

**Exhibit I**  
**Phase 1 Cultural Resources In Progress**  
**Technical Memorandum**

**Cardno**

**January 29, 2021**

## Technical Memorandum

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**Date** Friday, 29 January 2021

**Project No:** E320301701

**To:** Josh Hreha  
Pleasant Prairie Solar LLC

**cc:** Ryan Rupprecht

**From:** Ryan Peterson

**RE:** Pleasant Prairie Solar LLC – Cultural Resources

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### Cultural Resources Tasks and Status

In response to a request from Pleasant Prairie Solar Energy LLC (Pleasant Prairie), Cardno, Inc. (Cardno) proposes to conduct a Phase I archaeological and historic architecture reconnaissance (Phase I) for the proposed Pleasant Prairie Solar Energy Center Project (Project). The Project is located within approximately 2,424 acres of privately-owned lands (Project Area) in Prairie and Pleasant Townships, Franklin County, Ohio. The Project consists of the proposed development of an up to 250 megawatt (MW) solar energy project consisting of ground mounted photovoltaic arrays and associated infrastructure.

A cultural resource literature review focused on a 3.2 km (2 mi) radius (study area) around the proposed Project Area. Research identified multiple previous surveys, archaeological sites, cemeteries, National Register of Historic Places (NRHP) listed resources, NRHP Determination of Eligibility resources (NRHP-DOE), and historic structures within the study area.

Prior to starting field investigations, a cultural resources work plan (Attachment A) was submitted to the OH-SHPO for review via e-mail on October 7, 2020. The OH-SHPO reviewed the plan and provided written approval via e-mail on November 5, 2020. Following approval of the work plan, a parcel on the north end of the Project Area and associated transmission line were removed from the project, and will be covered under a separate permit application. These changes are reflected in the Programmatic Agreement as well as the technical reports.

To date the majority of the project area has been investigated, but completion of fieldwork has been delayed due weather and ground surface visibility. As a result, a Programmatic Agreement (Attachment B) was prepared that provided commitments to complete the investigation in accordance with the approved work plan. The signed and fully executed PA was finalized on January 25, 2021.

In addition, the Historic Architecture Reconnaissance Survey that is a component of the Pleasant Prairie's OPSB application, for Prairie and Pleasant Townships, Franklin County, Ohio was submitted January 29, 2021 and is currently under review by the OH-SHPO.

## **Attachment A**

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# **Pleasant Prairie Solar Energy Project**

## **Cultural Resource Work Plan**

# Phase I Cultural Workplan

**Pleasant Prairie Solar Energy Center  
Project, Prairie and Pleasant  
Townships, Franklin County, Ohio**

E320301701



## Document Information

Prepared for Pleasant Prairie Solar Energy, LLC  
Project Name: Phase I Cultural Workplan for the Pleasant Prairie Solar Energy Center Project, Prairie and Pleasant Townships, Franklin County, Ohio  
Project Number: E320301701  
Project Manager: Ryan Peterson  
Date October 06, 2020

Prepared and Submitted by Kaye Grob and Ryan Peterson

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## Management Summary

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In response to a request from Pleasant Prairie Solar Energy, LLC (Pleasant Prairie), Cardno, Inc. (Cardno) proposes to conduct a Phase I archaeological and historic architecture reconnaissance (Phase I) for the proposed Pleasant Prairie Solar Energy Center Project (Project). The Project is located in Prairie and Pleasant Townships, Franklin County, Ohio. The Project is located on the Galloway, Ohio 7.5' USGS topographic quadrangle map. The Project consists of the proposed development of an up to 250 megawatt (MW) solar energy project consisting of ground mounted photovoltaic arrays and associated infrastructure. The area that encompasses the Project measures approximately 955.5 hectares (ha) (2,361 acres [ac]) and consists of agricultural fields, fallow grasslands, and remnant woodlots (Project Area).

State Agencies involved with the Project include the Ohio Power Siting Board (OPSB) and the Ohio State Historic Preservation Office (OH-SHPO).

The Project Area is defined as the vertical and horizontal space (the area within and immediately adjacent to planned construction) that will be impacted by Project activities. This constitutes the Area of Potential Effects (APE) for direct effects.

The APE for Indirect (Visual) Effects represents portions of the Cultural Resources Study Area where there is potential Project visibility, which will be based upon visual impact analysis.

A cultural resources literature review focused on a 3.2 km (2 mi) radius (study area) around the proposed Project Area. Research identified multiple previous surveys, archaeological sites, cemeteries, National Register of Historic Places (NRHP) listed resources, NRHP Determination of Eligibility resources (NRHP-DOE), and historic structures within the study area. Of these resources, 43 archaeological sites are located within the Project Area, and four archaeological investigations and one historic properties investigation have been conducted within the Project Area.

# 1 Introduction

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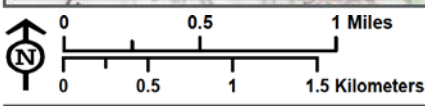
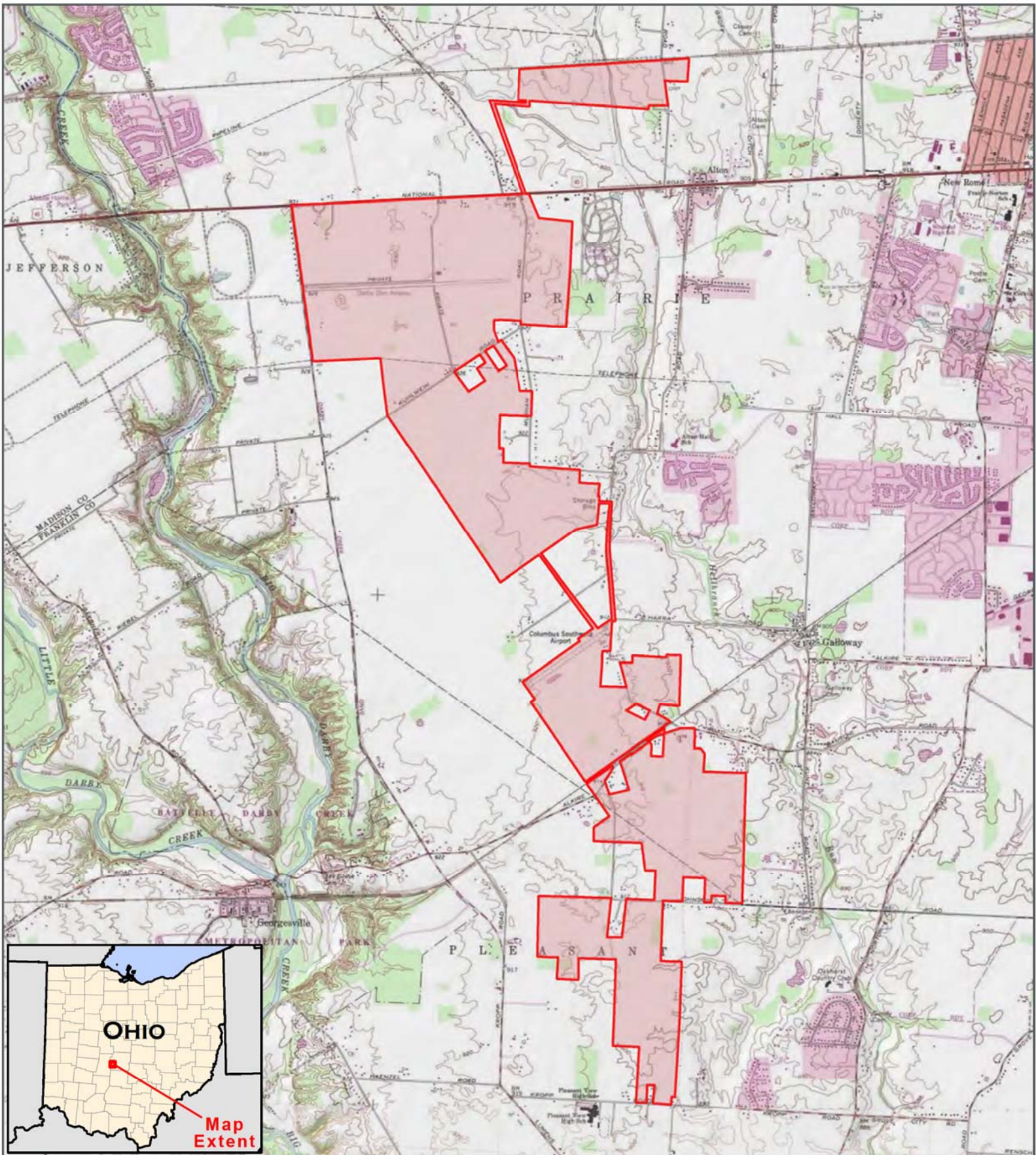
In response to a request from Pleasant Prairie, Cardno has prepared a Phase I archaeological and historic architecture reconnaissance workplan for the Pleasant Prairie Solar Energy Center Project (Project) in Franklin County, Ohio. The Project is located on the Galloway, Ohio United States Geological Survey (USGS) 7.5' quadrangle map in Franklin County, Ohio (Figure 1).


Based on information provided by Pleasant Prairie, the Project Area encompasses approximately 955.5 ha (2,361 ac). The Project consists of an up to 250 megawatt (MW) solar energy project. The Project Area includes solar arrays and associated infrastructure such as access roads and electrical collection lines.

