

**Paulding Wind Farm IV LLC
Case No. 18-91-EL-BGN**

Application Part 11 of 11

Part 11 includes:

- **Exhibit FF Visual Impact Assessment**

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Exhibit FF

Visual Impact Assessment

- 1) Appendix A – Composite Map**
- 2) Appendix B – Visually Sensitive Sites Table**
- 3) Appendix C – Photo Log**
- 4) Appendix D – Visual Simulations**
- 5) Appendix E – Typical Underground Collection System Photos**
- 6) Appendix F – 360 Project Renderings**

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Visual Impact Assessment

Timber Road IV Wind Farm
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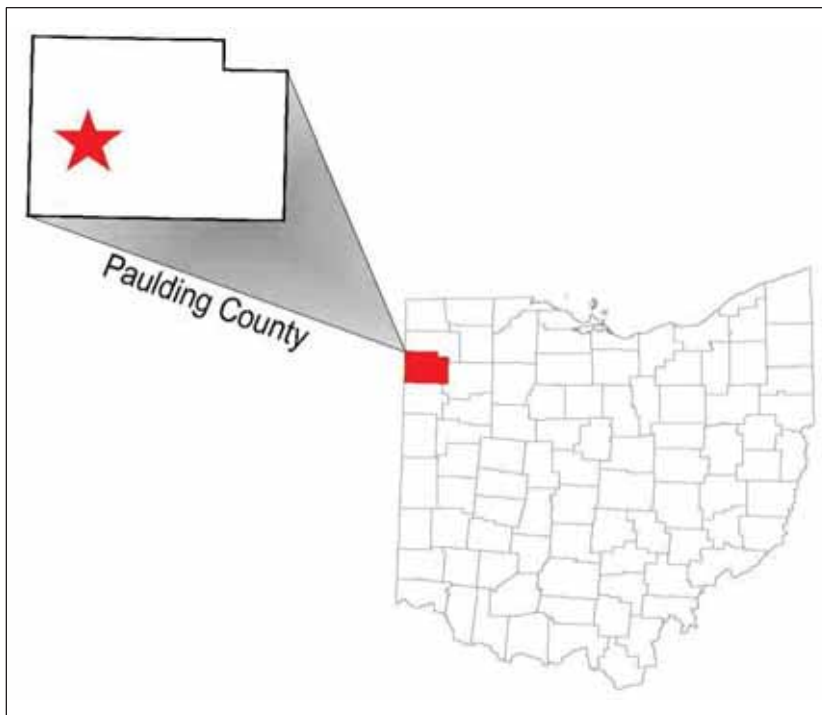
APPENDICES

Appendix A.	Composite Map
Appendix B.	Visually Sensitive Sites Table
Appendix C.	Photo Log
Appendix D.	Visual Simulations
Appendix E.	Typical Underground Collection System Photos

1.0 Introduction

On behalf of EDP Renewables, Environmental Design & Research, Landscape Architecture, Engineering, & Environmental Services, D.P.C. (EDR) prepared this Visual Impact Assessment (VIA) for the proposed Timber Road IV Wind Farm (also referred to as the Project). The proposed Project is a 125.1-megawatt (MW) wind energy generating facility located in Paulding County, Ohio. The purpose of this VIA is to:

- Describe the appearance of the visible components of the proposed Project.
- Describe the visual character of the Project study area.
- Inventory and evaluate existing visual resources and viewer groups.
- Evaluate potential Project visibility within the study area.
- Identify key views for visual assessment.
- Assess the visual impacts associated with the proposed action.



Inset 1. Regional Project Location

This VIA was prepared by, and with oversight from, professionals with experience in developing visual impact assessments. It is consistent with the policies, procedures, and guidelines contained in established visual impact assessment methodologies and satisfies the requirements of Ohio Administrative Code Chapter 4906-04-08(D)(4) for the Ohio Power Siting Board.

2.0 Project Description

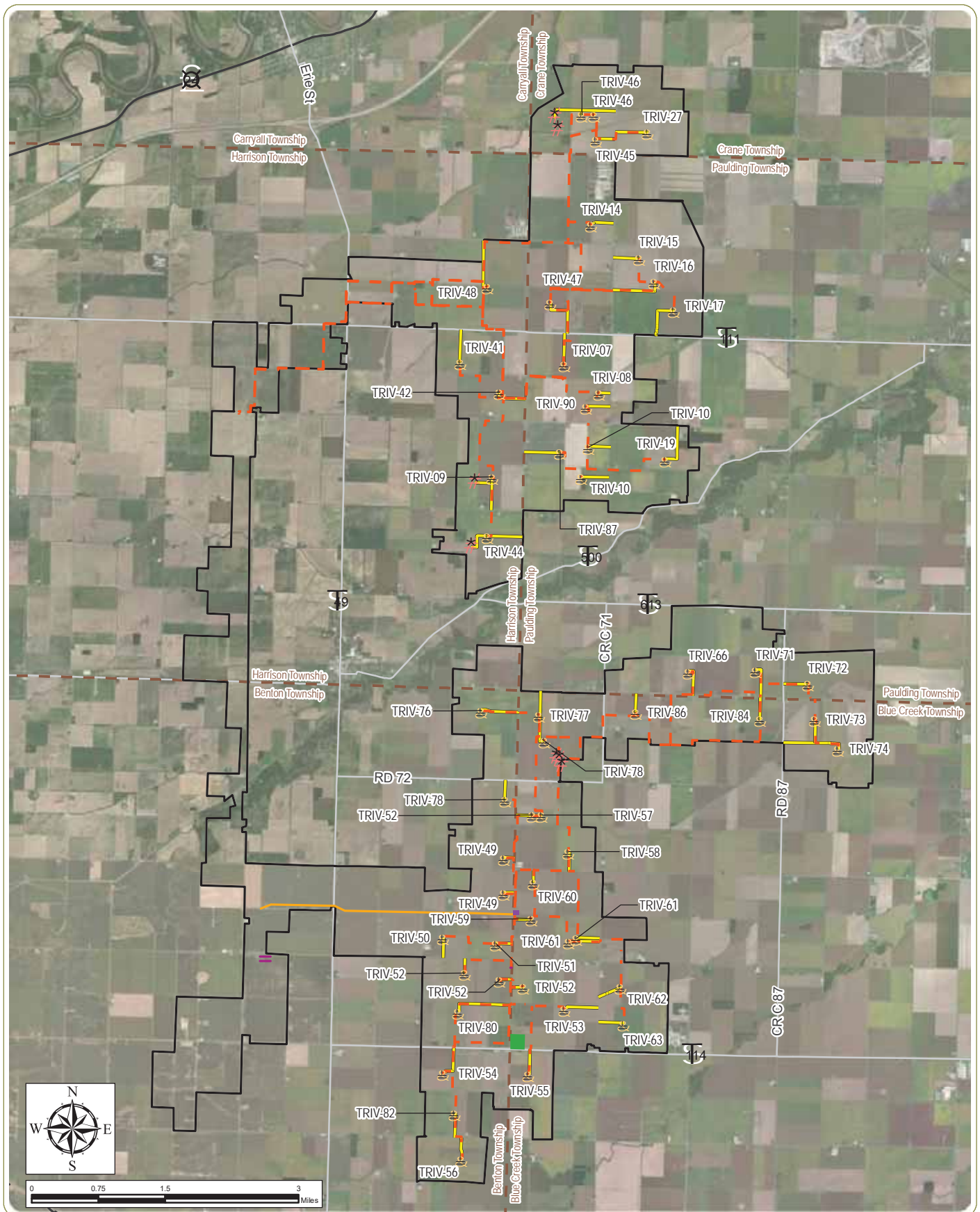
A description of the proposed Project and the visible components of the Timber Road IV Wind Farm is presented below.

2.1 Project Site

The Project Site consists of approximately 20,400 acres of private land in Crane, Harrison, Paulding, Blue Creek, and Benton Townships in Paulding County, Ohio. As measured from the nearest proposed turbine, the Project Site is approximately 1.55 miles east of the Village of Payne, 2.2 miles southwest of the Village of Latty, 3.33 miles southeast of the Village of Antwerp, 3.95 miles west of the Village of Paulding, 4.0 miles west of the Village of Haviland, 4.6 miles southwest of the Village of Cecil, 4.75 miles northwest of the Village of Scott, 5.75 miles north of the Village of Convoy, 8.2 miles northwest of the Village of Grover Hill, and 9.46 miles southeast of the Village of Hicksville. The Project Site is approximately 9.05 miles east of the Town of Monroeville, Indiana and 7.75 miles from the City of Woodburn, Indiana. The Project Site is bounded on the north by United States Route 24 and the Maumee State Scenic River, on the east by United States Route 127, on the south by United States Route 30 (Ohio and Indiana Lincoln Highway Historic Byway), and on the west by State Route 49. Flat Rock Creek traverses through the middle of the Project Site from east to west and bisects the proposed Project in the middle.

2.2 Proposed Project

The proposed Project evaluated in this VIA is a wind-powered electric generating facility, presented herein consisting of 54 wind turbine generator locations, each with a nameplate capacity rating of up to 4.2 megawatts (MW). The total output capacity for the Facility will not exceed 125.1 MW. Therefore, the number of turbines to be constructed will be dependent on the final turbine models selected, and not anticipated to exceed 37 locations. For the purposes of this report the maximum 54 turbine layout was used to represent the largest proposed buildout. Along with the turbines, the proposed Project includes associated support facilities including roads, buried electrical collection cables, up to three meteorological (met) towers, a new collection substation, a temporary construction laydown yard, and will also utilize one existing collection substation and one point of interconnection (POI) at the existing Logtown 138 kV switching station. Proposed Project configuration/layout is illustrated in Figure 1. The dimensions and visual appearance of the major components of the proposed Project are described below:



Timber Road IV Wind Farm

Benton, Blue Creek, Crane, Harrison, and Paulding Townships, Paulding County, Ohio

Figure 1: Proposed Project Layout

Notes: 1. Basemap: ESRI ArcGIS Online "World Imagery" map service. 2. This map was generated in ArcMap on June 25, 2018. 3. This is a color graphic. Reproduction in grayscale may misrepresent the data.

- | | | | |
|--|-----------------|--|-------------------|
| | Met Tower | | Transmission Line |
| | Wind Turbine | | Laydown Area |
| | Access Road | | Substation |
| | Collection Line | | Project Boundary |
| | Gen-tie Line | | Township Boundary |



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2.2.1 Wind Turbines

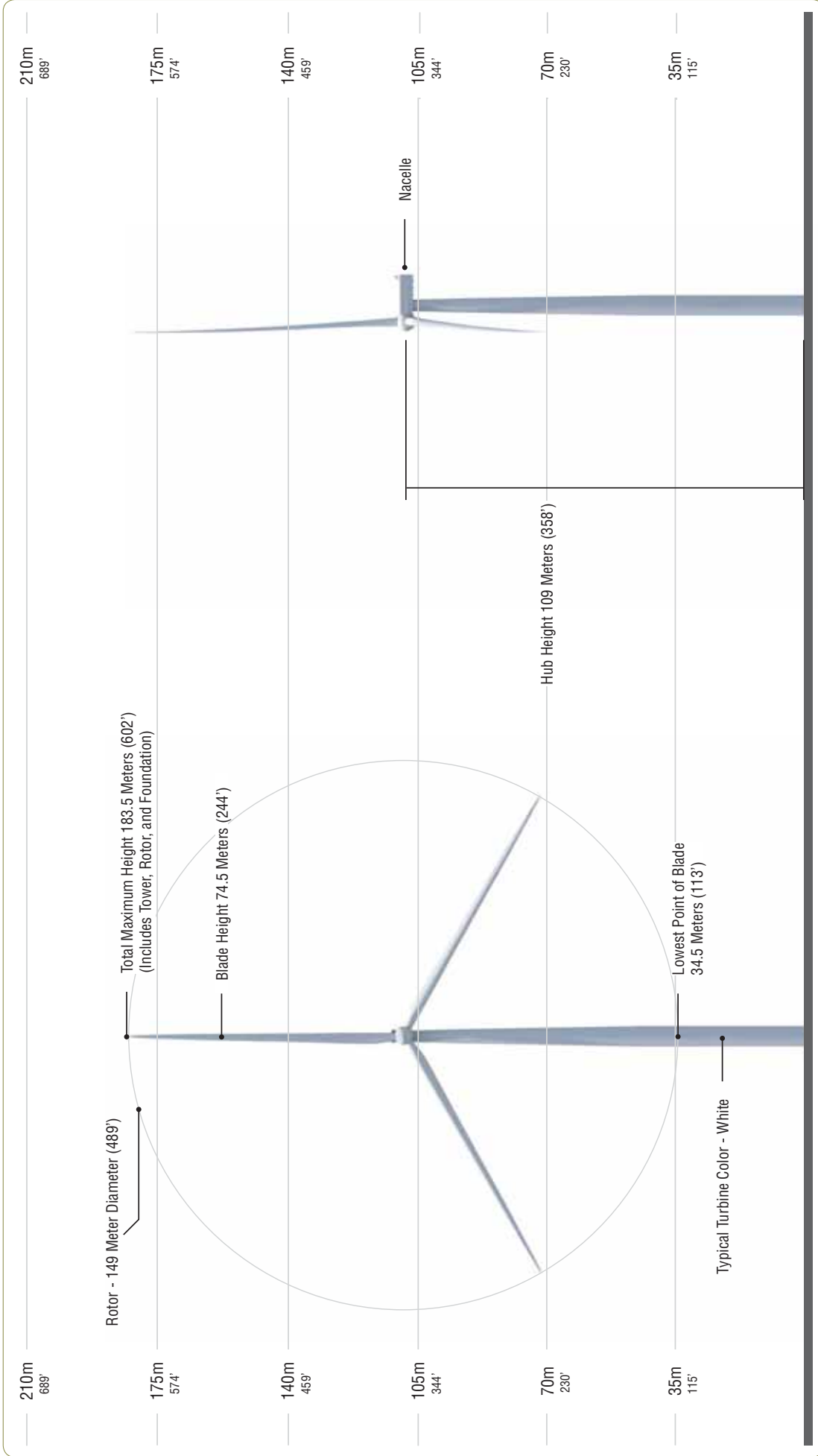
The Applicant has not made a final selection of the wind turbine model or manufacturer. Turbines currently under consideration include the Siemens Gamesa SG 126, 132, and 145, Vestas V136 and 150, and the Acciona AW132 and 140. These models represent the tallest class of turbines and largest rotor diameters under consideration, and any turbine ultimately selected will be essentially equivalent to these in terms of its dimensions, appearance, and electrical output. The turbines are the largest and most visible components of the proposed Project, and therefore are the focus of this VIA. Each wind turbine consists of three major components: the tower, the nacelle, and the rotor. Descriptions of each of the turbine components are provided below, and please see the computer model illustrating the appearance of the turbine used in this assessment following the text description.

Tower: The towers used for wind commercial turbines are tubular conical steel structures manufactured in multiple sections and mounted on a concrete foundation that is essentially flush with the ground surface. For the purposes of this study, the tower is assumed to have a base diameter of 18 feet (5.5 meters) and a top diameter of 10 feet (3.05 meters) at a height of 351 feet (107 meters). Each tower will have an access door in the base section, and be painted white or off-white, in accordance with Federal Aviation Administration (FAA) regulations.

Nacelle: The nacelle sits atop the tower, and the rotor hub is mounted to the front of the nacelle. The main mechanical components of the wind turbine are housed within the nacelle. These components include the drive train, gearbox, and generator. The nacelle is approximately 36 feet (11 meters) long, 13 feet (4 meters) tall and 13 feet (11 meters) wide, and white or off-white in color. The nacelle is equipped with an external anemometer and a wind vane that signals wind speed and direction information to an electronic controller. Attached to the top of the nacelles, per specifications of the FAA, will be two, medium intensity aviation warning lights at an assumed height of 361 feet above the ground. These lights are anticipated to be flashing, medium-intensity red lights (L-864) that operate only at night. For the purposes of this study it is assumed that the nacelle will include no obvious lettering, logo, or other exterior marking.

Rotor: A rotor assembly is mounted to the nacelle to operate upwind of the tower. Each rotor consists of three composite blades, with a maximum rotor diameter of feet 489 feet (149.1 meters). The rotor attaches to the drive train at the front of the nacelle and will be the same white or off-white color as the tower and nacelle. Rotor speed will be in the range of 4.9 to 15.3 revolutions per minute (RPM).

Please note that at the time the VIA analyses were being conducted the Nordex/Acciona N149 4.5 represented the largest turbine under consideration. However, at the current time this turbine model is no longer being considered and the tallest proposed turbine would now be 590 feet (180 meters). To present a conservative (worst case) analysis of visual impacts of the Project, the Nordex/Acciona N149 4.5 turbine model was used because it has an overall height of 602 feet (183.5 meters), which is taller than any of the turbines currently under consideration (Figure 2).



2.2.2 Electrical System

The proposed Project will have an electrical system consisting of three parts: a system of 34.5 kV shielded and insulated cables that will collect power from each wind turbine, and two collection substations that will step up voltage prior to connection with the electric power grid. Each of these electrical system components is described below.

Collection System: A transformer at each turbine will raise the voltage of electricity produced by the turbine generator up to the 34.5 kV voltage level of the collection system. From the above ground transformer, underground cables will join the collection circuit and turbine communication cables to form the electrical collection system. Collection cables will be buried to a minimum depth of 48 inches below the surface. Appendix E illustrates typical underground collection system trench and cabling during construction. The location of the proposed collection system is depicted on Figure 1. This 34.5 kV collection system will connect the individual turbines to the collection substations. The total length of the buried 34.5 kV collection lines carrying electricity to the proposed Project substations will be approximately 63 miles. A cleared corridor approximately 25 feet wide¹ is typically required for installation of the buried cables. Restoration of these disturbed areas will be completed through seeding and mulching of all exposed soils, or by the return to crop production in active agricultural fields. While the cables themselves will not be visible, any clearing associated with the installation of the buried collection lines is shown in the simulations prepared for this VIA.

Collection Substations: There will be two collection substations, one that is already developed and one that will be constructed as part of this Project. Some upgrades will be required to the existing substation; however, these alterations will not alter the height, footprint or visual character of the existing station and therefore the northern substation will not be addressed further in this VIA. The new collection substation will be constructed in Benton Township, and will also step up voltage from 34.5 kV to 138 kV. The substation will include dead-end structures, circuit breakers, air break switches, metering units, relaying, communication equipment, and a control house. The collection substation will be approximately 335 feet by 236 feet in size and enclosed by a chain link fence. Lightning masts will be the tallest component of the substation, at approximately 60 feet tall. The station will be accessed via a gravel-surfaced access drive from the intersection of Town Highway 52 and 59. At the time of submittal, details regarding the size and design of the new substation were not available. Therefore, this component of the proposed Project was not evaluated in the VIA.

¹ Some sections of buried electrical cable will be wider than 25 feet because of the number of collection strings that need to convene (run parallel) near the proposed Project substation. However, in many other locations the disturbance will be substantially less than 25 feet, resulting in an overall average disturbance width of 25 feet across the Project Site.

2.2.3 Access Roads

The Project will require the construction of new or improved service roads to provide access to the proposed turbines. The proposed location of Project access roads is shown on Figure 1. The total length of private access roads required to service all proposed wind turbine locations is approximately 17 miles. During construction, access road installation could result in temporary gravel surfaces up to a maximum width of 40 feet. Wherever feasible, existing farm drives will be upgraded for use as Project access roads, in order to minimize impacts. Once construction is complete, access road width will be reduced and temporarily disturbed areas adjacent to the road will be restored to their approximate pre-construction contours. For the purposes of this study and the accompanying visual simulations, the permanent access roads are assumed to be gravel-surfaced with a finished width of 16 feet. Although not specifically evaluated in the VIA, any access roads, or vegetation clearing necessary to accommodate these roads, are shown in the simulations, if visible.

2.2.4 Meteorological Towers

Up to three permanent 374-foot (114-meter) wind measurement (met) towers will be installed to collect wind data and support performance testing of the Project. These towers will be galvanized steel structures equipped with wind velocity and directional measuring instruments at three different elevations, with a red aviation warning lighting mounted at the top. Each tower will be self-supporting (i.e., they will be un-guyed, free standing structures). Seven possible locations for the met towers have been identified, all of which are on agricultural land (see Figure 1). For the purposes of this study met towers are shown in any of the simulations that include one or more of the seven possible sites (although no more than the three closest towers are shown in any simulation).

2.2.5 Operations and Maintenance Facility

An O&M building and associated storage yard will be required to house operations personnel, equipment, and materials, and to provide operations staff parking. The Project will use an existing O&M facility. Because the O&M building will use an existing structure, it is not addressed in this study, nor represented in the visual simulations.

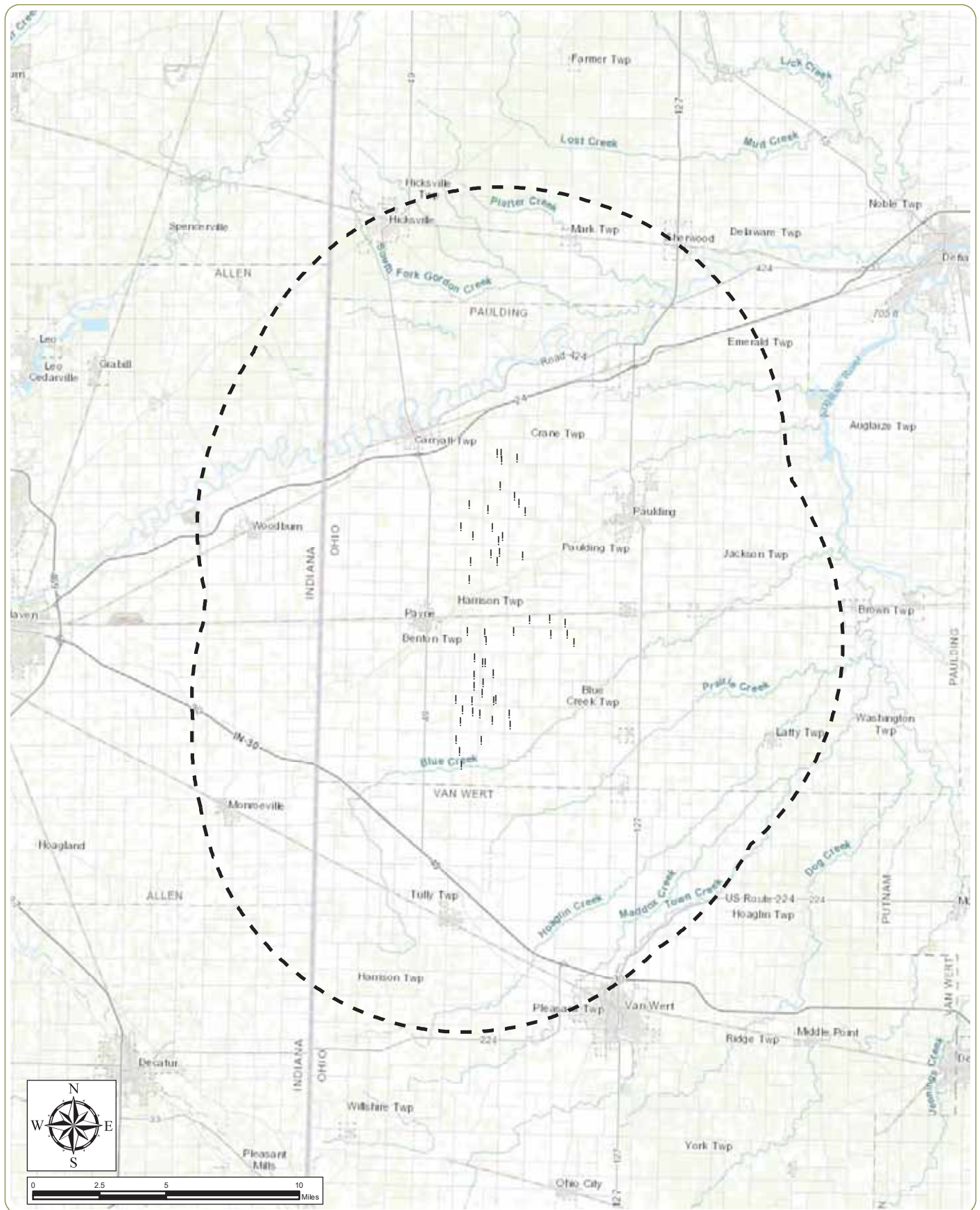
2.2.6 Laydown Yards

Project construction will require the development of a temporary laydown yard for construction staging. The laydown yard will be located on leased private land, and will accommodate material and equipment storage, parking for

construction workers, and construction management trailers. The laydown yard will be located on agricultural land (see Figure 1), and will not exceed approximately 18 acres in size. Temporary lighting will be installed to ensure safety and security. Because the laydown yard is temporary and will be removed/restored at the end of construction, it is not represented in the visual simulations or evaluated as part of this study.

3.0 Visual Study Area

Chapter 4906-4 of the Ohio Administrative Code (OAC), Application Filing Requirements for Wind-Powered Electrical Generation Facilities, section (D)(1), indicates that a 10-mile radius is the appropriate study area for the identification of scenic and historic resources (OPSB, 2018). The 10-mile radius visual study area (study area) for the Timber Road IV Wind Farm encompasses a total of approximately 608 square miles. The largest portion, 502 square miles is located in Ohio and consists of the following municipalities: 1) Defiance, Paulding, and Van Wert Counties, 2) Auglaize, Benton, Blue Creek, Brown, Carryall, Crane, Delaware, Emerald, Hoaglin, Harrison, Hicksville, Jackson, Latty, Mark, Paulding, Pleasant, Ridge, Tully, Union, and Washington Townships, 3) the Villages of Antwerp, Broughton, Cecil, Convoy, Grover Hill, Haviland, Hicksville, Latty, Melrose, Paulding, Payne, Scott, & Sherwood, and 4) the City of Van Wert. A smaller portion of the study area, 106 square miles, is located in Indiana and includes 1) Adams, Allen, and De Kalb Counties, 2) Jackson, Jefferson, Madison, Maumee, Milan, Monroe, Newville, Scipio, Springfield, and Union Townships, 3) the Town of Monroeville and 4) the City of Woodburn. The location and extent of the visual study area is illustrated in Figure 3.



Timber Road IV Wind Farm

Benton, Blue Creek, Crane, Harrison, and Paulding Townships, Paulding County, Ohio

Figure 3: Visual Study Area

Notes: 1. Basemap: ESRI ArcGIS Online "World Topographic Map" map service. 2. This map was generated in ArcMap on June 22, 2018. 3. This is a color graphic. Reproduction in grayscale may misrepresent the data.

! Wind Turbine
 [Dashed Line] 10-Mile Visual Study Area



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3.1 Physiographic/Visual Setting

3.1.1 Landform and Vegetation

The visual study area occurs within the Huron-Erie Lake Plains and Till Plains Sections of the Central Lowland Physiographic Province in Ohio. The majority of the study area occurs within the Maumee Lake Plains Region and is characterized as a flat-lying Ice-Age lake basin containing beach ridges, bars, dunes, deltas, and clay flats. This region formerly contained the Black Swamp, which was a regional wetland extending southwest from present-day western Lake Erie through northwest Ohio into northeastern Indiana. The Black Swamp consisted of extensive swamps and marshes, with some higher dry ground interspersed. Low physiographic relief (generally less than 5 feet) is present in the region, which has been slightly dissected by modern streams and agricultural ditches. Surface elevations in the Maumee Lake Plain Region range from approximately 570 to 800 feet amsl (Hull, 2017). The eastern portion of the study area occurs within the Paulding Clay Basin. This region is defined by a nearly flat lacustrine plain and the most clayey of all Lake Plain sub regions. Low physiographic relief (generally less than 5 feet) is present in the region, and it hosts low-gradient, highly meandering streams, easily ponded soils, and surface elevations range from 700 to 725 feet amsl (Ohio Division of Geological Survey, 1998). The southern portion of the study area occurs within the Central Ohio Clayey Till Plain. This region is defined by a clayey till surface, as well as well-defined moraines with intervening flat-lying ground moraine and intermorainal lake basins. Moderate physiographic relief (typically around 100 feet) is present in this region, and it contains few large streams, no boulder belts, and about a dozen silt-, clay-, and till-filled lake basins. Elevation in this region ranges from 700 to 1150 feet amsl (Ohio Division of Geological Survey, 1998). The dominant visual aspect of the landform is the persistent low, flat relief that allows for long uninterrupted, distant views. On clear days the long views and atmospheric conditions generally produce a mirage at the horizon extending the features/aspects of it e.g., tree stands, buildings, farm structures, and making them appear stretched downward.

Vegetation in the study area is dominated by active agricultural land (crop fields), followed by maintained/open space (residences/yards), and some deciduous forest areas (woodlots). Many of the fields and roadsides are bordered by ditches and narrow waste areas characterized by unmowed herbaceous vegetation. Forested areas are limited to isolated woodlots between crop fields and along some roads. The woodlots are comprised primarily of native deciduous trees, including maples (*Acer* spp.), oaks (*Quercus* spp.), American elm (*Ulmus americana*), American beech (*Fagus grandifolia*), and shagbark hickory (*Carya ovata*).

3.1.2 Land Use

Land use within the visual study area is dominated by agricultural land, farms, and rural and suburban residential development. Farms in the area are typically large, with soybeans and corn being the primary agricultural crops grown. Rural residential development occurs at a very low density throughout the study area. Villages occur as relatively small pockets of development within a primarily rural/agricultural landscape. Higher density residential and commercial development is concentrated in the cities of Van Wert, Ohio (10,846 population) and Woodburn Indiana (1,579 population), the Town of Monroeville, Indiana (1,235 population) and the Ohio villages of Paulding (3,605), Hicksville (3,581 population), Antwerp (1,736 population), and Convoy (1,085 population). The cities and villages are generally characterized by a grain elevator and associated silos, a train depot, an adjacent main street business district surrounded by traditional residential neighborhoods, with some commercial frontage development along the outskirts. Some suburban residential and commercial development occurs around the periphery of the city and villages listed above as well as the smaller villages (less than 1,000 population) in the study area. Commercial/industrial uses within the study area also occur on the outskirts of the city and villages, and along certain portions of state and county highways in the area. These include automobile dealerships, retail/convenience stores, farm suppliers, and equipment yards.

3.1.3 Water Features

The entire study area is located within the Maumee River Watershed. Surface water bodies present within the study area include several small streams, ditches, ponds, and above ground reservoirs. The streams generally flow from the southwest to the northeast. The majority of the surface water inside the study area flows into the Maumee River, located in the central northern portion of the study area, and Flatrock Creek, a tributary of the Auglaize River which runs through the central portion of the study area. The Auglaize River has multiple tributaries which dissect the southern portion of the study area. These rivers drain a primarily rural farming area in the Lake Erie watershed. Over four thousand miles of streams, creeks, and rivers empty into Maumee River. The Maumee River drains into Maumee Bay before discharging into Lake Erie. With the exception of Paulding Reservoir in Paulding County Ohio, the majority of the water features within the study area are small streams, creeks, and ponds that occur on private land, and therefore receive very limited recreational use. These water bodies are also not major visual components of the landscape, and typically can only be seen at, or in proximity to, public road crossings.

3.2 Landscape Similarity Zones

The definition of landscape types found in the study area provides a useful framework for the analysis of available visual resources and viewer circumstances. These landscape types, referred to in this report as Landscape Similarity Zones (LSZs), are defined based on the similarity of landscape features such as landform, vegetation, water, and land use patterns, as well as characteristics that affect visual sensitivity, such as the availability of open views, scenic quality, and user activity. These generally homogeneous character zones were identified in accordance with established visual assessment methodologies (Smardon et al., 1988; USDA Forest Service, 1995; USDOT Federal Highway Administration, 1981; USDOI Bureau of Land Management, 1980). The U.S. Geological Survey (USGS) National Land Cover Dataset (NLCD) used to help define the location of these zones is illustrated in Figure 4. The general landscape character, land use, and types of views available from each of the four identified LSZs that occur within the study area are described below, and include the following:

- Rural Residential/Agricultural Zone

- City/Village Zone

- Suburban Residential Zone

- Transportation Corridor Zone

The general landscape character, use, and potential views to the proposed Project within each of the LSZs that occur within the study area are described below.

3.2.1 Zone 1: Rural Residential/Agricultural Zone



Inset 2. Representative photograph of the typical agricultural and residential uses as viewed from the Rural Residential/Agricultural Landscape Similarity Zone. The intersection of Road 52 and Road 59 (viewpoint 32).

The Rural Residential/Agricultural LSZ is the dominant landscape type that occurs throughout the study area and is visually recognizable by its working landscape characteristics. The landscape in this zone is characterized by uniformly level topography with a mix of farms and associated crop fields, rural residences, hedgerows, small woodlots, and occasional water features. The dominant land use is crop farming (primarily soybeans and corn), along with small amounts of pasture. Due to the presence of open fields, views within this LSZ are more open and longer in distance than those available in other zones within the study area. These views typically include a level foreground field, with woodland vegetation in the background, and, in places, crossing or framing the view. Views in the Rural Residential/Agricultural LSZ include widely scattered homes, existing wind farm turbines, barns and silos, with working farm equipment occasionally seen in the fields. Scenic quality generally ranges from low to moderate depending on the variety and arrangement of landscape features in the view. Due to the abundance of open fields, and the proposed location of turbines exclusively within this zone, open foreground (0-0.5 mile), midground (0.5-3.5 miles), and background (>3.5 miles) views of the proposed Project will be available from most areas within the Rural Residential/Agricultural LSZ.



Inset 3. Representative Photographs of the Rural Residential/Agricultural Landscape Similarity Zone.

Top Left: Intersection of Road 418 (Lincoln Highway) and Road 146 (Wolfcale Road), Pleasant Township, Ohio (Viewpoint 50);

Top Right: Road 59, Benton and Blue Creek Township line, Ohio (Viewpoint 34);

Bottom Left: Intersection of Richey Road (Road 75) and Convoy Road (Road 168), Township of Union, Ohio (Viewpoint 52)

Bottom Right: Bresler Park, Village of Scott, Township of Blue Creek, Ohio (Viewpoint 54)

3.2.2 Zone 2. City/Village Zone



Inset 4. Representative Photographs of the Rural Residential/Agricultural Landscape Similarity Zone.

Top Left: View from Paulding County Carnegie Library Village of Paulding, Paulding Township, Ohio (Viewpoint 05);

Top Right: Monroeville Town Center at West South Street, Town of Monroe, Indian (Viewpoint 38);

Bottom Left: Intersection of North Main Street (Road 49) and East Bailey Street, Village of Payne, Township of Harrison, Ohio (Viewpoint 21)

Bottom Right: State Route 79 (South Main Street), Village of Convoy, Township of Tully, Ohio (Viewpoint 49)

This LSZ includes the cities of Van Wert, Ohio and Woodburn, Indiana, the Town of Monroeville, Indiana and the Ohio villages of Antwerp, Convoy, Hicksville, and Paulding. This zone is characterized by high to moderate-density residential buildings surrounding a concentration of main street businesses, usually associated with a grain elevator and silo complex located along the Rail Road system, with commercial development on the outskirts. Vegetation associated with urban street trees and suburban yard plantings along with the dominant flat landform contribute to visual character in the city and village areas. However, within the majority of this zone, the built environment consists of buildings (typically 2-3 stories tall) in the concentrated commercial areas, 1-2 in the residential areas, and the grain elevators and silos reaching to upwards of 100 feet plus along and other man-made features dominate the landscape. These features are highly variable in their size, architectural style, and arrangement, but are typically dominated by

masonry or wood-sided buildings fronting on an organized grid of local streets. Scenic quality is generally moderate and influenced largely by the arrangement and condition of built structures in the view. The majority of the sensitive sites identified in the study area fall within the City/Village LSZ. Activities within this zone are primarily associated with local business and residential uses, as well as local travel. Views within this zone are typically focused on the roadways and adjacent structures, although outward views across yards and adjacent fields are available at the outskirts of these areas, where structures and vegetation density decrease and therefore screening is reduced. Views of the proposed Project will generally be screened by structures but could occasionally be available from open road corridors oriented toward the Project Site.

3.2.3 Zone 3. Suburban Residential Zone



Inset 5. Representative Photographs of the Rural Residential/Agricultural Landscape Similarity Zone.

Left: Road 87, Paulding Township, Ohio (Viewpoint 05);

Right: West Wayne Street (State Route 111), Village of Paulding, Paulding Township, Ohio (Viewpoint 04);

This zone is dominated by low to medium-density residential neighborhood development that typically occurs on the outskirts of the villages of Broughton, Cecil, Grover Hill, Haviland, Latty, Melrose, Scott and Sherwood. Although these villages tend to be associated with a grain elevator and silos, the majority of construction tends to be of more recent vintage, 1-2 stories in height, and slightly more spread out than in a city/village setting. The street pattern is set up on a grid and resembles that of the larger city/villages on a smaller scale. Scenic quality is unremarkable, although homes and yards generally appear neat and well maintained. Open views to the surrounding landscape are generally more restricted than in open agricultural areas, but more available than in the cities and villages due to the wider spacing of the homes and the density of the street grid. The effect of vegetation on visibility is highly variable in this LSZ, with adjacent agricultural fields offering open views in some areas, and hedgerows, woodlots and yard trees significantly blocking views in others. Land use in this zone is almost exclusively residential.

