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April 1, 2021

Via Electronic Filing

Ms. Tanowa Troupe Administration/Docketing Ohio Power Siting Board 180 East Broad Street, 11<sup>th</sup> Floor Columbus, Ohio 43215-3793

# Re: Willowbrook Solar I, LLC, OPSB Case No. 18-1024-EL-BGN

Dear Ms. Troupe:

On April 4, 2019, the Ohio Power Siting Board issued an Opinion, Order, and Certificate ("Certificate") approving the Willowbrook Solar I, LLC ("Willowbrook") Certificate of Environmental Compatibility and Public Need subject to a set of conditions.

Within this set of conditions, Condition No. 9 requires Willowbrook to prepare a Phase I cultural resources survey program for the Project area in consultation with the Ohio Power Siting Board Staff and the Ohio Historic Preservation Office ("OHPO"). In compliance with Condition No. 9, attached is a copy of the Reconnaissance-Level Historic Resources Survey (Attachment 1) and the March 25, 2021 response from OHPO (Attachment 2).

If you have any questions please do not hesitate to contact me.

Sincerely,

Dylan F. Borchers

Attachments

# **Reconnaissance-Level Historic Resources Survey**

# Willowbrook Solar Project

White Oak and Concord Townships, Highland County Eagle Township, Brown County

2018-HIG-43051

Prepared for: **RWE** 353 North Clark Street, 30<sup>th</sup> floor Chicago, IL 60654 <u>https://www.group.rwe/en</u>

Prepared by:



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# **PROJECT ABSTRACT**

| Involved State and Federal Agencies:                    | Ohio Historic Preservation Office (OHPO)<br>Ohio Power Siting Board (OPSB)   |  |  |  |
|---|--|--|--|--|
| Phase of Survey:  | Reconnaissance-Level Historic Resources Survey   |  |  |  |
| Project Location Information:                           | White Oak and Concord Townships, Highland County and Eagle Township, Brown County, Ohio  |  |  |  |
| Project Description:                                    | A utility-scale solar energy facility consisting of ground-mounted photovoltaic arrays and associated infrastructure.  |  |  |  |
| Project Area:   | An approximately 2,292-acre area of parcels containing all components of the Project.  |  |  |  |
| Historic Resources Study Area:                          | Areas within a 0.5-mile radius of the Project Area including portions of White Oak and Concord Townships, Highland County and Eagle Township, Brown County, Ohio.  |  |  |  |
| Area of Potential Effect (APE)<br>for Indirect Effects: | Areas with potential visibility of the Project (per the viewshed analysis) within the Historic Resources Study Area.   |  |  |  |
| USGS 7.5-Minute Quadrangle Maps:                        | Sugar Tree Ridge, Ohio   |  |  |  |
| Historic Resources Survey Overview:                     | A total of 46 resources were evaluated.  |  |  |  |
|   | No newly surveyed resources were identified which EDR is recommending as eligible for listing in the National Register of Historic Places (NRHP).  |  |  |  |
|   | No previously identified resources recorded in the Ohio Historic Inventory   |  |  |  |
|   | (OFI) are located within the APE for indirect Effects.   |  |  |  |
|   | There is one Ohio Genealogical Society (OGS) cemetery within the APE for Indirect Effects. EDR recommends that the OGS cemetery is not eligible for listing on the NRHP.   |  |  |  |
| Report Authors:   | There is one Ohio Genealogical Society (OGS) cemetery within the APE<br>for Indirect Effects. EDR recommends that the OGS cemetery is not<br>eligible for listing on the NRHP.<br>Michael Kenneally  |  |  |  |
| Report Authors:<br>Acknowledgements:                    | <ul> <li>(OH) are located within the APE for indirect Elects.</li> <li>There is one Ohio Genealogical Society (OGS) cemetery within the APE for Indirect Effects. EDR recommends that the OGS cemetery is not eligible for listing on the NRHP.</li> <li>Michael Kenneally</li> <li>Kristen Koehlinger, Ohio Historic Preservation Office</li> </ul> |  |  |  |

# 1.0 INTRODUCTION

# 1.1 Purpose of the Survey

On behalf of RWE (the Applicant), Environmental Design & Research, Landscape Architecture, Engineering, & Environmental Services, D.P.C. (EDR) prepared this reconnaissance-level historic resources survey for the proposed Willowbrook Solar Project (the Project), located in White Oak and Concord Townships, Highland County and Eagle Township, Brown County, Ohio (see Figure 1). This historic resources survey was conducted as part of a review of the Project by the Ohio Power Siting Board (OPSB) under Section 4906.06 of the Ohio Revised Code and Chapters 4906-4-01 to 4906-4-09 of the Ohio Administrative Code (OAC). Chapter 4906-04-08(D)(1) of the OAC requires the OPSB to take cultural resources into consideration as part of the application filing requirements for solar-powered electric generation facilities which directs that an Applicant must include identification of historic landmarks located within 10 miles of the proposed Project.

The information and recommendations included in this report are intended to assist the Ohio State Historic Preservation Office (OHPO) with their review of the Project. The purpose of this reconnaissance-level historic resources survey is to identify historic resources that appear to satisfy National Register Criteria for Evaluation (NPS, 1990) within areas where the Project may result in indirect impacts on historic resources, such as visual effects. All historic resources studies undertaken by EDR in association with the Project have been conducted by professionals who satisfy the qualifications criteria per the Secretary of the Interior's Standards for Historic Preservation (36 CFR 61; CFR, 2004) Resumes of EDR staff are included as Appendix A. The field survey was conducted in accordance with the Ohio Historic Preservation Office's *Guidelines for Conducting History/Architecture Surveys in Ohio* (hereafter, OHPO *Survey Guidelines*; OHPO, 2014) and the Survey Research Design included in the *Historic Resources Survey Design Proposal: Willowbrook Solar Project* (EDR, 2019).

# 1.2 Report Organization

This report was written in accordance with the OHPO *Survey Guidelines* and the *Survey Report Submission Requirements* (OHPO, 2020), and includes the results of field investigation in narrative (written), graphic (mapping and photographs), and prescriptive formats (insets, figures, and appendices). The report is organized as follows:

 Section 1.0 (Introduction) provides the purpose of the survey, summary of report organization, Project location and description, summary of previous consultation with the OHPO, definitions of the Historic Resources Study Area and Area of Potential Effect (APE, defined in Section 1.5), and a summary of previously identified resources within the APE.

- Section 2.0 (Survey Design) includes a detailed statement of the survey's goals and objectives, the reconnaissance-level methodology used during the survey, criteria used for resource evaluation, and expected survey results.
- Section 3.0 (Setting and Historic Context) includes a description of historic research source materials, an
  environmental context description, and history of the Historic Resources Study Area focusing on themes of
  agriculture and transportation along with an account of the physical development of the Historic Resources
  Study Area.
- Section 4.0 (Results of Field Investigation) includes a description of conditions and constraints encountered while undertaking the survey, a summary of expected versus actual survey results, previously and newly identified historic resources, and resources that were not surveyed.
- Section 5.0 (Summary) concludes the report with the survey and effect analysis results and how identified historical resources meet or do not meet the National Register Criteria for Evaluation.
- Section 6.0 (References) includes full citations for sources consulted during the production of this report.
- Figures 1-6 follow Section 6.0 and include maps for regional project location, proposed facility layout, project area and APE for Indirect Effects, previously identified historic resources, USGS mapping, reconnaissancelevel survey results, and photograph locations.
- Appendices A-D follow the figures and include resumes of involved staff, correspondence with OHPO, photographs of surveyed resources, and representative photographs of resources that do not appear to meet NRHP eligibility criteria.

# **1.3 Project Location and Description**

The Willowbrook Solar Project is a proposed utility-scale solar energy facility located in White Oak and Concord Townships, Highland County and Eagle Township, Brown County, Ohio (see Figure 1). The Project will consist of the construction, operation and decommissioning of solar panels mounted on metal racking, inverters that will convert direct current (DC) electricity to alternating current (AC) electricity, including transformers to increase electric voltage, a network of racking-mounted panels and buried cables to collect the electricity, a substation, a short 138 kV transmission line (maximum 300 feet long), access roads, staging areas, and pyranometers to measure the solar resource. The total generating capacity of the Project will be up to 150 megawatts. The Project will occupy up to 1,726 acres of private land within a larger Project Area of approximately 2,292 acres (see Figure 2).

The following terms are used throughout the reconnaissance-level historic resources survey report:

| <u>Project</u> :                 | A utility-scale solar energy facility consisting of ground-mounted photovoltaic (PV) arrays<br>and associated infrastructure, located in White Oak and Concord Townships, Highland<br>County, and Eagle Township. Brown County, Ohio.   |
|----------------------------------|---|
| Project Area:                    | Those parcels within a contiguous geographic boundary that are currently under lease (or other real property interests) by the Applicant which contain all components of the Project and associated setbacks, consisting of approximately 2,292-acre area.  |
| Historic Resources Study Area:   | Areas within a 0.5-mile radius of the Project Area, which was determined by the OHPO (see Appendix A) including portions of White Oak and Concord Townships, Highland County, and Eagle Township, Brown County, Ohio.   |
| APE for Direct Effects:          | The Area for Potential Effect (APE) for Direct Effects is the buildable area containing all proposed soil disturbance associated with the Project. Construction of the Project will not require the demolition or physical alteration of any above-ground historic resources.   |
| <u>APE for Indirect Effects:</u> | The APE for Indirect Effects on above-ground historic resources includes those areas where the Project may result in non-physical effects, such as visual impacts. The APE for Indirect Effects is the portion of the Historic Resources Study Area that is within the potential Project viewshed (based on topography) within a 0.5-mile radius of the Project Area, per OHPO consultation (see Appendix A). |

# 1.4 OHPO Consultation

As part of the application for a Certificate of Environmental Compatibility and Public Need (Certificate application) to the OPSB for the proposed Willowbrook Solar Project, EDR prepared a *Cultural Resources Records Review*, submitted to the OHPO on September 21, 2018 (EDR, 2018a). The OHPO's response, dated December 4, 2018 recommended the preparation of a survey design and architecture-history survey with a prescribed one-half-mile radius survey area around the project area. The *Historic Resources Survey Design Proposal: Willowbrook Solar Project* was provided on October 3, 2019 (EDR, 2019) and OHPO responded on October 28, 2019 recommending the completion of a reconnaissance-level historic resources survey utilizing the agreed upon, one-half-mile study area. See Appendix A for complete correspondence.

# 1.5 Area of Potential Effect

Chapter 4906-04-08(D)(1) of the OAC requires the OPSB to take cultural resources into consideration as part of the application filing requirements for electric generation facilities and directs that a Certificate application must include identification of historic landmarks located within 10 miles of the proposed facility. EDR prepared and submitted the *Cultural Resources Records Review* (EDR, 2018a) and the *Visual Resource Assessment: Willowbrook Solar Project* (EDR, 2018b) to fulfill this requirement. The recommended survey area was decreased to one-half-mile per guidance from the OHPO.