The Project Area is defined as the vertical and horizontal space (the area within and immediately adjacent to planned construction) that will be impacted by Project activities. This constitutes the Area of Potential Effects (APE) for direct effects. A cultural resources literature review focused on a 3.2 km (2 mi) buffer (study area) around the proposed Project Area. Research identified 251 previously identified archaeological sites, 2 of which are listed in the NRHP, 23 cemeteries, and 34 historic structures, 4 of which are listed as NRHP-DOE, within the study area. Of these resources, 43 archaeological sites are located within the Project Area and 4 archaeological investigations and one historic properties investigation have been conducted within the Project Area.

Key personnel committed to the Project include Principal Investigator and workplan co-author Ryan Peterson and report co-author Kaye Grob. Mr. Kevin Gable created the report graphics.

This report presents the results of the background research and archaeological and architectural workplan models in Section 2.0. Section 3.0 outlines the applicable laws and guidelines. Section 4.0 discusses the conclusions and recommendations. The references cited in this report appear in Section 5.0. Appendix A provides historic maps documenting the use of the Project Area through time.



 Project Area

7.5' Quadrangle:  
Galloway, OH (1982)

PLSS: unsectioned

This map and all data contained within are supplied as is with no warranty. Cardno, Inc. expressly disclaims responsibility for damages or liability from any claims that may arise out of the use or misuse of this map. It is the sole responsibility of the user to determine if the data on this map meets the user's needs. This map was not created as survey data, nor should it be used as such. It is the user's responsibility to obtain proper survey data, prepared by a licensed surveyor, where required by law.

Project Location - USGS Topographic Quad

Phase I Cultural Workplan  
for the Pleasant Prairie Solar Energy Project  
Pleasant Prairie Solar Energy, LLC  
Franklin County, Ohio

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## 2 Background Research

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The literature review was directed toward identifying previously recorded archaeological sites, historic structures, and other cultural resources. Research was conducted using online data provided by the OH-SHPO in September 2020 (Ohio History Connection 2020). Cardno focused on previously recorded resources within 3.2 km (2 mi) of the Project Area, but also examined the larger region where appropriate. For the literature review, we consulted the following resources:

- National Historic Landmark list;
- National Register of Historic Places (NRHP) list;
- Cultural Resource Management reports;
- County Histories and Atlas Maps;
- Ohio Archaeological Inventory (OAI) files;
- Ohio Genealogical Society (OGS) cemetery files
- *Archaeological Atlas of Ohio* (Mills 1914).

### 2.1 Literature Review

Records provided by OH-SHPO revealed that there are 251 previously identified archaeological sites, two of which are listed in the NRHP, 23 cemeteries, and 34 historic structures, 4 of which are listed as NRHP-DOE, located within the 3.2 km (2 mi) study area. Of these resources, 43 archaeological sites are located within the Project Area, and four archaeological investigations and one historic properties investigation have been conducted within the Project Area.

#### 2.1.1 National Historic Landmarks List

There are no National Historic Landmarks within the study area.

#### 2.1.2 National Register of Historic Places (NRHP)

There are two NRHP listed resource within the 3.2 km (2 mi) study area (Figure 2). The Tom Cannon Mound (NPS Ref. No. 74001498; 33-FR-0059) consists of a prehistoric mound, located approximately 2.5 km (1.6 mi) west of the Project Area. The John Galbreath Mound (NPS Ref. No. 74001497; 33-FR-0058) consists of a prehistoric mound located approximately 2.2 km (1.4 mi) west of the Project Area. The location of these prehistoric mounds is restricted and enclosed mapping should not be reproduced or publically disseminated.

In addition, six historic properties have are listed as NRHP Determination of Eligibility (NRHP-DOE), indicating they are eligible for the NRHP; however, have not been formally nominated. The structures include OHI resources FRA0176828, FRA0176128, FRA0175928, FRA0916028, FRA0176028, and FRA0916128, which are all located over 1.0 km (0.62 mi) east of the Project Area in the town of Galloway (Figure 2).

#### 2.1.3 Ohio Historic Inventory (OHI)

A total of 34 properties have been documented within the 3.2 km (2.0 mi) study area (Table 1; Figure 2). None of the properties are located within the Project Area, four of which are listed as NRHP-DOE.

**Table 1. Previously Recorded Historic Structures within the 3.2 km (2.0 mi) Study Area**

| Structure Number      | Present Name/ Other Name                          | Function                                      | Location                        |
|-----------------------|---|---|---------------------------------|
| FRA0174128            | Dr JM Phillips                                    | Single Dwelling/<br>Barn                      | 6011 W Broad St (US 40)         |
| FRA0174228            |   | Single Dwelling                               | 6467 W Broad St (US 40)         |
| FRA0174328            | National Road Mile Marker 269                     | Monument/<br>Marker/ Road/<br>Vehicle Related | abt 8000 W Broad St (US 40)     |
| FRA0174407            | Trakavich Root Cellar/ Hillburn Building          | Agricultural Outbuildings                     | 1866 Jones Rd                   |
| FRA0175327            |   | Single Dwelling                               | 5545 Norton Rd                  |
| FRA0175427            | Boyd House/ Haye House                            | Single Dwelling/<br>Barn                      | 5500 Georgesville Harrisburg Rd |
| FRA0175527            | Toland House                                      | Single Dwelling/<br>Agricultural Outbuildings | Alkire Rd                       |
| FRA0175627            | Gardner Log House                                 | Single Dwelling                               | 2421 Gardner Rd                 |
| FRA0175727            | Frank H Wilson Farm/ Otto Schilling Farm          | Summer Kitchen                                | 8390 Alkire Rd                  |
| FRA0175827            | Lawrence Beavers Farm/ Charles Cropp Farm         | Summer Kitchen/<br>Agricultural Outbuildings  | 7190 Kropp Rd                   |
| FRA0175928 (NRHP-DOE) | Walter S Cook House/ Courtright House and Farm    | Single Dwelling                               | 6241 Alkire Rd                  |
| FRA0176028 (NRHP-DOE) | John West House/ Adams House                      | Single Dwelling                               | 1982 S Main St                  |
| FRA0176128 (NRHP-DOE) | Big Tony's Pizza Carryout/ Fulton Brother's Store | Commercial                                    | 1954 Main St                    |
| FRA0176228            | Ernest Tyler House/ Peter's Place                 | Single Dwelling/<br>Agricultural Outbuildings | 1915 Galloway Rd                |
| FRA0176428            | Gerald Grooms House/ Carlson Farm                 | Single Dwelling/<br>Agricultural Outbuildings | 640 Murnan Rd                   |
| FRA0176528            | Frank L Wilcox Farm/ Thompson Place               | Single Dwelling/<br>Barn                      | 1040 Alton Rd                   |
| FRA0176628            | Wilcox House/ Joseph O'Harra House                | Single Dwelling/<br>Agricultural Outbuildings | 1200 Alton Rd                   |
| FRA0176728            | Gravity Flow Water Tank/ George Early Farm        | Other Use                                     | 1860 Galloway Rd                |
| FRA0176828 (NRHP-DOE) | Everett Hensley House/ Jess Byrun                 | Single Dwelling                               | 6342 O'Harra Rd                 |
| FRA0176928            | Henley House/ Clay House                          | Single Dwelling/<br>Barn                      | 6439 O'Harra Rd                 |

**Table 1. Previously Recorded Historic Structures within the 3.2 km (2.0 mi) Study Area**

| Structure Number | Present Name/ Other Name                    | Function   | Location                            |
|------------------|---|--|-------------------------------------|
| FRA0192528       | Harry F Distelhorst House/<br>Michael Place | Single Dwelling/<br>Agricultural<br>Outbuildings | 5381 W Broad St (US 40)             |
| FRA0192608       | St James Lutheran Church                    | Church/Religious<br>Structure/<br>Cemetery       | 1683 Hilliard-Rome Rd               |
| FRA0194328       | Erwin House/ Ingalls Farm                   | Single Dwelling                                  | 589 Amity Rd                        |
| FRA0490828       | Manning Farm #2                             | Single Dwelling/<br>Corn Crib                    | abt 900 Doherty Rd                  |
| FRA0490928       | Manning Farm #1                             | Single Dwelling/<br>Barn                         | abt 6101 Feder Rd                   |
| FRA0839828       | Gutheil Residence                           | Single Dwelling                                  | 6601 O'Harra Rd                     |
| FRA0847028       | James Phillippi Farm                        | Single Dwelling                                  | 1189 Hilliard Rome Rd E             |
| FRA0864528       | National Road Mile Marker 267               | Monument/<br>Marker/ Road/<br>Vehicle Related    | btwn 6530 & 6524 W<br>Broad (US 40) |
| FRA0875528       | Clover Cemetery                             | Cemetery   | Alton Darby Creek Rd                |
| FRA0968428       | Metro Parks House                           | Residential/<br>Domestic                         | 341 Darby Creek Rd                  |
| FRA0968528       | Metro Parks Barn                            | Other Use  | 583 Darby Creek Rd                  |
| FRA1066428       | Nat'l Road Stone Arch Culvert<br>Remnant    | Road Related                                     | US 40 over Scioto Big<br>Run        |
| MAD0023607       | B & B/ Former US 40 Cottage<br>Court        | Hotel/Inn/Motel                                  | 9420-9430 National Rd<br>(US 40)    |
| MAD0026407       | Dwelling                                    | Single Dwelling                                  | 51 Plain City Georgesville<br>Rd    |

#### **2.1.4 Ohio Archaeological Inventory (OAI)**

The OAI files indicate a total of 251 archaeological sites within the 3.2 km (2 mi) study area (Table 2; Figure 2). Of these sites, 43 are located within the northern portion of the current Project Area (33FR3008 through 33FR3033 and 33FR3037 through 30FR3053). The sites were identified as a result of two surveys conducted by Weller and Associates in 2016. These Phase I archaeological reconnaissance investigations were conducted for a transmission upgrade a substation construction project (Weller 2016a and 2016b). All of the sites within the Project Area were determined to be ineligible for listing to the NRHP (Weller 2016a and 2016b). Due to the recent nature of this survey, there is no need revisit to these sites or re-survey the northernmost parcel within the current Project Area that was recently investigated.

