Exhibit W

Visual Impact Assessment

NOTTINGHAM SOLAR SITE

VISUAL IMPACT ASSESSMENT

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PREPARED FOR: NOTTINGHAM SOLAR LLC

DRAFT

PROJECT NO.: EE1009829.0002.16.A-B5779
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LIST OF ABBREVIATIONS AND ACRONYMS

2D	Two-dimensional
Esri	Environmental Systems Research Institute
GPS	Global Positioning System
kV	kilovolt
NRHP	National Register of Historic Places
ODNR	Ohio Department of Natural Resources
OPSB	Ohio Power Siting Board
Project	Nottingham Solar Site
PV	Photovoltaic
USGS	U.S. Geological Survey
VIA	Visual Impact Assessment
VRI	Visual Resource Inventory
WSP	WSP USA Inc.

1 INTRODUCTION

On behalf of Nottingham Solar LLC, WSP USA Inc. (WSP) conducted a Visual Impact Assessment (VIA) of the Nottingham Solar Site (Project) located in Athens Township, Harrison County, Ohio.

The purpose of this VIA is threefold - to describe the existing visual resources, to discuss the potential impacts the Project would have on those resources, and to recommend mitigation measures to address the potential impacts associated with the Project. In accordance with the Ohio Administrative Code, this VIA was performed by a licensed landscape architect and professionals experienced in developing VIAs.

The VIA provided herein is organized into the following sections:

- Background Information;
- Methodology;
- Plan Review;
- Discussion;
- Recommendations; and
- Summary.

The text of this report is accompanied by photographs depicting the various locations evaluated via desktop and in field analyses, as well as visual simulations.

2 BACKGROUND INFORMATION

As previously stated, this VIA was prepared to account for the development of a solar facility in Harrison County, Ohio. The following discussion provides an overview of the Ohio Power Siting Board (OPSB) regulations for which this VIA was developed and a description of the Project and the Study Area.

2.1 OHIO POWER SITING BOARD

As requested by Nottingham Solar LLC, WSP conducted a VIA consistent with the requirements of the OPSB for electric generation facilities. This VIA accounts for a portion of the application that will be submitted to the OPSB for review.

The requirements for the VIA are noted in the state regulations for health and safety, land use, and ecological information (Ohio Administrative Code Chapter 4906-4-08). The section pertaining to visual resources and impacts is included within Chapter 4906-4-08(D)(4). The VIA provided herein accounts for each requirement.

2.2 PROJECT DESCRIPTION

The Project is located south of State Route 519 and west of State Route 149 near the approximate coordinates of 40.1931°, -81.0607° within Harrison County, Ohio (see Appendix B, Figure 1); this location is mapped within the Flushing, Ohio U.S. Geological Survey (USGS) 7.5-minute topographic map quadrangle.

The Project accounts for an approximately 1,200-acre geographic area, hereafter, referred to as the Project Area. It encompasses the footprint of the proposed solar facility (i.e., arrays and associated infrastructure), work areas for construction and operation of the facility, and access and security.

The preliminary design for the Project includes a substation that will transform voltage from the 34.5-kilovolt (kV) collection system to 138 kV, which will be delivered to the existing American Electric Power Nottingham substation located northeast of the Project through a generation tie line. For the substation, 600 linear feet of high-security fencing will be installed as part of the Project. While incorporated into the overall Project, this substation was not evaluated for the purposes of this VIA.

Land uses and natural communities observed within the Project Area are primarily composed of a reclaimed strip mine that is currently dominated by grasslands, with small areas of hardwood woodlands and scrub/shrub, in addition to ponds and wetlands. Topographic relief is best characterized as moderately dissected, with elevations ranging between 1,060 feet and 1,322 feet above sea level throughout the Project Area (see Appendix B, Figure 1– Project Location).

2.2.1 STUDY AREA

Per Ohio Administrative Code Rule 4906-4-08(D)(4), a visual Study Area was established for this evaluation. The Study Area includes the Project Area and the geographic area incorporated within a 10-mile radius of the Project boundary. The Study Area is situated in the Appalachian Foothills of eastern Ohio. The most significant visual resources of the region are undulating hills, forests, rivers, and ponds. Coal mining has been an important part of the history of the area since deep mining began in the early 1800s. Surface strip mining has been active since the early 1900s and has left a visual legacy that is still evident (Jefferson County 2013). Much of the mining industry has changed in recent years to hydraulic fracturing and natural gas extraction.

Current land uses in the Study Area consist of rural residential, townships, commercial, and industrial areas, and roadways, including Interstate 70, US Route 40 (US 40), and various categories of local roads categories of local roads that intersect the Study Area. Land uses also include the Jockey Hollow and Egypt Valley wildlife areas and the Emerald Hills Nature Preserve, where land is preserved as natural. Major utility transmission lines exist within 0.25 miles of the Project boundary.

2.3 CONSTRUCTION

During construction, the Project will initially involve installing temporary erosion and sediment control practices, clearing vegetation and subsequent re-seeding, grading, installing temporary power, and constructing temporary laydown yards and access roads. Constructing the solar arrays will involve installing steel posts and racking systems to support the solar panels and direct current collection circuits. The alternating current system will be installed via the open-cut method and will be buried underground or placed overhead. Horizontal directional drilling may also be used when crossing environmentally sensitive features, such as wetlands or streams.

2.4 OPERATION

During operation, the Project will include the following:

- Access and service roads;
- Photovoltaic (PV) panels and ancillary equipment; and
- Fencing (73,500 linear feet).

Access and service roads will be placed to service equipment, provide maintenance, and/or allow for other operational activities throughout the Project Area. The access and service roads are expected to be approximately 20 feet wide and comprised of a soft surface (gravel or compacted soil) similar to the existing natural gas/drilling pad access roads prevalent in the general vicinity of the Project.

The approximately 6.5-foot by 10-foot PV panels will be installed in 85-foot modules in linear fashion across the approximately 1,200-acre Project Area. The PV panels are anticipated to consist of tempered coated dual glass approximately 1.5 inches thick. They will be aligned on a north-south access to achieve the greatest solar gain. The PV panels will utilize steel posts and low-profile single access racking systems that will allow the PV cells to track the sun. At the highest tilt (i.e., in the morning and evening), the panels will reach a maximum of 15 feet in height.

Various ancillary equipment, such as utility-scale inverters, substations, switching stations, transformers, and other related facilities, will be installed throughout the Project Area. Security, operations, and maintenance buildings will also be present.

3 METHODOLOGY

For this VIA, an analysis of the Study Area was conducted in accordance with the Ohio Administrative Code regulations for the OPSB application. It consists of the following:

- Visual resource inventory (VRI);
- Viewshed analysis;
- Viewpoints and visual simulations; and
- Fieldwork

The methodology for each of these is described in the following subsections.

Please note, given the potential lack of visibility at distances far from the Study Area, the analysis focused on resources within 2 miles of the Project boundary to provide a more realistic depiction of the Project's impact for viewers most proximate to the proposed Project Area. Due to the low-profile nature of solar facilities (i.e., solar panels will not exceed a maximum 15 feet in height) and existing vegetation, it is unlikely that the proposed Project will be visible in all areas of the Study Area.

3.1 VISUAL RESOURCE INVENTORY

The desktop VRI analysis documented the visual resources present in the area of interest. The desktop analysis reviewed resources within 2 and 10 miles of the Project boundary to locate potential areas and individual locations with possible views of the Project.

WSP reviewed the following publicly available sources of potential visual resources as part of the desktop VRI analysis:

- National Park Service - National Register of Historic Places (NRHP)-Listed Properties and Districts (Stutts 2014);
- Esri [1] Churches and Cemeteries (Esri 2018);
- Esri Schools (Esri 2018);
- Esri Parks and Recreation Areas (including golf courses) (Esri 2018);
- Esri Federal Lands (Esri 2018);
- Ohio Department of Natural Resources (ODNR) (points of interest, trails, wildlife areas, state parks and forests, and preserves) (ODNR 2017a and 2017b);
- ODNR Lands (ODNR 2016); and
- Ohio Department of Transportation Scenic Byways (Ohio Department of Transportation 2021).

Appendix B, Figure 2 and Figure 3 depict these resources. No Esri federal lands or golf courses were noted in this review (Esri).

[1] Data noted as being from Esri (Environmental Systems Research Institute) is geographic information systems (GIS) data available from the software company.

3.2 VIEWSHED ANALYSIS

A viewshed is an area within the visual range of a given viewpoint (i.e., location of the viewer). A viewshed analysis, therefore, is an analytical tool that allows users to understand which areas may have visibility of potential Project elements, such as solar panels and supporting structures.

For this VIA, a high-resolution viewshed analysis was conducted by WSP using Esri ArcGIS 10.7.1 software to determine which locations in the broader landscape of the Project potentially could have views of the Project. The viewshed analysis assumed a maximum of 15 feet above ground level height for the solar panels and an observer eye level of 5.5 feet. A grid of observation points within the buildable area of the entire layout served as the input point/observer feature for the tool parameter. The viewing distance zone did not exceed 12 miles. Earth curvature and atmospheric corrections were considered. This viewshed raster created was a bare-earth digital terrain-based model (i.e., without vegetation height added) per the regulations at Ohio Administrative Code Rule 4906-4-08(D)(4).

A three-dimensional (3D) model using large-scale physiographic features (bare-earth terrain) was created to show areas from which the Project is theoretically visible (i.e., what would theoretically be visible from the viewshed origin or viewpoint based on the inputs of the model), as well as areas where the Project is theoretically not visible based on bare-earth terrain data. The viewshed analysis does not account for existing trees, vegetation, structures, fences, and other human-made elements (land cover) that would likely block or screen direct views of the Project Area. Therefore, the viewshed presented herein represents a “worst-case” scenario in which no, or very limited, visual screening measures are present within the vicinity of the Project Area. The viewshed model does not account for individual viewer characteristics that may affect actual visibility.

3.3 FIELDWORK

In addition to the desktop analysis, WSP staff visited the Study Area to verify the potential visibility of the Project (i.e., the results of the viewshed analysis) on June 12 and 13, 2021. The field investigator reviewed locations identified as part of the VRI, including those noted as having potential visibility of the Project based on the model.

Photographs were taken from the identified resources from the VRI using a Nikon D3400 digital camera mounted on a tripod. To create photographs as close as possible to what a human would experience, photographs were taken at the height of an average viewer’s eye (approximately 5 feet 5 inches above ground level [1.7 meters]).

Because a single photograph cannot capture the field of vision of a human eye, a sequence of photographs was taken from each viewpoint. Using Adobe Lightroom 2020, the photos were overlapped by approximately 30 percent and digitally stitched or “grouped” together to form panoramas; the photos and their edges were cropped to eliminate edge distortion and to fit print materials. Photographs were not manipulated to capture the foreground, horizon, and sky. Locations of the camera, viewpoint, and control points were recorded with a Global Positioning System device.

3.4 VIEWPOINTS AND VISUAL SIMULATIONS

In combination with the results of the VRI, viewshed analysis, and fieldwork, five viewpoints were selected for the visual simulations (i.e., a photographic montage of the existing conditions with the Project overlain). The visual simulations are intended to illustrate anticipated visual changes associated with the Project – all are located within 2 miles of the Project. The five viewpoints were selected to illustrate views from the north, east, south, and west of the Project and to account for the variety of visual resources present in the Study Area and identified as part of the VRI. The selected viewpoints were intended to provide a representative picture of the various types of affected views that observers may have of the Project.

To create the simulations, a detailed digital elevation model was used to capture the landscape within the Project Area. This model, coupled with the Global Positioning System data, control points, and metadata information captured in the field, allowed the analysts to accurately place the Project facilities in the right location and orientation within the view of each photograph and to appropriately scale, orient, and position the Project. The simulations allow for a comparison between the existing conditions and the conditions when the Project is built.

The following dimensions and graded base-elevation heights were used to create 3D models of the solar panels:

- 10-foot by 6.6-foot (3.1-meter by 2.0-meter) solar panels above ground level;
- 15 feet high at greatest panel tilt in the morning and evening;
- A 5.5-foot (1.7-meter) observer eye level; and
- A 7-foot (2.1-meter) high perimeter fencing.

Autodesk AutoCAD Civil3D 2018, SketchUp 2019, and Lumion Pro desktop software packages were used to produce the 3D models. Google Earth Pro was used to act as a guide to accurately integrate the existing conditions images with the 3D model of the Project facility. Sketchup and Lumion were then used to render the Project with the proper perspective and location. The color scheme, simulated sun angles, and shadows were applied to match the existing conditions photographs as closely as possible. Two-dimensional (2D) images from each position were then imported to Adobe Photoshop and superimposed onto the existing condition photos. The final simulated images were exported as 2D images.

4 PLAN REVIEW

The Study Area primarily lies in Harrison and Belmont counties, but portions also lie in Guernsey and Jefferson counties. WSP reviewed available comprehensive, strategic, land use, and economic development plans to determine if any regulations or policies regarding scenic or visual qualities applied to the Study Area or if the plans identified particular visual resources. Available city and/or township plans were also reviewed only for those areas that overlap with the Study Area.

The following plans were reviewed for visual or scenic policies or guidelines:

- Harrison County: Harrison County, Ohio Strategic Plan for Economic Development;
- Belmont County: Economic Development Strategy;
- Jefferson County: Jefferson County Land Use Plan County;
- Guernsey County: Guernsey County Comprehensive Strategic Plan; and
- City of St. Clairsville: (Belmont County) zoning codes and regulations.

A discussion of each plan is presented in the following subsections.

4.1 HARRISON COUNTY

The Harrison County Ohio Strategic Plan for Economic Development lists a number of strategic statements relative to the development of the county. While there are no specific strategic statements related specifically to the visual environment, the Harrison County Ohio Strategic Plan for Economic Development includes a strategic statement for the County to develop and support recreational resources and tourism and to encourage people and businesses to visit, invest in, and locate to Harrison County (Harrison County 2011).

As part of this statement, the County seeks to establish and implement a Countywide beautification program to develop and enhance a sense of community pride. Another element of this program is to support and promote existing outdoor recreation opportunities that would include scenic driving/ motorcycle routes and trails. Visual quality may be considered an essential part of the beautification and outdoor recreation goals and could be included as a visual guideline.

This plan includes a strategic statement about energy. Per this statement, Harrison County intended to investigate the potential for development of “solar panel farms.” The County noted the importance of looking to current and future needs of the County, while allowing for “safe and innovative development” (Harrison County 2011).

4.2 BELMONT COUNTY

The Economic Development Strategy lists a superior quality of life as one of its primary goals (Goal 10); improving the visual appearance of the County is listed as an opportunity for the community. This includes reviewing amenities, such as bike trails and the waterfront (Belmont County 2011).

The plan also includes tourism as an opportunity and notes the presence of Drover's Trail (along SR 147 and SR 800) and the Historic National Road (US 40), which are both within the Study Area (Belmont County 2011). These are part of the Ohio byways program.

4.3 JEFFERSON COUNTY

The Jefferson County Land Use Plan County does not have regulations specific to visual resources, but the County does encourage building and maintenance standards that protect adjoining land uses from visual impacts. The relevant natural features goals for visual resources within the plan are summarized as follows:

- "Provide strong support for retaining and protecting scenic and natural areas, such as streams, creeks, woodlands, open space, and historic sites" (3.1).
- "Encourage site design that protects natural terrain and groundwater and preserves or restores significant vegetation and scenic views" (3.5).
- "…publicize and support the goals of the Jefferson County Trails and Greenway Plan promote and support public access to and enjoyment of the bountiful natural resources present throughout Jefferson County" (3.9) (Jefferson County 2013).

4.4 GUERNSEY COUNTY

The Guernsey County Comprehensive Strategic Plan does not list any visual or scenic goals. However, the County does note a plan for the Cambridge/Guernsey County Visitors and Convention Bureau, which focuses on tourism and cultural and historical resources. As part of this component, goal number five is a marketing plan. This marketing plan includes an objective to host experiences that appeal to national travelers, particularly in outdoor recreation (Guernsey County 2019).

4.5 CITY OF ST. CLAIRSVILLE

The City of St. Clairsville in Belmont County has zoning codes and regulations related to industrial development. These codes were established to preserve and utilize natural topography and geologic features, scenic vistas, trees, and other vegetation, while preventing disruption of normal drainage patterns (City of St. Clairsville 2018). These codes could relate to the natural and scenic quality of the community and may be considered related to visual quality.

4.6 OTHER PLANS

In addition to the municipal plan review, WSP also reviewed other publicly available programs, plans, and policies that may include any existing visual policies and/or guidance for the geographic area in which the Study Area is located.

Among the sources identified was the Ohio Byways Program. This program is administered by the Ohio Department of Transportation; it seeks to enhance traveling experiences throughout the state and to heighten awareness of the scenic, cultural, historical, archeological, recreational, and natural resources; the program could be viewed as having scenic guidelines.

Based on a review of publicly available information, only the Ohio Department of Transportation Scenic Byways Plan contains goals/objectives that allow for the maintenance of scenic byways. As shown in the plan, at least small portions of the Tappan-Moravian Trail, Historic National Trail, and Drovers' Trail byways are within the Study Area (Ohio Department of Transportation 2021) (see Appendix B, Figure 4).

No other programs, plans, or policies were identified as part of this review that specifically included strategic statements, goals, or objectives related to the visual environment.

4.7 SUMMARY

Based on a review of comprehensive and land use plans for locations within 10 miles of the Project Area, no visual regulations, resources, or other visual preferences of the community were identified.

5 DISCUSSION

The following subsections discuss the results of the desktop VRI, how the resources for evaluation were selected, and the existing conditions and anticipated impacts associated with the Project at each resource location.

5.1 VISUAL RESOURCE INVENTORY AND VIEWSHED ANALYSIS

In total, the desktop VRI analysis identified 127 resources within 10 miles of the Project (see Appendix B) including three parks, two ODNR wildlife areas, one ODNR state park (Barkcamp State Park), one State Forest (Harrison State Forest), one ODNR nature preserve (Emerald Hills Nature Preserve), 21 ODNR trails, five ODNR points of interest, one mine safety training area, 23 churches, seven schools, 52 cemeteries, eight NRHP-listed individual buildings, and two NRHP-listed historic districts. These resources, hereafter, are referred to as the VRI points or resources.

