DODSON CREEK SOLAR

Exhibit U-1

Visual Resource Assessment and Mitigation Plan

Case No. 20-1814-EL-BGN

Visual Resource Assessment

Dodson Creek Solar Project

Dodson, Hamer, and Union Townships, Highland County, Ohio

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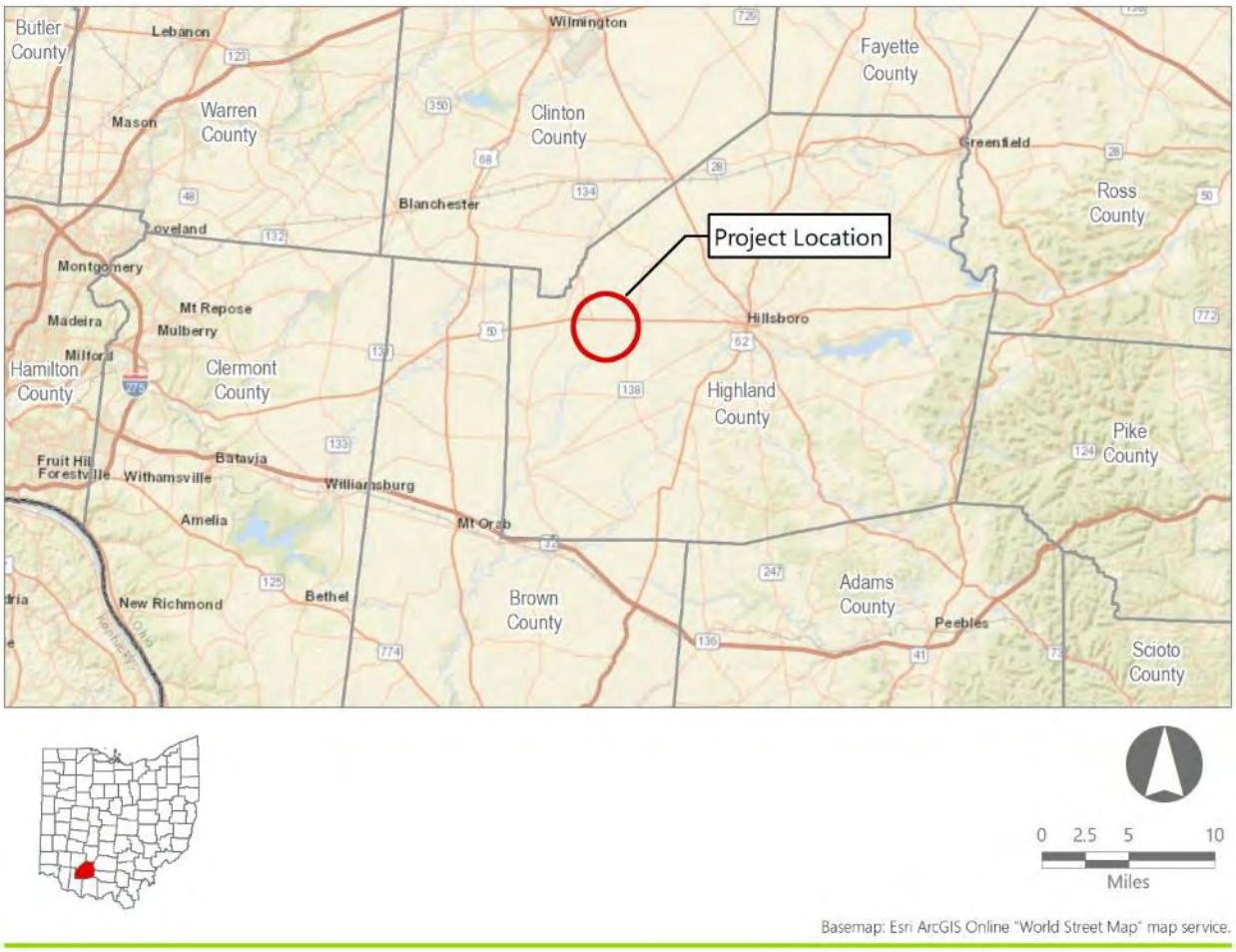
1.0 INTRODUCTION

1.1 Purpose of the Investigation

Environmental Design & Research (EDR) was retained by Dodson Creek Solar, LLC (the Applicant) to prepare a Visual Resource Assessment (VRA) for the up to 117 megawatt (MW) Dodson Creek Solar Project (the Project), proposed to be located in Dodson, Union, and Hamer townships, Highland County, Ohio (see Figure 1.1).

Figure 1.1. Regional Project Location



This report has been prepared to satisfy the portions of Ohio Administrative Code (OAC) 4906-4-08(D) that relate to the identification of visually sensitive resources (VSRs), Project visibility, and potential visual impacts resulting from construction of the proposed solar-powered electric generation facility.

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 selected 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 assessment experts in accordance with the policies, procedures, and guidelines contained in established visual resource assessment methodologies.

1.2 Project Location and Description

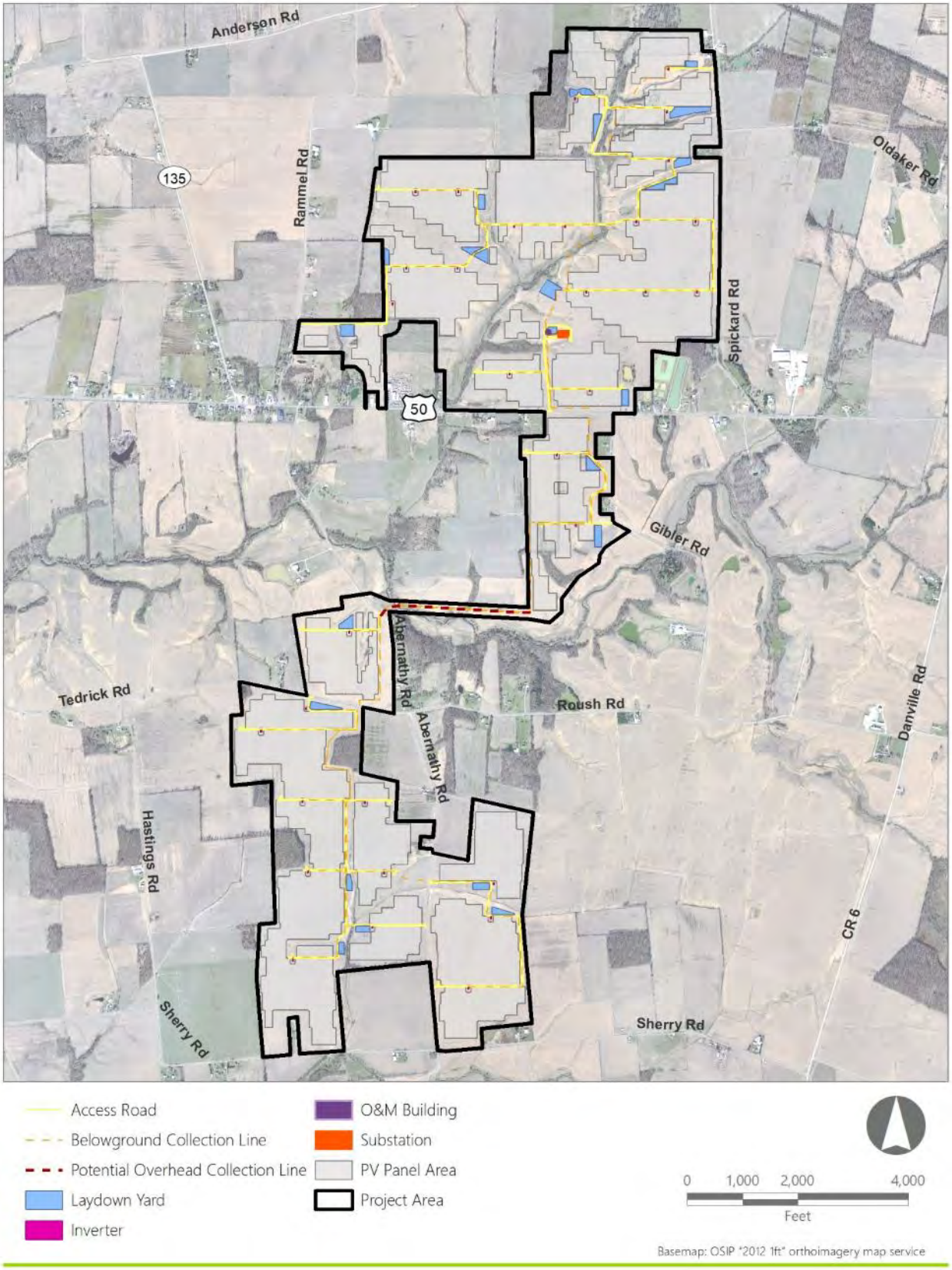
The Project is proposed to be located primarily on agricultural land in the townships of Dodson, Union, and Hamer, Highland County, Ohio. The parcels being considered for construction of the Project total approximately 1,462 acres (the Project Area).

The proposed Project is a solar-powered electric generation facility with a generating capacity of up to 117 MW. The Project will use arrays of ground-mounted photovoltaic (PV) modules, commonly known as solar panels, to provide renewable energy to the Ohio bulk power transmission system to serve the needs of electric utilities and their customers. Solar panels will be affixed to a metal racking system mounted on piles that will be driven or screwed into the ground in rows or arrays. The arrays will generally follow the existing topography of the Project Area with minimal grading or alteration of existing contours. Arrays will be grouped in separate, contiguous clusters, which will be fenced and gated for equipment security and public safety.

The PV arrays currently proposed for the Project include a single-axis "tracking" style racking system. Using this system, the arrays will be oriented in a roughly north-south direction and equipped to rotate the panels from east to west so as to continuously face the direction of sunlight. Tracking arrays will face east at sunrise, rotate throughout the day, and end up facing west at sunset. When no sunlight is present, the panels will return to a stow position. The panel arrays will be connected to inverters which will convert the direct current (DC) generated by the solar panels to alternating current (AC), and then to a series of below-ground interconnection cables that will deliver the electricity to a new collection substation. At the substation the voltage will be stepped-up in order to allow connection to the regional electrical grid via a point of interconnection (POI) switchyard along the existing Hillsboro-Clinton County 138 kilovolt (kV) circuit. The

POI is addressed in the viewshed analysis to evaluate the full extent of Project visibility, including the Facility Substation and the equipment necessary for interconnection to the electric grid. Associated support facilities include gravel access roads and an O&M building within the array areas. The preliminary locations of proposed Project components are illustrated in Figure 1.2.

