 138 kV Substation owned by AEP Ohio Transmission Company, Inc. (AEP).

Associated support facilities include access roads, perimeter fencing, and a detention swale. The location of proposed Project components is illustrated in Figure 1.2.

Figure 1.2. Preliminary Project Layout



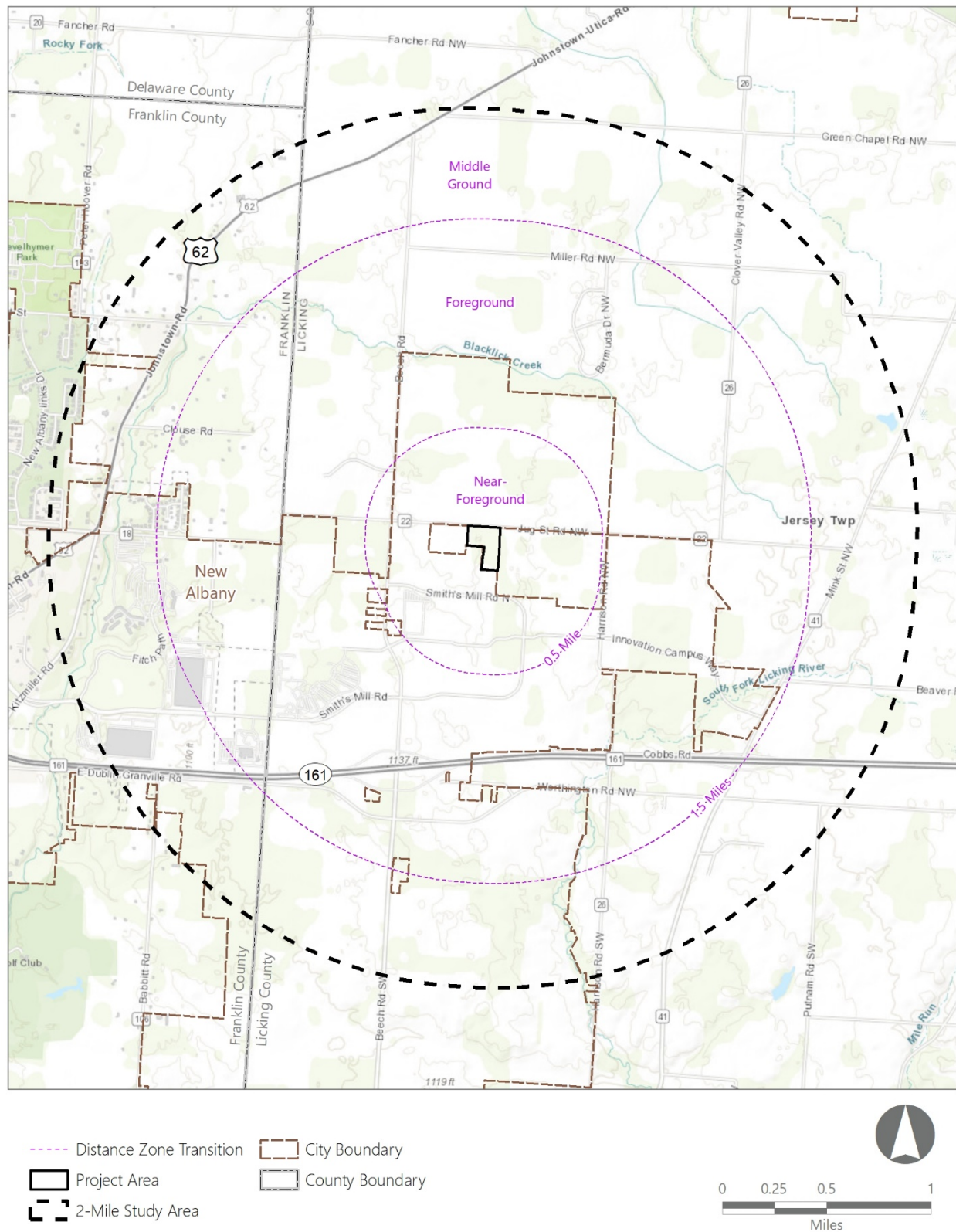
1.2.1 Visual Study Area

OAC 4906-4-08(D) requires that visual impacts to recreational, scenic, and historic resources from a proposed electric generating facility be evaluated within a 10-mile radius. However, based on the low profile of the proposed equipment, and the results of the visibility analysis presented herein, it was determined that 10 miles would be an excessive VSA for an energy storage project.

To define an appropriately sized VSA, a viewshed analysis was conducted to better understand the Project's area of potential effect (see Section 2.1.1). This viewshed analysis indicates that potential Project visibility, including the collection substation, is almost fully contained within 0.5 mile from the Project.

Based on the results of the viewshed analysis, and the relatively flat terrain surrounding the Project, it was determined that a 2-mile radius from the Project would be a sufficient VSA for the purposes of this study. Between 0.5 mile and 2.0 miles, with the exception of a few extremely limited areas of potential visibility, the energy storage facility and substation components will generally be fully screened by existing structures and vegetation. The resulting VSA encompasses a total of approximately 13.9 square miles. The location and extent of the VSA is illustrated in Figure 1.3.

Figure 1.3. Visual Study Area



Basemap: Esri ArcGIS Online "World Topographic Map" map service.

1.2.2 Landscape Character

Definition of landscape character within a given VSA provides a useful framework for the analysis of a facility's potential visual effects. The Esri land use/land cover (LULC) Database was used to help define the character and location of four distinct Landscape Types (LTs) within the VSA (see Figure 1.4). The LTs defined within the VSA are presented in Table 1.1.

Table 1.1. Landscape Types Within the Visual Study Area

| Landscape Type | Total Area within the VSA (square miles) | Percent of VSA |
|-----------------------|--|----------------|
| Agriculture/Open Land | 6.7 | 48.3 |
| Developed | 4.5 | 32.7 |
| Forest | 2.6 | 18.5 |
| Open Water | 0.1 | 0.5 |
| Total | 13.9 | 100% |

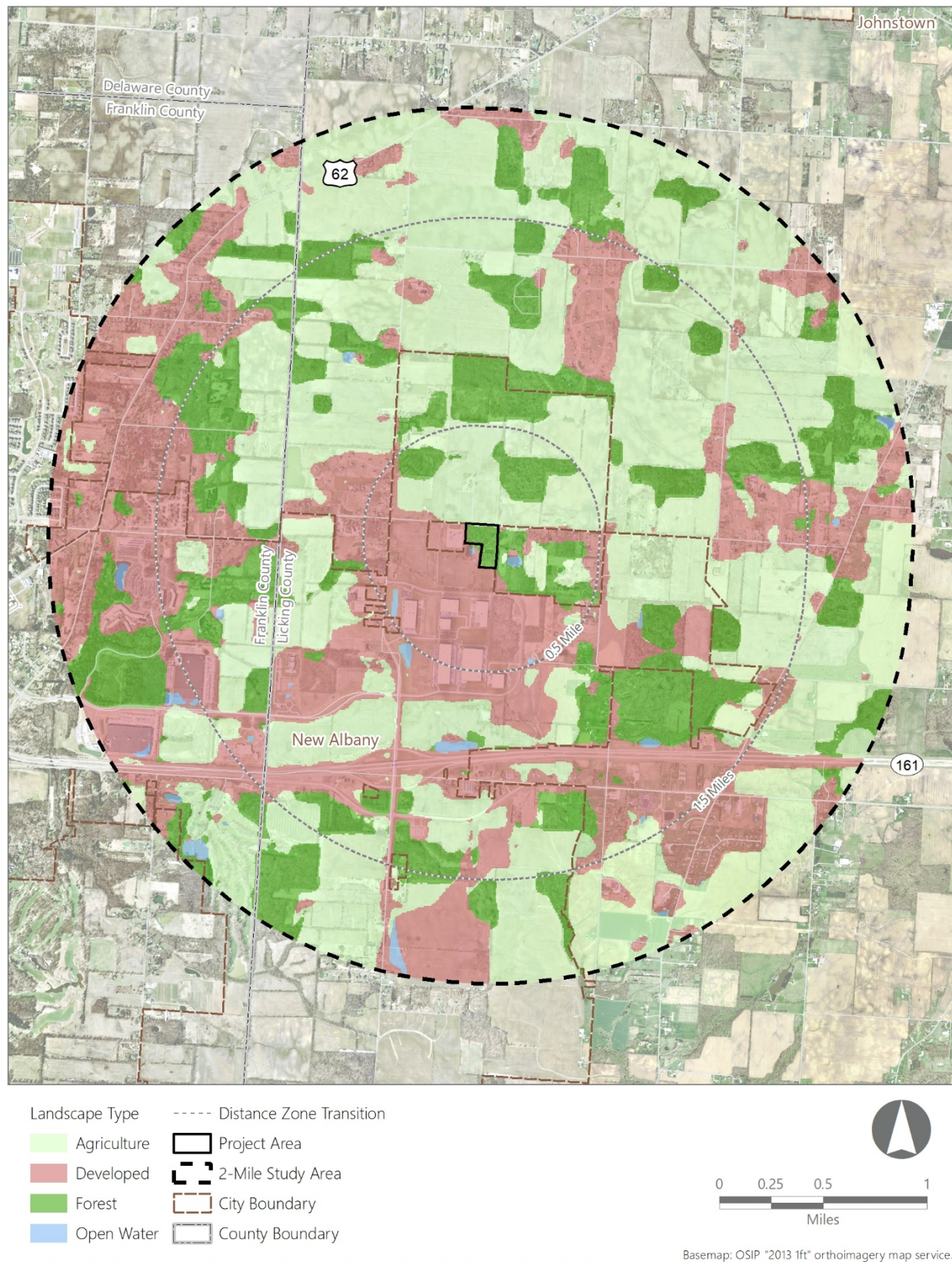
The Project components are proposed to be built almost entirely within the Forest LT. The Forest LT, which makes up 18.5% of the VSA, occurs in scattered locations throughout the VSA. The Forest LT is characterized by small woodlots (generally less than 10 acres in size) dominated by mature deciduous trees.

The Agriculture/Open Land LT makes up approximately 48.3% of the VSA. Agricultural/Open land within the VSA is comprised of hayfields, row crops, and fallow fields dominated by successional vegetation. This LT typically offers the greatest potential for long-distance views due to the presence of open fields and minimal screening features. As such, the Agriculture/Open Land LT is likely to have the greatest opportunities for views of the Project.

The Developed LT makes up 32.7% of the VSA and consists of areas of concentrated human settlement/development, including the outskirts of the City of New Albany which contain multiple warehouse and distribution facilities and utility infrastructure to the west, south, and southeast. Developed LT areas may have outward views across landscaped yards, parking lots, recreational fields, and planted vegetation, but open, long-distance views are generally limited due to the presence of street/yard trees, closely situated buildings, or other built features.

Less than one percent of the VSA is comprised of the Open Water LT, which consists exclusively of retention/detention ponds on or adjacent to large, densely developed parcels (e.g., New Albany Business Park, Facebook Data Center, Abercrombie and Fitch Home Office).

Figure 1.4. Landscape Types Within the Visual Study Area



1.2.3 Distance Zones

Distance zones are typically defined in visual studies to divide the VSA into distinct sub-areas based on the various levels of landscape detail that can be perceived by a viewer. Three distinct distance zones were defined within the VSA. To define these zones, EDR consulted several well-established agency protocols, including those published by the U.S. Forest Service (USFS), Bureau of Land Management (BLM), and U.S. Department of Transportation (USDOT), to determine the appropriate extent of each distance zone. It is important to note that the distance zones recommended by each of these protocols were considered in the context of this VSA. For example, the BLM recommends a combined foreground-middle ground zone extending from 0 to 5.0 miles. While this may be appropriate in a western landscape with frequent, unscreened views over very long distances, it does not translate to eastern landscapes where views are often contained within 1.0 mile of the viewer. Conversely, the USFS (1995) suggests the foreground be defined as an area extending 0.5 mile from the viewer. Due to the characteristics of the specific landscape being evaluated in this VRA, EDR defined distance zones within the VSA (as measured from the proposed Project) as follows:

- **Near-Foreground:** 0 to 0.5 mile. At this distance, a viewer is able to perceive details of an object with clarity. Surface textures, small features, and the full intensity and value of color can be seen on foreground objects.
- **Foreground:** 0.5 to 1.5 miles. At this distance, elements in the landscape tend to retain visual prominence, but detailed textures become less distinct. Larger scale landscape elements remain as a series of recognizable and distinguishable landscape patterns, colors, and textures.
- **Middle ground:** 1.5 to 2.0 miles. The middle ground is usually the predominant distance at which landscapes are seen. At these distances, a viewer can perceive individual structures and trees but not in great detail. This is the zone where the parts of the landscape start to join together; individual hills become a range, individual trees merge into a forest, and buildings appear as simple geometric forms. Colors will be distinguishable but subdued by a bluish cast and softer tones than those in the foreground. Contrast in texture between landscape elements will also be reduced.

The area of each LT falling within each distance zone in the VSA is summarized in Table 1.2. As shown in this table, the distribution of the Forest and Open Water LTs within the individual distance zones is relatively uniform. The Forest LT makes up between 15.9% to 20.8% of each distance zone, while the Open Water LT ranges from 0.4% to 0.7% of each zone. On the other hand, the Agriculture/Open Land LT becomes more common at greater distance from the Project site, increasing from 30.7% in the near foreground to 51.6% in the middle ground distance zone. The Developed LT, where the majority of VSRs and viewers occur, shows the opposite trend, decreasing from 50.6% in the near-foreground to 31.7% of the middle ground. Although the near-foreground contains the highest percentage of developed land, it is worth noting that this developed land is comprised primarily of commercial and industrial uses (e.g., large warehouses and parking lots) rather than residential use.

Table 1.2. Distance Zones by Landscape Type

| Landscape Type | Total Area (square miles) of Landscape Type and Percent of Distance Zone ¹ | | |
|---------------------------------------|---|---------------------------------|------------------------------------|
| | Near-Foreground (0 – 0.5 mile) | Foreground (0.5 – 1.5 miles) | Middle Ground (1.5 – 2.0 miles) |
| Agriculture | 0.3 (30.7%) | 3.3 (48.1%) | 3.1 (51.6%) |
| Developed | 0.5 (50.6%) | 2.1 (30.7%) | 1.9 (31.7%) |
| Forest | 0.2 (18.0%) | 1.4 (20.8%) | 1.0 (15.9%) |
| Open Water | <0.1 (0.7%) | <0.1 (0.4%) | <0.1 (0.7%) |
| Total Distance Zone Area ² | 1.1 | 6.8 | 6.0 |

¹The calculations used to generate this table were based on unrounded numbers, therefore, the rounded results may not add up precisely.