3.2.4 Zone 4. Transportation Corridor Zone

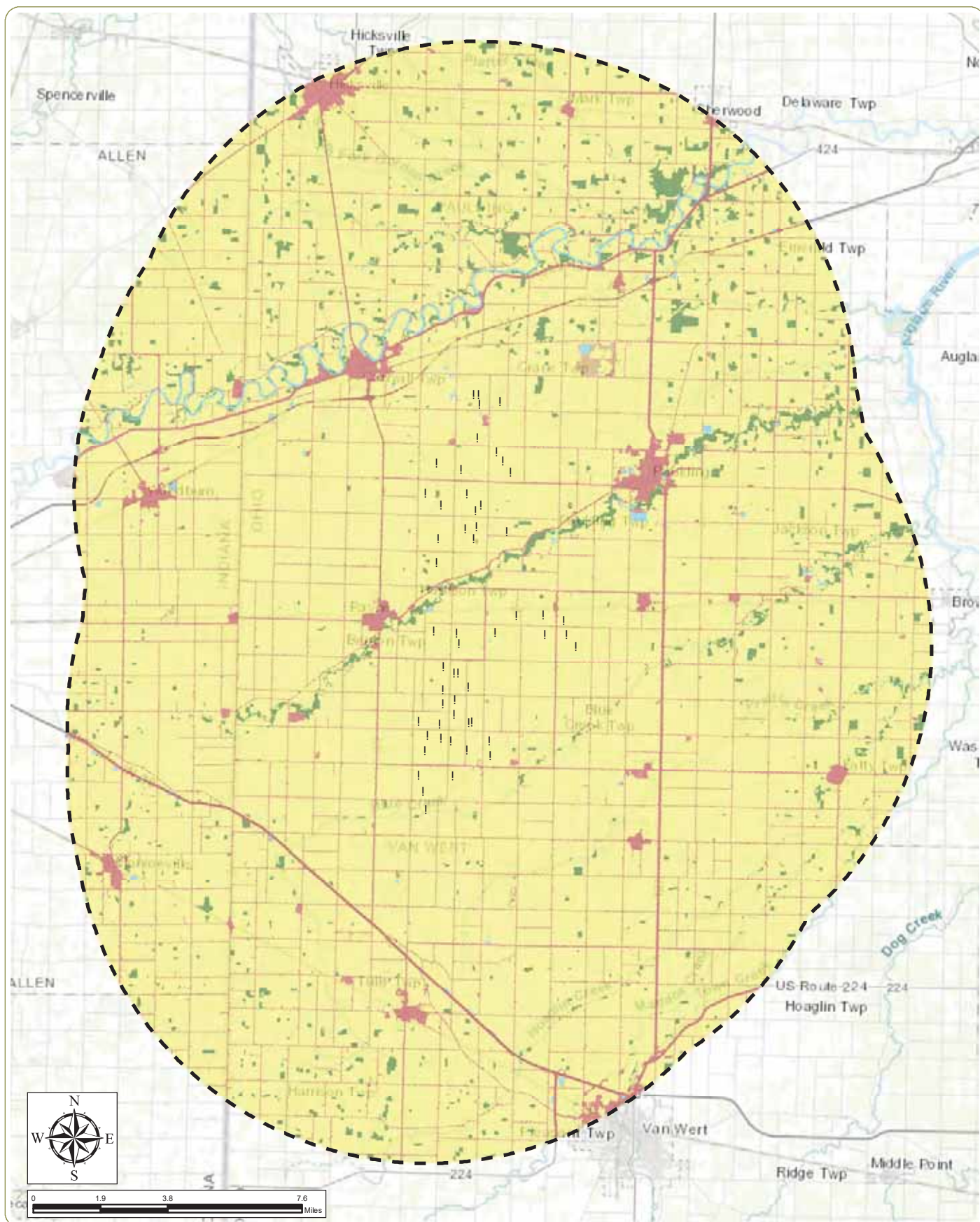


Inset 6. Representative Photographs of the Rural Residential/Agricultural Landscape Similarity Zone.

Left: T-43 Overpass over United States Route 24, Carryall Township, Ohio (Viewpoint 30);

Right: Road 1 (State Line Road) at United States Route 30 (Lincoln Highway Historic Byway) Town of Monroe, Indiana (Viewpoint 43);

The Transportation Corridor LSZ includes divided, multi-lane highways with limited access and heavily used state highways. These include United States Route 24, and 30. Views along these divided highway transportation corridors are dominated by automobiles, pavement, guard rails, and signs in the foreground. Surrounding land use is variable, ranging from limited high density commercial development to the dominate open agricultural land and farms, with intermittent forest stands in the background. Overpasses associated with limited access divided highways such as U.S. Route 24 and 30 do allow for long distance views across the majority level landscape. Scenic quality is largely defined by the surrounding landscape but is generally compromised by the abundance of transportation infrastructure in the foreground of the view.



Timber Road IV Wind Farm

Benton, Blue Creek, Crane, Harrison, and Paulding Townships, Paulding County, Ohio

Figure 4: Land Cover

Notes: 1. Basemap: ESRI ArcGIS Online "World Topographic Map" map service. 2. This map was generated in ArcMap on June 22, 2018. 3. This is a color graphic. Reproduction in grayscale may misrepresent the data.

! Wind Turbine
 10-Mile Visual Study Area

Land Cover:

Agricultural
 Barren Land
 Developed

Forest
 Open Water



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3.3 Viewer/User Groups

Three categories of viewer/user groups were identified within the visual study area. These include the following:

3.3.1 Local Residents

Local residents include those who live and work within the visual study area. They generally view the landscape from their yards, homes, local roads and places of employment. Residents are concentrated in and around the cities of Van Wert, Ohio and Woodburn Indiana, the Town of Monroeville, Indiana and the Ohio villages of Antwerp, Convoy, Hicksville, and Paulding. However, rural residents occur throughout the visual study area. Except when involved in local travel, residents are likely to be stationary and have frequent or prolonged views of the landscape. Local residents may view the landscape from ground level, working within the agricultural fields or elevated viewpoints (typically upper floors/stories of homes). Residents' sensitivity to visual quality is variable, however, it is assumed that residents may be sensitive to changes in particular views that are important to them.

3.3.2 Through Travelers/Commuters

Commuters and travelers passing through the area view the landscape from motor vehicles on their way to work or other destinations. Commuters and through travelers are typically moving, have a relatively narrow field of view, and are destination oriented (e.g., Fort Wayne, Indiana). Drivers on major roads in the area (e.g., U.S. Routes 20, 34 and 127, and Ohio State Routes 49, 111, 114, 613, and 637, and Indiana State Route 101 will generally be focused on the road and traffic conditions, but do have the opportunity to observe roadside scenery. Passengers in moving vehicles will have greater opportunities for prolonged off-road views than will drivers.

3.3.3 Tourists/Recreational Users

Recreational users and tourists include local residents and out-of-town visitors involved in cultural and recreational activities at parks, recreational facilities, and historic sites, as well as in undeveloped natural settings. These viewers are concentrated in the recreational facilities/cultural sites located within the visual study area and concentrated in the city/village LSZ. as well as the natural settings greatly associated with the Maumee River and the Flatrock Creek corridors. Members of this group may view the landscape from area highways while on their way to these destinations, or from the sites themselves. This group includes bicyclists, hikers, recreational boaters, hunters, fishermen and those involved in more passive recreational activities (e.g., picnicking, sightseeing, or walking). Recreational users and

tourists will often have continuous views of landscape features over relatively long periods of time and will typically only view the surrounding landscape from ground-level vantage points.

3.4 Visually Sensitive Resources

There are no National Parks, National Forests, National Wildlife Refuges, National Natural Landmarks, State Nature Preserves, State Parks, State Forests, or federally designated Wild, Scenic or Recreational Rivers within the visual study area. However, the North Country National Scenic Trail, a federally designated scenic trail, runs through the eastern border of the visual study area. The study area also includes several sites that could be considered scenic resources of statewide significance. These include historic sites, a wildlife area, a state-designated scenic river, a state-designated scenic byway, a state bike route, and the Wabash and Erie Canal. Descriptions of these resources are presented below.

3.4.1 Historic Sites

The study area includes five sites listed on the National Register of Historic Places (NRHP). These historic sites include a former train station in the Village of Antwerp; a barn in the Township of Paulding; a courthouse, and library in the Village of Paulding; and a church in the Village of Hicksville. Other historic resources within the visual study area include eight sites determined to be eligible for listing on the NRHP and four state historic markers. In addition, the Cultural Resources Records Review identified 444 properties listed in the Ohio Historic Inventory (OHI) and 399 sites listed in the Ohio Archaeological Inventory (OAI) within 5 miles of the Project Site (EDR, 2018).

NRHP-listed sites and districts most likely to experience views of the turbines are those located within 5 miles of the Project Site. These include the Antwerp Norfolk and Western Depot, Paulding County Courthouse, Paulding County Carnegie Library, and the eight NRHP-eligible sites. The listed and eligible historic sites with potential views of the proposed Project according to the viewshed analyses include the Round Barn in the Township of Emerald and Old US 24 in the Township of Crane, both in Paulding County, Ohio, and Adams County Bridge Number 5, Township of Union, Adams County, Indiana. Descriptions of the resources with potential visibility of the proposed Project are presented below.

Round Barn (80003206): is located near the intersection of Routes 123 and 168 in Paulding, approximately 7.0 miles from the nearest proposed turbine. The Round Barn was built in 1911 and listed on the NRHP in 1980. This structure contributes to the Round Barns in the Black Swamp of Ohio Thematic District (Brown, 1979b). The barn is a 60-foot in diameter and rises to a height of 55 feet. It is one of six round barns in the Black Swamp area of northwest Ohio (Brown

and Hopkins, 1979). Round Barn is historically and architecturally significant as it is one of few round barns of this size and stature in northwest Ohio. The barn is representative of an era of agricultural experimentation at the turn of the century, a result of new wealth and new farmland stemming the barrel and stave manufacturing economic flurry of the 1880-1890s. Round barns were considered to be part of an “age of innovation” and thought to be more efficient for modern farmers (Brown and Hopkins, 1979).

The Round Barn site is located in the Rural Residential/Agricultural LSZ. The Round Barn is afforded open views across agricultural land in all directions, with the occasional farmstead or residence in the view. To the south, more distant views are shielded by mature forests surrounding Flatrock Creek.

Old US 24: Located along a busy two-lane highway within a rural area, Old US 24 refers to the New Rochester Roadside Rest Area on the northside of US Route 24 adjacent to the Maumee River. The site is presently used as a roadside rest stop and contains a one-story side gable log cabin with wood shingle roof, which faces southwest on the property. A large paved parking area and driveway is located parallel to the road. This area is the site of Paulding County's first county seat in 1835. The log cabin's integrity has been altered by its removal from its original site after 1960 (Kuhn and Linn, 2000). The site is approximately 5.6 miles away from the nearest proposed turbine.

The Old US Route 24 site is in the Rural Residential/Agricultural LSZ. To the west, the site offers views of open, agricultural fields. In the remaining directions, intervening mature vegetation adjacent to the site screen most views into the midground and background.

Adams County Bridge Number 5: The Adams County Bridge Number 5 is a concrete box beam bridge comprised of transverse concrete beams on cylindrical piers carrying a concrete deck. The bridge, which spans a creek, was constructed around 1965 and remains in good condition. It is located in the Rural Residential/Agricultural LSZ and offers views of open, rolling agricultural fields and scattered hedgerows and woodlots at varying distances.

3.4.2 Wildlife Areas

One designated wildlife area is located within 5 miles of the Project Site and has the potential for views of the proposed Project.

Lake Wayne R. Carr Wildlife Area: Lake Wayne R Carr is a 15-acre lake located on Country Road 11, 4.8 miles northwest of the nearest proposed turbine. Little information is available regarding the associated Wildlife Area. Lake

Wayne R Carr Wildlife Area is not included on the Ohio Department of Natural Resources list of state wildlife management areas. A small informal parking area is located off of County Route 11, which provides access to a public use boat ramp available along the lakeshore. Located in the Rural Residential/Agricultural LSZ, open views are available from this area where foreground vegetation remains relatively low.

3.4.3 State Designated Scenic River

One state-designated scenic river occurs within the study.



Inset 7. Representative photograph of the typical conditions associated with the Maumee Scenic River Corridor. The Bend Access, located off of The Bend Road bridge, Delaware Township, Ohio (Viewpoint 25).

Maumee State Scenic River: The Maumee River flows northeasterly through portions of Paulding and Defiance Counties within the study area. At the Ohio-Indiana state line, the meandering river occurs within a broad wooded floodplain. Valley walls rise sharply in comparison to the surrounding terrain and the river banks support a healthy, forested corridor (Ohio DNR, 2018). The historic and cultural heritage of this section is of major state and national significance, as the river constituted one of the chief modes of transportation in eras when most travel was previously by foot or water, and the river is still used as a major transportation corridor for commercial freight today (Ohio DNR, 2018).

The Maumee River occurs primarily within the Rural Residential/Agricultural LSZ, but also travels through forested and more heavily developed commercial and residential areas within the study area. At its closest point, the Maumee River is approximately 2.3 miles from the nearest proposed turbine. The river and its immediate environs represent one of the most scenic portions in the study area. The features that contribute to its scenic quality include the moving water, rock ledges and mature shoreline vegetation. Opportunities for open views from the river are generally limited due to the forested floodplain and steep valley walls surrounding the river as well as the forested communities along the river banks. These factors also serve to screen outward views from the numerous designated river access points.

3.4.4 Scenic Byways

The study area includes one state-designated scenic byway.

Ohio and Indiana Lincoln Highway Historic Byway: The Lincoln Highway Historic Byway includes portions of U.S. Route 30 that travel through both Ohio and Indiana within the visual study area. At its closest point, the byway is 3.5 miles away from the nearest proposed turbine. The Lincoln Highway was built in 1913 and was America's first transcontinental road. Many of the original signs, monuments, and painted telephone poles that initially marked the route can still be seen today. Additionally, Ohio contains several brick paved sections of the Lincoln Highway, brick pillars, 1928 concrete markers, and historic buildings along the route. Open outward views of the surrounding landscape are available all along the route. Views of auto-era remnants, tree-lined roads, business districts, countryside, and rolling pastures are available.

3.4.5 State and Federally Designated Trails

The study area includes two designated recreational trails.

Buckeye Trail: The Buckeye Trail was first proposed by Merrill Gilfillan in 1958. It was originally planned to be a 500-mile path from the Ohio River to Lake Erie, but evolved into the nation's longest loop trail, winding 1,444 miles around Ohio. The trail includes, scenic wetlands and forests across the state, and many historic towns, canal towpaths, and abandoned rail grades. There are 26 sections of the trail, each named for a town or feature within that section. Portions of two sections, Pemberville and Norwalk, pass through the central portion of the 10-mile visual study area (Buckeye Trail Association, 2017). The closest trail segment is located approximately 0.3 mile from a proposed turbine.

North Country National Scenic Trail: In northwestern Ohio, the North Country Trail joins up with the Wabash Cannonball Trail, which runs on two lines originally established by the Wabash Railroad. The North Country Trail follows a portion of the rail trail through Maumee State Forest and the unique habitat of Oak Openings Metro Park. The North Country Trail then rejoins the Wabash Cannonball Trail heading west before departing north towards the Michigan state line. In total, the northwestern Ohio section of the North Country Trail runs 60 miles (North Country Trail Association, 2018).

The above two resources travel through all of the identified LSZs as they traverse the study area. Views available along these trails will be highly variable. At many locations open long-distance views are available, while in other places views are entirely screened by intervening vegetation and buildings. The dominant visual character is defined by the working landscape of the Rural Residential/Agriculture LSZ.

3.4.6 Nature Preserves

The study area includes three nature preserves.

Forrest Woods Nature Preserve: At 346 acres, Forrest Woods is the largest nature preserve owned by the Black Swamp Conservancy. This site is a remnant of the historic Great Black Swamp and is home to more than 30 rare, threatened, and endangered species of plants and animals. The preserve contains one of the highest quality wetlands remaining in the former Great Black Swamp region. Additionally, it is possibly the largest forest in the county, and one of the larger and older stands of forest remaining in a several-county area of heavily agricultural Northwest Ohio. Access to this preserve, is limited, as the property is open to the public by permit only. Forrest Woods Nature Preserve is located 3.8 miles away from the nearest proposed turbine. Within the preserve, long-distance views are generally limited by mature forest vegetation, including upland and perched swamp forest (Black Swamp Conservancy, 2018).

Blue Cast Springs Nature Preserve: Blue Cast Springs protects over 3,000 feet of the Maumee River bank, and is the site of a natural spring. Bluffs 30-feet high offer vistas of the Maumee River and one of its islands. A number of ravines running through the upland forest feed into the river. The preserve contains 87.9 acres of land, consisting primarily of riparian topography with river frontage, upland forest, and floodplain forests. It includes a 1.1 mile long trail, and it protects an example of high quality oak-dominated flatwoods forest community and multiple hydro-sensitive species of plants and animals (Acres Land Trust, 2018). Blue Cast Springs Nature Preserve is located approximately 8.3 miles from the nearest proposed turbine.

Maumee River Overlook Nature Preserve: Located 9.1 miles away from the nearest proposed turbine, the Maumee River Overlook, or Steam Saw Mill site, is a high, forested embankment overlooking the Maumee River. A water-

powered sawmill was once located nearby on an outcrop of rocks in the river. Lumber from the mill was used for the Wabash & Erie Canal, which ran along the south border of the preserve. Views of the river are available along the 0.9-mile overlook trail, but long-distance views are primarily shielded by forested vegetation along the river.

3.4.7 Areas of Intensive Land Use (City/Village)

With the visual study area, there are 16 areas of intensive land use. The smaller villages within the study area, including the Villages of Sherwood, Broughton, Grover Hill, Cecil, Latty, Melrose, Scott, and Haviland, primarily consist of medium-density residential neighborhood development surrounded by a broad expanse of agricultural fields. Buildings and residential structures are typically arranged along an organized street pattern that tends to screen outward views and focus views along the main streets and cross roads. In some areas, trees along the streets and within yards also tend to enclose and screen views within the villages. However, open street corridors and adjacent agricultural land, offer more unobstructed views of the surrounding landscape.

Larger communities within the visual study area include the Cities of Van Wert, Ohio and Woodburn, Indiana, the Town of Monroeville, Indiana, and the Villages of Hicksville, Antwerp, Paulding, Payne, and Convoy, Ohio. These areas host larger residential populations and are characterized by moderate to high-density residential buildings surrounding a central concentration of main street businesses. With these areas, commercial development is common, and the built environment generally consists of buildings 2-3 stories tall. These cities and larger villages are generally surrounded by open agricultural fields, although vegetation within the district typically includes urban street trees and suburban yard plantings. The landscape tends to be dominated by man-made features. Available views within these areas are primarily focused along the roadways and adjacent structures. Outward views across yards and adjacent fields may be available on the outskirts of developed areas, but long-distance views are mostly screened by built structures.

3.4.8 Local Community Parks

The visual study area includes 18 local parks, four of which will not have visibility of the proposed Project based on the results of viewshed analysis. Those without visibility include Hicksville Athletic Fields and Sherwood Athletic fields in Defiance County, Ohio, Riverside Park in Paulding County, Ohio, and Woodburn Community Park in Allen County, Ohio, and Monroeville Community Park in Allen County, Indiana.

Community and/or town parks in the study area with potential views of the proposed Project include Antwerp Community Park, Bresler Park, Lafountain Park, Latty Town Park, Payne Community Park, Paulding Athletic Fields,

and Welcome Park in Paulding County Ohio, and Edgewood Park in Van Wert County, Ohio. Community parks in the study area have manicured, grassy lawns and often contain playgrounds for children to play on. They may also include green space, picnic tables, pavilion areas, athletic fields, and nature trails. Local parks are mostly located in the City/Village LSZ and Suburban Residential LSZ. Surrounding views from the parks will vary depending on their location within cities and villages and screening by vegetation and structures. Scenic quality and viewer sensitivity in these areas are considered to be relatively high.

Local nature parks within the visual study area include Black Swamp Nature Center and Paulding Community Fossil Garden in Paulding County, Ohio, and Maumee Overlook Nature Preserve in Allen County, Indiana. Black Swamp Nature Center consists of 51 acres of woodland, wetlands, and old meadow. The preserve provides access to creeks and ponds, along with hiking trails and wildlife observation areas. Maumee Overlook Nature Preserve is a high forested embankment overlooking the Maumee River. Open views from both Maumee Overlook and Black Swamp are generally limited by intervening mature forest, but breaks in the tree canopy and meadow areas may offer outward views. Paulding County Community Fossil Garden is located in the Rural/Agricultural LSZ. The park consists of an open agricultural field where operators from the LaFarge Quarry dump loads of fossiliferous overburden. The park is surrounded by agricultural fields and open views towards the Project Site are available. Scenic quality and viewer sensitivity in these areas are relatively high due to their natural character and the recreational use they receive.



Inset 8. Representative photograph of the typical conditions associated with the local/Community parks. Bresler Park, Village of Scott, Blue Creek Township, Ohio (Viewpoint 25).

3.4.9 Water Resources

Within the visual study area, there are 47 water resources, including creeks, rivers, reservoirs, streams, and ditches. As previously discussed, the Maumee River is a major water resource within the visual study area (see Section 3.4.3). Other water resources are described below:

Flat Rock Creek: Flatrock Creek, a tributary of the Auglaize River, is a 57.2-mile long stretch of creek in northeastern Indiana and northwestern Ohio. It drains a primarily rural farming area in the Lake Erie watershed. Flatrock Creek rises from a group of headwater streams along the border between Adams County, Indiana and Van Wert County, Ohio. The creek flows northwest from Ohio into eastern Allen County, Indiana, then turns northeast at Monroeville, Indiana and flows into Paulding County, Ohio. It joins the Auglaize River from the west approximately 10 miles southwest of Defiance, Ohio (USGS, 2011).

At its closest point, Flatrock Creek is 0.6 miles south of the nearest proposed turbine. The creek is primarily located in the Rural Residential/Agricultural LSZ, although the river itself is primarily surrounded by forest communities, and also travels through some developed areas. Similar to the Maumee River, opportunities for open views to the surrounding landscape are generally limited due to the abundance of forest vegetation bordering Flatrock Creek.

Paulding Reservoir: The Paulding Reservoir, located in Paulding County, Ohio, is 67 acres in size and includes 1.3 miles of shoreline. The Reservoir can be accessed from Reservoir Drive by way of CR 107. There are two small parking areas north of the reservoir. In addition to providing water to village residents, Paulding Reservoir also allows opportunities to fish for blue gill, saugeye, perch, cat fish, and other fish.

At its closet point, Paulding Reservoir is 3.4 miles from the nearest proposed turbine. The Paulding Reservoir is located within the Rural Residential/Agricultural LSZ. To the north, Paulding Reservoir is bordered by Flatrock Creek, where outward views are generally screened by the mature forest along the creek banks. A hedgerow extends from these communities along the eastern border of Paulding Reservoir, limiting potential for open views toward the proposed Project. Elsewhere, the reservoir is mostly surrounded by agricultural fields which provide opportunities for long-distance, open views to the south and southeast.

The remaining water features within the visual study area occur on private land and have no public access, and therefore receive very limited recreational use. These resources primarily consist of drainage corridors and ditches within an agricultural landscape. These water bodies are also not major visual components of the landscape, and

typically can only be seen at, or in proximity to, public road crossings. As such, scenic quality and viewer sensitivity in these areas are considered to be relatively low.

3.4.10 Cemeteries

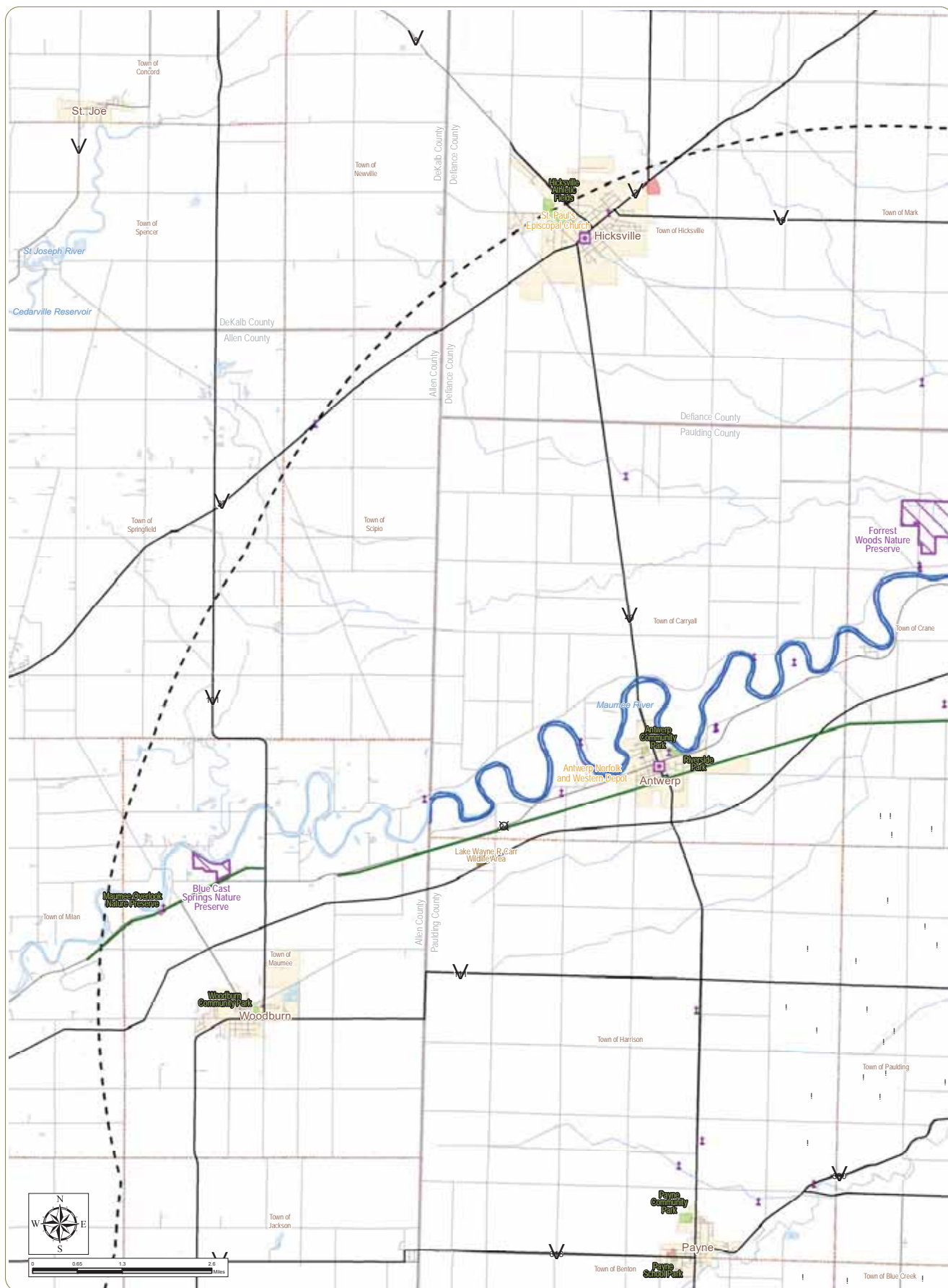


Inset 9. Representative photograph of the typical conditions associated with cemeteries within the study area. Blue Creek Cemetery, Highway 95, Blue Creek Township, Ohio (Viewpoint 57).

Multiple cemeteries occur throughout the visual study area, typically on flat, open sites surrounded by agricultural fields. Tombstones are arranged in orderly rows and extend back toward the field edge, which are often backed by a hedgerow. In some cases, the cemeteries occur in conjunction with an adjacent church. There may be mature trees or shrubs along the edges of the cemeteries, but generally there is no planted vegetation within the cemeteries with the exception of flowers placed by grave sites.

Many of the cemeteries occur within the Rural Residential/Agricultural LSZ where adjacent agricultural fields provide opportunities for open, long-distance views. In some directions, outward views may be screened by hedgerows and woodlots that back the cemeteries, and at many of the cemeteries, turbines from existing wind farms in the area can be seen along the horizon.

All inventoried scenic/sensitive resources are listed in Appendix B. The locations of mapped visually sensitive resources within the visual study area are illustrated in Figure 5.



Timber Road IV Wind Farm

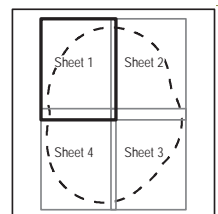
Benton, Blue Creek, Crane, Harrison, and Paulding Townships, Paulding County, Ohio

Figure 5: Visually Sensitive Resources

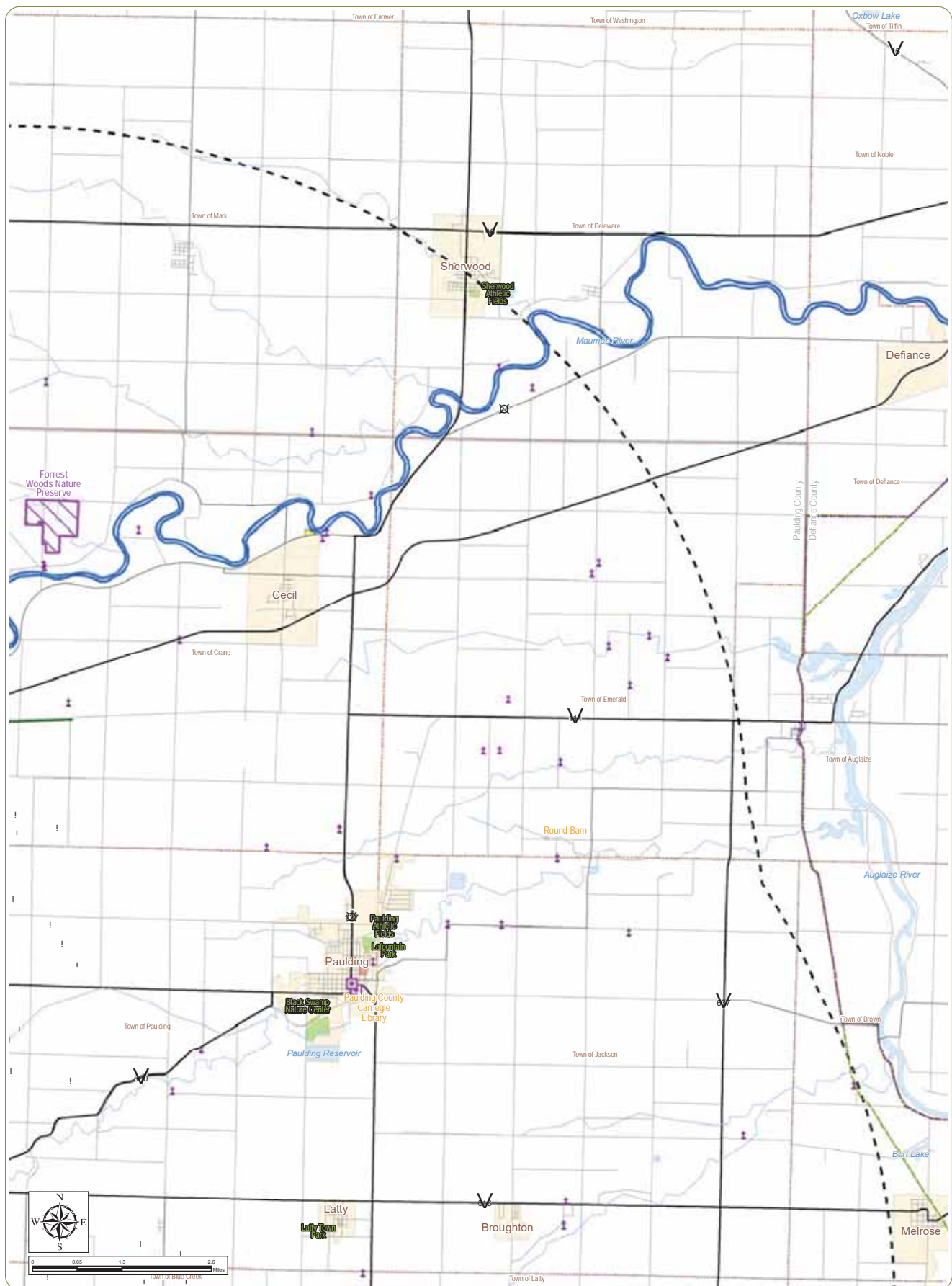
Notes: 1. Basemap: ESRI Street Map North America. 2. This map was generated in ArcMap on June 22, 2018. 3. This is a color graphic. Reproduction in grayscale may misrepresent the data.

- ! Wind Turbine
- ☠ Cemetery
- ◁ Other Local Resource
- ⌵ State Historic Marker
- ⋯ Buckeye Trail
- Major Road
- North Country National Scenic Trail
- River or Stream
- ⚙ State Bike Route
- State Scenic Byway
- State Scenic River
- Wabash and Erie Canal Trail
- Historic Bridge
- 📖 Library
- 🌳 Local Park
- 🌿 Nature Preserve

- 🟡 NRHP-Eligible Site
- 🟠 NRHP-Listed Site
- 🏫 School
- 🌳 State Wildlife Area
- 💧 Waterbody
- ⬜ 10-Mile Visual Study Area
- 🏘 City/Village
- 🔲 Town Boundary
- 🔲 County Boundary



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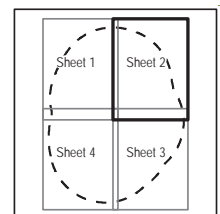
Timber Road IV Wind Farm

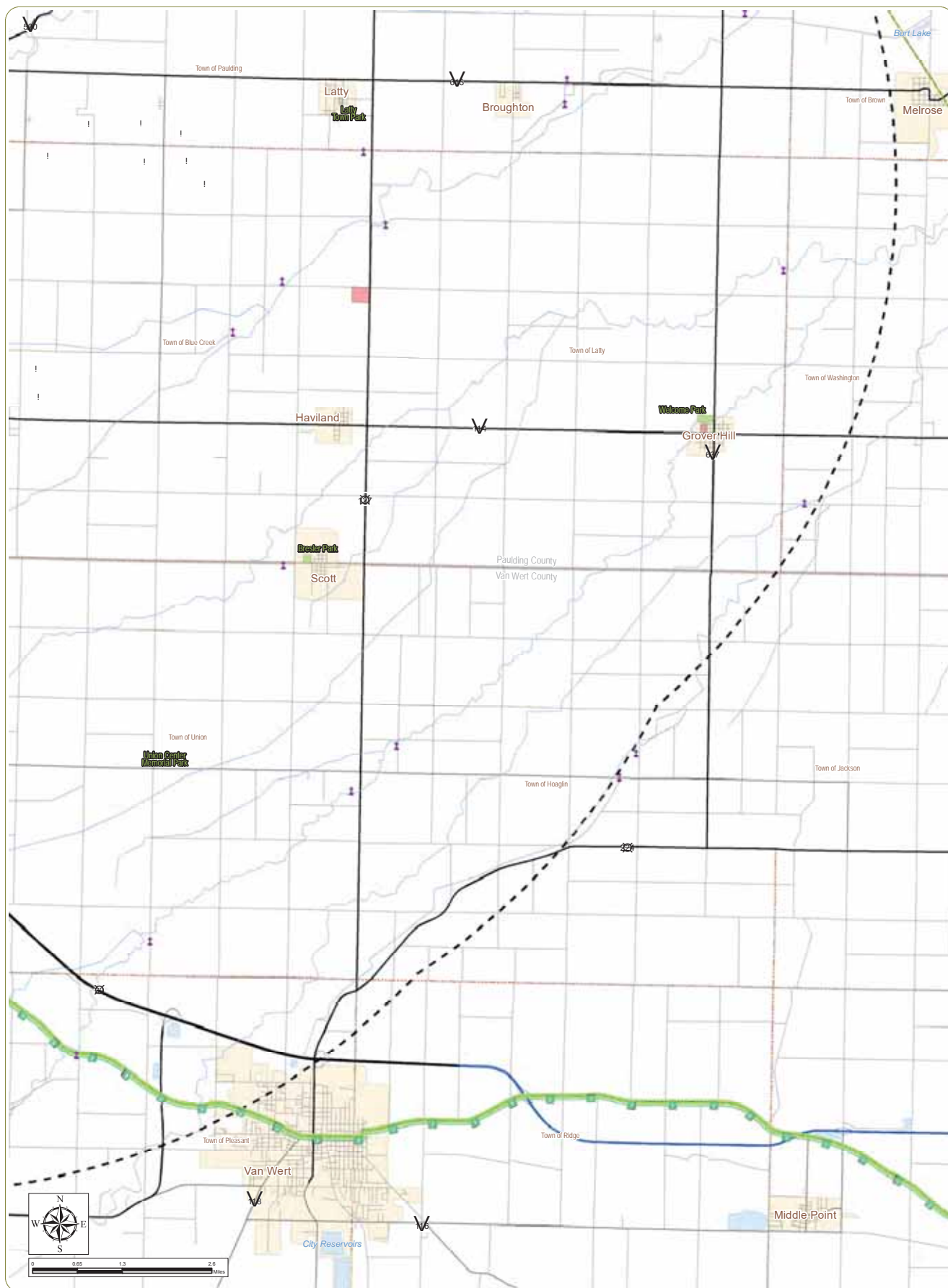
Benton, Blue Creek, Crane, Harrison, and Paulding Townships, Paulding County, Ohio

Figure 5: Visually Sensitive Resources

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- | | | |
|---------------------------------------|-----------------------------|---------------------------|
| ! Wind Turbine | State Bike Route | NRHP-Eligible Site |
| ⌘ Cemetery | State Scenic Byway | NRHP-Listed Site |
| ⌘ Other Local Resource | State Scenic River | School |
| ⌘ State Historic Marker | Wabash and Erie Canal Trail | State Wildlife Area |
| ⌘ Buckeye Trail | Historic Bridge | Waterbody |
| ⌘ Major Road | Library | 10-Mile Visual Study Area |
| ⌘ North Country National Scenic Trail | Local Park | City/Village |
| ⌘ River or Stream | Nature Preserve | Town Boundary |
| | | County Boundary |





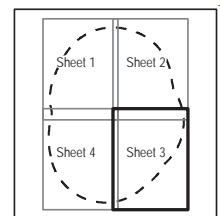
Timber Road IV Wind Farm

Benton, Blue Creek, Crane, Harrison, and Paulding Townships, Paulding County, Ohio

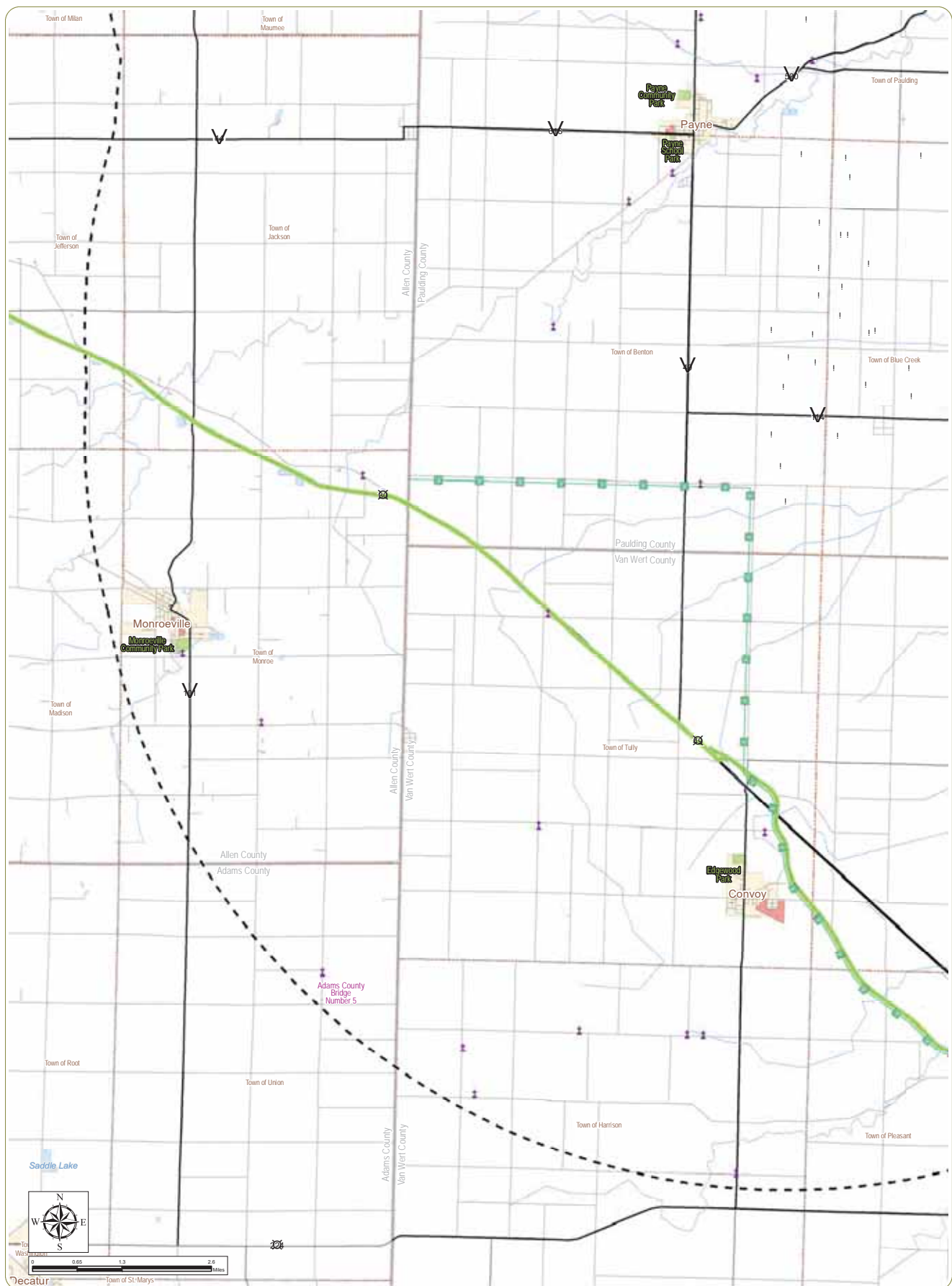
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|-------------------------------------|-----------------------------|---------------------------|
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| Cemetery | State Scenic Byway | NRHP-Listed Site |
| Other Local Resource | State Scenic River | School |
| State Historic Marker | Wabash and Erie Canal Trail | State Wildlife Area |
| Buckeye Trail | Historic Bridge | 10-Mile Visual Study Area |
| Major Road | Library | City/Village |
| North Country National Scenic Trail | Local Park | Town Boundary |
| River or Stream | Nature Preserve | County Boundary |



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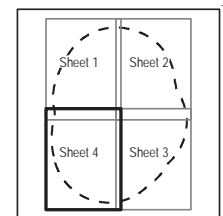
Timber Road IV Wind Farm

Benton, Blue Creek, Crane, Harrison, and Paulding Townships, Paulding County, Ohio

Figure 5: Visually Sensitive Resources

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| North Country National Scenic Trail | Local Park | City/Village |
| River or Stream | Nature Preserve | Town Boundary |
| | | County Boundary |



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4.0 Visual Impact Assessment Methodology

The VIA procedures used for this study comply with the requirements of Ohio Administrative Code Chapter 4906-04-08(D)(4) for the Ohio Power Siting Board, and are consistent with methodologies developed by the U.S. Department of the Interior, Bureau of Land Management (1980), U.S. Department of Agriculture, National Forest Service (1974), U.S. Department of Transportation, Federal Highway Administration (1981), and other state and federal agencies. They are widely accepted as standard visual impact methodology for wind energy projects (CEIWEF, 2007). The specific techniques used to assess potential project visibility and visual impacts are described in the following section.