Figure 1.2. Preliminary Project Layout



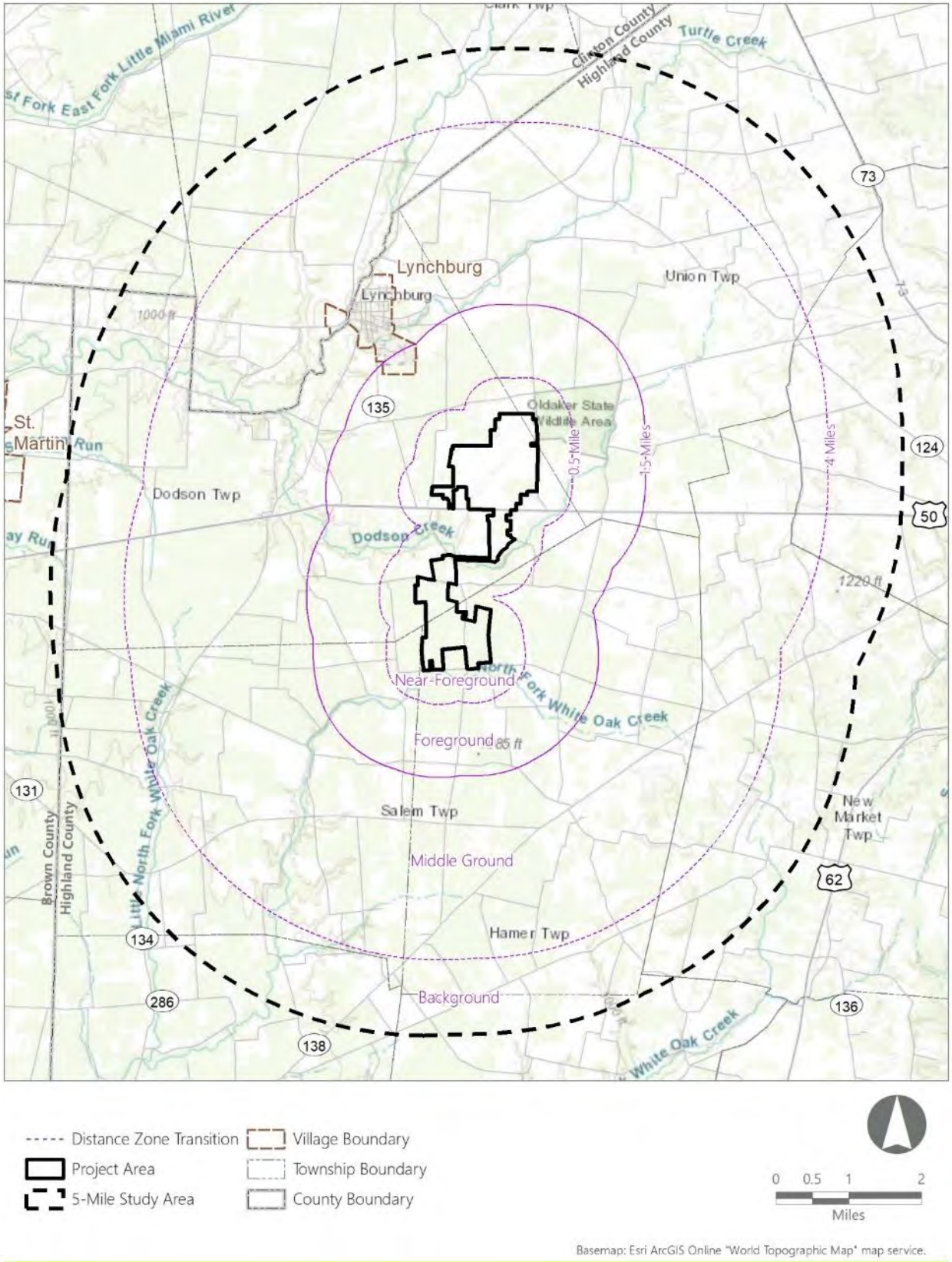
1.2.1 Visual Study Area

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 a solar generation 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 areas of potential Project visibility diminish rapidly after 1.5 miles, with only scattered narrow corridors of potential visibility extending out to 5 miles.

Based on the results of the viewshed analysis, and the relatively flat terrain surrounding the Project, it was determined that a 5-mile radius from the Project would be a sufficient VSA for the purposes of this study. Beyond the distance of 5 miles, the PV panels will generally be indistinguishable due to the limits of human visual acuity and the presence of intervening landscape features. The resulting VSA encompasses a total of approximately 126.8 square miles. The location and extent of the VSA is illustrated in Figure 1.3.

Figure 1.3. Visual Study Area



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 USGS 2016 National Land Cover Database (NLCD) was used to help define the character and location of various Landscape Types (LTs) within the VSA (see Figure 1.3). 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
Cropland/Pasture	98.4	77.6%
Forest	20.4	16.1%
Developed	6.5	5.1%
Barren Land	0.7	0.6%
Open Water/Wetland	0.7	0.5%
Grassland/Shrubland	0.1	0.1%
Total	126.8	100%

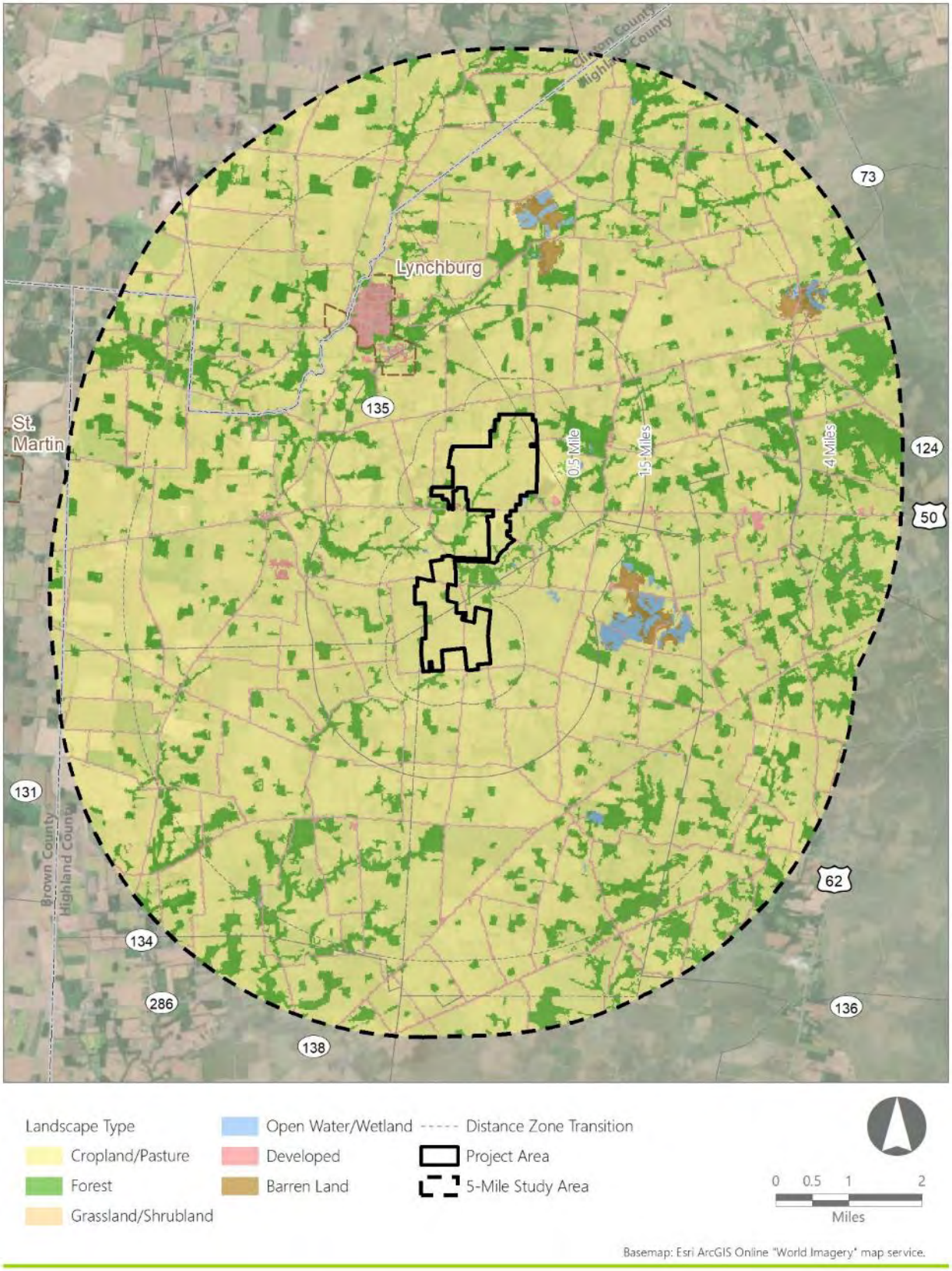
The Project components are proposed to be built almost entirely within the Cropland/Pasture LT, which makes up approximately 77.6% of the VSA. Agricultural land within the VSA typically offers the greatest potential for long-distance views due to the presence of open fields and minimal screening features. As such, the Cropland/Pasture LT is likely to have the greatest opportunities for views of the Project.

The Developed LT makes up 5.1% of the VSA, including Lynchburg, the community of Dodsonville, the Lynchburg-Clay School District buildings, and Reno's Auto Parts. These areas may have outward views across landscaped yards, parking lots, recreational fields, and planted vegetation, but such views are often limited due to the presence of street trees, closely situated buildings, utility poles, or other built features. It should be noted that the NLCD identifies all paved roads as "developed." While these roads are technically developed from the standpoint of cover type, they do not meet the Developed LT criteria for the purposes of the VRA. As such, the Developed LT area within the VSA is over inclusive and may slightly overstate the presence of developed land within the VSA.

The Forest LT, which makes up 16.1% of the VSA, occurs in small distinct locations throughout the VSA, including discreet woodlots and narrow hedgerows within the Project Area. Additionally, the Forest LT follows stream and creek corridors such as Dodson Creek, Turtle Creek, and the North Fork of White Oak Creek. Views of the Project from within the Forest LT will typically be limited by the presence of dense vegetation. During leaf-off conditions, narrow hedgerows or sparsely vegetated woodlots may not provide full screening of the Project; however, partial screening will be provided by tree trunks and branches and views of the proposed Project would still be largely obstructed during the dormant season. Views of the proposed PV panels from the Forest LT are most likely to be available along the edge of wooded areas that border an open field, road, or parking lot.

The Open Water/Wetland LT makes up approximately 0.5% of the VSA. Three stone quarries are the prominent open water areas within the VSA, located approximately 2.4 miles north, 3.6 miles northeast, and 1.5 mile east of the proposed Project. This LT is typically surrounded by densely wooded areas of varying widths which will limit potential visibility of the Project.

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. Four 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 4.0 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.