²The VSA includes approximately 13.9 square miles, or approximately 8,914 acres.

1.2.4 Visually Sensitive Resources

VSRs within the VSA were identified per the requirements of OAC 4906-4-08(D). The categories of VSRs that are typically required for consideration in a VRA include the following:

- **Properties of Historic Significance:** National Historic Landmarks (NHLs), sites listed on the National Register of Historic Places (NRHP), sites determined eligible for listing on the NRHP, Ohio Historic Inventory (OHI) structures, Ohio Department of Transportation (ODOT) designated historic bridges, Ohio Genealogical Society (OGS) cemeteries, and Ohio historic state markers.
- **Designated Scenic Resources:** Rivers designated as national or state wild, scenic, or recreational; sites, areas, lakes, reservoirs, or highways designated or eligible for designation as scenic; other designated scenic resources.
- **Public Lands and Recreational Resources:** National parks, recreation areas, seashores, and/or forests; national natural landmarks; national wildlife refuges; heritage areas; state parks; state nature preserves or wildlife areas; state forests; state fishing/waterway access sites; other state lands, designated trails; local parks and recreation areas; publicly accessible conservation lands/easements; rivers and streams with public access; named lakes, ponds, and reservoirs.
- **High Use Public Areas:** State, US, and Interstate highways, schools, cities, and villages.

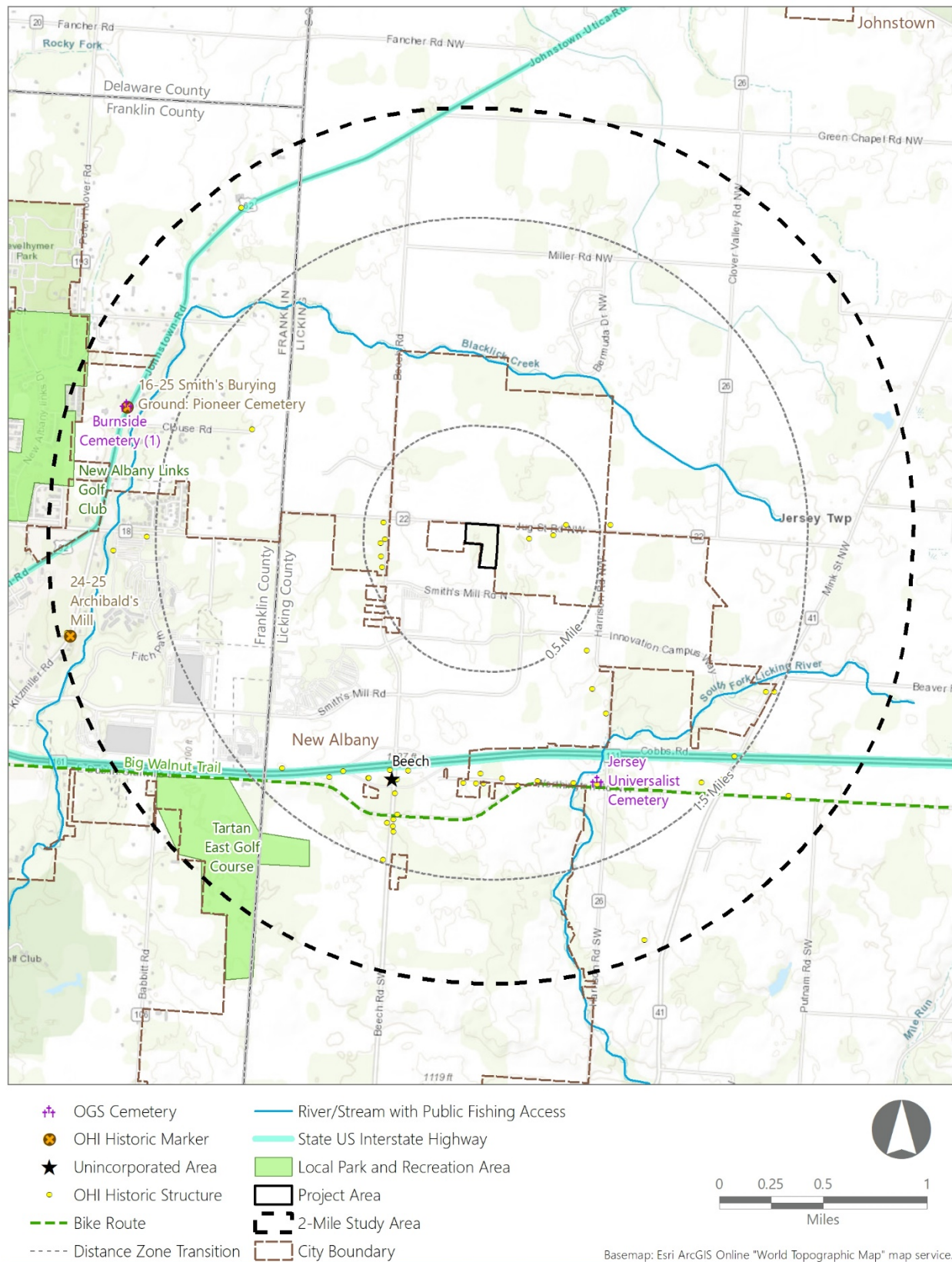
To identify VSRs within the VSA, EDR consulted a variety of data sources including digital geospatial data obtained primarily through the Ohio Geographically Referenced Information Program (OGRIP) or Esri; national, state, county, and local agency/program websites as well as websites specific to identified resources; and web mapping services such as Google Maps (all consulted data sources are listed in Section 4.0 References). Table 1.3 provides a count of the various types of VSRs identified within the 2-mile radius VSA.

Table 1.3. Visually Sensitive Resources

| Type of Visually Sensitive Resource | Number Identified within the VSA |
|---|----------------------------------|
| Properties of Historic Significance | 56 |
| Public Lands and Recreational Resources | 5 |
| High Use Public Areas | 4 |
| Total | 65 |

The locations of mapped VSRs within the VSA are illustrated in Figure 1.5, and presented at a larger scale in Appendix B. Additional information regarding the specific VSRs included in the VSA, and potential Project visibility from these VSRs, is included in Section 2.1.3 and Appendix D.

Figure 1.5. Location of Visually Sensitive Resources



Documented Visual Resources and Preferences of the Community

As part of the VSR inventory, EDR also reviewed existing plans, policies, and regulations of the various municipalities within the VSA to identify any additional visual resources or visual preferences of the community.

The 2020 *Engage New Albany Strategic Plan* (City of New Albany, 2020) is structured around four themes: lifelong learning; health and wellness; arts and culture; and environment and sustainability. The City of New Albany has experienced continued growth and development over the past two decades and the City's strategic plan aims to guide that growth in a direction that is representative of the needs and desires of community members, business owners, and visitors. The Plan seeks to "forge a distinctive, attractive, and thriving community" and to "preserve, re-purpose, and reference 'historic' buildings and materials (City of New Albany, 2020, pg. 12). Additionally, key stakeholders indicated that there is a "strong desire to preserve the aesthetics of rural corridors" and that the City "should continue to preserve trees, woodlands, and other important natural features" (City of New Albany, 2020, pg. 29). The Project is located adjacent to the City of New Albany boundary and a portion of the city is located within the VSA. As the Project is located in an area comprised of industrial/warehouse development, it is not expected to have an adverse effect on the goals listed in the Strategic Plan.

The 2008 *Plain Township Land Use Master Plan* is an update to the Town's 1996 plan. The town has experienced tremendous growth and seeks to put measures in place to "maintain the rural heritage of the township" (Plain Township, 2008, pg. 38). One measure outlined in the plan is the use of setbacks and conservation design for new development to "preserve streams, creeks, wetlands, greenbelts, tree stands, and other significant natural features" (Plain Township, 2008, pg. 40). The Project is not expected to hinder the goals listed in the Land Use Master Plan.

2.0 VISUAL RESOURCE ASSESSMENT

The specific techniques used to assess potential Project visibility and visual effects, along with the results of those assessments, are described below.

2.1 Potential Project Visibility

2.1.1 Viewshed Methodology

Energy Storage Facility Viewshed Analysis

To identify areas where views of the proposed energy storage facility would potentially be available, a digital surface model (DSM) viewshed analysis was conducted. The DSM viewshed analysis accounts for the screening provided by topography, vegetation, and structures present within the VSA and provides a more accurate representation of potential Project visibility¹ than a viewshed analysis based on topography alone². The DSM viewshed analysis for the proposed energy storage facility was prepared using: 1) a DSM derived from the Ohio Statewide Imagery Program's (OSIP) 2015 lidar data for the City of Columbus and 2006 lidar data for Licking County, Ohio; 2) sample points representing the energy storage containers; 3) an assumed maximum energy storage container height of 10 feet applied to each sample point; 4) an assumed viewer height of 6 feet; and 5) Esri ArcGIS® software with the Spatial Analyst extension.

A few modifications were made to the lidar-derived DSM prior to analysis. Transmission lines and road-side utility lines that are reflected in the lidar data are mis-represented in the DSM as opaque screening features. To correct this inaccuracy, DSM elevation values within transmission line corridors and within 50 feet of road centerlines were replaced with bare earth elevation values. It is important to note that this clearing of the DSM may also eliminate legitimate screening features such as road-side vegetation and structures, which may result in an overstatement of potential Project visibility along road corridors within the VSA. This road-side clearing was not applied to the entire Project Site, as the intent is to retain vegetation within 86 feet of the road centerline. This was represented by applying bare earth elevations to areas proposed to be cleared. It was noted during field review that significant development has taken place in the vicinity of the Project Site in recent years. Consequently, new buildings and vegetation clearing that were not represented in the 2015 lidar data were incorporated into the DSM based on review of recent aerial imagery and field review. This modified DSM was then used as a base layer for the viewshed analysis. Once the viewshed analysis was completed, a conditional statement was used within ArcGIS® to adjust energy storage facility visibility to zero in locations where the DSM elevation exceeded the bare earth elevation by 6 feet or more, indicating the presence of vegetation or structures that exceed viewer height. This was done for two reasons: 1) in locations where trees or structures are present in the DSM, the viewshed would reflect visibility from the vantage point of standing on the treetop or building roof, which is not the intent of this analysis, and 2) to

¹ Because certain characteristics of the Project and the VSA that may serve to restrict visibility (e.g., color, atmospheric/weather conditions, and distance from viewer) are not taken into consideration in the analysis, being located within the DSM viewshed does not necessarily equate to actual Project visibility, nor does it indicate that adverse visual impacts will occur within these geographic locations.

² A viewshed analysis based on topography alone is not provided because the results of such an analysis do not accurately represent conditions within the VSA.

reflect the fact that ground-level vantage points within buildings or areas of vegetation exceeding 6 feet in height will generally be screened from views of the Project.

Collection Substation and Gen-Tie Line Viewshed Analysis

A DSM viewshed analysis was also conducted for the proposed collection substation and gen-tie line. Because precise locations of the interior components of the collection substation and gen-tie pole locations were not known at the time, the analysis was run based on five representative points within the proposed collection substation footprint and four locations along the gen-tie line. Collection substation points were assigned a height of 60 feet to represent the maximum proposed height of the tallest interior components of the station (lightning masts) and gen-tie line points were assigned a height of 75 feet, which is assumed to be the maximum pole height. All other data sources and assumptions used in this analysis are as described above for the energy storage facility viewshed analysis.

2.1.2 Viewshed Results

Energy Storage Facility Viewshed Analysis

Potential visibility of the proposed energy storage facility, as indicated by the DSM viewshed analysis, is illustrated in Figures 2.1 and 2.2, and summarized in Table 2.1. As indicated by this analysis, the Project will be screened from approximately 97.8% of the VSA by intervening structures and vegetation.

Table 2.1. Energy Storage Facility Viewshed Analysis Results Summary

| Analysis | VSA (square miles) | Visibility by Distance Zone ¹ (square miles of visibility and percent of distance zone) | | |
|-------------------------|-----------------------|---|----------------------------|-------------------------------|
| | | Near-Foreground 0-0.5 Mile | Foreground 0.5-1.5 Mile | Middle Ground 1.5-2.0 Mile |
| Total Area | 13.9 | 1.1 | 6.8 | 6.0 |
| DSM Viewshed Visibility | 0.3 (2.2%) | 0.3 (28.3%) | <0.1 (0.1%) | 0 |

¹The calculations used to generate this table were based on unrounded numbers, therefore, the rounded results may not add up precisely.

Figures 2.1 and 2.2 illustrate the results of the DSM viewshed analysis for a 2-mile radius and a 0.5-mile focused radius, respectively. The viewshed maps illustrate how potential views of the Facility diminish significantly beyond 0.5 mile.

The near-foreground distance zone has the largest area of potential visibility within the VSA, with 28.3 % of the area out to 0.5 mile from the Project Area indicated as having potential views of some portion of the energy storage facility. Large warehouses associated with the New Albany Business Park, residential structures along Town Highway Route 88, as well as scattered woodlots, hedgerows, and individual trees provide significant screening within and beyond the near-foreground distance zone.

Views from areas in the foreground distance zone (0.5-1.5 miles) experience significant screening due to intervening structures and vegetation, and therefore only 0.1% of this distance zone is indicated as having the potential for views of the energy storage facility. The DSM viewshed analysis indicates that potential Project visibility is absent at distances beyond the foreground (i.e., over 1.5 miles)

It should be noted that the viewshed analysis treats all structures and vegetation as if they were opaque, and therefore, small woodlots and hedgerows are assumed to fully screen views of the Facility. This will likely be the case during leaf-on conditions; however, during leaf-off conditions, narrow or sparsely vegetated hedgerows and individual trees may not provide enough screening to fully obscure views of the Project. However, partial screening will be provided by tree trunks and branches in these locations during leaf-off conditions; therefore, views of the energy storage facility would be at least partially obstructed throughout the year. It is also important to note that the lidar data used in this analysis are from 2006 and 2015, and the analysis does not reflect any changes that may have occurred since that time. As mentioned previously, review of recent aerial photography (2019) and field review resulted in modifications to the DSM to more accurately depict current vegetative conditions. However, it is possible that certain changes to the landscape are not reflected in the viewshed results.