The APE for Directs Effects for the Project is defined as all areas where potential soil disturbance (or other direct, physical impacts) is anticipated during construction of the Project. As the Project is planned to be constructed almost entirely on open land, and as construction of the Project will not require the demolition or physical alteration of any above-ground resources, no direct physical impacts to historic resources are anticipated to occur as a result of the Project.

The Project's potential indirect effect on historic resources would be a change (resulting from the introduction of solar panels or other Project components) in the historic resource's setting. This could theoretically consist of auditory and/or visual impacts; however, utility-scale solar facilities produce minimal noise, so auditory impacts resulting from the Project are not considered a significant type of impact to the setting of historic resources. Therefore, potential visual impacts associated with the Project are the relevant consideration for defining an APE for Indirect Effects.

In order to accurately determine the Project's APE for Indirect Effects, a preliminary viewshed analysis for the proposed solar panel arrays was prepared using Environmental Systems Research Institute (ESRI) ArcGIS® software with the Spatial Analyst extension. The viewshed analysis was based on a digital elevation model (DEM), which accounts only for the screening effects of topography, and not buildings or vegetation. The DEM used in this analysis was downloaded from the Ohio Geographically Referenced Information Program (OGRIP) for Highland and Brown Counties.

Through simulations prepared for several previous Ohio solar projects, EDR had determined that the practical limits of solar panel visibility end at approximately two miles due to their relatively low height (less than 15 feet). Even at distances closer to one mile, it is challenging for rows of panels installed on level ground to be discerned as such from the background and horizon. Furthermore, the visual effect of the substation is anticipated to be insignificant because the equipment will blend into the existing landscape from any open views beyond two miles and similar structures are common features of most landscapes. The generally flat topography in the area and absence of elevated vantage points further contributes to the lack of distant Project views more than one mile away.

The potential visual effects that could result from construction and operation of the Project's taller components associated with the substation (see Section 1.3) will be minimal. This is due to intentional project siting, combined with design, and visual character of the proposed equipment, which avoid visual impacts. The collection lines will be buried. The substation will be constructed adjacent to and immediately south of the POI substation. The transmission line will be less than 300 feet long and have limited visually prominent features dead-end structures that will be 20-25 feet tall. These components will be located directly adjacent to the existing transmission line and, as such, will blend with the

existing structures, thus minimizing any visual impact. From distances beyond one mile these limited structures of modest height will be difficult to discern on the landscape.

The substation will occupy 50,000 square feet and will have a maximum height of 70 feet. A fence will be installed around the perimeter of the substation. The substation will be located adjacent to the existing transmission line and set back at least 25 feet from the edge of right-of way of the public road. The locations of the substations are such that relatively few residences will have any meaningful view of them, except at a considerable distance. This placement minimizes the change in landscape character and, in turn, the visual impact and blend into the existing environment at only relatively short distances.

The tallest equipment within the proposed substation will be lightning masts, which are very narrow and expected to largely fall within the mature canopy of nearby hedgerows and forest stands. During leaf-off conditions the scale of the mast tip is similar in scale to the branching structure of the mature canopy allowing for the minimalization of impact throughout all seasons. The lower, more visually dominant components of the substation will be below the height of adjacent vegetation and will benefit from additional screening due to understory vegetation. Therefore, visibility and visual impact of the substation is anticipated to be localized and minor and are not anticipated to result in significant visual impacts.

Therefore, an appropriate APE for Indirect Effects for the Project includes those areas within the 0.5-mile Historic Resources Study Area, as proposed by the OHPO, with potential visibility of the Project as defined by the DEM viewshed results, and for its various components considering all maximum heights (see Figure 3). For a number of previous solar projects<sup>1</sup> in the state of Ohio, EDR and other firms have received approval to define the APE for Indirect Effects using the above methodologies.

# 1.6 Previously Identified Resources within the APE for Indirect Effects

EDR reviewed the OHPO Online Mapping System website (Ohio History Connection, 2020) to identify significant historic resources within the APE for Indirect Effects (see Figure 4). This review revealed a total of one previously identified resource located within or immediately adjacent to the APE for Indirect Effects:

• One Ohio Genealogical Society (OGS) cemetery (Roberts Cemetery #2, OGS 5360, in White Oak Township, Highland County, located 0.1-mile west of the Project Area).

<sup>&</sup>lt;sup>1</sup> Examples include Alamo Solar Project, Angelina Solar Project, and Clearview Solar Project, all completed in 2020.

No historic above-ground resource surveys have been conducted within the Study Area. No National Historic Landmarks (NHLs), resources listed in the NRHP, nor resources determined eligible for listing in the NRHP were identified within the Study Area. Furthermore, no designated Ohio Historic Inventory (OHI) sites nor designated Ohio Department of Transportation (ODOT) historic bridges are located within the Study Area.

# 2.0 SURVEY DESIGN

# 2.1 Survey Goals and Objectives

The goals of this reconnaissance-level historic resources survey are to identify resources within the APE that are potentially eligible for listing in the NRHP, and to provide updated photographs and recommendations of NRHP eligibility for the previously identified OGS cemetery within the APE for Indirect Effects (as described in Section 1.6).

# 2.2 Criteria for Evaluating the Significance of Historic Resources

Historically significant resources are defined herein to include buildings, districts, objects, structures and/or sites that have been listed in the NRHP, as well as those resources that the OHPO has formally determined are eligible for listing in the NRHP. Criteria set forth by the National Park Service (NPS) for evaluating historic resources (36 CFR 60.4) state that a historic building, district, object, structure, or site is significant (i.e., eligible for listing in the NRHP) if the resource conveys (CFR, 2004; NPS, 1990):

The quality of significance in American history, architecture, archeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association and:

- (A) that are associated with events that have made a significant contribution to the broad patterns of our history; or
- (B) that are associated with the lives of persons significant in our past; or
- (C) that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- (D) that have yielded, or may be likely to yield, information important in prehistory or history.

Cemeteries are considered eligible for the NRHP only if they independently meet NRHP Criterion D, are nominated along with a church that meets the NRHP criteria, are an integral part of an NRHP-eligible historic district, or meet the requirements of NRHP Criterion Consideration D. Under Criterion Consideration D, a cemetery is considered eligible if it "derives its primary significance from graves of persons of transcendent importance, from age, from distinctive design features, or from association with historic events" (NPS, 1990).

## 2.3 Survey Methodology

The Willowbrook Solar Project historic resources survey was conducted in accordance with the OHPO *Survey Guidelines* by professionals who satisfy the qualifications per the Secretary of the Interior's Standards for Historic

Preservation (36 CFR 61; CFR, 2004). EDR relied on survey methodologies outlined in the Historic Resources Survey Research Design within the *Historic Resources Survey Design Proposal: Willowbrook Solar Project* (EDR, 2019).

Site visits within the APE were conducted on December 21 and 22, 2020 to identify and photograph potential historic resources, with the goal of identifying and documenting those buildings, sites, structures, objects, and/or districts within the APE that, in the opinion of EDR's architectural historians, appear to satisfy NRHP eligibility criteria. In addition, the survey was conducted for the purpose of providing updated photographs and recommendations of eligibility for the previously identified OGS resource within the APE for Indirect Effects. EDR also photo-documented previously unidentified historic resources within the APE, that in the opinion of EDR's architectural historians, did not meet NRHP eligibility criteria, but appeared to be over 50 years old. The purpose of this effort was to assist the OHPO with its determination regarding "which resources warrant further investigation and which resources, due to a lack of integrity, architectural significance, etc., do not" (OHPO, 2018).

When resources that were not previously identified appeared to satisfy NRHP eligibility criteria (per Section 2.2) the existing conditions of the resource were documented. The condition and integrity of all resources were evaluated based solely on the visible exterior of the structures. Note that all properties included in the historic resources survey were assessed from public ROWs by driving public roads. This included photographs of buildings and associated property when necessary. Information describing the style, physical characteristics and materials (e.g., number of stories, plan, external siding, roof, foundation, and sash), condition, physical integrity, and other noteworthy characteristics for each resource was recorded by qualified architectural historians, based on the site photographs.

In those instances where the viewshed spanned the parcel associated with a resource but did not overlap with its buildings, EDR visited the structures, and documented the resource if our architectural historians evaluated that the resource potentially satisfied NRHP eligibility criteria. No inspections or evaluations requiring access to the interior of buildings, or any portion of private property, were conducted as part of this assessment. In accordance with the OHPO *Survey Guidelines* buildings that were not sufficiently old (i.e., are less than 50 years in age), were not included in or documented during the survey.

EDR's evaluation of historic resources within the APE focused on the integrity (with respect to design, materials, feeling, and association) to assess the potential architectural significance of each resource. However, physical condition was not the sole determinant of inclusion, per the OHPO *Survey Guidelines* which instruct that surveys are to include "vernacular and high style examples, paying attention to regional and repeated building types as they often reflect important patterns in regional or statewide development." To better understand development patterns, EDR conducted setting and context research for the Historic Resources Study Area prior to conducting the survey (see Section 3.0).

# 2.4 Expected Survey Results

A review of previously identified historic resources within the Historic Resources Study Area suggested that a limited number of additional historic resources would likely be identified within the APE. Historic resources survey results were expected to include up to five newly identified historic resources that met or exceeded the NRHP eligibility criteria.

While there were no previously designated OHI resources within the Historic Resources Study Area, review of historicperiod maps revealed the presence of potential historic resources. It was anticipated that the survey results would include a recommendation regarding the NRHP eligibility for the previously identified OGS cemetery within the APE. Based on desktop research, it was not expected that the cemetery would be eligible for NRHP listing.

Given the rural character of the APE, it was anticipated that newly identified historic resources might include farmhouses, barns, and other agricultural buildings. It was not expected that any potentially NRHP-eligible historic districts would be identified within the APE. It was not expected that any buildings less than 50 years in age would be identified with a distinctive architectural style nor representing a physical expression of the modern period.

# 3.0 SETTING AND HISTORIC CONTEXT

Archives and repositories consulted during research included EDR's in-house collection of reference materials, online digital collections of the Library of Congress, the David Rumsey Historical Map Collection (Cartography Associates, 2020), and Historic Map Works. Historic maps reviewed included the

- 1868 Atlas of the State of Ohio (Stebbins, 1868)
- 1887 Atlas of Highland County, Ohio (Lathrop and Penny, 1887)
- 1871 Atlas of Highland County, Ohio (Lake, 1871)
- 1876 Atlas of Brown County, Ohio (Lake and Griffing, 1876)
- 1899 Ohio Indian Land Cessions in the United States (Royce and Thomas, 1899)
- 1961 Sugar Tree Ridge, OH 7.5-minute topographic quadrangle (USGS, 1961)

Sources reviewed included The History of the County of Highland (Thompson, 1878), A History of the Early Settlement of Highland County, Ohio (Scott, 1890), The County of Highland (Klise, 1902), The History of Brown County, Ohio, containing A History of the County; Its Townships, Towns, Churches, Schools, Etc.; General and Local Statistics; Portraits of Early Settlers and Prominent Men; History of the Northwest Territory; History of Ohio; Map of Brown County; Constitution of the United States, Miscellaneous Matters, Etc. (Morrow, 1883), and websites maintained by the Highland County Historical Society and the Ohio History Connection.