- **Background:** Over 4.0 miles. The background defines the broader regional landscape within which a view occurs. Within this distance zone, the landscape is simplified; only broad landforms are discernable, and atmospheric conditions often render the landscape an overall bluish color. Texture has generally disappeared, and color has flattened, but large patterns of vegetation are discernable. Silhouettes of one land mass set against another and/or the skyline are often the dominant visual characteristics in the background. The background contributes to scenic quality by providing a softened backdrop for foreground and middle ground features, an attractive vista, or a distant focal point.

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 LTs within the individual distance zones is relatively uniform. The Cropland/Pasture LT makes up between 74.4% and 84.8% of each of the distance zones. Also, of note, the

Developed LT, where the majority of VSRs and viewers occur, makes up less than 6% of the VSA considering all of the distance zones, combined.

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 – 4.0 miles)	Background (>4.0miles)
Cropland/Pasture	7.1 (84.8%)	12.7 (83.2%)	50.1 (77.2%)	28.5 (74.4%)
Forest	0.9 (10.2%)	1.8 (12.1%)	9.8 (15.1%)	7.8 (20.5%)
Developed	0.4 (4.7%)	0.7 (4.5%)	3.7 (5.7%)	1.8 (4.6%)
Barren Land	<0.1 (<0.1%)	<0.1 (<0.1%)	0.6 (1.0%)	0.1 (0.2%)
Open Water/Wetland	<0.1 (0.2%)	<0.1 (0.2%)	0.6 (0.9%)	0.1 (0.2%)
Grassland/Shrubland	<0.1 (<0.1%)	<0.1 (<0.1%)	0.1 (0.1%)	0.1 (0.2%)
Total Distance Zone Area[2]	8.3	15.2	64.9	38.3

[1]The calculations used to generate this table were based on unrounded numbers, therefore, the rounded results may not add up precisely.
[2]The VSA includes approximately 126.8 square miles, or approximately 81,174 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.

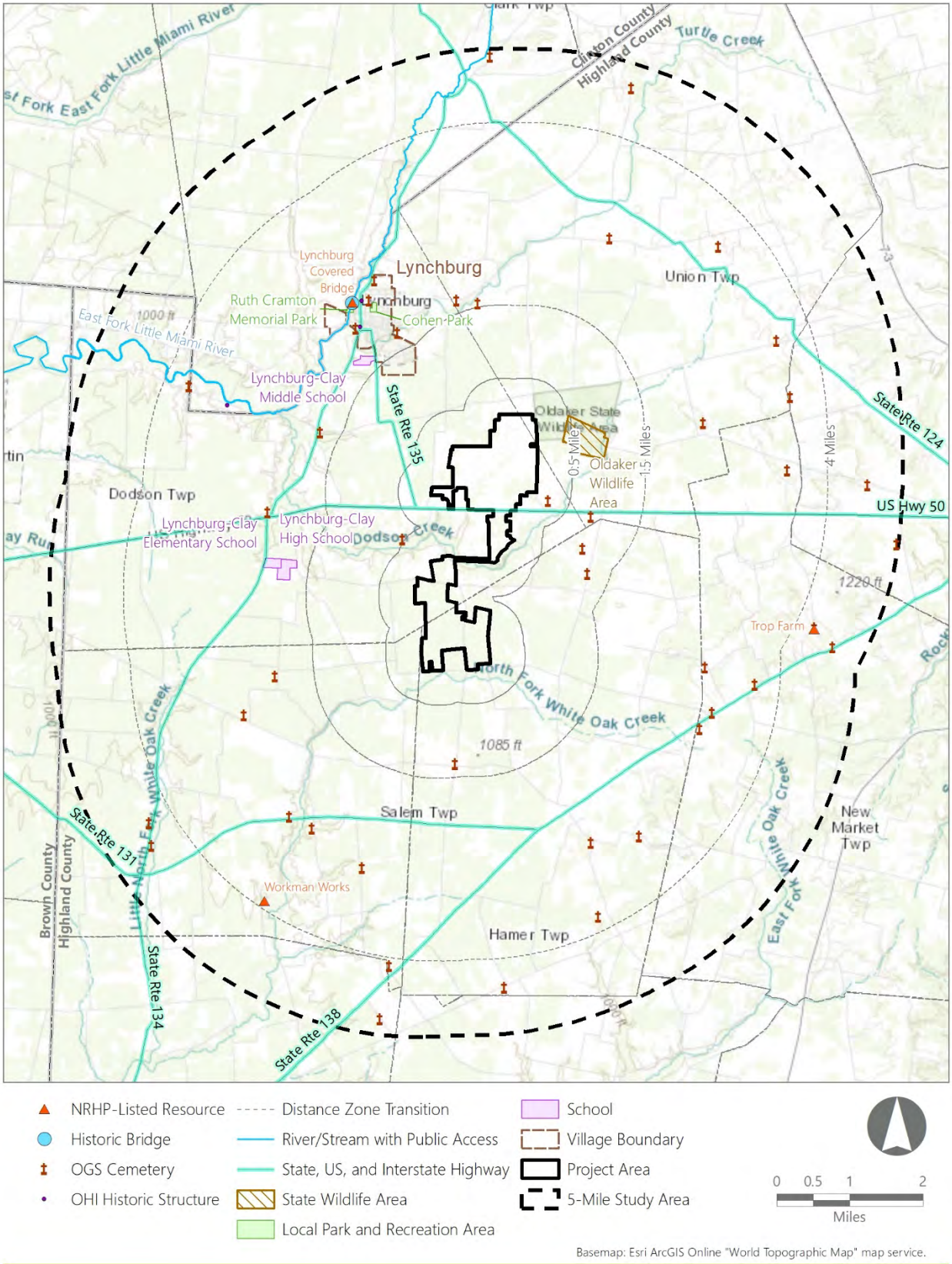
To identify VSRs within the VSA, EDR consulted a variety of data sources including digital geospatial data obtained primarily through the Ohio Geographically Referenced Information Program (OGRIP) or Esri; numerous national, state, county and local agency/program websites as well as websites specific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

Table 1.3. Visually Sensitive Resources

Type of Visually Sensitive Resource	Number Identified within the VSA
Properties of Historic Significance	53
Designated Scenic Resources	0
Public Lands and Recreational Resources	4
High Use Public Areas	10
Total	67

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 E.

Figure 1.5. Location of Visually Sensitive Resources



Documented Visual Resources and Preferences of the Community

EDR also reviewed existing plans, policies, and regulations of the various communities within the VSA to identify any documented visual resources or visual preferences of the community. Highland County, Clinton County, and the Village of Lynchburg are the only communities within the VSA with documented land use or comprehensive plans. Some of these plans address scenic resources and visual preferences within the county.

The 2003 *Highland County Comprehensive Plan* focuses on the preservation of farmland, natural resources, and the County's rural character. The plan states that "Development should not negatively impact the County's historic and cultural resources, which are a vital part of the region's character and heritage" (Highland County, 2003, p. 51). The Project will provide landowners with the opportunity to earn money for their land through lease agreements, which allows the land to be developed in a way that can be returned to an agricultural land use (i.e., as opposed to residential subdivisions). Thus, although a certain amount of agricultural land is being taken out of production, the additional revenue can support continued agricultural use of the remaining property of participating landowners, and the land hosting the Project can be restored to agricultural use at the end of the Project's operational life.

The 2004 *Clinton County Comprehensive Plan* aims to preserve natural resources and rural character. The plan states that "The natural beauty that is Clinton County is the soul of the community" (Clinton County Regional Planning Commission, 2009). Though Clinton County is within the 5-mile visual study area, potential views of the Project are not expected to be available within Clinton County.

The 2009 *Village of Lynchburg Comprehensive Plan* focuses on land use issues regarding floodplain development and streetscaping. This plan does not specifically identify or address scenic resources or visual preferences within the community. Additionally, only a very small portion of the southeastern area of the village has potential views of the Project (Village of Lynchburg, 2009).

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

PV Panel Viewshed Analysis

To identify areas where views of the proposed PV panel arrays (including PV panels and inverters) would potentially be available, a viewshed analysis was performed based on the height of the tallest proposed above ground components. A digital surface model (DSM) viewshed analysis for the proposed PV panel arrays was conducted to evaluate potential Project visibility considering the screening effects of existing topography, structures, and vegetation. 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. The DSM viewshed analysis for the proposed PV arrays was prepared using: 1) a DSM derived from the Ohio Statewide Imagery Program's (OSIP) 2007 lidar data for the counties of Highland and Clinton, Ohio; 2) sample points to represent solar panel locations placed 300 feet apart in a grid pattern throughout all proposed PV panel arrays; 3) an assumed maximum solar panel height of 20 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. In order 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 all road corridors within the VSA. Additionally, all areas within the PV array fence lines were cleared of any vegetation to reflect the bare-earth elevation in these locations. 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 set solar panel 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 tree top or building roof, which is not the intent of this analysis, and 2) to 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.

Because it accounts for the screening provided by topography, vegetation and structures, the DSM viewshed analysis is a very accurate representation of potential Project visibility. However, it is worth noting that 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.

Above-Ground Electrical Component Viewshed Analysis

A DSM viewshed analysis was also conducted for the proposed above-ground electrical components, which consist of the POI switchyard and Facility substation, and an approximate 0.5-mile section of collection line that may be installed overhead. Because precise locations of the interior components of the substation and POI are not known at this time, the analysis was run based on 10 representative points within the collective footprints (five sample points representing each). These points were assigned a height of 65 feet to represent the maximum proposed height of the lightning masts, which are the tallest components within both the collection substation and POI. Similarly, precise pole locations for the potential overhead collection line are unknown at this time, so the viewshed analysis was based on 15 representative pole locations spaced 200 feet apart with an assigned height of 35 feet. All other data sources and assumptions used in the above-ground electrical component viewshed analysis are as described above for the PV panel viewshed analysis.

2.1.2 Viewshed Results

PV Panel Viewshed Analysis

Potential visibility of the proposed solar panels, as indicated by the DSM viewshed analysis, is illustrated in Figure 2.1 and Figure 2.2, and summarized in Table 2.1. As indicated by this analysis, the Project will be screened from approximately 87.4% of the VSA by intervening topography, vegetation, and structures.

Table 2.1. PV Panel 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 1.5-4.0 Mile	Background 4.0-5.0 Mile
Total Area	126.8	8.3	15.2	64.9	38.3
DSM Viewshed Visibility	16.0 (12.6%)	6.8 (81.3%)	6.7 (43.8%)	2.5 (3.8%)	<0.1 (0.1%)

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

The near-foreground distance zone has the largest area of potential visibility within the VSA, with 81.3% of the area out to 0.5 mile from the Project Area indicated as having potential views of some portion of the PV arrays. Views from areas in the foreground distance zone (0.5-1.5 miles) experience more significant screening resulting from intervening vegetation and structures and therefore only 43.8% of the foreground distance zone is indicated as having the potential for views of the PV panels. The DSM viewshed analysis indicates that potential Project visibility is further reduced at distances beyond the foreground. Less than 4% of the VSA is expected to have potential views of the PV panels in the middle ground (at distances between 1.5 and 4 miles). At background distances, the viewshed analysis indicates the Project should be nearly 100% screened from the area between 4 and 5 miles away.