Figure 2.1. Energy Storage Viewshed Analysis Results Within the VSA

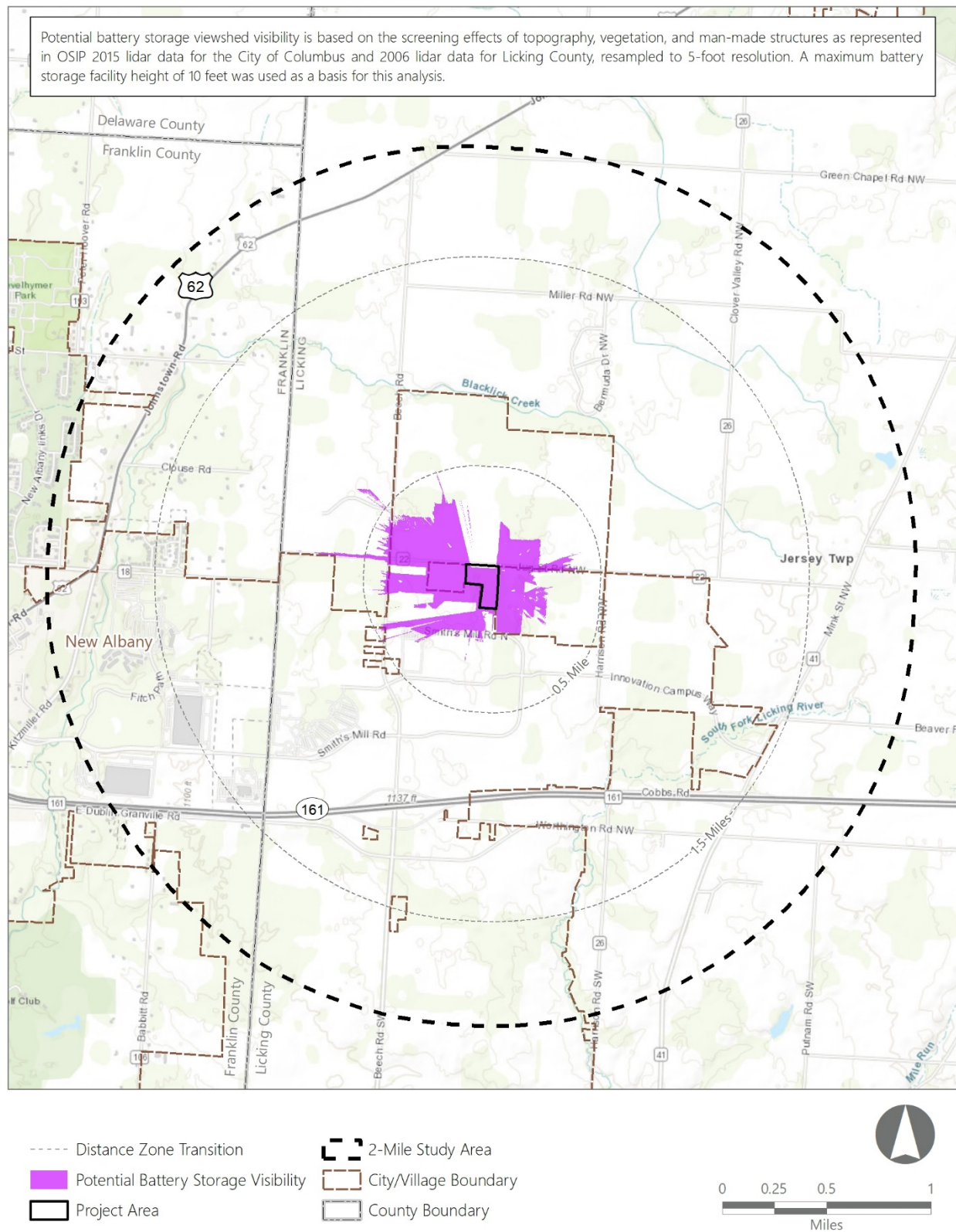
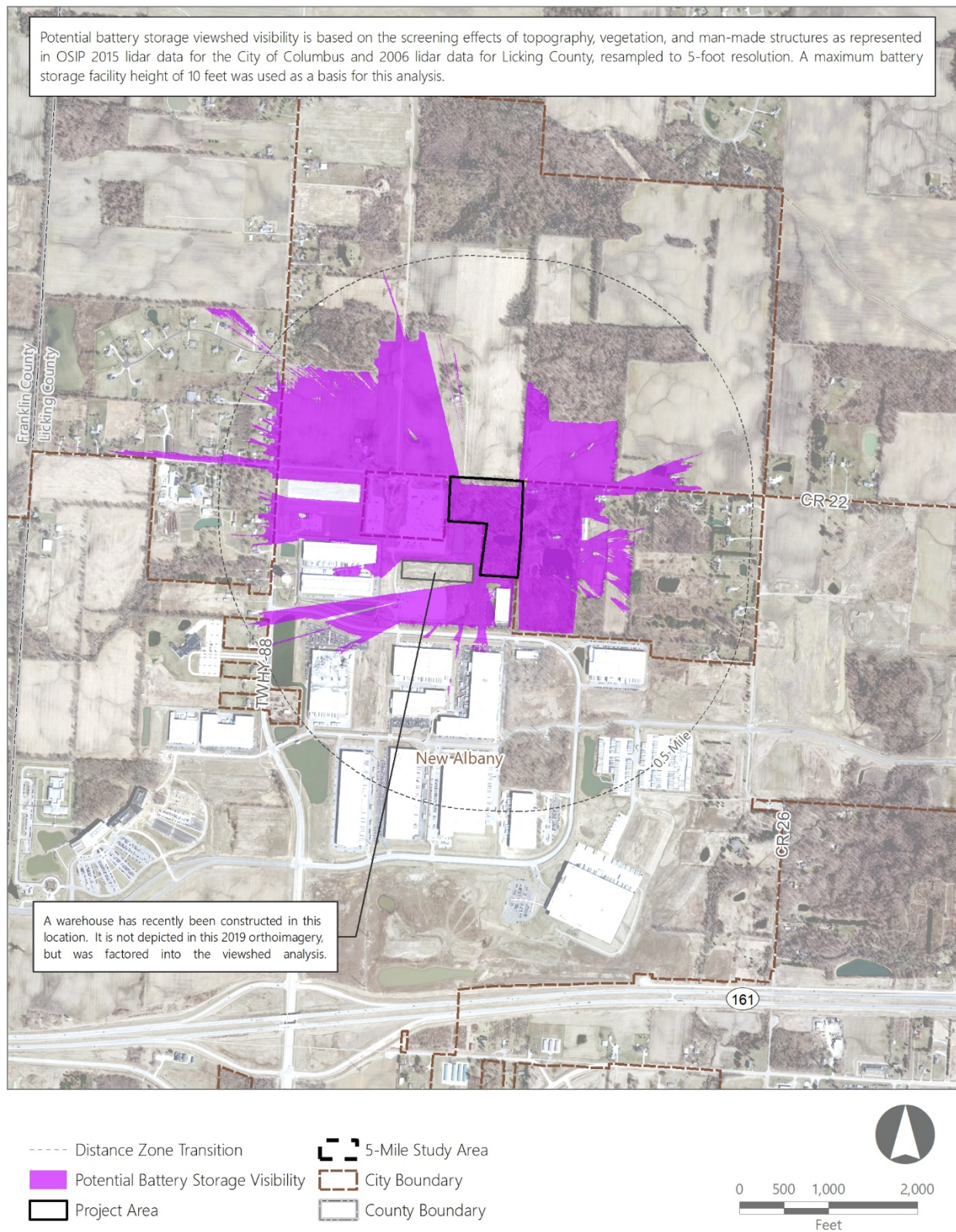


Figure 2.2. Energy Storage Viewshed Analysis Results Within the Foreground Distance Zone



Collection Substation and Gen-Tie Line Viewshed Analysis

Potential visibility of the collection substation and gen-tie line, as indicated by the DSM viewshed analysis, is illustrated in Figure 2.3 and summarized in Table 2.2. As indicated by this analysis, these Project components will be screened from approximately 95.7% of the VSA by intervening vegetation and structures.

Table 2.2. Collection Substation and Gen-Tie Line Viewshed Analysis Results

| Analysis | VSA (square miles) | Visibility by Distance Zone ¹ (square miles of visibility and percent of distance zone) | | |
|-------------------------|-----------------------|---|----------------------------|-------------------------------|
| | | Near-Foreground 0-0.5 Mile | Foreground 0.5-1.5 Mile | Middle Ground 1.5-2.0 Mile |
| Total Area | 13.9 | 1.1 | 6.8 | 6.0 |
| DSM Viewshed Visibility | 0.6 (4.3%) | 0.4 (35.0%) | 0.2 (3.2%) | <0.1 (<0.1%) |

¹The calculations used to generate this table were based on unrounded numbers, therefore, the rounded results may not precisely reconcile.

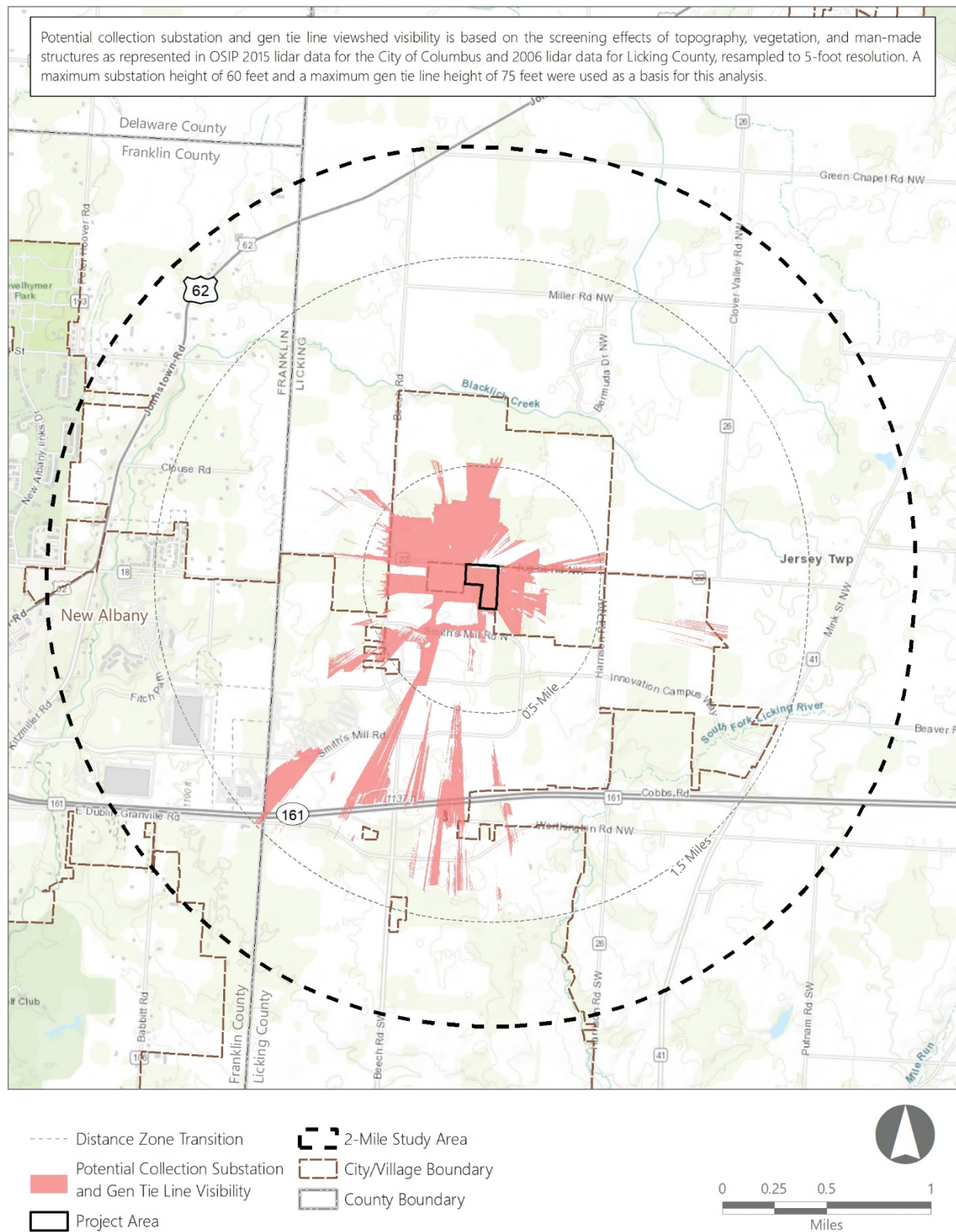
Although still very limited, the potential area of visibility for the collection substation and gen-tie line (0.6 square mile) is twice as large as the area of energy storage facility potential visibility (0.3 square mile). This is due to taller components within the station and along the line (e.g., lightning masts and transmission poles) that are less likely to be screened by surrounding structures and vegetation due to their height.

The near-foreground distance zone has the largest area of potential visibility within the VSA, with 35% of the area out to 0.5 mile from the Project Area indicated as having potential views of some portion of the collection substation or gen-tie line. Large warehouses associated with the New Albany Business Park, as well as vegetation, scattered woodlots, and clusters of structures, provide screening that significantly diminishes and blocks potential views within and beyond 0.5 mile from the Project.

Within the foreground distance zone, there are a few scattered corridors of potential collection substation/gen-tie line visibility which extend out to 1.5 miles within the VSA. Potential views are present to the south to Worthington Road and State Route (SR) 161, southwest toward the City of New Albany, and to the northwest toward Blacklick Creek. There is also an isolated area of potential visibility to the east of the Project between Innovation Campus Way and County Route 22. Views from areas in the foreground distance zone (0.5-1.5 miles) experience significant screening due to intervening structures and vegetation, and therefore only 3.2% of this distance zone is indicated as having the potential for views of the collection substation or gen-tie line components. The DSM viewshed analysis indicates that potential Project visibility is nearly nonexistent (0.1%) at distances beyond the foreground (1.5-2.0 miles).