The 10-mile viewshed analysis shows that 47 of the 127 VRI resources are anticipated to have visibility of the Project. These resources include state and local parks, campgrounds, churches, cemeteries natural areas, and other potentially sensitive areas. Resources also include NRHP-listed Morristown and Deersville Historic Districts; however, due to the low-profile nature of solar facilities (i.e., solar panels will not exceed 15 feet in height) and extensive vegetation throughout the surrounding area, it is unlikely that the Project will be visible from much of the area within the Study Area.

The results of the desktop VRI are presented in the following tables:

- Appendix A, Table 1: Visual Resource Inventory - Parks;
- Appendix A, Table 2: Visual Resource Inventory – Sensitive Receptors; and
- Appendix A, Table 3: Visual Resource Inventory – NRHP Resources.

The tables also depict the theoretical visibility of each resource to the Project.

Of the 127 resources within the Study Area, three resources are located within 2 miles of the Project. These three resources include the adjacent Jockey Hollow Wildlife Area (a portion of which is within the Project Area), Rankin United Methodist Church, and Rankin Cemetery. All three are shown with potential visibility of the Project.

5.2 VIEWPOINTS AND VISUAL SIMULATIONS

Of the 127 resources identified as part of the VRI, 23 locations were chosen for additional analysis, inclusive of the three located within 2 miles of the Project. These 23 locations were selected based on their potential sensitivity as they relate to the type and number of potential viewers and the viewer duration of the Project. Table 5-1 depicts the 23 locations that were analyzed.

In considering the 23 locations, this analysis further recognized that the sensitivity of the resource and thereby the views to and from the resource will vary from viewer to viewer. For example, viewers at Barkcamp State Park would likely include campers, boaters, bicyclists, pedestrians, travelers on the

roadways, park employees, and others; these viewers can be generally categorized as recreational. They may be more sensitive to views associated with the natural environment than those that are just passing through the area. In this manner, the viewer type also will influence visual engagement. For example, an industrial worker is likely to be much less engaged with the visual environment than a visitor to a wildlife preserve or natural area.

Table 5-1 Viewpoints Chosen for Additional Analysis

Resource Number	Description	Viewer Type	Number of Viewers	Duration
1	Barkcamp State Park	Recreational	High	Short
2	Morristown Historic District[1]	Residential, Commercial	Low	Short to Long
3	Schuler Park (Flushing)	Recreational	High	Short
4	Flushing Elementary School (Demolished)	Institutional	Low	Short
5	Flushing Cemetery	Religious	Low	Short
6	Egypt Valley Wildlife Area	Recreational	Low	Short
7	Nottingham Holloway Road	Traveler	Moderate	Short
8	Clements Road	Traveler	Moderate	Short
9	Jockey Hollow Road	Traveler	Moderate	Short
10	Flushing North East Road	Traveler	Moderate	Short
11	Flushing-Athens Road Bridge	Traveler	High	Short
12	Bramble Park (New Athens)	Recreational	High	Short
13	Franklin College Building 5[1]	Institutional	Low	Short to Long
14	Cadiz-Flushing Road	Traveler	Moderate	Short
15	Stumptown Road (Residence 2)	Residential	Low	Long
16	Stumptown Road (Residence 1)	Residential	Low	Long
17	Stumptown Road	Traveler	High	Short
18	Muntz Road	Traveler	Moderate	Short
19	Rankin Church and Cemetery	Religious	Low	Short
20	Sally Buffalo Park	Recreational	High	Short
21	Harrison County Home	Residential	Low	Long
22	Harrison State Forest	Recreational	High	Short
23	Deersville Historic District[1]	Residential, Commercial	Low	Short

Note:
[1] NRHP-Listed Historic Property

The number of viewers will vary depending on the time of day, day of the week, and season; therefore, for this analysis, the number of viewers is generally categorized as high, moderate, and low. Parks, urban areas, busy roadways, and other areas would be considered as having high viewer numbers. A single residential home would be considered low. Similarly, viewer duration would vary, but a traveler on a roadway with brief views of the Project, while moving through the Study Area, would be considered to have a short duration view, while a residential viewer would likely have a long duration

view, as this type of viewer could potentially see the Project over several hours per day, from season to season, and from year to year.

The locations of these resources are depicted in Appendix B, Figure 4.

5.2.1 EXISTING CONDITIONS AND ANTICIPATED IMPACTS ANALYSIS

Each of the following subsections includes a discussion of existing conditions of the viewpoints during the June 2021 site visit, as well as a discussion of anticipated impacts from the construction and operation of the proposed Project. Those for which simulations were conducted are listed first; they account for a more detailed description than those that were not carried forward for simulations. Appendix C provides photographs depicting the existing conditions, and Appendix D provides the visual simulations.

For this analysis, the following terms are used to discuss existing conditions and anticipated impacts; these terms draw upon definitions used by the Bureau of Land Management (BLM 1986) and Federal Highway Administration (FHWA 2015):

- Background: Extends from the middle-ground zone to the limits of visibility;
- Foreground: 0.25 to 0.5 miles from the viewer;
- Form: The visual shape or configuration of objects or features;
- Line: The perceived pathway in which the viewer follows a shape;
- Materials: The composition of an object or feature;
- Middle-ground: Extends from the foreground zone to approximately 3 to 5 miles from the viewer;
- Scale: Magnitude of effect or relative size;
- Texture: Perceived coarseness or smoothness of a surface;
- Viewer: Person or persons who may see the Project; and
- Visual Character: An area's overall quality or uniqueness based on, but not limited to, public view corridors, vistas, or natural or built features.

5.2.1.1 SIMULATED VIEWPOINTS

Simulations were developed for Viewpoints 9, 14, 16, 18, and 21 as described below.

Viewpoint 9 - Jockey Hollow Road

Existing Conditions

Viewpoint 9 is located along Jockey Hollow Road approximately 0.25 miles west of the Cadiz-Flushing Road intersection and 1.5 miles east of Viewpoint 8 on Clements Road. This viewpoint is slightly elevated as compared to the Project Area.

Natural visual elements include trees, shrubs, and grasses; much of the visual environment from this location includes open hillsides with few trees and shrubs. The foreground is dominated by grasses,

shrubs, and deciduous trees. The varying heights of the grasses and shrubs portray a rough texture and natural forms. Green and yellow colors dominate the hillside. These open areas are a result of a former mine and its reclamation activities. Roadways, fences, pipeline clear-cuts, drill pads, industrial facilities, and other human-made elements remain in the area and are visible in the background views from Viewpoint 9, but straight lines, smooth textures, and light colors associated with development are not prominent.

Anticipated Impacts

Viewpoint 9 is approximately 320 feet southwest of the Project.[2] Primary viewers would be travelers on Jockey Hollow Road, and they would experience short-duration views. The viewers would not be expected to be sensitive to changes in the visual environment.

The topography and existing vegetation would in part screen the viewer from seeing portions of the Project; however, as illustrated in Figure 1 in Appendix D, once constructed, the Project would be visible from Viewpoint 9.

During construction, viewers traveling along Jockey Hollow Road would experience visual changes as a result of the Project. Construction activities and features that may alter the visual character and potentially reduce the visual quality of the landscape of the surrounding area include the following:

- Staging and construction workspace areas;
- Vehicles and equipment used for excavating and grading activities, transporting and lifting, watering to control dust, transporting workers, and performing construction activities;
- Soil and vegetation removal and grading for the Project facilities and new or improved access roads; and
- Temporary outdoor storage of materials, stockpiling of spoils from excavation, security fencing, and construction signage.

Construction for the Project is anticipated to occur over a period of 12 to 18 months. As such, the impacts associated with construction would be temporary in nature.

Views of the Project would generally remain as natural materials, forms, and textures in the foreground view from Viewpoint 9; however, the Project would introduce new elements to the long-term middle-ground and background views. Elements that would be visible from this viewpoint would include the solar arrays, transformer pads, roadways, and perimeter fencing. Materials associated with the Project would be characterized by metal, glass, and other human-made elements in linear forms. Smooth textures, dark colors, and straight lines would contrast with the existing natural textures, colors, and forms. Human-made materials are part of the existing visual context; however, due to the scale and mass of the solar panels, support structures, and ancillary equipment, the visual character of the developed area would differ from that of the existing open grasslands.

As the Project is relatively low to the ground, and existing topography and vegetation would block views to portions of the Project, impacts would generally be localized. Furthermore, because new visual elements would be a minimum of several hundred feet away from the viewer location, at a minimum,

[2] Unless otherwise stated, distances are measured from the location of the resource to the closest part of the Project boundary.

the visual changes associated with the form, line, texture, and other visual elements would tend to be less distinctive (i.e., difficult to discern individual components) than if viewed from a more proximate location.

Viewpoint 14 - Cadiz Flushing Road

Existing Conditions

Viewpoint 14 is located along Cadiz Flushing Road at the Crazy Road intersection. It is approximately 800 feet from the Project. The viewpoint is lower in elevation as compared to the Project Area.

Much of the foreground view from this location is comprised of roadways, fences, gates, utility structures and lines, and other human-made elements. This is due in part to the reclamation activities associated with the former mine and current industrial uses. Industrial facilities, overhead utility and transmission lines, fences, pipeline clear-cuts, drill pads, industrial facilities, and other human-made elements remain common and visible in the area (see Figure 1, Nearby Industrial Facilities).

Figure 1 Nearby Industrial Facilities

Middle-ground and background views are characterized by grass, shrub, and tree-covered hillsides, particularly around the perimeter of the Project Area. Natural visual elements are characterized by green and yellow plant materials and include trees, shrubs, and grasses of varying heights that portray a rough texture.

Anticipated Impacts

Primary viewers would include travelers on Cadiz Flushing Road; they would experience short-duration views. Construction impacts due to the 12- to 18-month construction period would be similar to those described in Viewpoint 9. As illustrated in Figure 2 in Appendix D, once constructed, the topography and existing vegetation remaining after construction would partially screen the Project from viewers at this location. However, the panels appearing on the top of the hill would be apparent due to their elevation and their contrast to the sky that serves as the background. The panels also appear as a different color (dark gray) and texture (smooth) than their surroundings and consist of a more regular form than the surrounding vegetation.

Long-term visual impacts would be apparent; however, viewers would not be expected to be sensitive to changes in the visual environment due to their limited viewing time from a roadside location, such as this.

Viewpoint 16 - Stumptown Road (Residence 1)

Existing Conditions

Viewpoint 16 is located at a residential lot along Stumptown Road approximately 1 mile northwest of Viewpoint 15 and approximately 1,445 feet from visible Project elements; this location is near 40600 Stumptown Road [Residence 1]. Existing industrial facilities are somewhat closer to this location but are primarily screened by topography.

Primary viewers would include residential viewers, who would experience long-duration views. Residential viewers would be expected to be sensitive to changes in the visual environment.

Existing natural visual elements include trees, shrubs, and grasses. Much of the visual environment from this location consists of grass-covered hillsides with a few roadside trees and shrubs. Grasses, shrubs, and deciduous trees are characterized by green and yellow colors. Due to the varying size, height, and leaf size, plant materials in the foreground present a rough texture; however, the grass-covered hillsides in the middle-ground views present a smooth uniform texture.

Existing roadways, industrial facilities, overhead utility and transmission lines, fences, pipeline clear-cuts, drill pads, industrial facilities, and other human-made elements are currently visible from this viewpoint and provide an existing industrial visual character. For instance, vertical elements within the foreground consist of straight, wooden utility poles and the associated lines between them. Signage to the Project Area is also within view at this location. The signage draws the viewer's attention due to the regularity in shape and white color.

Anticipated Impacts

Primary viewers would be residential viewers with long-duration views. Residential viewers would be sensitive to changes in the visual environment.

The topography and remaining vegetation would screen some of the Project from the viewers at this location; however, as illustrated in Figure 3 in Appendix D, once constructed, the Project would be visible from Viewpoint 16.

Elements that would be visible from this viewpoint include the solar arrays, transformer pads, roadways, and perimeter fencing. Materials associated with the Project would be characterized by metal, glass, and other human-made elements in linear forms. Smooth textures, dark colors, and straight lines would contrast with the existing natural textures, colors, and forms. Human-made materials are part of the existing visual context; however, due to the scale and mass of the solar panels, support structures, and ancillary equipment, the visual character of the developed area would differ from that of the existing open grasslands.

Existing topography and vegetation would block views of portions of the Project. Furthermore, because new visual elements would be over 100 feet away from the viewer's location, at a minimum, the visual changes associated with Project would tend to be less distinctive than if viewed from a more proximate location. The Project would appear as a gray blanket of color and would break up the uniformity of the green and yellow grasses associated with those present from the mine reclamation. Existing poles and signage would draw some attention away from the Project, although due to the large scale of the development, the Project would be noticeable.

Construction impacts due to the 12- to 18-month construction period, and long-term visual impacts would be similar to those described for Viewpoint 9.

Viewpoint 17 - Stumptown Road

Existing Conditions

Viewpoint 17 is located along Stumptown Road approximately 1 mile northwest of Viewpoint 16 and approximately 1,417 feet from the Project. Primary viewers at this location would include travelers along Stumptown Road.

Much of Stumptown Road in this area is characterized by existing trees and vegetation lining the road. Natural visual elements include trees, shrubs, and grasses that portray rough textures and forms. Green and yellow colors dominate the natural visual elements. Most views are limited to the roadway corridor, but an existing utility line clearing at Viewpoint 17 offers brief views southeast toward the Project Area. Roadways, fences, pipeline clear-cuts, drill pads, industrial facilities, and other human-made elements remain in the area and are visible in the background views from Viewpoint 17.

Much of the Project Area visible from this location is characterized by open hillsides with few trees and shrubs. Roadways, industrial facilities, overhead utility and transmission lines, fences, pipeline clear-cuts, drill pads, industrial facilities, and other human-made elements, including wires and poles present in foreground views, are currently visible from this viewpoint and provide an existing industrial visual character.

Anticipated Impacts

As illustrated in Figure 4 in Appendix D, once constructed, the Project would be visible from Viewpoint 17. Primary viewers would be travelers along Stumptown Road. Travelers with short-duration views would likely not be sensitive to changes in the visual environment; however, Viewpoint 17 is also located in the Jockey Hollow Wildlife Area.

Travelers along Stumptown Road may be visitors to the wildlife area and would have expectations of natural visual elements and would be more sensitive to changes in the visual environment than those passing through; however, no stopping or observation points are provided along the road for wildlife or landscape viewing.

Solar panels and modules would be visible in the middle-ground for viewers from Viewpoint 17; however, existing vegetation and topography would block some views of the Project, and visual elements would be a minimum of 0.25 miles from the viewer. Visual changes associated with the straight lines, smooth textures, and light colors associated with the PV panels and other Project elements would tend to be less distinctive than if viewed from a more proximate location. They would have the appearance of a uniform block of gray from this distance. Existing poles and utility lines would draw some attention away from the Project. Long-term visual impacts would be apparent; however, viewers would not be expected to be sensitive to changes in the visual environment due to their limited viewing time from a roadside location such as this.

Construction impacts due to the 12- to 18-month construction period, and long-term visual impacts would be very similar to those described in Viewpoint 9.

Viewpoint 18 - Muntz Road

Existing Conditions

Viewpoint 18 is in the Jockey Hollow Wildlife Area along Muntz Road approximately 0.5 miles south of Stumptown Road (see Figure 2, Jockey Hollow Wildlife Area Sign). It is approximately 3,409 feet from the Project.

Much of the land visible from Muntz Road is characterized by forested areas, drainages, and ponds, but there are also large tracts of land surrounding the viewpoint, including the Project Area, which is characterized by open, rolling hills with few visible trees and shrubs. The foreground is dominated by grasses, shrubs, and deciduous trees, portraying a rough texture and form due to the varying heights of the grasses and shrubs. Green and yellow colors dominate the foreground views. The open hillsides in the foreground and middle-ground distances, identify the site as a former mine due to the reclamation activities. Existing roadways, industrial facilities, overhead utility and transmission lines, fences, pipeline clear-cuts, drill pads, industrial facilities, and other human-made elements are currently visible from this viewpoint; these elements are characterized by light colors, straight lines, and smooth textures.

Anticipated Impacts

Primary viewers in this location would include travelers along Muntz Road. Due to the brief duration of their views, these viewers would likely not be sensitive to changes in the visual environment; however, viewers may also include visitors to the wildlife area, who would have expectations of natural visual elements. While this location does not represent an established viewing area or observation point, these viewers would likely be more sensitive to changes in visual conditions.

The topography and remaining vegetation in the foreground would screen some of the Project Area from viewers at this location; however, as illustrated in Figure 5 in Appendix D, once constructed, the Project would be visible from Viewpoint 18.

Figure 2 Jockey Hollow Wildlife Area Sign

Solar panels and modules would be visible in the middle-ground distance. Materials associated with the Project would be characterized by metal, glass, and other human-made elements in linear forms. Smooth textures, dark colors, and straight lines would contrast with the existing natural textures, colors, and forms, but viewed at a minimum of approximately 0.5 miles, new elements would appear as a mass of gray with a smooth texture and with no distinguishable individual elements.

Long-term visual impacts would be apparent; however, given the existing roadways, industrial facilities, overhead utility and transmission lines, fences, pipeline clear-cuts, drill pads, industrial facilities, and other human-made elements that are currently visible, viewers would not be expected to be sensitive to changes in the visual environment.

Construction impacts due to the 12- to 18-month construction period, and long-term visual impacts would be similar to those described in Viewpoint 9 below.

5.2.1.2 OTHER CHARACTER VIEWPOINTS

The following provides a discussion of the viewpoints within the Study Area for which fieldwork was conducted, but visual simulations were not developed. These viewpoints also depict the overall visual quality of the Study Area.

Viewpoint 1 - Barkcamp State Park

Existing Conditions

Viewpoint 1 is located approximately 9.3 miles south of the Project along the northern park boundary facing north. The visual character from this location is naturalistic, dominated by open agriculture uses in the foreground and middle-ground, with forested areas (e.g., large stands of trees) in the background. Small utility lines and poles are visible. The terrain as seen from Viewpoint 1 consists of gently rolling hills.