Within the VSA, dense corridors of vegetation bordering the North Fork of White Oak Creek, Dodson Creek, and the southern and eastern edges of Lynchburg, as well as scattered woodlots and clusters of structures, provide significant screening in portions of the VSA beyond 1.5 miles from the Project. In addition, large woodlots associated with the Oldaker Wildlife Area significantly limits potential PV panel visibility beyond the near-foreground to the east of the Project.

Limited narrow bands of potential visibility extend out beyond 1.5 miles within portions of open agricultural fields, where there are breaks in the existing woodlots and hedgerows that allow for longer distance views from the southeast toward State Route 138, east toward State Route 31, north toward State Route 11 (Sharpsville Road), and west toward State Route 134.

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 woodlots may not provide enough screening to fully obscure views of the Project. Partial screening will be provided by tree trunks and branches in these locations during leaf-off conditions; therefore, views of the PV panels would be at least partially obstructed. It is also important to note that the lidar data used in this analysis are from 2006, and the analysis does not reflect any changes that have occurred since that time. However, based on review of recent aerial photography (2017) and field review, the lidar data appear to accurately reflect current vegetative screening conditions within the VSA.

In addition, proposed mitigation plantings will provide additional screening and soften the visible effects of the PV arrays in certain areas within the near foreground and foreground distance zones. These proposed plantings are not accounted for in the viewshed analysis. See Appendix C for more information about proposed landscape mitigation.

Figure 2.1 and Figure 2.2 illustrate the results of the DSM viewshed analysis for a 5-mile radius and a 1.5-mile focused radius, respectively. The viewshed maps illustrate how potential views of the Facility will include a smaller portion of the proposed PV panel arrays as one moves farther from the Project.

Figure 2.1. PV Panel Viewshed Analysis Results Within the VSA

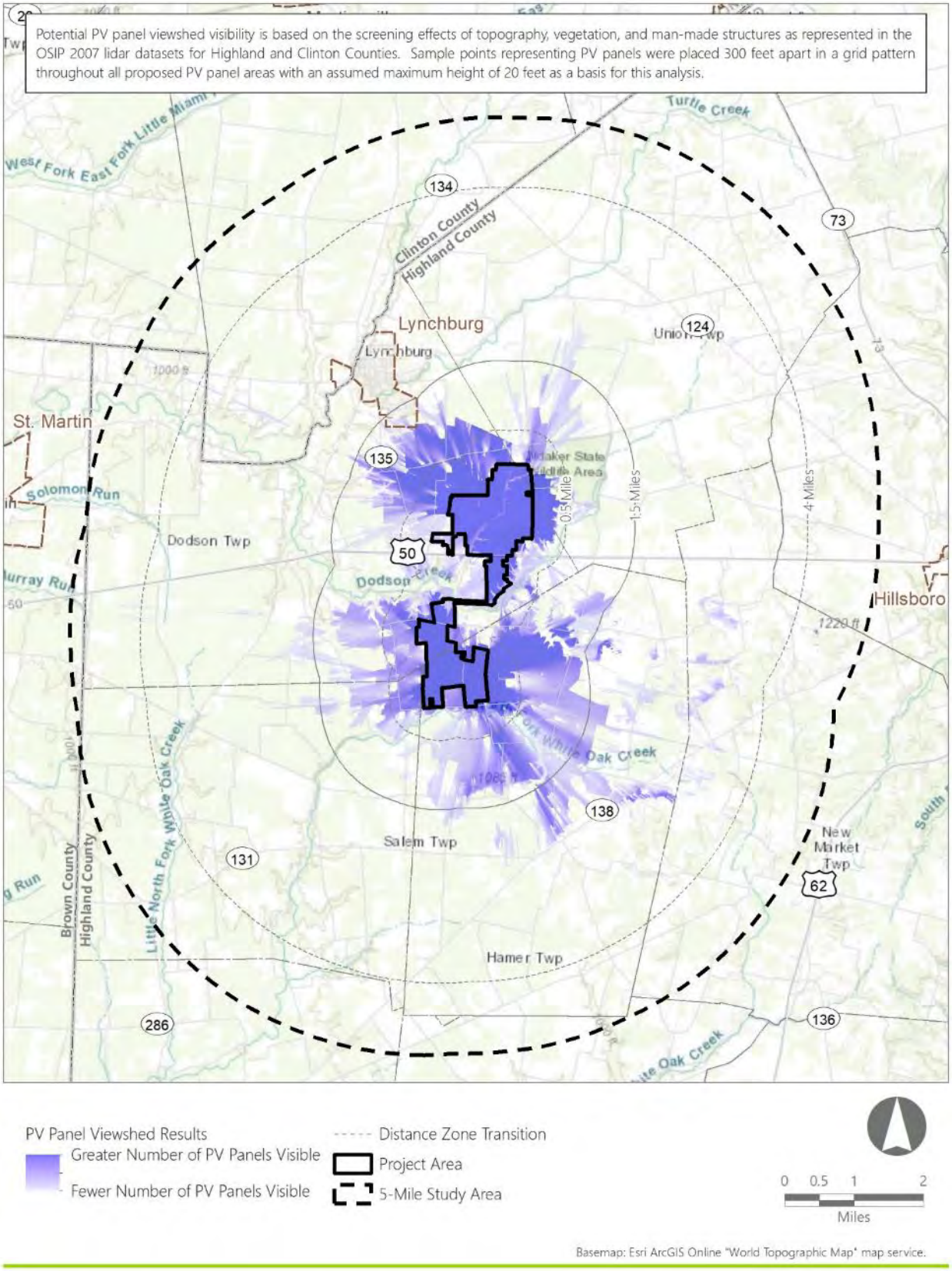
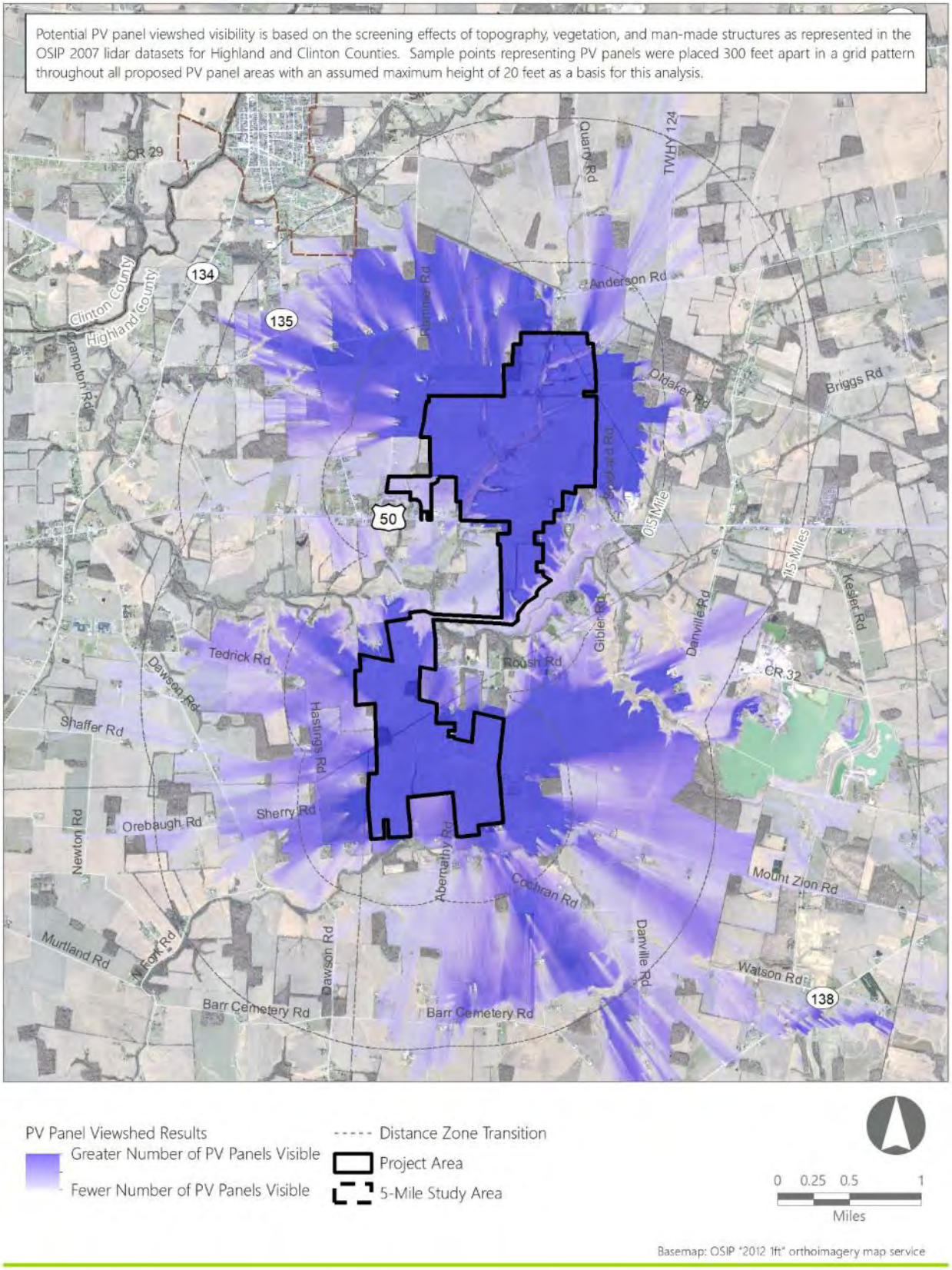


Figure 2.2. PV Panel Viewshed Analysis Results Within the Foreground Distance Zone



Above-Ground Electrical Component Viewshed Analysis

Potential visibility of the above-ground electrical components, as indicated by the 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 93.9% of the VSA by intervening landforms, vegetation, and structures.