It is important to keep in mind that the substation/gen-tie line viewshed analysis presents theoretical visibility. The analysis ignores the narrow profile and neutral color of the lightning masts and transmission poles, is based on heights that are significantly taller than most of the internal substation structures, and does not consider visibility of the adjacent existing substation. The narrow lightning masts and poles will be difficult to discern at distances beyond the near-foreground, and the remaining interior structures will generally be well screened by intervening vegetation and structures at viewpoints both within and outside the near-foreground distance zone.

Figure 2.3. Collection Substation and Gen-Tie Line Viewshed Analysis Results Within the VSA



2.1.3 Visibility from Visually Sensitive Resources

The DSM viewshed analysis suggests that 8 of the 65 VSRs identified within the VSA (12%) could have views of both the energy storage containers and the tallest components of the collection substation and gen-tie line. An additional 13 of these resources (20%) may have views of only the collection substation/gen-tie line structures. No VSRs are indicated as having energy container visibility only (see Table 2.3).

Table 2.3. Visually Sensitive Resources with Potential Project Visibility

| Visually Sensitive Resources | Total Number of Resources within the VSA | Total Resources with Project Visibility ¹ | | |
|---|--|--|-----------------------------|---|
| | | Both Energy Storage and Collection Substation/Gen-Tie Line Visible | Only Energy Storage Visible | Only Collection Substation/Gen-Tie Line Visible |
| Properties of Historic Significance | 56 | 7 | - | 9 |
| Ohio Historic Structures | 52 | 7 | - | 9 |
| OGS Cemeteries | 2 | - | - | - |
| Ohio Historical Marker | 2 | - | - | - |
| Public Lands and Recreational Resources | 5 | - | - | 1 |
| Trails | 1 | - | - | 1 |
| Local Parks and Recreation Areas | 2 | - | - | - |
| Rivers and Streams with Public Access | 2 | - | - | - |
| High-Use Public Areas | 4 | 1 | - | 3 |
| State, US, and Interstate Highways | 2 | - | - | 2 |
| Cities, Villages, Unincorporated Areas | 2 | 1 | - | 1 |
| Total Number of Visually Sensitive Resources | 65 | 8 | - | 13 |

¹See Appendix D for additional detail on VSR visibility.

The following section describes the individual VSRs with potential Project visibility, their distance from the Project, and potential views of the proposed energy containers and/or collection substation/gen-tie line based on the DSM viewshed results.

Properties of Historic Significance

OHI Structures

Of the 56 OHI structures within the VSA, seven are indicated as having potential views of both the energy containers and collection substation/gen-tie line, and nine are indicated as having potential visibility of the collection substation/gen-tie line only. Overall, OHI structures in total represent 85% of the VSRs within the

Project viewshed. There are eight OHI structures located in the near-foreground distance zone. The W. Jerry Mysiw & Rebecca D. Jackson Residence and the R. Mitchell & Denise R. Daniels Residence are both located to the east of the Project Area and are indicated as having views of both the energy containers and the collection substation. Additionally, to the east, the Leonard Bush Residence is indicated as having views of the collection substation only. To the west of the Project, the John K. & Donna L. Collins House, Gary L. & Sharon E. Franks Residence, Richard & Jeri E Needles Residence, Donna Lee Robertson Residence, and Carol J. Stevens Residence are indicated as having potential views of both the energy containers and collection substation/gen-tie line.

Eight OHI structures are located within the foreground distance zone. The Burns House, the Grindley House, the Edge Athletic and Fitness Center, the Floor House, 13761 SR 161, 14098 SR 161, the Barton House, and a residence located off of SR 161 are all located within 1.0 to 1.4 miles south of the Project and are indicated as having visibility of the collection substation/gen-tie line only. While these resources may have views of the Project, such views will be partially obscured by existing roadside vegetation, traffic on SR 161, and existing commercial and industrial development.

There are no OHI structures with potential Project visibility located in the middle ground distance zone.

OGS Cemeteries

Of the two OGS Cemeteries occurring within the VSA, neither are indicated as having potential Project visibility.

Ohio Historical Markers

Neither of the two Ohio Historic Markers occurring within the VSA are indicated as having potential Project visibility.

Public Lands and Recreational Resources

Bike Trails/Routes

Big Walnut Trail roughly follows SR 161 and is located 1.0 mile south of the Project. The trail is indicated as having views of the collection substation only, however, existing roadside vegetation, traffic on SR 161, and existing commercial and industrial development will likely obscure these views.

Local Parks and Recreation Areas

Neither of the two park and recreation areas occurring within the VSA are indicated as having potential Project visibility.

Rivers and Streams with Public Fishing Access

Of the two creeks and rivers with public fishing access, neither are indicated as having potential Project visibility.

High-Use Public Areas

State, US, and Interstate Highways

Project visibility from roadways within the VSA varies considerably based on proximity to the Project, elevation, and roadway orientation. U.S. and state highways that have potential energy container and/or above-ground electrical component visibility and their length and usage within the VSA are listed in Table 2.4, below. Views of the Project from moving vehicles will generally be fleeting, peripheral to the orientation of the drivers' primary view, and not the primary focus of driver attention.

Table 2.4. High-Use Roadways within the VSA

| Road/Highway | Average Vehicles/Day Range on Segments within the VSA ¹ | Total Length within the VSA (miles) | Length (miles) and Percent within the Energy Storage Viewshed | Length (miles) and Percent within the Substation and Gen-Tie Line Viewshed |
|--------------|--|---|--|---|
| SR 161 | 37,330 – 50,303 | 3.6 | - | 0.2 (5.1%) |
| US Hwy 62 | 12,791 – 23,889 | 3.1 | - | <0.1 (0.1%) |

¹ Source: Ohio Department of Transportation, 2018

Cities, Villages, and Unincorporated Areas

One city and one unincorporated area are indicated as having potential views of the Facility. The City of New Albany is located within the near-foreground distance zone, less than 0.1 mile from the nearest energy container, and has potential views of both the energy containers and above-ground electrical components associated with the Project. Views of the Project from within the City of New Albany could potentially be available in both the near-foreground and foreground distance zones. However, the areas with potential visibility are largely commercial or industrial, with small pockets of residential use. Existing roadside vegetation, small stands of trees, and large commercial and industrial structures will reduce the extent of Project visibility within the city boundary.

The Beech unincorporated area is located 1.1 miles south of the Project Site and has potential views of the above ground electrical components only. While this community may have views of the Project, they will be partially obscured by existing roadside vegetation, traffic on SR 161, and commercial/industrial development.

2.1.4 Field Verification Methodology

EDR conducted site visits to the VSA on September 14, October 6, and November 9, 2021. The purpose of this field review was to verify potential visibility of the Project (as suggested by the viewshed analysis), document the visual character of the various LTs within the VSA, identify the type and extent of existing visual screening, and obtain photographs for subsequent use in the development of visual simulations.

During the site visits, EDR staff members drove public roads, visited public vantage points within the VSA, and obtained photographs from 14 individual viewpoints utilizing a digital SLR camera with a lens setting between 24 and 33 mm (equivalent to settings between 45 and 55 mm on a standard 35 mm full frame camera). Viewpoint locations were recorded using a camera-integrated global positioning system (GPS)

unit, and all field notes, GPS points, focal length parameters, times, and dates were documented electronically. Viewpoint locations and representative photographs from each viewpoint are shown in Appendix A.

2.1.5 Field Verification Results

Field verification generally confirmed the results of the viewshed analysis (see the Viewpoint Location Map and Photo Log in Appendix A). Open views toward the Project site are most available in areas directly adjacent to the Project where public roads border open agricultural fields. These roads include Jug Street Road NW (Viewpoints 1, 2, 3, 4, 7, and 9), Beech Road (Viewpoints 5, 6, and 8), and Smith's Mill Road N (Viewpoint 10). Although the Project will be visible from these areas, it is important to note that the Project is located in an area of existing industrial development, including several warehouses and a substation.

Additional areas with potential views occur through open corridors between commercial and industrial buildings in the near-foreground and foreground out to 1.5 miles. However, views of the Project from these more distant portions of the VSA potentially will be screened by existing roadside vegetation and industrial activity (refer to Viewpoint 13 on Beech Road, and Viewpoint 14 on Lucille Lynd Road). Field review from middle ground distance zones indicates that there will be no potential views of the Project beyond 1.5 miles.

As noted in Section 2.1.1, the viewshed analysis did not consider potential screening provided by vegetation and structures within 50 feet of road centerlines. As such, Project visibility from along roads may be overstated. This was confirmed during field review, which documented numerous areas where roadside trees provide additional screening not considered in the viewshed analysis. During the growing season, visibility of the Project from residences and roadways may also be limited by crop (corn) growth in roadside agricultural fields. The combination of relatively low energy storage container height, along with existing roadside vegetation and structures, will reduce the extent of Project visibility indicated by the viewshed analysis.

2.2 Visual Simulations

Visual simulations from representative locations were produced to illustrate the appearance of the Project and to evaluate the potential visual impact on existing landscape features and viewers within the VSA.

2.2.1 Viewpoint Selection

Based on the viewshed analysis and field verification results, two representative viewpoints were selected for the development of visual simulations. These viewpoints were selected based upon the following criteria:

- They provide open near-foreground ("worst case") views of proposed Project components (as indicated by field verification and viewshed analysis).
- They illustrate typical views from LTs where views of the Project will be available.

- They illustrate typical views of the proposed Project that will be available to representative viewer/user groups within the VSA, including adjacent residences, workers at adjacent industrial sites, and commuting traffic.
- The selected photos generally displayed good composition, lighting, and exposure.
- Views of the Project from other viewpoints would be largely screened by scattered woodlots and existing or proposed development.

The location and orientation of the viewpoints selected for the production of visual simulations are illustrated in Figure 2.4.

Figure 2.4. Visual Simulation Location Map



2.2.2 Visual Simulation Methodology

Visual simulations of the proposed Project were developed by constructing a three-dimensional (3D) computer model of the energy storage containers and full Project layout based on specifications, dimensions, and locations provided by the Applicant. Next, the camera specifications used to take the selected photograph in the field were replicated in the 3D model. This was accomplished by positioning the

3D camera in the same real-world coordinate system as the Project model using GPS coordinates collected at each photo location. The camera was then aligned, and the camera's target position (view direction) adjusted until the modeled 3D elements aligned exactly with the elements in the photograph. Once this step was complete, the Project was added to the model at the correct location, perspective, and scale. At this point, the appropriate sun angle was simulated based on the specific date, time, and location (latitude and longitude) at which the photograph was taken. This information allowed the program to realistically illustrate highlights, shading, and shadows for all Project components shown in the view. Once aligned, the 3D model of the Flint Grid Energy Storage Facility was rendered and overlaid on the base photograph. Masking of foreground elements that would appear in front of the Project or the removal of vegetation was then completed in a photo editing application with guidance provided in the 3D model and lidar data.

In addition to the Flint Grid Energy Storage Facility, the simulations also illustrate proposed development not associated with the Project to provide a more accurate representation of the proposed conditions. A 3D model of the proposed VanTrust Building 315, located at 8950 Smith's Mill Road North, currently under construction adjacent to the Project site, was added to both the simulations.

The simulations also include a preserved vegetative buffer on the Project site adjacent to Jug Street Road. To accurately illustrate the anticipated appearance of this vegetative buffer, 3D models of the vegetative buffer were incorporated.

2.2.3 Visual Simulation Results

The visual simulations and a discussion of the potential visual effects associated with the Project are summarized below. Full-sized images are presented in Appendix C.

Viewpoint 3 – Jug Street Road



Inset 2.1. Left: Existing Conditions. Right: Visual Simulation

Existing Conditions

Viewpoint 3 is located on Jug Street Road approximately 534 feet northwest of the Project site. This viewpoint is representative of the Developed LT and provides a typical view that would be experienced by local residents and drivers in the area. The existing view features a gravel entrance drive and an electrical substation to the right in the foreground, backed by a mature deciduous woodlot. The steel utility towers,

electrical wires, and equipment associated with the substation are the primary focus of viewer attention, and the woodlot blocks views of more distant landscape features. The left-hand side of the view is framed by wooden utility poles following a rural roadway that extends from the foreground into the background. The existing view has a utilitarian character and relatively low scenic quality.

Proposed Project

With the proposed Project in place, a significant portion of the woodlot that enclosed the existing view has been cleared to accommodate the construction of the Project. The absence of the of the woodlot vegetation exposes a line of planted conifers along the edge of the substation property and allows for open views of the proposed energy storage containers and the Van Trust Building 315 warehouse structure (currently under construction) in the middle ground. The size, color, and strong horizontal line of the new warehouse draws viewer attention away from the existing substation and proposed energy storage containers. Clearing of the Project site also allows views of more distant treetops above the top of the warehouse in the background. The lower lying energy storage containers are similar in line, color, and texture to the warehouse and therefore are not a focal point in the view. The proposed view feels more open and developed, but its scenic quality and utilitarian character remain largely unchanged.

Viewpoint 6 – Beech Road



Inset 2.2. Left: Existing Conditions. Right: Visual Simulation

Existing Conditions

Viewpoint 6 is located on Beech Road, approximately 1,970 feet northwest of the proposed Project. This view to the southeast (i.e., toward the Project site), is representative of the Agriculture/Open Land LT. The immediate foreground consists of herbaceous roadside vegetation which merges with an unmaintained old field that extends to the background where it meets a band of forest vegetation along the horizon. A white farm structure frames the view on the right. Behind, and to the left of this structure, a variety of utility towers, electrical transmission and distribution lines, and existing substation structures crisscross the middle of the view. The light color of these structures stand out against the dark green woodlot that forms a backdrop. The view has a rural character that is interrupted by the presence of abundant utility infrastructure. The dominant presence of this utility infrastructure creates visual clutter and results in relatively low scenic quality.

Proposed Project

With the proposed Project in place, the view to the southeast from this viewpoint is slightly altered. The existing electric substation and distribution infrastructure remain visible, however, the woodlot behind this area has been removed to accommodate the Project, which actually reduces the visual contrast presented by the existing utility structures. The low horizontal line of the warehouse structure is now visible across the middle ground behind the substation. However, the lower energy storage containers are largely screened by the intervening old field vegetation. The view feels slightly more open and less cluttered, but retains its relatively low scenic quality.