Barkcamp State Park is a popular attraction in the region, and visitor numbers could potentially be high. Primary users of the park include recreational users utilizing campground facilities, trails, cabins, picnic areas, boat launches, water-based amenities on Belmont Lake, and others. Park users would also include travelers on the interior park roads.

Anticipated Impacts

Views of the Project would be screened by topography and existing vegetation for the average recreational viewer from the interior park areas (see Figure 3 View from Belmont Lake). Viewpoint 1 is located on the northern boundary of Barkcamp State Park and could potentially offer open views north toward the Project; however, trees and topography would also block views toward the Project from the northern park boundary. Views may be slightly more open during winter months when deciduous trees drop their leaves, but due to the long distance between the viewpoint and Project and the number of trees, no substantial difference in Project visibility is anticipated from season to season. No temporary construction-related impacts and no long-term visual impacts are anticipated.

Figure 3 View from Belmont Lake

Viewpoint 1 may also represent views and visual impacts from viewers along the Drovers Trail Scenic Byway (SR 147/800). The general topography, elevation, land uses, and natural visual elements along the scenic byway are similar to views available from Viewpoint 1; however, the byway is farther from the Project, and only a small portion of the byway is within the Study Area. Similar to viewers at Viewpoint 1, no visual impacts are anticipated for travelers along the byway.

Viewpoint 2 - Morristown Historic District

Existing Conditions

Viewpoint 2 is located in the NRHP-listed Morristown Historic District approximately 8.1 miles south of the Project. The visual character of this view is of historic buildings, the Pioneer Cemetery, and other uses along Old National Road (see Figure 4 Morristown Historic District). The viewshed analysis lists this area as visible; however, views from the historic area are limited to foreground views due to topography, land cover, and existing vegetation.

Figure 4 Morristown Historic District

Anticipated Impacts

Views of the Project would be screened by topography, land cover, and existing vegetation at Viewpoint 2. Construction traffic could be anticipated for US 40 Belmont Morristown Road, and Morristown Flushing Roads; however, construction traffic associated with the Project would be outside of the historic district. Topography, land cover, and vegetation would limit any visual impacts during the 12- to 18-month construction period. Similarly, no long-term visual impacts would be expected.

Figure 5 View Facing North from US 40

Viewpoint 2 may also represent views and impacts from viewers along the Historic National Road Scenic Byway (US 4040). The general topography, elevation, land uses, and natural visual elements along the scenic byway are similar to views available from Viewpoint 2. The existing visual character along the byway varies depending on location, but open views toward the Project would likely be possible at points along the highway (see Figure 5). However, the elevation of the Project and roadway are similar, and the closest the highway would be to the Project is more than 7.5 miles. The topography, existing vegetation, and land cover would likely screen the Project from the highway. Viewers along Historic National Road Scenic Byway would likely experience few if any, visual impacts.

Viewpoint 3 - Schuler Park (Flushing)

Existing Conditions

Viewpoint 3, located in Schuler Park, sits at the top of a hill 2.6 miles south of the Project at the south side of the Flushing City limits. The park consists of open lawns, sports fields, play areas, a fishing pond, and other park amenities. Mature deciduous trees are located throughout the park, and in surrounding areas, ponds, natural drainages, and other natural elements provide for the primary visual character. Roadways, overhead utility lines, low and medium-density residential areas, and commercial areas are prevalent and present human-made visual elements.

Anticipated Impacts

Views of the Project would be screened by topography, land cover, and existing vegetation. Construction traffic and increased vehicle movement could be visible along Morristown Flushing Road during the 12- to 18-month construction period. Most vehicle movement would occur during daytime hours, but additional lighting from headlights may be possible during nighttime conditions. Additionally, flashing lights, large loads, brightly colored vehicles, and other impacts may be seen; however, existing traffic, vehicular movement, and artificial lighting is common. Existing topography and vegetation would screen the road from most areas within the park, and construction-related impacts would be minor. The existing visual environment would remain intact, and no long-term visual impacts would be anticipated.

Viewpoint 4- Flushing Elementary (demolished)

Existing Conditions

Viewpoint 4 sits at the top of a hill 2.3 miles south of the Project within Flushing City limits. The viewpoint represents viewers from Flushing Elementary School, which was evaluated as part of the VRI due to existing public data; however, the elementary school has recently been demolished and replaced by an open lawn. Mature deciduous trees surrounding the former school location provide for the primary natural visual elements and character. Roadways, overhead utility lines, residential areas, and commercial areas are prevalent and present human-made visual elements in the area (Figure 6 Flushing High Street).

Figure 6 Flushing High Street

Anticipated Impacts

The primary viewers associated with the elementary school have been displaced, but other viewers within Flushing would have similar views toward the Project. The Project would be screened for these viewers by topography, land cover, and existing vegetation. Impacts due to the 12- to 18-month construction period would be very similar to those described in Viewpoint 3 above, and no long-term visual impacts would be anticipated.

Viewpoint 5 - Flushing Cemetery

Existing Conditions

Viewpoint 5 represents views from the Flushing Cemetery. The cemetery sits at the top of a hill in northwest Flushing, approximately 2.1 miles south of the Project. Mature deciduous trees surrounding the cemetery, lawn, and ornamental shrubs provide for the primary natural visual elements and character in and around the cemetery. Mature trees also screen all views north toward the Project.

Anticipated Impacts

Views of the Project would be screened by topography, land cover, and existing vegetation for cemetery visitors, and no construction traffic or vehicle movement would be visible. Views may be more open during winter months when deciduous trees drop their leaves, but views of the Project would still likely be screened by remaining vegetation and topography. No construction-related or long-term visual impacts would be anticipated.

Viewpoint 6- Egypt Valley Wildlife Area

Existing Conditions

Viewpoint 6 is located in the Egypt Valley Wildlife Area approximately 4.3 miles southwest of the Project. Much of the wildlife area is covered with mature vegetation, and open views are very limited. However, Viewpoint 6, located along Belmont Ridge Road, does have open views northeast toward the Project. Deciduous trees, shrubs, grasses, and other natural elements provide for the primary visual elements and character, but overhead utility lines, roads, and other human-made elements are visible.

Anticipated Impacts

Viewers at this location include visitors to the wildlife area; they would likely be sensitive to changes in the natural visual environment. However, views of the Project would be screened by topography, land cover, and existing vegetation for visitors at Viewpoint 6. No construction-related or long-term visual impacts would be anticipated.

Viewpoint 7 - Nottingham Holloway Road

Existing Conditions

Viewpoint 7 is located along Nottingham Holloway Road at the entrance to the Jockey Hollow Wildlife Area approximately 2.5 miles west of the Project (see Figure 7, Nottingham Holloway Road and Jockey Hollow Wildlife Area Entrance Sign). Much of the wildlife area is covered with mature vegetation, which limits views toward the Project. Deciduous trees, shrubs, grasses, and other natural elements provide for the primary visual elements and create the character of the landscape, but areas west of the road are characterized by agricultural areas and overhead utility lines; other human-made elements also are visible.

Figure 7 Nottingham Holloway Road and Jockey Hollow Wildlife Area Entrance Sign

Anticipated Impacts

Viewers would include travelers along the road and visitors to the wildlife area. Visitors to the wildlife area would likely be sensitive to changes in the natural visual environment; however, views of the Project would be screened by topography, land cover, and existing vegetation. Visual impacts due to the 12- to 18-month construction period would be very similar to those described in Viewpoint 3 above. No long-term visual impacts would be anticipated.

Viewpoint 8 - Clements Road

Existing Conditions

Viewpoint 8 is located along Clements Road approximately 150 feet southwest of Jockey Hollow Road; however, Clements Road is not a public road and is gated near Viewpoint 8. Therefore, the primary viewers would be travelers along Jockey Hollow Road. Natural visual elements include trees, shrubs, grasses, and ponds; however, adjacent roadways and much of the surrounding land are not in a natural condition due to the mining history of the site. Visual conditions are similar to the existing ponds along Flushing Water Works Road (see Figure 8 Flushing Water Works Road). Roadways, fences, pipeline clear-cuts, and other elements are a common occurrence within the view. While not visible from Viewpoint 8, drill pads, industrial facilities, and other human-made elements are prevalent in the area.

Figure 8 Flushing Water Works Road

Anticipated Impacts

Viewpoint 8 is approximately 741 feet southwest of the Project. It is also approximately 50 feet lower in elevation than the PV panels that would be located on top of a ridge. Topography would screen portions of the Project Area from this location. Existing vegetation that would remain after development also would screen portions of the remaining views, but new elements, such as solar arrays and perimeter fencing, may be visible, especially during winter months when deciduous trees drop their leaves.

During construction, viewers at Viewpoint 8 may experience some visual changes as a result of the Project. Construction for the Project is anticipated to occur over 12 to 18 months. As such, the impacts associated with construction would be temporary; however, visual impacts due to construction activities would potentially reduce the quality of the existing visual environment; these impacts may include the following:

- Soil and vegetation removal and grading for the Project facilities and new or improved access roads;
- Installation of perimeter security fencing; and
- Construction vehicle movements along Jockey Hollow Road and construction signage.

Viewers along Jockey Hollow Road would experience short-duration views. Due to visual screening (topography and vegetation) and existing human-made elements, the overall long-term visual character of Viewpoint 8 is not expected to vary much from its current conditions.

Viewpoint 10 - Flushing North East Road

Existing Conditions

Viewpoint 10 is located along Flushing North East Road approximately 1.6 miles southeast of the Project. Natural visual elements include trees, shrubs, grasses, and water; however, much of the existing conditions within the area of the viewpoint is open hillsides with few trees and shrubs. While not directly visible from Viewpoint 10, drill pads, industrial facilities, and other human-made elements are

Figure 9 Fairpoint New Athens Road

prevalent in the area, such as facilities along Fairpoint New Athens Road to the east (see Figure 9 Fairpoint New Athens Road).

Anticipated Impacts

Viewers would be travelers along the Flushing North East Road. Views of the Project would be screened by topography, land cover, and existing vegetation for viewers at Viewpoint 10. Due to the 12- to 18-month construction period, construction impacts would be very similar to those described in Viewpoint 3. No long-term visual impacts would be anticipated.

Viewpoint 11- Flushing-Athens Road Bridge

Existing Conditions

Viewpoint 11 is located on the Flushing-Athens Road bridge approximately 300 feet west of Chaney Road and 2.2 miles southeast of the Project. Natural visual elements include trees, shrubs, grasses, and water. Paved roadways, overhead utility and transmission lines, residential and commercial structures, and other human-made elements are visible in the corridor. Industrial facilities are abundant along Flushing-Athens Road.

Anticipated Impacts

Viewers at this location would include travelers along Flushing-Athens Road. Views of the Project would be screened by topography, land cover, and existing vegetation at Viewpoint 11. Due to the 12- to 18-month construction period, construction impacts would be very similar to those described in Viewpoint 3. No long-term visual impacts would be anticipated.

Viewpoint 12 - Bramble Park (New Athens)

Existing Conditions

Viewpoint 12 is located in Bramble Park 2.2 miles east of the Project at the west side of the New Athens City limits. The park primarily consists of open lawns and sports fields. Lawn and mature deciduous trees in the park and surrounding areas provide for the main natural visual character. Roadways, overhead utility lines, streetlights, and residential areas are prevalent in the New Athens area and present human-made visual elements (see Figure 10 New Athens Main Street).

Figure 10 New Athens Main Street

Anticipated Impacts

Views of the Project would be screened by topography, land cover, and existing vegetation for viewers at Viewpoint 12. Due to the 12- to 18-month construction period, construction impacts would be very similar to those described in Viewpoint 3. No long-term visual impacts would be anticipated.

Viewpoint 13 - Franklin College Building No. 5

Existing Conditions

Viewpoint 13 is located at the NRHP-listed Franklin College Building No. 5. The college is located in New Athens approximately 2.4 miles east of the Project. The campus consists of historic buildings, trees, shrubs, and open lawns (see Figure 11 Franklin College Building No. 5). Roadways, overhead utility lines, streetlights, and residential areas are prevalent in the New Athens area and present human-made visual elements.

Figure 11 Franklin College Building No. 5

Anticipated Impacts

Views of the Project would be screened by topography, land cover, and existing vegetation for viewers at Viewpoint 13. Due to the 12- to 18-month construction period, construction impacts would be very similar to those described in Viewpoint 3. No long-term visual impacts would be anticipated.

Viewpoint 15 - Stumptown Road (Residence 2)

Existing Conditions

Viewpoint 15 is located along Stumptown Road approximately 1,800 feet northwest of the Cadiz-Flushing Road intersection; this location is near 41520 State Route 519 [Residence 1]. It is approximately 286 feet from the Project. Natural visual elements include areas of trees and shrubs, particularly around the perimeter of the Project Area; however, much of the visual environment from this location consists of grass-covered hillsides. Roadways, industrial facilities, overhead utility and transmission lines, fences, pipeline clear-cuts, drill pads, industrial facilities, and other human-made elements remain common and visible in the area (see Figure 1, Nearby Industrial Facilities) and Figure 12 Typical View of Stumptown Road from Viewpoint 15).

Figure 12 Typical View of Stumptown Road from Viewpoint 15

Anticipated Impacts

Primary viewers at this location would include residential viewers with long-duration views; these viewers would be sensitive to changes in the visual environment. Topography and remaining vegetation would screen portions of the Project from this view; however, once constructed, the Project would be visible from Viewpoint 15. Construction impacts due to the 12- to 18-month construction period would be temporary, and long-

term visual impacts would be very similar to those described in Viewpoint 9 above.

Viewpoint 19 - Rankin Church and Cemetery

Existing Conditions

Viewpoint 19 is located at the Rankin United Methodist Church and Cemetery, approximately 1.5 miles northwest of the Project. Land visible from the church is characterized by natural visual elements of rolling hills with forested areas and open agricultural land. Some dispersed residential and farm structures are visible; roads, guardrails, road signs, overhead utility lines, and fencing provide for the main human-made visual elements in this location.

Anticipated Impacts

Primary viewers would include church and cemetery visitors. These viewers would be sensitive to changes in the visual environment; however, the topography and existing vegetation between the viewpoint and Project would screen the Project from these viewers in this location. Due to the 12- to 18-month construction period, construction impacts would be very similar to those described in Viewpoint 3. No long-term visual impacts would be anticipated.

Viewpoint 20 - Sally Buffalo Park

Existing Conditions

Viewpoint 20 is located at Sally Buffalo Park, approximately 5.1 miles northeast of the Project. Land visible from the park is characterized by mature trees, ornamental vegetation, water, open lawns, and sports fields. Roadways, paved trails, campground facilities, sports equipment, shelters, and various other park facilities provide for abundant human-made visual elements within the park. The topography and existing vegetation screen most views beyond the park boundaries; however, views are available from some locations consist of large-scale industrial facilities to the southwest, including the Harrison County Airport (see Figure 13 Cadiz Area Industrial Elements).

Figure 13 Cadiz Area Industrial Elements

Views from the park would also be very similar to areas within the village of Cadiz to the northeast, including the NRHP-listed historic Harrison County Courthouse and Harrison National Bank buildings (see Figure 14 Harrison County Courthouse).

Anticipated Impacts

Primary viewers from Viewpoint 20 would include recreational viewers from the Park. These viewers would typically be sensitive to changes in the visual environment, but the topography and existing vegetation would screen the Project from this viewpoint. Views and visual impacts from within Cadiz would be similar to those from the Park. They would likely be screened by topography and vegetation. Due to the 12- to 18-month construction period, construction impacts would be very similar to those described in Viewpoint 3. No long-term visual impacts would be anticipated.

Figure 14 Harrison County Courthouse

Viewpoint 21- Harrison County Home

Existing Conditions

Viewpoint 21 is located approximately 6.3 miles north of the Project at the historic Harrison County Home (see Figure 15, Harrison County Home Buildings). Land visible from this location is characterized by mature trees, ornamental vegetation, and agricultural areas. Roadways, utility lines, road signs, and dispersed residential structures represent human-made visual elements.

Anticipated Impacts

Primary viewers would include residential viewers to the Harrison County Home. These viewers would typically be sensitive to changes in the visual environment, but existing topography and vegetation would screen the Project from view. Due to the 12- to 18-month construction period, construction impacts would be very similar to those described in Viewpoint 3. No long-term visual impacts would be anticipated.

Viewpoint 22 - Harrison State Forest

Existing Conditions

Viewpoint 22 is located in the Harrison State Forest Campground, approximately 9.7 miles north of the Project. The existing visual environment is characterized by mature trees, shrubs, and natural vegetation. Roadways, road signs, and campground amenities represent human-made visual elements.

Figure 15 Harrison County Home Buildings

Anticipated Impacts

Primary viewers would include recreational viewers to the Park. These viewers would typically be sensitive to changes in the visual environment; however, the topography and existing vegetation between the viewpoint and Project would screen the views from this location. No construction-related or long-term visual impacts would be anticipated.

Viewpoint 23- Deersville Historic District

Existing Conditions

Viewpoint 23 is located in the Deersville Historic District, northwest of the Project. Deersville is characterized by historic residential, commercial, religious, and community buildings.

Figure 16 Industrial Facility adjacent to Deersville Historic District and Cemetery

The historic Patterson Union Cemetery is situated on a hill and offers views of the surroundings and southeast toward the Project. Primary viewers would be church and cemetery visitors. The cemetery and surrounding area are characterized by mature trees, ornamental vegetation, and lawn areas. Paved roadways through the cemetery and headstones represent human-made visual elements; however, a large industrial facility is also visible from the cemetery (see Figure 16, Industrial Facility adjacent to Deersville Historic District and Cemetery).

Viewpoint 23 may also represent views and impacts along the Tappan-Moravian Trail Scenic Byway (see Figure 17, Tappan-Moravian Trail Scenic Byway). The general topography, elevation, land uses, and natural visual elements along the scenic byway are similar to views available from Viewpoint 23. The existing visual character along the byway varies depending on location, but long open views toward the Project are generally not available.

Figure 17 Tappan-Moravian Trail Scenic Byway

Anticipated Impacts

These viewers would be sensitive to changes in the visual environment; however, existing vegetation and land cover would screen the Project from Viewpoint 23. Due to the 12- to 18-month construction period, construction impacts would be very similar to those described in Viewpoint 3. No long-term visual impacts would be anticipated. Similarly, viewers along the Tappan-Moravian Scenic Byway would likely have few, if any, visual impacts.