Table 2.2. Above-Ground Electrical Component Viewshed Analysis Results

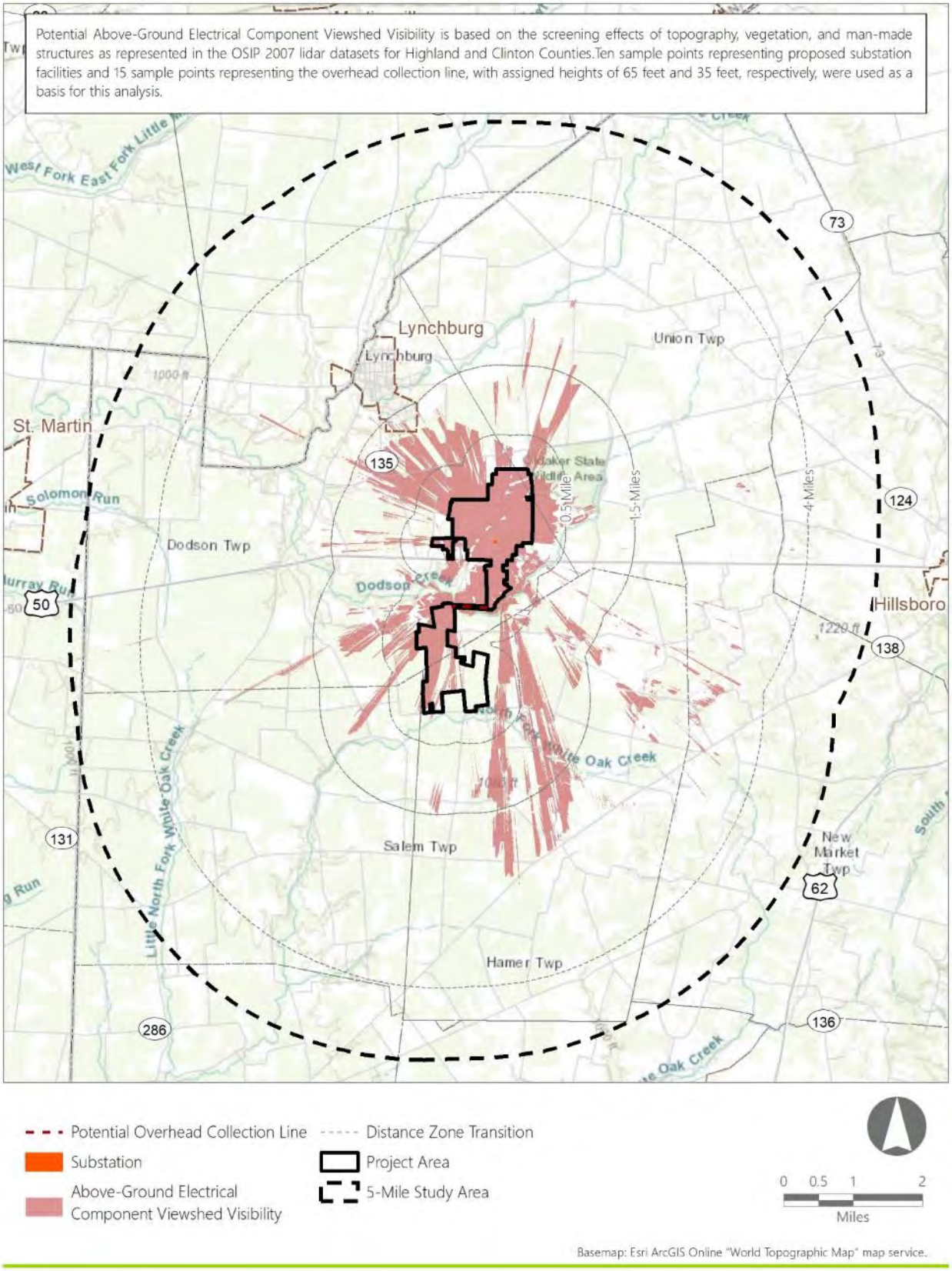
Analysis	VSA (square miles)	Visibility by Distance Zone (square miles of visibility and percent of distance zone)			
		Near-Foreground 0-0.5 Mile	Foreground 0.5-1.5 Miles	Middle Ground 1.5-4.0 Miles	Background 4.0-5.0 Miles
Total Area	126.8	8.3	15.2	64.9	38.3
DSM Viewshed Visibility	7.8 (6.1%)	4.2 (50.0%)	2.6 (16.8%)	1.0 (1.6%)	<0.1 (<0.1%)

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

Potential above-ground electrical component visibility includes a significantly smaller area than the viewshed analysis for the PV panels. This is likely due to the smaller geographic size of these components (i.e., fewer number of sample points). Dense corridors of vegetation along the Little North Fork of White Oak Creek, Dodson Creek, Lynchburg, and the Oldaker Wildlife Area, along with scattered woodlots and clusters of structures limit potential substation visibility beyond 1.5 miles. However, there are limited corridors of potential substation visibility extending out to 5 miles, south toward the unincorporated community of Danville, southeast toward State Route 138, southwest toward the Little North Fork of White Oak Creek, and north toward Turtle Creek.

It is important to keep in mind that the substation viewshed analysis presents theoretical visibility. It ignores the narrow profile and neutral color of the lightning masts and is based on height significantly taller than most of the internal substation structures. The narrow lightning masts will be difficult to discern at distances beyond the foreground, and the remaining interior structures will generally be screened by intervening vegetation and structures at viewpoints outside the near foreground distance zone.

Figure 2.3. Substation Viewshed Analysis Results Within the VSA



2.1.3 Visibility Results from Visually Sensitive Resources

The DSM viewshed analysis suggests that 10 of the 67 VSRs identified within the VSA (15%) may have some level of PV panel visibility only. A total of eight (12%) of these resources may have visibility of both the PV panels and the above-ground electrical components, while no VSRs are indicated as having above-ground electrical component 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 PV Panels and Above-Ground Electrical Components	PV Panels Only	Above-Ground Electrical Components Only
Properties of Historic Significance	**Total 53**	**Total 1**	**Total 7**	**Total 0**
Sites Listed on National Register of Historic Places (NRHP)	3	-	-	-
Ohio Historic Structures	4	-	-	-
Historic Bridges	1	-	-	-
OGS Cemeteries	45	1	7	-
Public Lands and Recreational Resources	**Total 4**	**Total 1**	**Total 0**	**Total 0**
Wildlife Areas	1	1	-	-
Local Parks and Recreation Areas	2	-	-	-
Rivers and Streams with Public Access	1	-	-	-
High-Use Public Areas	**Total 10**	**Total 6**	**Total 3**	**Total 0**
State, US, and Interstate Highways	6	4	2	-
Schools	3	1	1	-
Cities, Villages, Unincorporated Areas	1	1	-	-
Total Number of Visually Sensitive Resources	67	8	10	0

[1]See Appendix E 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 PV panels and/or above-ground electrical components based on the DSM viewshed results. As mentioned previously, in certain areas within the near foreground and foreground distance zones, proposed mitigation plantings will provide screening and soften the visible effects of the PV arrays. These proposed plantings are not considered in the viewshed analysis. See Appendix C for more information about proposed landscape mitigation.

Properties of Historic Significance

OGS Cemeteries

Of the 45 OGS Cemeteries within the VSA, seven are indicated as having potential views of the PV panels and one is indicated as having potential visibility for both the PV panels and above-ground electrical components. The Spickard Cemetery is located in the near foreground distance zone, 0.2 mile southeast of the nearest PV panel array. While there may be views of the PV panels from within the cemetery, the Project will be partially screened by existing vegetation to the north. Existing utility infrastructure running along Spickard Road to the northwest is already visible from this cemetery.

Four OGS Cemeteries are located within the foreground distance zone. The Barnes Cemetery is approximately 0.8 mile east of the nearest PV panels and there is a pocket of very limited Project visibility near the center of the cemetery. The Gibler Cemetery is approximately 1.0 mile east of the nearest PV panels and the Project is indicated as potentially visible within the northern portion of the cemetery and in extremely limited pockets within the southern portion of the cemetery. The South Liberty-Strange-Swamp College Cemetery is located approximately 1.2 miles southeast of the nearest PV panel array and is indicated as having views of the Project across open agricultural fields. The Barr Cemetery is approximately 1.3 miles south of the nearest PV panels and also indicated as having views of the Project across agricultural fields. While these cemeteries may have views of the proposed Project, these views will be softened by the effects of distance and partially screened by existing vegetation, and intervening residential and agricultural structures.

Three cemeteries with potential Project visibility are located within the middle ground distance zone. Old Dutch Cemetery is approximately 3.0 miles east of the nearest PV panel array, while Mount Zion Cemetery is approximately 3.1 miles southeast and Caleb Hill-Chapman Cemetery (which is indicated as having potential views of both the PV panels and the above-ground electrical components) is approximately 3.2 miles southeast of the nearest panel arrays. These cemeteries may have limited pockets of Project visibility, but due to distance, as well as screening provided by intervening vegetation and development, the Project will be mostly obscured and difficult to perceive from within these cemeteries.

Public Lands and Recreational Resources

Wildlife Areas

The Oldaker Wildlife Area, within the near foreground distance zone approximately 0.4 mile northeast of the nearest PV panel array, could have potential visibility of the PV panels and the proposed above-ground electrical components. Open fields present within the southern portions of the wildlife area, are indicated as having the potential for views of the Project. Dense forest within the majority of this area will obstruct most outward views.

High-Use Public Areas

State, US, and Interstate Highways

Project visibility from roadways throughout the VSA varies considerably based on proximity to the Project, elevation, and roadway orientation. U.S. and state highways that have potential PV panel and/or above-ground electrical component visibility and their length and usage within the VSA are listed below.

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 PV Panel Viewshed	Length (miles) and Percent within the Substation Viewshed
US Route 50	3,202 – 5,307	11.7	5.2 (44.9%)	1.1 (9.7%)
State Route 124	771 – 2,561	8.1	<0.1 (0.1%)	-
State Route 131	512 - 585	6.1	0.1 (2.2%)	0.2 (2.5%)
State Route 134	1,263 – 2,296	12.9	-	-
State Route 135	993 – 1,531	2.8	1.7 (59.9%)	1.0 (36.3%)
State Route 138	1,652 – 1,981	9.3	0.9 (9.2%)	0.1 (1.3%)

[1] Source: Ohio Department of Transportation, 2018

Views from moving vehicles will generally be fleeting, peripheral to the orientation of the drivers' primary view, and not the primary focus of driver attention.

Schools

Within the VSA, the Lynchburg-Clay Middle School is indicated as having potential visibility of both the PV panels and the above-ground electrical components, while the Lynchburg-Clay High School is indicated as having potential visibility of the PV panels only. Both schools are located within the middle ground distance zone. The Lynchburg-Clay Middle School is approximately 1.6 miles northwest of the nearest PV panels and will have limited pockets of visibility from portions of the parking lot and athletic fields to the south of the school building. However, the views of the Project will be partially screened by existing civic and residential development, as well as utility infrastructure, present along State Route 135. The Lynchburg-Clay High School is approximately 1.7 miles west of the nearest PV panels and will have a very limited pocket of visibility of the Project from a portion of the baseball fields located to the south of the school building. Views of the Project will be partially obscured by existing residential development and areas of vegetation within fields east of the school. Given the distance of the Project from both schools, views will be largely obscured and likely difficult to difficult to perceive.