Summary

Although the simulations demonstrate that the Project will be visible from adjacent roads and some nearby residences, the energy storage containers will have limited visibility/visual prominence due to their relatively low height and the presence of a significantly larger new warehouse building on the adjacent parcel. New structures associated with the proposed collection substation and gen-tie line are essentially lost within the abundance of utility structures associated with the existing substation and overhead transmission and distribution lines. The visual clutter presented by this utility infrastructure results in relatively low baseline scenic quality and a utility-dominated visual character, which remain largely unchanged with the proposed Project in place.

3.0 CONCLUSIONS

3.1 Visual Resource Assessment Summary

Based on the analyses described in this report, the following conclusions can be drawn regarding the visibility and visual effect of the proposed Flint Grid Energy Storage System.

The battery storage container viewshed analysis indicates that these proposed facility components will be screened from view throughout approximately 97.8% of the VSA. Battery storage facility visibility is highest (28.3%) within the near-foreground (up to 0.5 mile) distance zone. Large warehouses, Industrial and commercial development, residential structures along Town Highway 88, roadside vegetation, scattered woodlots, and forested areas provide significant screening and prevent nearly all potential views from extending beyond 0.5 mile from the Project. Only 0.1% of the foreground distance zone (0.5 – 1.5 miles) is indicated as having potential views of the Project, and no potential visibility was indicated beyond 1.5 miles in the middle ground distance zone.

The collection substation and gen-tie line viewshed analysis indicates that the tallest structures associated with these Project components will have potential visibility from 4.3% of the VSA (i.e., visibility is fully screened from 95.7% of the VSA). Potential visibility is highest (35.0%) within the near-foreground distance zone. Potential visibility is significantly reduced in the foreground (0.5-1.5 miles) with only 3.2% of this distance zone indicated as having potential views of the Project. The middle ground (1.5-2 miles) has almost no potential views (0.1%) of the Project.

Viewshed analysis of the 65 identified VSRs within the VSA indicates that 8 resources (12%) could have views of both the battery storage containers and the substation and gen-tie line, and 13 (20%) could have views of the substation and gen-tie line only. Of the 21 resources with potential visibility, 12 (57%) are located outside of the near-foreground distance zone (>0.5 mile). Viewshed results and field review suggest that areas of potential visibility from VSRs in the foreground and middle ground will generally be limited to the upper portions of the proposed Project components.

Field review generally confirmed the results of the viewshed analysis and further suggests that visibility of the Project will be largely restricted to areas within the near-foreground distance zone. Beyond 0.5 mile, screening provided by structures, hedgerows, and woodlots will significantly limit Project visibility.

As illustrated in the visual simulations, although the Project will be visible from adjacent roads and some nearby residences, the battery storage containers will have limited visibility/visual prominence due to their relatively low height and the presence of a significantly larger new warehouse building on the adjacent parcel. New structures associated with the proposed collection substation and gen-tie line are essentially lost within the abundance of utility structures associated with the existing substation and overhead transmission and distribution lines. The visual clutter presented by this utility infrastructure results in relatively low baseline scenic quality and a utility-dominated visual character, which remains largely unchanged with the proposed Project in place. At greater distances, the Project will be even more

substantially screened from view. Consequently, it is anticipated that impacts will be largely limited to areas directly adjacent to the Project site.

4.0 REFERENCES

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Appendix A

Viewpoint Location Map and Photo Log

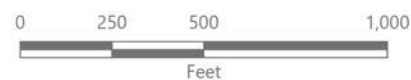


Flint Grid Battery Storage Project

Jersey Township, Licking County, Ohio

Visual Resource Assessment

- | | |
|----------------------|----------------------------|
| ● Viewpoint Location | ■ Electrical Equipment Pad |
| --- Gen-tie Line | ■ Gen-tie Line Easement |
| — Fenceline | ■ Inverter |
| — Access Road | ■ Collection Substation |
| □ Project Area | ■ Detention Swale |
| ■ Battery Container | |





Viewpoint 1

View looking North from Jug Street Road in the Town of Jersey, Licking County, Ohio

Landscape Similarity Zone:
Developed

User Group:
Local Residents, Through-Travelers

Visually Sensitive Resource(s):
City of New Albany

Coordinates:
40.09682°N, 82.74348°W

Direction of View:
West

Elevation:
1161.403 ft.



Viewpoint 2

View looking East Southeast from Jug Street Road in the Town of Jersey, Licking County, Ohio

Landscape Similarity Zone:
Developed

User Group:
Local Residents, Through-Travelers

Visually Sensitive Resource(s):
City of New Albany

Coordinates:
40.09699°N, 82.74749°W

Direction of View:
East

Elevation:
1095.787 ft.

Flint Grid Battery Storage Project

Jersey Township, Licking County, Ohio

Visual Resource Assessment

Viewpoint 3

View looking South Southeast from Jug Street Road in the Town of Jersey, Licking County, Ohio



Landscape Similarity Zone:
Developed

User Group:
Local Residents, Through-Travelers

Visually Sensitive Resource(s):
City of New Albany

Coordinates:
40.09698°N, 82.74866°W

Direction of View:
Southeast

Elevation:
1095.787 ft.

Viewpoint 4

View looking East Southeast from Jug Street Road in the Town of Jersey, Licking County, Ohio



Landscape Similarity Zone:
Developed

User Group:
Local Residents, Through-Travelers

Visually Sensitive Resource(s):
City of New Albany

Coordinates:
40.09734°N, 82.75275°W

Direction of View:
East

Elevation:
1122.034 ft.

Flint Grid Battery Storage Project

Jersey Township, Licking County, Ohio

Visual Resource Assessment



Viewpoint 5

View looking East Southeast from Beech Road in the Town of Jersey, Licking County, Ohio

Landscape Similarity Zone:
Developed

User Group:
Local Residents, Through-Travelers

Visually Sensitive Resource(s):
City of New Albany

Coordinates:
40.09762°N, 82.75392°W

Direction of View:
East Southeast

Elevation:
1122.034 ft.



Viewpoint 6

View looking East Southeast from Beech Road in the Town of Jersey, Licking County, Ohio

Landscape Similarity Zone:
Developed

User Group:
Local Residents, Through-Travelers

Visually Sensitive Resource(s):
City of New Albany

Coordinates:
40.09844°N, 82.75385°W

Direction of View:
East Southeast

Elevation:
1139.746 ft.

Viewpoint selected for the Production of a Visual Simulation

Flint Grid Battery Storage Project

Jersey Township, Licking County, Ohio

Visual Resource Assessment



Viewpoint 7

View looking East Southeast from Jug Street Road in the Town of Jersey, Licking County, Ohio

Landscape Similarity Zone:
Developed

User Group:
Local Residents, Through-Travelers

Visually Sensitive Resource(s):
Needles Richard & Jeri E (14241 Jug Street Rd), City of New Albany

Coordinates:
40.09732°N, 82.75375°W

Direction of View:
East Southeast

Elevation:
1112.191 ft.



Viewpoint 8

View looking East from Beech Road in the Town of Jersey, Licking County, Ohio

Landscape Similarity Zone:
Developed

User Group:
Local Residents, Through-Travelers

Visually Sensitive Resource(s):
Franks, Gary L & Sharon E (2713 Beech Rd) , City of New Albany

Coordinates:
40.09585°N, 82.75388°W

Direction of View:
East

Elevation:
1102.349 ft.

Flint Grid Battery Storage Project

Jersey Township, Licking County, Ohio

Visual Resource Assessment



Viewpoint 9

View looking North from Jug Street Road in the Town of Jersey, Licking County, Ohio

Landscape Similarity Zone:
Developed

User Group:
Local Residents, Through-Travelers

Visually Sensitive Resource(s):
City of New Albany

Coordinates:
40.09677°N,82.74141°W

Direction of View:
West

Elevation:
1157.095 ft.

Viewpoint selected for the Production of a Visual Simulation



Viewpoint 10

View looking North Northwest from Smith's Mill Road in the Town of Jersey, Licking County, Ohio

Landscape Similarity Zone:
Developed

User Group:
Local Residents, Through-Travelers

Visually Sensitive Resource(s):
City of New Albany

Coordinates:
40.09216°N,82.74568°W

Direction of View:
North

Elevation:
1102.349 ft.

Flint Grid Battery Storage Project

Jersey Township, Licking County, Ohio

Visual Resource Assessment

Appendix B

Location of Visually Sensitive Resources

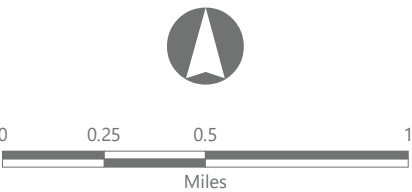
Appendix B. Visually Sensitive Resources

Flint Grid Energy Storage System

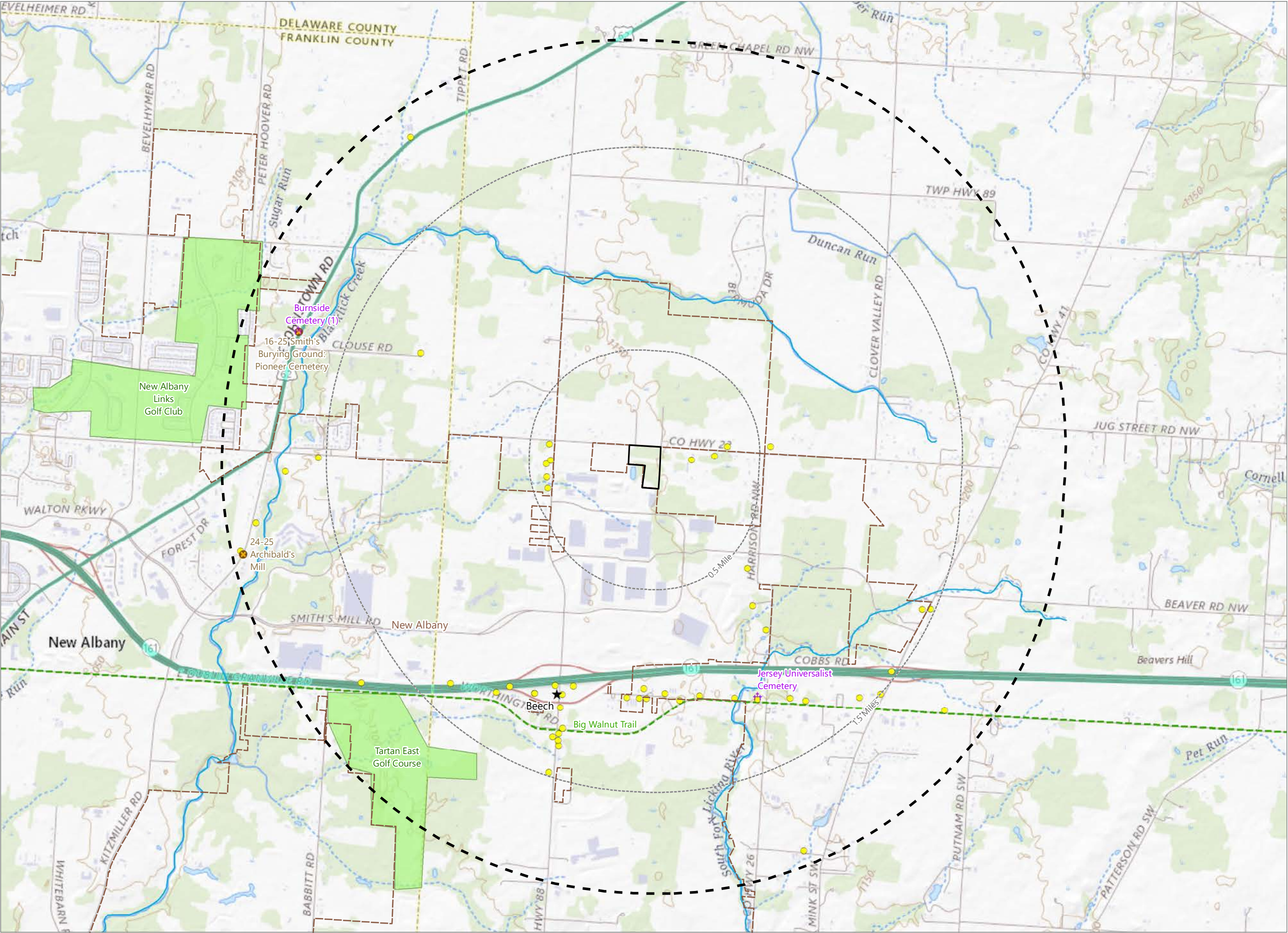
Jersey Township, Licking County, Ohio

Visual Resource Assessment

- OHI Historic Structure
- OHI Historic Marker
- OGS Cemetery
- Unincorporated Area
- Distance Zone Transition
- Bike Route
- River/Stream with Public Fishing Access
- State US Interstate Highway
- Local Park and Recreation Area
- City Boundary
- Project Area
- 2-Mile Study Area



Prepared November 11, 2021
Basemap: Esri ArcGIS Online "USGS Topo" map service.



Appendix C

Visual Simulations

Appendix C. Visual Simulations



Note: The image photograph series above was captured from Jug Street Road panning clockwise from north (left) to southeast (right).