4.1 Project Visibility

An analysis of potential turbine visibility was undertaken to identify those locations within the visual study area where there is potential for the proposed Project to be seen from ground-level vantage points. This analysis included identifying potentially visible areas on viewshed maps and verifying visibility in the field. The methodology employed for each of these assessment techniques is described below.

4.1.1 Viewshed Analysis

Viewshed analyses were based on the Ohio Geographically Referenced Information Program (OGRIP) 2006 light detection and ranging (lidar) data for Paulding, Defiance, and Van Wert Counties. Lidar is a remote sensing method that uses light in the form of a pulsed laser to measure ranges (variable distances) to the earth to generate precise, three-dimensional information about the shape of the earth and its surface characteristics (NOAA, 2017). It is important to note that the lidar data used in this analysis are from 2006, which raises the concern that the resulting analysis may not reflect landscape conditions as they currently exist. However, based on review of current aerial photography and field review, it does not appear that significant changes have occurred since that time. For the portion of the visual study area that falls within Indiana, United States Geological Survey (USGS) 10-meter resolution digital elevation model (DEM) data and the 2011 USGS National Land Cover Database (NLCD) were used instead of high resolution lidar data.

Viewshed Analysis – Topography Only

To determine which geographic areas or sensitive resources within the study area would definitively be screened from view of the proposed Project by intervening landforms, topographic viewshed maps for the proposed Project were

prepared using a 15-foot (4.5-meter) resolution lidar-derived bare earth digital elevation model (DEM) in combination with the USGS 33-foot (10-meter) resolution DEM for Indiana; the location and height of all proposed turbines (see Figures 2 and 3); an assumed viewer height of 6 feet; and ESRI ArcGIS® software with the Spatial Analyst extension. The topographic viewshed analysis is based upon the existence of a direct, unobstructed line of sight to a proposed turbine from various observation points throughout the study area based on the screening provided by topography only. The resulting topographic viewshed maps define the maximum area from which any turbine could potentially be seen within the study area. Because the screening provided by vegetation and structures is not considered in this analysis, the topographic viewshed represents a “worst case” assessment of potential Project visibility. Topographic viewshed maps assume that no trees exist, and therefore are very accurate in predicting where visibility will not occur due to topographic interference. However, they are less accurate in identifying areas from which the proposed Project would actually be visible. Trees and buildings can limit or eliminate visibility in areas indicated as having potential turbine visibility in the topographic viewshed analysis.

Two 10-mile radius topographic viewsheds were mapped; one to illustrate “worst case” daytime visibility (based on a maximum blade tip height of 602 feet above existing grade) and the other to illustrate potential visibility of turbine lights (based on a FAA warning light height of 361 feet above existing grade). The FAA warning light (i.e., nacelle height) viewshed analysis was based on the assumption that all turbines would be lit, in conformance with FAA lighting guidelines for turbines that exceed a maximum height of 500 feet (FAA, 2016).

Viewshed Analysis – Topography, Structures and Vegetation

To provide a more accurate analysis of potential turbine visibility within the study area, a second-level viewshed analysis was completed to incorporate the screening effect of structures and vegetation, as captured in the previously referenced 2006 lidar data. A digital surface model (DSM) of the study area was created from the lidar data, which includes the elevations of buildings, trees, and other objects large enough to be measured by the lidar technology. In the Indiana portion of the study area, the 2011 USGS National Land Cover Data (NLCD) set was used to identify the mapped location of forest land (including the Deciduous Forest, Evergreen Forest and Mixed Forest NLCD classifications). Based on standard visual assessment practice, the NLCD-mapped locations of forest land were assigned an assumed height of 40 feet and added to the DEM. Potential screening provided by structures and non-forest vegetation (i.e. yard trees, hedgerows, etc.) was not accounted for in the Indiana portion of the study area. A new, continuous 15-foot resolution DSM for the visual study area was then created, utilizing the more detailed lidar data within Ohio and the NLCD forest data (added to the DEM) within Indiana.

The resulting DSM was then used as a base layer for the viewshed analysis, as described above. Once the viewshed analysis was completed, a conditional statement was used to set proposed Project visibility to zero in locations where the DSM elevation exceeded the bare earth elevation by 6 feet or more. This was done for two reasons; 1) because in locations where trees or structures are present in the DSM, the viewshed would reflect visibility from the vantage point of standing on the tree top or building roof, which is not the intent of this analysis and 2) to reflect the fact that ground-level vantage points within buildings or areas of vegetation exceeding 6 feet in height will generally be screened from views of the proposed Project.

Because it accounts for the screening provided by forest throughout the visual study area and also for screening provided by structures and street trees within Ohio, this second-level analysis is a more accurate representation of potential turbine visibility. However, it is worth noting that because some screening features are excluded from the analysis and characteristics of the proposed turbines that influence visibility (color, narrow profile, distance from viewer, etc.) cannot be taken into consideration in the viewshed analyses, being located within the viewshed does not necessarily equate to actual turbine visibility. The viewshed analyses help define those areas with the greatest potential for proposed Project visibility within the study area. Field review is required to confirm the accuracy of the viewshed (Figure 6).

4.1.2 Field Verification

Visibility of the proposed Project was evaluated in the field during a two-day site visit conducted on March 14-15, 2018. The purpose of this site visit was to verify potential turbine visibility in the field and to obtain photographs for subsequent use in the development of visual simulations. Weather conditions were variable, ranging from clear to partly cloudy, to overcast, thus providing photographs that collectively depict a representative variety of sky/lighting conditions. The photographs depict the study area during winter/early spring conditions and are representative of the typical aesthetic quality of the landscape. Leaf-off conditions also provide the greatest potential for views of the proposed Project, and allow for development of worst case visual simulations.

During the field verification, public roads were driven, and public vantage points were visited within the study area to document points from which the turbines would likely be visible, partially screened, or fully screened. The determination of proposed Project visibility at a specific location was made based on the visibility of existing structures located in proximity to the proposed turbine sites (existing turbines, communication towers, silos, roads, etc.), which served as locational and scale references. Photos were taken from 67 representative viewpoints within the study area. All photos were obtained using a Nikon D7100 digital SLR camera with a focal length between 28 and 35 mm (equivalent to

between 45 and 55 mm on a standard 35 mm film camera). This focal length is the standard used in visual impact assessment because it most closely approximates normal human perception of spatial relationships and scale in the landscape. Viewpoint locations were determined using hand-held global positioning system (GPS) units and high-resolution aerial photographs (digital ortho quarter quadrangles). The time and location of each photo were documented on all electronic equipment (camera, GPS unit, etc.) and noted on field maps and data sheets. Viewpoints photographed during field review generally represented the most open, unobstructed available views toward the proposed Project from the various LSZs, distances, directions, visually sensitive resources, and areas of high public use within the visual study area. Locations of the viewpoints are indicated in Figure 7 and a photo log, including a representative photograph toward the Project Site from each viewpoint, is included as Appendix C

4.2 Project Visual Impact

Beyond evaluating potential Project visibility, the VIA also examined the visual impact of the proposed Project (including wind turbines, met towers, access roads and any associated clearing), on the aesthetic resources and viewers within the visual study area. Please note that at the time of submittal of this VIA, design and layout of the new collection substation was not available and is therefore not addressed in this study. It is EDR's experience that in projects that are generally sighted in open agricultural fields, such as the Timber Road IV Wind Farm, that the substation will not change the viewshed analyses of the overall conclusions because of the low relative height associated with the equipment. Visual impact assessment involved creating computer models of the proposed Project turbines and layout, selecting representative viewpoints within the study area, and preparing computer-assisted visual simulations of the proposed Project. These simulations were then used to characterize the type and extent of visual impact resulting from the Project construction. Details of the visual impact assessment procedures are described below.

4.2.1 Viewpoint Selection

From the photo documentation conducted during field verification on March 14 and 15, 2018, EDR selected a total of 12 viewpoints for development of visual simulations. These viewpoints were selected based upon the following criteria:

1. They provide clear, unobstructed views of the proposed Project (as determined through field review and follow-up verification).
2. They illustrate proposed Project visibility from sensitive sites/resources with the visual study area where open views are available.
3. They illustrate typical views from LSZs where views of the proposed Project will be available.

4. They illustrate typical views of the proposed Project that will be available to representative viewer/user groups within the visual study area.
5. They illustrate typical views of different numbers of turbines, from a variety of viewer distances, and under different lighting/sky conditions, to illustrate the range of visual change that will occur with the proposed Project in place.

Location of the selected viewpoints is indicated in Figure 7. Locational details and the criteria for selection of each simulation viewpoint are summarized in Table 1, below:

Table 1. Viewpoints Selected for Simulation and Evaluation

Viewpoint Number	Location and/or Visually Sensitive Resource	LSZ Represented	Viewer Group Represented	Viewing Distance ¹	View Orientation ²
01	Intersection of State Road 111 and Road 61, Township of Paulding	Rural Residential/Agricultural Zone	Local Residents	1.4	S
02	Road 87 at Big Run, Township of Paulding	Suburban Residential Zone	Local Residents	2.2	W
04	West Wayne Street (State Road 111), Township of Paulding	City/Village Zone	Local Residents	N/A	W-NW
15	Paulding Upground Reservoir (Road 107), Township of Paulding	Rural Residential/Agricultural Zone	Local Residents, Tourists/Recreational Users	3.4	W
18	Apostolic Christian Cemetery, Town Highway 82, Township of Blue Creek	Rural Residential/Agricultural Zone, Suburban Residential Zone	Local Residents	2.5	W-SW
28	Paulding County Community Fossil Garden at the intersection of County Highway 180 and Road 87, Township of Crane	Rural Residential/Agricultural Zone	Local Residents, Tourists/Recreational Users	2.4	SW
30	T-43 Overpass over United States Route 24, Township of Carryall	Transportation Corridor Zone	Local Residents, Through Travelers/Commuters	2.6	E-SE
33	Intersection of Road 52 and Road 59, Township of Blue Creek	Rural Residential/Agricultural Zone	Local Residents	1.0	E-NE
34	Road 59 Township of Blue Creek	Rural Residential/Agricultural Zone	Local Residents	0.3	N-NW

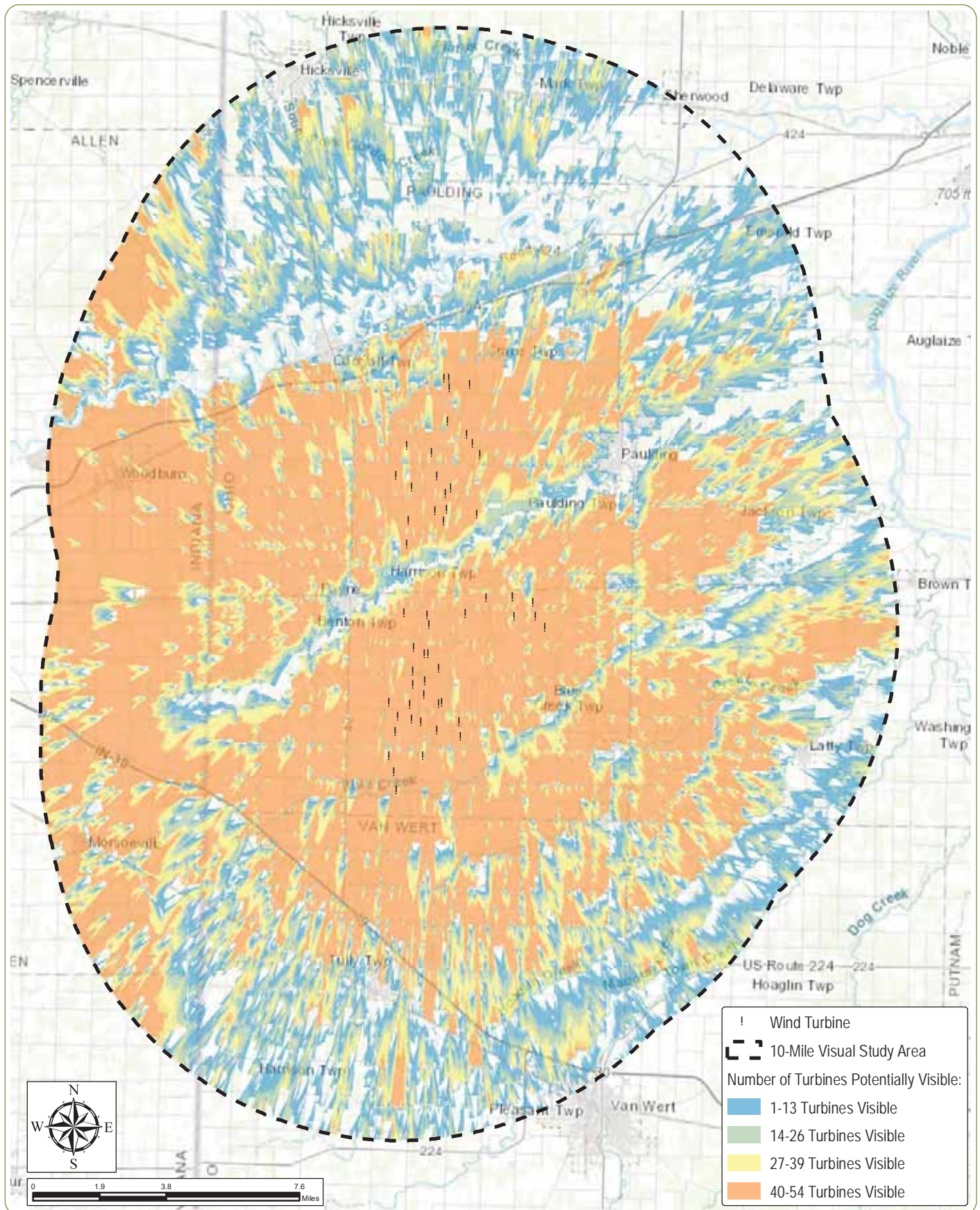
Viewpoint Number	Location and/or Visually Sensitive Resource	LSZ Represented	Viewer Group Represented	Viewing Distance ¹	View Orientation ²
44	Ohio Lincoln Highway Historic Byway (United States Route 30) Township of Tully	Suburban Residential Zone, Transportation Corridor Zone	Local Residents, Through Travelers/Commuters	4.5	NE
46	Edgewood Park Derby Grandstand Township of Tully	Suburban Residential Zone	Local Residents, Tourists/Recreational Users Local Residents, Tourists/Recreational Users	5.2	N-NE
64	Road 1 (State Line Road) Township of Harrison	Rural Residential/Agricultural Zone	Local Residents	5.3	E-NE

¹Distance from viewpoint to nearest visible turbine (in miles)

²N = North, S = South, E = East, W = West

4.2.2 Visual Simulations

To show anticipated visual changes associated with the proposed Project, high-resolution computer-enhanced image processing was used to create realistic photographic simulations of the completed Project from each of the 12 selected viewpoints. The photographic simulations were developed by constructing a three-dimensional computer model of the proposed turbine layout based on turbine specifications and survey coordinates provided by the Applicant. For the purposes of this analysis, it was assumed that all new turbines would have the following dimensions; maximum blade tip height is 602 feet (183.5 meters), the rotor diameter is 489 feet (149.1 meters) and the hub height is 358 feet (109 meters). The computer model used in the VIA is shown and the simulation methodology and accuracy is outlined below.



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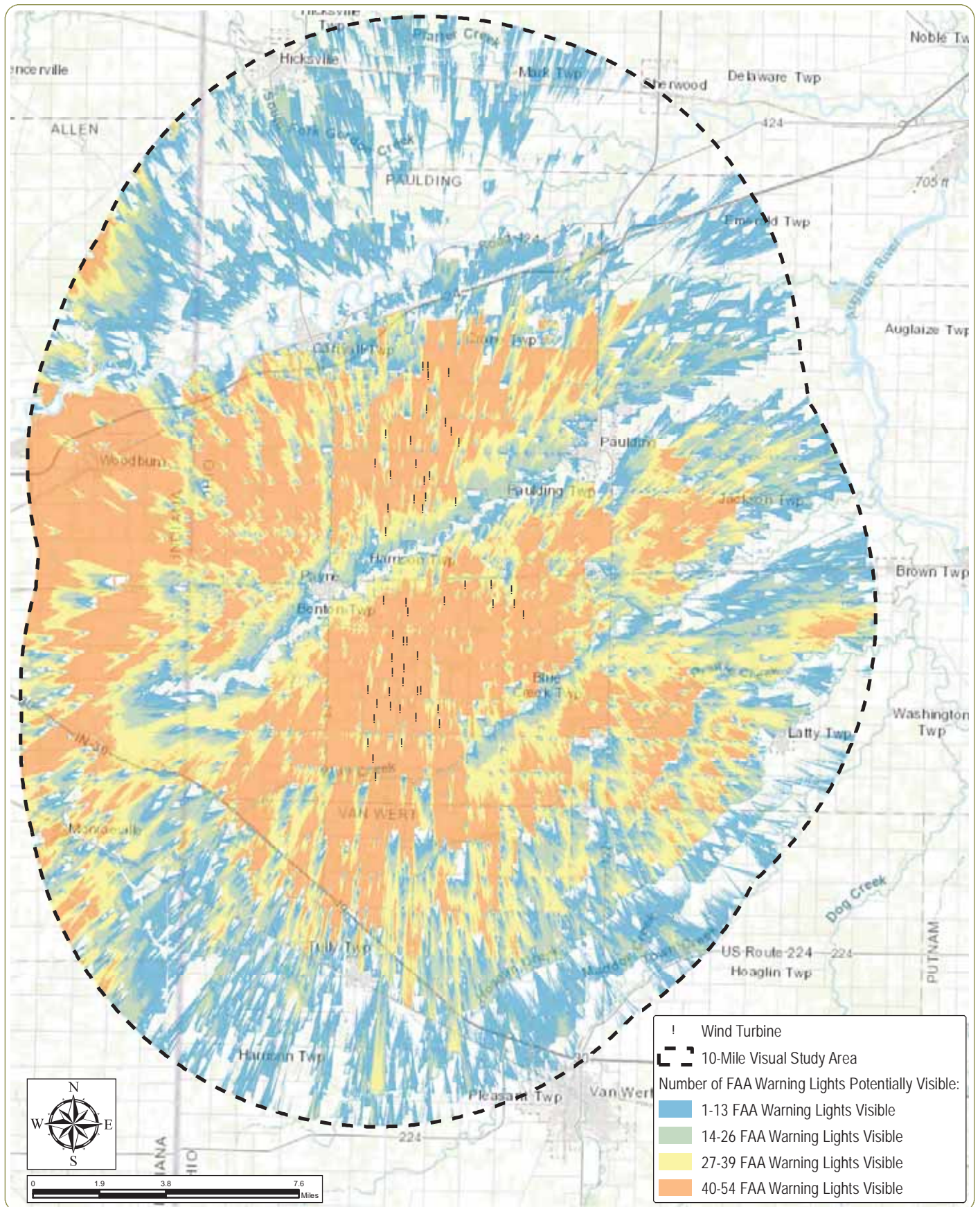
Benton, Blue Creek, Crane, Harrison, and Paulding Townships, Paulding County, Ohio

Figure 6: Viewshed Analysis Sheet 1 of 2: Wind Turbine Blade Tip Visibility Based on Topography and Vegetation

Notes: 1. Basemap: ESRI ArcGIS Online "World Topographic Map" map service. 2. This map was generated in ArcMap on June 25, 2018. 3. This is a color graphic. Reproduction in grayscale may misrepresent the data. 4. Potential turbine visibility is based on the screening effects of topography, vegetation, and man-made structures as represented in the 2006 Ohio Geographically Referenced Information Program lidar dataset. Viewshed Analysis based on maximum blade tip height of 602 feet.



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Figure 6: Viewshed Analysis Sheet 2 of 2: Wind Turbine FAA Warning Light Visibility Based on Topography and Vegetation

Notes: 1. Basemap: ESRI ArcGIS Online "World Topographic Map" map service. 2. This map was generated in ArcMap on June 25, 2018. 3. This is a color graphic. Reproduction in grayscale may misrepresent the data. 4. Potential FAA warning light visibility is based on the screening effects of topography, vegetation, and man-made structures as represented in the 2006 Ohio Geographically Referenced Information Program lidar dataset. Viewshed Analysis based on maximum FAA warning light height of 361 feet.



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Simulation Methodology (Inset 10)



Photos are selected to illustrate typical views of the proposed project that will be available to representative viewers/user groups from the major landscape similarity zones and sensitive sites within the study area.



A three-dimensional computer model of the project is built based on proposed turbine specifications and tower site coordinates.



Aerial imagery and GPS data collected in the field are used to create an AutoCAD Civil 3D drawing.



These data are superimposed over photographs from each of the viewpoints, and minor camera changes are made to align all known reference points within the view.



A digital terrain model representing the existing topography is also overlaid on the existing photograph to refine camera alignment, and target elevation.



The proposed exterior color/finish of the turbines was then added to the model and the appropriate sun angle is simulated based on the specific date, time and location (latitude and longitude) at which each photo was taken.

Simulations were created by aligning each photographic viewpoint with the computer model of the proposed turbine layout and superimposing the turbine models on the photograph. This step involves utilizing aerial imagery and GPS data collected in the field to create an AutoCAD Civil 3D® drawing. The two-dimensional AutoCAD data were then imported into AutoDesk 3ds MAX® and three-dimensional components (cameras, modeled turbines, etc.) added. These data were superimposed over photographs from each of the viewpoints, and minor camera changes (height, roll, precise lens setting) made, as necessary, to align all known reference points within the view. This process ensures that proposed Project elements are shown in proportion, perspective, and proper relation to the existing landscape elements in the view. Consequently, the alignment, elevations, dimensions and locations of the proposed structures will be accurate and true in their relationship to other landscape features in the photo.

At this point, a "wire frame" model of the facility and known reference points are shown on each of the photographs. The proposed exterior color/finish of the turbines was then added to the model and the appropriate sun angle simulated based on the specific date, time and location (latitude and longitude) at which each photo was taken. This information allows the computer to accurately illustrate highlights, shading and shadows for each individual turbine shown in the view. All simulations show the turbines with rotors oriented toward the south-southwest, which is generally the prevailing wind direction in the area.

4.2.3 Illustrative Project Renderings

Recent revisions to the OPSB regulations require that the following additional analysis be included with the visual impact assessment: *"The applicant shall provide photographic simulations or artists pictorial sketches of the proposed facility from at least one vantage point in each area of three square miles within the project area, showing views to the north, south, east, and west. The photographic simulations or artists pictorial sketches shall incorporate the environmental and atmospheric conditions under which the facility would be most visible."* To address this requirement, EDR produced visual renderings of the proposed project from 10 viewpoint locations. It should be noted that these renderings are provided as informational illustrations only and additional qualitative analysis associated with these renderings is not provided in this VIA. The methodology used to create these renderings is described below.

In order to determine the number and location of viewpoints used for the proposed project renderings, EDR performed a GIS analysis by creating a 3-square mile grid which was placed over the proposed turbine array. Additionally, roads were added to the GIS analysis to ensure that the selected viewpoints would be from public vantage points. To the extent possible, the viewpoints were chosen at the intersection of two roads to increase location recognition. With the 3-square mile grid overlaid on the Project area, it was determined that 10 separate grid cells encompassed some

portion of the Project area. Consequently, 10 viewpoints were chosen for the creation of Project renderings. These are listed below in Table 2 and illustrated in the mapping provided in Appendix F.

Table 2. Three Square Mile Proposed Project Rendering Locations

Viewpoint Name	Location	County	Township	Latitude	Longitude
Project Rendering 1	Corner of Road 83 and 162	Paulding	Crane and Paulding Township Line	41.16481° N	84.65102° W
Project Rendering 2	Road 162	Paulding	Crane and Paulding Township Line	41.16472° N	84.68139° W
Project Rendering 3	Corner of Road 61 and State Route 111	Paulding	Paulding and Harrison Township Line	41.13567° N	84.68828° W
Project Rendering 4	Corner of State Route 111 and Road 83	Paulding	Paulding	41.135440° N	84.65070° W
Project Rendering 5	Corner of Road 59 and State Route 613	Paulding	Paulding and Harrison Township Line	41.091356° N	84.68808° W
Project Rendering 6	Corner of Road 87 and Road 82	Paulding	Paulding and Blue Creep Township Line	41.07687° N	84.63112° W
Project Rendering 7	Corner of Road 60 and Road 59	Paulding	Blue Creek and Benton Township Line	41.04800° N	84.68799° W
Project Rendering 8	Corner of Road 79 and Road 60	Paulding	Blue Creek	41.04783° N	84.65000° W
Project Rendering 9	Corner of Road 59 and State Route 114	Paulding	Blue Creek and Benton Township Line	41.01884° N	84.68843° W
Project Rendering 10	Corner of Road 79 and State Route 114	Paulding	Blue Creek	41.01866° N	84.64968° W

Once the geographic locations of the viewpoints were determined, EDR used the 2006 OSIP Digital lidar data for Paulding County to build a georeferenced 3D point cloud model of the vegetation and structures throughout the entire Project site in 3D Studio Max®. Additionally, the lidar data were used to create a 3D topographic model of existing site topography within 5 square miles of each selected viewpoint. This is generally the extent of ground plane visibility when considering the screening effect of vegetation, structures, and curvature of the earth. To account for the color of the trees and the ground plane, EDR used georeferenced aerial photography to assign a color value to the coincident points in the point cloud (for vegetation and structures) or grid cell (for the ground plane). Similar to the methodology described above in Section 4.2.2 Visual Simulations. With the existing environment modeled, EDR then incorporated a 3D model of the proposed Project and the four existing wind farms adjacent to the Project. Details for the existing wind farms' turbine models were obtained from the respective project websites. The elevation for each turbine was determined by the lidar data. With the turbines in place, EDR created four cameras at each viewpoint location. All cameras represent a lens setting of exactly 50 millimeters and each camera was set to point either north, east, south, or west, in order to cover multiple vantagepoints, as required by the OPSB regulations. It should be noted that ground level cameras placed in the lidar model can result in excessive foreground distraction, so the cameras were placed up to 15 feet above ground level to minimize this effect. With the cameras in place, EDR assigned geometric values to the lidar point cloud to make the points visible to the camera. The geometric values that were applied to the points

appear as circles in the viewpoint renderings when proximate to the viewer. However, these circles represent actual screening elements found in the Project area, such as portions of trees, utility poles, houses, barns, or other built structures. In order to differentiate between the existing and proposed turbines, existing turbines were assigned a dark grey color. This is only intended to clearly distinguish the proposed Project from the existing turbines, and should not be misinterpreted as the actual turbine color.

Once the turbines and cameras were placed and adjusted, a lighting system was created to represent high contrast for optional wind turbine visibility. The environmental conditions represented are perfectly clear and free of any atmospheric haze. The skies were programmed to be cloudless and blue, providing a high contrast background. The resulting renderings assume high visibility viewing conditions from each of the four view directions from 10 viewing locations. The resulting Project renderings are provided in Appendix F, along with the mapped viewpoint locations and technical specifications.

5.0 *Visual Impact Assessment Results*

5.1 Project Visibility

5.1.1 Viewshed Analysis

The bare-earth DEM viewshed analysis indicates that areas where there is no possibility of seeing the proposed Project are extremely limited, consisting of a few topographic depressions, such as quarries and portions of river/stream valleys. Based on the screening effect of topography alone, none of the visually sensitive sites within the study area are indicated as being completely screened from views of the proposed wind turbines, however, 98 of the inventoried resources will experience partial screening by intervening topography.

Factoring vegetation and structures into the viewshed analysis, through use of the lidar/NLCD-derived DSM, provides a more accurate reflection of what the actual extent of proposed Project visibility is likely to be (Figure 5). The blade tip viewshed analysis indicates that approximately 78.6% of the study area will have potential views of some portion of one or more of the proposed wind turbines. Visibility will be eliminated in small areas throughout the study area where blocks of forest vegetation occur and along forested stream/river corridors. Additionally, visibility is drastically reduced or eliminated in villages due to screening provided by trees and structures². In general, areas of screened views increase in size with distance from the proposed Project and are most wide-spread north of the Maumee River. Sizable areas that are largely screened from views of the proposed Project include the Maumee River, Flatrock Creek, and the Villages of Hicksville, Antwerp, Paulding, Payne, Convoy, Haviland, Grover Hill, and the center of the Village of Scott (not the agricultural outskirts). The DSM viewshed analysis indicates that views of the proposed Project will be fully screened from 37 of the inventoried visually sensitive resources within the 10-mile radius study area. Thirteen of the inventoried visually sensitive resources are indicated as having unobstructed open views of the Project Site from their full geographic extent, only four of which occur within Ohio. These four resources include Vinegar Farm Plot Cemetery, Miser/Mizer Plot Cemetery, Angrove-Blaine Cemetery, and McClure-Dowler Cemetery. The remaining 172 identified resources are indicated as having at least partially screened views, depending on the exact location of the viewer within the resource's mapped boundary.

Areas with potential nighttime views of the turbines, as indicated by the FAA warning light viewshed analysis (Figure 6) include approximately 72.0% of the visual study area. This analysis indicates that nighttime visibility will generally

² As previously mentioned, the viewshed analysis for the portion of the visual study area that falls within Indiana does not account for the screening provided by structures and street/yard trees (it accounts for screening by topography and mapped forest vegetation only), therefore, the decreased visibility in villages mentioned here is not reflected in those areas.

be concentrated in the same areas where daytime blade-tip height visibility was indicated, only to a slightly smaller geographic extent.

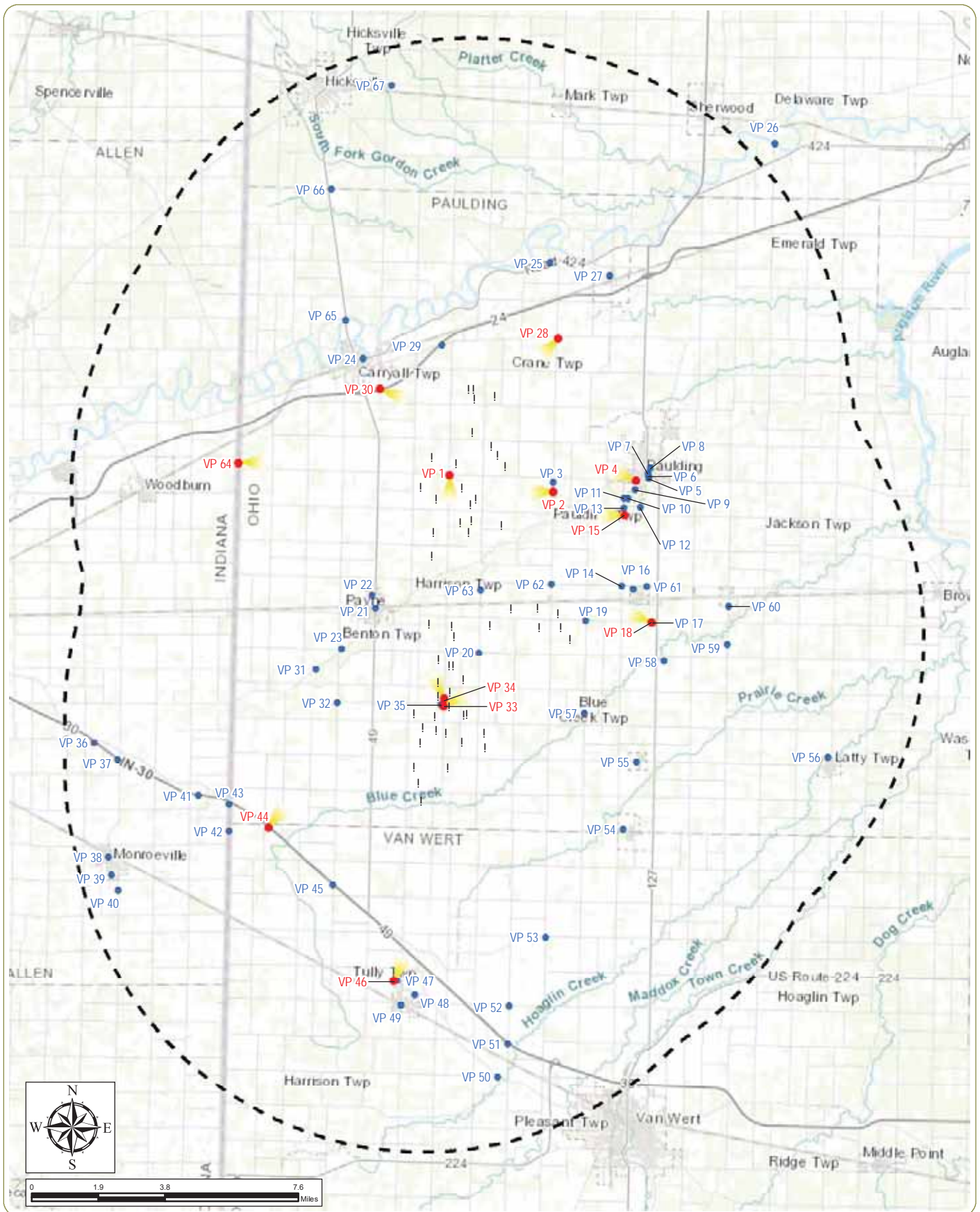
Table 3. Ten-Mile-Radius Study Area Viewshed Results Summary

Viewshed Analysis	Visible		Not Visible	
	Square Miles ²	% of Study Area	Square Miles	% of Study Area
Blade Tip DEM - Topography Only	602.1	99.0	5.9	1
Blade Tip DSM - Topography, Structures, and Vegetation ²	477.8	78.6	130.2	21.4
FAA DEM – Topography Only ³	598.7	98.5	9.3	1.5
FAA DSM – Topography, Structures, and Vegetation ²	437.5	72.0	170.5	28.0

¹The 10-mile radius study area is approximately 608 square miles in size.