# 3.1 Environmental Setting

The Project Area is rural and in an area of generally low topographic relief. The majority of the landscape within the Historic Resources Study Area consists of flat, open agricultural fields with scattered rural residential properties. This area is dominated by open land, farms and associated accessory structures and equipment. Developed features in the Project Area include electric transmission lines, public roads, single family homes and agricultural buildings. Vegetation in the Historic Resources Study Area consists largely of agricultural crops, including row crops such as corn and soybeans. Forested areas also occur throughout the Historic Resources Study Area, primarily consisting of small woodlots and hedgerows which divide agricultural fields. No areas of heavily concentrated development occur within the Historic Resources Study Area. Land use is largely agricultural and rural residential, dominated by open land, farms, and scattered single family residences. Long-distance views are interrupted by scattered woodlots. The Village of Mowrystown is located approximately 1.5 miles west of the Historic Resources Study Area and is the closest area of any substantial population density. Water features within the study area include Plum Run, which flows east from the White Oak Creek.

# 3.2 Transportation Routes

The 1868 Stebbins *Atlas of the State of Ohio* shows the existing land use and transportation routes in the mid-late nineteenth century within the Historic Resources Study Area (see Inset 1) (Stebbins, 1868). The map depicts an agricultural landscape with a meandering network of roads resembling the primary routes present in current conditions.

Ohio State Route 321 (OH-321), located in the northwest portion of the Historic Resources Study Area, was an early stagecoach road that passed through the nearest commercial center, the Village of Mowrey Town (currently known as Mowrystown). The main thoroughfare running north-south, US Highway 62, was a turnpike as of 1865, passing through the village of Fincastle, which is now an unincorporated community.

# 3.3 Historical Development

The Virginia charters of 1609 and 1611 designated the majority of land now comprising the United States and the southwest corner of Canada as the colony of Virginia, established by the London Company. In 1748, the Ohio Land Company was established by Virginia- and London-based businessmen. The company's surveys of its 6,000 acres along the Ohio River were suspended due to the French and Indian War (1754-1763) and Pontiac's War (1763-1766). Following the cessation of hostilities, numerous land companies and speculators prepared to survey territories west of the American colonies; however, this was halted by the American Revolutionary War (1775-1783). In 1784, Virginia ceded land northwest of the Ohio River to the United States government to be awarded to soldiers who had fought for the Continental Army in the Revolutionary War. This included parts of present-day Ohio, Illinois, Indiana, Michigan, Minnesota, and Wisconsin. This territory was augmented by Native land cessions, most notably in the treaties of Fort Stanwix (1784), Fort McIntosh (1785), Fort Harmer (1789), and Greenville (1795) as shown on Inset 1 (Morrow, 1883; Scott, 1890; Royce and Thomas, 1899).



**Inset 1. 1899 Royce and Thomas** *Indian Land Cessions in the United States* This map indicates the number and location of each cession by, or reservation for, the Native nations in present-day Ohio (Royce and Thomas, 1899, Collections of the Library of Congress).

In 1787, the New England Company surveyed the Northwest Territory that the United States government acquired from Virginia; however, Virginia retained a portion of these lands for payment to the state's Revolutionary War veterans. The reserved lands, the Virginia Military Reservation or Virginia Military District, included the present-day Ohio counties of Brown, Clermont, Clinton, Fayette, Highland, Madison, Union, and parts of Franklin, Hardin, Logan, Warren, Scioto,

Pike, Ross, Pickaway, Delaware, and Marion, totaling approximately 4.2 million acres. The Historic Resources Study Area lies near the south-central region of this district. Unscrupulous survey practices resulted in the controversial, irregular layout of the Virginia Military Reservation. These large tracts developed slowly due to the lack of management, land agents, and infrastructure. Additionally, reported hostilities between Native Americans and surveyors impeded progress in opening up the district to European occupation and the first secure settlement didn't occur until 1790 when General Nathaniel Massie laid out and began construction at Massie's Station, modern day Manchester. The earliest recorded entry into the area that would become Highland and Brown Counties occurred in 1791 by surveyor, Simon Kenton. From there, additional warrants were quickly taken up and surveyed, though significant settlement was slow. Ohio was initially settled by Euro- and African Americans in significant numbers in the first half of the nineteenth century, immediately following its statehood in 1803. Early settlers arrived in the wake of inroads created by military campaigns that displaced Native populations. Between 1820 and 1850, the reported population rose from approximately 581,434 to 1,980,329 (Morrow, 1883; Scott, 1890; Ohio History Central, 2020a).

Early surveys divided land into large tracts that were only accessible to people with sufficient funds, limiting the new population. Pioneers often purchased land in advance of relocation, making visits to clear land and construct log shelters. (Morrow, 1883; Ohio History Center, 2020b). Highland County was formed from Ross, Adams, and Clermont Counties in February 1805. It was named for its elevated position between the Scioto and Little Miami Rivers. Settlement and population growth proceeded steadily, with 5,766 residents in 1810 and 25,781 residents by 1850. Hillsboro, the county seat, was surveyed and laid out by David Hayes in 1807. The value of education to residents was reflected by the establishment of the Hillsboro Academy (1829) and Hillsboro Female College (1855) (Thompson, 1878; Morrow, 1883; Ohio History Central, 2019a). Concord Township, one of seventeen townships, was formed from New Market Township in March 1811. The township featured limited population decline, with 1,451 residents in 1860 and 1,262 residents in 1870 (Lake, 1871; Scott, 1890; Inset 2). Similarly, White Oak Township was a small rural township, with 936 residents in 1860 and 1,052 residents in 1870. While farming was the primary occupation in White Oak Township, limestone guarrying became increasingly important in the City of Hillsboro and the Village of Greenfield in the late-nineteenth and early-twentieth centuries (Lake, 1871; Klise, 1902; Inset 3). The historical records available for White Oak Township lack details regarding the township's formation, early history, and development. In addition to the historical sources and historical maps referenced in Section 3.0, the Highland County, Highland County Historical Society, Ohio History Central, and White Oak High School websites were also reviewed; however, they did not include township history. Moreover, it appears that White Oak Township does not maintain a municipal website.



Inset 2. 1871 Lake Atlas of Highland County, Ohio, Concord Township plate. The small unincorporated villages of Sugar Tree Ridge and Fairfax developed along crossroads; they remained predominantly rural with limited growth by the twenty-first century (Lake, 1871, Collections of Ohio History Connection).



Inset 3. 1871 Lake and Griffing Atlas of Highland County, Ohio, White Oak Township plate. The Village of Mowrystown and unincorporated community of Taylorsville both developed along White Oak Creek; they remained principally rural with limited growth by the twenty-first-century (Lake 1871, Collections of Ohio History Connection).

Brown County was formed from Adams and Clermont Counties in December 1817 and named in honor of Gen. Jacob Brown, a celebrated war hero and land surveyor. Settlement and population growth proceeded slowly with 13,356 residents in 1820 and 27,332 residents by 1850. The county's residents were recognized as active abolitionists, many of whom assisted the Underground Railroad until the close of the Civil War. The county seat was established in Georgetown, while Ripley served as the economic center (Morrow, 1883; Ohio History Central, 2019b). Eagle Township was among Brown County's original townships, created from portions of Adams County in 1817. The township's borders changed in 1823 to accommodate the formation of Jackson Township. Samuel Gist, a banker and plantation owner based in London, made provisions in his will to emancipate the slaves on his Virginia properties and relocate them to a free state. Following his death in 1815, his plantations were sold, and a portion of the profits were used to purchase land in Eagle Township. Approximately 1,000 of Gist's former slaves settled on 1,122 acres near Georgetown and on 1,200 acres near Fincastle; however, much of the land was not suitable for agriculture, so many of them relocated and some returned to Virginia (Lake, 1876; Morrow, 1883; Inset 4).



The unincorporated village of Fincastle developed along a main road and served as a small business center; however, it remained principally rural with limited growth by the twenty-first-century (Lake and Griffing, 1876, Collections of Ohio History Connection).

By the mid-1830s, several turnpikes traversed southwest Ohio and by 1880, the region had 34 turnpikes in use, including the Milford & Chillicothe, Ripley & Hillsboro, and the Zanesville & Maysville. Throughout the second half of

the nineteenth century, rail lines were established in Highland and Brown counties; the Marietta & Cincinnati, Blanchester & Hillsboro, Cincinnati & Eastern, and Cincinnati & Portsmouth railroads connected parts of southwest Ohio to neighboring states and the East Coast. The 1868 *Atlas of the State of Ohio* (see Inset 2) shows that the land within the Historic Resources Study Area had been platted into irregularly sized and shaped lots averaging 1,000 acres in size. As depicted on the 1887 *Atlas of Highland County, Ohio*, within twenty years the large land holdings had been subdivided into parcels typically ranging from 40 to 150 acres (Stebbins, 1868; Lathrop and Penny, 1887).



Inset 5. 1868 Stebbins Atlas of the State of Ohio. Development during the mid-nineteenth century consisted of widely spaced roads designed to connect centers of population (Stebbins, 1868, David Rumsey Map Collection).

In the early-nineteenth century, much of the state was occupied by small farms, except for the swampland in southwestern Ohio. Initially, the "level and swampy and uninviting" land deterred permanent settlers; however, hunters, trappers, and temporary settlers frequented the area in the early-nineteenth century. Some flat areas of Brown County, referred to as the "slashes," were underwater for nearly six months of the year. The "slashes" were eventually drained, providing farmland for incoming settlers. Despite the initial challenges of swampland, Highland and Brown counties presented areas of arable land, well-suited to corn, wheat, barley, oats, buckwheat, rye, tobacco, hemp, as well as

pastureland for sheep and pigs. Early industries, like tobacco processing and textile factories were extensions of the region's agricultural practices (Morrow, 1883; Ohio History Central, 2019c). Agricultural products were transported via roads, waterways, and railroads to New Orleans and the East Coast.

By the late-nineteenth century, farms struggled to remain viable as they faced competition from farms in western states, large local farms, increased mechanization, and the prohibitive cost of machinery (Ohio History Central, 2019e). In the early-twentieth century, Governor James M. Cox directed state funds to support agricultural experiments and education for rural regions. Shortly after, Ohio farmers faced the economic impacts of the Great Depression along with severe droughts and crop failures. President Franklin D. Roosevelt instituted Depression-era programs to alleviate the financial strain and soil depletion. Rural areas gradually gained access to electricity, which increased efficiency. By the 1940s, agricultural production rebounded during World War II as farmers supplied food for United States and Allied forces. This period of prosperity immediately following WWII enabled Ohio farmers to invest in modern machinery. The number of farmers in Ohio and size of farms steadily decreased during the latter half of the twentieth century; however, agriculture remains a key economic driver of Ohio's modern economy (Ohio Memory, 2019).