VIEWPOINT 3
Jug Street Road

VIEWPOINT INFORMATION

Location: Jug Street Road
Town: Jersey
County: Licking
Latitude: 40.09698° N
Longitude: 82.74866° W
Viewing Distance*: 534 feet (0.10 mile)

VISUAL CHARACTER INFORMATION

Landscape Type: Developed
Distance Zone: Near-Foreground
Viewer/User Group(s): Local Residents, Through-Travelers

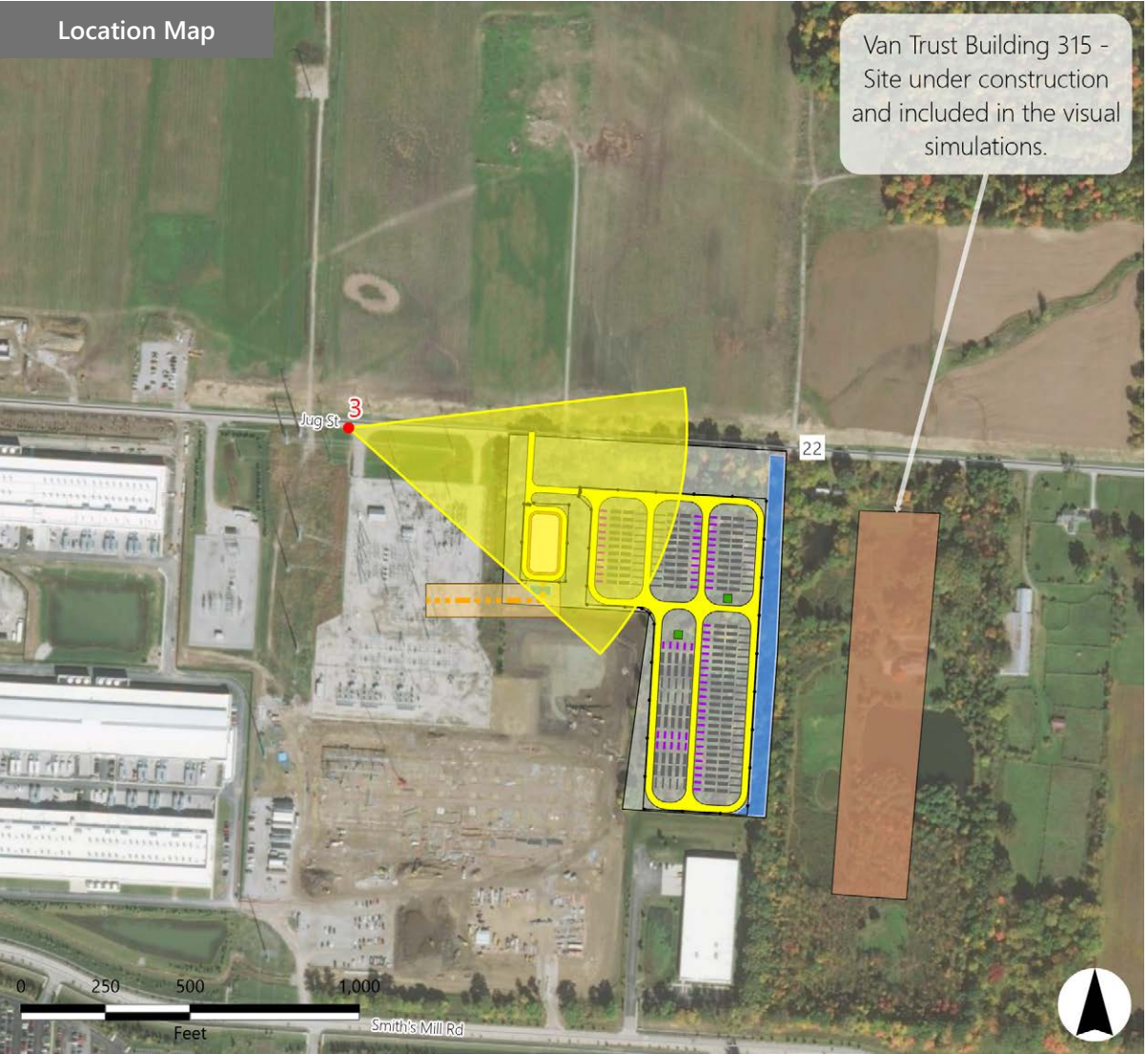
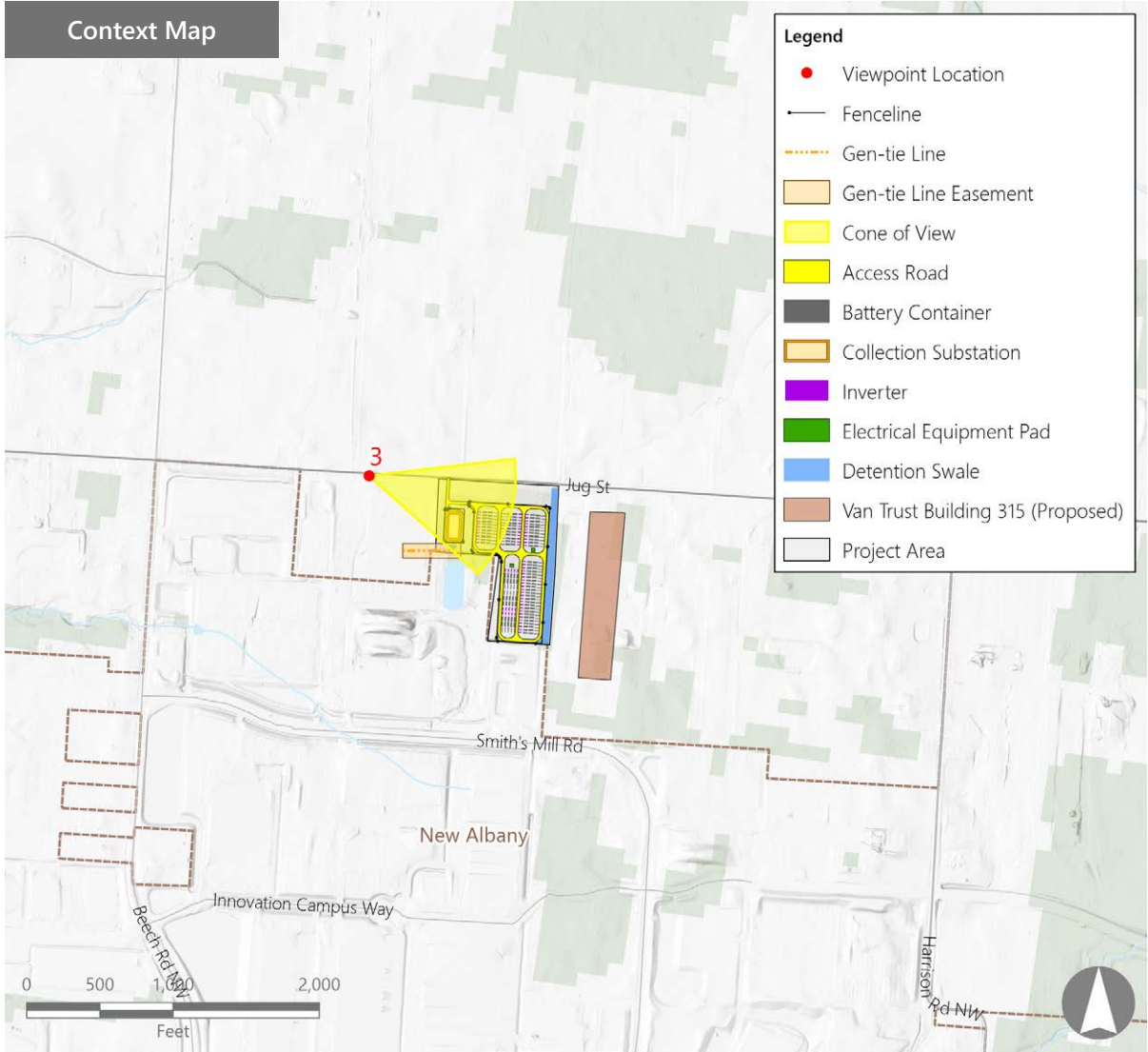
PHOTOGRAPH INFORMATION

Date Taken: September 14, 2021
Time: 5:11 PM
Camera: Nikon D7200
Resolution: 24.1 Megapixels
Lens Focal Length (35mm equivalent): 37 mm
Camera Elevation: 1,155 feet
Field of View: 49 degrees
View Orientation: East-Southeast
Printed Size: 10" x 15"
Viewing Distance:** 15"

NOTES

*Distance as measured from the viewpoint to the Facility (in feet) within the simulated photograph's field of view

**The simulation is at the correct perspective when printed on an 11-by-17 sheet at full scale, and viewed approximately 16 inches from the eye of the viewer.



Flint Grid Battery Storage Project

Jersey Township, Licking County, Ohio

Visual Resource Assessment

EXISTING CONDITIONS



Note: Printed at actual size, the resulting simulation image is 15 inches wide by 10 inches high. At this size and focal length, the simulation should be viewed from a distance 16 inches from the eye of the viewer.

PHOTOSIMULATION
NOTE: PROPOSED VIEW INCLUDES
DEVELOPMENT BY OTHERS.



Note: Printed at actual size, the resulting simulation image is 15 inches wide by 10 inches high. At this size and focal length, the simulation should be viewed from a distance 16 inches from the eye of the viewer.

Appendix C. Visual Simulations



Note: The image photograph series above was captured from Beech Road panning clockwise from northeast (left) to south east (right).

VIEWPOINT 6
Beech Road

VIEWPOINT INFORMATION

Location: Beech Road
Town: Jersey
County: Licking
Latitude: 40.09844° N
Longitude: 82.75385° W
Viewing Distance*: 1,969 feet (0.37 mile)

VISUAL CHARACTER INFORMATION

Landscape Type: Developed
Distance Zone: Near-Foreground
Viewer/User Group(s): Local Residents, Through-Travelers

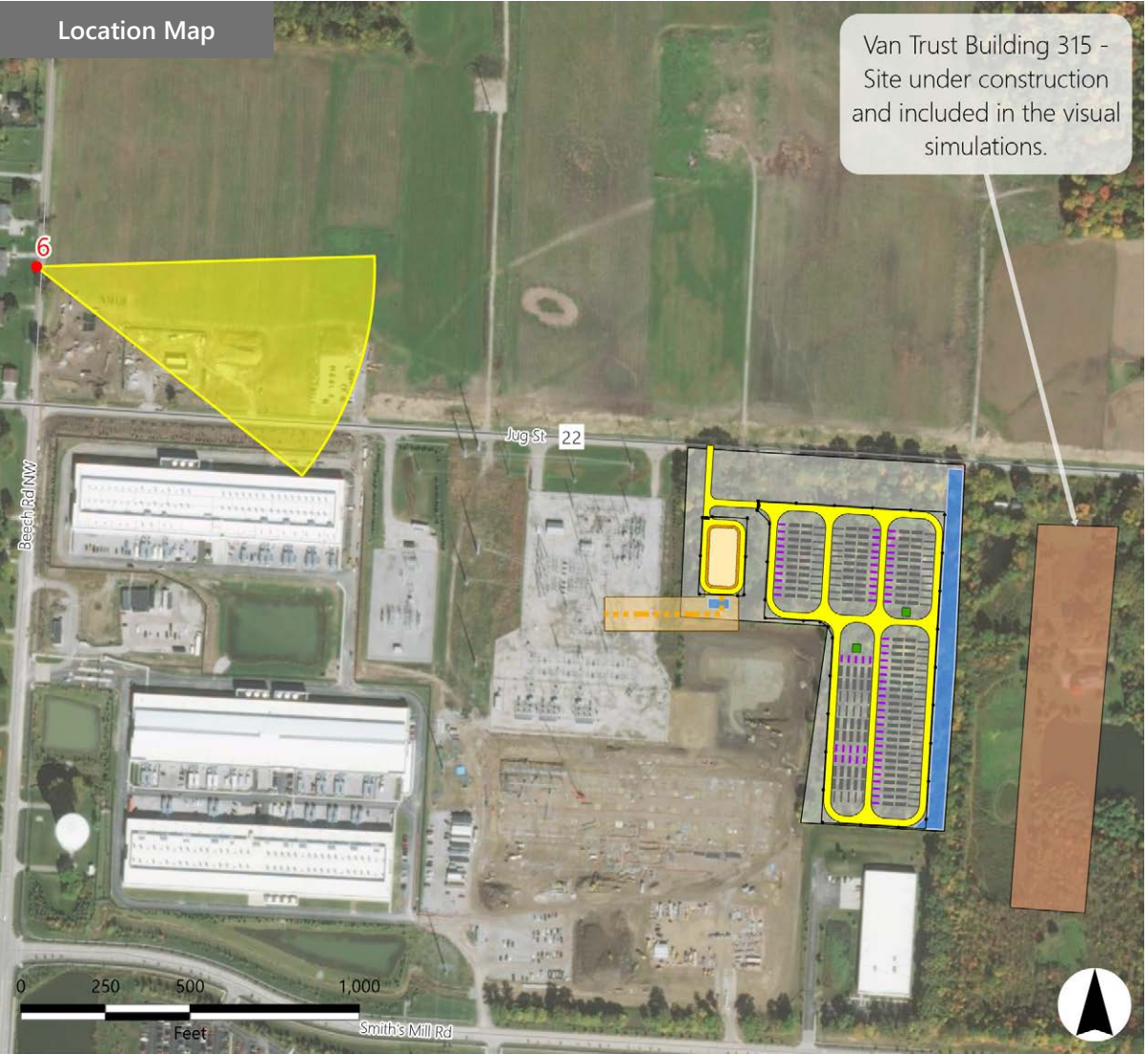
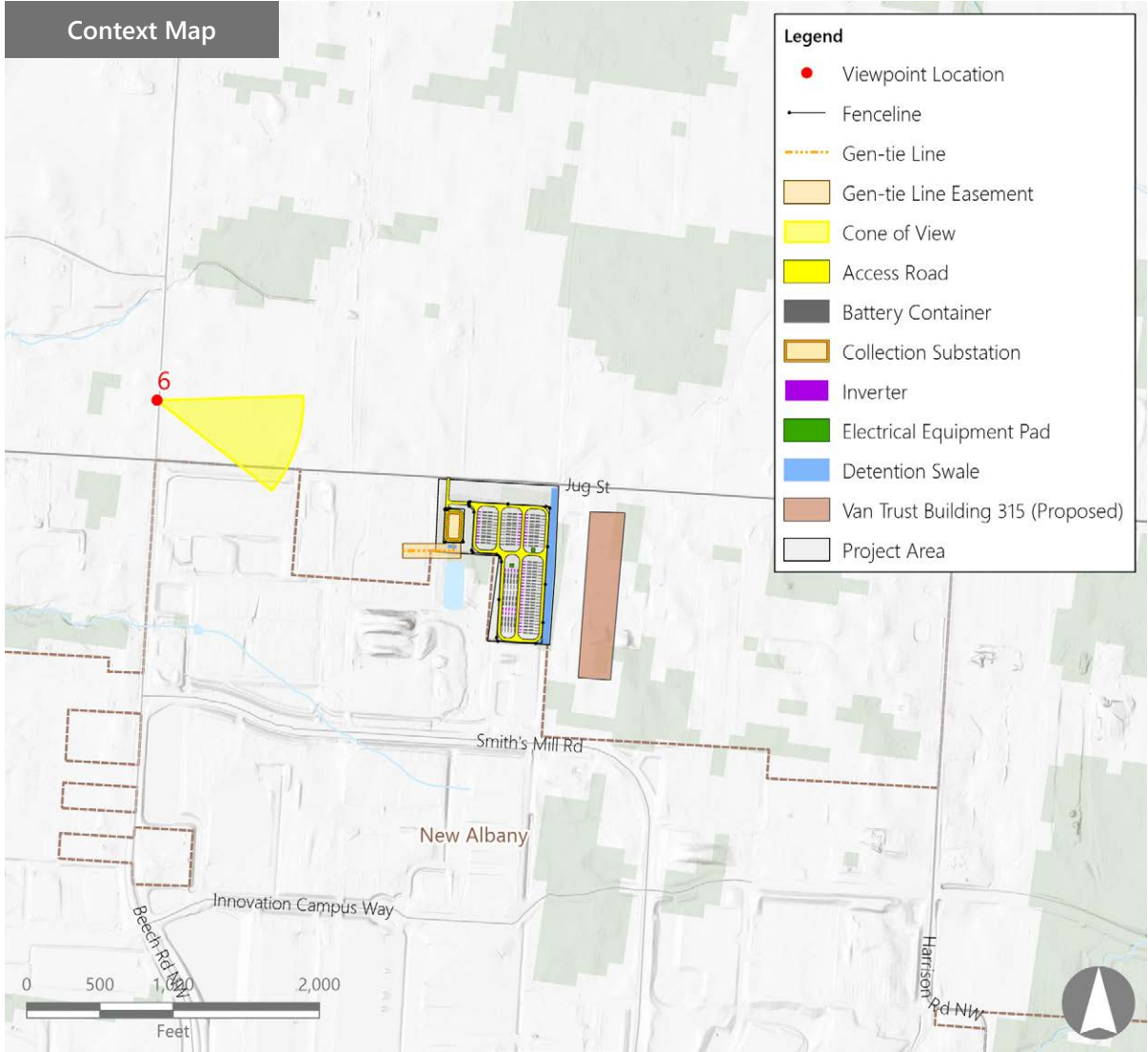
PHOTOGRAPH INFORMATION