²The DSM viewshed analysis accounts for screening provided by topography, vegetation, and structures within the Ohio portion of the visual study area, but only accounts for screening by topography and mapped forest vegetation (not structures or street/yard trees) within the Indiana portion of the visual study area.

³The FAA warning light viewshed is based on the assumption that all 54 turbines will be lit.







Timber Road IV Wind Farm

Benton, Blue Creek, Crane, Harrison, and Paulding Townships, Paulding County, Ohio

Figure 7: Viewpoint Locations

Notes: 1. Basemap: ESRI ArcGIS Online "World Topographic Map" map service. 2. This map was generated in ArcMap on June 25, 2018. 3. This is a color graphic. Reproduction in grayscale may misrepresent the data.

-  Simulated Viewpoint Location
-  Viewpoint Location
-  Wind Turbine
-  10-Mile Visual Study Area



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5.1.2 Field Review Analysis

Conducting the field review for the Rural Residential/Agricultural LSZ during the winter months, with no vegetation in the fields and no leaves on trees, allowed for the most open and uninterrupted views of the landscape and suggested that portions of the proposed Project will be visible throughout most of the study area due to the flat topography and the abundance of open agricultural land. The field review also confirmed a general lack of open views toward the proposed Project site from the City/Village LSZ with a concentration of structures and street/yard trees, particularly in the Cities of Van Wert, Ohio and Woodburn Indiana, the Town of Monroeville, Indiana and the Ohio Villages of Antwerp, Convoy, Hicksville, and Paulding. Consequently, open views of the proposed Project from the majority of residences and historic sites within these residential areas are anticipated to be fully or substantially screened. In general, only on the outskirts of these developed areas, where open fields adjoin residential areas, were open views available in the direction of the Project Site. This condition was more often found in the Suburban Residential LSZ with lower populations and limited street grids, such as; Broughton, Cecil, Grover Hill, Haviland, Latty, Melrose, Scott and Sherwood, Ohio. However, in some cases, views of the proposed Project will be available to viewers from interior portions of the cities and villages when looking along open road corridors oriented toward the Project Site. Due to the lack of topography in the study area, views of the proposed Project down certain aligned road corridors is more likely in villages located closer to the Project Site. Field review confirmed that views of the proposed Project will be most available from the Rural Residential/Agricultural LSZ. Some screening will be provided by the woodlots, hedgerows, farm buildings, rural residences and yard trees that occur in these areas. However, screening by one or more of these features rarely occurs in multiply directions from a single viewpoint, and open agricultural fields typically dominate the remainder of the view. Field review also confirmed likely Project visibility from most of the Transportation Corridor LSZ, including US Routes 24 and 30. Long distance views tend to be unavailable where residences and associated road surfaces are surrounded by vegetation, as the lack of topography allows the foreground and midground vegetation or built structures to effectively screen outward views.

The majority of sensitive sites within the study area occur within the cities and villages. As indicated above, field review of these areas confirmed that Project visibility from the majority of sensitive sites will be partially to fully screened by the surrounding built environment.

Four of the five NRHP-listed sites did not warrant field investigation, as they show no potential views of the proposed Project according to the viewshed analyses. Six of the eight NRHP-eligible sites were also found to have no potential Project visibility. The lack of visibility from these historic resources is due to their location within the City/Village LSZ.

As discussed in Section 3.2.2, visibility is minimal within this LSZ because of intervening buildings, street trees, and suburban plantings.

Of the one NHRP-listed site and two NHRP-eligible historic sites where viewshed analyses indicated potential Project visibility, field review confirmed that the *Round Barn (80003206)* was destroyed by severe weather, and the grounds are not accessible to the public. As a result, no further review of the Round Barn property was undertaken.

The NHRP-eligible site *Old US 24* is a highway rest area and is dominated by a large tractor trailer parking area adjacent to a small stand of evergreen trees and deciduous vegetation that surround a log cabin. On the south side of State Route 424 (across from the rest area) a large stand of mature mixed evergreen and deciduous trees creates an intervening screen limiting potential visibility of the proposed Project. Partially screened views toward the Project Site are potentially available from the paved parking areas at the rest area.

Adams County Bridge Number 5 has the potential for views toward the proposed Project Site. However, views from the bridge will be partially to fully screened by the shoreline vegetation along the creek banks.

The *Lake Wayne R. Carr Wildlife Area* consists of a 15-acre man-made pond adjacent to the shoulder of US Route 24. Shoreline vegetation consists of native grasses and wildflowers with no growth above 3 feet tall. Views to the south toward the Project Site will look across the pond and divided highway, and will remain unscreened throughout the year, while views to the east, west and north will be screened by the adjacent corn field during the growing season. The view from this site currently includes multiple existing wind turbines located approximately 0.5 mile away, which will make the proposed turbines difficult to discern from the existing wind farm.

Portions of the *Maumee State Scenic and Recreational River* were visited and photographed, including Riverside Park in the Township of Carryall, a designated river access north of the Village of Cecil, and multiple road crossings. All of the observed portions of the river corridor have similar visual character and potential for views of the Project. The water surface is a minimum of 10-15 feet below the adjacent land, with portions being much lower. The banks on both sides of the river are characterized by a band of thick vegetation that further encloses the river and screens views of the surrounding landscape. Consequently, views outward in any direction from the water's surface are very limited, and in all cases at least partially screened. If there is a portion of the river that does allow for views toward the proposed Project, the view would be tightly framed, partially screened, and at a background distance.

Field review of the *Ohio and Indiana Lincoln Highway Historic Byway* (US Route 30) confirmed that Project visibility from the byway will be available along the majority of the portion that is within the study area. Roadside vegetation consists of low growing grasses with adjacent agricultural fields. Mature roadside vegetation or hedgerows are not common, and therefore open views are available in all directions. While traversing the study area, the dominant features of the landscape are the vast agricultural fields and the existing wind turbines. In views to the north of the byway, existing turbines currently encompass the foreground, midground and background views. The proposed Project turbines will occupy the background distance zone and will not change the visual character of the surrounding landscape.

The Buckeye Trail and North Country Trail pass through every LSZ within the study area. Consequently, field review confirmed potential Project visibility from portions of both these trails. The visual simulations presented in Section 5.2 represent the range of potential views of the proposed Project that will be available from either trail network.

Field review of the Black Swamp Conservancy's *Forrest Woods Nature Preserve* was conducted by traveling the perimeter roads, (C-73, C-230, & T-192) and observing the landscape conditions. By obtaining a permit, access to the site allows a visitor to experience one of the finest remnants of the historic Great Black Swamp. The site is heavily wooded, and open outward views are rare. Where they do occur, vegetation along the adjacent Maumee River Corridor will also add additional screening.

Blue Cast Springs Nature Preserve was visited and photographed as part of the field review. The only portion of the preserve with potential views of the proposed Project is the parking area and immediate connector trails. As is the case with the Forrest Woods Nature Preserve, Blue Cast Springs also focusses on interior views, with open outward views blocked by the mature vegetation. The proposed turbines will have no effect on the internal views of either of these two preserves and consequently their overall scenic quality and viewer enjoyment will remain unaffected.

During field review, eight local/community parks were visited, as part of the VIA process. The representative parks that were visited included, the Black Swamp Nature Center, Bresler Park, Edgewood Park, Monroeville Community Park, Payne Community Park, Riverside Park and Welcome Park. Three main categories of community park were identified during the field review. These include natural areas with trails and wildlife, such as Black Swamp Nature Center; large community parks with ballfields and other recreational facilities/activities, such as Monroeville Community Park; and small community parks and playground designed mainly for children, such as Bresler Park. Field review of the representative nature parks indicated that visibility from the trails and active areas associated with these types of parks will generally be screened by the associated vegetation at the perimeter of the park. Large community parks often

provide open views toward the Project site. However, because activities at these parks focus on sports and other active recreation, views of the Project should not be a significant concern, and viewer activity will not be changed. Small community parks are more sensitive to visual change, as they are used for more passive recreation. Users of this type of park may be inclined to sit, relax and enjoy the surrounding landscape from the park itself. The flat open landscape does provide open views, however each park is vegetated to a certain extent, either by specimen shade trees or intact tree stands. Existing turbines are visible at varying distances from the majority of parks visited, which will limit the visual impact of the proposed Project.

5.2 Photographic Simulation Analysis of Existing and Proposed Views

To illustrate anticipated visual changes associated with the proposed Project, photographic simulations of the completed Project from each of the 12 selected viewpoints indicated in Figure 7 were used to evaluate Project visibility, appearance, and contrast with the existing landscape. Review of these images, along with photos of the existing view, allowed for comparison of the aesthetic character of each view with and without the proposed Project in place. The images used for this analysis are included in the following section and in Appendix D. Results of the evaluation are presented in the following section.

Viewpoint 1 (Appendix D – Sheets 1-3)

Inset 11: Existing view from State Route 111 at intersection with Road 61, Township of Harrison

Existing Conditions

Viewpoint 1 is located on the intersection of State Road 111 and Road 61 in the Township of Harrison. This viewpoint is approximately 0.7 mile north of the nearest proposed turbine and is representative of the Rural Residential/Agricultural LSZ. The existing view to the south (i.e., toward the Project Site) includes a residential road flanked on either side by fallow agricultural fields. A guardrail extends into the view along the road to the right of the viewer and directs the viewer's gaze towards a culvert in the ditch adjacent to the roadside. The road extends to a distant farmstead in the background and several buildings associated with the residence are visible. Near these buildings, a few trees extend into the skyline and become the focal points in the scene. The cloudy sky contrasts with the dark tree line visible in the far background and forms the visible horizon. Under existing conditions, the view feels open and expansive and offers uninterrupted views towards the horizon. Both the field and the sky are large open spaces, largely uninterrupted by man-made or natural features. The lack of landscape variability or focal points in this view results in relatively low scenic quality. The existing view is located 4.9 miles away from the existing Northwest

Ohio Wind Project and 5.3 miles away from the existing Timber Road II, and III Projects, none of which are visible in the existing view.



Inset 12: Visual simulation of proposed view from State Route 111 at intersection with Road 61, Township of Harrison

Proposed Project

With the proposed Project in place, multiple turbines at varying distances can be seen projecting above the horizon line. In the center of the view, portions of the more distant turbines are partially screened by structures and vegetation. Due to their distance from the viewer, the turbines in the center of the view do not appear out of scale with these existing built features in the landscape. Furthermore, their light gray color offers minimal contrast against the cloudy sky. Along the peripheries of the view, the turbines are closer to the viewer, and as such are much more prominent. At this distance, details of these structures are clearly visible, and they extend well into the open sky. With the proposed Project in place, the turbines are the most prominent manmade feature in the scene and become focal points in the view. Their scale contrast with background forest vegetation and residential structures is notable, but their line and color are consistent with the existing structures already present in the background. During the growing season, agricultural crops in the immediate foreground may provide some screening of the turbines and add other visual components to the view. Although they present a novel form, and substantial scale contrast, the turbines appear compatible with the working agricultural character of the Rural Residential/Agricultural LSZ.

Viewpoint 2 (Appendix D – Sheets 4-6)

Inset 13: Existing view from Road 87 in the Township of Paulding

Existing Conditions

This viewpoint is located along Road 87 in the Township of Paulding. This viewpoint is located approximately 2.2 miles east of the nearest proposed visible turbine and is representative of the Rural Residential/Agricultural LSZ. The selected viewpoint offers midground views of the proposed Project and features a roadside ditch running perpendicular to the road. The view is framed in the foreground by a metal guardrail on the road overpass. The ditch has wide, gentle banks that lead down to a shallow stream, roughly two feet wide. The surrounding fields are flat and barren, interrupted only by a few shrubs and mature trees on the periphery of the view. In the background, various woodlots, hedgerows, and a few distant structures extend into the cloudy sky. Along the horizon, turbines from the existing Timber Road III Wind Project (roughly 4.5 miles away) are clearly visible. The towers and nacelles of these turbines extend well into the sky but present limited scale and color contrast due to their light color and distance from the viewer. They are not dominant features in the view. Due to a lack of focal points or vegetative variability, the scenic quality of this view is low to moderate.



Inset 14: Visual simulation from Road 87 in the Township of Paulding

Proposed Project

With the proposed Project in place, multiple turbines are prominent additions to the midground and background of the view. The three turbines closest to the viewer are the most apparent. These turbines are largely unscreened and extend well into the sky, accentuating their scale contrast with existing features in the landscape. Portions of other turbines can also be seen further in the background at various heights across the full field of view, but they are somewhat screened due to the existing treeline, atmospheric haze, and the effects of distance. The nearer turbines appear bright white and present fairly strong color contrast with the partly cloudy sky. The line, color, and form, of the turbines contrast with the natural vegetation of the landscape, but they appear compatible with the working agricultural nature of the viewpoint and the existing Timber Road III turbines present in the view. They also become distinctive new focal points in the view, although in the growing season the active cropland may provide some degree of screening, as well as additional visual interest within the landscape. The density of visible turbines is not overwhelming, and they do not reduce the scenic quality or change the existing visual character of the area.

Viewpoint 4 (Appendix D – Sheets 7-9)

Inset 15: Existing view from West Wayne Street (State Route 111), Township of Paulding

Existing Conditions

Viewpoint 4 is located on West Wayne Street (State Route 111) in the Village of Paulding. This viewpoint is 3.7 miles east-northeast from the nearest proposed turbine and is representative of views available in the City/Village LSZ. The Village of Paulding is an area of intensive use within the visual study area and is therefore considered sensitive to visual impact. The existing view to the west-southwest from this location features a two-lane road bordered on either side by residential houses and driveways. The street is lined with signs, light posts, and roadside utility poles which create strong vertical lines in the scene. The view is relatively busy, with mature trees, garbage bins, cars, and overhead lines occupying the view. The typical viewer would be a local resident or a through-traveler. Views of the horizon are shielded by houses and vegetation. The existing view is not particularly interesting, nor dynamic, and scenic quality is low to moderate.



Inset 16: Visual simulation from West Wayne Street (State Route 111), Township of Paulding

Proposed Project

At this selected viewpoint, none of the proposed turbines are visible. Please notice the green turbines in the photo above. They represent the actual location of the proposed turbines within this view, however they are in the background, behind the foreground houses and vegetation. The closely spaced residential houses and mature trees provide shielding which completely conceal Project components from view. Thus, the addition of the proposed Project will have no visual impact on the landscape or viewers in this location. This simulation is representative of viewing conditions in most areas of the City/Village LSZ, where open views to the surrounding landscape are more restricted due to the density of foreground buildings and vegetation.

Viewpoint 15 (Appendix D – Sheets 10-12)

Inset 17: Existing panoramic view from Paulding Upground Reservoir in Paulding, Ohio.

Existing Conditions

Viewpoint 15 is located along the edge of the Paulding Upground Reservoir, approximately 3.4 miles east of the nearest proposed turbine. The existing view to the west (toward the Project Site) from this location is representative of the Rural Residential/Agricultural LSZ. The panoramic view is from the top of a small hill looking onto a flat expanse of fallow fields below. A reddish-brown metal bench is perched on the edge of the hill just before it slopes down into the fields below and serves as a focal point in the existing view. Other man-made foreground features include a section of road on the left side of the view and an overhead utility line that spans the view. The midground fields are backed by a dense stand of mature forest. The dark thicket of trees contrasts with the yellowed field and cloudy sky. Wires from the overhead utility line are visible against the sky, but difficult to perceive against the tree line. The wires, along with the band of trees and the field edge, create a series of horizontal lines in the landscape. This view is 5.0 miles away from the existing Northwest Ohio Wind Project, 6.5 miles away from Timber Road III, and 7.3 miles away from the Timber Road II Wind Projects. The tops of turbine blades from Timber Road III can be seen above the dark tree line on the right side of view. The existing view is relatively barren, and a lack of topographic variability and interesting focal points in the view result in low to moderate scenic quality.



Inset 18: Visual simulation from Paulding Upground Reservoir in Paulding, Ohio.

Proposed Project

With the proposed Project in place, most of the proposed turbines are shielded by the existing tree line that runs the length of the visible background. From this vantage point, only the top portions of the turbine blades are visible above the tree tops. The bright white color of the turbines' blades contrast with the grayish-blue cloudy sky and the dark tree line, although this contrast would be lessened under different lighting/sky conditions. In addition, the turbine blades are of similar scale to other features in the view and are compatible with existing utility structures, including the existing Timber Road III turbines. On the left side of view, multiple, more distant turbines are visible above the existing residential structures. Under conditions illustrated in this photograph, there is minimal contrast between the outgoing turbines' light color and the cloudy sky, and the turbines are difficult to detect along the horizon. However, these turbines may be more noticeable under clearer conditions and/or when the blades are in motion. Due to their distance from the viewer and the significant screening provided by the trees, the proposed turbines do not substantially alter the character of the existing view or become a focal point, although the blades may attract the viewer's eye when they are in motion.

Viewpoint 18 (Appendix D – Sheets 13-15)

Inset 19: Existing view from Apostolic Christian Cemetery off of Road 82, township of Paulding.

Existing Conditions

Viewpoint 18 is located at Apostolic Christian Cemetery, approximately 2.3 miles east-southeast of the nearest proposed turbine. This viewpoint is located at an inventoried sensitive site with unique visual character within the study area that offers relatively open midground views toward the Project Site. The foreground of the view is dominated by a black marble headstone in the center of the view. The grave site is immediately backed by a large mowed lawn that is bordered at either end by a gravel driveway. Mature trees are apparent in the midground on the left-hand side of view, substantially shielding the fallow cornfield beyond it. A paved road on the right-hand side of view proceeds away from the viewer. On the opposite side of the road, brick buildings, streetlights and landscape plantings associated with a church are visible. The existing view generally lacks attractive site features or variability in topography or vegetation. This results in a low to moderate scenic quality.



Inset 20: Visual simulation from Apostolic Christian Cemetery off of Road 82, township of Paulding

Proposed Project

With the proposed Project in place, multiple turbines are visible in the background near the horizon line. The turbines are most prominent in the center of the view where the road corridor directs the viewers' eye to the proposed Project and offers a largely unscreened view of the full tower and blades. The light color of the turbines presents limited contrast with the cloudy sky, but may become more apparent under clearer conditions. Due to their distance from the viewer, the central turbines do not present appreciable scale contrast with the buildings and trees in the foreground. While portions of turbines are also visible on the left side of the view, most of the structures are largely screened by intervening trees and the effects of distance, although the turbines may be more noticeable when the blades are moving. Views of the partially screened turbines are limited to only the nacelle and/or blades. The proposed turbines add focal points to the view, but are co-dominant with other existing features in the view and do not substantially alter its scenic quality. The existing view is somewhat cluttered, and the addition of the turbines adds to this visual clutter but does not substantially change the visual character of the view.

Viewpoint 28 (Appendix D – Sheets 16-18)

Inset 21: Existing view from the Paulding County Community Fossil Garden in the Township of Crane

Existing Conditions

This viewpoint is located at the Paulding County Community Fossil Garden at the intersection of County Roads 180 and 87 in the Township of Crane. It is representative of the Rural Residential/Agricultural LSZ and is located approximately 2.4 miles from the nearest proposed turbine. This site is a farm field where the LaFarge Quarry operators dump truck loads of fossiliferous overburden for the purpose of fossil hunting. The existing view to the southwest from this location features the edge of a row of rocks, which dominate the immediate foreground. The rocks are piled in a fallow agriculture field, which is dusty brown and punctuated by patches of low scrubby vegetation. The field terminates at a paved road, which, along with the field edges, create strong horizontal lines in the midground. Across the road, a large agricultural field is backed by an irregular band of forested woodlots and hedgerows. In the center of view, there is a break in the band of midground trees, which offers somewhat open views towards the horizon. In this space, a few turbines associated with the existing Timber Road III Project are faintly visible, although their light color presents

minimal contrast against the cloudy sky. Overhead utility lines open the sky, creating additional horizontal lines in the view. The lack of focal points or variability in the landscape result in relatively low scenic quality.



Inset 22: Visual simulation from the Paulding County Community Fossil Garden in the Township of Crane

Proposed Project

With the proposed Project in place, several turbines are visible at the horizon through the gap in the tree line in the center of the view. Most of the visible turbines are components of the existing Timber Road III Wind Project, which are already present in the existing view. Only the largest turbine emerging in the center of the view is part of the proposed Project. As such, the addition of the proposed Project to the existing view does not significantly alter the existing visual character of the landscape. The new Project turbine is taller than the turbines already present in the view and does provide a more distinctive focal point. At this distance, it also appears consistent in scale with other landscape components, such as the tree line along the horizon. The dark gray color of the turbine does not strongly contrast against the hazy sky, although it may appear more prominent under clear conditions. Addition of the proposed Project to the view does little to distract the viewer's attention from the foreground and will not impact the scenic quality of the existing viewpoint.

Viewpoint 30 (Appendix D – Sheets 19-21)

Inset 23: Existing view from State Route 24, Townships of Carryall

Existing Conditions

Viewpoint 30 is located along State Route 24 in the Township of Carryall. It is representative of the Transportation Corridor LSZ and is located, approximately 2.5 mile from the nearest proposed turbine. The existing view to the east-southeast looks out from an overpass onto the divided lanes of __ Route __, below. Beyond the highway on the far side, the view features an open agricultural field. The field is backed by linear bands and patches of woody vegetation interspersed with more distant fields and occasional residential and agricultural structures that are faintly visible in the background. The irregular band of midground trees separates broad areas of open field and sky. The topography is flat, and the lack of foreground trees or man-made structures, along with superior viewer position, creates an open and expansive feeling. The presence of highway traffic in the view, and the lack of focal points or variability in the landscape, result in relatively low scenic quality. Viewpoint 30 is located approximately 1.0 mile northeast of the existing Timber Road III Wind Project, but is not visible in this direction.



Inset 24: Visual simulation from State Route 24, Townships of Carryall

Proposed Project

With the proposed Project in place, a met tower and several turbines have been added to the of view. Although clearly taller than other existing landscape elements, at this distance the turbines do not appear significantly out of scale with the midground tree line. The color and form of the turbines present contrast with the existing landscape and add a sense of motion to the view. They become new focal points that will attract viewer attention and add an element of visual clutter to the view, although they do not appear entirely out of place in the rural, working landscape. The turbines and the met tower are clearly new and different additions to this specific view, but they do not substantially affect the scenic quality, landscape character, or viewer enjoyment of this view. To the right-hand side of this photo, south to west, Timber Road III turbines are clearly visible in the foreground, midground, and background of the view (See Appendix D – sheet 19 for context pictures)

Viewpoint 33 (Appendix D – Sheets 22-24)

Inset 25: Existing view from the intersection of Road 52 and 59, Township of Benton

Existing Conditions

This viewpoint is located along the intersection of Road 52 and Road 59 in the Township of Benton. It presents characteristics typical of the Rural Residential/Agricultural LSZ and is located within 0.5 mile of the nearest proposed turbine that would be visible in this view. The existing view to the east-northeast includes a broad expanse of harvested agricultural fields which extend back into the midground of the view. The fields extend to the edge of the visible horizon, which is defined by the contrast between the yellow/tan field and the light blue sky. Along the horizon, the view is punctuated by woodlots and hedgerows at varying distances, as well as distant buildings and structures associated with residences and farmsteads. These discrete clusters of structures include homes, barns, and associated agricultural structures and machinery. The maintained landscape in this view is clean and orderly, but lack of variability in topography and vegetation or the presence of interesting landscape features results in moderate scenic quality. This

viewpoint is located approximately 2.2 miles from the existing Northwest Ohio Wind Project, which is not visible in this viewpoint.



Inset 26: Visual simulation from the intersection of Road 52 and 59, Township of Benton

Proposed Project

With the proposed Project in place, six turbines at varying distances can be seen projecting above the horizon. The turbines are largely unscreened and extend well into the sky, accentuating their scale contrast with existing features in the view. The line, color, and form of the turbines contrast with the existing vegetation and structures in the landscape, but they appear compatible with the working agricultural nature of the view. The turbines appear bright white and present contrast with the blue cloudy sky. However, their white color is consistent with most of the other built structures visible in this view, and the density of visible turbines is not overwhelming. The turbines are the most prominent manmade features in the scene, and become focal points in the view. During the growing season, agriculture crops in the immediate foreground may provide some screening, but the turbines will remain the dominant features of visual interest in the view. The turbines do not reduce the scenic quality or change the existing visual character of the area.

Although they present a novel form, they appear compatible with the working agricultural character of the Rural Residential/Agricultural LSZ.

Viewpoint 34 (Appendix D – Sheets 22-24)

Inset 27: Existing view from the intersection of Road 59, Township of Benton

Existing Conditions

This viewpoint is located along the intersection of Road 59 in the Township of Benton. It presents characteristics the Rural Residential/Agricultural LSZ and is located 0.1 mile from the nearest proposed turbine. The existing view to the north-northwest includes a broad expanse of fallow, corn stubble-covered agricultural field, which extends to the horizon. Along the horizon, woodlots and hedgerows at varying distances are visible in the far background. Among the woodlots, distant buildings and structures associated with residences and farmsteads can be seen, including homes, barns, and grain bins. This viewpoint is located 1.3 miles from the existing Timber Road II Project, and multiple turbines from this project can be seen above the horizon. The turbines are screened to a varying degree by structures and vegetation along the horizon, and their light color offers minimal contrast against the hazy blue sky. The landscape in this view has a working agricultural character and feels tidy and well-maintained. The lack of variability in topography and vegetation or the presence of focal points results in low to moderate scenic quality.



Inset 28: Visual simulation from the intersection of Road 59, Township of Benton

Proposed Project

With the proposed Project in place, multiple turbines have been added to the midground of the view. The turbines feel very close to the viewer and are largely unscreened. From this vantage point, the viewer is afforded a complete view of the tower and blades. The scale, line, color, and form, of the turbines contrast with the existing vegetation and structures in the landscape, but they don't feel out of place within the working agricultural landscape. The density of visible turbines is not overwhelming, but they may become more distracting when the blades are in motion. Under present conditions, the turbines are the most prominent manmade feature in the scene and become focal points in the view. During the growing season, active agricultural crops may shield views of part of the towers, but the bulk of the turbines will remain prominently visible. Although they present a novel form, they appear compatible with the working agricultural character of the Rural Residential/Agricultural LSZ. The turbines do not reduce the scenic quality or change the existing visual character of the area.

Viewpoint 44 (Appendix D – Sheets 25-27)

Inset 29: Existing view from the Ohio Lincoln Highway (State Route 30), Township of Tully

Existing Conditions

Viewpoint 44 is located along the Ohio Lincoln Highway, a portion of State Route 30 that is classified as a historic/scenic byway. This view occurs within the Transportation Corridor LSZ and is located 4.5 miles from the nearest proposed turbine. The existing view to the northeast from this location features a paved road in the immediate foreground separated from an open agricultural field in the midground by a wire fence. In the center of view, a small barn is visible among the open fields, and is the only manmade structure in the midground. The existing view is 0.7 mile from the Timber Road II Wind Project, and multiple turbines from this project are prominently visible at various distances. The view is open and expansive, with no vegetation or foreground structures blocking the view. As such, the existing turbines are fully visible, and the position of the viewer offers a view of their full profile. The abundance of turbines in this view have altered the working agricultural character of the landscape, making it look more utilitarian. Discrete

clusters of structures and woodlots are faintly apparent along the horizon and are clearly subordinate to the turbines. Scenic quality is considered moderate.



Inset 30: Visual simulation from the Ohio Lincoln Highway (State Route 30), Township of Tully

Proposed Project

With the proposed Project in place, the density of turbines visible along the horizon has further increased. The turbines from the Timber Road II Wind Project remain the most prominent in the view, while the proposed Project turbines appear more distantly in the background. The turbines occur across the full field of view, and under the low angle lighting conditions illustrated in this photo their white color contrasts strongly with the overcast sky. Due to the presence and abundance of existing turbines, the form and movement of the new turbines will not make them stand out in the landscape or compete for viewer attention. The Timber Road II turbines, which are closer to the viewer and be viewed in more detail, will remain the focal points in the view, but the addition of the Timber Road IV turbines will add a degree of visual clutter to the view. They do not substantially affect the existing scenic quality, visual character or viewer enjoyment of this view.

Viewpoint 46 (Appendix D – Sheets 28-30)

Inset 31: Existing view from Edgewood Park, Township of Tully

Existing Conditions

Viewpoint 46 is located at the Edgewood Park baseball field in the Township of Tully. This viewpoint is approximately 5.2 miles from the nearest proposed turbine. The existing view to the north-northeast from the back of the field features a broad expanse of flat fields. The fields are framed on either side by a two light posts in the immediate foreground, which protrude from a concrete barrier lining the outfield. Foreground wires from an overhead utility line cross the open sky. The baseball field is backed by a grassy lawn which transitions into a maintained agriculture field in the midground. The open field is backed by an irregular band of woodlots, hedgerows, structures, and residences at varying distances from the viewer. On the right side of the view, multiple turbines from the Blue Creek Wind Project (approximately 1.7 miles from Viewpoint 46) are visible. From this distance, the towers and nacelles are fully visible, although their light color presents minimal contrast with the blue-gray sky at the horizon. The visual clutter and lack of topographic variability in this the view result in relatively low scenic quality.



Inset 32: Visual simulation from Edgewood Park, Township of Tully

Proposed Project

With the proposed Project in place, several turbines can be seen above and between the existing trees and buildings in the center of this view. The new turbines are more distant than the existing Blue Creek Wind Project turbines, which appear more prominently on the right side of the view. At this distance, the Timber Road IV turbines appear similar in scale to other built features in the view, and their light color offers minimal contrast against the hazy sky. Most of the towers of the new turbines are partially screened by existing vegetation in the midground and background. The new turbines appear to be an extension of the existing Blue Creek Wind Project, and do not alter the existing character or scenic quality of the view.

Viewpoint 64 (Appendix D – Sheets 22-24)

Inset 33: Existing view from Road 1, Township of Harrison

Existing Conditions

This viewpoint is located along Road 1 in the Township of Harrison. This view is representative of the Rural Residential/Agricultural LSZ and is located approximately 5.3 miles east-northeast of the nearest proposed turbine. The existing view in this direction includes a broad expanse of harvested, level agricultural field which extends uninterrupted away from the viewer and creates an open and expansive feeling. The field extends to the edge of the visible horizon, which is defined by the contrast between the yellow/tan field and the light blue sky. The horizon line is further defined by small clumps of forest vegetation interspersed with residences and farmsteads at varying distances. The lack of foreground screening also allows for clear views of turbines associated with the existing Timber Road Wind Projects, the nearest of which is located approximately 0.7 mile away. Multiple existing turbines protrude into the sky, offering the viewer full profile views of the towers and nacelles. The turbines are the dominant focal points in the view and add visual interest to this scene. The neat rows of harvested crops in the agriculture field create vertical lines which

are consistent with the strong vertical lines of the turbines. The maintained landscape in this view is clean and orderly, and has moderate scenic quality.



Inset 34: Visual simulation from Road 1, Township of Harrison

Proposed Project

With the Timber Road IV Project in place, multiple turbines have been added to the existing view along the horizon. The new turbines appear to be part of the existing project, and their greater height is not noticeable. The new turbines are subordinate to the existing Timber Road III Wind Project components, which remain the dominant focal points in the view. Addition of the Timber Road IV turbines to the existing view increases the density of turbines visible in the background, but they are not prominent in this view when compared to the closer Timber Road III turbines. Under the conditions illustrated in the photograph, the new turbines blend well with the partly cloudy sky, although their dense arrangement does increase visual clutter and the dominance of wind turbines as the character defining features of this view. During the growing season, these more distant turbines may be partially shielded by growing agriculture crops in the immediate foreground. Addition of the turbines does not substantially change the existing character or scenic quality of the view.

5.3 Cumulative Visual Impacts

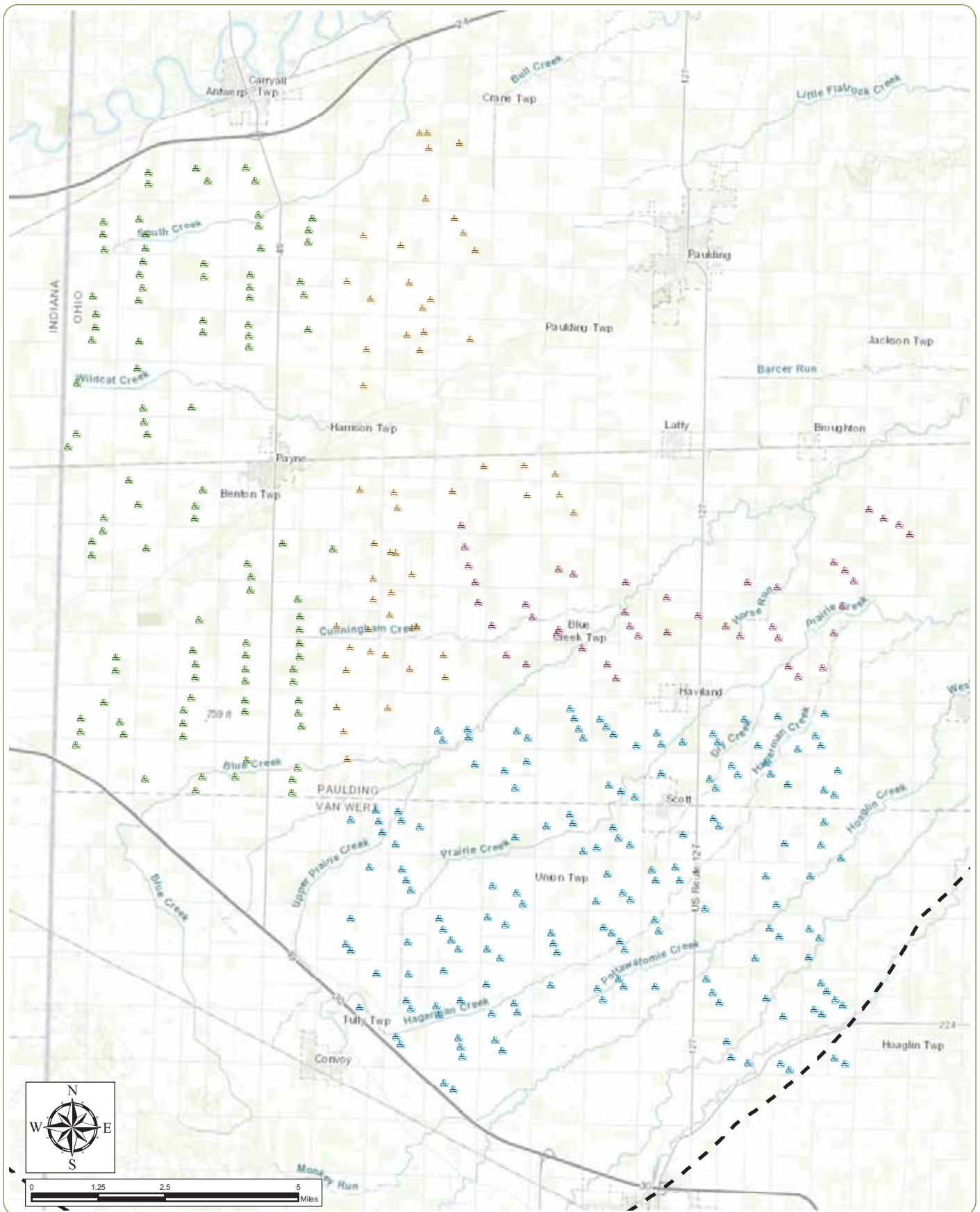
Per the requirements of the Ohio Administrative Code Chapter 4906-04-08(D)(4) for the Ohio Power Siting Board, the potential cumulative visual impacts of the Timber Road IV Wind Project along with other wind energy projects currently operating in the surrounding region must be considered. Cumulative impacts are two or more individual visual effects which, when taken together, are significant or that compound or increase other similar visual effects. This section addresses the potential cumulative visual impacts that may arise from interactions between the proposed Timber Road IV Project and the currently operating wind Timber Road I, II, and III Wind Farms, the Blue Creek Wind Farm, and the Northwest Ohio Wind Project. These facilities are located approximately 0.7 mile, 1 mile, and 0.7 mile from the nearest point of the Timber Road IV Wind Farm, respectively (Figure 8).

The visibility and visual effect of wind turbines within the study area will vary based on viewing distance, viewer orientation, and the number of turbines visible, as well as the potential screening effects of vegetation and structures. If turbines from the existing Timber Road, Blue Creek, or Northwest Ohio Wind Farms are visible from a vantage point within the Timber Road IV Project Site, they will typically be viewed as background features in any view that includes the proposed turbines in the foreground or midground (see simulations from Viewpoints 2, 28, and 34). The reverse will be true when the proposed Project is viewed from sites within or adjacent to any of the existing wind farms (e.g., Viewpoints 46 and 64). From longer distances, the multiple wind farms may appear to be a single larger facility (see simulation from Viewpoints 44). However, as indicated by the fieldwork results and review of the visual simulations, in areas dominated by more concentrated human settlement (Suburban Residential and City/Village LSZs) screening provided by vegetation and/or structures generally limit broad open views to the surrounding landscape. Thus, views of multiple turbines within the proposed Project, let alone those that also include turbines from the existing wind farms, are rare within these LSZs.

The zones where cumulative project visibility is most likely to occur are the Rural Residential/Agricultural and the Transportation Corridor LSZs. Due to the abundance of open agricultural land, the Rural Residential/Agricultural LSZ offers the greatest opportunity to see numerous turbines from multiple projects. The increased density of turbines in these views will increase visual impact from some locations. The increased density of turbines in these views will increase visual impact from some locations. However, many of turbines (existing and/or proposed) will be viewed at significant distances, which reduces their visual impact, and areas where such views are available generally have few visually sensitive resources and a limited number of viewers. Within the Transportation Corridor LSZ, turbines from multiple projects will be visible at a variety of distances and directions as travelers pass through the study area on the major highways. However, because the viewers are moving at a high rate of speed, the duration of their views and

their perception of increased turbine density will be limited. In addition, the travelers that will be experiencing these views generally have limited sensitivity to visual change within the landscape.

Consequently, although there may be locations where occurrence of the existing and proposed wind projects will have a noticeable cumulative visual effect, these instances will be relatively rare, and generally will not affect a significant number of viewers on sites that are particularly sensitive to visual change. Thus, the addition of the proposed turbines to a working agricultural landscape where these features already exist is not expected to have a significant adverse cumulative visual impact.