A review of the 1961 (1962 ed.) *Sugar Tree Ridge, OH* USGS 7.5-minute topographic quadrangle (see Figure 5) shows that development patterns have not changed significantly during the twentieth century. Secondary roads connect the main thoroughfares that had been established a century earlier and the Historic Resources Study Area consists of rural lands occupied by widely spaced residences. The single previously identified historic resource, Roberts Cemetery No. 2 is depicted near the intersection of US Highway 62 and Wildcat Road on Inset 2 (USGS, 1961).

The Historic Resources Study Area includes portions of the townships of White Oak and Concord in Highland County, and Eagle Township in Brown County. As of 2010 the total population of the three townships combined was approximately 4,100 (US Census, 2010). The rural nature that has historically defined the area continues today.

# 4.0 RESULTS OF FIELD INVESTIGATION

Section 4.1 describes the conditions present in the Historic Resources Study Area during EDR's site visits. Section 4.2 compares the expected survey results with the actual survey results. The results of the field investigation are described in Sections 4.3 (previously identified resources) and 4.4 (newly identified resources). Resources that in the opinion of EDR's architectural historians did not meet NRHP eligibility criteria are discussed in Section 4.5.

# 4.1 Conditions and Constraints

Weather conditions during the December 21 and 22, 2020 site visits were typical of the season with daytime temperatures between 35- and 40-degrees Fahrenheit during fieldwork with little to no precipitation, clear visibility, and variable conditions ranging from overcast to clear skies. Weather did not adversely affect the ability to conduct the historic resources survey.

The area within the APE for Indirect Effects is rural and lightly populated. Development occurs at a very low density throughout most of the Historic Resources Study Area and is for the most part widely spaced along, and near the edge of, roadways. Agricultural development ranges from small family farmsteads that include a residence, barn, and shed, to larger industrial agricultural complexes. There is no suburban or urban development within the Historic Resources Study Area.

Views from public ROWs within the Historic Resources Study Area are dominated by agricultural farmland, farmsteads, rural residential development divided by transportation corridors including US Highway 62, paved county highways and paved or gravel township roads. The land within the Project Area has been mostly cleared for agriculture and is extremely level. Existing developed features in the Project Area include single family homes and farm buildings, with limited commercial development along portions of US Highway 62. When not interrupted by vegetation, the relatively level topography within the Historic Resources Study Area allowed for clear views to historic resources. Views to farmhouses and agricultural buildings within large scale farming landscapes were dependent on their distance from the public rights-of-way. There were no road closures that prevented access to public rights-of-way.

# 4.2 Expected Survey Results versus Actual Survey Results

Due to the environmental setting and development patterns, newly identified, potentially NRHP-eligible historic resources (per EDR recommendation) were expected to be residences and farmsteads, schoolhouses, and/or civic, religious within the largely rural APE. EDR estimated that up to 5 new resources would be identified. No historical resources had been previously identified within the APE for Indirect Effects. EDR did not identify any additional NRHP-eligible properties. Beyond those identified, many of the other buildings within the APE had lost their integrity due to alterations that compromised historic features, or were not NRHP-eligible because of their age (less than 50 years).

The condition of the OGS cemetery was unknown, and the small family plot was found to be neglected. The iron fence around the perimeter was intact, but rusted, and the ground was covered with leaves, debris, and vegetation. An unusual feature of the cemetery is poured concrete over the entirety of the ground surface, running up to and surrounding the headstones. It was not anticipated that EDR would recommend the cemetery eligible for listing in the NRHP due to its inability to meet National Register Criterion Consideration D. This was confirmed for the previously recorded OGS cemetery.

# 4.3 Previously Identified Historic Resources

One previously identified historic resource within the APE for Indirect Effects was surveyed and evaluated as part of the Project's historic resources survey.

# 4.3.1 OHI Resources

No OHI resources are located within the APE for Indirect Effects.

# 4.3.2 OGS Cemeteries

The OGS is a non-profit, state-wide, genealogical organization. Its mission includes the identification of all Ohio cemeteries, which are inventoried in their online database (OGS, 2019) and depicted on the OHPO Online Mapping System (Ohio History Connection, 2019).

The Applicant was tasked with providing updated information and recommendations for NRHP eligibility for the one previously identified OGS cemetery within the APE for Indirect Effects. Cemeteries are not typically eligible for listing unless they satisfy National Register Criteria Consideration D which stipulates a cemetery may be eligible "if it derives its primary significance from graves of persons of transcendent importance, from age, from distinctive design features, or from association with historic events" (NPS, 1990). EDR's recommendation of NRHP eligibility for the previously identified OGS cemetery is included in Table 1. Photographs of the previously identified OGS resource are included in Appendix C and the resource's location is depicted on Figure 6. Photograph locations and directionality are also keyed to Figure 6.

## Table 1. Historic Resources Survey Results – OGS Cemeteries

| OGS<br>ID | Name       | Location  | Municipality          | NRHP Eligibility<br>(EDR<br>Recommendation) | Distance from<br>Project Area<br>(miles) |
|-----------|------------|---|-----------------------|---|--|
| 5360      | Roberts #2 | West of SR 62 near the junction of<br>Wildcat Road. | White Oak<br>Township | Not NRHP-eligible                           | 0.1                                      |

# 4.4 Newly Identified Historic Resources

A total of 45 buildings are located within the APE for Indirect Effects that appeared to be 50 years or older in age. Of these, none (in the opinion of EDR's architectural historian) appeared to meet eligibility criteria for listing in the S/NRHP due to lack of historic architectural integrity and/or significance (further described below in Section 4.5). One resource consisting of a large farm complex containing both modern and historic-period buildings located at 4444 SR 321 was not fully visible from the public right-of-way (see Appendix D, Photograph 12).

# 4.5 Representative Non-NRHP-Eligible Resources

EDR photographed previously unidentified historic resources within the APE that in the opinion of EDR's architectural historians did not meet NRHP eligibility criteria. The purpose of the photo-documentation effort was to assist the OHPO with its determination regarding "which resources warrant further investigation and which resources, due to a lack of integrity, architectural significance, etc., do not" (OHPO, 2018). A photolog of representative views throughout the APE for Indirect Effects is provided in Appendix D to illustrate resources that in the opinion of EDR's architectural historians did not satisfy NRHP eligibility.

Buildings over 50 years old that were photographed represented a range of qualities that did not warrant further investigation due to a lack of historic integrity and/or significance. Examples include farmsteads with nineteenth-century residences (see Appendix D, Photographs 1-5), early twentieth century residences (see Appendix D, Photographs 6-9), large farm complexes with modern and historic-period buildings setback far from the road (see Appendix D, Photographs 10-14), and Gothic Revival-style influenced residences defined by a steeply pitched center gable (see Appendix D, Photographs 15-18).

According to the OHPO *Survey Guidelines,* "buildings less than 50 years old should only be included in historic resources surveys "if they exemplify a distinctive architectural style or buildings type, represent an important and distinctive physical expression of the modern period, or have gained historical significance through a strong association

with a historic theme" (OHPO, 2018). No buildings less than 50 years old, which meet these criteria, were identified during the survey.

# 5.0 SUMMARY

On behalf of the Applicant, EDR conducted a reconnaissance-level historic resources survey for the proposed Willowbrook Solar Project, located in Highland and Brown Counties, Ohio. A total of 46 resources, including the previously recorded OGS cemetery, were evaluated as part of the historic resources survey:

- EDR did not identify any newly surveyed resources within the APE for Indirect Effects that appear to be eligible for listing in the NRHP due to a lack of historic integrity and/or significance:
- No previously identified resources recorded in the OHI are located within the APE for Indirect Effects.
- One previously identified OGS cemetery is located within the APE for Indirect Effects whose NRHP eligibility
  has not been formally determined. EDR does not recommend the cemetery to be eligible for listing in the
  NRHP, as it does not meet the qualifications of the NRHP (NPS, 1990).

# 6.0 **REFERENCES**

Brown County Auditor. 2021. Brown County Auditor, Brown County, Ohio. Available at <u>https://browncountyauditor.ddti.net</u> (Accessed January 2021).

Cartography Associates. 2020. *David Rumsey Map Collection*. Available at <u>https://www.davidrumsey.com/</u>. (Accessed September 2020).

Code of Federal Regulations (CFR). 2004. Title 36 - Parks, Forests, and Public Property, Chapter I - National Park Service, Department of the Interior, Part 60 - National Register of Historic Places, Section 60.4 - Criteria For Evaluation. http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=/ecfrbrowse/Title36/36cfr60\_main\_02.tpl.

Environmental Design & Research, DPC (EDR). 2018a. *Cultural Resources Records Review.* Report prepared on behalf of Willowbrook Solar I, LLC. EDR, Syracuse, New York. August 2018.

EDR. 2018b. *Visual Resource Assessment: Willowbrook Solar Project*. Report prepared on behalf of Willowbrook Solar I, LLC. EDR, Syracuse, New York. September 2018.

EDR. 2019. *Historic Resources Survey Design Proposal: Willowbrook Solar Project.* Report prepared on behalf of Willowbrook Solar I, LLC. EDR, Syracuse, New York. October 2019.

HighlandCountyAuditor.2021.HighlandCountyAuditor,HighlandCounty,Ohio.Available athttps://www.highlandcountyauditor.org(AccessedJanuary2021)

Klise, J.W. 1902. The County of Highland: A History of Highland County, Ohio, from the Earliest Days, with Special Chapters on the Bench and Bar, Medical Profession, Educational Development, Industry and Agriculture, and Biographical Sketches. Northwestern Historical Association, Madison, WI.

Lake, D.J. 1871. Atlas of Highland County, Ohio: From actual surveys by and under the directions of D. J. Lake, C. E. C. O. Titus. Philadelphia, Pennsylvania. Ohio History Connection. Available at: <a href="https://www.ohiohistory.org/preserve/state-historic-preservation-office/mapping/historicatlas">https://www.ohiohistory.org/preserve/state-historic-preservation-office/mapping/historicatlas</a> (Accessed January 2021).

Lake, D.J. and B.N. Griffing. 1876. Atlas of Brown County, Ohio: From actual surveys by D. J. Lake and B. N. Griffing, to which is added A Map of the State of Ohio, also An Outline and Railroad Map of the United States, and Hemispheres. Lake, Griffing & Stevenson, Philadelphia, Pennsylvania. Ohio History Connection. Available at: <a href="https://www.ohiohistory.org/preserve/state-historic-preservation-office/mapping/historicatlas">https://www.ohiohistory.org/preserve/state-historic-preservation-office/mapping/historicatlas</a> (Accessed January 2021).

Lathrop, J.M. and H.C. Penny. 1887. Atlas of Highland County, Ohio. H.C. Mead & Co. Philadelphia, Pennsylvania.

Mills, W.C. 1914. Archaeological Atlas of Ohio. The Ohio State Archaeological and Historical Society, Columbus, Ohio.