Date Taken: September 14, 2021
Time: 5:23 PM
Camera: Nikon D7200
Resolution: 24.1 Megapixels
Lens Focal Length (35mm equivalent): 48 mm
Camera Elevation: 1,145 feet
Field of View: 53 degrees
View Orientation: East-Southeast
Printed Size: 10" x 15"
Viewing Distance:** 15"

NOTES

*Distance as measured from the viewpoint to the Facility (in feet) within the simulated photograph's field of view

**The simulation is at the correct perspective when printed on an 11-by-17 sheet at full scale, and viewed approximately 20 inches from the eye of the viewer.



Flint Grid Battery Storage Project

Jersey Township, Licking County, Ohio

Visual Resource Assessment

EXISTING CONDITIONS



Note: Printed at actual size, the resulting simulation image is 15 inches wide by 10 inches high. At this size and focal length, the simulation should be viewed from a distance 20 inches from the eye of the viewer.

0 1 in 2 in
This scale is designed to insure the simulation images are printed at the intended size.

VIEWPOINT 6
Beech Road

PHOTOSIMULATION
NOTE: PROPOSED VIEW INCLUDES
DEVELOPMENT BY OTHERS.



Note: Printed at actual size, the resulting simulation image is 15 inches wide by 10 inches high. At this size and focal length, the simulation should be viewed from a distance 20 inches from the eye of the viewer.

Appendix D

Visually Sensitive Resources Analysis

| Visually Sensitive Resource | Location | | VP Number ¹ | Distance ² | | Distance Zone | Project Visibility (Viewshed Results) | |
|--|-------------------------------------|----------------|------------------------|------------------------------|----------------------------------|---|---|--|
| | | | | | | | ✚Visible - Not Visible +/- Partially Visible | |
| | Town | County | | Miles from Battery Container | Miles from Collection Substation | <div><div></div> Near-Foreground</div> <div><div></div> Foreground</div> <div><div></div> Midground</div> <div><div></div> Background</div> | Battery Container DSM Viewshed (Topography, Structures, and Vegetation) | Collection Station DSM Viewshed (Topography, Structures, and Vegetation) |
| Properties of Historic Significance | | | | | | | | |
| National/State Historic Landmarks | | | | | | | | |
| None in Study Area | | | | | | | | |
| National/State Historic Sites | | | | | | | | |
| None in Study Area | | | | | | | | |
| Sites Listed on National or State Registers of Historic Places (NRHP/SRHP) | | | | | | | | |
| None in Study Area | | | | | | | | |
| Sites Eligible for Listing on NRHP or SRHP | | | | | | | | |
| None in Study Area | | | | | | | | |
| OHI Historic Structures | | | | | | | | |
| W Jerry Mysiw & Jackson, Rebecca D (13461 Jug Street Rd) | Jersey Township | Licking County | | 0.1 | 0.3 | <div><div></div></div> | +/- | +/- |
| Bush Leonard Residence (S side of Jug) | Jersey Township | Licking County | | 0.3 | 0.4 | <div><div></div></div> | - | +/- |
| Daniels, R Mitchell & Denise R (13312 Jug Street Rd) | Jersey Township, City of New Albany | Licking County | | 0.3 | 0.4 | <div><div></div></div> | +/- | +/- |
| Collins, John K & Donna L., House (2621 Beech Rd) | Jersey Township | Licking County | | 0.4 | 0.4 | <div><div></div></div> | +/- | +/- |
| Franks, Gary L & Sharon E (2713 Beech Rd) | Jersey Township, City of New Albany | Licking County | 8 | 0.4 | 0.4 | <div><div></div></div> | +/- | +/- |
| Needles Richard & Jeri E (14241 Jug Street Rd) | Jersey Township | Licking County | 7 | 0.4 | 0.4 | <div><div></div></div> | +/- | +/- |
| Robertson, Donna Lee (2579 Beech Rd) | Jersey Township, City of New Albany | Licking County | | 0.4 | 0.4 | <div><div></div></div> | - | - |
| Stevens, Carol J (2675 Beech Rd) | Jersey Township | Licking County | | 0.4 | 0.4 | <div><div></div></div> | +/- | +/- |
| Bando, Richard Lee & Gwendol (13094 Jug Street Rd) | Jersey Township | Licking County | | 0.5 | 0.6 | <div><div></div></div> | - | - |
| Miller Lape Farm (2173 Harrison Rd) | Jersey Township, City of New Albany | Licking County | | 0.6 | 0.7 | <div><div></div></div> | - | - |
| Woods. Tricia A & Carson (1909 Harrison Rd) | Jersey Township, City of New Albany | Licking County | | 0.7 | 0.9 | <div><div></div></div> | - | - |
| Owens House (1767 Harrison Rd) | Jersey Township, City of New Albany | Licking County | | 0.9 | 1.0 | <div><div></div></div> | - | - |
| 13665 SR 161 | Jersey Township, City of New Albany | Licking County | | 1.0 | 1.1 | <div><div></div></div> | - | - |
| 13705 SR 161 | Jersey Township, City of New Albany | Licking County | | 1.0 | 1.1 | <div><div></div></div> | - | - |

| Visually Sensitive Resource | Location | | VP Number ¹ | Distance ² | | Distance Zone | Project Visibility (Viewshed Results) | |
|---|-------------------------------------|-----------------|------------------------|------------------------------|----------------------------------|---|---|--|
| | Town | County | | Miles from Battery Container | Miles from Collection Substation | | ✚Visible - Not Visible +/- Partially Visible | |
| | | | | | | <div><div></div><div></div><div></div><div></div></div> <div>Near-Foreground</div> <div>● Foreground</div> <div>● Midground</div> <div>● Background</div> | Battery Container DSM Viewshed (Topography, Structures, and Vegetation) | Collection Station DSM Viewshed (Topography, Structures, and Vegetation) |
| 13761 SR 161 | Jersey Township, City of New Albany | Licking County | | 1.0 | 1.1 | <div><div></div><div></div><div></div><div></div></div> | - | - |
| 14098 SR 161 | Jersey Township, City of New Albany | Licking County | | 1.0 | 1.1 | <div><div></div><div></div><div></div><div></div></div> | - | - |
| Burns House (13600 SR 161) | Jersey Township | Licking County | | 1.0 | 1.1 | <div><div></div><div></div><div></div><div></div></div> | - | +/- |
| Foor House (13511 SR 161) | Jersey Township, City of New Albany | Licking County | | 1.0 | 1.2 | <div><div></div><div></div><div></div><div></div></div> | - | - |
| J. & D. Foor LTD Partnership II Property (13410 SR 161) | Jersey Township, City of New Albany | Licking County | | 1.0 | 1.2 | <div><div></div><div></div><div></div><div></div></div> | - | - |
| Lynd Crest Orchard, Inc. (13708 SR 161) | Jersey Township | Licking County | | 1.0 | 1.1 | <div><div></div><div></div><div></div><div></div></div> | - | - |
| NWC SR 161 & Beech Rd (NWC SR 161 & Beech Rd) | Jersey Township, City of New Albany | Licking County | | 1.0 | 1.1 | <div><div></div><div></div><div></div><div></div></div> | - | - |
| 8370 Clouse Rd | Plain Township | Franklin County | | 1.1 | 1.1 | <div><div></div><div></div><div></div><div></div></div> | - | - |
| Artic Air (13254 SR 161) | Jersey Township, City of New Albany | Licking County | | 1.1 | 1.2 | <div><div></div><div></div><div></div><div></div></div> | - | - |
| First Universalist Church and Cemetery (13134 SR 161) | Jersey Township | Licking County | | 1.1 | 1.3 | <div><div></div><div></div><div></div><div></div></div> | - | - |
| Grindley House (No address - SR 161) | Jersey Township, City of New Albany | Licking County | | 1.1 | 1.2 | <div><div></div><div></div><div></div><div></div></div> | - | +/- |
| Harrison House (14143 SR 161) | Jersey Township, City of New Albany | Licking County | | 1.1 | 1.2 | <div><div></div><div></div><div></div><div></div></div> | - | - |
| Stoner House (SEC Beech & SR 161) | Jersey Township, City of New Albany | Licking County | | 1.1 | 1.2 | <div><div></div><div></div><div></div><div></div></div> | - | - |
| The Edge Athletic and Fitness Center (14461 SR 161) | Jersey Township, City of New Albany | Licking County | | 1.1 | 1.2 | <div><div></div><div></div><div></div><div></div></div> | - | +/- |
| Barton House (14446 SR 161) | Jersey Township, City of New Albany | Licking County | | 1.2 | 1.2 | <div><div></div><div></div><div></div><div></div></div> | - | +/- |
| Bowen House (203 Beech Rd) | Jersey Township, City of New Albany | Licking County | | 1.2 | 1.3 | <div><div></div><div></div><div></div><div></div></div> | - | - |
| Hewitt House (No address, SR 161) | Jersey Township, City of New Albany | Licking County | | 1.2 | 1.3 | <div><div></div><div></div><div></div><div></div></div> | - | - |
| Weeks Engineered Plastics Property (12998 SR 161) | Jersey Township | Licking County | | 1.2 | 1.4 | <div><div></div><div></div><div></div><div></div></div> | - | - |
| 279 Beech Rd | Jersey Township, City of New Albany | Licking County | | 1.3 | 1.4 | <div><div></div><div></div><div></div><div></div></div> | - | - |
| Bowen House (247 Beech Rd) | Jersey Township, City of New Albany | Licking County | | 1.3 | 1.4 | <div><div></div><div></div><div></div><div></div></div> | - | - |
| Dawson House (299 Beech Rd) | Jersey Township, City of New Albany | Licking County | | 1.3 | 1.4 | <div><div></div><div></div><div></div><div></div></div> | - | - |

| Visually Sensitive Resource | Location | | VP Number ¹ | Distance ² | | Distance Zone <div><div></div> Near-Foreground</div> <div><div></div> Foreground</div> <div><div></div> Midground</div> <div><div></div> Background</div> | Project Visibility (Viewshed Results) | |
|--|-------------------------------------|-----------------|------------------------|------------------------------|----------------------------------|--|---|--|
| | | | | | | | ✚Visible - Not Visible | +/- Partially Visible |
| | Town | County | | Miles from Battery Container | Miles from Collection Substation | | Battery Container DSM Viewshed (Topography, Structures, and Vegetation) | Collection Station DSM Viewshed (Topography, Structures, and Vegetation) |
| Jeannette Wood House (12938 SR 161) | Jersey Township | Licking County | | 1.3 | 1.4 | <div></div> | - | - |
| Myers House (258 Beech Rd) | Jersey Township, City of New Albany | Licking County | | 1.3 | 1.4 | <div></div> | - | - |
| Residence (150 ft N of Rte 161) | Jersey Township, City of New Albany | Licking County | | 1.3 | 1.4 | <div></div> | - | - |
| McCleary House (1605 Mink Rd NW) | Jersey Township | Licking County | | 1.4 | 1.6 | <div></div> | - | - |
| Smith Barn (1825 Mink Rd NW) | Jersey Township, City of New Albany | Licking County | | 1.4 | 1.6 | <div></div> | - | - |
| Wilson House (12676 SR 161) | Jersey Township | Licking County | | 1.4 | 1.6 | <div></div> | - | - |
| Evans House (7973 Central College Rd) | Plain Township, City of New Albany | Franklin County | | 1.5 | 1.5 | <div></div> | - | - |
| Johnson House (1876 Mink Rd NW) | Jersey Township, City of New Albany | Licking County | | 1.5 | 1.6 | <div></div> | - | - |
| Searcy House (416 Beech Rd) | Jersey Township, City of New Albany | Licking County | | 1.5 | 1.6 | <div></div> | - | - |
| Vacant (1481 Mink St NW) | Jersey Township | Licking County | | 1.5 | 1.6 | <div></div> | - | - |
| 8122 Dublin Granville Rd | Plain Township, City of New Albany | Franklin County | | 1.7 | 1.7 | <div></div> | - | - |
| abt 7875 Central College Rd | Plain Township, City of New Albany | Franklin County | | 1.7 | 1.7 | <div></div> | - | - |
| Dickerson and Brown House (12148 SR 161) | Jersey Township | Licking County | | 1.8 | 1.9 | <div></div> | - | - |
| Baranoski Residence (6320 Kitzmiller Rd) | Plain Township, City of New Albany | Franklin County | | 1.9 | 1.8 | <div></div> | - | - |
| Fattig Edna Farm (1350 Mink St) | Jersey Township | Licking County | | 1.9 | 2.1 | <div></div> | - | - |
| Tippet House (11681 Johnstown Rd) | Plain Township | Franklin County | | 1.9 | 1.9 | <div></div> | - | - |
| 5987 Kitzmiller Rd | Plain Township, City of New Albany | Franklin County | | 2.0 | 2.0 | <div></div> | - | - |
| Historic Bridges | | | | | | | | |
| None in Study Area | | | | | | | | |
| OGS Cemeteries | | | | | | | | |
| Jersey Universalist Cemetery | Jersey Township | Licking County | | 1.1 | 1.3 | <div></div> | - | - |
| Burnside Cemetery (1) | Plain Township | Franklin County | | 1.8 | 1.7 | <div></div> | - | - |
| Ohio Historical Marker | | | | | | | | |
| 16-25 Smith's Burying Ground: Pioneer Cemetery | Plain Township | Franklin County | | 1.7 | 1.7 | <div></div> | - | - |