Archaeological sites outside the Project Area are not depicted on enclosed mapping due to the sensitive nature of the resources.

**Archaeological site locations within the Project Area, depicted on the enclosed mapping, are considered confidential and enclosed mapping should not be reproduced or publically disseminated.**

**Table 2. Previously Recorded Archaeological Sites within the 3.2 km (2.0 mi) Study Area**

| Site Number                              | Cultural Affiliation  | Description                | Location           |
|--|---|----------------------------|--------------------|
| 33FR0052                                 | Late Woodland and Late Prehistoric                                | Prehistoric Burial Mound   | In 2 mi Study Area |
| 33FR0058/<br>NPS Ref.<br>No.<br>74001497 | Unknown Woodland  | Reported Prehistoric Mound | In 2 mi Study Area |
| 33FR0059/<br>NPS Ref.<br>No.<br>74001498 | Unknown Woodland  | Prehistoric Mound          | In 2 mi Study Area |
| 33FR0060                                 | Unknown Woodland  | Prehistoric Mound          | In 2 mi Study Area |
| 33FR0061                                 | Early Woodland  | Prehistoric Mound          | In 2 mi Study Area |
| 33FR0109                                 | Unidentified Prehistoric  | Prehistoric Scatter        | In 2 mi Study Area |
| 33FR0215                                 | Early Archaic, Middle Woodland, Late Woodland, Late Prehistoric   | Prehistoric Scatter        | In 2 mi Study Area |
| 33FR0217                                 | Unidentified Prehistoric  | Prehistoric Scatter        | In 2 mi Study Area |
| 33FR0218                                 | Unidentified Prehistoric  | Prehistoric Scatter        | In 2 mi Study Area |
| 33FR0219                                 | Late Archaic  | Prehistoric Scatter        | In 2 mi Study Area |
| 33FR0284                                 | Late Woodland and Late Prehistoric                                | Prehistoric Scatter        | In 2 mi Study Area |
| 33FR0285                                 | Unidentified Prehistoric  | Prehistoric Scatter        | In 2 mi Study Area |
| 33FR0286                                 | Unidentified Prehistoric  | Prehistoric Scatter        | In 2 mi Study Area |
| 33FR0287                                 | Unidentified Prehistoric  | Prehistoric Scatter        | In 2 mi Study Area |
| 33FR0288                                 | Unidentified Prehistoric  | Prehistoric Scatter        | In 2 mi Study Area |
| 33FR0294                                 | Early Archaic, Early, Middle, and Late Woodland, Late Prehistoric | Prehistoric Habitation     | In 2 mi Study Area |
| 33FR0295                                 | Unidentified Prehistoric  | Prehistoric Scatter        | In 2 mi Study Area |
| 33FR0296                                 | Early Archaic, Early and Middle Woodland                          | Prehistoric Habitation     | In 2 mi Study Area |
| 33FR0297                                 | Unidentified Prehistoric  | Prehistoric Scatter        | In 2 mi Study Area |
| 33FR0298                                 | Unidentified Prehistoric  | Prehistoric Scatter        | In 2 mi Study Area |
| 33FR0304                                 | Early Woodland, Late Woodland, and Late Prehistoric               | Prehistoric Scatter        | In 2 mi Study Area |
| 33FR0306                                 | Unknown Archaic and Early Woodland                                | Prehistoric Scatter        | In 2 mi Study Area |
| 33FR0310                                 | Unknown Archaic   | Prehistoric Scatter        | In 2 mi Study Area |
| 33FR0311                                 | Late Archaic  | Prehistoric Scatter        | In 2 mi Study Area |
| 33FR0312                                 | Unidentified Prehistoric  | Prehistoric Scatter        | In 2 mi Study Area |
| 33FR0313                                 | Unidentified Prehistoric  | Prehistoric Scatter        | In 2 mi Study Area |
| 33FR0314                                 | Unknown Archaic and Early Woodland                                | Prehistoric Scatter        | In 2 mi Study Area |

**Table 2. Previously Recorded Archaeological Sites within the 3.2 km (2.0 mi) Study Area**

| Site Number | Cultural Affiliation                  | Description                              | Location           |
|-------------|---------------------------------------|--|--------------------|
| 33FR0449    | Unidentified Prehistoric and Historic | Prehistoric Scatter                      | In 2 mi Study Area |
| 33FR0450    | Unidentified Prehistoric              | Prehistoric Scatter                      | In 2 mi Study Area |
| 33FR0451    | Unidentified Prehistoric              | Prehistoric Scatter                      | In 2 mi Study Area |
| 33FR0452    | Unidentified Prehistoric and Historic | Prehistoric and Historic Scatter         | In 2 mi Study Area |
| 33FR0453    | Unidentified Prehistoric              | Prehistoric Scatter                      | In 2 mi Study Area |
| 33FR0454    | Unidentified Prehistoric              | Prehistoric Scatter                      | In 2 mi Study Area |
| 33FR0460    | Unidentified Prehistoric              | Prehistoric Scatter                      | In 2 mi Study Area |
| 33FR0461    | Unknown Woodland                      | Prehistoric Scatter                      | In 2 mi Study Area |
| 33FR0462    | Unidentified Prehistoric              | Prehistoric Scatter                      | In 2 mi Study Area |
| 33FR0463    | Unidentified Prehistoric              | Prehistoric Scatter                      | In 2 mi Study Area |
| 33FR0464    | Unidentified Prehistoric              | Prehistoric Scatter                      | In 2 mi Study Area |
| 33FR0467    | Unidentified Prehistoric              | Prehistoric Scatter                      | In 2 mi Study Area |
| 33FR0470    | Unidentified Prehistoric              | Prehistoric Scatter                      | In 2 mi Study Area |
| 33FR0471    | Early Woodland                        | Prehistoric Scatter                      | In 2 mi Study Area |
| 33FR0472    | Early Woodland                        | Prehistoric Cache                        | In 2 mi Study Area |
| 33FR0473    | Unidentified Prehistoric              | Prehistoric Scatter                      | In 2 mi Study Area |
| 33FR0474    | Late Woodland                         | Prehistoric Scatter                      | In 2 mi Study Area |
| 33FR0591    | Unidentified Prehistoric              | Prehistoric Isolate                      | In 2 mi Study Area |
| 33FR0597    | Unidentified Prehistoric              | Prehistoric Isolate                      | In 2 mi Study Area |
| 33FR0598    | Unidentified Prehistoric              | Prehistoric Scatter                      | In 2 mi Study Area |
| 33FR0710    | Unidentified Prehistoric              | Prehistoric Isolate                      | In 2 mi Study Area |
| 33FR0711    | Late Archaic and Early Woodland       | Prehistoric Scatter                      | In 2 mi Study Area |
| 33FR0712    | Unidentified Prehistoric              | Prehistoric Scatter                      | In 2 mi Study Area |
| 33FR0713    | Unidentified Prehistoric and Historic | Prehistoric Scatter and Historic Isolate | In 2 mi Study Area |
| 33FR0714    | Historic                              | Historic Isolate                         | In 2 mi Study Area |
| 33FR0936    | Historic                              | Historic Scatter                         | In 2 mi Study Area |
| 33FR0960    | Early Woodland                        | Prehistoric Mound Group                  | In 2 mi Study Area |
| 33FR0961    | Early Woodland                        | Prehistoric Mound Group                  | In 2 mi Study Area |
| 33FR1571    | Historic                              | Old Roadbed                              | In 2 mi Study Area |
| 33FR1627    | Late Archaic and Historic             | Prehistoric and Historic Scatter         | In 2 mi Study Area |
| 33FR2199    | Unidentified Prehistoric              | Prehistoric Isolate                      | In 2 mi Study Area |