Cities and Villages

Project visibility from the Village of Lynchburg is anticipated to be limited to small pockets along the southeastern perimeter of the village. The village is within the foreground distance zone, approximately 1.2 miles northwest of the nearest PV panels. Visibility is indicated within a few properties located along Hastings and Limerick Drives. These views are indicated in open yards through a hedgerow located at the southern village boundary. However, intervening vegetation, residential development, and distance to the Project will generally obscure views of the Project from within the village.

2.1.4 Field Verification Methodology

EDR conducted a site visit to the VSA on March 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 visit, EDR staff members drove public roads, visited public vantage points within the VSA, and obtained photographs from 52 individual viewpoints utilizing a digital SLR camera with a lens setting between 29 and 35 mm (equivalent to between 45 and 55 mm on a standard 35 mm full frame camera). Viewpoint locations were recorded using hand-held global positioning system (GPS) units, and all field notes, GPS points, focal length parameters, times, and dates were documented electronically. Viewpoint locations and representative photographs of the Project area 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 of the field where PV arrays are proposed are most available in areas directly adjacent to the Project where public roads border open agricultural fields. These roads include US 50 (Viewpoints 16, 17 and 19), Abernathy Road (Viewpoints 31, 32, 34, and 35), Spickard Road (Viewpoints 9 and 10), Tedrick Road (Viewpoints 34 and 37) and Sherry Road (Viewpoints 24 and 25), which are directly adjacent to proposed PV arrays. More limited views were confirmed on portions of roads within the foreground but outside the Project Area. Field review also confirmed that views within Lynchburg will be confined to small pockets on the southern edge of the village in narrow openings between existing vegetation and structures (Viewpoints 49 and 50).

Additional areas with potential views occur across the open agricultural fields out to 1.5 miles. However, views of the Project from these more distant portions of the VSA will be largely screened by the densely forested areas associated with Dodson Creek, as well as other scattered woodlots, hedgerows, and structures.

Field review from middle ground distance zones, just beyond 1.5 miles, indicate that views of the Project could be available from State Route 131 (Viewpoint 42), Watson Road (Viewpoint 1), Mount Zion Road (Viewpoint 4), and Dawson Road (Viewpoint 22). Based on observations of existing solar facilities with similar topography, it was determined that while visibility is possible from more distant locations, the actual ability to discern the Project would be significantly diminished due to factors such as visual acuity, atmospheric perspective, and partial screening from intervening vegetation and structures. The resulting visibility would likely only include a small portion of the Project and views of the Project would likely go unnoticed by most casual observers.

As noted in Section 2.1.2, the viewshed analysis did not consider potential screening provided by vegetation and structures within 50 feet of all roads. As such, the visibility along these roads may be overstated. This was confirmed during field review, which documented various 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 the foreground agricultural fields. The combination of relatively low panel height, along with existing roadside vegetation, will reduce visibility as 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.

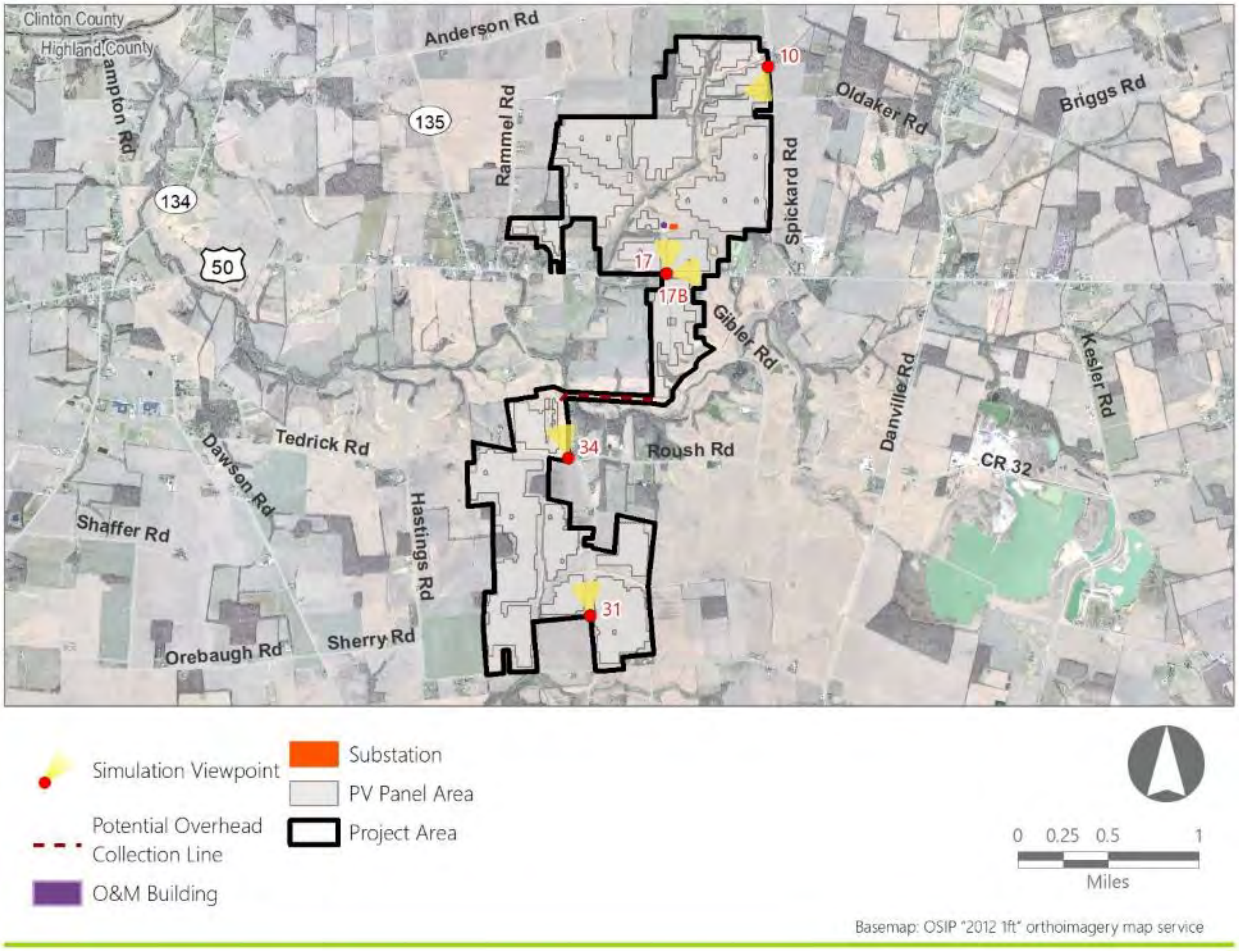
2.2.1 Viewpoint Selection

Based on the viewshed analysis results and field verification results, a total of five viewpoints were selected for the development of visual simulations. Each of the five viewpoints were selected based upon the following criteria:

- They provide open views of proposed Project components (as indicated by field verification and viewshed analysis).
- They illustrate Project visibility from identified VSRs.
- 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, travelers, and recreational users.
- They illustrate typical views of different numbers of PV panels, from a variety of viewer distances, under different lighting/sky conditions, and to illustrate a typical range of panel positions and light exposures.
- The selected photos generally displayed good composition, lighting, and exposure.

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 proposed PV arrays 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 photograph 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. All PV panel simulations include single-axis tracker arrays with the panels oriented perpendicular to the sun, on an east-west axis, in north-south aligned arrays.

The visual simulations were prepared using proposed locations of Project components, and the following assumptions: 1) 8-foot long PV panels in a two-in-portrait orientation; and, 2) 6-foot woven wire fencing on wooden posts, topped with 1 foot of barbed wire strand. At viewpoints where mitigation plantings are proposed (see Appendix C), vegetative screening is included in the simulations and represented at a height that would be achieved approximately 5-7 years post installation.

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 D.

Viewpoint 10 – Spickard Road

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

Existing Conditions

Viewpoint 10 is located on Spickard Road in Union Township, approximately 148 feet from the nearest proposed PV panel array. This viewpoint is representative of the Cropland/Pasture LT and provides typical views available to local residents and drivers. The existing view to the south features a rural road flanked by wooden electric distribution line poles. A roadside ditch parallels the right edge of the road and borders an open agricultural field. A large deciduous tree located along the edge of the road in the middle of the view is in line with a row of wooden posts and wire fencing that demarcates an adjacent agricultural field. A hedgerow of deciduous trees is visible at the far edge of the field beyond the wooden posts and wire fencing. A farmhouse and agricultural outbuildings are visible beyond this tree line. Deciduous and coniferous trees are planted in various areas around the house and outbuildings. Deciduous woodlots are visible along the horizon line. The existing view has a and rural/agricultural character, but lack of topographic variability and interesting focal points resulting in low to moderate scenic quality.

Proposed Project with Mitigation

With the proposed Project in place, the PV panel arrays and fence are visible in the adjacent foreground field. The majority of the former agricultural field is now occupied by PV panels enclosed by a perimeter wooden post and wire fence. The deciduous tree line running along the far edge of the field and the agricultural outbuildings in the background are no longer visible. However, the large tree adjacent to the roadside ditch, the farmhouse, and the distant woodlots are still visible in the left of the view. The PV panel arrays and fence line become the dominant feature of the view due to their proximity to the viewer and lack

of screening. With the Project in place the character of the view is more enclosed due to the proximity of the panels and partial or full screening of background features. The continued presence of the large tree, rural road, and open field edge helps to maintain some of the rural character, but the presence of the panels alters the perceived land use to solar energy production.

Some vegetative mitigation is also illustrated in this view. However, the mitigation that is visible from this vantage point was developed to provide a vegetative buffer between the Project and an adjacent residence. From this location, the mitigation does not block views of the PV panels in the foreground, but helps the more distant parts of the Project to blend in with the wooded areas visible in the background.

Viewpoint 17 – U.S. Route 50

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

Existing Conditions

Viewpoint 17 is located on U.S. Route 50 in Dodson Township, approximately 187 feet from the nearest proposed PV panel array. This north-facing viewpoint is representative of the Cropland/Pasture LT and has an open, expansive feel. In the existing view, a flat, harvested cornfield extends from the near foreground to the background. A dirt/grass farm road with two parked vehicles is visible along the left edge of the field. A woodlot is visible along the left side of the farm road and a row of utility poles extend across the field in the background. Woodlots and vegetation associated with a tributary of Dodson Creek are visible beyond the cornfield and utility poles. The view exhibits a rural agricultural character, but lack of topographic variability and strong focal points results in moderate scenic quality.

Proposed Project

With the proposed Project in place, the agricultural fields on both sides of the farm road are now occupied by PV panels enclosed by a perimeter agricultural style fence, and a gravel road has replaced the dirt/grass road. The woodlots and utility poles remain visible beyond the PV panels on the left side of the view. In addition, the upper portions of the lighting masts in the Project substation are visible just to the right of the center beyond the PV array. In addition, portions of the vegetation associated with the tributary to Dodson Creek in the background are no longer visible. The proximity of the Project and the partial screening of background features makes the view feel more enclosed. The dominant focal point is now the PV panel array; however, the agricultural fencing, an area of remnant open field between the viewer and the panels, and visibility of the background tree line help to retain some of the rural character.