| | Location | | | Distance ² | | Distance Zone | Project Visibility (Viewshed Results) | |
|--|---|---------------------------------|------------------------|------------------------------|----------------------------------|---|---|--|
| | | | | | | | +Visible - Not Visible +/- Partially Visible | |
| | Town | County | | Miles from Battery Container | Miles from Collection Substation | | Battery Container DSM Viewshed (Topography, Structures, and Vegetation) | Collection Station DSM Viewshed (Topography, Structures, and Vegetation) |
| Visually Sensitive Resource | | | VP Number ¹ | | | <div><div></div> Near-Foreground</div> <div><div></div> Foreground</div> <div><div></div> Midground</div> <div><div></div> Background</div> | | |
| 24-25 Archibald's Mill | Plain Township, City of New Albany | Franklin County | | 2.0 | 1.9 | <div><div></div></div> | - | - |
| Designated Scenic Resources | | | | | | | | |
| Rivers Designated as National or State Wild, Scenic or Recreational | | | | | | | | |
| None in Study Area | | | | | | | | |
| Sites, Areas, Lakes, Reservoirs or Highways Designated or Eligible for Designation as Scenic | | | | | | | | |
| None in Study Area | | | | | | | | |
| Other Designated Scenic Resources (Easements, Roads, Districts, and Overlooks) | | | | | | | | |
| None in Study Area | | | | | | | | |
| Public Lands and Recreational Resources | | | | | | | | |
| National Parks, Recreation Areas, Seashores, and Forests | | | | | | | | |
| None in Study Area | | | | | | | | |
| National Natural Landmarks | | | | | | | | |
| None in Study Area | | | | | | | | |
| National Wildlife Refuges | | | | | | | | |
| None in Study Area | | | | | | | | |
| Heritage Areas | | | | | | | | |
| None in Study Area | | | | | | | | |
| State Parks | | | | | | | | |
| None in Study Area | | | | | | | | |
| State Nature Preserves | | | | | | | | |
| None in Study Area | | | | | | | | |
| Wildlife Areas | | | | | | | | |
| None in Study Area | | | | | | | | |
| State Forests | | | | | | | | |
| None in Study Area | | | | | | | | |
| State Fishing/Waterway Access | | | | | | | | |
| None in Study Area | | | | | | | | |
| Other State Lands | | | | | | | | |
| None in Study Area | | | | | | | | |
| Trails | | | | | | | | |
| State and Federal Trails | | | | | | | | |
| None in Study Area | | | | | | | | |
| Snowmobile/ATV Trails | | | | | | | | |
| None in Study Area | | | | | | | | |
| Bike Trails/Routes | | | | | | | | |
| Big Walnut Trail | Plain Township, Jersey Township, City of New Albany | Franklin County, Licking County | | 1.0 | 1.2 | <div><div></div></div> | - | +/- |

| Visually Sensitive Resource | Location | | VP Number ¹ | Distance ² | | Distance Zone | Project Visibility (Viewshed Results) | |
|--|--|---------------------------------|------------------------|------------------------------|----------------------------------|------------------------|--|---|
| | Town | County | | Miles from Battery Container | Miles from Collection Substation | | ✚Visible - Not Visible +/- Partially Visible | |
| | | | | | | | | <div><div></div>Near-Foreground</div> <div><div></div>Foreground</div> <div><div></div>Midground</div> <div><div></div>Background</div> |
| Other Trails | | | | | | | | |
| None in Study Area | | | | | | | | |
| Local Parks and Recreation Areas | | | | | | | | |
| Tartan East Golf Course | Plain Township, Jersey Township, City of New Albany | Franklin County, Licking County | | 1.6 | 1.6 | <div><div></div></div> | - | - |
| New Albany Links Golf Club | Plain Township, City of New Albany | Franklin County | | 1.9 | 1.9 | <div><div></div></div> | - | - |
| Publicly Accessible Conservation Lands/Easements | | | | | | | | |
| None in Study Area | | | | | | | | |
| Rivers and Streams with Public Fishing Access | | | | | | | | |
| Blacklick Creek | Plain Township, Jersey Township, City of New Albany | Franklin County, Licking County | | 0.8 | 0.8 | <div><div></div></div> | - | - |
| South Fork Licking River | Jersey Township, City of New Albany | Licking County | | 1.0 | 1.1 | <div><div></div></div> | - | - |
| Named Lakes, Ponds, and Reservoirs | | | | | | | | |
| None in Study Area | | | | | | | | |
| High-Use Public Areas | | | | | | | | |
| State, US, and Interstate Highways | | | | | | | | |
| State Rte 161 | Plain Township, Jersey Township, City of New Albany | Franklin County, Licking County | | 0.9 | 1.0 | <div><div></div></div> | - | +/- |
| US Hwy 62 | Plain Township, Jersey Township, Monroe Township, City of New Albany | Franklin County, Licking County | | 1.7 | 1.7 | <div><div></div></div> | - | - |
| Schools | | | | | | | | |
| None in Study Area | | | | | | | | |
| Cities, Villages, Unincorporated Areas | | | | | | | | |
| Cities and Villages | | | | | | | | |
| City of New Albany | Plain Township, Jersey Township, City of New Albany | Franklin County, Licking County | 1-10 | 0.0 | 0.0 | <div><div></div></div> | +/- | +/- |
| Unincorporated Areas | | | | | | | | |
| Beech | Jersey Township, City of New Albany | Licking County | | 1.0 | 1.1 | <div><div></div></div> | - | - |

¹ If no viewpoint (VP) number is indicated, no photo was obtained during fieldwork.

² For large areas and linear sites, approximate distance to the nearest turbine was measured from the respective area's closest point.

State and Federal Trails

| Visually Sensitive Resource | Location | | VP Number ¹ | Distance ² | | Distance Zone | Project Visibility (Viewshed Results) | |
|--|---|--|------------------------|------------------------------|----------------------------------|---|---|--|
| | | | | | | | ✚Visible - Not Visible +/- Partially Visible | |
| | Town | County | | Miles from Battery Container | Miles from Collection Substation | <div><div></div> Near-Foreground</div> <div><div></div> Foreground</div> <div><div></div> Midground</div> <div><div></div> Background</div> | Battery Container DSM Viewshed (Topography, Structures, and Vegetation) | Collection Station DSM Viewshed (Topography, Structures, and Vegetation) |
| No stand-alone state/federal trails were identified. However, state trails occur within (and are evaluated as part of) state lands identified elsewhere in this table. | | | | | | | | |
| Snowmobile/ATV Trails | | | | | | | | |
| None in Study Area | | | | | | | | |
| Bike Trails/Routes | | | | | | | | |
| None in Study Area | | | | | | | | |
| Other Trails | | | | | | | | |
| None in Study Area | | | | | | | | |
| Local Parks and Recreation Areas | | | | | | | | |
| Franklin Valley Golf Club | Franklin Township | Jackson County | | 3.9 | 4.6 | <div><div></div></div> | - | - |
| Fair Greens Country Club | Lick Township | Jackson County | | 5.2 | 5.9 | <div><div></div></div> | - | - |
| Publicly Accessible Conservation Lands/Easements | | | | | | | | |
| Baker Swamp Preserve | Franklin Township | Jackson County | | 4.9 | 5.7 | <div><div></div></div> | - | - |
| Rivers and Streams with Public Fishing Access | | | | | | | | |
| Symmes Creek | Bloomfield Township, Madison Township | Gallia County, Jackson County | | 0.7 | 1.6 | <div><div></div></div> | +/- | +/- |
| Little Raccoon Creek | Huntington Township, Bloomfield Township, Milton Township | Gallia County, Jackson County, Vinton County | | 1.8 | 3.5 | <div><div></div></div> | - | - |
| | Coal Township, Franklin Township, Lick Township, City of Jackson | Jackson County | | 3.7 | 4.4 | <div><div></div></div> | - | - |
| Named Lakes, Ponds, and Reservoirs | | | | | | | | |
| Oak Hill Reservoir | Franklin Township | Jackson County | | 4.2 | 5.1 | <div><div></div></div> | - | - |
| High-Use Public Areas | | | | | | | | |
| State, US, and Interstate Highways | | | | | | | | |
| US Hwy 35 | Raccoon Township, Bloomfield Township, Coal Township, Franklin Township, Lick Township, Madison Township, City of Jackson | Gallia County, Jackson County | 9, 31, 32 | 0.1 | 1.0 | <div><div></div></div> | +/- | +/- |
| State Rte 327 | Bloomfield Township, Milton Township | Jackson County, Vinton County | 17, 18, 20 | 0.3 | 0.9 | <div><div></div></div> | +/- | +/- |

| Visually Sensitive Resource | Location | | VP Number ¹ | Distance ² | | Distance Zone | Project Visibility (Viewshed Results) | |
|--|---|-------------------------------|------------------------|------------------------------|----------------------------------|---|---|--|
| | | | | | | | ✚Visible - Not Visible +/- Partially Visible | |
| | Town | County | | Miles from Battery Container | Miles from Collection Substation | <div><div></div>Near-Foreground</div> <div><div></div>Foreground</div> <div><div></div>Midground</div> <div><div></div>Background</div> | Battery Container DSM Viewshed (Topography, Structures, and Vegetation) | Collection Station DSM Viewshed (Topography, Structures, and Vegetation) |
| State Rte 93 | Coal Township, Franklin Township, Jefferson Township, Lick Township, Madison Township, Milton Township, City of Jackson | Jackson County, Vinton County | | 2.9 | 3.7 | <div><div></div></div> | +/- | +/- |
| State Rte 124 | Franklin Township, Lick Township, Milton Township, Wilkesville Township, City of Jackson | Jackson County, Vinton County | | 4.6 | 5.5 | <div><div></div></div> | - | - |
| State Rte 32 | Franklin Township, Lick Township, Milton Township, City of Jackson | Jackson County, Vinton County | | 4.6 | 5.5 | <div><div></div></div> | - | - |
| Schools | | | | | | | | |
| Southview Elementary School | Franklin Township, Lick Township, City of Jackson | Jackson County | | 4.6 | 5.1 | <div><div></div></div> | - | - |
| Cities, Villages, Unincorporated Areas | | | | | | | | |
| Cities and Villages | | | | | | | | |
| City of Jackson | Franklin Township, Lick Township, City of Jackson | Jackson County | | 3.9 | 4.4 | <div><div></div></div> | - | - |
| Unincorporated Areas | | | | | | | | |
| Winchester | Bloomfield Township | Jackson County | 22 | 0.2 | 1.1 | <div><div></div></div> | +/- | +/- |
| Ridgeland | Bloomfield Township | Jackson County | 15 | 0.3 | 1.0 | <div><div></div></div> | +/- | +/- |
| Rocky Hill | Bloomfield Township | Jackson County | | 0.5 | 1.3 | <div><div></div></div> | +/- | +/- |
| Pattonsville | Bloomfield Township | Jackson County | | 1.1 | 2.5 | <div><div></div></div> | +/- | +/- |
| Vega | Bloomfield Township | Jackson County | 12 | 1.8 | 2.7 | <div><div></div></div> | +/- | +/- |
| Keystone | Bloomfield Township | Jackson County | | 1.9 | 3.7 | <div><div></div></div> | - | - |
| Orpheus | Bloomfield Township | Jackson County | | 2.8 | 3.8 | <div><div></div></div> | - | - |
| Rempel | Madison Township | Jackson County | | 3.0 | 4.0 | <div><div></div></div> | - | - |
| Buckeye | Milton Township | Jackson County | | 3.4 | 4.9 | <div><div></div></div> | - | - |
| Clay | Franklin Township, Madison Township | Jackson County | | 3.8 | 4.8 | <div><div></div></div> | - | - |
| Keystone | Franklin Township | Jackson County | | 3.9 | 4.7 | <div><div></div></div> | - | - |
| Pyro | Madison Township | Jackson County | | 3.9 | 4.9 | <div><div></div></div> | - | - |

| Visually Sensitive Resource | Location | | VP Number ¹ | Distance ² | | Distance Zone | Project Visibility (Viewshed Results) | |
|-----------------------------|-------------------|----------------|------------------------|------------------------------|----------------------------------|---|---|--|
| | | | | | | | ⬆Visible - Not Visible ⬆/- Partially Visible | |
| | Town | County | | Miles from Battery Container | Miles from Collection Substation | <div><div></div> Near-Foreground</div> <div><div></div> Foreground</div> <div><div></div> Midground</div> <div><div></div> Background</div> | Battery Container DSM Viewshed (Topography, Structures, and Vegetation) | Collection Station DSM Viewshed (Topography, Structures, and Vegetation) |
| Camba | Franklin Township | Jackson County | | 4.1 | 5.0 | <div><div></div></div> | - | - |
| Middleton | Milton Township | Jackson County | | 4.5 | 5.8 | <div><div></div></div> | - | - |
| Banner | Franklin Township | Jackson County | | 4.6 | 5.5 | <div><div></div></div> | - | - |
| Roads | Milton Township | Jackson County | | 4.7 | 5.7 | <div><div></div></div> | - | - |

¹ If no viewpoint (VP) number is indicated, no photo was obtained during fieldwork.

² For large areas and linear sites, approximate distance to the Project component was measured from the respective area's closest point.

**This foregoing document was electronically filed with the Public Utilities
Commission of Ohio Docketing Information System on**

12/23/2021 12:08:10 PM

in

Case No(s). 21-1061-EL-BGN

Summary: Application Exhibit P Visual Resource Assessment and Mitigation Plan
electronically filed by Teresa Orahod on behalf of Dylan F. Borchers