**Table 2. Previously Recorded Archaeological Sites within the 3.2 km (2.0 mi) Study Area**

| Site Number | Cultural Affiliation     | Description         | Location           |
|-------------|--------------------------|---------------------|--------------------|
| 33FR2200    | Unidentified Prehistoric | Prehistoric Isolate | In 2 mi Study Area |
| 33FR2201    | Unidentified Prehistoric | Prehistoric Scatter | In 2 mi Study Area |
| 33FR2202    | Unidentified Prehistoric | Prehistoric Scatter | In 2 mi Study Area |
| 33FR2203    | Unidentified Prehistoric | Prehistoric Scatter | In 2 mi Study Area |
| 33FR2204    | Unidentified Prehistoric | Prehistoric Isolate | In 2 mi Study Area |
| 33FR2205    | Unidentified Prehistoric | Prehistoric Isolate | In 2 mi Study Area |
| 33FR2206    | Unidentified Prehistoric | Prehistoric Isolate | In 2 mi Study Area |
| 33FR2207    | Unidentified Prehistoric | Prehistoric Isolate | In 2 mi Study Area |
| 33FR2208    | Unidentified Prehistoric | Prehistoric Isolate | In 2 mi Study Area |
| 33FR2209    | Unidentified Prehistoric | Prehistoric Isolate | In 2 mi Study Area |
| 33FR2210    | Unidentified Prehistoric | Prehistoric Isolate | In 2 mi Study Area |
| 33FR2211    | Unidentified Prehistoric | Prehistoric Isolate | In 2 mi Study Area |
| 33FR2212    | Unidentified Prehistoric | Prehistoric Scatter | In 2 mi Study Area |
| 33FR2213    | Unidentified Prehistoric | Prehistoric Isolate | In 2 mi Study Area |
| 33FR2214    | Unidentified Prehistoric | Prehistoric Isolate | In 2 mi Study Area |
| 33FR2215    | Unidentified Prehistoric | Prehistoric Isolate | In 2 mi Study Area |
| 33FR2216    | Unidentified Prehistoric | Prehistoric Isolate | In 2 mi Study Area |
| 33FR2217    | Unidentified Prehistoric | Prehistoric Isolate | In 2 mi Study Area |
| 33FR2218    | Unidentified Prehistoric | Prehistoric Scatter | In 2 mi Study Area |
| 33FR2219    | Unidentified Prehistoric | Prehistoric Isolate | In 2 mi Study Area |
| 33FR2220    | Early Archaic            | Prehistoric Isolate | In 2 mi Study Area |
| 33FR2221    | Unidentified Prehistoric | Prehistoric Isolate | In 2 mi Study Area |
| 33FR2222    | Unidentified Prehistoric | Prehistoric Isolate | In 2 mi Study Area |
| 33FR2223    | Unidentified Prehistoric | Prehistoric Scatter | In 2 mi Study Area |
| 33FR2224    | Unidentified Prehistoric | Prehistoric Isolate | In 2 mi Study Area |
| 33FR2225    | Early and Late Archaic   | Prehistoric Scatter | In 2 mi Study Area |
| 33FR2226    | Unidentified Prehistoric | Prehistoric Scatter | In 2 mi Study Area |
| 33FR2227    | Unidentified Prehistoric | Prehistoric Isolate | In 2 mi Study Area |
| 33FR2228    | Unidentified Prehistoric | Prehistoric Isolate | In 2 mi Study Area |
| 33FR2229    | Unidentified Prehistoric | Prehistoric Scatter | In 2 mi Study Area |
| 33FR2230    | Unidentified Prehistoric | Prehistoric Scatter | In 2 mi Study Area |
| 33FR2231    | Unidentified Prehistoric | Prehistoric Scatter | In 2 mi Study Area |
| 33FR2232    | Unidentified Prehistoric | Prehistoric Scatter | In 2 mi Study Area |
| 33FR2233    | Unidentified Prehistoric | Prehistoric Scatter | In 2 mi Study Area |
| 33FR2234    | Unidentified Prehistoric | Prehistoric Isolate | In 2 mi Study Area |

**Table 2. Previously Recorded Archaeological Sites within the 3.2 km (2.0 mi) Study Area**

| Site Number | Cultural Affiliation                  | Description                              | Location           |
|-------------|---------------------------------------|--|--------------------|
| 33FR2235    | Unidentified Prehistoric              | Prehistoric Isolate                      | In 2 mi Study Area |
| 33FR2236    | Early Archaic and Historic            | Prehistoric and Historic Scatter         | In 2 mi Study Area |
| 33FR2237    | Historic                              | Historic Scatter                         | In 2 mi Study Area |
| 33FR2238    | Unidentified Prehistoric              | Prehistoric Isolate                      | In 2 mi Study Area |
| 33FR2239    | Unidentified Prehistoric              | Prehistoric Isolate                      | In 2 mi Study Area |
| 33FR2240    | Unidentified Prehistoric              | Prehistoric Isolate                      | In 2 mi Study Area |
| 33FR2241    | Middle Archaic                        | Prehistoric Isolate                      | In 2 mi Study Area |
| 33FR2242    | Unidentified Prehistoric and Historic | Prehistoric Isolate and Historic Scatter | In 2 mi Study Area |
| 33FR2243    | Unidentified Prehistoric              | Prehistoric Isolate                      | In 2 mi Study Area |
| 33FR2244    | Late Archaic and Historic             | Prehistoric Isolate and Historic Scatter | In 2 mi Study Area |
| 33FR2245    | Unidentified Prehistoric              | Prehistoric Isolate                      | In 2 mi Study Area |
| 33FR2246    | Unidentified Prehistoric              | Prehistoric Scatter                      | In 2 mi Study Area |
| 33FR2247    | Unidentified Prehistoric              | Prehistoric Scatter                      | In 2 mi Study Area |
| 33FR2248    | Unidentified Prehistoric              | Prehistoric Isolate                      | In 2 mi Study Area |
| 33FR2249    | Unidentified Prehistoric              | Prehistoric Scatter                      | In 2 mi Study Area |
| 33FR2250    | Unidentified Prehistoric              | Prehistoric Isolate                      | In 2 mi Study Area |
| 33FR2251    | Unidentified Prehistoric              | Prehistoric Isolate                      | In 2 mi Study Area |
| 33FR2252    | Unidentified Prehistoric              | Prehistoric Isolate                      | In 2 mi Study Area |
| 33FR2253    | Unidentified Prehistoric              | Prehistoric Scatter                      | In 2 mi Study Area |
| 33FR2254    | Unidentified Prehistoric              | Prehistoric Isolate                      | In 2 mi Study Area |
| 33FR2255    | Unidentified Prehistoric              | Prehistoric Isolate                      | In 2 mi Study Area |
| 33FR2256    | Unidentified Prehistoric              | Prehistoric Scatter                      | In 2 mi Study Area |
| 33FR2257    | Unidentified Prehistoric              | Prehistoric Scatter                      | In 2 mi Study Area |
| 33FR2258    | Early Archaic                         | Prehistoric Isolate                      | In 2 mi Study Area |
| 33FR2423    | Unidentified Prehistoric              | Prehistoric Isolate                      | In 2 mi Study Area |
| 33FR2424    | Unidentified Prehistoric              | Prehistoric Isolate                      | In 2 mi Study Area |
| 33FR2425    | Unidentified Prehistoric              | Prehistoric Isolate                      | In 2 mi Study Area |
| 33FR2426    | Unidentified Prehistoric              | Prehistoric Isolate                      | In 2 mi Study Area |
| 33FR2427    | Late Archaic                          | Prehistoric Scatter                      | In 2 mi Study Area |
| 33FR2428    | Early Archaic                         | Prehistoric Scatter                      | In 2 mi Study Area |
| 33FR2429    | Unidentified Prehistoric and Historic | Prehistoric and Historic Scatter         | In 2 mi Study Area |
| 33FR2430    | Unidentified Prehistoric              | Prehistoric Isolate                      | In 2 mi Study Area |
| 33FR2431    | Unidentified Prehistoric              | Prehistoric Isolate                      | In 2 mi Study Area |

**Table 2. Previously Recorded Archaeological Sites within the 3.2 km (2.0 mi) Study Area**

| Site Number | Cultural Affiliation                              | Description                              | Location           |
|-------------|---|--|--------------------|
| 33FR2432    | Unidentified Prehistoric and Historic             | Prehistoric Isolate and Historic Scatter | In 2 mi Study Area |
| 33FR2433    | Unidentified Prehistoric                          | Prehistoric Scatter                      | In 2 mi Study Area |
| 33FR2434    | Unidentified Prehistoric                          | Prehistoric Scatter                      | In 2 mi Study Area |
| 33FR2435    | Unidentified Prehistoric                          | Prehistoric Isolate                      | In 2 mi Study Area |
| 33FR2436    | Unidentified Prehistoric                          | Prehistoric Isolate                      | In 2 mi Study Area |
| 33FR2437    | Unidentified Prehistoric and Historic             | Prehistoric and Historic Scatter         | In 2 mi Study Area |
| 33FR2540    | Unidentified Prehistoric                          | Prehistoric Isolate                      | In 2 mi Study Area |
| 33FR2541    | Unidentified Prehistoric                          | Prehistoric Isolate                      | In 2 mi Study Area |
| 33FR2542    | Unidentified Prehistoric                          | Prehistoric Isolate                      | In 2 mi Study Area |
| 33FR2543    | Unidentified Prehistoric                          | Prehistoric Isolate                      | In 2 mi Study Area |
| 33FR2544    | Unidentified Prehistoric                          | Prehistoric Isolate                      | In 2 mi Study Area |
| 33FR2545    | Unidentified Prehistoric                          | Prehistoric Isolate                      | In 2 mi Study Area |
| 33FR2546    | Unidentified Prehistoric                          | Prehistoric Scatter                      | In 2 mi Study Area |
| 33FR2547    | Unidentified Prehistoric                          | Prehistoric Scatter                      | In 2 mi Study Area |
| 33FR2548    | Unidentified Prehistoric                          | Prehistoric Isolate                      | In 2 mi Study Area |
| 33FR2549    | Early Archaic and Late Archaic                    | Prehistoric Scatter                      | In 2 mi Study Area |
| 33FR2550    | Unidentified Prehistoric                          | Prehistoric Scatter                      | In 2 mi Study Area |
| 33FR2551    | Late Archaic, Late Woodland, and Late Prehistoric | Prehistoric Habitation                   | In 2 mi Study Area |
| 33FR2624    | Unidentified Prehistoric                          | Prehistoric Isolate                      | In 2 mi Study Area |
| 33FR2625    | Early Archaic                                     | Prehistoric Isolate                      | In 2 mi Study Area |
| 33FR2626    | Early Archaic                                     | Prehistoric Isolate                      | In 2 mi Study Area |
| 33FR2627    | Unidentified Prehistoric                          | Prehistoric Isolate                      | In 2 mi Study Area |
| 33FR2628    | Unidentified Prehistoric                          | Prehistoric Isolate                      | In 2 mi Study Area |
| 33FR2629    | Unidentified Prehistoric                          | Prehistoric Isolate                      | In 2 mi Study Area |
| 33FR2630    | Unidentified Prehistoric                          | Prehistoric Isolate                      | In 2 mi Study Area |
| 33FR2631    | Unidentified Prehistoric                          | Prehistoric Isolate                      | In 2 mi Study Area |
| 33FR2632    | Unidentified Prehistoric                          | Prehistoric Isolate                      | In 2 mi Study Area |
| 33FR2633    | Early Archaic                                     | Prehistoric Isolate                      | In 2 mi Study Area |
| 33FR2634    | Unidentified Prehistoric                          | Prehistoric Isolate                      | In 2 mi Study Area |
| 33FR2716    | Unidentified Prehistoric                          | Prehistoric Scatter                      | In 2 mi Study Area |
| 33FR2717    | Unidentified Prehistoric                          | Prehistoric Scatter                      | In 2 mi Study Area |
| 33FR2718    | Unidentified Prehistoric                          | Prehistoric Scatter                      | In 2 mi Study Area |
| 33FR2719    | Historic  | Historic Scatter                         | In 2 mi Study Area |