Morrow, J. 1883. The History of Brown County, Ohio: Containing a History of the County; Its Townships, Towns, Churches, Schools, Etc.; General and Local Statistics; Portraits of Early Settlers and Prominent Men; History of the Northwest Territory; History of Ohio; Map of Brown County; Constitution of the United States, Miscellaneous Matters, Etc., Etc. Higginson Book Company. Madison, Wisconsin.

National Park Service (NPS). 1990. *How to Apply the National Register of Historic Places Criteria for Evaluation*. National Register Bulletin No. 15. National Register Branch, National Park Service, U.S. Department of the Interior, Washington, D.C. <u>http://www.nps.gov/nr/publications/bulletins/pdfs/nrb15.pdf</u>.

Ohio Historic Preservation Office (OHPO). 2014. *Guidelines for Conducting History/Architecture Surveys in Ohio*. Ohio History Connection, Columbus, Ohio.

Ohio Historic Preservation Office (OHPO). 2020. *Survey Report Submission Requirements*. Ohio History Connection, Columbus, Ohio.

Ohio History Central. 2020a. "Virginia Military District." *Ohio History Connection.* Available at <u>https://ohiohistorycentral.org/w/Virginia\_Military\_District.</u> (Accessed December 2020).

Ohio History Central. 2020b. "Highland County." *Ohio History Connection.* Available at <u>https://ohiohistorycentral.org/w/Highland\_County (Accessed December 2020).</u>

Ohio History Central. 2019a. "Highland County." *Ohio History Central*. Ohio History Connection. Available at <a href="http://www.ohiohistorycentral.org/w/Highland\_County">http://www.ohiohistorycentral.org/w/Highland\_County</a>.

Ohio History Central. 2019b. "Brown County." *Ohio History Central*. Ohio History Connection. Available at <u>http://www.ohiohistorycentral.org/w/Brown\_County</u>.

Ohio History Central. 2019c. "Agriculture and Farming in Ohio." *Ohio History Central*. Ohio History Connection. Available at <u>http://www.ohiohistorycentral.org/w/Agriculture\_and\_Farming\_in\_Ohio</u>.

Ohio History Central. 2019d. "Ohio Department of Agriculture." *Ohio History Central*. Ohio History Connection. Available at <u>http://www.ohiohistorycentral.org/w/Ohio\_Department\_of\_Agriculture</u>.

Ohio History Connection. 2020. Online Mapping System [website]. Available at: https://www.ohiohistory.org/preserve/state-historic-preservation-office/mapping.

Ohio Memory. 2019. "Agriculture in Ohio." Ohio Memory, Ohio History Connection and the State Library of Ohio. Available at <a href="https://ohiohistoryhost.org/ohiomemory/wp-content/uploads/2014/12/TopicEssay\_Agriculture.pdf">https://ohiohistoryhost.org/ohiomemory/wp-content/uploads/2014/12/TopicEssay\_Agriculture.pdf</a>.

Royce, C.C. and C. Thomas. 1899. *"Ohio." Indian Land Cessions in the United States*. Bureau of American Ethnology. Library of Congress, Geography and Map Division, Washington, D.C. Available at <a href="https://www.loc.gov/resource/g3701em.gct00002/?sp=49">https://www.loc.gov/resource/g3701em.gct00002/?sp=49</a>.

Stebbins, H.S. 1868. *Atlas of the State of Ohio (Counties of Fayette, Clinton, Brown, Highland and Adams)*. H.H. Lloyd and Co. New York, New York. Available at <u>https://www.davidrumsey.com/</u> (Accessed December 2020).

Scott, D. 1890. A History of the Early Settlement of Highland County, Ohio. The Hillsborough Gazette. Hillsborough, Ohio.

Thompson, J.H. 1878. The History of the County of Highland, In the State of Ohio, From its First Creation and Organization, to July 4<sup>th</sup>, 1876; Together with the Proceedings of the Assembled People, Who Met on that Day at Hillsboro, the County Seat, to Celebrate the Centennial Birthday of the Nation, and Also, A Continuation of the History to Dec. 31<sup>st</sup>, 1877. Hillsboro Gazette Job Room, Hillsboro, Ohio.

United States Census Bureau. 2010. *Ohio: 2010. Summary Population and Housing Characteristics*. U.S Census Bureau. Washington D.C.

United States Geological Survey (USGS). 1961 (1962 Ed.). *Sugar Tree Ridge, Ohio*. 7.5-Minute Series (Topographic). United States Department of the Interior, Geological Survey, Washington, D.C.

Figures



# Willowbrook Solar Project

Concord and White Oak Townships, Highland County and Eagle Township, Brown County, Ohio

### Figure 1: Regional Facility Location

Notes: 1. Basemap: ESRI ArcGIS Online "World Topographic" map service. 2. This map was generated in ArcMap on February 2, 2021. 3. This is a color graphic. Reproduction in grayscale may misrepresent the data.







Willowbrook Solar Project Concord and White Oak Townships, Highland County and Eagle Township, Brown County, Ohio

Figure 2: Proposed Facility Layout

Notes: 1. Basemap: ESRI ArcGIS Online "World Imagery" map service. 2. This map was generated in ArcMap on February 3, 2021. 3. This is a color graphic. Reproduction in grayscale may misrepresent the data.







# Willowbrook Solar Project

Concord and White Oak Townships, Highland County and Eagle Township, Brown County, Ohio

Figure 3: Historic Resources Study Area and APE for Indirect Effects

Notes: 1. Basemap: USDA NAIP "2019 Ohio 1m" orthoimagery map service. 2. This map was generated in ArcMap on February 2, 2021. 3. This is a color graphic. Reproduction in grayscale may misrepresent the data.



Historic Resources Study Area

- Project Area
- Township Boundary

County Boundary





Willowbrook Solar Project Concord and White Oak Townships, Highland County and Eagle Township, Brown County, Ohio

Figure 4: Previously Identified Historic Resources

Notes: 1. Basemap: ESRI ArcGIS Online "World Topographic Map" map service. 2. This map was generated in ArcMap on February 3, 2021. 3. This is a color graphic. Reproduction in grayscale may misrepresent the data.







## Willowbrook Solar Project Concord and White Oak Townships, Highland County

and Eagle Township, Brown County, Ohio

Figure 5: 1961 Sugar Tree Ridge, Ohio USGS Topographic Quadrangle

Notes: 1. Basemap: 1961 *Sugar Tree Ridge, Ohio* USGS Topographic Quadrangle. 2. This map was generated in ArcMap on February 2, 2021. 3. This is a color graphic. Reproduction in grayscale may misrepresent the data.







Willowbrook Solar Project Concord and White Oak Townships, Highland County and Eagle Township, Brown County, Ohio

Figure 6: Historic Resources Survey Results

Notes: 1. Basemap: ESRI ArcGIS Online "World Topographic Map" map service. 2. This map was generated in ArcMap on February 2, 2021. 3. This is a color graphic. Reproduction in grayscale may misrepresent the data.

- Historic Resources Survey Result
- Not NRHP-eligible
- APE for Indirect Effects

- Historic Resources Study Area L \_
  - Project Area



Appendix A.

Staff Resumes



# Michael Kenneally Historic Preservation Project Manager

Michael is a Historic Preservation Project Manager with EDR. He holds a Master of Arts degree in History with a Graduate Certificate in Historic Preservation from Youngstown State University, and a Bachelor of Arts degree in Anthropology with a specialization in Archaeology from Youngstown State University. Mr. Kenneally has 20 years of experience working on cultural resource management projects and meets the professional qualifications for the Secretary of the Interior's Standards in History and Historic Preservation (per 36 CFR 61). Mr. Kenneally specializes in managing and conducting historic resource surveys and archival research and has extensive knowledge of the rules and regulations governing Section 106 and National Register of Historic Places (NRHP) eligibility evaluations. He has managed and conducted numerous large- and small-scale cultural resource assessment surveys for various state and federal agencies, city departments, municipalities, and various organizations in both the public and private sectors. Mr. Kenneally also has experience in managing multi-discipline projects and is proficient in Historic American Buildings Survey (HABS) and Historic American Engineering Record (HAER) documentation and large format photography. He also brings experience and proficiency to all phases of archaeological surveys.

# employment history

# education

Master of Arts in History with Graduate Certificate in Historic Preservation, Youngstown State University, 2004.

Bachelor of Arts in Anthropology with Specialization in Archaeology, Youngstown State University, 1997.

# registration / certifications

Architectural Historian meeting the Secretary of Interior's Professional Qualification Standards in History and Architectural History.

# Historic Preservation Project Manager, Environmental Design & Research, Landscape Architecture, Engineering & Environmental Services, DPC, Columbus, OH 2020-present.

Senior Architectural Historian/Cultural Resources Lead, Western Pennsylvania, AECOM, Pittsburgh, PA, 2016-2020.

Senior Project Architectural Historian/Architectural History Department Head, GAI Consultants, Inc., Pittsburgh, PA, 2008-2016

Architectural Historian, Janus Research, Tampa, FL, 2004-2007.

Archaeological Field Technician, Skelly & Loy, Consultants & Engineers, Pittsburgh, PA 1997-2002.

# project experience

## Energy Permitting Services

Tymochtee Solar, Wyandot County, Ohio- Ongoing historic resources survey, cultural resources records review and historic resources survey design in support of an OPSB Application for a proposed solar energy project that will be sited on an approximately 2,292-acre area.

Willowbrook Solar, Highland and Brown Counties, Ohio- Ongoing historic resources survey in support of an OPSB Application for a proposed solar energy project that will be sited on an approximately 2,200-acre area.

Clearview Solar, Champaign County, Ohio- Ongoing management of Phase IB archaeology survey in support of an OPSB Application for a proposed solar energy project that will be sited on an approximately 1,196-acre area.

**Powell Creek Solar, Putnam County, Ohio-** Assisted in drafting and implementing a Programmatic Agreement between OHPO and sub-consultant in support of an OPSB Application for a proposed solar energy project that will be sited on an approximately 2,013-acre area.

Prattsburgh Wind Farm, Steuben County, New York- Assisted in drafting a Phase IA archaeological records review and survey design in support of a DPS Article 10 application for a proposed wind farm energy project.

Selected project experience prior to EDR:

#### Energy Permitting Services

Architectural and Historical Resources Mitigation for Trans-Allegheny Interstate Line (TrAIL) Virginia State Line to Meadowbrook Substation and Meadowbrook Substation to Appalachian Trail Segments, Frederick and Warren Counties, Virginia- Conducted Intensive-Level survey of the Ireson Springs Farm Historic District, and prepared Quaker Settlement Historic Context for the region. Synthesized Warren Sentinel 19<sup>th</sup> century obituaries and Warren Heritage Society cemetery records. Conducted for POWER Engineers, Inc.

Elly May Pipeline Project, Lycoming County, Pennsylvania- Managed and oversaw historic resource survey, conducted background research, and prepared Identification Documentation Submission for identified resources.