6 RECOMMENDATIONS

As shown in the analysis of visual impacts, the Project will be visible from locations within the Study Area. Best management practices may be applied in order to minimize or limit potential impacts associated with the visual changes that will occur as a result of the Project's construction and operation.

In order to minimize potential visual impacts associated with the Project, Nottingham Solar LLC will limit vegetation removal to areas directly impacted by construction or to areas that will affect the shading for the Project. Any disturbed grass or other vegetated areas will be reseeded after construction is complete. In particular, vegetation will be restored within laydown and staging areas. Where potential impacts may occur during construction, Nottingham Solar LLC also may consider the use of opaque fencing in laydown and staging areas.

In addition, Nottingham Solar LLC is evaluating the feasibility of the installation of a vegetative screen in order to reduce the potential visual impacts that may be experienced by the two residences noted in this evaluation (i.e., those located at Viewpoints 15 [Residence 2] and 16 [Residence 1]). However, Nottingham Solar LLC must first evaluate the following before a possible plan for this installation may be developed for these two locations:

- Property ownership in areas outside Nottingham Solar LLC-controlled land where a vegetative screen could be installed.
- Utility restrictions on installing vegetation near power lines and/or limiting access to power lines for maintenance.
- Department of Transportation safety guidelines and restrictions on installing vegetation near roadways and property entrances.
- The quantity and type of vegetation that may be required.

Upon completion of this review, Nottingham Solar LLC will determine the feasibility of installing a vegetation screen in these two locations.

7 SUMMARY

The Project will result in varying levels of visual alteration/impact when viewed from locations outside the Project Area, but within the Study Area. The visibility and potential visual impacts will diminish as the Project is viewed from greater distances; changes in the visual environment will be noticeable to those areas directly adjacent to the Project. Upon completion of the Project, new visual elements will be added to the existing visual environment.

Sensitivity to changes in the visual environment will depend on viewer type and the duration of the views. The prominence and extent or degree of visual impact of visual changes will vary for viewers within the Study Area as the distance from visual elements increases and as the amount of trees, vegetation, and land cover between the viewer and Project will screen new visual elements.

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APPENDIX

A Tables

Table 1 Visual Resource Inventory - Parks

Resource Number	Resource Name	Distance from Project (miles)	Direction from project	Project Visible?
	Resources located within 2 miles of the Project			
1	Jockey Hollow Wildlife Area[1]	Less than 0.1	West	Visible
	Resources located within 10 miles of the Project			
	Esri Parks			
2	Sally Buffalo Park	4.65	Northeast	Visible
3	Roadside Park	8.28	South	Not Visible
4	Tappan Lake Park	9.34	Northwest	Not Visible
5	Egypt Valley Wildlife Area	3.03	Southwest	Visible
6	Mine Safety Training Area	3.96	Northeast	Visible
7	Harrison Forest	8.13	North	Visible
8	Lake Barkcamp State Park	9.03	South	Visible
9	Emerald Hills Nature Preserve	9.43	South	Not Visible
	ODNR Trails			
10	Orange trail - Barkcamp State Park	9.03	South	Not Visible
11	Green trail - Barkcamp State Park	9.09	South	Not Visible
12	Blue trail - Barkcamp State Park	9.24	South	Visible
13	Lakeview trail - Barkcamp State Park	9.31	South	Not Visible
14	Red trail - Barkcamp State Park	9.38	South	Not Visible
15	Yellow trail - Barkcamp State Park	9.38	South	Not Visible
16	Upper silver trail - Barkcamp State Park	9.39	South	Not Visible
17	Lower white trail - Barkcamp State Park	9.39	South	Not Visible
18	Woodchuck trail - Barkcamp State Park	9.49	South	Not Visible

Table 1 Visual Resource Inventory - Parks

Resource Number	Resource Name	Distance from Project (miles)	Direction from project	Project Visible?
19	Upper white trail - Barkcamp State Park	9.83	South	Not Visible
20	Lower white trail - Barkcamp State Park	9.83	South	Not Visible
21	Purple trail - Barkcamp State Park	9.84	South	Not Visible
22	Hawrhorne trail - Barkcamp State Park	9.89	South	Not Visible
23	Hawk trail - Barkcamp State Park	9.96	South	Not Visible
24	White - Harrison Forest	9.23	North	Visible
25	Red - Harrison Forest	9.35	North	Not Visible
26	Green - Harrison Forest	9.37	North	Not Visible
27	Blue - Harrison Forest	9.47	North	Visible
28	Red - Harrison Forest	9.49	North	Visible
29	Yellow - Harrison Forest	9.73	North	Not Visible
30	Green - Harrison Forest	9.73	North	Not Visible
	ODNR POI Points			
31	Belmont County, Boat Ramp	6.87	Southwest	Not Visible
32	Belmont County, Boat Ramp	6.30	Southwest	Not Visible
33	Guernsey County, unnamed Marina	8.11	West	Not Visible
34	Harrison County, unnamed Marina	8.33	Northwest	Not Visible
35	Harrison County, Boat Ramp	7.64	Northwest	Not Visible

Source: Esri 2018, ODNR 2016, ODNR 2017a, and ODNR 2017b.

Notes:

1. A portion of the Jockey Hollow Wildlife Area is within the Project Area.

Key:

ODNR = Ohio Department of Natural Resources

Table 2 Visual Resource Inventory - Sensitive Receptors

Resource Number	Resource Name	Distance from Project (miles)	Direction from Project	Project Visible?
	Resources located within 2 miles of the Project			
36	Rankin Church	1.54	Northwest	Visible
37	Rankin Cemetery	1.54	Northwest	Visible
	Resources located within 10 miles of the Project			
	Esri Churches			
38	Nottingham Church	2.37	Northwest	Visible
39	Dickerson Church	4.08	Northeast	Visible
40	Minksville Church	5.04	Northwest	Not Visible
41	Asbury Chapel	5.70	North	Visible
42	Belmont Ridge Methodist Episcopal Church	5.74	Southwest	Not Visible
43	Saint Teresa Roman Catholic Church	5.91	Northeast	Visible
44	Church of God	5.93	Northeast	Visible
45	Church of Christ	6.01	Northeast	Not Visible
46	First Presbyterian Church	6.08	Northeast	Visible
47	Apostolic Church of God	6.12	Northeast	Not Visible
48	Drummond Methodist Episcopal Church	6.14	Northeast	Visible
49	Simpson African Methodist Episcopal Church	6.19	Northeast	Not Visible
50	Gordon Chapel	6.38	Southeast	Not Visible
51	Fairpoint Mennonite Church	7.19	Southeast	Not Visible
52	Salem Church	7.73	Southwest	Not Visible

Table 2 Visual Resource Inventory - Sensitive Receptors

Resource Number	Resource Name	Distance from Project (miles)	Direction from Project	Project Visible?
53	Springdale Church	7.99	Northeast	Not Visible
54	Oak Grove Methodist Episcopal Church	8.72	Southwest	Visible
55	Adena Presbyterian Church	8.94	East	Not Visible
56	East Richland Evangelical Friends Church	9.03	Southeast	Not Visible
57	Sewellsville Methodist Episcopal Church	9.51	Southwest	Visible
58	Pleasant Valley Church	9.66	Northwest	Not Visible
59	Richland Church	9.99	Southeast	Not Visible
	Esri Schools			
60	Flushing Elementary School	2.36	South	Visible
61	Cadiz High School	5.93	Northeast	Visible
62	Cadiz Westgate Elementary School	6.29	Northeast	Visible
63	Union High School	8.09	South	Not Visible
64	Morristown Elementary School	8.30	South	Not Visible
65	Adena Elementary School	9.21	East	Not Visible
66	Lakeland High School	9.40	West	Not Visible
	Esri Cemeteries			
67	Flushing Area Cemetery	2.13	South	Visible
68	Flushing City Cemetery	2.29	South	Visible
69	Flushing Township Cemetery	2.29	South	Visible
70	Nottingham Cemetery	2.45	West	Not Visible
71	Longview Cemetery	2.48	West	Visible
72	Crabapple Cemetery	3.24	Southeast	Not Visible

Table 2 Visual Resource Inventory - Sensitive Receptors

Resource Number	Resource Name	Distance from Project (miles)	Direction from Project	Project Visible?
73	Rockhill Cemetery	3.51	Southwest	Visible
74	Dickerson Cemetery	4.07	Northeast	Visible
75	Unity Cemetery	4.38	Southeast	Not Visible
76	Lees Run Cemetery	4.44	Northwest	Not Visible
77	Saint Marys Cemetery	4.73	Southeast	Not Visible
78	Old Uniontown Cemetery	4.81	Southeast	Visible
79	Moorefield Methodist Episcopal Cemetery	4.95	West	Visible
80	Minksville Cemetery	5.16	Northwest	Not Visible
81	Stillwater Cemetery	5.41	Southwest	Not Visible
82	Stiers Cemetery	5.48	Southeast	Visible
83	Hines Cemetery	5.56	North	Visible
84	Belmont Ridge Cemetery	5.75	Southwest	Not Visible
85	Old Cadiz Cemetery	5.86	Northeast	Visible
86	West Grove Cemetery	6.07	Northeast	Not Visible
87	Union Cemetery	6.14	Northeast	Visible
88	Short Creek Cemetery	6.15	East	Not Visible
89	Furbay Cemetery	6.44	East	Not Visible
90	Infirmary Cemetery	6.56	North	Not Visible
91	Old Egypt Cemetery	7.56	Southwest	Not Visible
92	Olive Branch Cemetery	7.68	East	Not Visible
93	Salem Cemetery	7.75	Southwest	Not Visible
94	Wheeling Valley Cemetery	7.90	Southeast	Not Visible

Table 2 Visual Resource Inventory - Sensitive Receptors

Resource Number	Resource Name	Distance from Project (miles)	Direction from Project	Project Visible?
95	Union Cemetery	8.01	South	Not Visible
96	Alley Cemetery	8.15	East	Not Visible
97	Morristown First Cemetery	8.16	South	Not Visible
98	Friends Meeting House Cemetery	8.42	East	Not Visible
99	Plainfield Cemetery	8.43	Southeast	Not Visible
100	Wilson Cemetery	8.43	East	Not Visible
101	Infirmary Cemetery	8.51	Southeast	Not Visible
102	Deersville Cemetery	8.63	Northwest	Not Visible
103	Mattern Cemetery	8.67	Northeast	Not Visible
104	Oak Grove Cemetery	8.67	Southwest	Visible
105	Coleman Cemetery	8.71	Southeast	Not Visible
106	Quaker Cemetery	8.72	Southwest	Visible
107	Adena Presbyterian Cemetery	8.93	East	Not Visible
108	Smyrna Methodist Episcopal Cemetery	9.03	Southwest	Visible
109	Sewellsville Cemetery	9.49	Southwest	Visible
110	Deersville Methodist Episcopal Cemetery	9.57	Northwest	Visible
111	Pleasant Valley Cemetery	9.66	Northwest	Not Visible
112	Greenmont Cemetery	9.75	West	Not Visible
113	Butcher Cemetery	9.78	Southeast	Not Visible
114	East Richland Cemetery	9.94	Southeast	Not Visible
115	Union Cemetery	9.97	Southeast	Not Visible

Table 2 Visual Resource Inventory - Sensitive Receptors

Resource Number	Resource Name	Distance from Project (miles)	Direction from Project	Project Visible?
116	Jenkins Cemetery	10.00	Northwest	Not Visible
117	Freeport Presbyterian Cemetery	10.00	West	Not Visible

Source: Esri 2018.

Table 3 Visual Resource Inventory - NRHP Resources

Resource Number	Resource Name	Distance from Project (miles)	Direction from Project	Project Visible?
	Resources located within 10 miles of the Project			
	NRHP-Listed Buildings			
118	Franklin College Building No. 5	2.31	East	Not Visible
119	Harrison County Courthouse	6.06	Northeast	Visible
120	Harrison National Bank	6.09	Northeast	Visible
121	Ourant's School	6.41	Northwest	Visible
122	Brick Tavern House	8.22	Southeast	Not Visible
123	Great Western Schoolhouse	8.30	Southeast	Not Visible
124	Ann E. Lewis Bernhard House	9.08	Northeast	Not Visible
125	Hamilton-Ickes House	9.56	Northeast	Not Visible
	NRHP-Listed Districts			
126	Morristown Historic District	7.98	South	Visible
127	Deersville Historic District	9.29	Northwest	Visible

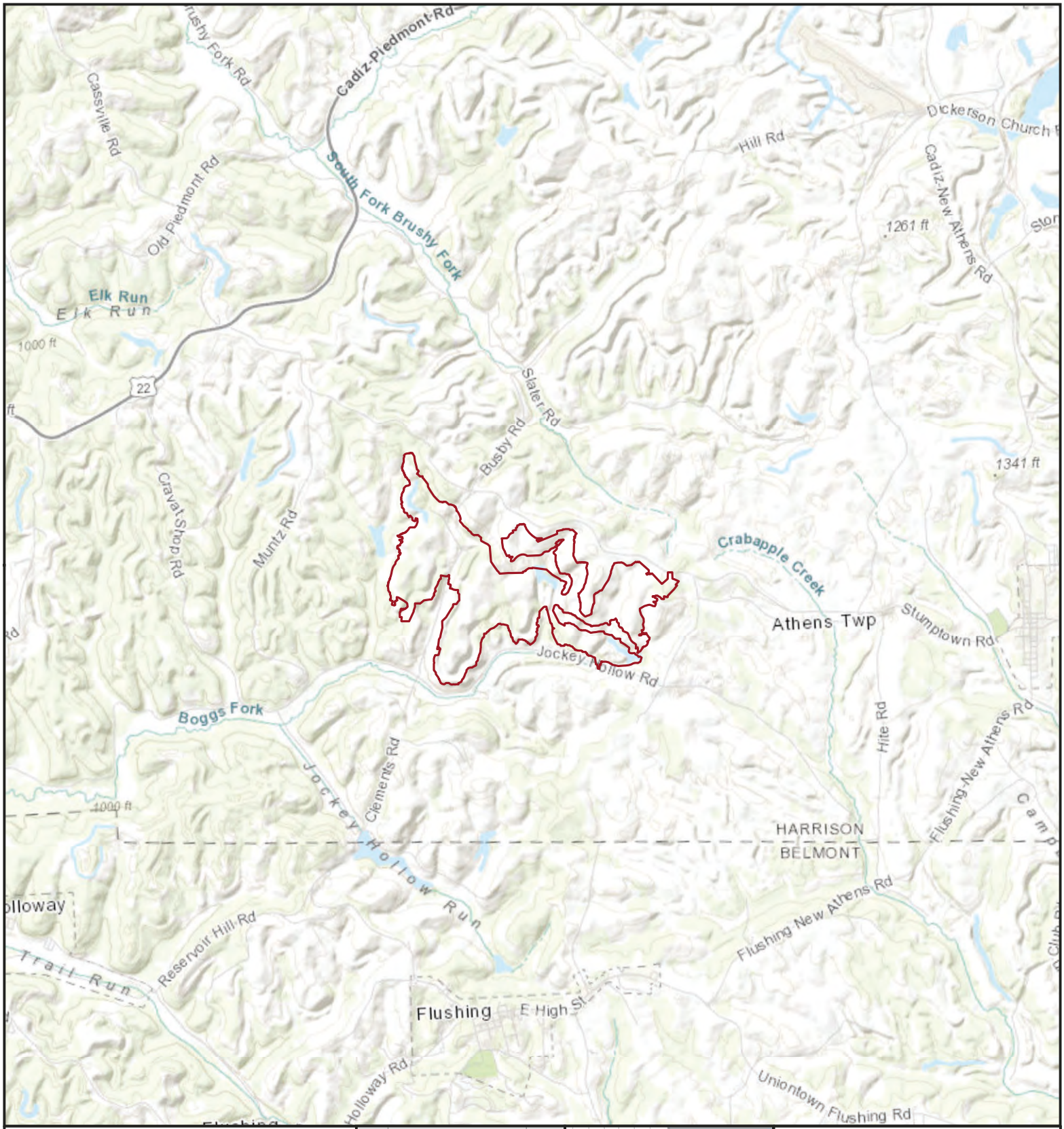
Source: Stutts 2014.