**Table 2. Previously Recorded Archaeological Sites within the 3.2 km (2.0 mi) Study Area**

| Site Number | Cultural Affiliation                  | Description                      | Location           |
|-------------|---------------------------------------|----------------------------------|--------------------|
| 33FR2720    | Historic                              | Historic Scatter                 | In 2 mi Study Area |
| 33FR2727    | Historic                              | Historic Scatter                 | In 2 mi Study Area |
| 33FR2806    | Unidentified Prehistoric              | Prehistoric Scatter              | In 2 mi Study Area |
| 33FR2807    | Unidentified Prehistoric              | Prehistoric Isolate              | In 2 mi Study Area |
| 33FR2808    | Unidentified Prehistoric              | Prehistoric Scatter              | In 2 mi Study Area |
| 33FR2809    | Unidentified Prehistoric              | Prehistoric Isolate              | In 2 mi Study Area |
| 33FR2810    | Late Archaic                          | Prehistoric Isolate              | In 2 mi Study Area |
| 33FR2811    | Unidentified Prehistoric              | Prehistoric Isolate              | In 2 mi Study Area |
| 33FR2812    | Unidentified Prehistoric              | Prehistoric Isolate              | In 2 mi Study Area |
| 33FR2813    | Unidentified Prehistoric              | Prehistoric Isolate              | In 2 mi Study Area |
| 33FR2814    | Unidentified Prehistoric              | Prehistoric Isolate              | In 2 mi Study Area |
| 33FR2828    | Unidentified Prehistoric              | Prehistoric Isolate              | In 2 mi Study Area |
| 33FR2829    | Unidentified Prehistoric              | Prehistoric Scatter              | In 2 mi Study Area |
| 33FR2830    | Unidentified Prehistoric              | Prehistoric Isolate              | In 2 mi Study Area |
| 33FR2831    | Unidentified Prehistoric              | Prehistoric Isolate              | In 2 mi Study Area |
| 33FR2832    | Unidentified Prehistoric and Historic | Prehistoric and Historic Scatter | In 2 mi Study Area |
| 33FR2833    | Unidentified Prehistoric              | Prehistoric Scatter              | In 2 mi Study Area |
| 33FR2834    | Unidentified Prehistoric              | Prehistoric Scatter              | In 2 mi Study Area |
| 33FR2835    | Unidentified Prehistoric              | Prehistoric Isolate              | In 2 mi Study Area |
| 33FR2836    | Unidentified Prehistoric              | Prehistoric Scatter              | In 2 mi Study Area |
| 33FR2859    | Unidentified Prehistoric              | Prehistoric Isolate              | In 2 mi Study Area |
| 33FR2860    | Unidentified Prehistoric              | Prehistoric Isolate              | In 2 mi Study Area |
| 33FR2861    | Historic                              | Historic Scatter                 | In 2 mi Study Area |
| 33FR2862    | Unidentified Prehistoric              | Prehistoric Isolate              | In 2 mi Study Area |
| 33FR2863    | Unidentified Prehistoric              | Prehistoric Isolate              | In 2 mi Study Area |
| 33FR2864    | Unidentified Prehistoric              | Prehistoric Isolate              | In 2 mi Study Area |
| 33FR2865    | Unidentified Prehistoric              | Prehistoric Isolate              | In 2 mi Study Area |
| 33FR2866    | Unidentified Prehistoric              | Prehistoric Isolate              | In 2 mi Study Area |
| 33FR2867    | Unknown Archaic                       | Prehistoric Isolate              | In 2 mi Study Area |
| 33FR2868    | Unknown Archaic                       | Prehistoric Isolate              | In 2 mi Study Area |
| 33FR2869    | Historic                              | Historic Scatter                 | In 2 mi Study Area |
| 33FR2870    | Unidentified Prehistoric              | Prehistoric Scatter              | In 2 mi Study Area |
| 33FR2871    | Unidentified Prehistoric              | Prehistoric Isolate              | In 2 mi Study Area |
| 33FR2872    | Unidentified Prehistoric              | Prehistoric Isolate              | In 2 mi Study Area |
| 33FR2873    | Unidentified Prehistoric              | Prehistoric Isolate              | In 2 mi Study Area |

**Table 2. Previously Recorded Archaeological Sites within the 3.2 km (2.0 mi) Study Area**

| Site Number | Cultural Affiliation                  | Description                              | Location        |
|-------------|---------------------------------------|--|-----------------|
| 33FR3008    | Late Archaic                          | Prehistoric Scatter                      | In Project Area |
| 33FR3009    | Unidentified Prehistoric              | Prehistoric Scatter                      | In Project Area |
| 33FR3010    | Unidentified Prehistoric              | Prehistoric Scatter                      | In Project Area |
| 33FR3011    | Unidentified Prehistoric              | Prehistoric Isolate                      | In Project Area |
| 33FR3012    | Unidentified Prehistoric              | Prehistoric Scatter                      | In Project Area |
| 33FR3013    | Unidentified Prehistoric              | Prehistoric Scatter                      | In Project Area |
| 33FR3014    | Unidentified Prehistoric              | Prehistoric Scatter                      | In Project Area |
| 33FR3015    | Unidentified Prehistoric              | Prehistoric Scatter                      | In Project Area |
| 33FR3016    | Unidentified Prehistoric              | Prehistoric Scatter                      | In Project Area |
| 33FR3017    | Unidentified Prehistoric              | Prehistoric Isolate                      | In Project Area |
| 33FR3018    | Unidentified Prehistoric              | Prehistoric Isolate                      | In Project Area |
| 33FR3019    | Unidentified Prehistoric              | Prehistoric Isolate                      | In Project Area |
| 33FR3020    | Unidentified Prehistoric              | Prehistoric Isolate                      | In Project Area |
| 33FR3021    | Unidentified Prehistoric              | Prehistoric Isolate                      | In Project Area |
| 33FR3022    | Unidentified Prehistoric              | Prehistoric Isolate                      | In Project Area |
| 33FR3023    | Unidentified Prehistoric              | Prehistoric Isolate                      | In Project Area |
| 33FR3024    | Unidentified Prehistoric              | Prehistoric Isolate                      | In Project Area |
| 33FR3025    | Unidentified Prehistoric              | Prehistoric Isolate                      | In Project Area |
| 33FR3026    | Unidentified Prehistoric              | Prehistoric Isolate                      | In Project Area |
| 33FR3027    | Unidentified Prehistoric              | Prehistoric Isolate                      | In Project Area |
| 33FR3028    | Unidentified Prehistoric              | Prehistoric Isolate                      | In Project Area |
| 33FR3029    | Unidentified Prehistoric              | Prehistoric Isolate                      | In Project Area |
| 33FR3030    | Middle Woodland and Mississippian     | Prehistoric Isolate                      | In Project Area |
| 33FR3031    | Unidentified Prehistoric              | Prehistoric Isolate                      | In Project Area |
| 33FR3032    | Unidentified Prehistoric              | Prehistoric Isolate                      | In Project Area |
| 33FR3033    | Late Archaic                          | Prehistoric Isolate                      | In Project Area |
| 33FR3037    | Unidentified Prehistoric              | Prehistoric Isolate                      | In Project Area |
| 33FR3038    | Early Archaic                         | Prehistoric Isolate                      | In Project Area |
| 33FR3039    | Unidentified Prehistoric              | Prehistoric Isolate                      | In Project Area |
| 33FR3040    | Unidentified Prehistoric              | Prehistoric Isolate                      | In Project Area |
| 33FR3041    | Unidentified Prehistoric and Historic | Prehistoric Isolate and Historic Scatter | In Project Area |
| 33FR3042    | Unidentified Prehistoric              | Prehistoric Isolate                      | In Project Area |
| 33FR3043    | Unidentified Prehistoric              | Prehistoric Isolate                      | In Project Area |
| 33FR3044    | Unidentified Prehistoric              | Prehistoric Isolate                      | In Project Area |