Environmental Design & Research, Landscape Architecture, Engineering, & Environmental Services, D.P.C. www.edrdpc.com



# Michael Kenneally Historic Preservation Project Manager

MS-600563 Hampshire St. POD Relocate Project, Mineral County, West Virginia- Conducted historic architectural survey, background research, prepared Historic Property Inventory Forms with NRHP eligibility evaluations, and authored Historic Resource Survey Report.

Pine Creek Water Intake Project, Tioga County, Pennsylvania- Conducted historic architectural survey, background research, and authored Identification Documentation Submission.

Pine Creek Water Pipeline Project, Tioga County, Pennsylvania- Conducted Phase I archaeological and historic architectural investigations and background research, authored Identification Documentation Submission.

Cowanesque Water Intake Project, Tioga County, Pennsylvania- Conducted Phase I archaeological and historic architectural investigations and background research, authored Identification Documentation Submission.

H-320 (ESC) Pipeline Project, Harrison County, West Virginia- Conducted historic architectural survey, background and archival research, authored historic resource survey report and Historic Property Inventory forms.

PennEast Pipeline Project, Luzerne, Carbon, Northampton, and Bucks Counties, Pennsylvania- Prepared full Historic Resource Survey Forms, including background and archival research and eligibility evaluations, and prepared assessments of effect.

Panhandle Central Waterline Project, Brooke and Ohio Counties, West Virginia- Conducted historic architectural survey, background and archival research, authored report and Historic Property Inventory forms.

Panhandle South Waterline Project, Ohio and Marshall Counties, Counties, West Virginia- Conducted historic architectural survey, background and archival research, authored historic resource survey report and Historic Property Inventory forms.

Tioga Central Trunkline Pipeline Project, Tioga County, Pennsylvania- Conducted historic architectural survey, background research, and prepared Identification Documentation Submission.

Fall Creek B & C Laterals Pipeline Project, Tioga County, Pennsylvania- Conducted historic architectural survey, background research, and prepared Identification Documentation Submission.

Shell Falcon Ethane Pipeline Project, Washington, Allegheny, and Beaver Counties, Pennsylvania- Conducted historic architectural survey, background research, reconnaissance report preparation, assessments of effects, and preparation of Historic Resource Survey Forms.

Atlantic Sunrise Pipeline Project, Lancaster, Lebanon, Schuylkill, Northumberland, Columbia, Luzerne, Wyoming, Susquehanna, Lycoming, and Clinton Counties, Pennsylvania- Conducted assessments of effects and preparation of Historic Resource Survey Forms for identified historic architectural resources. Prepared treatment plans for National Register of Historic Places eligible/listed resources.

Brown Lateral Pipeline, Tioga and Lycoming Counties, Pennsylvania- Conducted historic architectural survey, background research, and prepared Identification Documentation Submission.

Cupper Trust Pipeline, Tioga County, Pennsylvania- Conducted historic architectural survey, background research, and prepared Identification Documentation Submission.

X Gathering Line Project, Bradford County, Pennsylvania- Conducted historic architectural survey, background research, and prepared Identification Documentation Submission.

#### **Transportation Projects**

Section 4f and Section 106 Documentation of First Street Reconstruction, South H Street to State Road 22, City of Gas City, Grant County, Indiana. Served as Task Manager for historic architectural survey and report preparation.

Alber Street Reconstruction Project, Historic Properties Report, City of Wabash, Wabash County, Indiana. Served as Task Manager for historic architectural survey and reporting.

I-70 Yukon/Madison Interchange Project, PennDOT District 12-0, Westmoreland County, Pennsylvania- Conducted historic architectural survey and background and archival research, prepared historic architectural report and Historic Resource Survey Forms for identified resources.

Pennsylvania Turnpike (I-76) Total Reconstruction Project Milepost 298 to 302, Chester County, Pennsylvania- Prepared Determination of Effect Memorandum for Historic Properties located within the Project Area of Potential Effect.

West End Transitway Project, City of Alexandria and Arlington County, Virginia- Conducted field survey and research, prepared VCRIS forms, and authored historic resource survey report and assessment of effects.

PA 36 – PA 164 Intersection Improvements Project, PennDOT District 9-0, Blair County, Pennsylvania- Conducted historic architectural survey, and background and archival research. Prepared an abbreviated Historic Resource Survey Form and a full Historic Resource Survey Form for two properties providing NRHP eligibility evaluations.



# Michael Kenneally Historic Preservation Project Manager

Phase I Cultural Resources Investigation for Irene Byron Sanatorium Cemetery Project, Allen County, Indiana: Conducted archival research and co-authored report. Conducted for Board of Commissioners, Allen County, Indiana.

Naval Station Great Lakes Identification and Evaluation Report Cold War-Era and Earlier Resources, Naval Facilities Engineering Command, Lake County, Illinois- Conducted historic architectural survey, background and archival research, prepared site forms with NRHP eligibility evaluations, and authored Identification and Evaluation Report.

Naval Weapons Station Earle, National Register of Historic Places Eligibility Evaluations Cold War-Era and Earlier Resources, Naval Facilities Engineering Command, Monmouth County, New Jersey- Conducted background research and prepared New Jersey Historic Preservation Office inventory forms for select Cold War-era and earlier resources providing NRHP eligibility evaluations.

Naval Weapons Station Earle, Character Defining Features Assessments for Contributing Resources within the Transshipment Historic District, Naval Facilities Engineering Command, Monmouth County, New Jersey- Assisted in authoring character defining features report for selected contributing resources to the Naval Ammunition Depot Earle Historic District.

#### National Register of Historic Places Nominations

Morristown National Historical Park National Register Nomination Update, Morristown, Morris and Somerset Counties, New Jersey- Conducted field survey throughout park, including gathering GPS data of identified resources. Assisted in the preparation of the National Register Nomination Update by authoring physical description sections and assisting in research.

**Determination of Eligibility Report for the Grandfather Falls Hydroelectric Project, Lincoln County, Wisconsin-** Conducted intensive-level survey, archival and background research, and prepared Determination of Eligibility report using NPS Form 10-900.

National Register of Historic Places Nomination, Maxey House, Orange County, Florida- Conducted intensive-level survey, research, and coauthored nomination.

National Register of Historic Places Nomination, Wells House, Orange County, Florida- Conducted intensive-level survey, research, and coauthored nomination.

National Register of Historic Places Nomination, Daniel McBean House, Columbiana County, Ohio- Conducted intensive-level survey, research, and authored nomination.

#### HABS/HAER Recordation

HAER -Hot Metal Bridge, Carrie Furnace, Allegheny County, Pennsylvania: Authored supplemental written data documentation.

HAER CA-175. First Street Bridge, Los Angeles, Los Angeles County, California- Conducted large format photography and prepared supplemental HAER documentation including written data.

HABS CA-2792. James K. Hill & Sons Pickle Works (Building), Los Angeles, Los Angeles County, California- Conducted large format photograph and prepared supplemental HAER documentation including written data.

HABS FL-489. 2210 Thirty-first Street, Tampa, Hillsborough County, Florida- Conducted large format photography and prepared written data.

HABS FL-531. 1719 North Shore Terrace (House), Orlando, Orange County, Florida- Conducted large format photography and prepared written data. HABS FL-532. 1721 North Shore Terrace (House), Orlando, Orange County, Florida- Conducted large format photography and prepared written data.

HABS FL-333. 1727 North Shore Terrace (House), Orlando, Orange County, Florida- Conducted large format photography and prepared written data.

HABS FL-534. 1741 North Shore Terrace (House), Orlando, Orange County, Florida- Conducted large format photography and prepared written data.

HABS FL-535. 1747 North Shore Terrace (House), Orlando, Orange County, Florida- Conducted large format photography and prepared written data.

HABS FL-536. 117 East Vanderbilt Street (House), Orlando, Orange County, Florida- Conducted large format photography and prepared written data.

HABS FL-537. 114 East Yale Street (House), Orlando, Orange County, Florida- Conducted large format photography and prepared written data.

HABS FL-538. 117 East Yale Street (House), Orlando, Orange County, Florida- Conducted large format photography and prepared written data.

HABS FL-539. 2506 Fifteenth Street (House), Tampa, Hillsborough County, Florida- Conducted large format photography and prepared written data.

HABS FL-540. 1017 E. Fourteenth Street (House), Tampa, Hillsborough County, Florida- Conducted large format photography and prepared written data.



# Michael Kenneally

HABS FL-541. 1009 ½ East Fourteenth Street (House), Tampa, Hillsborough County, Florida- Conducted large format photography and prepared written data.

HABS FL-542. Faith Temple Missionary Baptist Church (Building), Tampa, Hillsborough County, Florida- Conducted large format photography and prepared written data.



# Susan E. Arena Project Architectural Historian



Susan is a Project Architectural Historian with over 10 years of experience working on historic preservation projects. She has had extensive training and experience in the National Register of Historic Places (NRHP) nomination process, and regularly conducts background research and site visits to support EDR cultural resources and environmental projects. Her experience includes historic building rehabilitations, existing conditions assessments, preservation planning and ordinance administration, cultural resource surveys, and educational programming.

As an Architectural Historian with EDR, Susan is responsible for conducting historic-architectural resources surveys, NRHP eligibility determinations and nominations, and existing conditions reports. Her role also includes research, field work, and report preparation for cultural resources surveys in support of EDR's environmental permitting projects. Susan also has extensive experience and relationships consulting with the State Historic Preservation Office staff in New York, Massachusetts, Rhode Island, and Connecticut, as well as many regional organizations.

# education

Bachelor of Arts, Architectural Studies, Minor in Art History, Hobart & William Smith Colleges, Geneva, NY, 2003.

Master of Science, Historic Preservation, University of Vermont, Burlington, VT, 2008.

# registration / certifications

Meets the Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation. Professional Qualification Standards in Architectural History, Architecture and Historic Architecture (36 CFR Part 61).

# professional affiliations

Member, Adirondack Architectural Heritage

Member, National Trust for Historic Preservation

Board of Directors, Adirondack Architectural Heritage, Keeseville, NY, 2020

Selection committee, 2018 Most Endangered Historic Resources List, Preservation Massachusetts

North Country SPCA, (Board of Directors 2010-2014, Secretary 2011-2014), Elizabethtown, NY

# employment history

Project Architectural Historian, Environmental Design & Research, Landscape Architecture, Engineering, & Environmental Services, D.P.C., Albany, NY, 2019-present.

Preservation Planner, City of Worcester, Worcester, MA, 2017-2019.

Architectural Historian, EBI Consulting, Various sites, New England, 2014-2017.

Program Director, Adirondack Architectural Heritage, Keeseville, NY, 2008-2014.

Intern, Camp Santanoni NHL, Newcomb, NY, 2007.

# project experience

#### HISTORIC PRESERVATION CONSULTATION

#### **Building Investigation, Documentation, Conditions Assessments**

Northbrook Lodge, Paul Smiths, NY – Prior to EDR, Completed a baseline documentation report as part of a Preservation Easement, including descriptions of existing conditions, and history of the property, a c.1940 Great Camp inspired property designed by notable Saranac Lake architect, William Distin. Tasks included historic research, site visits, photography, and report writing.