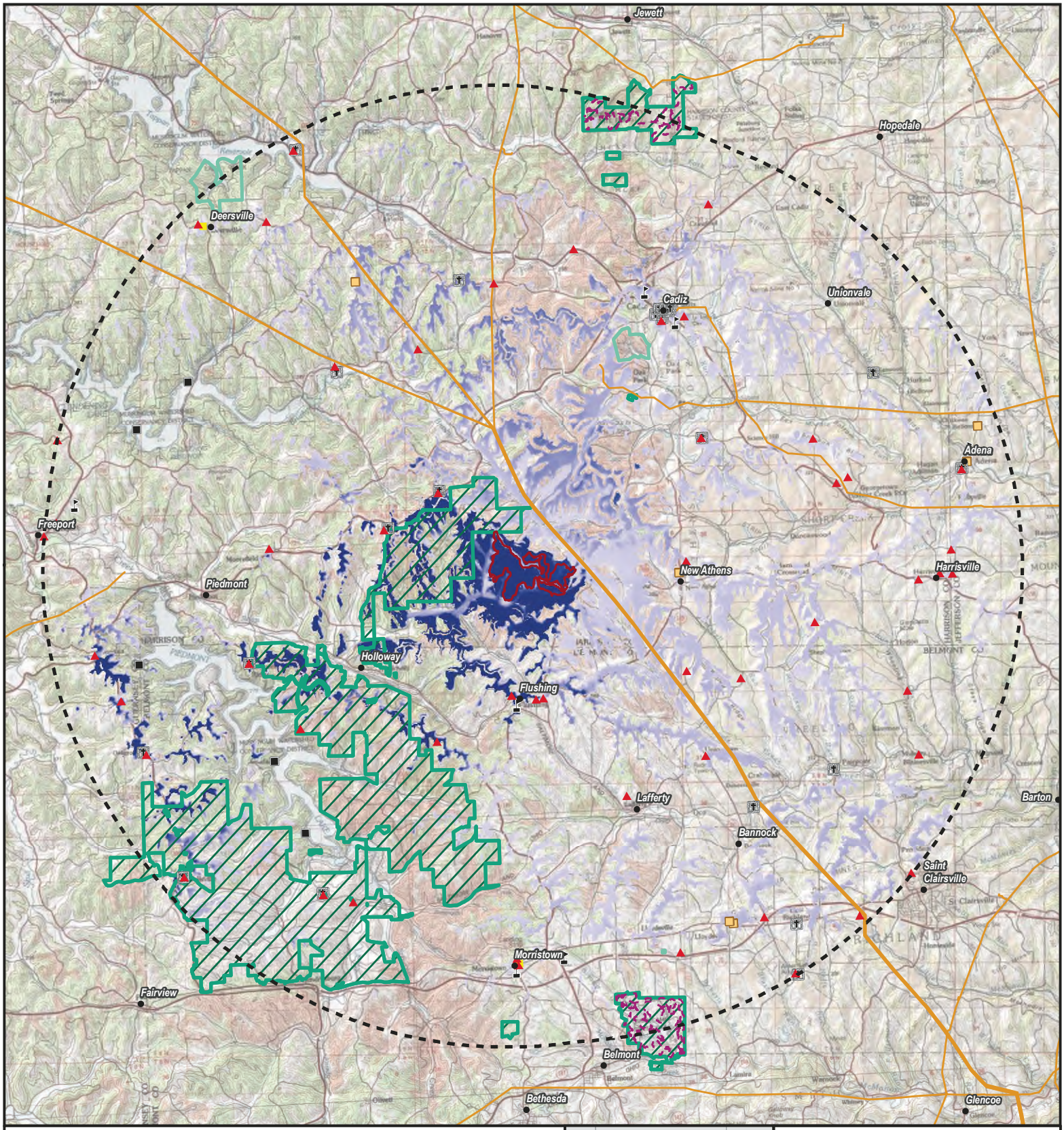
Key:

NRHP = National Register of Historic Places

APPENDIX

B Figures


Project Boundary
Carroll
Jefferson
Tuscarawas
Harrison County
Project Location
Guernsey
Belmont
CA
Lake Erie
MI
PA
IN
OH
Project Location
WV
KY
VA
Data Sources: ESRI 2020; WSP 2021; BQ Energy 2021.
NOTTINGHAM SOLAR SITE
Figure 1. Project Location
Harrison County, Ohio
N
Miles
0
0.5
1

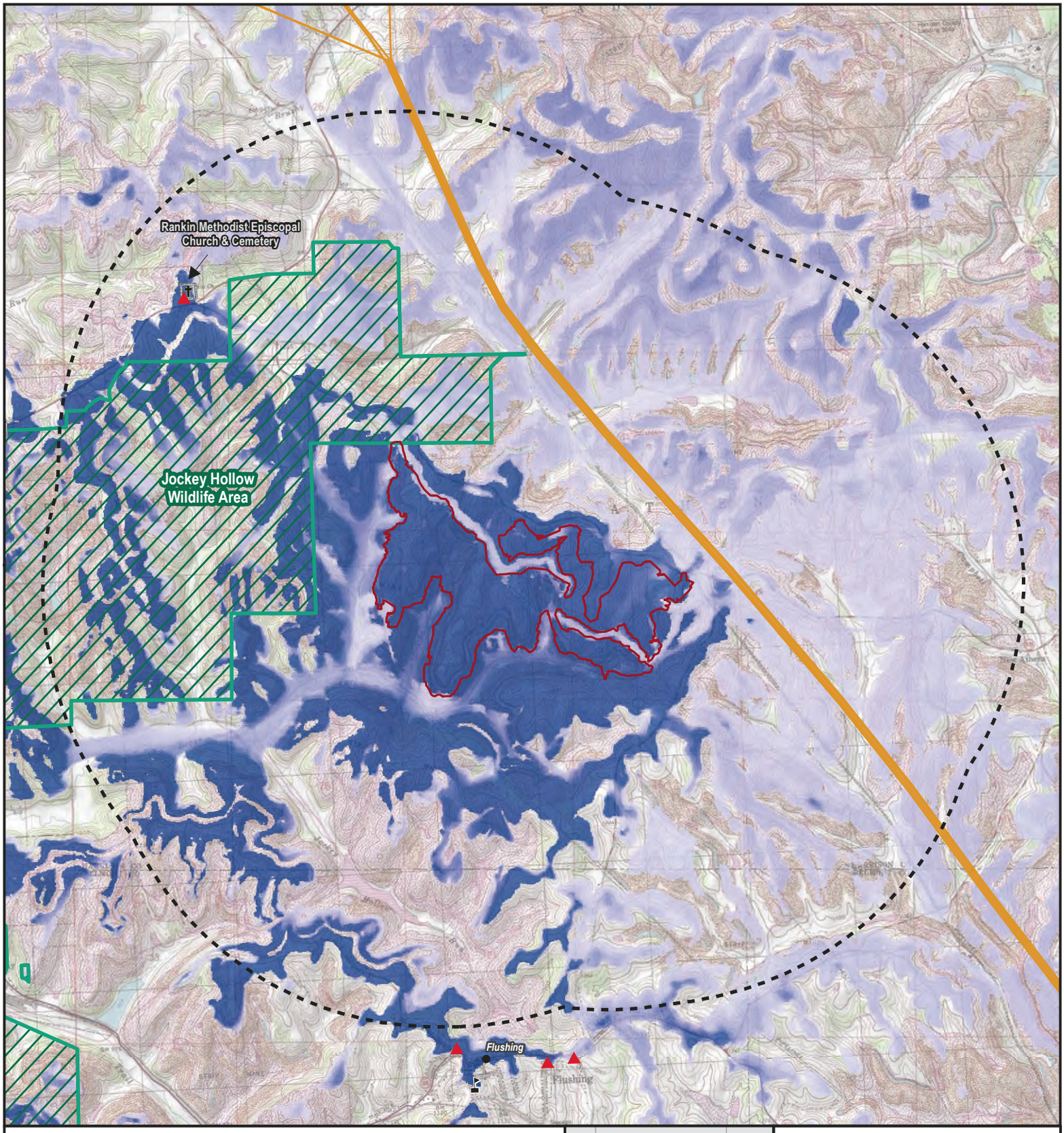


NOTTINGHAM SOLAR SITE

Figure 2. Illustration of Visual Resources Inventory within 10-Miles of the Project Area

wsp

Harrison County, Ohio



Cemetery
Church
Populated Place
School
Transmission Line
ODNR Wildlife Area
Project Boundary
Project Boundary (2-Miles)
Viewshed
Visible
Not Visible

Data Sources: ESRI 2016-2020; WSP 2021; BQ Energy 2021; NPS; HFILD; USGS; ODNR

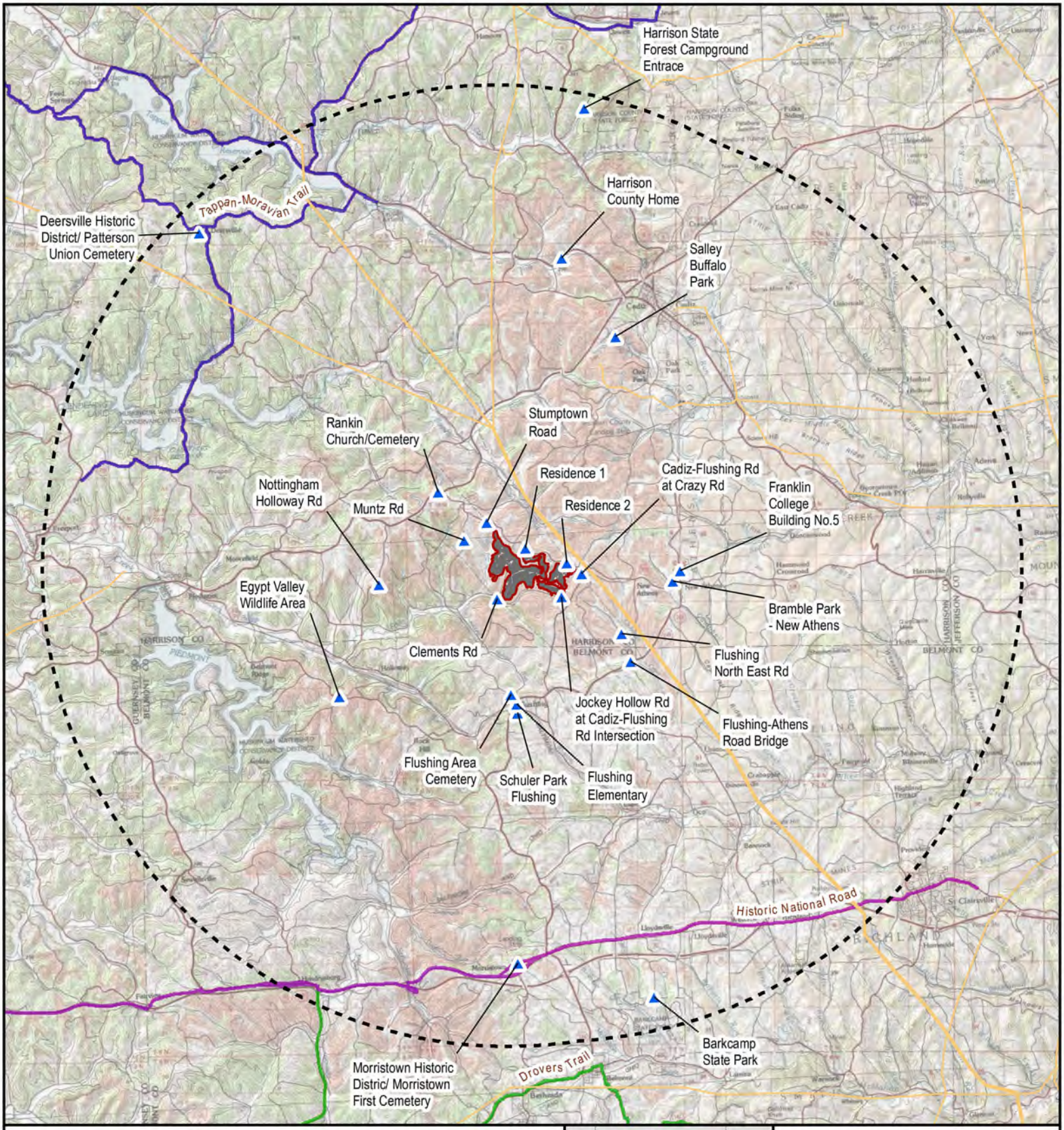
NOTTINGHAM SOLAR SITE

Figure 3. Illustration of Visual Resources Inventory within 2-Miles of the Project Area

Harrison County, Ohio

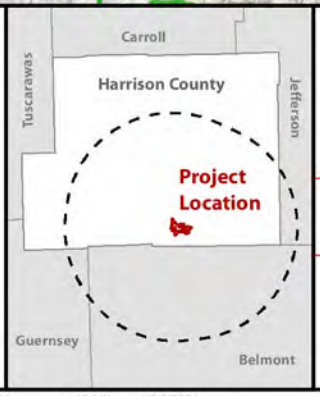
N

Miles
0 0.5 1



- Project Viewpoints
- Transmission Line
- Ohio Scenic Byways
- Project Boundary
- Module Layout
- Project Boundary (10-Miles)

Data Sources: ESRI 2016-2020; WSP 2021; BQ Energy 2021; HFILD 2020; USGS 1978; OH DOT 2017.



NOTTINGHAM SOLAR SITE

Figure 4. Illustration of Viewpoints within 10-Miles of the Project Area

WSP

Harrison County, Ohio

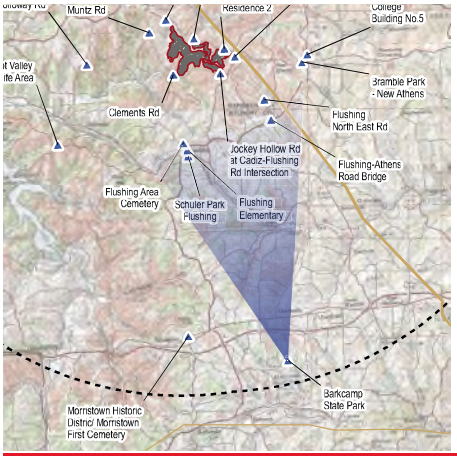
N

Miles 0 2 4

Path: L:\PROJECTS\BQ_Energy\NottinghamSolar_Visual\Maps\Mxd\Report\VisualReport\MiscRequest\2021_07_RyanWeston\4 -Illustration Viewpoints - 10 Mile.mxd 7/6/2021

APPENDIX

C Existing Conditions



Key:

- Project Viewpoints
- Transmission Line
- Project Boundary
- Module Layout
- Project Boundary (10-Miles)

Data Source: ESRI 2016-2020; WSP 2021
BQ Energy 2021; HFILD; USGS

Nottingham Solar Project
Viewpoint 1- Barkcamp State Park

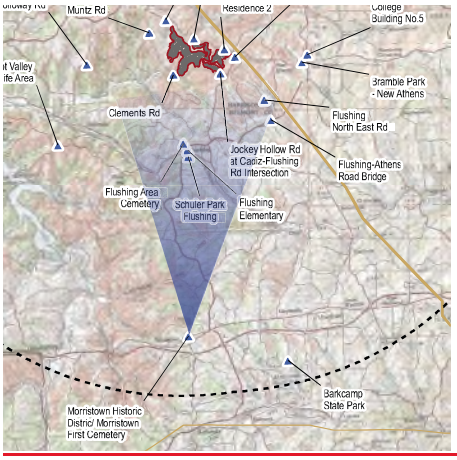
EXISTING CONDITIONS

PHOTO INFORMATION

View looking northwest from Barkcamp State Park northern boundary
Longitude: 81° 00' 58.1"
Latitude: 40° 03' 00.8"
Distance to Project Boundary: 9.3 miles
Elevation: 1,227 ft

Camera: Nikon D3400
Lens setting: 48mm
Camera Bearing: Northwest
Height of Camera: 5'-6"
Frame: Panorama

Date: June 12, 2021
Time: 9:57 am
Weather: Sunny
Visibility: Clear



Key:

- Project Viewpoints
- Transmission Line
- Project Boundary
- Module Layout
- Project Boundary (10-Miles)

Data Source: ESRI 2016-2020; WSP 2021
BQ Energy 2021; HFILD; USGS

Nottingham Solar Project
Viewpoint 2- Morristown Historic District

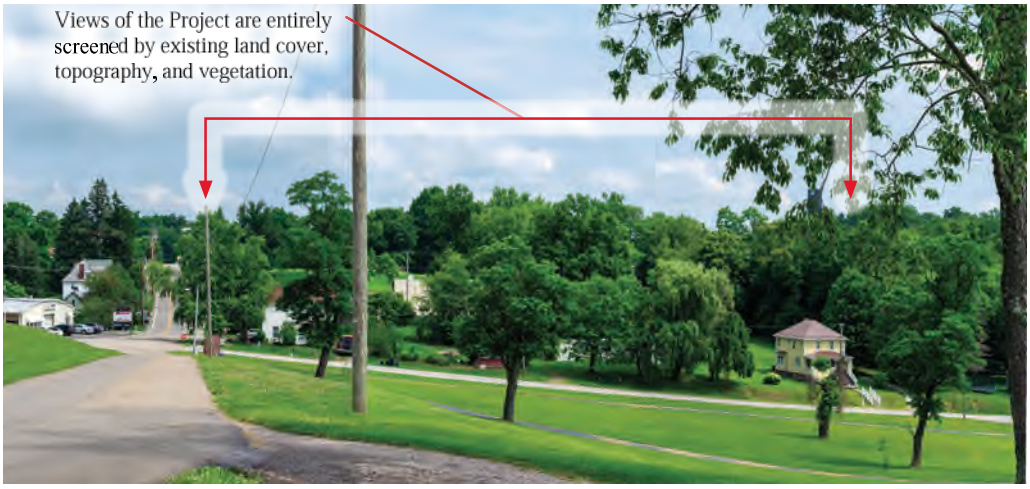
EXISTING CONDITIONS

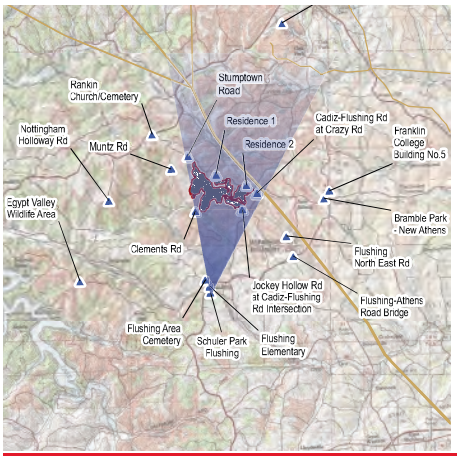
PHOTO INFORMATION

View looking north from Pioneer Cemetery
Longitude: 81° 04' 21.9"
Latitude: 40° 03' 48.8"
Distance to Project Boundary: 8.1 miles
Elevation: 1,268 ft

Camera: Nikon D3400
Lens setting: 48mm
Camera Bearing: Northwest
Height of Camera: 5'-6"
Frame: Panorama

Date: June 12, 2021
Time: 10:36 am
Weather: Sunny
Visibility: Clear





Key:

- Project Viewpoints
- Transmission Line
- Project Boundary
- Module Layout
- Project Boundary (10-Miles)

Data Source: ESRI 2016-2020; WSP 2021
BQ Energy 2021; HFILD; USGS

Nottingham Solar Project
Viewpoint 3- Schuler Park

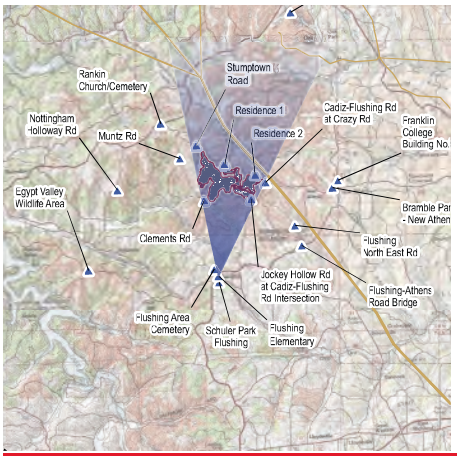
EXISTING CONDITIONS

PHOTO INFORMATION

View looking north from Schuler Park
Longitude: 81° 04' 02.6"
Latitude: 40° 08' 41.0"
Distance to Project Boundary: 2.6 miles
Elevation: 1,287 ft