Timber Road IV Wind Farm

Benton, Blue Creek, Crane, Harrison, and Paulding Townships, Paulding County, Ohio

Figure 8: Cumulative Project Layout

Notes: 1. Basemap: ESRI ArcGIS Online "World Topographic Map" map service. 2. This map was generated in ArcMap on June 22, 2018. 3. This is a color graphic. Reproduction in grayscale may misrepresent the data.

- Blue Creek Wind Farm (160 Turbines)
- Northwest Ohio Wind Project (42 Turbines)
- Timber Road I, II, III Wind Farm (103 Turbines)
- Timber Road IV Wind Farm (44 Turbines)

10-Mile Visual Study Area



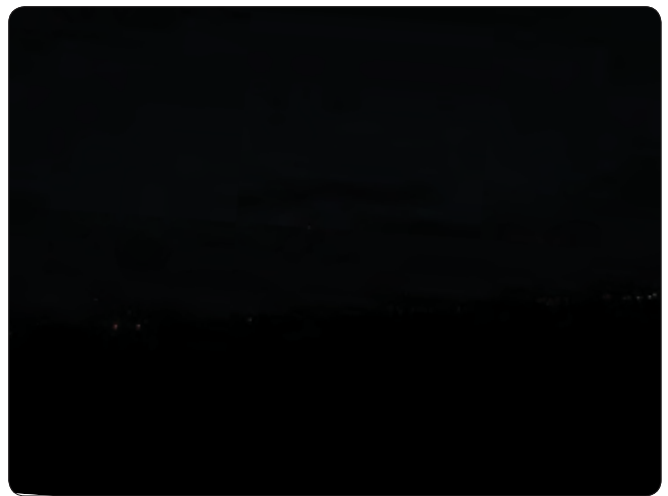
www.edrpc.com

5.4 Nighttime Impacts

Representative nighttime photos of the adjacent operating wind farms with the same FAA compliant L-864 aviation warning lights as proposed for the Project are included in Figure 9. The photos illustrate the appearance of FAA lights in a dark sky, and are representative of the type of nighttime visual impact the proposed turbines' FAA aviation warning lights will have. However, it should be noted that current FAA guidelines require that turbines of the height proposed for the Project (i.e., over 500 feet) be equipped with two lights per turbine.

As shown in these photos, the existing aviation warning lights can contrast with the night sky and be strong in dark, rural settings even with existing lights. This is the case within the study area, as numerous FAA warning lights are present on existing turbines and towers, in all directions.

As indicated by the viewshed analysis, views of the FAA warning lights on the proposed turbines will generally be well screened for the cities and villages within the study area. Nighttime proposed Project visibility will most likely be experienced by residential viewers in the rural/agricultural portions of the study area. However, in most cases, existing views available to these viewers will already include lights associated with barns, communication towers, grain elevators, quarry equipment and water towers, as well as existing turbines.



Timber Road IV Wind Farm

Benton, Blue Creek, Crane, Harrison, and Paulding Townships, Paulding County, Ohio

Figure 9: Representative Evening/Nighttime Photos

6.0 *Conclusions*

Conclusions

The VIA for the Timber Road IV Wind Farm allows the following conclusions to be drawn:

Viewshed analyses and field review indicate that the proposed Project has the potential to be visible from the majority of the study area. This is attributable to abundance of open agricultural fields and level topography that characterizes the majority of the study area that have the greatest potential for unscreened views of the proposed Project. In open agricultural areas where Project turbines will be visible in one direction, other proposed or existing turbines are also likely to be visible in the remaining directions as well (see Appendix F). However, in more densely residential areas (i.e., Van Wert, Ohio; Monroeville, Indiana; Paulding, Ohio; and Convoy, Ohio) viewshed analysis and field review suggest that a significant number of Project turbines will be at least partially screened by structures and street trees.

Views from the defined landscape similarity zones (LSZ) vary in scenic quality, potential users and availability of open views. The Transportation Corridor LSZ provides for an abundance of open long-distance views that are readily available. However, the fleeting nature of the view combined with the focused viewer activity of the user group (Through Traveler/Commuter) limits viewer perception of, and sensitivity to, visual change. In addition, the lack of visually sensitive sites within this zone, and the abundance of discordant features, limits the amount of visual impact resulting from the proposed Project United States Route 30 (Ohio and Indiana Lincoln Highway Historic Byway) is visually more sensitive than the other heavily traveled routes within the study area. However, the existing landscape character and lack of designated historic/tourist sites in the section of the Byway that traverses the study area reduces the visual impact of the Project. There will generally be no adverse effect from the major transportation corridors within the study area.

The Suburban Residential Zone can be vastly different from home to home or viewpoint to viewpoint. On a macro level, a given home may be screened by adjacent structures and suburban yard vegetation, while their neighbor may have potential views of the proposed turbines. On a micro level, a resident may find that different windows within their house offer views that vary in openness and character. This means that certain viewpoints within this LSZ may experience an adverse visual effect, while others will not. The user group most commonly found in this LSZ (Local Residents) are considered sensitive to visual impact, but the significance of this impact will depend on the degree of open views available, turbine proximity, and existing landscape setting.

The largest number of viewers and sensitive sites within the study area are found in the City/Village/Hamlet LSZ. Consequently, for the majority of viewers and sensitive sites located within the study area, views of the Project will be well screened by intervening structures and vegetation within these more developed areas. Because open, long distance views are generally not available from this LSZ, there will generally not be a significant adverse visual effect on this zone.

The Rural Residential/Agricultural LSZ has the highest potential for an open view of the Project, however the visual characteristics of the working agricultural landscape (which includes numerous existing wind turbines) has the least sensitivity to Project-related visual change. Because of the existing wind turbines located in this LSZ, the affected user group (Local Residents) will see limited visual change in the landscape. That being said, there will be some viewers that will see the proposed Project in views where turbines currently are not visible. It is not possible to predict the individual reactions that will occur in such instances. However, because turbines already exist in the landscape, and many of the viewers may be participants in the existing or proposed wind farms, the proposed Project is not anticipated to have a significant visual effect on this zone.

Sensitive sites identified and evaluated in the study area varied in the availability of open views toward the proposed Project. Potential impact to the one NHRP-listed site in the study area was deemed insignificant because of the total structure collapse that has occurred. The two NHRP-eligible sites where viewshed analysis indicated potential visibility of the proposed Project proved to have the majority of views screened by adjacent vegetation. The Lake Wayne R. Carr Wildlife Area, located at the outskirts of the study area in the Transportation Corridor LSZ, proved to have open views toward the proposed Project. However, the visual sensitivity of this resource is very low based on its setting and existing landscape character. Tourist/Recreational users are the dominant user group, as such their focus will be on fishing/enjoying the water. Consequently, viewer activity and scenic quality would not be impacted at this site. The Maumee State Scenic River corridor will not experience a change in scenic quality due to the screening provided by the largely uninterrupted shoreline vegetation and a water surface that is set down into the landscape. The section of the Ohio and Indiana Lincoln Highway Historic Byway (US Route 30) that transverses the study area, has no significant scenic features or designated historical stops, therefore impact on scenic quality and user enjoyment of the byway is anticipated to be minimal. Users of the two bike trails within the study area will experience views of the Project turbines from various distances and landscape settings. However, most of the open views will be available from local roads within the Rural Residential/Agricultural LSZ. The proposed turbines generally appear compatible in this working agricultural landscape. The two nature preserves in the study area, Forrest Woods Nature Preserve and Blue Cast Springs Nature Preserve, are both intact forest stands. They will not have open views towards the proposed Project due to the heavily wooded landscape. There is the potential for available views of the proposed Project from the parking

lots at these locations, however not from the trail networks where users would be enjoying the scenic quality of these sites. Local community parks will have limited to substantial proposed Project visibility, with the majority of open views being concentrated at the parking areas, and open recreation fields. Existing turbines in the surrounding landscape character will limit adverse impact on scenic quality and user enjoyment of these resources.

Photographic simulations of the proposed Project, indicate that the visibility and visual impact of the wind turbines will be variable, based on landscape setting, the extent of existing screening, distance of the viewer from the Project Site, and visibility of existing turbines. The simulations confirm that woodlots and hedgerows in combination with the level topography will partially screen views of more distant turbines in many locations. However, in some locations where numerous wind turbines already existing, the proposed Project increases the perceived density and visual clutter presented by the turbines. In many areas where open views are available, the proposed turbines appear compatible with the existing wind farms and the working agricultural character of the landscape.

The VIA indicates that the proposed Project's overall contrast with the visual/aesthetic character of the study area will also be variable. Insignificant to moderate contrast was noted for viewpoints where one or more of the following occurs: existing turbines are present, existing vegetation provides at least partial screening, or distance reduces the turbines' perceived line and scale contrast with the landscape. More substantial contrast was noted where unscreened foreground and near midground views of turbines are now available where currently no turbines are visible, or where the proposed Project increases perceived turbine density and visual clutter increases perceived turbine density and visual clutter. In most settings, addition of the proposed Project will not alter the landscape character, scenic quality, or activities of various user groups. Low to moderate baseline scenic quality within the study area, and the working character of the landscape that makes up the majority of the visual study area will serve to limit the proposed Project's visual impact. Based on the public's experience with the currently operating wind power projects in the area, reaction to the proposed Project is likely to be generally neutral, but variable based on proximity to the turbines, the number of turbines currently visible, and personal attitude of the viewer regarding wind power.

Based upon the nighttime photos/observations of the existing wind power projects within the study area, the red flashing lights on the proposed turbines could result in additional nighttime visual impact. The actual significance of this impact from a given viewpoint will depend on how many proposed turbines are visible, how many existing turbines and other sources of lighting are present in the view, the extent of screening provided by structures and trees, and nighttime viewer activity/sensitivity. The proposed Project will add additional visual clutter to open areas where existing turbines are already present in the view. The additional visual clutter may result from the viewer experiencing a blinking red line across the horizon versus individual structures, or a more erratic blinking pattern due to the presence of multiple wind

farms and the passage of turbine blades in front of the flashing lights. However, it should be noted that nighttime visibility/visual impact will be limited in cities, villages, hamlets, and along highways where existing lights already compromise dark skies and compete for viewer attention.

7.0 Mitigation

Mitigation options are limited, given the nature of the Project and its siting criteria (tall structures typically located in open fields). However, various mitigation measures were considered. These included the following:

A. Screening

Views of the proposed turbines from cities and villages, where the majority of the residents and sensitive historic sites are located, are typically well screened by intervening structures and trees. Midground and background views in the more rural portions of the study area, including views from sensitive sites, are generally at least partially screened by hedgerows and woodlots. However, due to the height of individual turbines and the geographic extent of the proposed Project, screening of individual foreground turbines with earthen berms, fences, or planted vegetation will generally not be effective in reducing Project visibility or visual impact.

B. Relocation

Because of the number of individual turbines proposed, their location in open agricultural fields, the variety of viewpoints from which they may be visible, and the presence of existing wind farms, additional turbine relocation will generally not significantly alter visual impact. Where visible from sensitive resources within the study area, (e.g., local parks, and heavily used roadways), relocation of individual machines would have little effect on overall visual impact. Throughout the study area, available views of the Project include different turbines at different distances from the viewer. Therefore, turbine relocation would generally not be effective in mitigating visual impacts.

C. Camouflage

The white color of wind turbines as mandated by the FAA to eliminate the need for day time lighting minimizes contrast with the sky under most conditions, especially when viewed at distance against the horizon. Consequently, use of this color is an appropriate means of limiting visual impact. The size and movement of the wind turbine blades prevents more extensive camouflage from being a viable mitigation alternative (i.e., they cannot be made to look like anything else). Neilson (1996) notes that efforts to camouflage or hide wind farms generally fail, while Stanton (1996) feels that such efforts are inappropriate. She believes that wind turbine siting "is about honestly portraying a form in direct relation to its function and our culture; by compromising this relationship, a negative image of attempted camouflage can occur."

D. Low Profile

A significant reduction in turbine height is not possible without significantly decreasing power generation. To off-set this decrease, additional turbines would be necessary. There is not adequate land under lease to accommodate a significant number of additional turbines, and a higher number of shorter turbines would not decrease Project visual impact. In fact, several studies have concluded that people tend to prefer fewer larger turbines to a greater number of smaller ones (Thayer and Freeman, 1987; van de Wardt and Staats, 1988). The VIA evaluated the maximum number of turbines under consideration for this Project. The actual Project that is built will likely include fewer and somewhat smaller turbines. The visual impact of the electrical collection system is being minimized by installing the lines underground rather than on above-ground poles.

E. Lighting

Turbine lighting will adhere to FAA regulations. Medium intensity red flashing lights will be used at night rather than white strobes or steady burning red lights.

F. Maintenance

The turbines and turbine sites will be maintained to ensure that they are operating efficiently. Research and anecdotal reports indicate that viewers find wind turbines more appealing when the rotors are turning (Stanton, 1996, Pasqualetti et al., 2002).

G. Offsets

Correction of an existing aesthetic problem within the viewshed is a viable mitigation strategy for wind power projects that result in significant adverse visual impact. The Applicant anticipates entering into an agreement with OHPO to enhance and restore resources in the visual study area. This could include projects such as maintaining cemeteries, restoring historic buildings, etc. and will be determined in consultation with OHPO.

H. Co-Location

Locating the proposed Project in an area with existing wind farms can be seen as a form of mitigation. Because the proposed Project fills a gap within the existing projects and does not overly extend the combined visual effect area, it limits additional effected resources, and takes advantage of lower user and landscape sensitivity. From a few viewpoints the co-location could be seen as adding additional elements to an already visually cluttered scene, however in most cases, the proposed turbines will be perceived as part of the existing wind farms, and compatible with these facilities in line, color, form, and scale.

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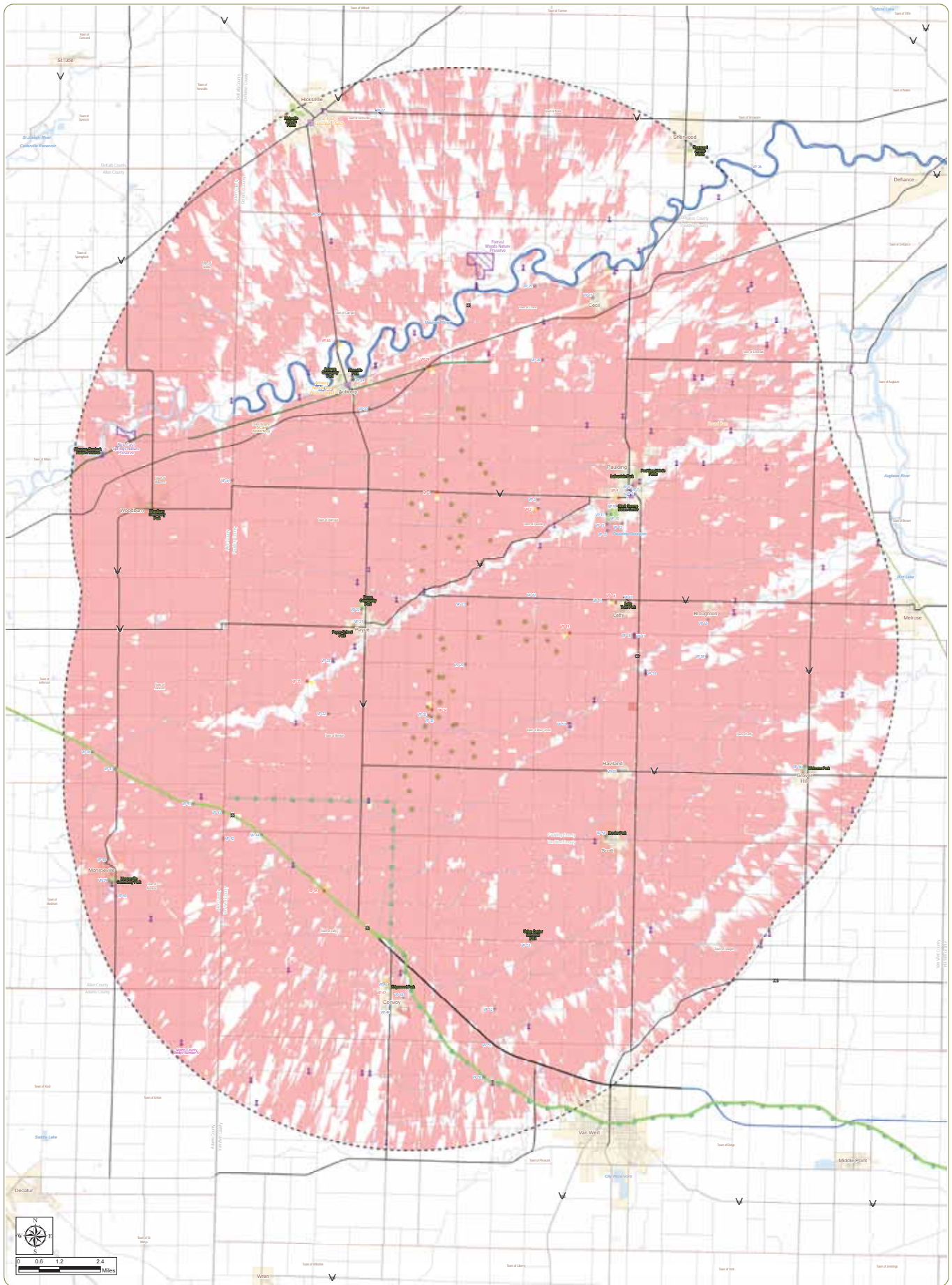
Exhibit FF

Appendix A – Composite

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Date Filed: July 2, 2018



Timber Road IV Wind Farm

Benton, Blue Creek, Crane, Harrison, and
Paulding Townships, Paulding County, Ohio
Appendix A: Composite Map

Notes: 1. Basemap: ESRI Street Map North America. 2. This map was generated in ArcMap on June 18, 2018.
3. This is a color graphic. Reproduction in grayscale may misrepresent the data. 4. Potential turbine visibility is
based on the screening effects of topography, vegetation, and man-made structures as represented in the 2006
Ohio Geographically Referenced Information Program Lidar dataset. Viewshed Analysis based on maximum blade
tip height of 602 feet.

- Simulated Viewpoint Location
- Wind Turbine
- Cemetery
- Other Local Resource
- State Historic Marker

- Buckeye Trail
- Major Road
- North Country National
Scenic Trail
- River or Stream
- State Bike Route
- State Scenic Byway
- State Scenic River
- Wabash and Erie Canal Trail

- Historic Bridge
- Library
- Local Park
- Nature Preserve
- NRHP-Eligible Site
- NRHP-Listed Site
- School
- State Wildlife Area
- Waterbody

- Potential Project Visibility (Lidar)
- 10-Mile Visual Study Area
- City/Village
- Town Boundary
- Township Boundary
- County Boundary



Exhibit FF

Appendix B – Visually Sensitive Sites Table

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Location			vP Number ¹	Distance ² Miles from Nearest Turbine	Distance Zone ● Foreground ● Midground ● Background	Project visibility	
Township	County, State	● visible - Not visible +/- Partially visible				DTM (Topography)	DSM (Topography, vegetation & Structures)
visually Sensitive Resource							
Properties and Districts listed in the National or State Register of Historic Places							
Antwerp Norfolk and Western Depot	Carryall	Paulding, Ohio		3.6	●	-	
Paulding County Courthouse	Paulding	Paulding, Ohio	6, 7	4.0	●	-	
Paulding County Carnegie Library	Paulding	Paulding, Ohio	5	4.0	●	-	
Round Barn	Emerald	Paulding, Ohio		7.0	●	+/-	
St. Paul's Episcopal Church	Hicksville	Defiance, Ohio		9.5	●	-	
Properties eligible for inclusion in the National or State Register of Historic Places							
Hyman St. & Townshipship Line Rd	Benton	Paulding, Ohio		1.7	●	-	
210 S Main Street	Carryall	Paulding, Ohio		3.3	●	-	
208 S Main Street	Carryall	Paulding, Ohio		3.3	●	-	
204 S Main Street	Carryall	Paulding, Ohio		3.3	●	-	
205 S Main Street	Carryall	Paulding, Ohio		3.3	●	-	
121 W Jackson St	Paulding	Paulding, Ohio		3.9	●	-	
Old US 24	Crane	Paulding, Ohio		5.6	●	+/-	
Adams County Bridge Number 5	Union	Adams, Indiana		3.3	●	+/-	
State Parks							
None in Study Area							
National Heritage Areas							
None in Study Area							
National Wildlife Refuges, State Game Refuges and State Wildlife Management Areas							
Lake Wayne R Carr Wildlife Area	Harrison	Paulding, Ohio		4.8	●	+/-	
National Natural Landmarks							
None in Study Area							
National Parks, Recreation Areas, Seashores and/or Forests							
None in Study Area							
National or State Designated Wild, Scenic, or Recreational Rivers							
Maumee State Scenic and Recreational River	Delaware, Carryall, Crane, and Emerald, Ohio; Maumee, Indiana	Defiance, Paulding, Ohio; Allen, Indiana	26, 65	2.2	●	+/-	
Sites, Areas, Lakes, Reservoirs or Highways Designated or Eligible as Scenic							
Ohio Lincoln Highway Historic Byway, Indiana Lincoln Highway Historic Byway	Benton, Tully, Union, Pleasant, and Ridge, Ohio; Monroe, Indiana	Paulding, Ohio; Allen, Indiana	36, 37, 41, 43, 44, 45, 50	3.5	●	+/-	
State and Federally Designated Trails							
North Country Trail	Brown	Paulding, Ohio		9.9	●	+/-	
Buckeye Trail	Brown	Paulding, Ohio		10.0	●	+/-	
State Nature and Historic Preserve Areas							
Forrest Woods Nature Preserve	Crane	Paulding, Ohio		3.84	●	+/-	
Blue Cast Springs Nature Preserve	Maumee, Springfield	Allen, Indiana		8.32		+/-	
Steam Saw Mill Site (Maumee River Overlook)	Maumee, Springfield	Allen, Indiana		9.15	●	+/-	
State Historic Markers							

Wabash and Erie Canal	Townships of Carryall, Crane, and Harrison, Paulding County, OH; Townships of Maumee and Milan, Allen County, IN	Paulding, Ohio; Allen, Indiana	29	1.3	●	+/-
3-63 Antwerp and Carryall Township	Carryall	Paulding, Ohio		3.3	●	-
1-63 Paulding County	Paulding	Paulding, Ohio		4.0	•	-
2-63 Paulding County Carnegie Library	Paulding	Paulding, Ohio	5	4.0	•	-
1-20 Daelda Hartel Wilcox Beveridge	Hicksville	Defiance, Ohio		9.4	•	-
Areas of Intensive Land Use (City, village)						
City of van Wert	Pleasant, Ridge	van Wert		8.5	•	+/-
City of Woodburn	Maumee, Springfield	Allen, Indiana		7.1	•	+/-
Town of Monroeville	Monroe, Madison	Allen, Indiana	38	8.5	•	+/-
Village of Antwerp	Carryall	Paulding, Ohio	24	2.0	●	+/-
Village of Broughton	Jackson	Paulding, Ohio	60	4.3	•	+/-
Village of Cecil	Crane	Paulding, Ohio	27	3.8	•	+/-
Village of Conroy	Tully	van Wert, Ohio	46, 48	5.2	•	+/-
Village of Grover Hill	Latty	Paulding, Ohio	56	7.9	•	+/-
Village of Haviland	Blue Creek	Paulding, Ohio	55	3.5	•	+/-
Village of Hicksville	Hicksville	Defiance, Ohio		8.7	•	+/-
Village of Latty	Paulding	Paulding, Ohio	16, 61	1.9	●	+/-
Village of Melrose	Brown	Paulding, Ohio		10.0	•	+/-
Village of Payne	Harrison, Benton	Paulding, Ohio	21	1.0	●	+/-
Village of Paulding	Emerald, Paulding, Jackson	Paulding, Ohio	6, 7, 8, 9, 12, 13, 15	2.8	●	+/-
Village of Scott	Blue Creek, Union	Paulding, van Wert, Ohio	54	4.2	•	+/-
Village of Sherwood	Delaware	Defiance, Ohio		9.2	•	+/-
Trails and Bike Routes						
State Bike Route U.S.: Route 40	Benton, Tully, Union, Pleasant, and Ridge, Ohio; Monroe, Indiana	Paulding, Ohio; Allen, Indiana	50	0.5	●	+/-
Highly traveled route						
United States Route 30	Benton, Tully, Union, Pleasant, and Ridge, Ohio; Jackson, Jefferson, Monroe, Indiana	Paulding, Ohio; Allen, Indiana	36, 37, 41, 43, 44, 45, 51	3.5	•	+/-
United States Route 127	Delaware, Crane, Emerald, Paulding, Jackson, Blue Creek, Latty, Union, Hoaglin, Pleasant, Ridge,	Paulding, van Wert, Ohio	6	2.4	●	+/-
United States Route 224	Hoaglin, Jackson, Harrison, Pleasant, Ridge, Ohio; Union, Indiana	van Wert, Ohio; Adams, Indiana		8.4	•	+/-
State Route 2	Hicksville, Mark	Defiance, Ohio		9.4	•	+/-
State Route 14	Harrison, Benton, Ohio; Jackson, Jefferson, Indiana	Paulding, Ohio; Allen, Indiana		5.6	•	+/-
State Route 18	Hicksville, Mark, Delaware	Defiance, Ohio	67	8.6	•	+/-
State Route 24	Carryall, Crane, Emerald, Harrison, Ohio; Maumee, Jefferson, Milan, Indiana	Paulding, Ohio; Allen, Indiana	29, 30	1.5	●	+/-

State Route 37	Scipio, Springfield	Allen, Indiana	9.5	•	+/-
State Route 49	Hicksville, Carryall, Harrison, Benton, Tully, Harrison	Defiance, Paulding, van Wert, Ohio	1.2	•	+/-
State Route 101	Jackson, Maumee, Springfield, Union,	Adams, Indiana	7.9		+/-
State Route 114	Benton, Blue Creek, Latty, Washington	Paulding, Ohio	0.3	•	+/-
State Route 111	Crane, Emerald, Harrison, Paulding, Ohio; Maumee, Indiana	Paulding, Ohio; Allen, Indiana	0.3	•	+/-
State Route 500	Harrison, Paulding	Paulding, Ohio	0.5	•	+/-
State Route 613	Harrison, Paulding, Jackson, Benton, Brown, Ohio, Jackson, Indiana	Paulding, Ohio; Allen, Indiana	0.7	•	+/-
State Route 637	Emerald, Jackson, Latty, Hoglin, Jackson	Paulding, van Wert, Ohio	7.3	•	+/-
Local/Community Parks					
Antwerp Community Park	Carryall	Paulding, Ohio	3.5	•	+/-
Black Swamp Nature Center	Paulding	Paulding, Ohio	3.4	•	+/-
Bresler Park	Blue Creek	Paulding, Ohio	4.5	•	+/-
Edgewood Park	Tully	van Wert, Ohio	5.2	•	+/-
Hicksville athletic Fields	Hicksville	Defiance, Ohio	9.2	•	-
Lafountain Park	Paulding	Paulding, Ohio	4.2	•	+/-
Latty Town Park	Paulding	Paulding, Ohio	2.3	•	+/-
Maumee Overlook Nature Preserve	Maumee, Springfield	Allen, Indiana	9.2	•	+/-
Monreville Community Park	Monroe	Allen, Indiana	8.9	•	+/-
Paulding Athletic Fields	Paulding	Paulding, Ohio	4.1	•	+/-
Paulding County Community Fossil Garden	Crane	Paulding, Ohio	2.4	•	+/-
Payne Community Park	Harrison	Paulding, Ohio	1.8	•	+/-
Payne School Park	Harrison, Benton	Paulding, Ohio	1.9	•	+/-
Riverside Park	Carryall	Paulding, Ohio	3.0	•	+/-
Sherwood Athletic Fields	Delaware	Defiance, Ohio	9.8	•	-
Union Center Memorial Park	Union	van Wert, Ohio	5.2	•	+/-
Woodburn Community Park	Maumee, Springfield	Allen, Indiana	7.6	•	-
Welcome Park	Latty	Paulding, Ohio	7.9	•	+/-
Water Resources					
Big Run	Harrison, Paulding	Paulding, Ohio	0.0	•	+/-
Blue Creek	Brown, Jackson, Latty, Blue Creek, Benton, Tully, Harrison	Paulding, van Wert, Ohio	0.1	•	+/-
Cunningham Creek	Benton, Blue Creek	Paulding, Ohio	0.1	•	+/-
Flatrock Creek	Emerald, Harrison, Paulding, Jackson, Benton	Paulding, Ohio	0.6	•	+/-
Little Flatrock Creek	Crane, Emerald, Paulding	Paulding, Ohio	2.6	•	+/-
Maumee River	Delaware, Carryall, Crane, Emerald, Ohio; Maumee, Milan, Indiana	Defiance, Paulding, Ohio; Allen, Indiana	2.3	•	+/-
Middle Creek	Benton, Blue Creek	Paulding, Ohio	0.6	•	+/-
North Creek	Carryall, Crane, Harrison	Paulding, Ohio	0.9	•	+/-
Opossum Run	Paulding, Jackson	Paulding, Ohio	1.9	•	+/-
Prairie Creek	Blue Creek, Latty, Washington, Union	Paulding, van Wert, Ohio	2.7	•	+/-
South Creek	Carryall, Crane, Harrison	Paulding, Ohio	0.3	•	+/-
Upper Prairie Creek	Blue Creek, Tully, Union	Paulding, van Wert, Ohio	1.2	•	+/-
Wildcat Creek	Harrison, Paulding	Paulding, Ohio	0.7	•	+/-

Zuber Culvert	Carryall, Crane	Paulding, Ohio	0.3	●	+/-
Paulding Reservoir	Paulding	Paulding, Ohio	3.4	●	+/-
Barcer Run	Jackson	Paulding, Ohio	3.6	●	+/-
White Ditch	Benton, Tully, Ohio; Jackson, Monroe, Indiana	Paulding, Ohio, van Wert, Ohio; Allen, Indiana	41	●	+/-
Marie DeLame Creek	Carryall, Crane	Paulding, Ohio	3.98	●	+/-
Sixmile Creek	Crane, Emerald	Paulding, Ohio	4.41	●	+/-
Hagerman Creek	Latty, Tully, Hoaglin	Paulding, van Wert, Ohio	4.42	●	+/-
South Branch Marie DeLame Creek	Carryall	Paulding, Ohio	4.52	●	+/-
North Branch Marie DeLame Creek	Carryall	Paulding, Ohio	4.61	●	+/-
Dry Creek	Blue Creek, Latty, Union	Paulding, van Wert, Ohio	4.78	●	+/-
South Fork Gordon Creek	Hicksville, Mark	Defiance, Ohio	5.81	●	+/-
Gordon Creek	Mark, Delaware, Crane	Defiance, Paulding, Ohio	5.85	●	+/-
Pottawatomie Creek	Union, Hoaglin	van Wert, Ohio	5.89	●	+/-
Hoffman Ditch	Emerald	Paulding, Ohio	5.93	●	+/-
Middle Fork Gordon Creek	Hicksville, Mark	Defiance, Ohio	6.92	●	+/-
North Fork Gordon Creek	Hicksville, Mark	Defiance, Ohio	6.93	●	+/-
Monkey Run	Union, Harrison, Pleasant	van Wert, Ohio	6.94	●	+/-
Hoaglin Creek	Latty, Hoaglin, Union, Pleasant, Harrison	van Wert, Ohio	6.95	●	+/-
Knapp Ditch	Scipio	Allen, Indiana	7.22	●	+/-
Warm Ditch	Scipio, Springfield	Allen, Indiana	7.25	●	+/-
Platter Creek	Hicksville, Mark, Delaware	Defiance, Ohio	7.51	●	+/-
Tuslisun Creek	Hicksville, Carryall	Defiance, Paulding, Ohio	7.77	●	+/-
Jackson Ditch	Scipio	Allen, Indiana	7.83	●	+/-
West Branch Prairie Creek	Latty, Washington	Paulding, Ohio	7.85	●	+/-
Mill Creek	Hicksville	Defiance, Ohio	7.95	●	+/-
Hamm Ditch	Scipio, Springfield	Allen, Indiana	8.00	●	+/-
Maddox Creek	Latty, Washington, Union, Hoaglin, Pleasant	van Wert, Ohio	8.36	●	+/-
Black Creek	Maumee, Milan	Allen, Indiana	8.53	●	+/-
Brown Ditch	Monroe, Madison	Allen, Indiana	8.71	●	+/-
Bohnke Ditch	Jackson, Jefferson, Monroe, Madison	Allen, Indiana	9.04	●	+/-
Killian Ditch	Maumee, Springfield	Allen, Indiana	9.07	●	+/-
Ellison Ditch	Jackson, Jefferson, Madison	Allen, Indiana	9.09	●	+/-
Town Creek	Latty, Jackson, Union, Hoaglin, Pleasant, Ridge	Paulding, van Wert, Ohio	9.13	●	+/-
Smith-Fry Ditch	Maumee, Springfield	Allen, Indiana	9.37	●	+/-
Sulphur Creek	Mark, Delaware	Defiance, Ohio	9.87	●	+/-
Golf Courses					
Pleasant valley Golf Course	Benton	Paulding, Ohio	3.2	●	+/-
Pond River Golf Club	Maumee	Allen, Indiana	5.9	●	-
Schools and Colleges					
Payne Elementary School	Harrison	Paulding, Ohio	1.90	●	+/-
Wayne Trace High School	Blue Creek, Latty	Paulding, Ohio	2.59	●	+/-
Paulding Elementary, Middle, and High School	Paulding	Paulding, Ohio	4.08	●	+/-
Crestview Elementary, Middle, and High School	Tully	van Wert, Ohio	5.79	●	+/-
Woodburn Lutheran School	Maumee, Springfield	Allen, Indiana	7.54	●	+
Grover Hill Elementary School	Latty	Paulding, Ohio	7.97	●	+/-
St. Rose of Lima Catholic School	Monroe	Allen, Indiana	8.95	●	+
St. Joseph Catholic School	Monroe	Allen, Indiana	9.06	●	+

Hicksville Exempted village Schools	Hicksville	Defiance, Ohio	9.59	•	+/-
Libraries					
Payne Public Library	Harrison	Paulding, Ohio	1.66	●	-
Antwerp Branch Library	Caryall	Paulding, Ohio	3.57	•	-
Allen County Public Library Woodburn Branch	Maumee, Springfield	Allen, Indiana	7.60	•	+
Allen County Public Library Monroeville Branch	Monroe	Allen, Indiana	9.06	•	+
Cemeteries					
Snellenbarger Cemetery	Harrison	Paulding, Ohio	0.54	●	+/-
Willsie Cemetery	Harrison	Paulding, Ohio	1.09	●	+/-
Dealey Cemetery	Benton	Paulding, Ohio	1.17	●	+/-
Ludwig Plot Cemetery	Harrison	Paulding, Ohio	1.28	●	+/-
Saint Paul Cemetery	Paulding	Paulding, Ohio	1.42	●	+/-
Unmarked Grave	Harrison	Paulding, Ohio	1.51	●	+/-
Unnamed #2 Cemetery	Crane	Paulding, Ohio	1.75	●	+/-
Blue Creek-Abbott Cemetery	Blue Creek	Paulding, Ohio	1.75	●	+/-
Catholic-Saint Johns-Saint John The Baptist Cemetery	Benton	Paulding, Ohio	1.87	●	+/-
Barbler Cemetery	Harrison	Paulding, Ohio	1.88	●	+/-
Cooper-Haines Cemetery	Paulding	Paulding, Ohio	1.89	●	+/-
Blue Creek Cemetery	Blue Creek	Paulding, Ohio	2.13	●	+/-
Apostolic Christian Cemetery	Paulding, Blue Creek	Paulding, Ohio	2.29	●	+/-
Banks-Coffat Cemetery	Caryall	Paulding, Ohio	2.52	●	-
Lehman Cemetery	Benton	Paulding, Ohio	2.57	●	+/-
Pleasant view-West view-Williamson Cemetery	Latty	Paulding, Ohio	2.63	●	+/-
Maumee Cemetery	Caryall	Paulding, Ohio	2.68	●	+/-
Maumee-Coffelt Cemetery	Caryall	Paulding, Ohio	2.69	●	+/-
Slough Cemetery	Caryall	Paulding, Ohio	2.91	●	-
vinegar Farm Plot Cemetery	Crane	Paulding, Ohio	3.00	●	+
Brady-Finnan-Pleasant valley Cemetery	Benton	Paulding, Ohio	3.15	●	+/-
Antwerp-Riverside Cemetery	Caryall	Paulding, Ohio	3.18	●	-
Lutheran Cemetery	Crane	Paulding, Ohio	3.21	●	+/-
Forder Cemetery	Crane	Paulding, Ohio	3.57	•	+/-
Belthel Cemetery	Crane	Paulding, Ohio	3.61	•	+/-
Mcneal Cemetery	Tully	van Wert, Ohio	3.79	•	+/-
Jacobs-Eaton Plot-Eaton Childrens Home Cemetery	Crane	Paulding, Ohio	4.04	•	+/-
Slough Family Cemetery	Caryall	Paulding, Ohio	4.20	•	+/-
Live Oak Cemetery	Paulding	Paulding, Ohio	4.23	•	-
Oakland Cemetery	Blue Creek, Union	Paulding, van Wert, Ohio	4.25	•	+/-
Hiram Banks-Banks Cemetery	Caryall	Paulding, Ohio	4.43	•	+/-
Gordon Cemetery	Crane	Paulding, Ohio	4.44	•	+/-
Cooy I.O.O.F. Township Cemetery	Tully	van Wert, Ohio	4.77	•	+/-
Paulding Memorial Cemetery	Jackson	Paulding, Ohio	4.83	•	+/-
Linch-Coughlin Cemetery	Jackson	Paulding, Ohio	5.28	•	+/-
County Home Cemetery	Jackson	Paulding, Ohio	5.35	•	-
Hedges Cemetery	Jackson	Paulding, Ohio	5.40	•	+/-
Cecil-Rochester Cemetery	Crane	Paulding, Ohio	5.65	•	-
Immaculate Conception Cemetery	Crane	Paulding, Ohio	5.76	•	-
Mentzer/Meizer Cemetery	Tully	van Wert, Ohio	5.89	•	+/-
Diehl Cemetery	Maumee, Springfield	Allen, Indiana	5.94	•	-
Sugar Ridge Cemetery	Monroe	Allen, Indiana	5.94	•	+
Clark Cemetery	Caryall	Paulding, Ohio	6.12	•	+/-
Pleasant Grove Cemetery	Jackson	Paulding, Ohio	6.13	•	+/-