Viewpoint 17B – U.S. 50

Inset 2.3. Left: Existing Conditions. Right: Visual Simulation

Existing Conditions

Viewpoint 17B is located on U.S. Route 50 in Dodson Township, 160 feet from the nearest proposed PV panel array. This viewpoint is representative of the Cropland/Pasture LT and is representative of a typical view for local travelers. The existing view includes two agricultural fields divided by U.S. Route 50, extending from the immediate foreground to the background. Overhead utility lines on wood poles run along both sides of the road and are visible against the sky in the foreground and middle ground. Gibler Road, also lined with utility poles, is visible beyond the agricultural field on the right side of the view. Woodlots interspersed with man-made structures, including a few residences and associated storage buildings are visible at the far end of the field. This line of trees defines the visible horizon and blocks views of more distant landscape features. Due to their distance from the viewer, and interspersion within the tree line, the man-made features do not serve as significant focal points in the view. The character of the view is defined by the open agricultural fields adjacent to the roadway; however, lack of variety in vegetation, topography, and color result in moderate to low scenic quality.

Proposed Project with Mitigation

With the proposed Project in place, the agricultural fields on either side of Route 50 are now occupied by PV panels enclosed by a perimeter agricultural style fence. The agricultural style wooden fence posts parallel the road edge and utility lines on both sides of the roadway, and extend from the foreground to the background. The medium brown color of the wooden fence posts blends well with the tone of the field's vegetation; however, the repetition and uniform shape of the fence posts cause the row of posts to stand out against the darker PV panels behind them. The rows of PV panels enclose the view by forming a dark wall on either side of the roadway that almost completely obscures the tree line along the horizon. The background residential structures, Gibler Road, and woodlots in the center of the view remain visible above the PV panels and fence. The PV panels significantly enclose the view and change the perceived land use focus from rural-agricultural to solar energy production.

Some vegetative mitigation is illustrated in this view. However, as the mitigation was developed to provide a vegetative buffer between the Project and adjacent residences to the south; it does not influence the visual impacts associated with the PV panels from this vantage point.

Viewpoint 31 – Abernathy Road

Inset 2.4. Left: Existing Conditions. Right: Visual Simulation

Existing Conditions

Viewpoint 31 is located on Abernathy Road, in Hamer Township. This viewpoint is located approximately 287 feet from the nearest proposed PV panel array and is representative of the Cropland/Pasture LT. The view to the north from this location is typical of views available to local travelers. The view includes the chip and seal surface of Abernathy Road, extending from the immediate foreground into the background, where it curves out of sight. The road is flanked by large open fields, which extend to a distant tree line in the background. The road corridor includes an overhead utility line running parallel to the road on the right. A cluster of structures including two houses, a barn, and sheds are visible in the distant background, on the right. Due to the lack of foreground and middle ground features these background features are the focal points in this view. The view has strong rural agricultural character and the vast unbroken fields, which extend outside the selected field of view, give this view an open, expansive feel.

Proposed Project

With the proposed Project in place, the agricultural fields that surround the Abernathy Road corridor are now occupied by PV panels enclosed by an agricultural style fence. The panels replace the open agricultural vista, partially obscuring views of the background tree line. A majority of the utility poles and structures in the center of the view continue to be visible with the exception of the barn, which may be removed with the Project in place. The expansive feel of this view is reduced, and the rural/residential character is altered by the presence of the Project. However, the setback of the PV panel array from the roadway helps to maintain a partially open view. The relatively light use this road receives will also limit the visual impact of the Project in this area.

Viewpoint 34 –Abernathy Road

Inset 2.5. Left: Existing Conditions. Right: Visual Simulation

Existing Conditions

Viewpoint 34 is located on Abernathy Road, near the intersection with Roush Road in Dodson Township. This viewpoint is located approximately 532 feet from the nearest proposed PV panel array and is representative of the Cropland/Pasture LT. The view to the northwest from this location is typical of views available to residents and travelers driving through this landscape type. The existing view features a rural road that extends from the immediate foreground to the background. Utility cables and poles parallel the road on the right side and in the foreground, a culvert pipe runs horizontally beneath the road. Residential structures (e.g., fencing, driveways, mailboxes, car ports, cars, and houses) and landscaping are present to the right of the roadway, indicating adjacent residential development. The road is bordered on the left side by an agricultural field that stretches to the background. The horizon is comprised of woodlots, a cluster of evergreen vegetation, and is interspersed with agricultural buildings and residential structures. The landscape has a residential and agricultural character, but lack of topographic and vegetative variability or interesting focal points result in low to moderate scenic value.

Proposed Project

With the proposed Project in place, the agricultural field to the left of the road is now occupied by PV panels enclosed by an agricultural style fence. The open agricultural vista is now partially occupied by a PV panel array, within the wooded areas along the horizon line are now only faintly visible above the panels. However, the setback of the PV panel array from the road, low profile of the panels, and light color of the metal fencing, helps the Project to blend into the background horizon line and minimize the loss of openness in this view. The rural/residential character is affected by the presence of the Project, resulting in a change from rural residential land use to a combination of residential and solar energy production.

Proposed Project Mitigation

Inset 2.6. Left: Visual Simulation. Right: Established Visual Mitigation.

With mitigation plantings in place, and after 5-7 years of growth, the proposed panels and perimeter fencing are scarcely visible beyond the vegetative buffer. The hedge of proposed plantings largely screens the expanse of visible panels from the middle-ground to the background along the roadside, and where still visible, effectively softens their impact. The plantings have a natural but somewhat landscaped appearance, consisting of varying sizes of shrubs, deciduous, and evergreen trees. The significant size and quantity of plant materials visible from this vantage point serve to enclose the view, are consistent in character with residential yard plantings on the opposite side of the street and introduce an element of interest to the view. The effectiveness of the plantings will only increase during the growing season, and as the plantings further mature.

Summary

In locations where panels are directly adjacent to roads and residences, the proposed PV arrays will alter the existing landscape character by converting the existing rural residential and/or agricultural areas into a solar energy production landscape. However, the effects of the Project are moderated by the limited number of viewers along many of the roadways within the Project area, substantial setbacks from adjacent roadways, and as demonstrated in the viewpoint 34 mitigation simulation, installation of mitigation plantings when adjacent to areas of more concentrated residential development. Mitigation plantings provide significant screening and break up the horizontal lines created by the PV arrays and fence line. This helps the Project blend with the new and existing vegetation rather than stand out as a discordant element in the landscape.

3.0 CONCLUSIONS

3.1 Visual Resource Assessment Summary

Based on the analyses described above, the following conclusions can be drawn regarding the visibility and visual effect of the proposed Dodson Creek Solar Project.

The PV panel viewshed analysis indicates that the proposed solar arrays will be screened from view throughout approximately 87.4% of the VSA. PV panel visibility is highest (81.3%) within the near-foreground (up to 0.5 mile) distance zone. Significant portions of this near-foreground visibility are concentrated within the Project Area itself and the open fields located adjacent to the Project. Potential visibility is nearly reduced by half in the foreground distance zone (0.5 to 1.5 miles), with only 43.8% of this zone having potential views of the Project. In the middle ground distance zone (1.5 to 4 miles), Project visibility diminishes to 3.8%, suggesting views of the Project from within this zone will be minimal and fleeting in nature. Potential visibility in the background zone (4 miles to 5 miles) is almost nonexistent (0.1%).

The above-ground electrical components viewshed analysis indicates that the tallest structures associated with these Project components will have potential visibility from only 6.1% of the VSA (i.e., visibility is fully screen from 93.9% of this area). Actual visibility of these components from middle ground and background locations will be less than suggested by the viewshed analysis due to the narrow profile of these components, which will help them blend with the background vegetation and sky.

Viewshed analysis of the 67 identified VSRs within the VSA indicates that 10 resources (15%) could have potential PV panel visibility only, eight (12%) may have visibility of both the PV panels and the above-ground electrical components, and none are indicated as having potential views of the above-ground electrical component only. Of the 18 resources with potential PV panel visibility, 14 (78%) are located beyond of the near-foreground (>0.5 mile). Viewshed results suggest that areas of potential visibility from VSRs in the middle ground will generally be limited to small areas within the property and/or include only a limited number of PV panel arrays.

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, woodlots, hedgerows, and the many adjacent wooded stream corridors, in combination with the low height of the solar panels, will significantly limit Project visibility.

As illustrated in the visual simulations, the Project will result in varying levels of visual impact when viewed from adjacent roads and surrounding residences. This impact will be mitigated by the limited number of affected viewers, panel setbacks from roads and residences, and/or proposed screen plantings. The seasonal presence of corn crops, in actively farmed fields will provide additional screening during the summer. However, during the rest of the year, the Project will introduce substantial areas of solar panels and associated structures that will alter the scenic quality and/or existing agricultural character of the landscape. However, this visibility and potential visual impact diminishes rapidly as the Project is viewed from greater

distances, where PV arrays tend to blend more with features in the background. Consequently, it is anticipated that impacts will be largely limited to areas directly adjacent to the Project.

3.2 Mitigation

The Applicant is proposing mitigative plantings intended to fully screen, partially screen, or soften views of the solar arrays. The conceptual mitigation plan developed for this Project is based on the philosophy that 100% opaque screening throughout the Project is not necessary, and that introduction of native materials will better mimic and blend with the existing screening found on and around the Project Area (see Appendix C: Landscape Mitigation Plan for additional details). As discussed in Section 2.2.2 of this VRA, the setbacks of the proposed PV arrays from adjacent roadways and residences, as well as the introduction of mitigation plantings mitigates the visual impact of the Project when viewed at near-foreground distances. The plantings provide significant screening where appropriate and also serve to break up the horizontal lines created by the PV panels and fence line. This helps the Project blend with the new and existing vegetation rather than stand out as a discordant element of the landscape. Vegetative mitigation will minimize the visual impact on adjacent residences and will provide aesthetic as well as ecological benefits.