Camera: Nikon D3400
Lens setting: 48mm
Camera Bearing: Northwest
Height of Camera: 5'-6"
Frame: Panorama

Date: June 12, 2021
Time: 11:27 am
Weather: Partly Cloudy
Visibility: Clear



Key:

- Project Viewpoints
- Transmission Line
- Project Boundary
- Module Layout
- Project Boundary (10-Miles)

Data Source: ESRI 2016-2020; WSP 2021
BQ Energy 2021; HFILD; USGS

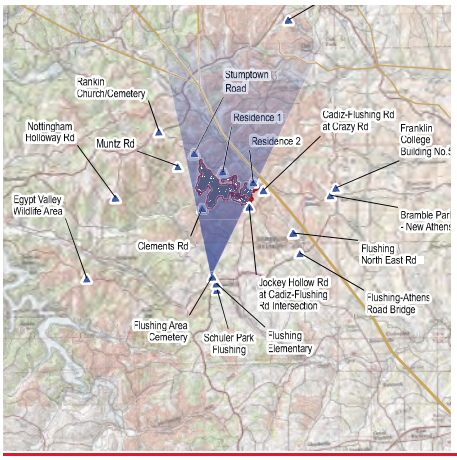
Nottingham Solar Project
Viewpoint 4- Flushing Elementary

PHOTO INFORMATION

View looking north from former Flushing Elementary School
Longitude: 81° 04' 03.0"
Latitude: 40° 08' 51.1"
Distance to Project Boundary: 2.3 miles
Elevation: 1,283 ft

Camera: Nikon D3400
Lens setting: 48mm
Camera Bearing: Northwest
Height of Camera: 5'-6"
Frame: Panorama

Date: June 12, 2021
Time: 11:39 am
Weather: Partly Cloudy
Visibility: Clear



Key:

- Project Viewpoints
- Transmission Line
- Project Boundary
- Module Layout
- Project Boundary (10-Miles)

Data Source: ESRI 2016-2020; WSP 2021
BQ Energy 2021; HFILD; USGS

Nottingham Solar Project
Viewpoint 5- Flushing Cemetery

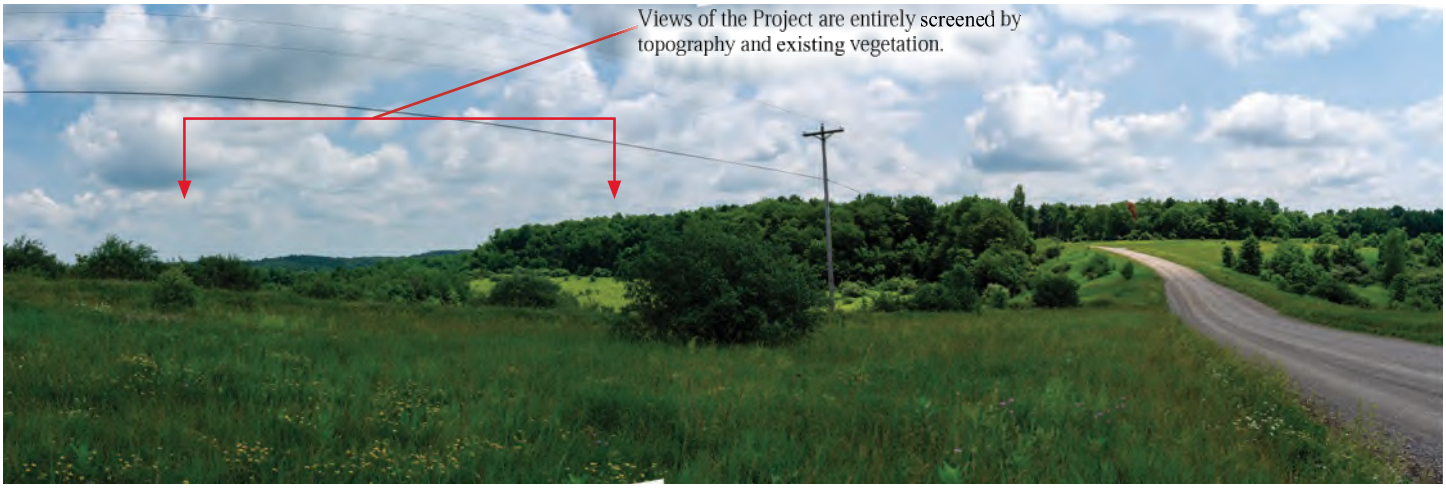
EXISTING CONDITIONS

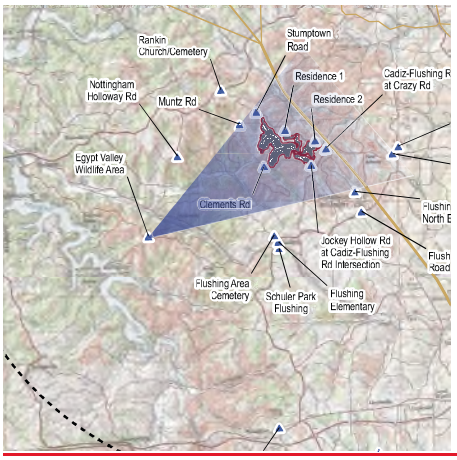
PHOTO INFORMATION

View looking north from Flushing Cemetery
Longitude: 81° 04' 11.0"
Latitude: 40° 09' 02.7"
Distance to Project Boundary: 2.1 miles
Elevation: 1,292 ft

Camera: Nikon D3400
Lens setting: 18mm
Camera Bearing: Northwest
Height of Camera: 5'-6"
Frame: Panorama

Date: June 12, 2021
Time: 11:55 am
Weather: Partly Cloudy
Visibility: Clear





Key:

- Project Viewpoints
- Transmission Line
- Project Boundary
- Module Layout
- Project Boundary (10-Miles)

Data Source: ESRI 2016-2020; WSP 2021
BQ Energy 2021; HFILD; USGS

Nottingham Solar Project
Viewpoint 6- Egypt Valley Wildlife Area

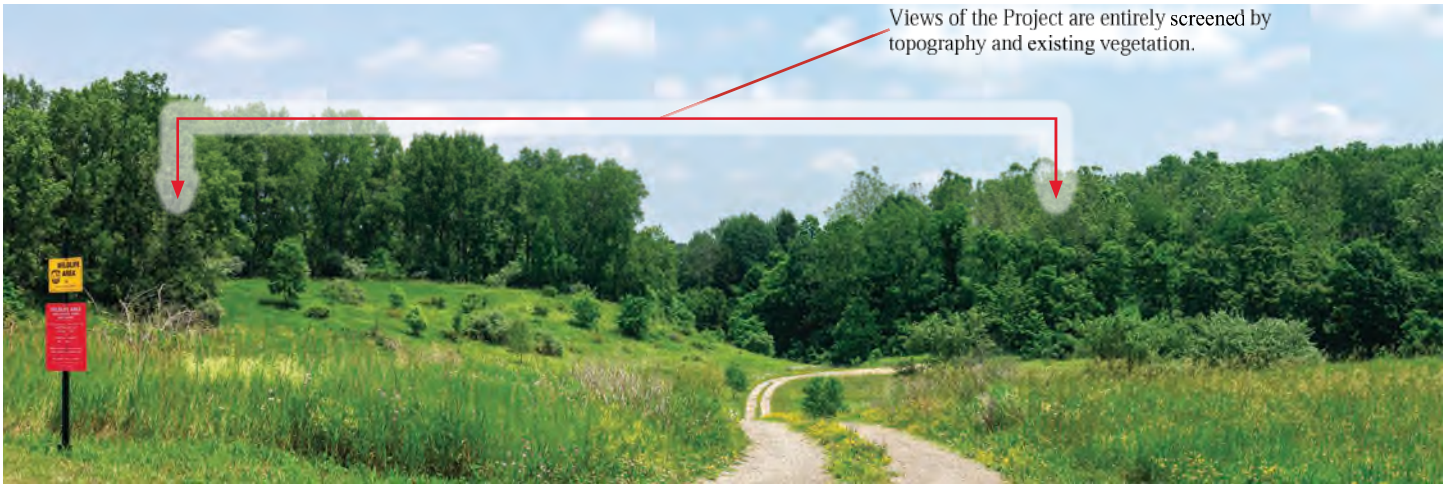
EXISTING CONDITIONS

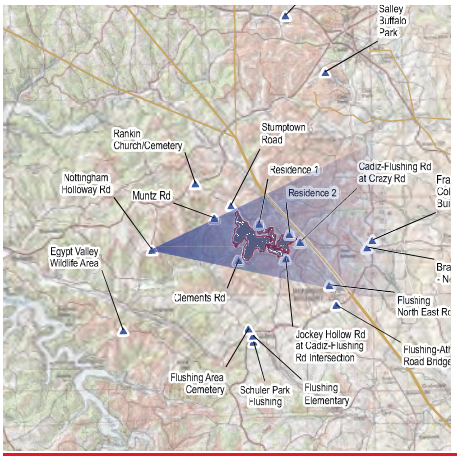
PHOTO INFORMATION

View looking northeast from Egypt Valley Wildlife Area
Longitude: 81° 08' 32.2"
Latitude: 40° 09' 10.4"
Distance to Project Boundary: 4.3 miles
Elevation: 1,192 ft

Camera: Nikon D3400
Lens setting: 48mm
Camera Bearing: Northwest
Height of Camera: 5'-6"
Frame: Panorama

Date: June 12, 2021
Time: 12:33 pm
Weather: Partly Cloudy
Visibility: Clear





Key:

- Project Viewpoints
- Transmission Line
- Project Boundary
- Module Layout
- Project Boundary (10-Miles)

Data Source: ESRI 2016-2020; WSP 2021
BQ Energy 2021; HFILD; USGS

Nottingham Solar Project
Viewpoint 7- Nottingham Holloway Road

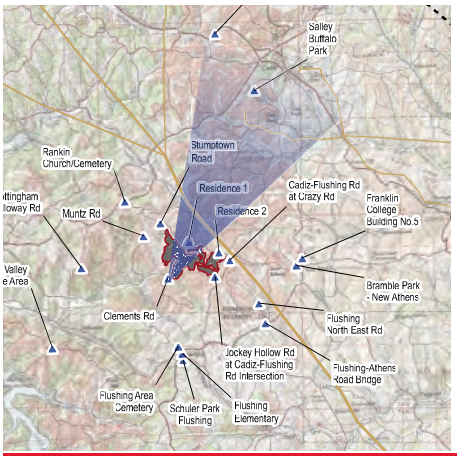
EXISTING CONDITIONS

PHOTO INFORMATION

View looking east from Nottingham Holloway Road (Entrance to Jockey Hollow Wildlife Area)
Longitude: 81° 07' 23.2"
Latitude: 40° 11' 19.3"
Distance to Project Boundary: 2.5 miles
Elevation: 1,219 ft

Camera: Nikon D3400
Lens setting: 48mm
Camera Bearing: Northwest
Height of Camera: 5'-6"
Frame: Panorama

Date: June 12, 2021
Time: 1:08 pm
Weather: Partly Cloudy
Visibility: Clear



Key:

- Project Viewpoints
- Transmission Line
- Project Boundary
- Module Layout
- Project Boundary (10-Miles)

Data Source: ESRI 2016-2020: WSP 2021
BQ Energy 2021; HFILD; USGS

Nottingham Solar Project
Viewpoint 8- Clements Road

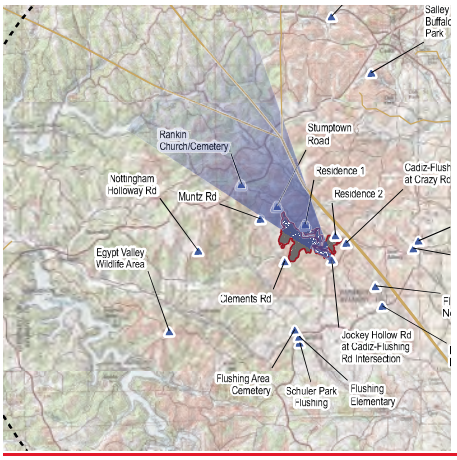
EXISTING CONDITIONS

PHOTO INFORMATION

View looking northeast from Clements Road
Longitude: 81° 04' 24.4"
Latitude: 40° 10' 55.3"
Distance to Project Boundary: 741 ft
Elevation: 972 ft

Camera: Nikon D3400
Lens setting: 48mm
Camera Bearing: Northwest
Height of Camera: 5'-6"
Frame: Panorama

Date: June 12, 2021
Time: 1:45 pm
Weather: Partly Cloudy
Visibility: Clear



Key:

- Project Viewpoints
- Transmission Line
- Project Boundary
- Module Layout
- Project Boundary (10-Miles)

Data Source: ESRI 2016-2020; WSP 2021
BQ Energy 2021; HFILD; USGS

Nottingham Solar Project
Viewpoint 9- Jockey Hollow Road

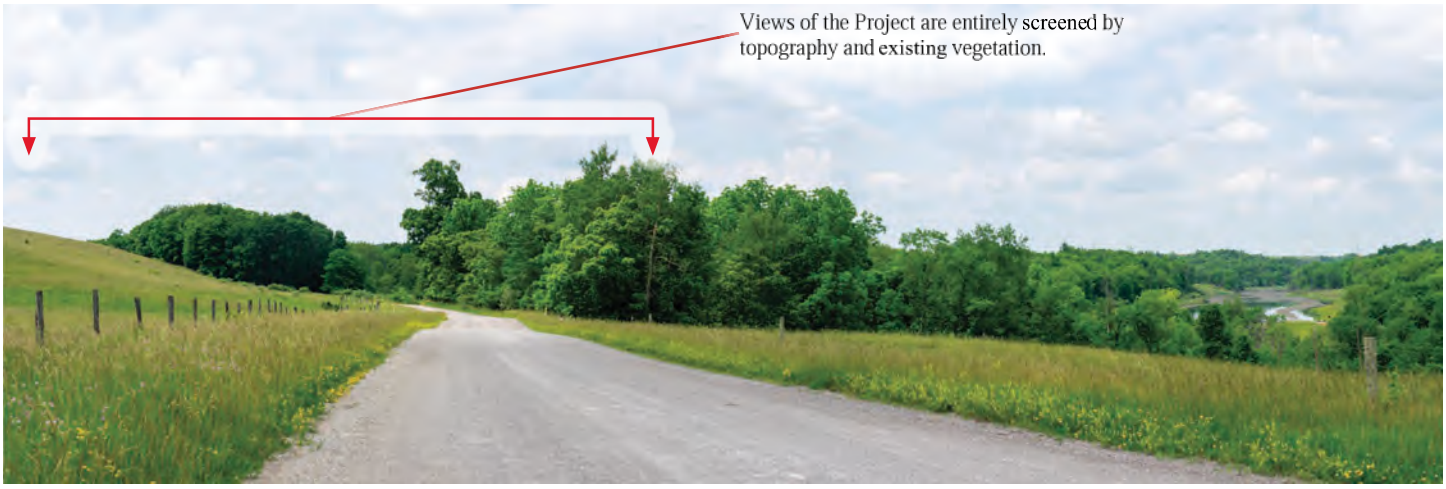
EXISTING CONDITIONS

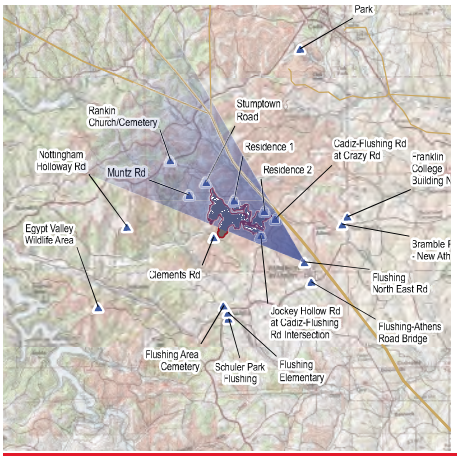
PHOTO INFORMATION

View looking northwest from Jockey Hollow Road
Longitude: 81° 02' 46.2"
Latitude: 40° 10' 53.8"
Distance to Project Boundary: 327 ft
Elevation: 1,216 ft

Camera: Nikon D3400
Lens setting: 48mm
Camera Bearing: Northwest
Height of Camera: 5'-6"
Frame: Panorama

Date: June 12, 2021
Time: 2:10 pm
Weather: Partly Cloudy
Visibility: Clear





Key:

- Project Viewpoints
- Transmission Line
- Project Boundary
- Module Layout
- Project Boundary (10-Miles)