**Table 2. Previously Recorded Archaeological Sites within the 3.2 km (2.0 mi) Study Area**

| Site Number | Cultural Affiliation     | Description                      | Location           |
|-------------|--------------------------|----------------------------------|--------------------|
| 33FR3045    | Unidentified Prehistoric | Prehistoric Isolate              | In Project Area    |
| 33FR3046    | Unidentified Prehistoric | Prehistoric Isolate              | In Project Area    |
| 33FR3047    | Unidentified Prehistoric | Prehistoric Isolate              | In Project Area    |
| 33FR3048    | Unidentified Prehistoric | Prehistoric Isolate              | In Project Area    |
| 33FR3049    | Unidentified Prehistoric | Prehistoric Isolate              | In Project Area    |
| 33FR3050    | Unidentified Prehistoric | Prehistoric Isolate              | In Project Area    |
| 33FR3051    | Late Archaic             | Prehistoric Scatter              | In Project Area    |
| 33FR3052    | Unidentified Prehistoric | Prehistoric Scatter              | In Project Area    |
| 33FR3053    | Unidentified Prehistoric | Prehistoric Scatter              | In Project Area    |
| 33FR3054    | Unidentified Prehistoric | Prehistoric Isolate              | In 2 mi Study Area |
| 33FR3055    | Unidentified Prehistoric | Prehistoric Isolate              | In 2 mi Study Area |
| 33FR3056    | Unidentified Prehistoric | Prehistoric Isolate              | In 2 mi Study Area |
| 33FR3057    | Unidentified Prehistoric | Prehistoric Isolate              | In 2 mi Study Area |
| 33FR3058    | Unidentified Prehistoric | Prehistoric Isolate              | In 2 mi Study Area |
| 33FR3059    | Late Woodland            | Prehistoric Isolate              | In 2 mi Study Area |
| 33MA0139    | Historic                 | Historic Scatter                 | In 2 mi Study Area |
| 33MA0173    | Unknown                  | Unknown                          | In 2 mi Study Area |
| 33MA0204    | Historic                 | Prehistoric and Historic Scatter | In 2 mi Study Area |
| 33MA0220    | Historic                 | Historic Scatter                 | In 2 mi Study Area |
| 33MA0221    | Historic                 | Historic Scatter                 | In 2 mi Study Area |
| 33MA0222    | Historic                 | Historic Scatter                 | In 2 mi Study Area |
| 33MA0223    | Historic                 | Historic Scatter                 | In 2 mi Study Area |
| 33MA0224    | Historic                 | Historic Scatter                 | In 2 mi Study Area |

#### **2.1.5 Ohio Genealogical Society (OGS) Cemetery Data**

The OGS files indicate a total of 23 cemeteries within the 3.2 km (2 mi) study area (Table 3; Figure 2). The cemeteries are located outside the Project Area and they will not be directly affected by the proposed Project; however, several are located slightly outside the Project Area, including the Carla Dellinger Cemetery (OGS ID 3671), the Davis-Dellinger Cemetery (OGS ID 3673), the Elliotts Farm Cemetery (OGS ID 3675), and the Memorial Burial Park- Sunset Memorial Burial Park Cemetery (OGS ID 3677).

**Table 3. Previously Recorded Cemeteries within the 3.2 km (2 mi) Study Area**

| OGS Number | Name  | Burial Condition     | Location  |
|------------|---|----------------------|---|
| 3662       | Nathaniel Gardner-Voss                                      | Moved                | 0.5 mile north of Haenzel Road. Was on east side of Harrisburg-Georgesville Road. Near old school house   |
| 3674       | Dougherty   | Gone                 | North 0.9 mile US 40. West 306 feet Alton-Darby Creek Road. Was on west side of Alton-Darby Creek Road. South of railroad tracks. Near Hellbranch Run |
| 3681       | Trust of Prairie  |                      | North 0.9 mile US 40. West Alton-Darby Creek Road   |
| 3619       | Saint James-Jacob Lutheran- German                          | Moderate Maintenance | 5660 Trabue Road. Southeast corner of Trabue and Rome-Hilliard Roads. Just north of I-70 interchange  |
| 3658       | Lilly-Dyer  | Endangered           | About 0.75 mile north of Alkire Road. West of Big Darby Creek. On Battelle-Darby Metro Park   |
| 3677       | Memorial Burial Park- Sunset Memorial Burial Park- (Sunset) |                      | West 0.2 mile Alton Road. South US 40   |
| 3652       | Cummings  | Gone                 | 0.4 mile south of Kropp Road. East side of Norton Road  |
| 3669       | Alton   | Highly Maintained    | 0.6 mile north of West Broad Street. West side of Alton-Darby Creek Road  |
| 3678       | Neff  | Gone                 | West 0.3 mile Alkire. South 565 feet of Alton. Was on knoll. Behind 6601 O'Harra Road   |
| 3653       | Dyer  | Gone                 | About 0.3 mile south of Georgesville. 1.5 miles east of Harrisburg Road. North of Alkire. Was on east side Georgesville-Wrightsville Road             |
| 3672       | Clover  | Endangered           | 0.9 mile north of West Broad Street. West 306 feet Alton-Darby Road   |
| 3656       | Gundy   | Moderate Maintenance | 0.5 mile south of Johnson Road. East side of Norton Road  |
| 3675       | Elliot's Farm   |                      | South 0.6 mile US 40. West 0.5 mile Alton Road. Was rear of SUNSET  |
| 3667       | Wahl  | Moved                | South of GUNDY  |
| 3676       | Galloway  | Moderate Maintenance | 0.2 mile southeast. of Alkire and Galloway Roads. On east side road   |
| 3623       | Wilcox  | Gone                 | 495 feet west of Spindler. 1650 feet north of Renner  |
| 3670       | Alton Methodist Episcopal                                   | Restored             | At about 6449 West Broad Street. Behind old church  |
| 3654       | Ebenezer Methodist Episcopal- (Ebenezer)                    | Moderate Maintenance | 0.3 mile west Norton Road. South side Johnson Road  |
| 3673       | Davis-Dellinger   | Gone                 | Was northeast of Alton and Alkire Roads. Near railroad tracks   |
| 3664       | Oak Grove   |                      | In Georgesville. North of Norton. 0.6 mile from Kobel   |
| 3657       | J. Wahl   |                      | 50 feet from Norton. South of Kropp Road  |

**Table 3. Previously Recorded Cemeteries within the 3.2 km (2 mi) Study Area**

| OGS Number | Name            | Burial Condition | Location   |
|------------|-----------------|------------------|--|
| 3671       | Carla Dellinger |                  | South 1000 feet of O'Harra. East of Alton Road   |
| 3661       | Moler           | Endangered       | 0.3 of mile Georgesville-Wrightsville Road and Alkire Road. 0.2 mile south of Georgesville Methodist Church. Down a lane |

### 2.1.6 Cultural Resource Management (CRM) Reports

Records on file at OH-SHPO indicate that 33 Phase I and 1 Phase II previous cultural resource investigations have been conducted within 3.2 km (2 mi) of the Project Area (Table 4). Four of these investigations are located within the current Project Area (Hale 1978; Dancey et al. 1980; Weller 2016a and 2016b). Surveys outside the Project Area are not depicted on enclosed mapping. In addition, adequate mapping was not available for the Dancey et al. (1978) survey area, so it is not mapped on Figure 2.

In 1978, Everett Hale conducted an archaeological reconnaissance for work on Kropp Road. This survey area slightly intersects the western portion of the current Project Area; however, the survey methodology would not be aligned with today's archaeological survey methodology guidelines. No archaeological sites were identified as a result of this survey (Hale 1978; Figure 2).

In 1979, the Ohio State University conducted a survey of the Central Darby Creek river drainage in Franklin and Madison Counties (Dancey et al. 1980; Figure 2). The survey resulted in the recovery of over 2,900 cultural items and the identification of 42 habitation and one mound site, to the 6 habitation and 10 mound sites previously recorded within the study area of the project (Dancey et al. 1980). No project mapping was available for this project; however, it appears that portions of the survey area were within the current Project Area; however, the survey methodology would not be aligned with today's standards.

In 2016, Weller and Associates conducted two archaeological reconnaissance surveys that investigated the entire northernmost parcel within the Project Area (Weller 2016a and 2016b). The first survey was associated with the American Electric Power proposed Amlin-Cole transmission upgrade project and identified 26 archaeological sites within the current Project Area (33FR3008 through 33FR3033) (Weller 2016a; Figure 2). The next survey was conducted for the American Electric Power 53.5 ha (132.1 ac) proposed Cole Substation. This investigation identified 17 new archaeological sites within the current Project Area (33FR3037 through 33FR3053) (Weller 2016b; Figure 2). None of the sites within either project were determined to meet eligibility criteria for inclusion in the NRHP (Weller 2016a and 2016b).

In addition to the Phase I and II archaeological investigations listed in Table 4, two historic properties surveys have been conducted within the 3.2 km (2.0 mi) study area (Miller et al. 1998 and Mitchell n.d.) One of these projects bisects the Project Area along the National Road (Route 40/ National Pike). Gray and Pape conducted a historic properties inventory along the entire length of the National Road within Ohio. A total of 507 properties were newly recorded and 173 properties were previously inventoried. In addition, ground truthing of the historic properties was conducted by archaeologists at 41 of the structure locations based upon a predictive model. This survey recorded multiple historic properties within the current study area along the National Road (Miller et al. 1998; Figure 2).