#### **Historic Preservation Planning**

Alcove Historic District Properties, Town of Coeymans, Albany County, NY – EDR was retained to assist the Albany Water Board with the creation of a Historic Property Management Plan relating to their properties within the NRHP-listed Alcove Historic District. Authored an HPMP that outlined options for future use of their historic buildings, in addition to potential new construction outside of the historic district.

#### Local Historic Review Commission Presentations

Private Residence, Stockbridge, Berkshire County, MA – Consulted on and prepared application materials for review by the Stockbridge Historic Preservation Commission.

Environmental Design & Research, Landscape Architecture, Engineering, & Environmental Services, D.P.C. www.edrdpc.com



# Susan E. Arena Project Architectural Historian

#### NATIONAL PARK SERVICE PROGRAMS

#### **Historic Rehabilitation Tax Credit Projects**

Mansion Initiative, City of Albany, Albany County, NY – This project is an in-progress rehabilitation of four townhouses located in the National Registerlisted Mansion Historic District. Completed Part I and Part II applications for state and federal Historic Rehabilitation Tax Credits.

**124** 4<sup>th</sup> Street, City of Troy, Rensselaer County, NY – This project is an in-progress rehabilitation of a mixed-use building located in the National Registerlisted Central Troy Historic District. Assisted with preparation of Part I application for state and federal Historic Rehabilitation Tax Credits.

Historic Snyder Building, Town of Barre, Orleans County, NY – This project is an in-progress rehabilitation of a ca. 1910 commercial block, upgraded in 1970, in the NRHP-listed North Main and West Water Commercial Historic District and is currently being developed for adaptive reuse as a mixed use/residential building. Assisted with preparation of Part I and Part II applications for state and federal Historic Rehabilitation Tax Credits.

#### **National Register of Historic Places Nominations**

Cedar Lake Methodist Episcopal Church, Litchfield, NY – Outside of EDR, Conducted research and authored the National Register of Historic Places (NRHP) nomination for this c.1850 Greek Revival-style church. Listed August 26, 2020.

Helen Hill Historic District, Saranac Lake, NY – *Prior to EDR*, Conducted research and authored the National Register of Historic Places (NRHP) nomination for a residential historic district. The Helen Hill District is a collection of 67 residences associated with the growth of the village due to the treatment of tuberculosis in the late-nineteenth century. Listed October 23, 2015.

**Debar Pond Lodge, Duane, NY** – *Prior to EDR*, Conducted research and co-authored the National Register of Historic Places (NRHP) nomination for this Arts and Crafts inspired Adirondack retreat built by local craftsman, Ben Muncil. Listed December 16, 2014.

Northbrook Lodge, Paul Smiths, NY – Prior to EDR, Conducted research and authored the National Register of Historic Places (NRHP) nomination for this c.1940 Great Camp inspired property designed by notable Saranac Lake architect, William Distin. Listed April 7, 2014.

Lyon Street School, Peru, NY – Prior to EDR, Conducted research and authored the National Register of Historic Places (NRHP) nomination for this mid-19<sup>th</sup> century one-room schoolhouse. It is a largely intact representation of one-room school architecture and the rural district method. Listed May 22, 2013.

**Heyworth-Mason Industrial Building, Peru, NY** – *Prior to EDR*, Conducted research and authored the National Register of Historic Places (NRHP) nomination for an 1836 stone mill. The property was home to A. Mason and Sons Lumber Company who operated there for over 90 years. Listed May 4, 2011.

#### CULTURAL RESOURCE SURVEYS FOR RENEWABLE ENERGY PROJECTS

#### Historic Resources Survey and Mitigation for Wind and Solar Facilities - New York

White Creek Solar II – Completed a Phase 1A Historic Resources Survey in support of a certificate of environmental compatibility under Section 94-c of the New York State Executive Law for a proposed 135 MW solar energy facility.

Flint Mine Solar, Towns of Athens and Coxsackie, Greene County, NY – Completed a Historic Resources Survey in support of a certificate of environmental compatibility and public need under Article 10 of the New York State Public Service Law for a proposed (up to) 100 MW solar energy facility.

Heritage Wind Project, Town of Barre, Orleans County, NY – Assisted with a Historic Resources Survey in support of the Article 10 Application for a proposed 200 MW wind energy project with up to 33 wind turbines.

**High Bridge Wind Project, Town of Barre, Orleans County, NY** – Assisted with resource entry using NYSOPRHP CRIS associated with a Historic Resources Survey in that was prepared support of the Article 10 Application for the proposed 100.8 MW wind energy project with up to 25 wind turbines. Also, completed the associated Cultural Resources Mitigation Plan to facilitate the allocation of offset funding in support of historic resources.

#### Historic Resources Survey and Mitigation for Wind and Solar Facilities - Ohio

Clearview Solar Project, Champaign County, OH – Assisted with a Historic Resources Survey Report in support of a proposed utility scale solar energy project, to be submitted to OHPO for consultation.

**Republic Wind Project, Seneca County, OH** – Completed a Historic Resources Survey and associated report in support of a proposed 200MW wind energy project with up to 58 wind turbines, to be submitted to OHPO for consultation.

**Emerson Creek Wind Project, Erie and Huron Counties, OH** – Completed a Historic Resources Survey and associated report in support of a proposed 297.66 MW wind energy project with up to 87 wind turbines, to be submitted to OHPO for consultation.

Environmental Design & Research, Landscape Architecture, Engineering, & Environmental Services, D.P.C. www.edrdpc.com



# Susan E. Arena Project Architectural Historian

#### CULTURAL RESOURCES COMPLIANCE FOR STATE AND FEDERAL PERMITTING

#### Section 14.09, New York State Historic Preservation Act

**Project Consultations, New York State Office of Parks, Recreation, and Historic Preservation (NYSOPRHP), NY** – Compiled and submitted information through the NYSOPRHP Cultural Resources Information System (CRIS) to initiate project consultation and review under Section 14.09 of the New York State Historic Preservation Act. Representative projects are listed below.

- Route 50 Wilton New Main Installation Wilton, NY
- Mariaville Road Reinforcement Rotterdam, NY
- West Milton Install Saratoga County, NY
- West Milton Removal –Saratoga County, NY
- 35 Erie Blvd, Site Redevelopment Albany, NY
- Key Capture Energy NY8, Battery Energy Storage Facility Cairo, NY
- Key Capture Energy NY14, Battery Energy Storage Facility Poughkeepsie, NY

#### National Environmental Policy Act

ALCOA Transmission Line Relocation, Massena, NY – Completed a Historic Resources Survey in accordance with the requirements of Part 102 Report and review under Section 14.09 of the New York State Historic Preservation Act.

#### Section 4(f), Department of Transportation Act

**Cultural Resources Surveys, New York State Department of Transportation, NY** – Conducted cultural resources surveys for multiple New York State Department of Transportation (NYSDOT) Section 106 Review Project Submittal Packages (PSPs), completed to facilitate project review under the Federal Highway Administration's National Environmental Policy Act (NEPA) review process. Completed historical research, field surveys, and document preparation for multiple transportation projects, including roadway improvements, pedestrian trails, and bridge rehabilitations and replacements. Representative projects are listed below.

- · Elmgrove Road over Round Creek Tributary Culvert Rehabilitation Project (PIN 4BNY.33) Gates, NY
- West Colvin Street Bridge Repair (PIN 3756.57) Syracuse, NY
- Stoneleigh Avenue Repaving (PIN 8761.97) Carmel, NY
- Wilbur Avenue Repaving (PIN 8762.02) Kingston, NY
- Church Street Bridge Replacement (PIN 1760.55) Granville, NY

#### **COMMUNITY SURVEY**

NYSOPRHP Waterfront Historic Resources Survey, Orange County, NY – Using NYSOPRHP's Trimble TerraFlex© mobile survey application, provided SHPO with new and updated National Register eligibility recommendations for historic properties in the Town of Wallkill and the City of Middletown, NY.

Town of Willsboro, NY – Prior to EDR, Completed a historic resources reconnaissance level survey report that included a history of the town and identified important historic resources and themes to assist the Town with future planning. Tasks included historic research, site visits, photography, and report writing.

#### Why I decided to pursue a career in historic preservation:

"All buildings have a story to tell and there is always something to be learned from them, whether it's about craftsmanship and architecture or about the people and events they're connected to. I was drawn to the field of preservation because I think it's important to protect those stories and ensure that historic buildings continue to be a part of our landscape."

Appendix B.

**OHPO Correspondence** 



October 28, 2019

In reply, please refer to: 2018-HIG-43051

Susan Lawson Environmental Design and Research 217 Montgomery Street, Suite 1000 Syracuse, New York 13202

RE: Historic Resources Survey Design Proposal: Willowbrook Solar Project Highland and Brown Counties, Ohio

Dear Ms. Lawson:

This letter is in response to correspondence received October 7, 2019. The comments of Ohio's State Historic Preservation Office (SHPO) are submitted in accordance with provisions of Ohio Revised Code 149.53 requesting cooperation among state agencies in the preservation of historic properties, Ohio Administrative Code Chapters 4906-1 to 4906-17, and with provisions of the National Historic Preservation Act of 1966, as amended and the associated regulations at 36 CFR Part 800.

The correspondence describes the Historic Resources Survey Design Proposal for the Willowbrook Solar Project. The Project includes the construction and operation of a commercial-scale solar energy facility on approximately 1,726 acres of private land within a larger Project area of approximately 2,200 acres.

The Historic Resources Survey Design Proposal began with defining the study area. In a prior consultation letter dated December 14, 2018, SHPO recommended that the study area should include the Project area plus the area included in a 0.5-mile (one-half mile) radius surrounding the Project area.

EDR proposes a reconnaissance-level historic resources survey of the agreed-upon study area to identify and document properties that appear to satisfy National Register-eligibility criteria. Additionally, the survey will provide information regarding the eligibility of the previously identified OGS cemetery, which currently does not have a formal DOE. Ohio Historic Inventory (OHI) forms will be completed for newly identified above-ground historic resources and for the previously identified OGS cemetery.

SHPO agrees that the Historic Resources Survey Design Proposal is a suitable method to evaluate the overall effects of the Willowbrook Solar Project and inform appropriate mitigation measures if necessary. We look forward to continuing consultation regarding the Project.

If you have any questions, please contact me at jwilliams@ohiohistory.org or (614) 298-2000. Thank you for your cooperation.

Sincerely,

illiams. Project Reviews Manager

Resource Protection and Review

RPR Serial No: 1081236

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Appendix C.