4.0 REFERENCES

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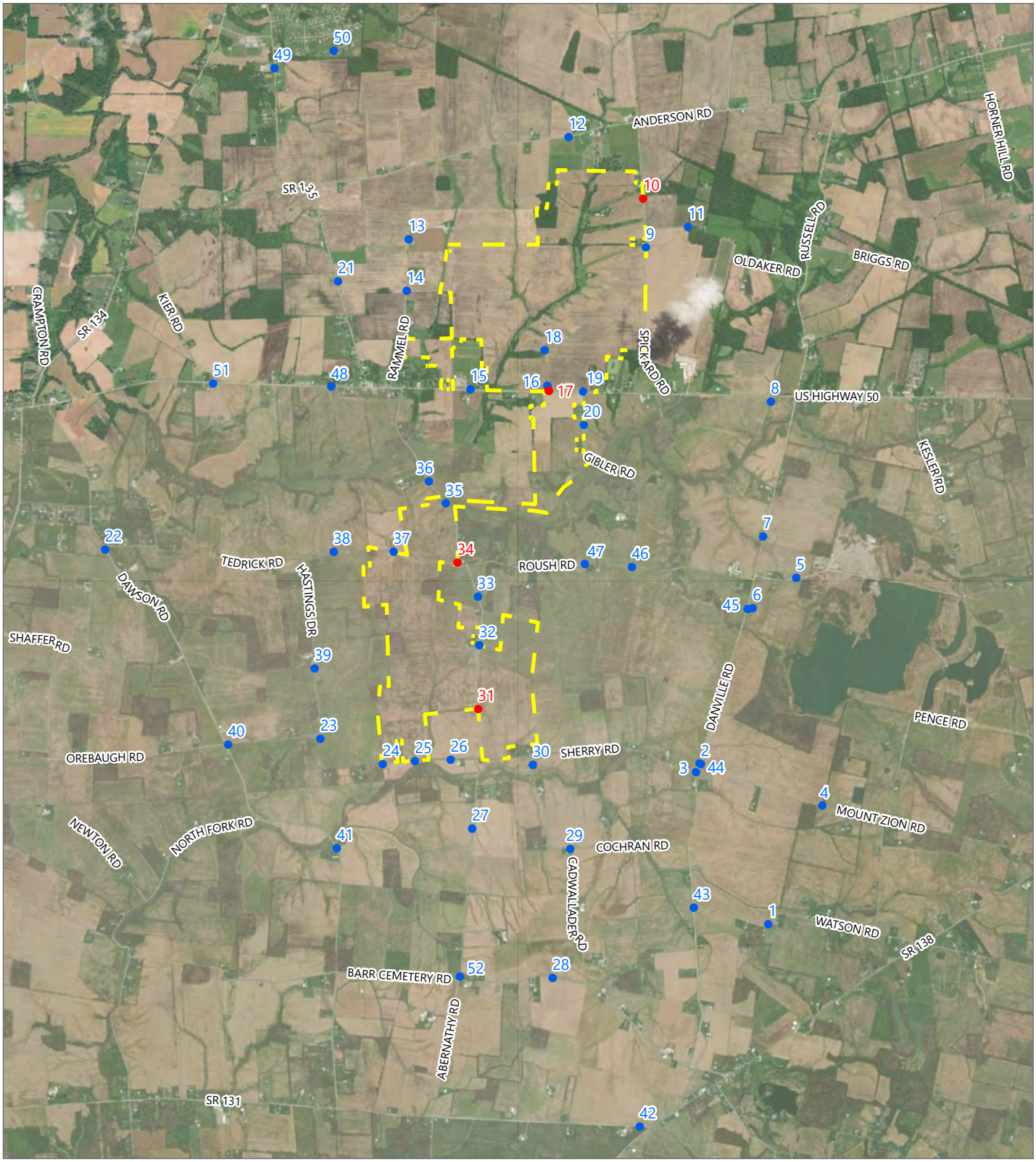
Appendix A

Viewpoint Location Map and Photo Log



Dodson Creek Solar

Highland County, Ohio

Visual Resource Assessment

- Viewpoint
- Selected Viewpoint
- Project Area

0 0.5 1 2
Miles

Prepared May 13, 2021
Basemap: Esri ArcGIS Online "World Imagery" map service.

Viewpoint 1

View looking Northwest from Watson Road

Coordinates:
39.15882°N, 83.73222°W

Viewpoint 2

View looking Northwest from Danville Road

Coordinates:
39.17254°N, 83.73989°W

Character Photograph of Visual Study Area
(not looking toward Project)

Dodson Creek Solar

Highland County, Ohio

Visual Resource Assessment

Viewpoint 3

View looking North northeast from Danville Road

Coordinates:
39.17183°N, 83.74043°W

Character Photograph of Visual Study Area (not looking toward Project)

Viewpoint 4

View looking Northwest from Mount Zion

Coordinates:
39.16909°N, 83.72643°W

Dodson Creek Solar

Highland County, Ohio

Visual Resource Assessment

Viewpoint 5

View looking Southwest from Roush Road

Coordinates:
39.18869°N, 83.72965°W

Viewpoint 6

View looking Northwest from Danville Road

Coordinates:
39.18602°N, 83.73442°W

Viewpoint 7

View looking Southwest from Danville Road

Coordinates:
39.19221°N, 83.73338°W

Viewpoint 8

View looking West from US 50

Coordinates:
39.20382°N, 83.73272°W

Viewpoint 9

View looking Southwest from Spickard Road

Coordinates:
39.21694°N, 83.74677°W

Viewpoint 10

View looking South from Spickard Road

Coordinates:
39.22111°N, 83.74717°W

Viewpoint 10 : Selected for the Production of a Visual Simulation

Note: Minor updates to the Project layout occurred after the creation of the visual simulations. However, it is anticipated that the layout illustrated in the visual simulations is an acceptable representation of the potential visual effects associated with the Project and the current Permit Layout presented in the application.

Viewpoint 11

View looking Southwest from Oldaker Road

Coordinates:
39.21875°N, 83.74215°W

Viewpoint 12

View looking South from Anderson Road

Coordinates:
39.22633°N, 83.75547°W

Viewpoint 13

View looking East from Rammel Road

Coordinates:
39.21733°N, 83.77303°W

Viewpoint 14

View looking East from Rammel Road

Coordinates:
39.21289°N, 83.77314°W

Viewpoint 15

View looking North from US 50

Coordinates:
39.20450°N, 83.76594°W

Viewpoint 16

View looking North from US 50

Coordinates:
39.20493°N, 83.75746°W

Viewpoint 17

View looking North from US 50

Coordinates:
39.20438°N, 83.75739°W

Viewpoint 17 :
Selected for the Production of a
Visual Simulation

Viewpoint 17

View looking East from US 50

Coordinates:
39.20438°N, 83.75739°W

Viewpoint 17 :
Selected for the Production of a
Visual Simulation

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Viewpoint 18

View looking East from US 50

Coordinates:
39.20796°N, 83.75779°W

Viewpoint 19

View looking Southeast from US 50

Coordinates:
39.20447°N, 83.75349°W

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Viewpoint 20

View looking Northwest from Gibler Road

Coordinates:
39.20156°N, 83.75337°W

Viewpoint 21

View looking East from State Route 135

Coordinates:
39.21363°N, 83.78074°W

Viewpoint 22

View looking East from Dawson Road

Coordinates:
39.19026°N, 83.80606°W

Viewpoint 23

View looking Northeast from Hastings Road

Coordinates:
39.17427°N, 83.78198°W

Viewpoint 24

View looking North from Sherry Road

Coordinates:
39.17217°N, 83.77505°W

Viewpoint 25

View looking North from Sherry Road

Coordinates:
39.17247°N, 83.77151°W

Viewpoint 26

View looking Northeast from Sherry Road

Coordinates:
39.17262°N, 83.76755°W

Viewpoint 27

View looking North from Abernathy Road

Coordinates:
39.16673°N, 83.76507°W

Viewpoint 28

View looking Northwest from Barr Cemetery Road

Coordinates:
39.15399°N, 83.75596°W

Viewpoint 29

View looking Northwest from Cochran Road

Coordinates:
39.16511°N, 83.75421°W

Viewpoint 30

View looking North from Cochran Road

Coordinates:
39.17230°N, 83.75848°W

Viewpoint 31

View looking North from Abernathy Road

Coordinates:
39.17704°N, 83.76458°W

Viewpoint 31 : Selected for the Production of a Visual Simulation

Note: Minor updates to the Project layout occurred after the creation of the visual simulations. However, it is anticipated that the layout illustrated in the visual simulations is an acceptable representation of the potential visual effects associated with the Project and the current Permit Layout presented in the application.

Viewpoint 32

View looking Southwest from Abernathy Road

Coordinates:
39.18247°N, 83.76456°W

Viewpoint 33

View looking Southwest from Abernathy Road

Coordinates:
39.18667°N, 83.76481°W

Viewpoint 34

View looking Northwest from Abernathy Road

Coordinates:
39.18959°N, 83.76710°W

Viewpoint 34 :
Selected for the Production of a Visual Simulation

Note: Minor updates to the Project layout occurred after the creation of the visual simulations. However, it is anticipated that the layout illustrated in the visual simulations is an acceptable representation of the potential visual effects associated with the Project and the current Permit Layout presented in the application.

Viewpoint 35

View looking Southwest from Abernathy Road

Coordinates:
39.19465°N, 83.76848°W

Viewpoint 36

View looking South from Abernathy Road

Coordinates:
39.19651°N, 83.77040°W

Viewpoint 37

View looking Southwest from Tedrick Road

Coordinates:
39.19045°N, 83.77419°W

Viewpoint 38

View looking East from Tedrick Road

Coordinates:
39.19037°N, 83.78082°W

Viewpoint 39

View looking East from Hastings Road

Coordinates:
39.18030°N, 83.78275°W

Viewpoint 40

View looking Northeast from Sherry Road

Coordinates:
39.17365°N, 83.79218°W

Viewpoint 41

View looking Northeast from Dawson Road

Coordinates:
39.16487°N, 83.78000°W

Viewpoint 42

View looking Northwest from State Route 131

Coordinates:
39.14131°N, 83.74612°W

Viewpoint 43

View looking Northwest from East Danville Road

Coordinates:
39.16016°N, 83.74048°W

Viewpoint 44

View looking West from East Danville Road

Coordinates:
39.17258°N, 83.74004°W

Viewpoint 45

View looking West from East Danville Road

Coordinates:
39.18591°N, 83.73497°W

Viewpoint 46

View looking Southwest from Roush Road

Coordinates:
39.18943°N, 83.74783°W

Viewpoint 47

View looking Southwest from Roush Road

Coordinates:
39.18961°N, 83.75305°W

Viewpoint 48

View looking Southeast from US 50

Coordinates:
39.20455°N, 83.78134°W

Viewpoint 49

View looking Southeast from State Route 135

Coordinates:
39.23186°N, 83.78813°W

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Viewpoint 50

View looking Southeast from Hastings Drive

Coordinates:
39.23346°N, 83.78158°W

Viewpoint 51

View looking East from US 50

Coordinates:
39.20470°N, 83.79440°W

Viewpoint 52

View looking North from Abernathy Road

Coordinates:
39.15396°N, 83.76620°W

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Summary: Application Application - Exhibit U-1 (Visual Resource Assessment) electronically filed by Mr. Michael J. Settineri on behalf of Dodson Creek Solar, LLC