Data Source: ESRI 2016-2020; WSP 2021
BQ Energy 2021; HFILD; USGS

Nottingham Solar Project
Viewpoint 10- Flushing North East Road

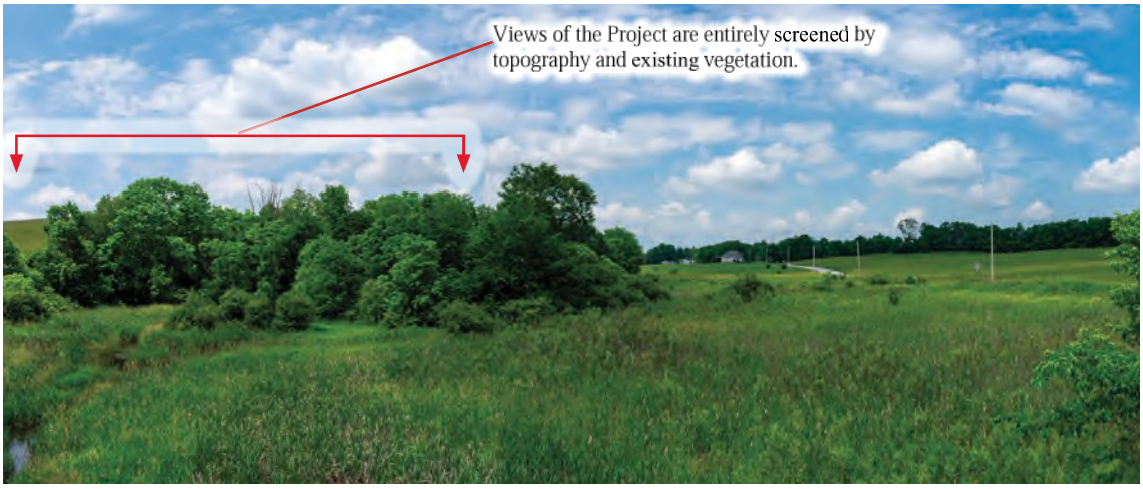
EXISTING CONDITIONS

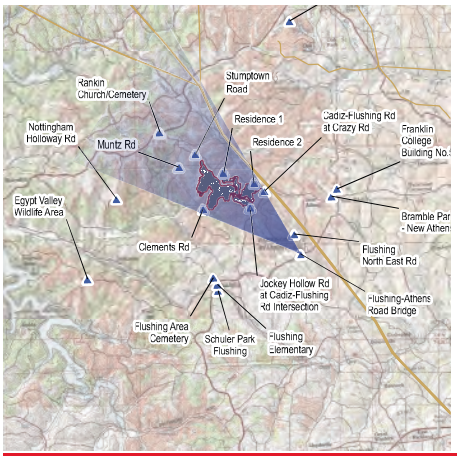
PHOTO INFORMATION

View looking northwest from Flushing North East Road
Longitude: 81° 01' 18.0"
Latitude: 40° 10' 06.8"
Distance to Project Boundary: 1.6 miles
Elevation: 1,175 ft

Camera: Nikon D3400
Lens setting: 48mm
Camera Bearing: Northwest
Height of Camera: 5'-6"
Frame: Panorama

Date: June 12, 2021
Time: 2:30 pm
Weather: Partly Cloudy
Visibility: Clear





Key:

- Project Viewpoints
- Transmission Line
- Project Boundary
- Module Layout
- Project Boundary (10-Miles)

Data Source: ESRI 2016-2020; WSP 2021 BQ Energy 2021; HFILD; USGS

Nottingham Solar Project
Viewpoint 11- Flushing-Athens Road Bridge

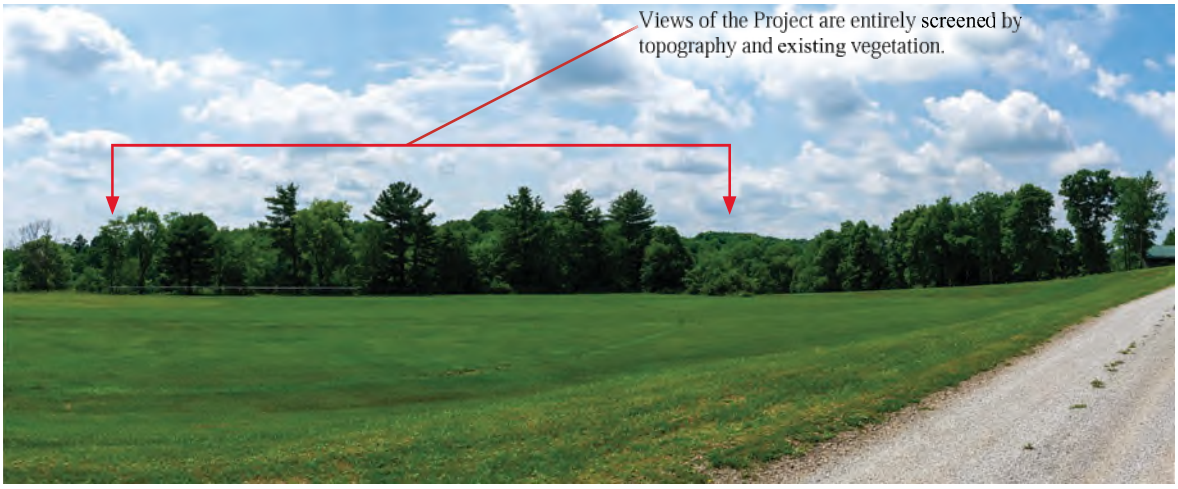
EXISTING CONDITIONS

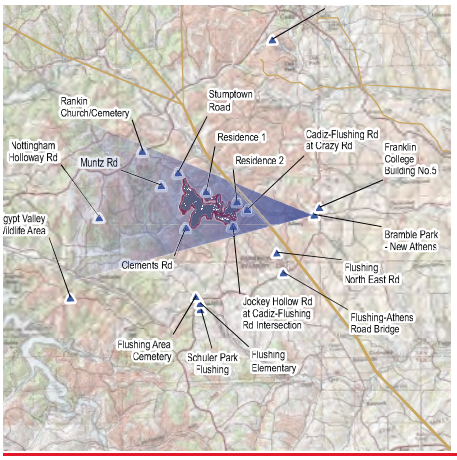
PHOTO INFORMATION

View looking northwest from Flushing-Athens Road Bridge
Longitude: 81° 01' 06.2"
Latitude: 40° 09' 33.9"
Distance to Project Boundary: 2.2 miles
Elevation: 1,060 ft

Camera: Nikon D3400
Lens setting: 18mm
Camera Bearing: Northwest
Height of Camera: 5'-6"
Frame: Panorama

Date: June 12, 2021
Time: 2:45 pm
Weather: Partly Cloudy
Visibility: Clear





Key:

- Project Viewpoints
- Transmission Line
- Project Boundary
- Module Layout
- Project Boundary (10-Miles)

Data Source: ESRI 2016-2020; WSP 2021
BQ Energy 2021; HFILD; USGS

Nottingham Solar Project
Viewpoint 12- Bramble Park

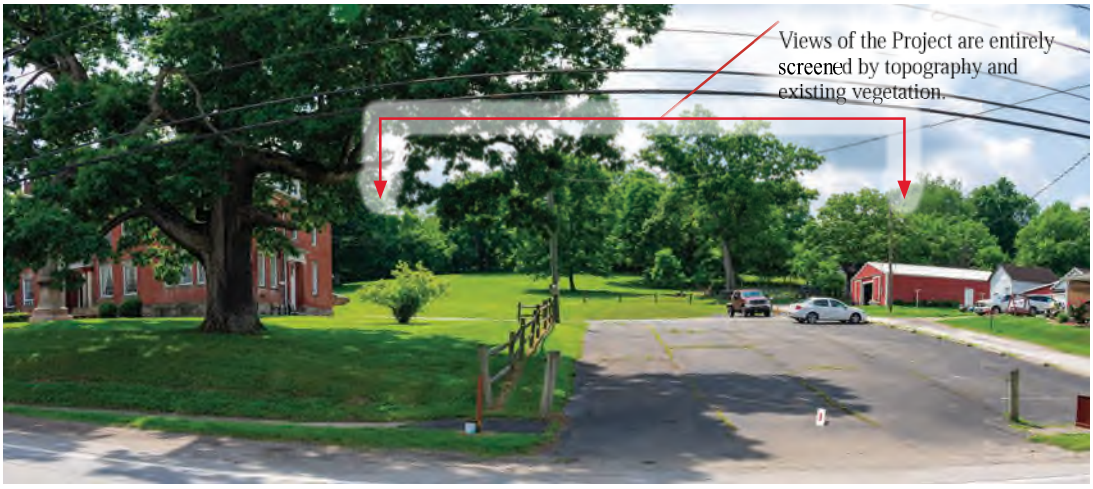
EXISTING CONDITIONS

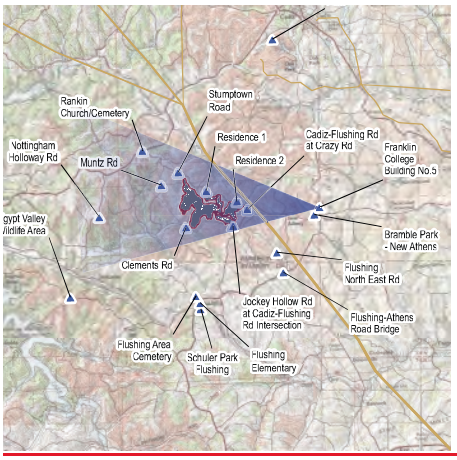
PHOTO INFORMATION

View looking west from Bramble Park
Longitude: 81° 04' 11.0"
Latitude: 40° 09' 02.7"
Distance to Project Boundary: 2.2 miles
Elevation: 1,151 ft

Camera: Nikon D3400
Lens setting: 18 mm
Camera Bearing: Northwest
Height of Camera: 5'-6"
Frame: Panorama

Date: June 12, 2021
Time: 3:00 pm
Weather: Partly Cloudy
Visibility: Clear





Key:

- Project Viewpoints
- Transmission Line
- Project Boundary
- Module Layout
- Project Boundary (10-Miles)

Data Source: ESRI 2016-2020; WSP 2021
BQ Energy 2021; HFILD; USGS

Nottingham Solar Project
Viewpoint 13- Franklin College Building No. 5

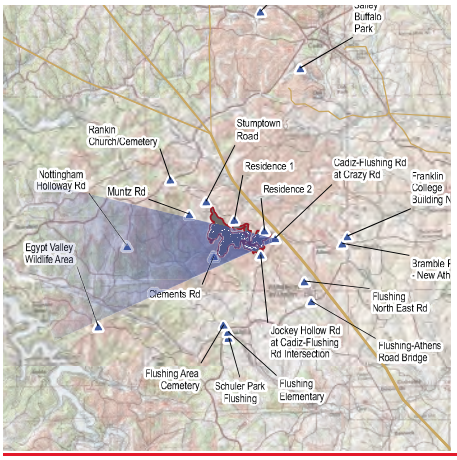
EXISTING CONDITIONS

PHOTO INFORMATION

View looking west from Main Street adjacent to Franklin College Building No. 5
Longitude: 80° 59' 44.0"
Latitude: 40° 11' 16.5"
Distance to Project Boundary: 2.4 miles
Elevation: 1,167ft

Camera: Nikon D3400
Lens setting: 18 mm
Camera Bearing: Northwest
Height of Camera: 5'-6"
Frame: Panorama

Date: June 12, 2021
Time: 3:10 pm
Weather: Partly Cloudy
Visibility: Clear



Key:

- Project Viewpoints
- Transmission Line
- Project Boundary
- Module Layout
- Project Boundary (10-Miles)

Data Source: ESRI 2016-2020: WSP 2021 BQ Energy 2021; HFILD; USGS

Nottingham Solar Project
Viewpoint 14- Cadiz-Flushing Road

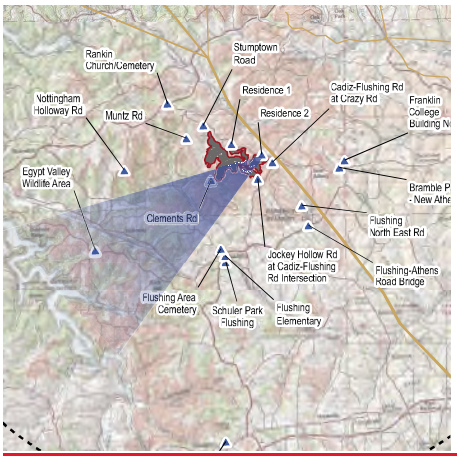
EXISTING CONDITIONS

PHOTO INFORMATION

View looking west from Cadiz Road at Crazy Road intersection
Longitude: 81° 04' 11.0"
Latitude: 40° 11' 19.1"
Distance to Project Boundary: 798 ft
Elevation: 1,259 ft

Camera: Nikon D3400
Lens setting: 48 mm
Camera Bearing: Northwest
Height of Camera: 5'-6"
Frame: Panorama

Date: June 12, 2021
Time: 3:38 pm
Weather: Partly Cloudy
Visibility: Clear



Key:

- Project Viewpoints
- Transmission Line
- Project Boundary
- Module Layout
- Project Boundary (10-Miles)

Data Source: ESRI 2016-2020; WSP 2021
BQ Energy 2021; HFILD; USGS

Nottingham Solar Project
Viewpoint 15- Residence 2

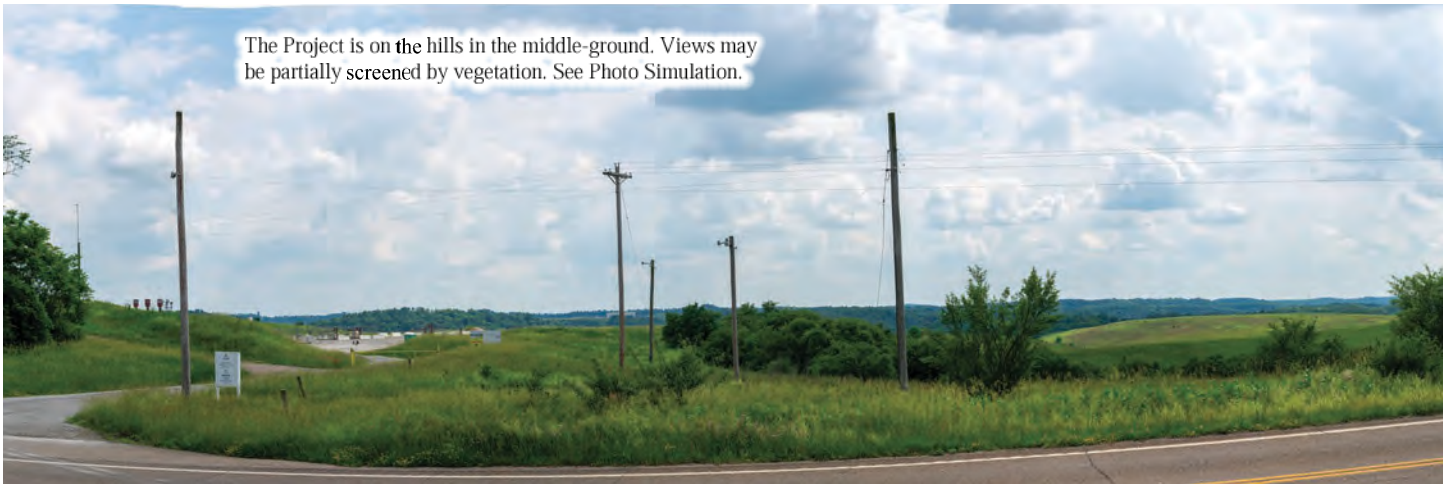
EXISTING CONDITIONS

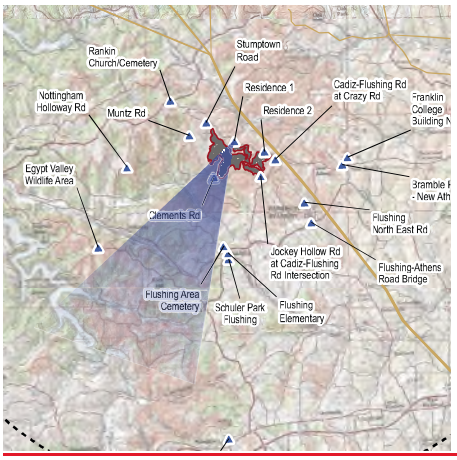
PHOTO INFORMATION

View looking southwest from residence along Stumptown Road
Longitude: 81° 02' 35.5"
Latitude: 40° 11' 32.8"
Distance to Project Boundary: 286 ft
Elevation: 1,269 ft

Camera: Nikon D3400
Lens setting: 50 mm
Camera Bearing: Northwest
Height of Camera: 5'-6"
Frame: Panorama

Date: June 12, 2021
Time: 3:45 pm
Weather: Partly Cloudy
Visibility: Clear





Key:

- Project Viewpoints
- Transmission Line
- Project Boundary
- Module Layout
- Project Boundary (10-Miles)

Data Source: ESRI 2016-2020: WSP 2021 BQ Energy 2021; HFILD; USGS

Nottingham Solar Project
Viewpoint 16- Residence 1

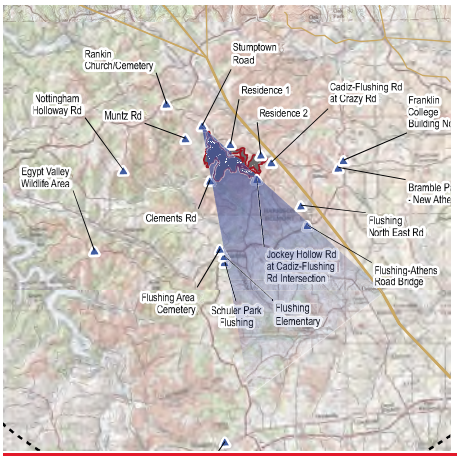
EXISTING CONDITIONS

PHOTO INFORMATION

View looking south from residence along Stumptown Road
Longitude: 81° 03' 37.1"
Latitude: 40° 11' 52.8"
Distance to Project Boundary: 1,445 ft
Elevation: 1,225 ft

Camera: Nikon D3400
Lens setting: 48 mm
Camera Bearing: Northwest
Height of Camera: 5'-6"
Frame: Panorama

Date: June 12, 2021
Time: 4:00 pm
Weather: Partly Cloudy
Visibility: Clear



Key:

- Project Viewpoints
- Transmission Line
- Project Boundary
- Module Layout
- Project Boundary (10-Miles)