**Table 4. Previously Cultural Resources Investigations within the 2 miles of the Project Area**

| Report Number | Year | Author   | Title  | Distance from Project Area                         |
|---------------|------|--|--|--|
| 19388         | 1963 | Baby, Raymond S. and Martha Otto                                 | Archaeological Survey of Big Darby Reservoir Area (Pleasant Township, Franklin County and Jefferson Township, Madison County, Ohio).   | No Project Mapping                                 |
| 11009         | 1978 | Hale, Everett E.   | Archaeological Survey Report, FRA CR 140, Kropp Road (Pleasant Township, Franklin County, Ohio)  | In Project Area                                    |
| 11055         | 1980 | Dancey, William S., Dee Ann Wymer, and Robert Waterworth         | An Archaeological Survey of the Central Darby Creek River Drainage, Franklin And Madison Counties, Ohio  | In Project Area                                    |
| 11105         | 1980 | Hale, Everett E.   | Archaeological Survey of the Proposed Realignments for the Darby Creek Bridges, FRA CR 11, Franklin County, Ohio   | 1.36 mi west of Project Area                       |
| 11494         | 1983 | Immel, Elsie A., Shaune M. Skinner, Julie Kime, and Helen Miller | Archaeological Investigations of the Army Corps of Engineers Excess Properties at Alum Creek Lake and Big Darby Creek  | 1.28 mi southwest of Project Area                  |
| 11053         | 1986 | Bier, Donald R., Jr.   | Preliminary Archaeological Survey for the Proposed Norton Road Expansion Corridor In Darbydale, Franklin County, Ohio  | 0.92 mi southeast of Project Area                  |
| 11064         | 1989 | Beamer, Herb and Gary McDonald                                   | Phase I & II Cultural Resource Survey: Proposed Distlehorst Property Development, Prairie Township, Franklin County, Ohio  | 2.0 mi east of Project Area                        |
| 11060         | 1989 | Kreinbrink, Jeannine   | Cultural Resources Survey Of A Proposed 0.7 Mile Gas Pipeline Replacement, Franklin County, Ohio   | 1.84 mi northeast of Project Area                  |
| 12749         | 1992 | Minichillo, Thomas J. and Christopher E. Jackson                 | Cultural Resources Survey of the Proposed 1992 Mainline Project, Project 1: Line A Replacement, Project 2: West Columbus Supply Project, Clark, Franklin, and Madison Counties, Ohio | Various locations over 0.3 mi outside Project Area |
| 12035         | 1994 | Weller Von Molsdorff, Ryan J. and Brian K. Mollenkopf            | Phase I Archaeological Investigations for the Widening of Hilliard-Rome Road Between The I-70 Interchange and Cemetery Road in Norwich Township, Franklin County, Ohio               | 1.75 mi northeast of Project Area                  |
| 11978         | 1994 | Schweikart, John F., Deborah Dobson-Brown, and Lori O'Donnell    | Literature Review and Reconnaissance Survey of the Proposed Norton Road Expansion from West Broad Street To Hall Road in New Rome, Franklin County, Ohio                             | 2 mi east of Project Area                          |
| 14315         | 2000 | Brown, Joel  | Addendum to the Phase I Cultural Resources Management Investigations for a .09 ha (.23 a.) Communications Tower near Galloway in Prairie Township, Franklin County, Ohio             | 0.26 mi east of Project Area                       |

**Table 4. Previously Cultural Resources Investigations within the 2 miles of the Project Area**

| Report Number | Year | Author                                      | Title   | Distance from Project Area                           |
|---------------|------|---|---|--|
| 14314         | 2000 | Brown, Joel                                 | Phase I Cultural Resources Management Investigations for a .09 ha (.23 a.) Communications Tower Near Galloway in Prairie Township, Franklin County, Ohio  | 0.26 mi east of Project Area                         |
| 14872         | 2001 | Keener, Craig S.                            | Phase I Cultural Resource Management Survey of the Proposed AT&T Cell Tower (Hilliard Rome & Fisher Site CO-117-01) in Prairie Township, Franklin County, Ohio  | 1.93 mi northeast of Project Area                    |
| 14870         | 2002 | Keener, Craig S.                            | Phase I Cultural Resource Management Survey of the proposed 5.6 ha (14 a.) Darbydale Wastewater Treatment and Collection Project in Pleasant Township, Franklin County, Ohio  | 1.37 mi south southeast of Project Area              |
| 16008         | 2002 | Weller, Ryan J. and Kathy Mast Kane         | A Cultural Resources Management Investigation for the 132 ha (325 ac) T & R Properties Housing Development in Prairie Township, Franklin County, Ohio   | 0.43 mi east of Project Area                         |
| 15056         | 2002 | Rahe, Richard, Anna Scott, and Alan Tonetti | Addendum to the Phase I Cultural Resources Survey for the Proposed State Route 142 Improvements MAD-142-11.13 (PID 17790) in Jefferson Township, Madison County, Ohio (Short report)  | 1.88 mi west of Project Area                         |
| 16254         | 2003 | Derick, Scott M.                            | Phase I Cultural Resources Management Investigations for the Proposed Wetland Mitigation Project (CIP 753) Located in the City of Columbus, Franklin County, Ohio   | 0.18 mi east of Project Area                         |
| 16353         | 2004 | Derick, Scott M.                            | Phase I Cultural Resources Management Investigations for the Approximately 44.7 ha (110 a.) Burr Oak Development in Prairie Township, Franklin County, Ohio   | 0.69 mi east of Project Area                         |
| 16567         | 2004 | Brown, Joel                                 | Phase I Cultural Resources Management Investigations for the Approximately 7.2 ha (177.75 a.) Norton and Sullivan Multi-Family Housing Development in Prairie Township, Franklin County, Ohio                                     | 1.9 mi southeast of northern portion of Project Area |
| 16452         | 2004 | Brown, Joel                                 | Phase II Cultural Resources Management Evaluative Testing for Prehistoric Period Archaeological Site 33-FR-2427 Located within the Approximately 44.7 ha (110 a.) Burr Oak Development in Prairie Township, Franklin County, Ohio | 0.86 mi east of Project Area                         |
| 16442         | 2004 | Weller, Ryan J.                             | Phase I Archaeological Investigations for the 3.3 ha (8.2 ac) Housing Development Along Feder Road in Prairie Township, Franklin County, Ohio   | 1.33 mi east northeast of Project Area               |
| 17224         | 2006 | Meyer, Elaine                               | Phase I Cultural Resources Management Survey for the Proposed Olentangy Darbydale PCS / Green Wireless Cellular Tower in Pleasant Township, Franklin County, Ohio   | 1.42 mi south southwest of Project Area              |

**Table 4. Previously Cultural Resources Investigations within the 2 miles of the Project Area**

| Report Number | Year  | Author   | Title   | Distance from Project Area            |
|---------------|-------|--|---|---------------------------------------|
| 17086         | 2006  | Weller, Ryan J.                                    | Phase I Archaeological Survey for the 27.1 ha (67 ac) Creekside Village Single Family Housing Development in Prairie Township, Franklin County, Ohio  | 1.05 mi east of Project Area          |
| 17992         | 2007  | Schneider, Erica L., Alan Tonetti, and Kevin Gibbs | Addendum Report: Phase I Cultural Resources Survey for the Proposed S.R. 142 and U.S. 40 Improvements in Jefferson Township, Madison County, Ohio (PID 17790 and 76561)   | 1.71 mi west of Project Area          |
| 20444         | 2009  | Derick, Scott                                      | Phase I Cultural Resource Management Investigation for the Proposed 99.5 ha (246 a) Battelle-Darby Metro Park Reclamation and Restoration Project Located within Pleasant Township, Franklin County, Ohio                           | 1.49 mi west of Project Area          |
| 18800         | 2011  | Weller, Ryan J.                                    | Phase I Archaeological Investigations for the Approximately 52.2 ha ( 129 ac) Morgan Headwaters Wetland Conservation Project in Prairie and Brown Townships, Franklin County, Ohio  | 0.73 mi west of Project Area          |
| 19655         | 2014  | Weller, Ryan J. and Alex Thomas                    | Phase I Archaeological Survey for the Proposed Pleasant Township Southwest Grace Brethren Church Wireless Cell Tower in Pleasant Township, Franklin County, Ohio  | 1.5 mi east southeast of Project Area |
| 19638         | 2014  | Weller, Ryan J.                                    | Phase I Archaeological Survey for the Proposed Galloway North Wireless Cell Tower in Prairie Township, Franklin County, Ohio  | 0.81 mi east of Project Area          |
| 19882         | 2015  | Pecora, Albert M.                                  | Phase I Cultural Resource Survey for the New Par, dba Verizon Wireless, Communication Tower Project (CLMB-361), Pleasant Township, Franklin County, Ohio  | 1.92 mi southeast of Project Area     |
| 20002         | 2016  | Weller, Ryan J.                                    | Addendum Report for: Phase I Cultural Resource Management Investigations for American Electric Power's Proposed Amlin-Cole Transmission Upgrade Project in Washington, Norwich, Prairie, and Brown Townships, Franklin County, Ohio | 0.08 mi north of Project Area         |
| 20001         | 2016a | Weller, Ryan J.                                    | Phase I Cultural Resource Management Investigations for American Electric Power's Proposed Amlin-Cole Transmission Upgrade Project in Washington, Norwich, Prairie, and Brown Townships, Franklin County, Ohio                      | <b>In Project Area</b>                |
| None          | 2016b | Weller, Ryan J.                                    | Phase I Cultural Resources Management Investigations for American Electric Power's 53.5 ha (132.1 ac) Proposed Cole Substation Project in Prairie Township, Franklin County, Ohio   | <b>In Project Area</b>                |
| 20682         | 2018  | Segna, Laura                                       | Phase I Archaeological Investigations for the Proposed Norton Road/Johnson Road Intersection Improvements   | 0.67 mi east of Project Area          |

### **2.1.7 Historic Maps and Atlases**

Four historic maps depicting the Project Area were consulted to gain an understanding of land use within the Project Area over time (Graham 1856; Caldwell and Gould 1872; USGS 1925 and 1955) (Appendix A).