Angrove-Blaine Cemetery	Emerald	Paulding, Ohio	6.23	•	+
Spindler Cemetery	Mark	Defiance, Ohio	6.26	•	+/-
Latty-Powers Farm Cemetery	Emerald	Paulding, Ohio	6.46	•	+/-
Eaton Cemetery	Crane	Paulding, Ohio	6.59	•	-
Ankney Farm-Hyman-Thompson Township Cemetery	Emerald	Paulding, Ohio	6.75	•	+/-
Colby Cemetery	Mark, Crane	Defiance, Paulding, Ohio	6.79	•	-
Uphogrove Cemetery	Emerald, Jackson	Paulding, Ohio	7.08	•	-
McClure-Dowler Cemetery	Union	van Wert, Ohio	7.18	•	+
Grand victory-Mohr Cemetery	Hoaglin	van Wert, Ohio	7.19	•	+/-
Taylor Cemetery	Union	van Wert, Ohio	7.24	•	+/-
Ankney Lutheran Cemetery	Emerald	Paulding, Ohio	7.31	•	+/-
Saint Johns German Evangelical-Klein-Saint Johns Cemetery	Harrison	van Wert, Ohio	7.79	•	+/-
Redeemer Lutheran-Saint Johns Lutheran Cemetery	Harrison	van Wert, Ohio	7.82	•	+/-
Unnamed #1 Cemetery	Jackson	Paulding, Ohio	7.96	•	+/-
Bowholtz Cemetery	Jackson	Paulding, Ohio	8.15	•	+/-
Pancake-Reidenbaugh-Richey Cemetery	Harrison	van Wert, Ohio	8.21	•	+/-
Hoffman Cemetery	Monroe	Allen, Indiana	8.24	•	+
Dix Cemetery	Pleasant	van Wert, Ohio	8.31	•	+/-
Smith-Hasch Farm Cemetery	Emerald	Paulding, Ohio	8.38	•	-
Mount Zion Cemetery	Latty, Washington	Paulding, Ohio	8.42	•	-
Kinzer Cemetery	Emerald	Paulding, Ohio	8.52	•	+/-
Yoder Plot Cemetery	Emerald	Paulding, Ohio	8.54	•	+/-
Miser/Mizer Plot Cemetery	Emerald	Paulding, Ohio	8.69	•	+
Renollet Cemetery	Emerald	Paulding, Ohio	8.98	•	-
Odd Fellows Cemetery	Monroe	Allen, Indiana	9.01	•	+/-
Unnamed #3 Cemetery	Maumee, Springfield	Allen, Indiana	9.12	•	+/-
Bakle Cemetery	Emerald	Paulding, Ohio	9.14	•	+/-
Kings Bethlehem Cemetery	Harrison	van Wert, Ohio	9.18	•	+/-
Blair Cemetery	Delaware	Defiance, Ohio	9.21	•	-
Glore-Hughes Cemetery	Delaware	Defiance, Ohio	9.36	•	-
Hicksville Cemetery	Hicksville	Defiance, Ohio	9.55	•	+/-
Clark Chapel Cemetery	Union	Adams, Indiana	9.56	•	+
McClure-Sheets Cemetery	Harrison	van Wert, Ohio	9.69	•	+/-
Glenn Presbyterian-Glenn Cemetery	Harrison	van Wert, Ohio	9.74	•	+/-
Middle Creek Cemetery	Washington	Paulding, Ohio	9.79	•	+/-
Canalport Cemetery	Brown	Paulding, Ohio	9.89	•	+/-
Scipio Cemetery	Scipio	Allen, Indiana	9.94	•	+/-
Forrest Woods Nature Preserve	Crane	Paulding, Ohio	3.84	•	+/-
Blue Cast Springs Nature Preserve	Maumee, Springfield	Allen, Indiana	8.32	•	+/-
Steam Saw Mill Site (Maumee River Overlook)	Maumee, Springfield	Allen, Indiana	9.15	•	+/-

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

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

Exhibit FF

Appendix C – Photo Log

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Viewpoint 1

View looking south from the intersection of State Road 111 and Road 61

Town of Harrison, Paulding County, Ohio



Viewpoint 2

View looking west from Road 87 at Big Run crossing

Town of Paulding, Paulding County, Ohio

Timber Road IV Wind Farm

Benton, Blue Creek, Crane, Harrison, and Paulding Townships, Paulding County, Ohio

Appendix C: Viewpoint Photolog



Viewpoint 3

View looking west-southwest
from Road 87 towards State
Route 111

Town of Paulding, Paulding
County, Ohio



Viewpoint 4

View looking west-northwest
from West Wayne Street
(State Road 111) at South
Summit Street, Village of
Paulding

Town of Paulding, Paulding
County, Ohio

Timber Road IV Wind Farm

Benton, Blue Creek, Crane, Harrison, and Paulding Townships, Paulding County, Ohio

Appendix C: Viewpoint Photolog



Viewpoint 5

View looking west from
Paulding County Carnegie
Library on South Main Street,
Village of Paulding

Town of Paulding, Paulding
County, Ohio



Viewpoint 6

View looking west from corner
of South Main Street and
East Perry Street, Village of
Paulding

Town of Paulding, Paulding
County, Ohio

Timber Road IV Wind Farm

Benton, Blue Creek, Crane, Harrison, and Paulding Townships, Paulding County, Ohio

Appendix C: Viewpoint Photolog



Viewpoint 7

View looking west from Herb Monroe Community Park on East Jackson Street, Village of Paulding

Town of Paulding, Paulding County, Ohio



Viewpoint 8

View looking west-southwest from Paulding High School on North Water Street, Village of Paulding

Town of Paulding, Paulding County, Ohio

Timber Road IV Wind Farm

Benton, Blue Creek, Crane, Harrison, and Paulding Townships, Paulding County, Ohio

Appendix C: Viewpoint Photolog



Viewpoint 9

View looking west-northwest
from racetrack at Paulding
County Fairgrounds

Town of Paulding, Paulding
County, Ohio



Viewpoint 10

View looking west from Black
Swamp Nature Center trail
access parking lot

Town of Paulding, Paulding
County, Ohio

Timber Road IV Wind Farm

Benton, Blue Creek, Crane, Harrison, and Paulding Townships, Paulding County, Ohio

Appendix C: Viewpoint Photolog



Viewpoint 11

View looking northwest from
Black Swamp Nature Center
Gold Finch Trail

Town of Paulding, Paulding
County, Ohio



Viewpoint 12

View looking west-southwest
from Paulding Upground
Reservoir at ball fields

Town of Paulding, Paulding
County, Ohio

Timber Road IV Wind Farm

Benton, Blue Creek, Crane, Harrison, and Paulding Townships, Paulding County, Ohio

Appendix C: Viewpoint Photolog



Viewpoint 13

View looking north-northwest
from Paulding Upground
Reservoir at water treatment
plan

Town of Paulding, Paulding
County, Ohio



Viewpoint 14

View looking west-southwest
from the intersection of State
Road 613 and Road 107
(McDonald Park)

Town of Paulding, Paulding
County, Ohio

Timber Road IV Wind Farm

Benton, Blue Creek, Crane, Harrison, and Paulding Townships, Paulding County, Ohio

Appendix C: Viewpoint Photolog



Viewpoint 15

View looking west from Paulding Upground Reservoir at southwest parking area

Town of Paulding, Paulding County, Ohio



Viewpoint 16

View looking west from the intersection of Lewis Street and 5th Street, Village of Latty

Town of Paulding, Paulding County, Ohio

Timber Road IV Wind Farm

Benton, Blue Creek, Crane, Harrison, and Paulding Townships, Paulding County, Ohio

Appendix C: Viewpoint Photolog



Viewpoint 17

View looking west from
Apostolic Christian Cemetery,
Road 82

Town of Blue Creek, Paulding
County, Ohio



Viewpoint 18

View looking west-northwest
from Apostolic Christian
Cemetery, Road 82

Town of Blue Creek, Paulding
County, Ohio

Timber Road IV Wind Farm

Benton, Blue Creek, Crane, Harrison, and Paulding Townships, Paulding County, Ohio

Appendix C: Viewpoint Photolog



Viewpoint 19

View looking west-southwest
from the intersection of Road
95 and Road 82

Town of Paulding, Paulding
County, Ohio



Viewpoint 20

View looking southwest from
the intersection of Road 71
and Road 72

Town of Blue Creek, Paulding
County, Ohio

Timber Road IV Wind Farm

Benton, Blue Creek, Crane, Harrison, and Paulding Townships, Paulding County, Ohio

Appendix C: Viewpoint Photolog



Viewpoint 21

View looking south-southeast from the intersection of North Main Street (Road 49) and East Bailey Street, Village of Payne

Town of Harrison, Paulding County, Ohio



Viewpoint 22

View looking east-southeast from Payne Community Park, on North Main Street, Village of Payne

Town of Harrison, Paulding County, Ohio

Timber Road IV Wind Farm

Benton, Blue Creek, Crane, Harrison, and Paulding Townships, Paulding County, Ohio

Appendix C: Viewpoint Photolog



Viewpoint 23

View looking west-northwest
from Lehman Cemetery,
intersection of State Route
500, Road 33 and Road 70

Town of Benton, Paulding
County, Ohio



Viewpoint 24

View looking east-southeast
from Riverside Park on West
River Street at the Maumee
River, Village of Antwerp

Town of Carryall, Paulding
County, Ohio

Timber Road IV Wind Farm

Benton, Blue Creek, Crane, Harrison, and Paulding Townships, Paulding County, Ohio

Appendix C: Viewpoint Photolog



Viewpoint 25

View looking south-southwest from County Road 424 and T-226

Town of Crane, Paulding County, Ohio



Viewpoint 26

View looking southwest from The Bend Access on Bend Street at the Maumee River

Town of Delaware, Defiance County, Ohio

Timber Road IV Wind Farm

Benton, Blue Creek, Crane, Harrison, and Paulding Townships, Paulding County, Ohio

Appendix C: Viewpoint Photolog



Viewpoint 27

View looking southwest from Duquesne Street, at village offices, Village of Cecil

Town of Crane, Paulding County, Ohio



Viewpoint 28

View looking southwest from Paulding County Community Fossil Garden at the corner of County Road 180 and Road 87

Town of Crane, Paulding County, Ohio

Timber Road IV Wind Farm

Benton, Blue Creek, Crane, Harrison, and Paulding Townships, Paulding County, Ohio

Appendix C: Viewpoint Photolog



Viewpoint 29

View looking south-southeast
from United States Route 24
at terminus of Road 180

Town of Carryall, Paulding
County, Ohio



Viewpoint 30

View looking east-southeast
from T-43 overpass, over
United States Route 24

Town of Carryall, Paulding
County, Ohio

Timber Road IV Wind Farm

Benton, Blue Creek, Crane, Harrison, and Paulding Townships, Paulding County, Ohio

Appendix C: Viewpoint Photolog



Viewpoint 31

View looking east-southeast
from Church of God
Campground on State Route
500 at T-270

Town of Benton, Paulding
County, Ohio



Viewpoint 32

View looking east-southeast
from the intersection of Road
33 and Road 52

Town of Benton, Paulding
County, Ohio

Timber Road IV Wind Farm

Benton, Blue Creek, Crane, Harrison, and Paulding Townships, Paulding County, Ohio

Appendix C: Viewpoint Photolog



Viewpoint 33

View looking east-northeast
from the intersection of Road
52 and Road 59

Town of Benton, Paulding
County, Ohio



Viewpoint 34

View looking north-northwest
from Road 59

Town of Benton, Paulding
County, Ohio

Timber Road IV Wind Farm

Benton, Blue Creek, Crane, Harrison, and Paulding Townships, Paulding County, Ohio

Appendix C: Viewpoint Photolog



Viewpoint 35

View looking south-southwest
from the intersection of Road
52 and Road 59

Town of Benton, Paulding
County, Ohio



Viewpoint 36

View looking east from United
States Route 30 (Indiana
Lincoln Highway Historic
Byway)

Town of Jackson, Allen
County, Indiana

Timber Road IV Wind Farm

Benton, Blue Creek, Crane, Harrison, and Paulding Townships, Paulding County, Ohio

Appendix C: Viewpoint Photolog



Viewpoint 37

View looking east-southeast
from United States Route
30 (Indiana Lincoln Highway
Historic Byway) at State
Route 101

Town of Jackson, Allen
County, Indiana



Viewpoint 38

View looking north-northeast
from Monroeville Town Center
at intersection of State Route
101 (Main Street) and West
South Street

Town of Monroe, Allen County,
Indiana

Timber Road IV Wind Farm

Benton, Blue Creek, Crane, Harrison, and Paulding Townships, Paulding County, Ohio

Appendix C: Viewpoint Photolog



Viewpoint 39

View looking east-northeast from Monroeville Community Park on Park Drive, Town of Monroeville

Town of Monroe, Allen County, Indiana



Viewpoint 40

View looking northeast from State Route 101 south of Flatrock Road

Town of Monroe, Allen County, Indiana

Timber Road IV Wind Farm

Benton, Blue Creek, Crane, Harrison, and Paulding Townships, Paulding County, Ohio

Appendix C: Viewpoint Photolog



Viewpoint 41

View looking east-northeast
from United States Route
30 (Indiana Lincoln Highway
Historic Byway) at White Ditch

Town of Monroe, Allen County,
Indiana



Viewpoint 42

View looking east-northeast
from Road 1 (State Line
Road) south of Road 12

Town of Tully, Van Wert
County, Ohio

Timber Road IV Wind Farm

Benton, Blue Creek, Crane, Harrison, and Paulding Townships, Paulding County, Ohio

Appendix C: Viewpoint Photolog



Viewpoint 43

View looking east-northeast from Road 1 (State Line Road) at United States Route 30 (Indiana and Ohio Lincoln Highway Historic Byway)

Town of Monroe, Allen County, Indiana



Viewpoint 44

View looking northeast from United States Route 30 (Ohio Lincoln Highway Historic Byway south of Road 12 (County Line Road)

Town of Tully, Van Wert County, Ohio

Timber Road IV Wind Farm

Benton, Blue Creek, Crane, Harrison, and Paulding Townships, Paulding County, Ohio

Appendix C: Viewpoint Photolog



Viewpoint 45

View looking northeast from United States Route 30 (Ohio Lincoln Highway Historic Byway at Road 37 (Lare Road)

Town of Tully, Van Wert County, Ohio



Viewpoint 46

View looking north-northeast from Edgewood Park derby grandstand on Road 49 (North Main Street), Village of Convoy

Town of Tully, Van Wert County, Ohio

Timber Road IV Wind Farm

Benton, Blue Creek, Crane, Harrison, and Paulding Townships, Paulding County, Ohio

Appendix C: Viewpoint Photolog



Viewpoint 47

View looking north from Edgewood Park Baseball Diamond on Road 49 (North Main Street), Village of Convo

Town of Tully, Van Wert County, Ohio



Viewpoint 48

View looking north from Franklin Street, Village of Convo

Town of Tully, Van Wert County, Ohio

Timber Road IV Wind Farm

Benton, Blue Creek, Crane, Harrison, and Paulding Townships, Paulding County, Ohio

Appendix C: Viewpoint Photolog



Viewpoint 49

View looking north from South Main Street at South Vine Street, Village of Convooy

Town of Tully, Van Wert County, Ohio



Viewpoint 50

View looking north-northwest from intersection of Road 418 (Lincoln Highway) and Road 146 (Wolfcale Road)

Town of Pleasant, Van Wert County, Ohio

Timber Road IV Wind Farm

Benton, Blue Creek, Crane, Harrison, and Paulding Townships, Paulding County, Ohio

Appendix C: Viewpoint Photolog



Viewpoint 51

View looking north-northwest
from United States Route
30 (Ohio Lincoln Highway
Historic Byway at Road 75
(Richey Road)

Town of Pleasant, Van Wert
County, Ohio



Viewpoint 52

View looking north-northwest
from intersection of Road 75
(Richey Road) and Road 168
(Convoy Road)

Town of Union, Van Wert
County, Ohio

Timber Road IV Wind Farm

Benton, Blue Creek, Crane, Harrison, and Paulding Townships, Paulding County, Ohio

Appendix C: Viewpoint Photolog



Viewpoint 53

View looking northwest from Union Center Park at the intersection of Road 77 (Liberty-Union Road) and Road 192 (Dixon Cavett Road)

Town of Union, Van Wert County, Ohio



Viewpoint 54

View looking northwest from Bresler Park, on T-12 (Van Wert Paulding County Line Road, Village of Scott

Town of Blue Creek, Paulding County, Ohio

Timber Road IV Wind Farm

Benton, Blue Creek, Crane, Harrison, and Paulding Townships, Paulding County, Ohio

Appendix C: Viewpoint Photolog



Viewpoint 55

View looking north-northwest
from State Road 114 (West
Main Street), Village of
Haviland

Town of Blue Creek, Paulding
County, Ohio



Viewpoint 56

View looking west-northwest
from Welcome Park, on State
Route 637 (Main Street) at
West Branch Prairie Creek,
Village of Grover Hill

Town of Latty, Paulding
County, Ohio

Timber Road IV Wind Farm

Benton, Blue Creek, Crane, Harrison, and Paulding Townships, Paulding County, Ohio

Appendix C: Viewpoint Photolog



Viewpoint 57

View looking west-northwest
from Blue Creek Cemetery at
the intersection of Road 48
and Road 95

Town of Blue Creek, Paulding
County, Ohio



Viewpoint 58

View looking west-northwest
from Pleasant View Cemetery,
on Road 72 at Blue Creek

Town of Latty, Paulding
County, Ohio

Timber Road IV Wind Farm

Benton, Blue Creek, Crane, Harrison, and Paulding Townships, Paulding County, Ohio

Appendix C: Viewpoint Photolog



Viewpoint 59

View looking west-northwest
from Road 123 north of Road
72

Town of Latty, Paulding
County, Ohio



Viewpoint 60

View looking west-southwest
from Road 123 (Broughton
Pike), Village of Broughton

Town of Jackson, Paulding
County, Ohio

Timber Road IV Wind Farm

Benton, Blue Creek, Crane, Harrison, and Paulding Townships, Paulding County, Ohio

Appendix C: Viewpoint Photolog



Viewpoint 61

View looking southwest from
State Road 613, Village of
Latty

Town of Paulding, Paulding
County, Ohio



Viewpoint 62

View looking south from
Briceton at the intersection of
State Route 613 and Road 87

Town of Paulding, Paulding
County, Ohio

Timber Road IV Wind Farm

Benton, Blue Creek, Crane, Harrison, and Paulding Townships, Paulding County, Ohio

Appendix C: Viewpoint Photolog



Viewpoint 63

View looking south-southwest
from Road 71 south of State
Route 613

Town of Paulding, Paulding
County, Ohio



Viewpoint 64

View looking east-northeast
from Road 1 (North State
Line Road) south of Maumee
Center Road

Town of Harrison, Paulding
County, Ohio

Timber Road IV Wind Farm

Benton, Blue Creek, Crane, Harrison, and Paulding Townships, Paulding County, Ohio

Appendix C: Viewpoint Photolog



Viewpoint 65

View looking southeast from Country Road 49 at Maumee River overpass, Village of Antwerp

Town of Carryall, Paulding County, Ohio



Viewpoint 66

View looking south-southeast from Road 8 (County Line Road) east of County Road 49

Town of Carryall, Paulding County, Ohio

Timber Road IV Wind Farm

Benton, Blue Creek, Crane, Harrison, and Paulding Townships, Paulding County, Ohio

Appendix C: Viewpoint Photolog



Viewpoint 67

View looking south-southeast
from State Route 18
(Defiance Avenue) east of
Middle Fork Gordon Creek

Town of Hicksville, Defiance
County, Ohio

Timber Road IV Wind Farm

Benton, Blue Creek, Crane, Harrison, and Paulding Townships, Paulding County, Ohio

Appendix C: Viewpoint Photolog

Exhibit FF

Appendix D – Visual Simulations

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Attorneys for Paulding Wind Farm IV LLC

Date Filed: July 2, 2018

Viewpoint: 1

Photograph Information

Date: March 14, 2018

Time: 9:46 AM

View Location Information

Location: View from the intersection of State Road 111 and Road 61

Township: Harrison

County, State: Paulding, Ohio

Direction of View: South

Camera Elevation: 740 ft

Latitude: 41.13553600° N

Longitude: 84.68827100° W

Landscape Similarity Zone: Rural Residential/Agricultural

Viewer Type: Local Residents

Sensitive Site: N/A

Distance Zone: Midground

Nearest Turbine In View: 1.4 Miles

Camera Properties
Camera Make/Model: Nikon D7100
Focal Length: 36.4 mm (55.8 mm)
Camera Sensor Size: 23.5

Project Information

Model: Nordex/Acciona N149 4.5

Turbine Output: 4.5 MW

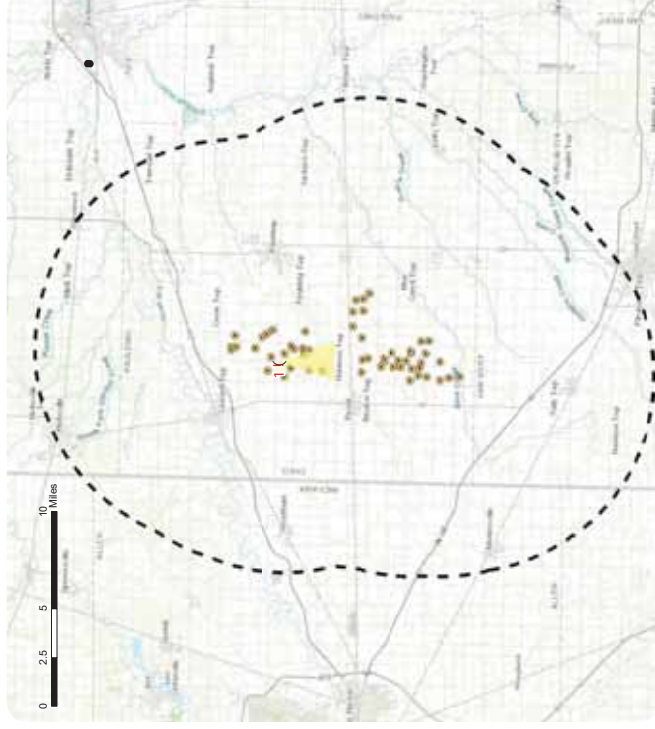
Hub Height: 358 ft (109 m)

Rotor Diameter: 489 ft (149 m)

Maximum Height (AGL): 602 ft (183.5 m)

Number of Turbines in Project: 54 Turbines

Viewpoint Location



Viewpoint Context



Context Photo: View to the South Southeast



Context Photo: View to the South



Context Photo: View to the South Southwest



Context Photo: View to the Southwest

Timber Road IV Wind Farm

Benton, Blue Creek, Crane, Harrison, and Paulding Townships, Paulding County, Ohio

Appendix D: Viewpoint Information Sheet - Viewpoint 1

Sheet 1 of 36



Existing Conditions



Simulation

Viewpoint: 2

Photograph Information

Date: March 14, 2018

Time: 9:56 AM

View Location Information

Location: View from Road 87

Township: Paulding

County/State: Paulding, Ohio

Direction of View: West

Camera Elevation: 734.9 ft

Latitude: 41.12970500° N

Longitude: 84.63135200° W

Landscape Similarity Zone: Suburban Residential

Viewer Type: Local Residents, Tourists

Sensitive Site: Big Run

Distance Zone: Midground

Nearest Turbine In View: 2.2 Miles

Camera Properties
Camera Make/Model: Nikon D7100
Focal Length: 38.12 mm (58.4 mm)
Camera Sensor Size: 23.5

Project Information

Model: Nordex/Acciona N149 4.5

Turbine Output: 4.5 MW

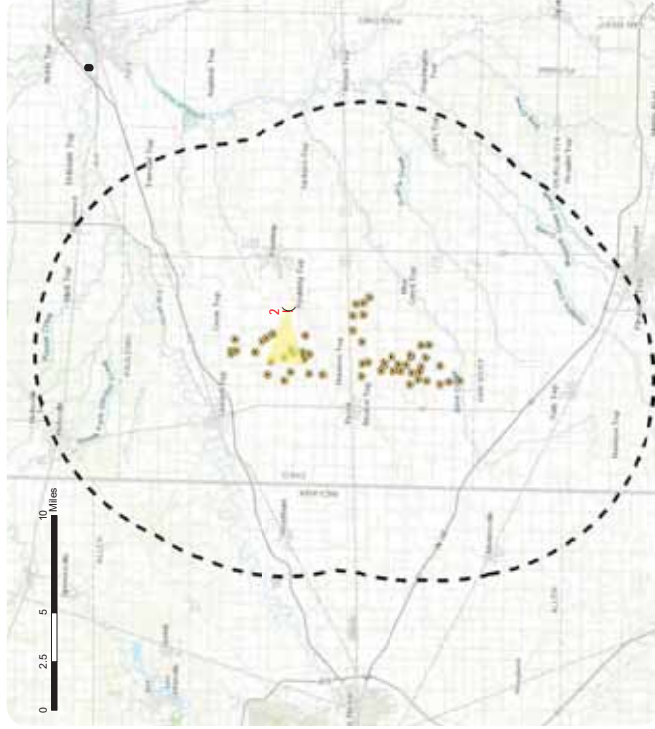
Hub Height: 358 ft (109 m)

Rotor Diameter: 489 ft (149 m)

Maximum Height (AGL): 602 ft (183.5 m)

Number of Turbines in Project: 54 Turbines

Viewpoint Location



Viewpoint Context



Context Photo: View to the South Southwest



Context Photo: View to the West Southwest



Simulation Photo: View to the West



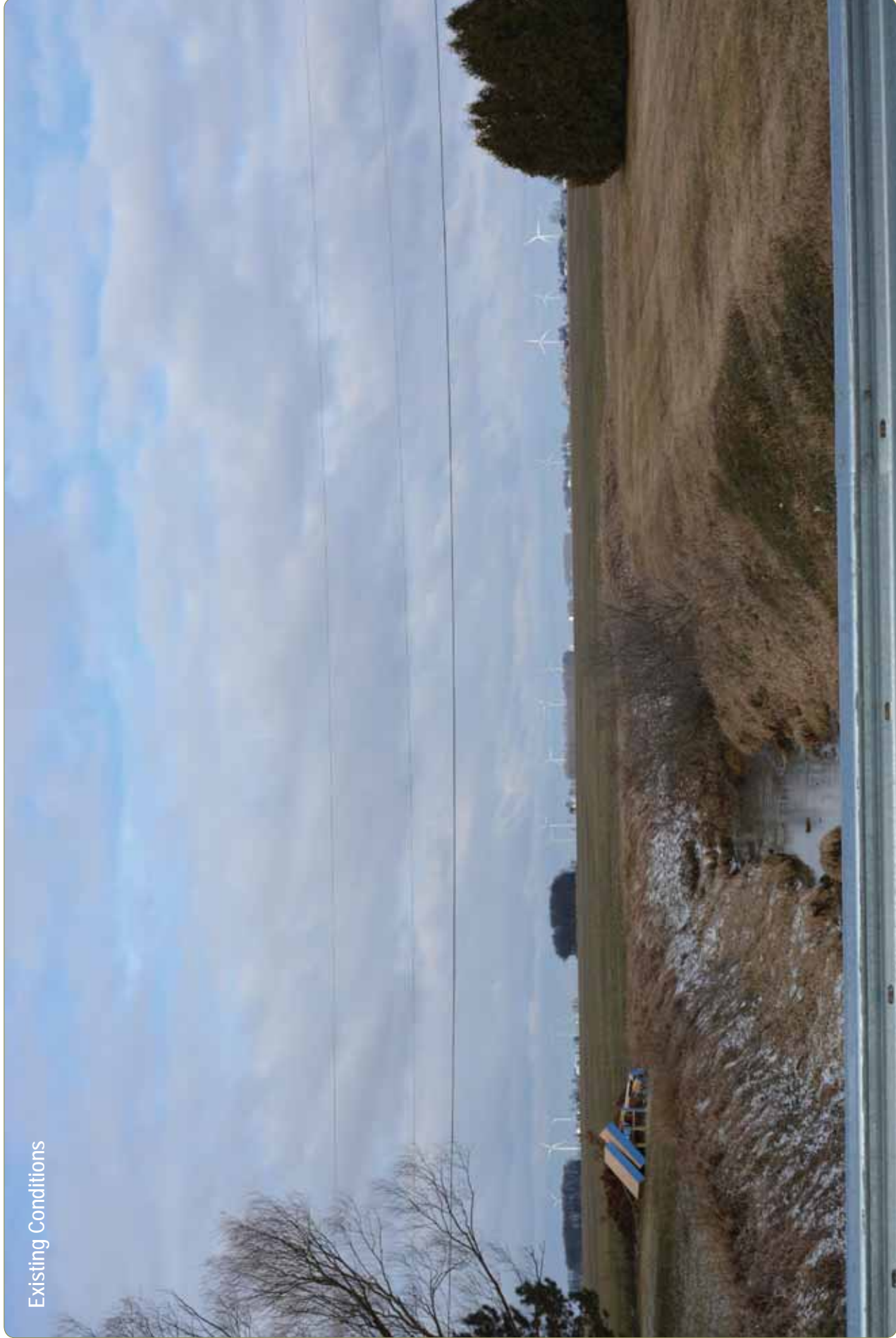
Context Photo: View to the West Northwest

Timber Road IV Wind Farm

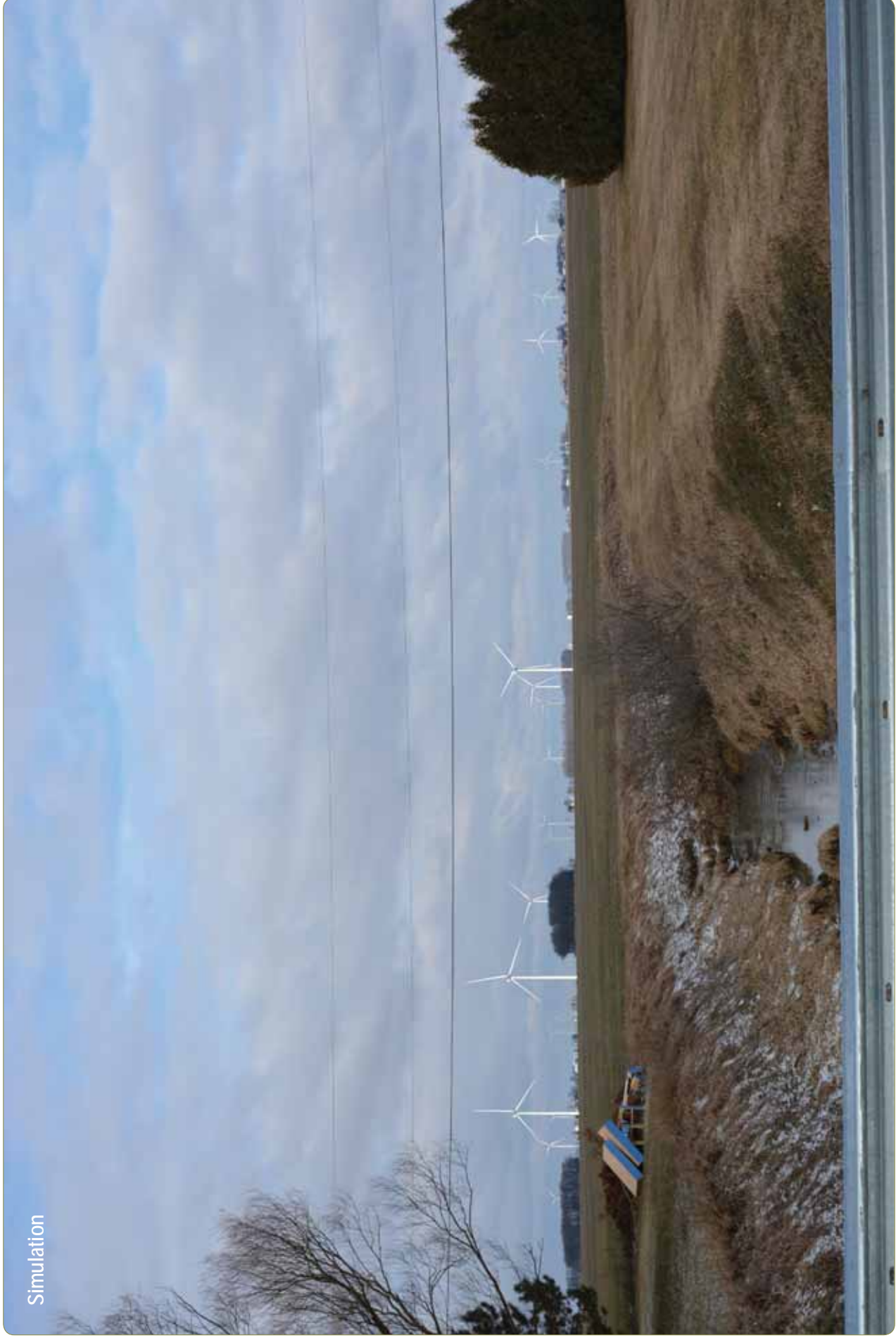
Benton, Blue Creek, Crane, Harrison, and Paulding Townships, Paulding County, Ohio

Appendix D: Viewpoint Information Sheet - Viewpoint 2

Sheet 4 of 36



Existing Conditions



Simulation

Viewpoint: 4

Photograph Information

Date: March 14, 2018

Time: 10:05 AM

[View Location Information](#)

Location: View from West Wayne Street (State Road 111)

Township: Paulding

County, State: Paulding, Ohio

Direction of View: West

Camera Elevation: 728.89 ft

Latitude: 41.13520400° N

Longitude: 84.58624900° W

Landscape Similarity Zone: City/Village

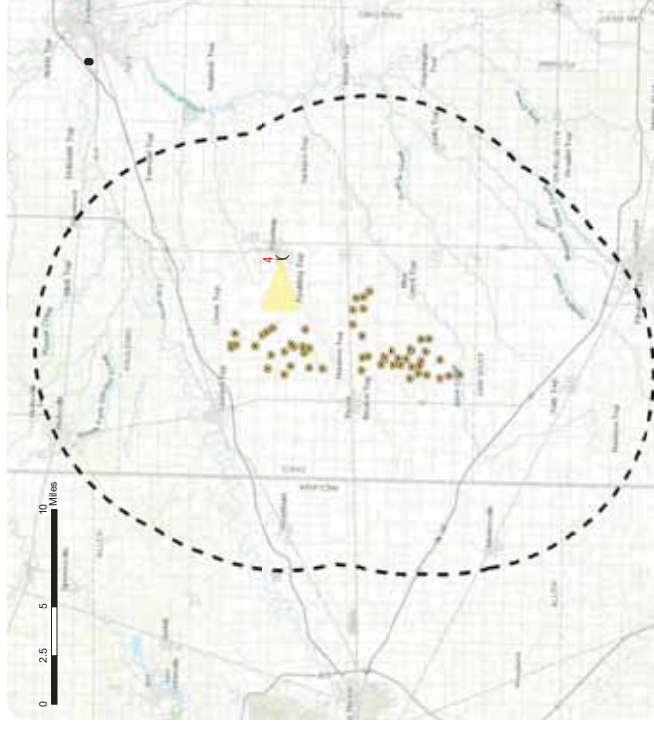
Viewer Type: Local Residents

Sensitive Site: Village of Paulding

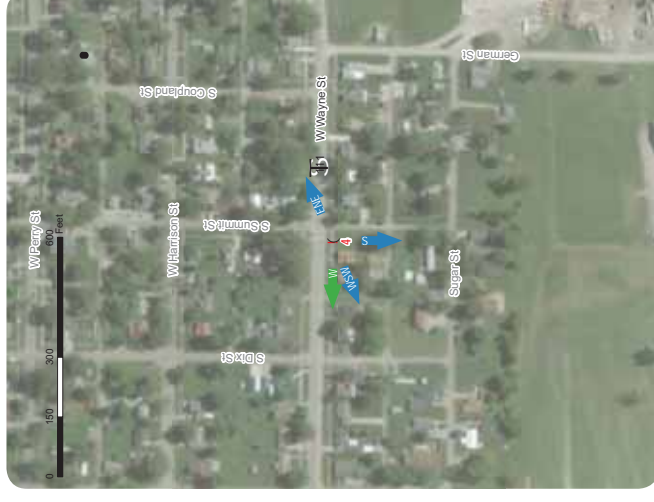
Distance Zone: Not Visible

Nearest Turbine In View: Project Not Visible

Viewpoint Location

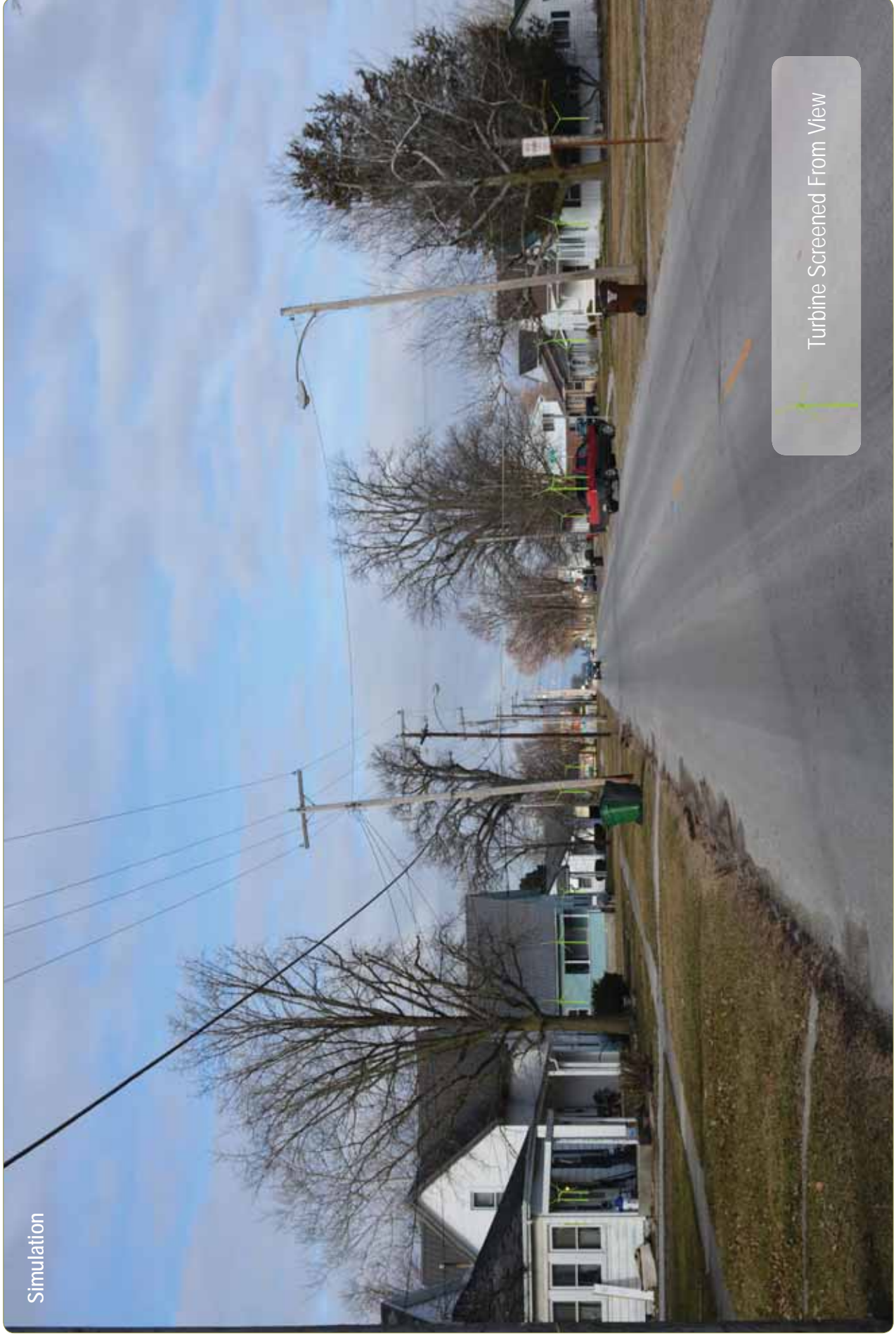


Viewpoint Context





Existing Conditions



Turbine Screened From View

Simulation

Viewpoint: 15

Photograph Information

Date: March 14, 2018
Time: 11:27 AM

View Location Information

Location: View from Paulding Upground Reservoir
Township: Paulding
County/State: Paulding, Ohio
Direction of View: Southwest to Northwest
Camera Elevation: 748.66 ft
Latitude: 41.12098700° N
Longitude: 84.59220200° W