Data Source: ESRI 2016-2020; WSP 2021 BQ Energy 2021; HFILD; USGS

Nottingham Solar Project
Viewpoint 17- Stumptown Road

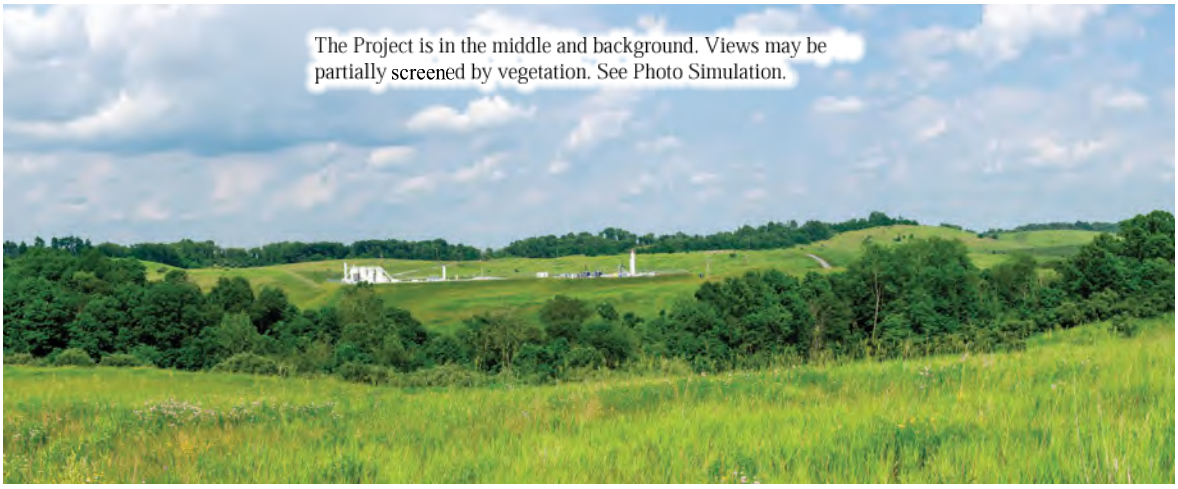
EXISTING CONDITIONS

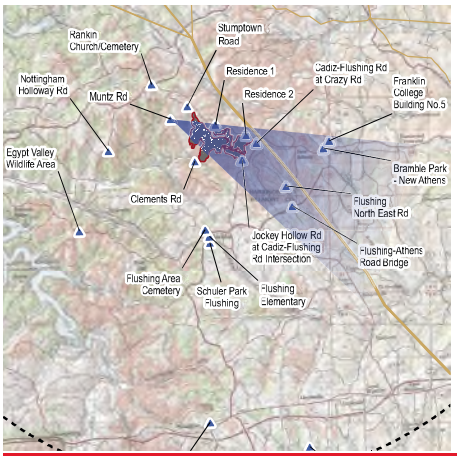
PHOTO INFORMATION

View looking southeast from Stumptown Road at clearing for over-head utility lines
Longitude: 81° 04' 34.2"
Latitude: 40° 12' 25.2"
Distance to Project Boundary: 1,417 ft
Elevation: 1,250 ft

Camera: Nikon D3400
Lens setting: 48 mm
Camera Bearing: Northwest
Height of Camera: 5'-6"
Frame: Panorama

Date: June 12, 2021
Time: 4:10 pm
Weather: Partly Cloudy
Visibility: Clear





Key:

- Project Viewpoints
- Transmission Line
- Project Boundary
- Module Layout
- Project Boundary (10-Miles)

Data Source: ESRI 2016-2020: WSP 2021 BQ Energy 2021; HFILD; USGS

Nottingham Solar Project
Viewpoint 18- Muntz Road
(Jockey Hollow Wildlife Area)

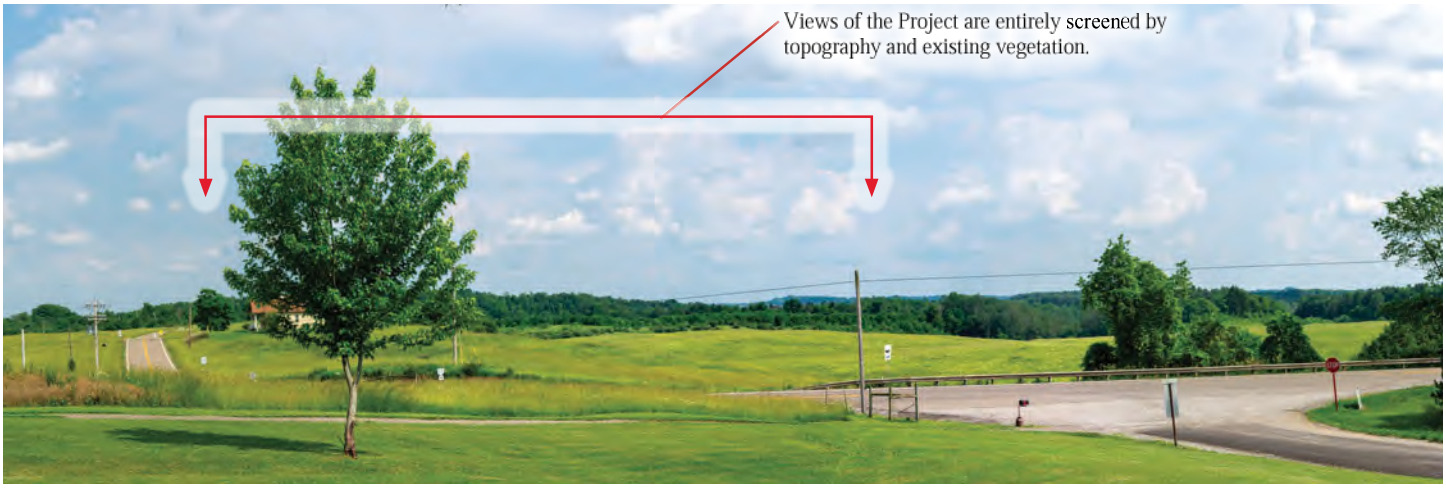
EXISTING CONDITIONS

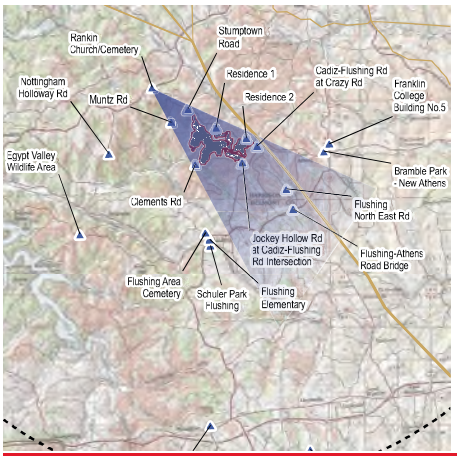
PHOTO INFORMATION

View looking east from Muntz Road within Jockey Hollow Wildlife Area
Longitude: 81° 05' 09.7"
Latitude: 40° 12' 05.3"
Distance to Project Boundary: 3,409 ft
Elevation: 1,215 ft

Camera: Nikon D3400
Lens setting: 50 mm
Camera Bearing: Northwest
Height of Camera: 5'-6"
Frame: Panorama

Date: June 12, 2021
Time: 4:20 pm
Weather: Partly Cloudy
Visibility: Clear





Key:

- Project Viewpoints
- Transmission Line
- Project Boundary
- Module Layout
- Project Boundary (10-Miles)

Data Source: ESRI 2016-2020; WSP 2021
BQ Energy 2021; HFILD; USGS

Nottingham Solar Project
Viewpoint 19- Rankin Church

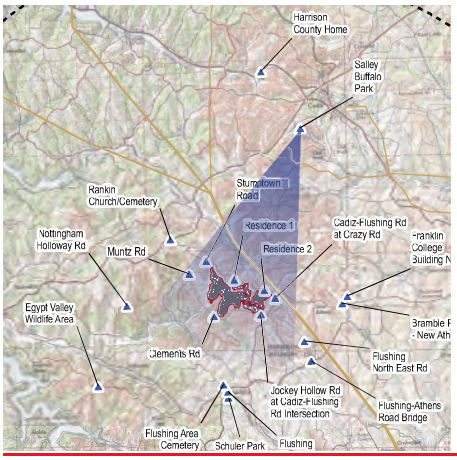
EXISTING CONDITIONS

PHOTO INFORMATION

View looking southeast from Rankin Church
Longitude: 81° 05' 45.5"
Latitude: 40° 13' 03.5"
Distance to Project Boundary: 1.5 miles
Elevation: 1,246 ft

Camera: Nikon D3400
Lens setting: 50 mm
Camera Bearing: Northwest
Height of Camera: 5'-6"
Frame: Panorama

Date: June 12, 2021
Time: 4:30 pm
Weather: Partly Cloudy
Visibility: Clear



Key:

- Project Viewpoints
- Transmission Line
- Project Boundary
- Module Layout
- Project Boundary (10-Miles)

Data Source: ESRI 2016-2020; WSP 2021
BQ Energy 2021; HFILD; USGS

Nottingham Solar Project
Viewpoint 20- Sally Buffalo Park

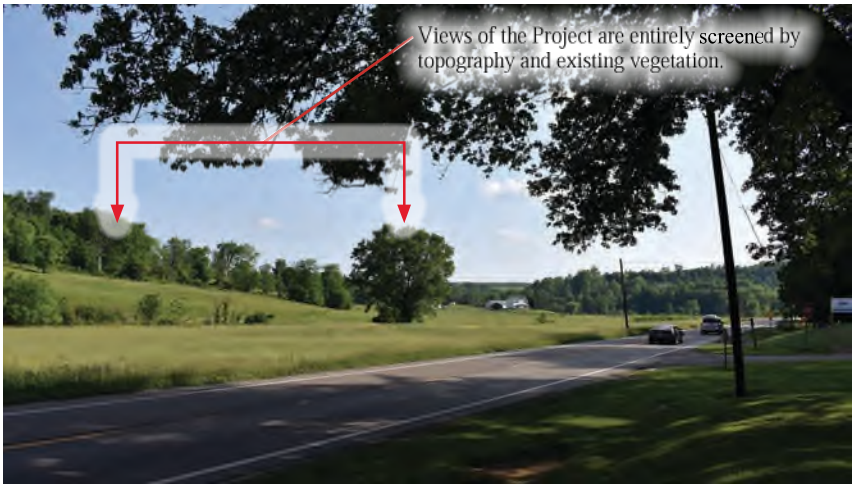
Existing Conditions

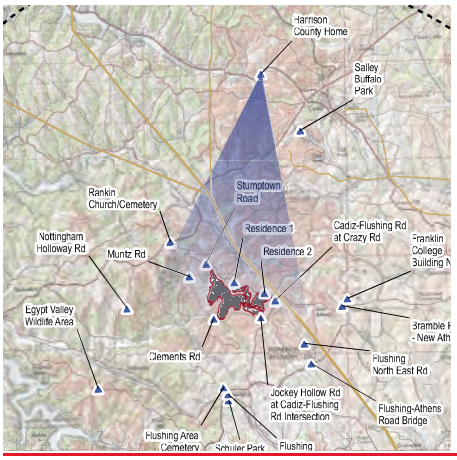
Photo Information

View looking southwest from Sally Buffalo Park at the baseball fields
Longitude: 81° 01' 02.9"
Latitude: 40° 15' 54.1"
Distance to Project Boundary: 5.1 miles
Elevation: 1,246 ft

Camera: Nikon D3400
Lens setting: 18 mm
Camera Bearing: Northwest
Height of Camera: 5'-6"
Frame: Panorama

Date: June 12, 2021
Time: 5:23 pm
Weather: Partly Cloudy
Visibility: Clear





Key:

- Project Viewpoints
- Transmission Line
- Project Boundary
- Module Layout
- Project Boundary (10-Miles)

Data Source: ESRI 2016-2020; WSP 2021
BQ Energy 2021; HFILD; USGS

Nottingham Solar Project
Viewpoint 21- Harrison County Home

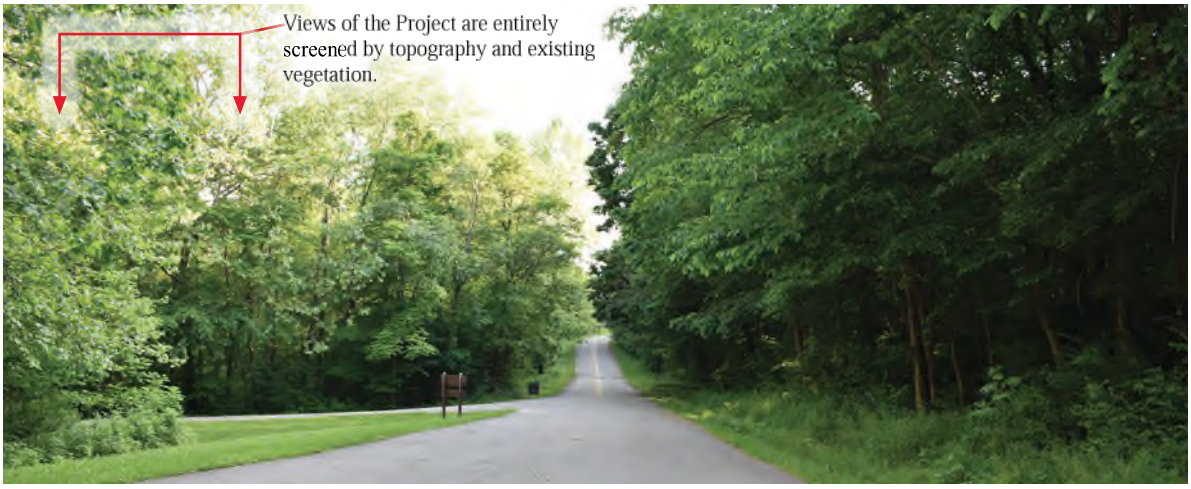
EXISTING CONDITIONS

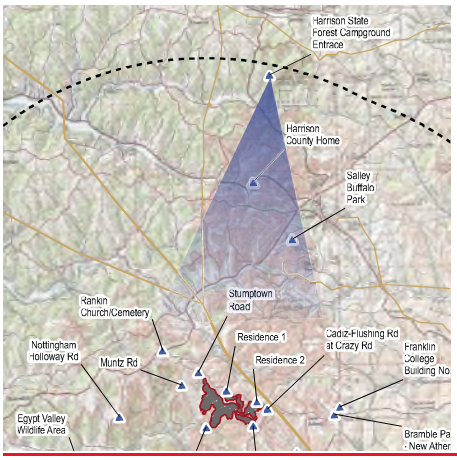
PHOTO INFORMATION

View looking south from Harrison County Home
Longitude: 81° 02’ 18.8”
Latitude: 40° 17’ 29.0”
Distance to Project Boundary: 6.3 miles
Elevation: 983 ft

Camera: Nikon D3400
Lens setting: 18 mm
Camera Bearing: Northwest
Height of Camera: 5’-6”
Frame: Panorama

Date: June 12, 2021
Time: 6:00 pm
Weather: Partly Cloudy
Visibility: Clear





Key:

- Project Viewpoints
- Transmission Line
- Project Boundary
- Module Layout
- Project Boundary (10-Miles)

Data Source: ESRI 2016-2020; WSP 2021
BQ Energy 2021; HFILD; USGS

Nottingham Solar Project
Viewpoint 22- Harrison State Forest

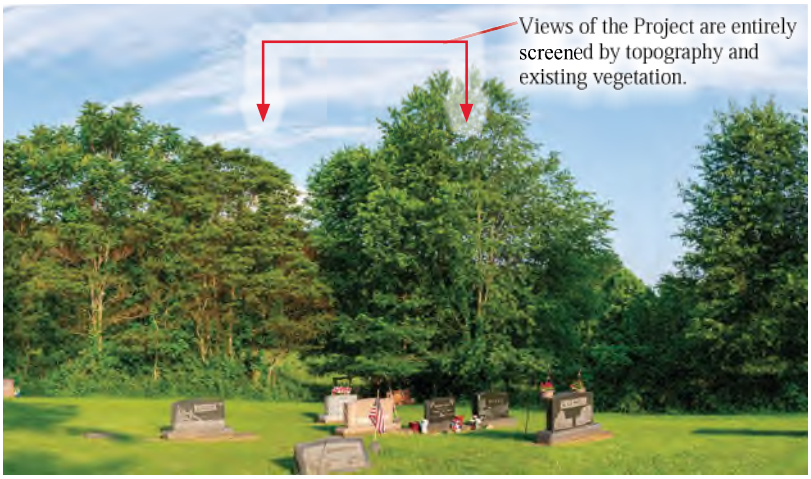
EXISTING CONDITIONS

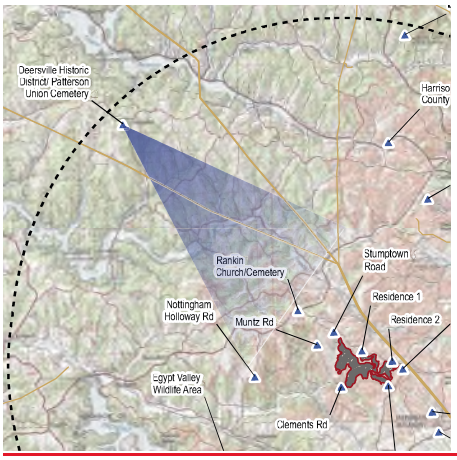
PHOTO INFORMATION

View looking south from Harrison State Forest Campground
Longitude: 81° 01' 32.3"
Latitude: 40° 20' 22.8"
Distance to Project Boundary: 9.7 miles
Elevation: 1,012 ft

Camera: Nikon D3400
Lens setting: 18 mm
Camera Bearing: Northwest
Height of Camera: 5'-5"
Frame: Panorama

Date: June 12, 2021
Time: 6:22 pm
Weather: Partly Cloudy
Visibility: Clear





Key:

- Project Viewpoints
- Transmission Line
- Project Boundary
- Module Layout
- Project Boundary (10-Miles)

Data Source: ESRI 2016-2020: WSP 2021 BQ Energy 2021; HFILD; USGS

Nottingham Solar Project
Viewpoint 23- Deersville Historic District

EXISTING CONDITIONS

PHOTO INFORMATION

View looking southeast from Deersville Historic District (Patterson Union Cemetery)
Longitude: 81° 11' 18.8"
Latitude: 40° 18' 20.6"
Distance to Project Boundary: 9.4 miles
Elevation: 1,249 ft

Camera: Nikon D3400
Lens setting: 18 mm
Camera Bearing: Northwest
Height of Camera: 5'-6"
Frame: Panorama

Date: June 12, 2021
Time: 6:54 pm
Weather: Partly Cloudy
Visibility: Clear

APPENDIX

D Simulations

Nottingham Solar Project
Viewpoint 9 - Jockey Hollow Road

Visual Simulations

Figure 1

Nottingham Solar Project
Viewpoint 14- Cadiz-Flushing Road

Nottingham Solar Project
Viewpoint 16- Residence 1

Nottingham Solar Project
Viewpoint 17- Stumptown Road

Nottingham Solar Project
Viewpoint 18- Muntz Road
(Jockey Hollow Wildlife Area)

Visual Simulations

Figure 5