Photographs – Previously Identified Resource



Direction: Southwest Date: December 21, 2020 OGS ID: 5360 Name: Roberts Cemetery #2

Address: South side of CR 61 just west of US 62

Municipality: White Oak Township

County: Highland

EDR Recommendation: Not NRHP-eligible

# Photograph: 2

Direction: Southwest Date: December 21, 2020 OGS ID: 5360 Name: Roberts Cemetery #2 Address: South side of CR 61 just west of US 62

Municipality: White Oak Township County: Highland

EDR Recommendation: Not NRHP-eligible

# Willowbrook Solar Project

Concord and White Oak Townships, Highland County and Eagle Township, Brown County, Ohio **Appendix C:** Photographs – Previously Recorded Resources



Sheet 1 of 1

Appendix D.

Photographs – Representative Non-NRHP-Eligible Resources



#### **Direction:** Southeast

**Date:** December 22, 2020

A c. 1890 two-story vernacular residence with numerous non-historic alterations and multiple modern and historic-period outbuildings and silos.

Address: 2078 US Highway 62

Municipality: Concord Township County:

Highland

**EDR Recommendation:** Not NRHP-eligible



# Photograph: 2

Direction: North

Date: December 21, 2020

A c. 1860 two-story brick residence with rear addition, c. 1940 equipment shed, c. 1950 quonset barn, c. 2010 garage, and c. 2015 gazebo.

Address: 651 Garvey Road Municipality: Concord Township

County: Highland

**EDR Recommendation:** Not NRHP-eligible

# Willowbrook Solar Project

Concord and White Oak Townships, Highland County and Eagle Township, Brown County, Ohio **Appendix D:** Photographs – Representative Non-NRHP Eligible Resources



Direction: Southwest

#### Date: December 22, 2020

A c. 1900 two-story vernacular residence with numerous non-historic alterations, c. 1940 barn, and c. 1980 garage.

Address: 2024 US Highway 62

Municipality: Concord Township

**County:** High**l**and

**EDR Recommendation:** Not NRHP-eligible



# Photograph: 4

Direction: Northeast

**Date:** December 21, 2020 A farmstead consisting of a c. 1900 two-story vernacular residence and barn, c. 1960 garage, and c. 1980 pole barn.

#### Address:

990 Redkey Road

Municipality: Concord Township

**County:** High**l**and

EDR Recommendation: Not NRHP-eligible

# Willowbrook Solar Project

Concord and White Oak Townships, Highland County and Eagle Township, Brown County, Ohio **Appendix D:** Photographs – Representative Non-NRHP Eligible Resources



Sheet 2 of 9



**Direction:** Southeast

Date: December 21, 2020

A farmstead consisting of a c. 1890 two-story brick, Italianate-style residence with large rear addition, c. 1890 barn with modern additions, and numerous modern outbuildings.

Address: 1094 US Highway 62

Municipality: Concord Township County:

Highland

**EDR Recommendation:** Not NRHP-eligible

# Photograph: 6

**Direction:** Northwest **Date:** December 21, 2020 A c. 1965 one-story Ranch-style residence.

Address: 735 US Highway 62

Municipality: White Oak Township County:

Highland

EDR Recommendation: Not NRHP-eligible

# Willowbrook Solar Project

Concord and White Oak Townships, Highland County and Eagle Township, Brown County, Ohio **Appendix D:** Photographs – Representative Non-NRHP Eligible Resources



Sheet 3 of 9



Direction: East

Date: December 21, 2020

A c. 1920 one-and-onehalf-story Bungalow-type residence.

Address: 929 US Highway 62 Municipality: Whiteoak Township County: Highland

**EDR Recommendation:** Not NRHP-eligible



# Photograph: 8

Direction: Northwest Date: December 22, ,2020 A c. 1920 one-and-onehalf-story Bungalow-type residence with a c. 1920 barn and c. 1920 garage.

## Address:

2045 US Highway 62 Municipality: Concord Township

**County:** High**l**and

EDR Recommendation: Not NRHP-eligible

# Willowbrook Solar Project

Concord and White Oak Townships, Highland County and Eagle Township, Brown County, Ohio **Appendix D:** Photographs – Representative Non-NRHP Eligible Resources





**Direction:** Southeast

Date: December 21, 2020

A c. 1970 one-story Ranchstyle residence with two c. 1950 barns.

Address: 1210 Redkey Road Municipality: Concord Township

**County:** High**l**and

**EDR Recommendation:** Not NRHP-eligible

# Photograph: 10

**Direction:** Southwest **Date:** December 21, 2020 A farmstead consisting of mostly modern outbuildings and modern residence.

Address: 4354 Wildcat Road Municipality: White Oak Township

**County:** High**l**and

EDR Recommendation: Not NRHP-eligible

![](_page_56_Picture_13.jpeg)

# Willowbrook Solar Project

Concord and White Oak Townships, Highland County and Eagle Township, Brown County, Ohio **Appendix D:** Photographs – Representative Non-NRHP Eligible Resources

![](_page_56_Picture_16.jpeg)

Sheet 5 of 9

![](_page_57_Picture_0.jpeg)

Direction: Southwest

Date: December 22, 2020

A large farm complex consisting of both modern and historic-period buildings located approximately 0.25 mile from the road and not fully visible from the public ROW. Located within Indirect APE, but not within Project Area.

#### Address:

4444 State Route 321 Municipality: White Oak Township County: Highland

**EDR Recommendation:** Not visible/not accessible

![](_page_57_Picture_8.jpeg)

# Photograph: 13

Direction: West Date: December 21, 2020

A farm complex consisting of modern and historic-period outbuildings, no residence observed.

# Address:

491 US Highway 62

Municipality: White Oak Township County: Highland

**EDR Recommendation:** Not NRHP-eligible

![](_page_57_Picture_16.jpeg)

# Willowbrook Solar Project

Concord and White Oak Townships, Highland County and Eagle Township, Brown County, Ohio **Appendix D:** Photographs – Representative Non-NRHP Eligible Resources

Sheet 6 of 9

![](_page_58_Picture_0.jpeg)

Direction: Northeast

Date: December 21, 2020

A c. 1970 residence with c. 1900 barn, and c. 1950 quonset barn.

Address:

1466 US Highway 62 Municipality: Concord Township County:

Highland

EDR Recommendation: Not NRHP-eligible

# Photograph: 15

**Direction:** South **Date:** December 22, 2020 A c.1890 residence with numerous alterations and additions exhibiting steeply pitched center gable.

Address: 4670 State Route 321 Municipality:

White Oak Township

County: Highland

EDR Recommendation: Not NRHP-eligible

![](_page_58_Picture_15.jpeg)

# Willowbrook Solar Project

Concord and White Oak Townships, Highland County and Eagle Township, Brown County, Ohio **Appendix D:** Photographs – Representative Non-NRHP Eligible Resources Sheet 7 of 9

![](_page_58_Picture_18.jpeg)

![](_page_59_Picture_0.jpeg)

Direction: Northeast

Date: December 21, 2020

A c. 1890 residence with numerous non-historic alterations and exhibiting a steeply pitched center gable.

Address: 9909 Stivers Road Municipality: Eagle Township County: Brown

**EDR Recommendation:** Not NRHP-eligible

![](_page_59_Picture_7.jpeg)

# Photograph: 17

**Direction:** Northwest **Date:** December 21, 2020 An abandoned c. 1890 residence with numerous non-historic alterations and exhibiting a steeply pitched center gable.

Address: 13735 US Highway 62 Municipality: Eagle Township County: Brown

EDR Recommendation: Not NRHP-eligible

# Willowbrook Solar Project

Concord and White Oak Townships, Highland County and Eagle Township, Brown County, Ohio Appendix D: Photographs – Representative Non-NRHP Eligible Resources

![](_page_59_Picture_14.jpeg)

![](_page_60_Picture_0.jpeg)

Direction: Northwest

Date: December 21, 2020

A c. 1890 residence with numerous non-historic alterations and exhibiting a steeply pitched center gable.

Address: 1139 US Highway 62 Municipality: White Oak Township County: Highland

**EDR Recommendation:** Not NRHP-eligible

Willowbrook Solar Project Concord and White Oak Townships, Highland County and Eagle Township, Brown County, Ohio Appendix D: Photographs – Representative Non-NRHP Eligible Resources

![](_page_60_Picture_8.jpeg)

![](_page_61_Picture_1.jpeg)

March 25, 2021

In reply, please refer to: 2018-HIG-43051

Mike Kenneally Historic Preservation Project Manager Midwest Regions - Youngstown, Ohio www.edrdpc.com

RE: Historic Resources Survey – Willowbrook Solar Project Highland and Brown Counties, Ohio

Dear Mr. Kenneally:

This letter is in response to the *Reconnaissance-Level Historic Resources Survey, Willowbrook Solar Project in White Oak and Concord Townships, Highland County, and Eagle Township, Brown County, Ohio* by Environmental Design & Research (EDR, 2021) received on February 25, 2021. We appreciate the opportunity to comment on this project. The comments of the Ohio State Historic Preservation Office (SHPO) are made pursuant to Section 149.53 of the Ohio Revised Code and the Ohio Power Siting Board rules for siting this project (OAC 4906-04). The comments of the Ohio SHPO are also submitted in accordance with the provisions of Section 106 of the National Historic Preservation Act of 1966, as amended {54 U.S.C. 306108 [36CFR 800]}.

The Willowbrook Solar Project is a proposed utility-scale solar energy facility that will consist of ground-mounted photovoltaic (PV) arrays and associated infrastructure, located in White Oak and Concord Townships, Highland County, and Eagle Township, Brown County, Ohio. For this project, History/Architecture Survey was completed within one-half-mile around the project area. The following review and comments pertain <u>only</u> to the *Reconnaissance-Level Historic Resources Survey, Willowbrook Solar Project in White Oak and Concord Townships, Highland County, and Eagle Township, Brown County, Ohio by EDR (2021).* The archaeological component will be submitted in a stand-alone report; therefore, the review will be under a separate cover.

EDR identified 45 buildings fifty years of age or older. It is EDR's recommendation that none of these resources are eligible for listing in the National Register of Historic Places. Our office agrees with these recommendations of eligibility.

Based on the information provided, it is our opinion that no additional history/architecture investigations are necessary to meet compliance with requirements for Certificate Applications for Electric Generating Facilities as detailed in Ohio Administrative Code 4906-04 and as administered by the OPSB.

If you have any questions, please do not hesitate to contact me at jwilliams@ohiohistory.org.

Thank you for your cooperation.

Sincerely, and Joy Williams, Project Reviews Manager

Resource Protection and Review

"Please be advised that this is a Section 106 decision. This review decision may not extend to other SHPO programs." RPR Serial No: 1087541

# OHIO HISTORY CONNECTION 800 E. 17th Ave., Columbus, OH 43211-2474 • 614.297.2300 • ohiohistory.org

This foregoing document was electronically filed with the Public Utilities

Commission of Ohio Docketing Information System on

4/1/2021 9:23:08 AM

in

Case No(s). 18-1024-EL-BGN

Summary: Correspondence of Willowbrook Solar I, LLC in Compliance with Condition 9 -Phase I Cultural Resources Survey Program electronically filed by Teresa Orahood on behalf of Dylan F. Borchers