Landscape Similarity Zone: Rural Residential/Agricultural

Viewer Type: Local Residents, Tourists/Recreational Users

Sensitive Site: Paulding Upground Reservoir

Distance Zone: Background

Nearest Turbine In View: 3.6 Miles

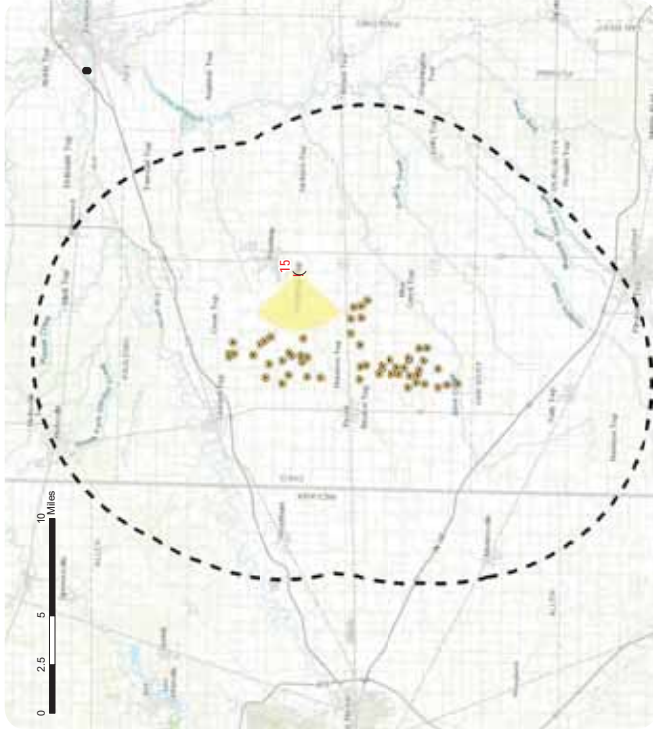
Camera Properties

Camera Make/Model: Nikon D7100
Focal Length: 36.7 mm (56.2 mm)
Camera Sensor Size: 23.5

Project Information

Model: Nordex/Acciona N149 4.5
Turbine Output: 4.5 MW
Hub Height: 358 ft (109 m)
Rotor Diameter: 489 ft (149 m)
Maximum Height (AGL): 602 ft (183.5 m)
Number of Turbines in Project: 54 Turbines

Viewpoint Location



Viewpoint Context



Context Photo: View to the Southwest



Simulation Photo: View to the West Southwest



Simulation Photo: View to the West



Simulation Photo: View to the Northwest

Timber Road IV Wind Farm

Benton, Blue Creek, Crane, Harrison, and Paulding Townships, Paulding County, Ohio

Appendix D: Viewpoint Information Sheet - Viewpoint 15

Sheet 10 of 36



Existing Conditions



Viewpoint: 18

Photograph Information

Date: March 14, 2018

Time: 11:47 PM

View Location Information

Location: View from Apostolic Christian Cemetery

Township: Blue Creek

County, State: Paulding, Ohio

Direction of View: West Northwest

Camera Elevation: 734.01 ft

Latitude: 41.07690200° N

Longitude: 84.57613000° W

Landscape Similarity Zone: Rural Residential/Agricultural,

Suburban Residential

Viewer Type: Local Residents

Sensitive Site: Apostolic Christian Cemetery

Distance Zone: Midground

Nearest Turbine In View: 2.5 Miles

Camera Properties

Camera Make/Model: Nikon D7100

Focal Length: 37 mm (56.7 mm)

Camera Sensor Size: 23.5

Project Information

Model: Nordex/Acciona N149 4.5

Turbine Output: 4.5 MW

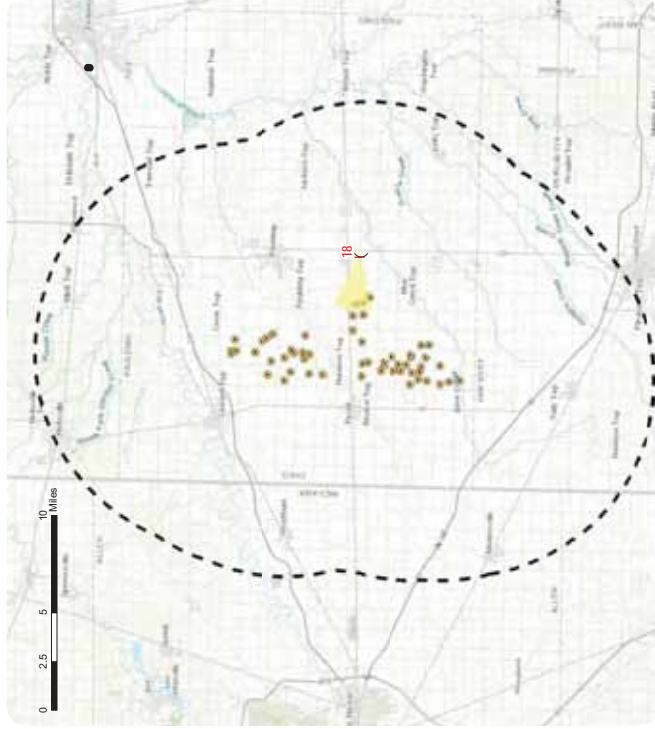
Hub Height: 358 ft (109 m)

Rotor Diameter: 489 ft (149 m)

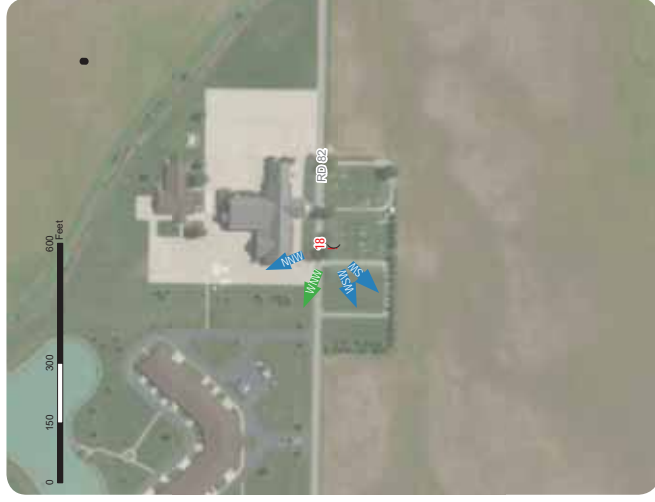
Maximum Height (AGL): 602 ft (183.5 m)

Number of Turbines in Project: 54 Turbines

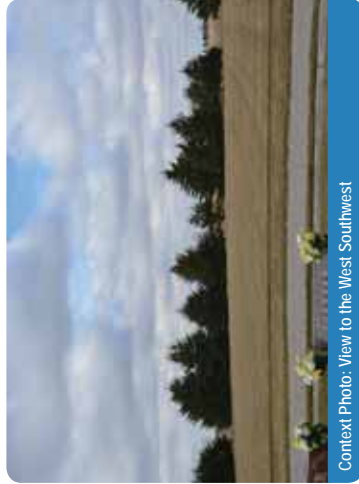
Viewpoint Location



Viewpoint Context



Context Photo: View to the Southwest



Context Photo: View to the West Southwest



Simulation Photo: View to the West Northwest



Context Photo: View to the North Northwest

Timber Road IV Wind Farm

Benton, Blue Creek, Crane, Harrison, and Paulding Townships, Paulding County, Ohio

Appendix D: Viewpoint Information Sheet - Viewpoint 18

Sheet 13 of 36



Existing Conditions



Simulation

Viewpoint: 28

Photograph Information

Date: March 14, 2018

Time: 2:21 PM

View Location Information

Location: View from Paulding County Community Fossil Garden at the corner of Co Hwy 180 and Road 87

Township: Crane

County, State: Paulding, Ohio

Direction of View: Southwest

Camera Elevation: 731.97 ft

Latitude: 41.19288800° N

Longitude: 84.63080800° W

Landscape Similarity Zone: Rural Residential/Agricultural

Viewer Type: Through Travelers/Commuters, Tourists/Recreational Users, Local Residents

Sensitive Site: Paulding Community Fossil Garden

Distance Zone: Midground

Nearest Turbine In View: 2.4 Miles

Camera Properties

Camera Make/Model: Nikon D7100

Focal Length: 36.5 mm (55.9 mm)

Camera Sensor Size: 23.5

Project Information

Model: Nordex/Acciona N149 4.5

Turbine Output: 4.5 MW

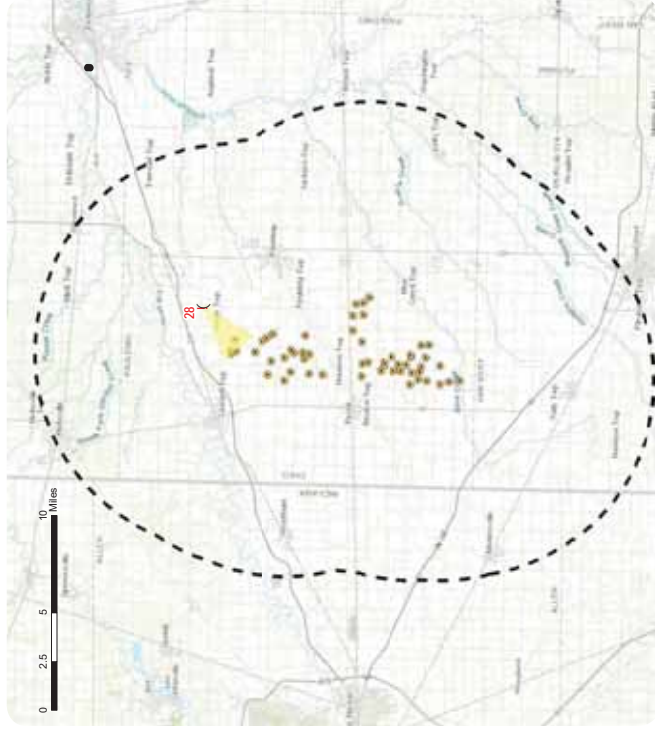
Hub Height: 358 ft (109 m)

Rotor Diameter: 489 ft (149 m)

Maximum Height (AGL): 602 ft (183.5 m)

Number of Turbines in Project: 54 Turbines

Viewpoint Location



Viewpoint Context



Context Photo: View to the South Southwest



Context Photo: View to the Southwest



Simulation Photo: View to the Southwest



Context Photo: View to the West Southwest

Timber Road IV Wind Farm

Benton, Blue Creek, Crane, Harrison, and Paulding Townships, Paulding County, Ohio

Appendix D: Viewpoint Information Sheet - Viewpoint 28

Sheet 16 of 36



Existing Conditions



Simulation

Viewpoint: 30

Photograph Information

Date: March 14, 2018

Time: 2:46 PM

View Location Information

Location: View from T-43 overpass over Highway 24

Township: Carryall

County/State: Paulding, Ohio

Direction of View: East Southeast

Camera Elevation: 757.93 ft

Latitude: 41.17049600° N

Longitude: 84.72723000° W

Landscape Similarity Zone: Transportation Corridor

Viewer Type: Through Travelers/Commuters

Sensitive Site: United States Route 24

Distance Zone: Midground

Nearest Turbine In View: 2.6 Miles

Camera Properties

Camera Make/Model: Nikon D7100

Focal Length: 36.2 mm (55.5 mm)

Camera Sensor Size: 23.5

Project Information

Model: Nordex/Acciona N149 4.5

Turbine Output: 4.5 MW

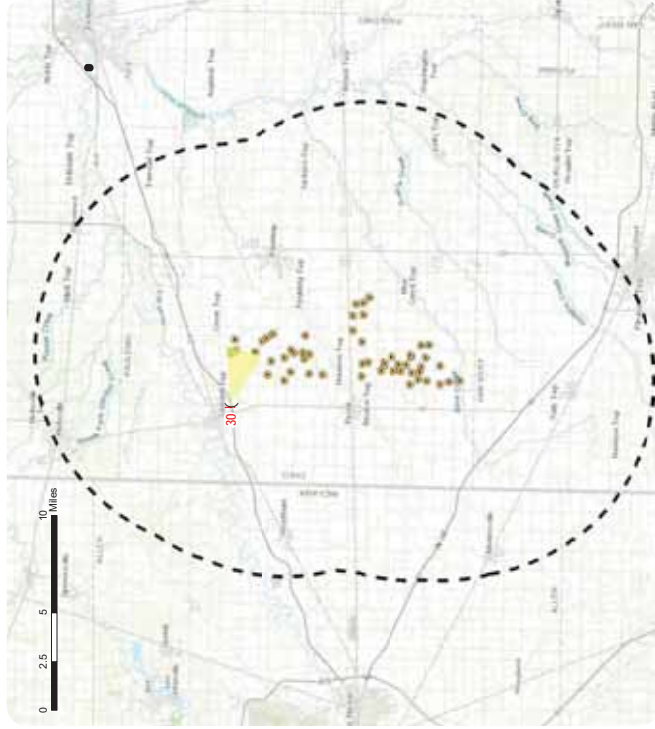
Hub Height: 358 ft (109 m)

Rotor Diameter: 489 ft (149 m)

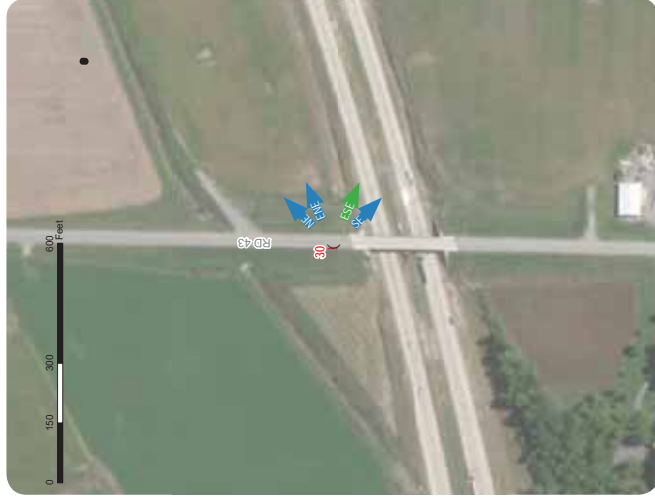
Maximum Height (AGL): 602 ft (183.5 m)

Number of Turbines in Project: 54 Turbines

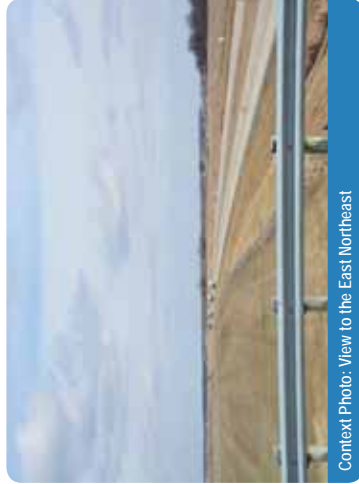
Viewpoint Location



Viewpoint Context



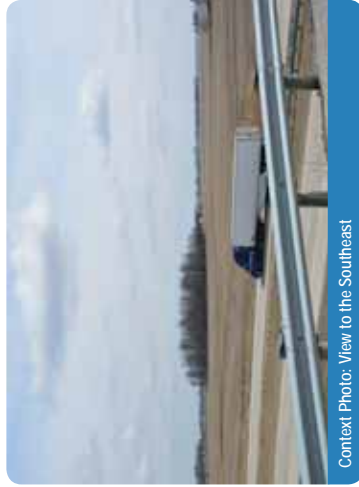
Context Photo: View to the Northeast



Context Photo: View to the East Northeast



Simulation Photo: View to the East Southeast



Context Photo: View to the Southeast

Timber Road IV Wind Farm

Benton, Blue Creek, Crane, Harrison, and Paulding Townships, Paulding County, Ohio

Appendix D: Viewpoint Information Sheet - Viewpoint 30

Sheet 19 of 36



Existing Conditions



Simulation

Viewpoint: 33

Photograph Information

Date: March 14, 2018

Time: 3:56 PM

Camera Properties

Camera Make/Model: Nikon D7100

Focal Length: 36.7 mm (56.2 mm)

View Location Information

Location: View from the intersection of Road 52 and Road 59

Township: Benton

County/State: Paulding, Ohio

Direction of View: Northeast

Camera Elevation: 755.62 ft

Latitude: 41.04014300° N

Longitude: 84.68806400° W

Landscape Similarity Zone: Rural Residential/Agricultural

Viewer Type: Local Residents, Through Travelers/Commuters

Sensitive Site: N/A

Distance Zone: Midground

Nearest Turbine In View: 1.0 Miles

Project Information

Model: Nordex/Acciona N149 4.5

Turbine Output: 4.5 MW

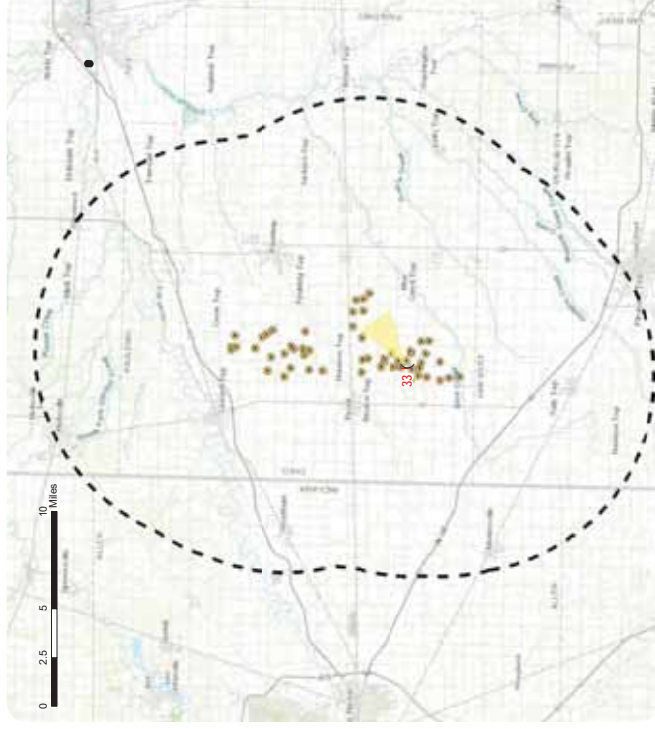
Hub Height: 358 ft (109 m)

Rotor Diameter: 489 ft (149 m)

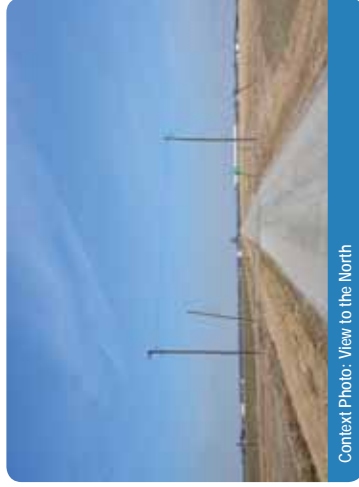
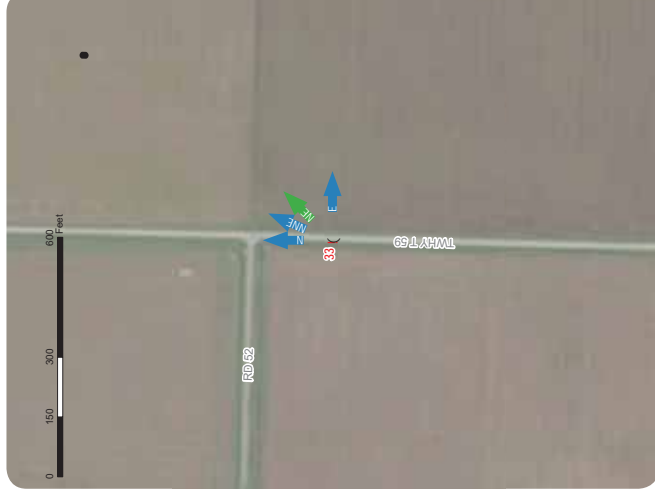
Maximum Height (AGL): 602 ft (183.5 m)

Number of Turbines in Project: 54 Turbines

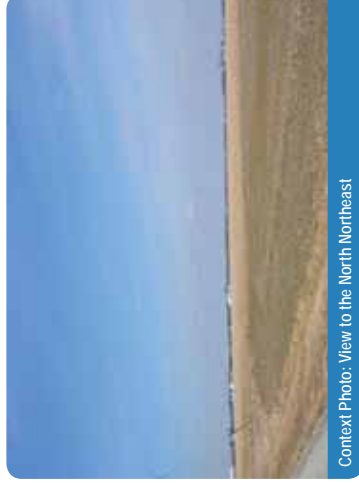
Viewpoint Location



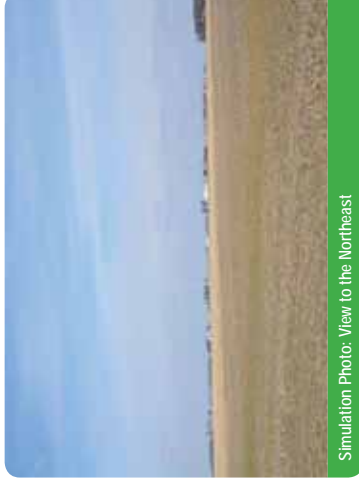
Viewpoint Context



Context Photo: View to the North



Context Photo: View to the North Northeast



Simulation Photo: View to the Northeast



Context Photo: View to the East

Timber Road IV Wind Farm

Benton, Blue Creek, Crane, Harrison, and Paulding Townships, Paulding County, Ohio

Appendix D: Viewpoint Information Sheet - Viewpoint 33

Sheet 22 of 36



Existing Conditions





Simulation

Viewpoint: 34

Photograph Information

Date: March 14, 2018
Time: 3:59 PM

View Location Information

Location: View from Road 59
Township: Benton
County/State: Paulding, Ohio
Direction of View: Southeast
Camera Elevation: 754.88 ft
Latitude: 41.04322300° N
Longitude: 84.68805100° W

Landscape Similarity Zone: Rural Residential/Agricultural

Viewer Type: Local Residents, Through Travelers/Commuters
Sensitive Site: N/A
Distance Zone: Foreground
Nearest Turbine In View: 0.3 Miles

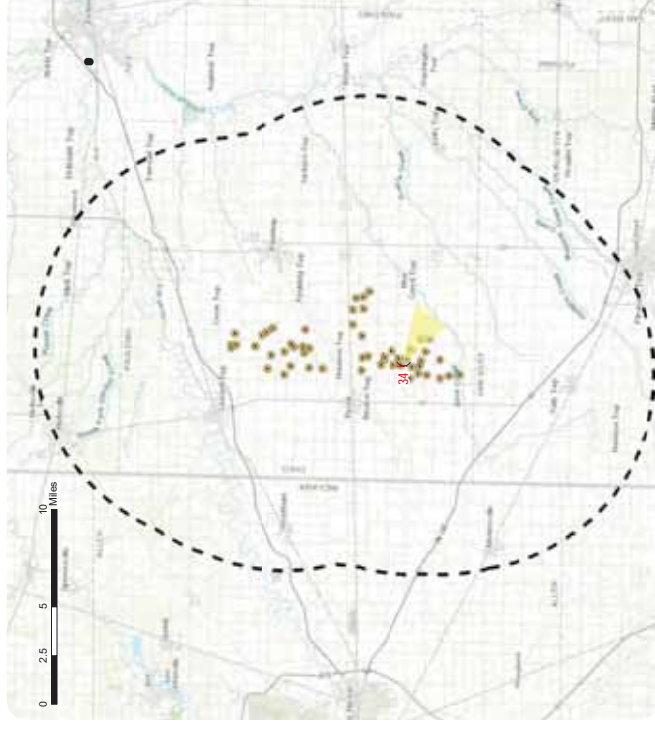
Camera Properties

Camera Make/Model: Nikon D7100
Focal Length: 37.2 mm (57 mm)

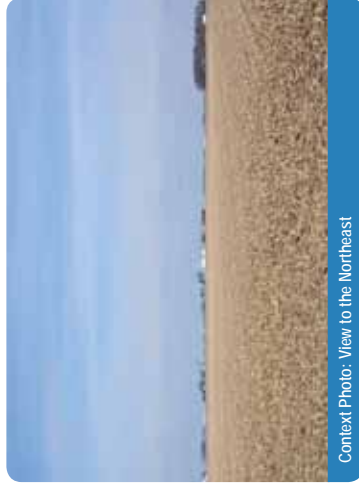
Project Information

Model: Nordex/Acciona N149 4.5
Turbine Output: 4.5 MW
Hub Height: 358 ft (109 m)
Rotor Diameter: 489 ft (149 m)
Maximum Height (AGL): 602 ft (183.5 m)
Number of Turbines in Project: 54 Turbines

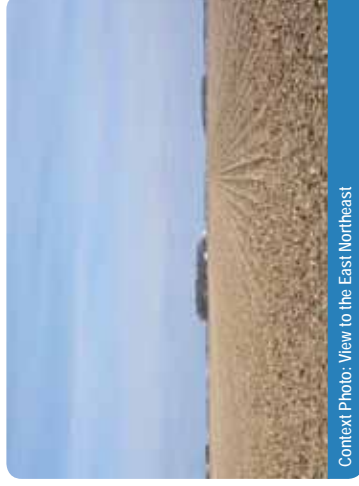
Viewpoint Location



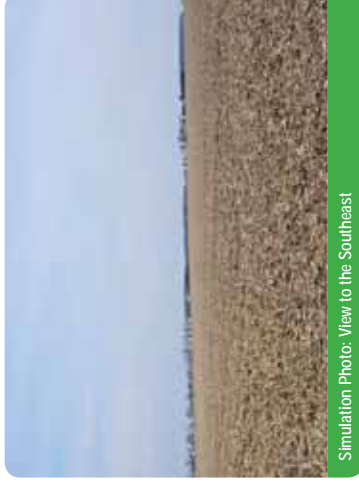
Viewpoint Context



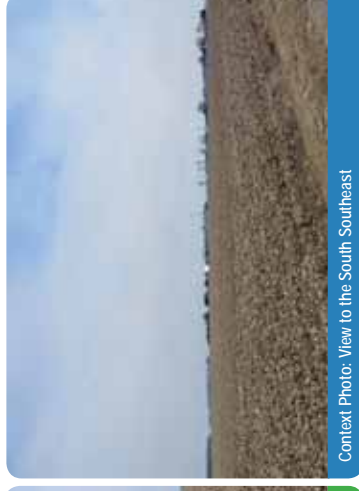
Context Photo: View to the Northeast



Context Photo: View to the East Northeast



Simulation Photo: View to the Southeast



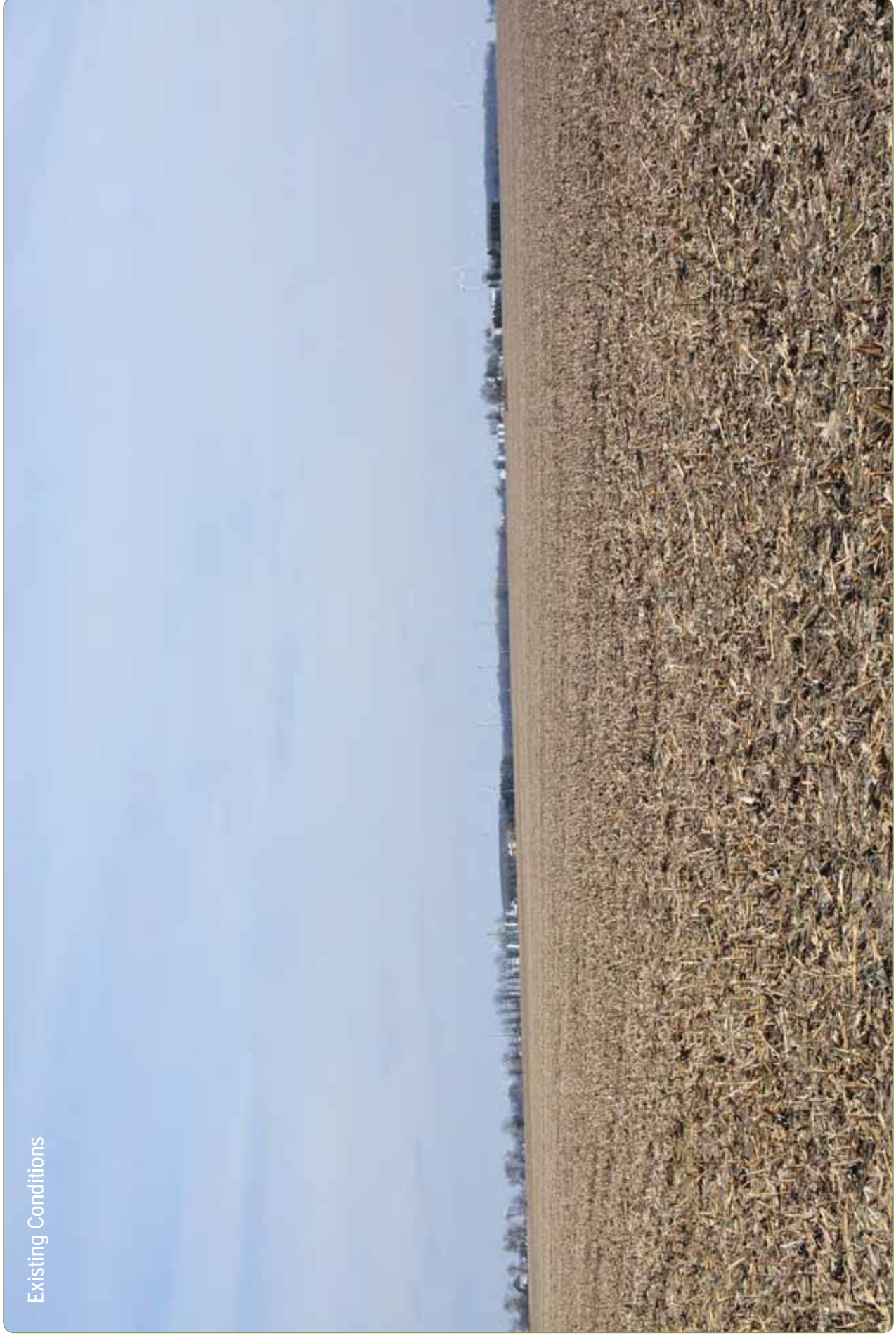
Context Photo: View to the South Southeast

Timber Road IV Wind Farm

Benton, Blue Creek, Crane, Harrison, and Paulding Townships, Paulding County, Ohio

Appendix D: Viewpoint Information Sheet - Viewpoint 34

Sheet 25 of 36



Existing Conditions



Viewpoint: 44

Photograph Information

Date: March 14, 2018

Time: 7:23 PM

View Location Information

Location: United State Route 30 (Ohio Lincoln Highway Historic Byway)

Township: Tully

County, State: Van Wert, Ohio

Direction of View: Northeast

Camera Elevation: 781.78 ft

Latitude: 40 98814400° N

Longitude: 84.78177800° W

Landscape Similarity Zone: Suburban Residential, Transportation Corridor

Viewer Type: Local Residents, Through Travelers/Commuters

Sensitive Site: United State Route 30 (Ohio Lincoln Highway Historic Byway)

Distance Zone: Background

Nearest Turbine In View: 4.5 Miles

Camera Properties

Camera Make/Model: Nikon D7100

Focal Length: 35.3 mm (54.1 mm)

Project Information

Model: Nordex/Acciona N149 4.5

Turbine Output: 4.5 MW

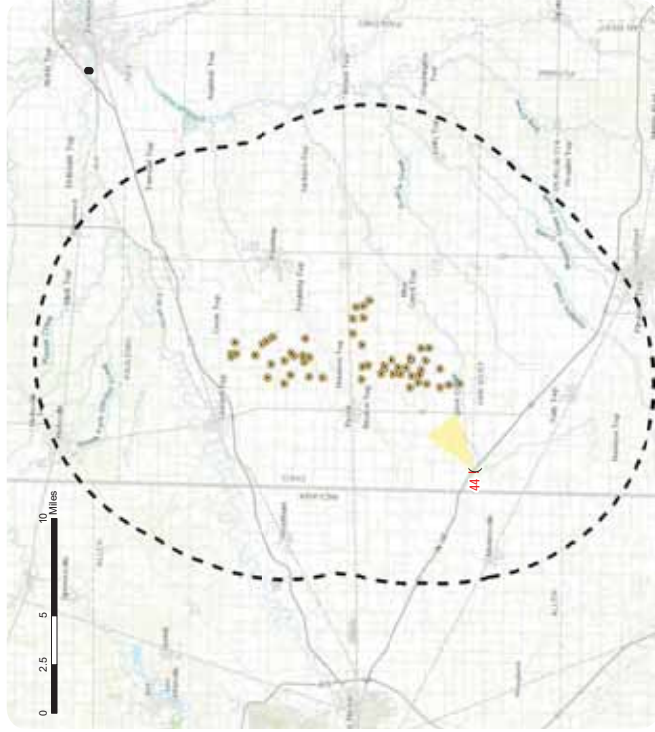
Hub Height: 358 ft (109 m)

Rotor Diameter: 489 ft (149 m)

Maximum Height (AGL): 602 ft (183.5 m)

Number of Turbines in Project: 54 Turbines

Viewpoint Location



Viewpoint Context



Context Photo: View to the North Northeast



Context Photo: View to the Northeast



Simulation Photo: View to the Northeast



Context Photo: View to the East Northeast

Timber Road IV Wind Farm

Benton, Blue Creek, Crane, Harrison, and Paulding Townships, Paulding County, Ohio

Appendix D: Viewpoint Information Sheet - Viewpoint 44

Sheet 28 of 36



Existing Conditions



Simulation

Viewpoint: 46

Photograph Information

Date: March 15, 2018

Time: 9:57 AM

View Location Information

Location: View from Edgewood derby grandstand

Township: Tully

County, State: Van Wert, Ohio

Direction of View: North Northeast

Camera Elevation: 799.21 ft

Latitude: 40.92595900° N

Longitude: 84.71137400° W

Landscape Similarity Zone: Suburban Residential

Viewer Type: Local Residents, Tourists/Recreational Users

Sensitive Site: Edgewood Park

Distance Zone: Background

Nearest Turbine In View: 5.2 Miles

Camera Properties

Camera Make/Model: Nikon D7100

Focal Length: 36.3 mm (55.6 mm)

Project Information

Model: Nordex/Acciona N149 4.5

Turbine Output: 4.5 MW

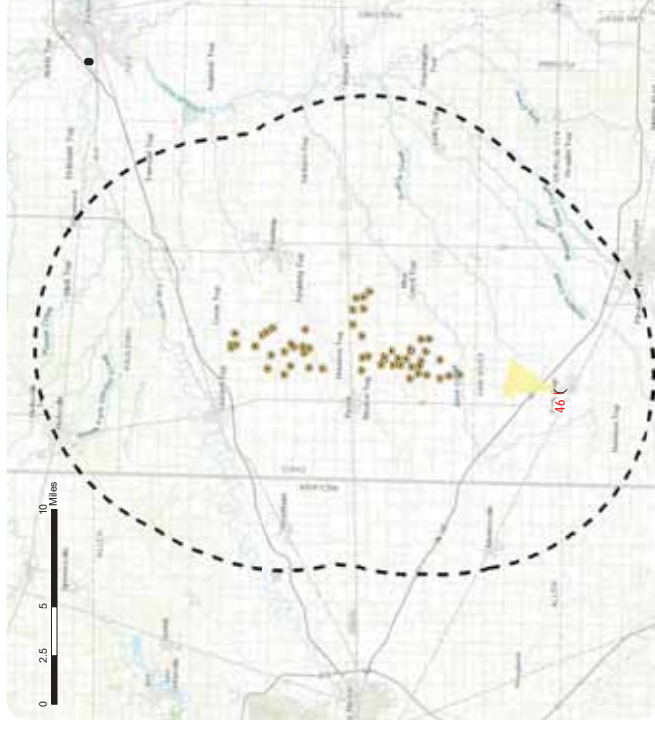
Hub Height: 358 ft (109 m)

Rotor Diameter: 489 ft (149 m)

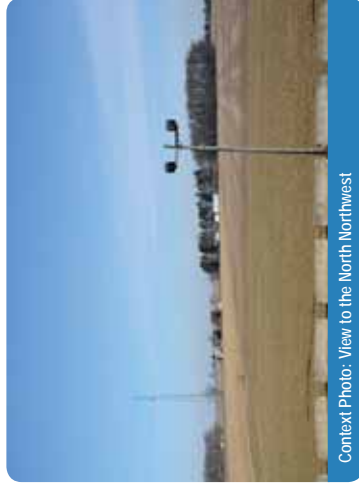
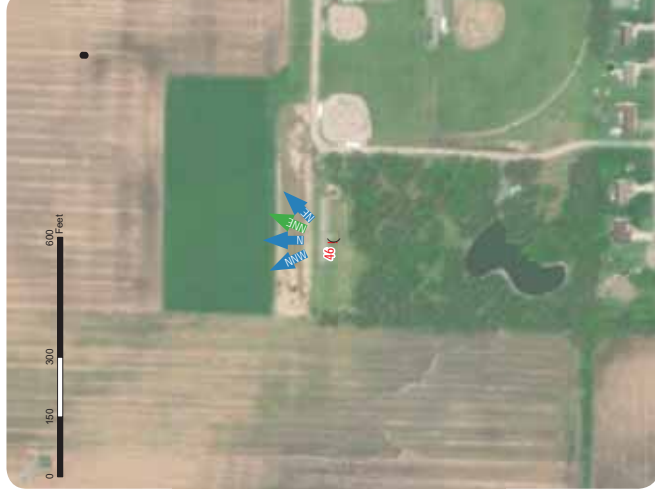
Maximum Height (AGL): 602 ft (183.5 m)

Number of Turbines in Project: 54 Turbines

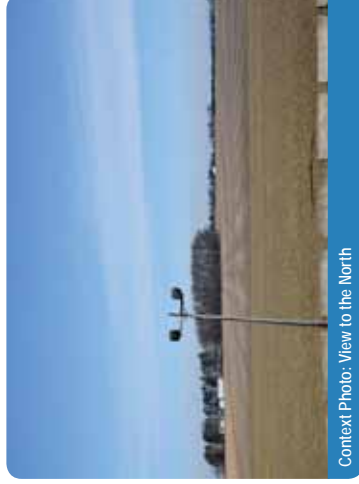
Viewpoint Location



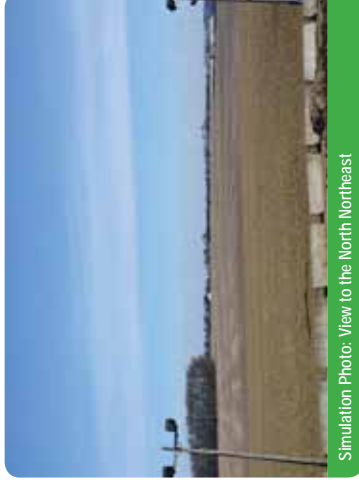
Viewpoint Context



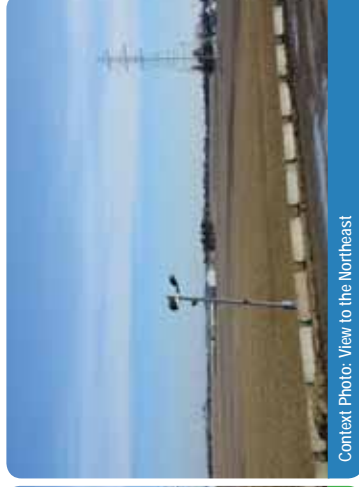
Context Photo: View to the North Northwest



Context Photo: View to the North



Simulation Photo: View to the North Northeast



Context Photo: View to the Northeast

Timber Road IV Wind Farm

Benton, Blue Creek, Crane, Harrison, and Paulding Townships, Paulding County, Ohio

Appendix D: Viewpoint Information Sheet - Viewpoint 46

Sheet 31 of 36



Existing Conditions



Simulation

Viewpoint: 64

Photograph Information

Date: March 15, 2018

Time: 12:56 PM

Camera Properties

Camera Make/Model: Nikon D7100

Focal Length: 30.85 mm (47.3 mm)

View Location Information

Location: View from Road 1 (State Line Road)

Township: Harrison

County/State: Paulding, Ohio

Direction of View: East

Camera Elevation: 751.99 ft

Latitude: 41.13829800° N

Longitude: 84.80343800° W

Landscape Similarity Zone: Rural Residential/Agricultural

Viewer Type: Local Residents, Through Travelers/Commuters

Sensitive Site: N/A

Distance Zone: Background

Nearest Turbine In View: 5.3 Miles

Project Information

Model: Nordex/Acciona N149 4.5

Turbine Output: 4.5 MW

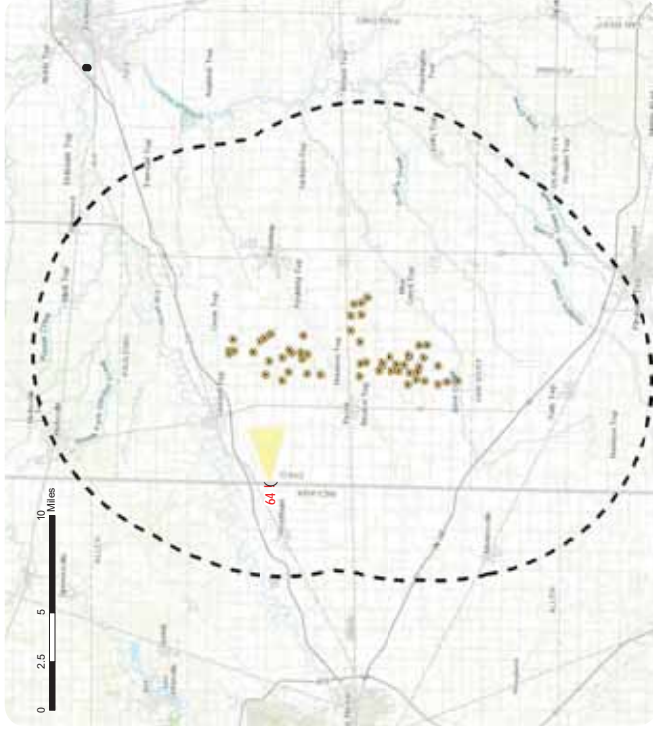
Hub Height: 358 ft (109 m)

Rotor Diameter: 489 ft (149 m)

Maximum Height (AGL): 602 ft (183.5 m)

Number of Turbines in Project: 54 Turbines

Viewpoint Location



Viewpoint Context



Context Photo: View to the Northeast



Context Photo: View to the East Northeast



Simulation Photo: View to the East



Context Photo: View to the Southeast

Timber Road IV Wind Farm

Benton, Blue Creek, Crane, Harrison, and Paulding Townships, Paulding County, Ohio

Appendix D: Viewpoint Information Sheet - Viewpoint 64

Sheet 34 of 36



Existing Conditions



Simulation

Timber Road IV Wind Farm

Benton, Blue Creek, Crane, Hartson, and Paulding Townships, Paulding County, Ohio

Appendix D: Viewpoint Information Sheet - Viewpoint 64

Exhibit FF

Appendix E – Typical Underground Collection System Photos

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Date Filed: July 2, 2018



Photo 01

Buried interconnect installation



Photo 02

Typical trench associated with buried interconnect installation

Timber Road IV Wind Farm

Benton, Blue Creek, Crane, Harrison, and Paulding Townships, Paulding County, Ohio

Appendix E: Typical Construction Photographs for Wind Energy Projects

Sheet 1 of 2



Photo 03

In-progress restoration of buried interconnect impact

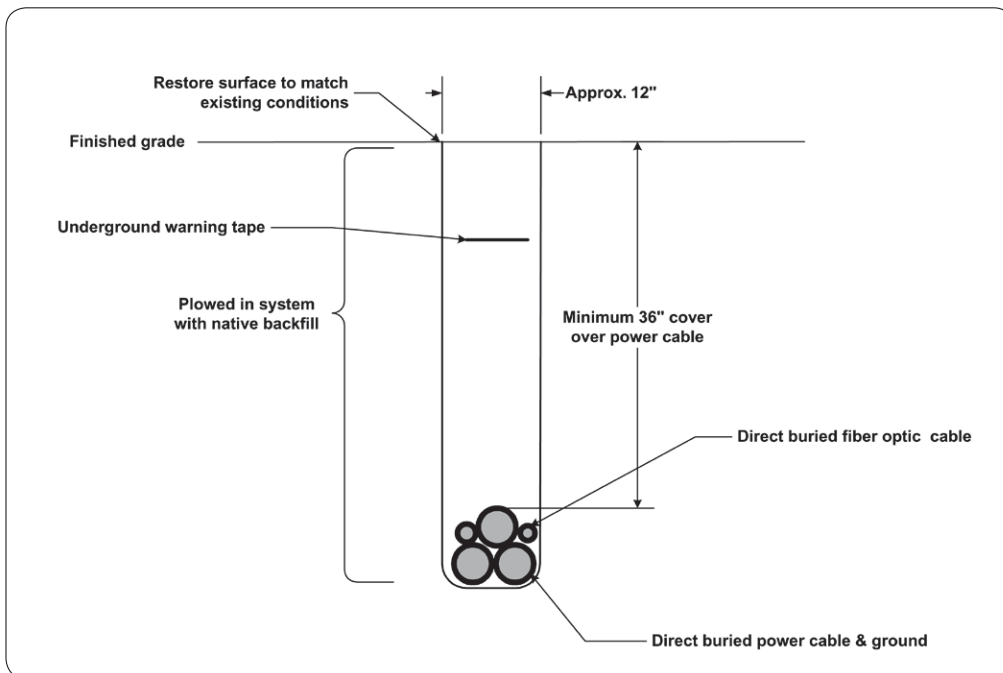


Photo 04

Buried interconnect typical detail

Timber Road IV Wind Farm

Benton, Blue Creek, Crane, Harrison, and Paulding Townships, Paulding County, Ohio

Appendix E: Typical Construction Photographs for Wind Energy Projects

Sheet 2 of 2

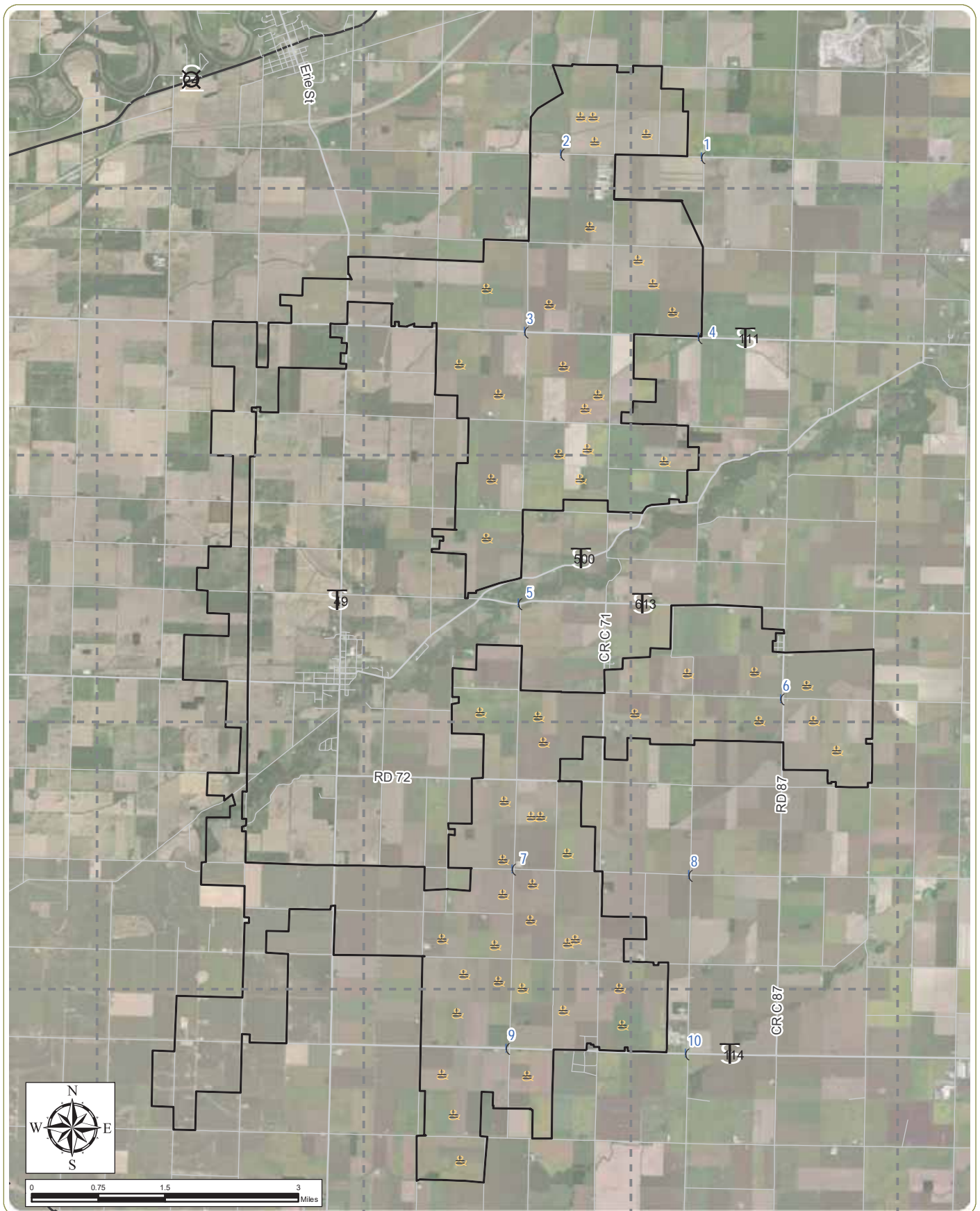
Exhibit FF

Appendix F – 360 Project Renderings

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Timber Road IV Wind Farm

Benton, Blue Creek, Crane, Harrison, and
Paulding Townships, Paulding County, Ohio

Appendix F: Project Rendering Locations - Sheet 1 of 11

Notes: 1. Basemap: ESRI ArcGIS Online "World Imagery" map service. 2. This map was generated in ArcMap on June 22, 2018. 3. This is a color graphic. Reproduction in grayscale may misrepresent the data.

-  Rendering Viewpoint Location
-  Wind Turbine
-  3-Mile Project Area Grid
-  Project Boundary



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Project Rendering 1

View Location Information:

Location:.....Corner of Road 83 and 162
 County:.....Paulding
 Township:.....Crane and Paulding Township Line
 Latitude:.....41.16481366° N
 Longitude:.....-84.65102499° W
 Elevation:.....726.9 Feet

Camera Properties:

Camera Lens:.....50mm
 Camera Type:.....Autodesk 3D Max Target Camera

Project Information:

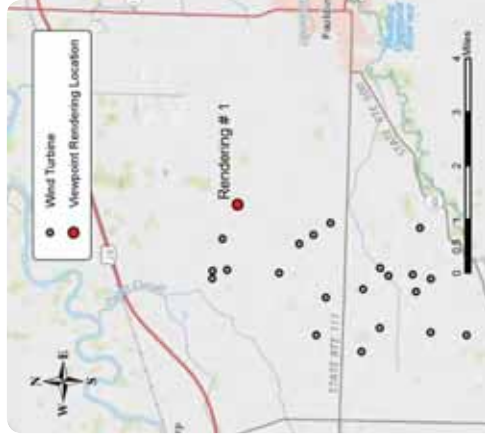
Lidar Data:.....2006 OSIP Digital LIDAR
 Turbine Blade Tip Height:.....183.5 Meters (602 Feet)



Simulation Photo: View to the North (No Turbines Visible)



Simulation Photo: View to the East (No Turbines Visible)



Viewpoint Location Map



Simulation Photo: View to the South



Simulation Photo: View to the West

Project Rendering 2

View Location Information:

Location:.....Road 162
 County:.....Paulding
 Township:.....Crane and Paulding Township Line
 Latitude:.....41.16471532° N
 Longitude:.....-84.68138632° W
 Elevation:.....728.345 Feet

Camera Properties:

Camera Lens:.....50mm
 Camera Type:.....Autodesk 3D Max Target Camera

Project Information:

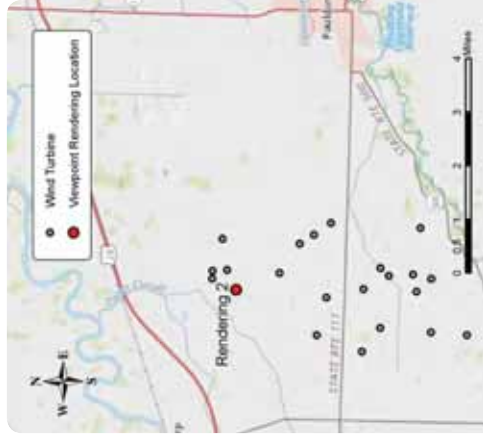
Lidar Data:.....2007 OSIP Digital LIDAR
 Turbine Blade Tip Height:.....183.5 Meters (602 Feet)



Simulation Photo: View to the North (No Turbines Visible)



Simulation Photo: View to the East



Viewpoint Location Map



Simulation Photo: View to the South



Simulation Photo: View to the West

Project Rendering 3

View Location Information:

Location:.....Corner of Road 61 and State Route 111
 County:.....Paulding
 Township:.....Paulding and Harrison Township Line
 Latitude:.....41.13567460° N
 Longitude:.....-84.68828323° W
 Elevation:.....733.081 Feet

Camera Properties:

Camera Lens:.....50mm
 Camera Type:.....Autodesk 3D Max Target Camera

Project Information:

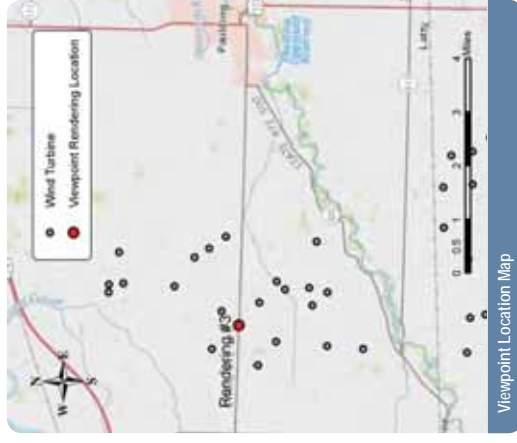
Lidar Data:.....2008 OSIP Digital LIDAR
 Turbine Blade Tip Height:.....183.5 Meters (602 Feet)



Simulation Photo: View to the North



Simulation Photo: View to the East



Viewpoint Location Map



Simulation Photo: View to the South



Simulation Photo: View to the West

Project Rendering 4

View Location Information:

Location:.....Corner of State Route 111 and Road 83
 County:.....Paulding
 Township:.....Paulding
 Latitude:.....41.13543961° N
 Longitude:.....-84.65069530° W
 Elevation:.....724.408 Feet

Camera Properties:

Camera Lens:.....50mm
 Camera Type:.....Autodesk 3D Max Target Camera

Project Information:

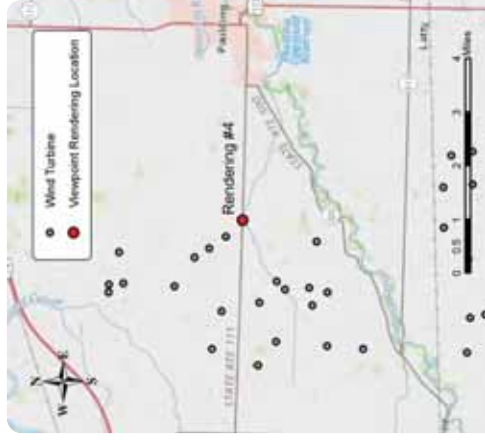
Lidar Data:.....2009 OSIP Digital LIDAR
 Turbine Blade Tip Height:.....183.5 Meters (602 Feet)



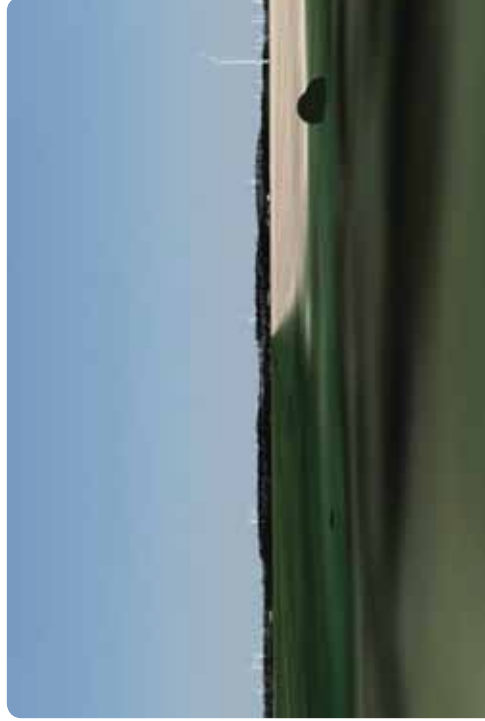
Simulation Photo: View to the North



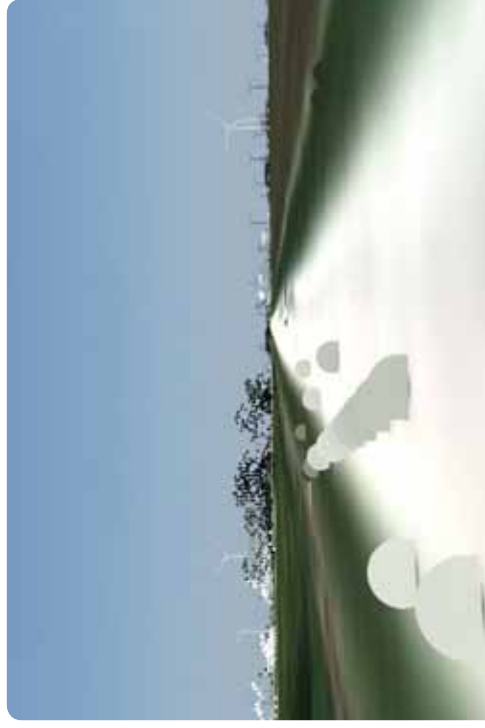
Simulation Photo: View to the East (No Turbines Visible)



Viewpoint Location Map



Simulation Photo: View to the South



Simulation Photo: View to the West

Project Rendering 5

View Location Information:

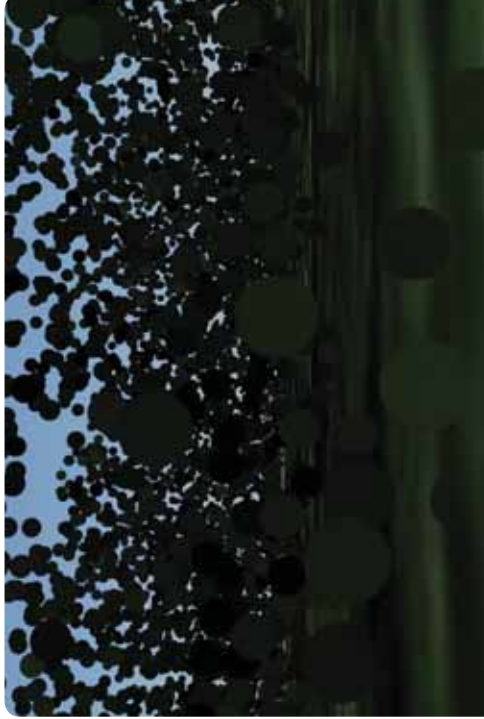
Location: Corner of Road 59 and State Route 613
 County: Paulding
 Township: Paulding and Harrison Township Line
 Latitude: 41.09135529° N
 Longitude: -84.68808133° W
 Elevation: 731.626 Feet

Camera Properties:

Camera Lens: 50mm
 Camera Type: Autodesk 3D Max Target Camera

Project Information:

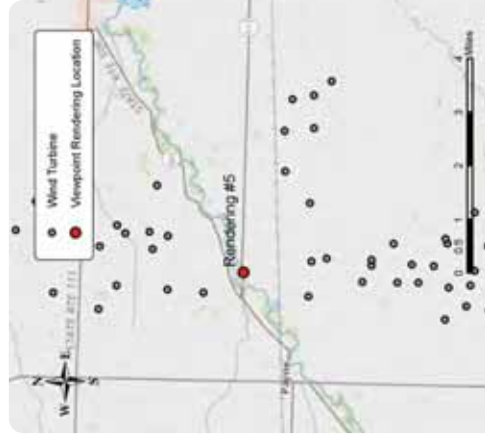
Lidar Data: 2010 OSIP Digital LIDAR
 Turbine Blade Tip Height: 183.5 Meters (602 Feet)



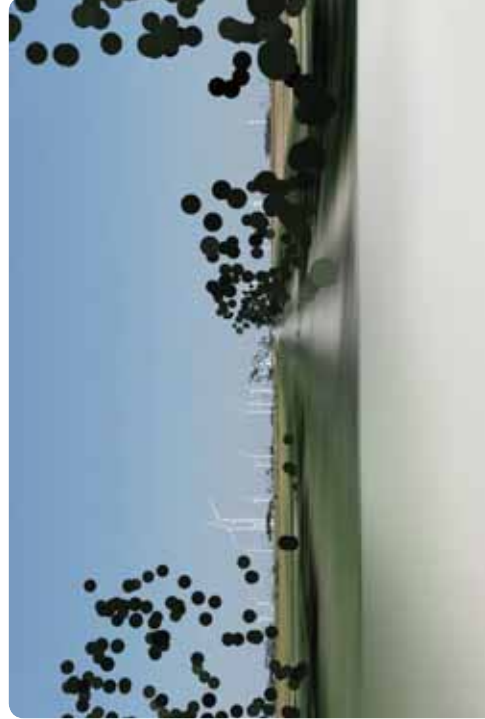
Simulation Photo: View to the North (No Turbines Visible)



Simulation Photo: View to the East



Viewpoint Location Map



Simulation Photo: View to the South



Simulation Photo: View to the West (No Turbines Visible)

Project Rendering 6

View Location Information:

Location:.....Corner of Road 87 and Road 82
 County:.....Paulding
 Township:.....Paulding and Blue Creep Township Line
 Latitude:.....41.07686542° N
 Longitude:.....-84.63111665° W
 Elevation:.....734,579 Feet

Camera Properties:

Camera Lens:.....50mm
 Camera Type:.....Autodesk 3D Max Target Camera

Project Information:

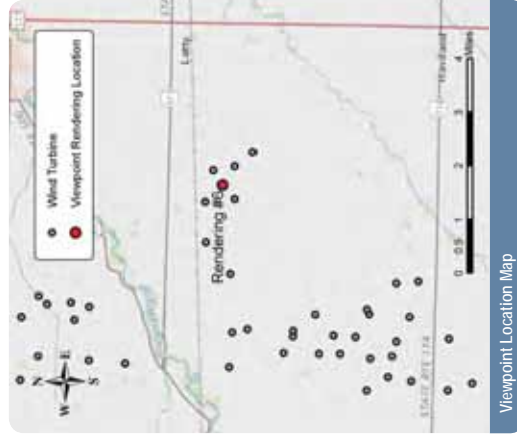
Lidar Data:.....2011 OSIP Digital LIDAR
 Turbine Blade Tip Height:.....183.5 Meters (602 Feet)



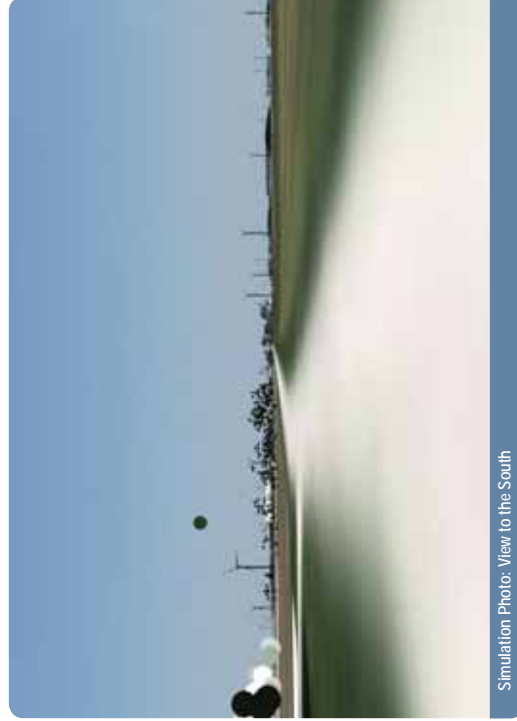
Simulation Photo: View to the North



Simulation Photo: View to the East



Viewpoint Location Map



Simulation Photo: View to the South



Simulation Photo: View to the West

Project Rendering 7

View Location Information:

Location:.....Corner of Road 60 and Road 59
 County:.....Paulding
 Township:.....Blue Creek and Benton Township Line
 Latitude:.....41.04800282° N
 Longitude:.....-84.68799326° W
 Elevation:.....744.421 Feet

Camera Properties:

Camera Lens:.....50mm
 Camera Type:.....Autodesk 3D Max Target Camera

Project Information:

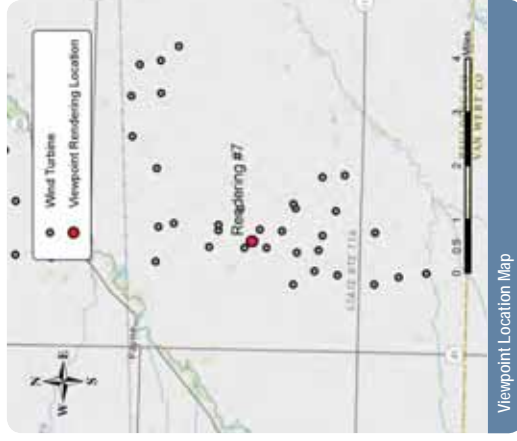
Lidar Data:.....2012 OSIP Digital LIDAR
 Turbine Blade Tip Height:.....183.5 Meters (602 Feet)



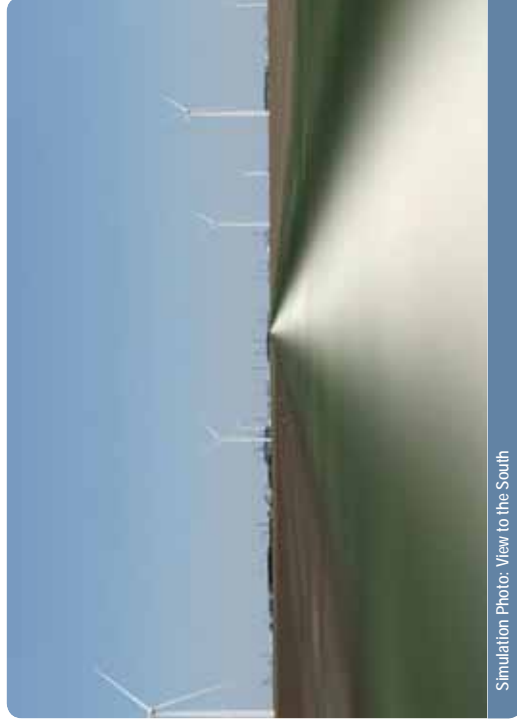
Simulation Photo: View to the North



Simulation Photo: View to the East



Viewpoint Location Map



Simulation Photo: View to the South



Simulation Photo: View to the West

Project Rendering 8

View Location Information:

Location:.....Corner of Road 79 and Road 60
 County:.....Paulding
 Township:.....Blue Creek
 Latitude:.....41.04783083° N
 Longitude:.....-84.65000097° W
 Elevation:.....739.2 Feet

Camera Properties:

Camera Lens:.....50mm
 Camera Type:.....Autodesk 3D Max Target Camera

Project Information:

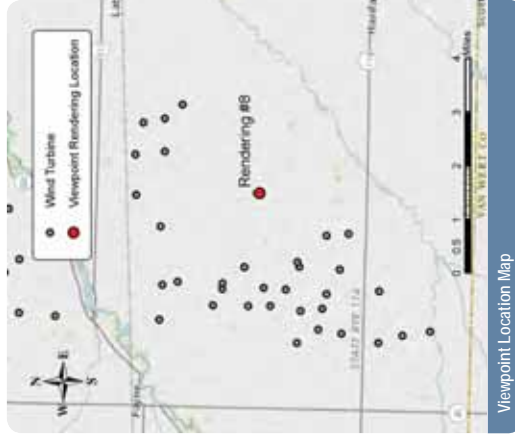
Lidar Data:.....2013 OSIP Digital LIDAR
 Turbine Blade Tip Height:.....183.5 Meters (602 Feet)



Simulation Photo: View to the North



Simulation Photo: View to the East



Viewpoint Location Map



Simulation Photo: View to the South



Simulation Photo: View to the West

Project Rendering 9

View Location Information:

Location:.....Corner of Road 59 and State Route 114
 County:.....Paulding
 Township:.....Blue Creek and Benton Township Line
 Latitude:.....41.01883544° N
 Longitude:.....-84.68843221° W
 Elevation:.....744.421 Feet

Camera Properties:

Camera Lens:.....50mm
 Camera Type:.....Autodesk 3D Max Target Camera

Project Information:

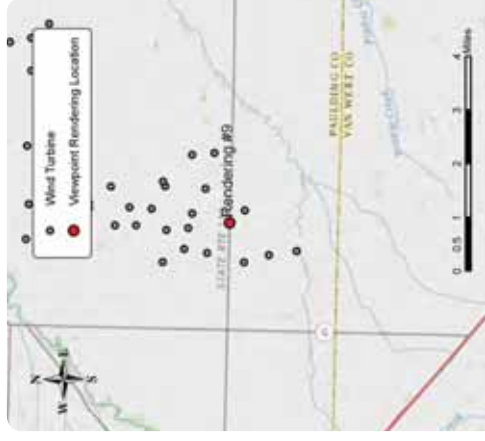
Lidar Data:.....2014 OSIP Digital LIDAR
 Turbine Blade Tip Height:.....183.5 Meters (602 Feet)



Simulation Photo: View to the North



Simulation Photo: View to the East



Viewpoint Location Map



Simulation Photo: View to the South



Simulation Photo: View to the West

Project Rendering 10

View Location Information:

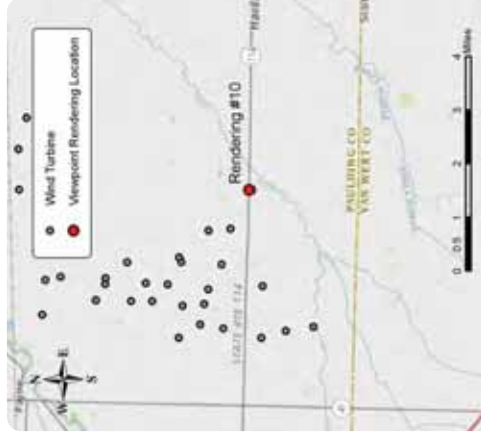
Location:.....Corner of Road 79 and State Route 114
 County:.....Paulding
 Township:.....Blue Creek
 Latitude:.....41.01865974° N
 Longitude:.....-84.64967993° W
 Elevation:.....744.421 Feet

Camera Properties:

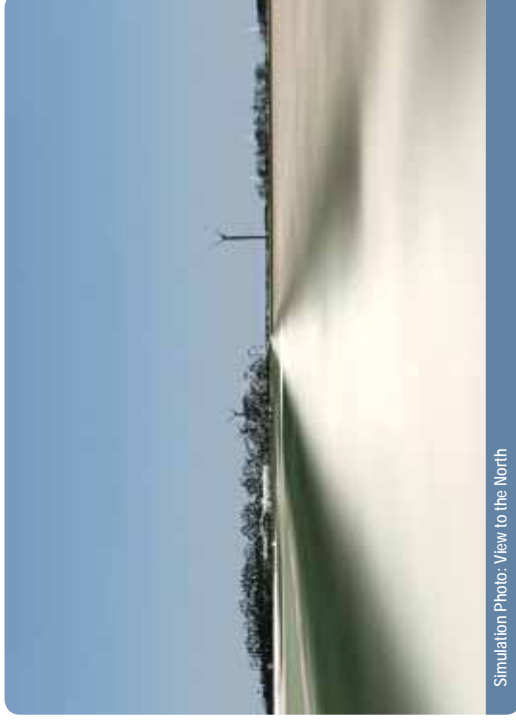
Camera Lens:.....50mm
 Camera Type:.....Autodesk 3D Max Target Camera

Project Information:

Lidar Data:.....2015 OSIP Digital LIDAR
 Turbine Blade Tip Height:.....183.5 Meters (602 Feet)



Viewpoint Location Map



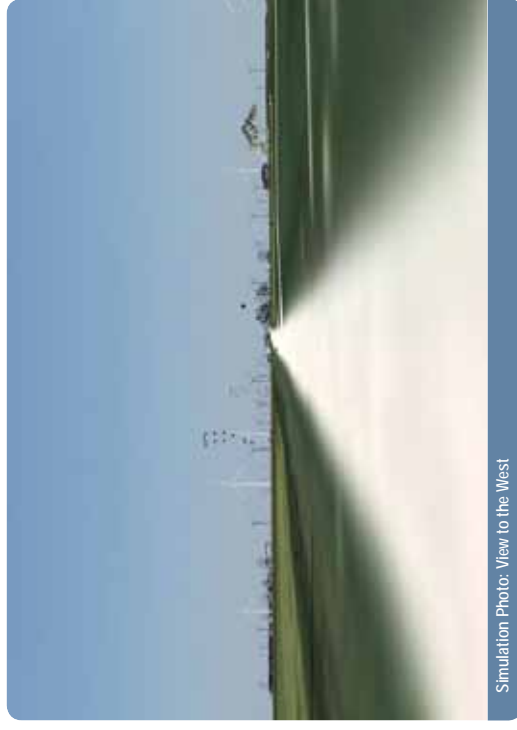
Simulation Photo: View to the North



Simulation Photo: View to the East



Simulation Photo: View to the South



Simulation Photo: View to the West

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in

Case No(s). 18-0091-EL-BGN

Summary: Application – Part 11 of 11 – Exhibits FF electronically filed by Christine M.T. Pirik
on behalf of Paulding Wind Farm IV LLC