The 1856 map of Franklin County, Ohio depicts individual homes and land ownership. Approximately 7 structures are located in the Project Area. The names of the structure owners are difficult to discern on the mapping, but include U.S. Elliot, T. Postle, J.W. Williams, F. Cole, and C. Davis amongst others. No railroads or other features beyond roads are mapped within the Project Area (Graham 1856) (Appendix A).

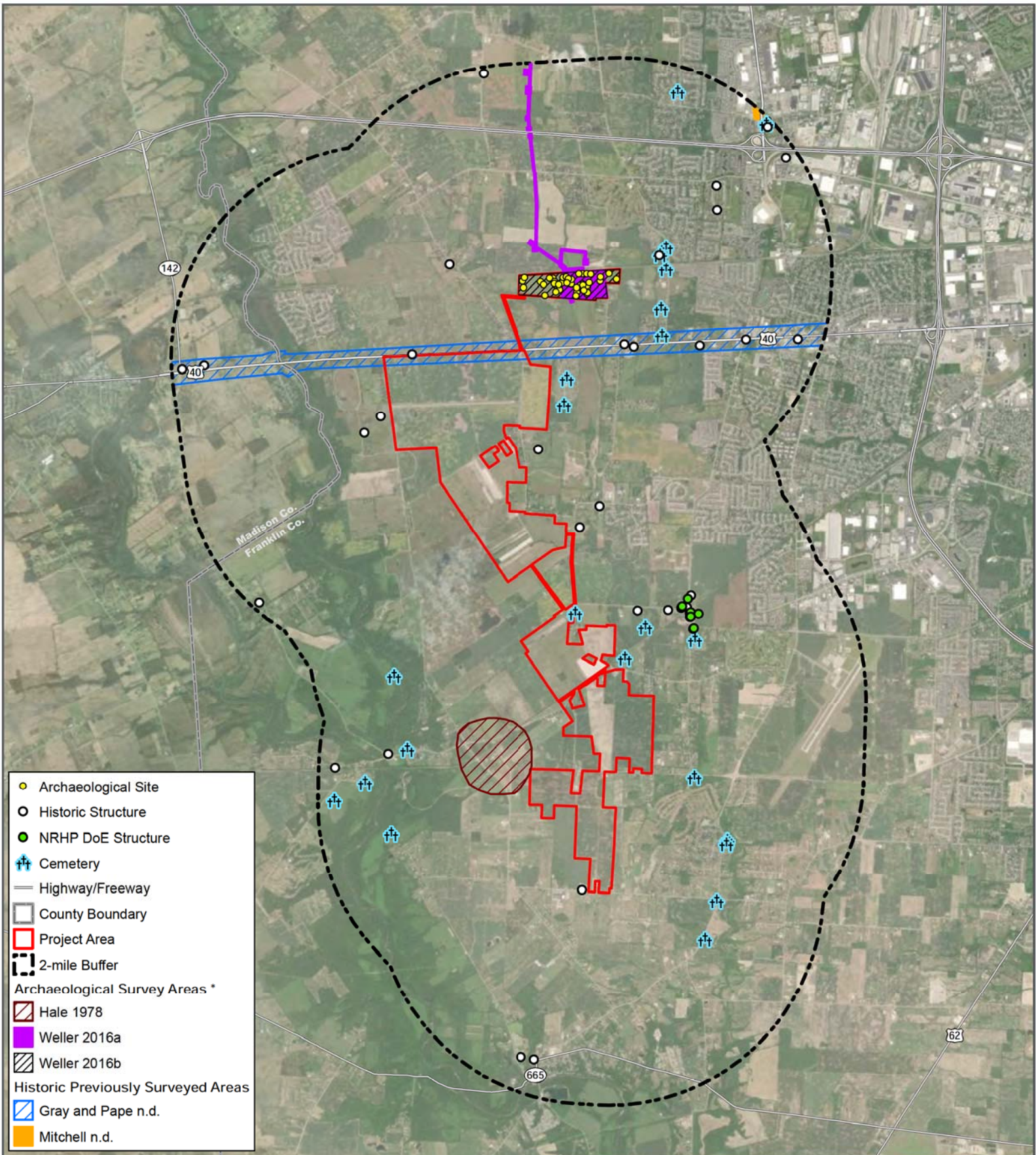
The 1872 maps of Prairie and Pleasant Township depicts approximately 15 houses within or adjacent to the Project Area. The mapping is at a scale that is not accurate enough to directly georeference the Project Area. Structures within the Project Area are on parcels owned by M. Compton, T. Welsh, M.E. Suwer, G. Hines, I.W. Hart, G. Walton, J.W. Elliot, Mrs. M. Simpson, and the Hickman parcel, amongst others. Other mapped features include the Little Miami Railroad along the northern boundary of the Project Area and the Cincinnati, Springfield, and Columbus Railroad travelling through the Project Area. The National Road is labelled running adjacent and through portions of the Project Area (Caldwell and Gould 1872) (Appendix A).

The 1925 West Columbus, Ohio USGS 15' topographic map depicts 15 structures within the Project Area. A railroad travels through the center of the Project Area from Georgesville to Galloway and another railroad travels along the northern boundary of the Project Area. Several roads traverse the Project Area (USGS 1925; Appendix A).

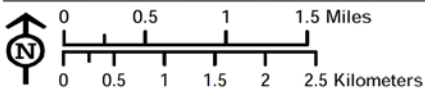
The 1955 Galloway 7.5' topographic quadrangle map depicts nearly 40 houses and barns within the Project Area. In addition, a private landing strip, and railroad line are mapped within the Project Area. A railroad is also mapped along the northern boundary of the Project Area (USGS 1955; Appendix A).

The mapped structure locations represent an increased probability of historic archaeological sites as well as extant historic structural resources at these locations, although the maps are not at a scale that would represent precise site locations.

In addition to the historic atlas maps, one early archaeological map was also consulted (Mills 1914). Similar to other historic archaeological maps of its time, this map depicts archaeological resources at a county-wide scale which provides an overview of sites across the county, but limits the locational accuracy of these features. The *Archaeological Atlas of Ohio*, Mills (1914) lists a total of 187 prehistoric sites in Franklin County including 132 mounds, 28 enclosures, 6 village site, 20 burial sites, and 1 cache. Two mounds are mapped in Prairie Township and ten mounds, one enclosure, 1 village, and three burials are mapped within Pleasant Township. None of these resources are mapped within or adjacent to the Project Area; however, two mounds are depicted west of the Project Area, east of Big Darby Creek.



- Archaeological Site
- Historic Structure
- NRHP DoE Structure
- ✚ Cemetery
- Highway/Freeway
- County Boundary
- ▭ Project Area
- ⬜ 2-mile Buffer
- Archaeological Survey Areas \*
- ▨ Hale 1978
- ▨ Weller 2016a
- ▨ Weller 2016b
- Historic Previously Surveyed Areas
- ▨ Gray and Pape n.d.
- ▨ Mitchell n.d.



\* Dancey et al. 1980, within Project Area  
is not mapped due to inadequate project mapping.

Archaeological sites outside the Project Area are not  
depicted due to the sensitive nature of the resources.

7.5' Quadrangles:  
Galloway, OH (1982)  
Harrisburg, OH (1976)

PLSS: unsectioned

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Previously Identified Cultural Resources and  
Cultural Resources Investigations with a 2-mile Study Area

Phase I Cultural Workplan  
for the Pleasant Prairie Solar Energy Project  
Pleasant Prairie Solar Energy, LLC  
Franklin County, Ohio

**Cardno**

3901 Industrial Boulevard,  
Indianapolis, IN 46254 USA  
Phone (+1) 317.388.1982  
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## **2.2 Prehistoric Cultural Setting**

This section will outline the prehistoric cultural setting of central Ohio. The goal of this discussion is to present a context through which to examine the prehistory of the region in and around the Project Area. For the purposes of this report, prehistory is defined as the time beginning with the initial human occupation of the region and continuing up to the period of European contact.

The prehistoric occupation of Ohio is generally divided into four broad periods, Paleoindian, Archaic, Woodland, and Mississippian. The Paleoindian period encompasses the cultural remains of the earliest recorded occupations of the region, after about 13,000 B. P., during early postglacial times. The Archaic is identified by archaeologists as the period where more localized seasonal settlement and subsistence patterns replaced the broad seasonal migration patterns of the Paleoindian period. Broad exchange patterns, the innovation of ceramic technology, the emergence of cultigens, and an increasing shift toward sedentism generally identify the transition to the Woodland time period. The Mississippian period is marked by continued population growth, large villages, and subsurface storage pits resulting from an increased reliance on maize agriculture. The following sections will outline each of these broad time periods, including temporal divisions within each.

Several creeks and tributaries travel through and slightly west of the Project Area, including Hamilton Ditch/ Hellbranch Run and its tributaries. Big Darby Creek is located slightly west of the Project Area and the floodplains and terraces associated with these waterbodies within the Project Area are landforms likely to contain prehistoric deposits. Prehistoric populations would have utilized the creeks for resources.

### **2.2.1 Paleoindian Period (ca. 13,000 – 10,000 B.P.)**

Paleoindians consisted of nomadic groups comprised of small kin-based bands that primarily practiced a foraging subsistence strategy. The term “Paleoindian” refers broadly to a pattern of nomadic mobility and foraging rather than to a discrete group of people. Research suggests that these Paleoindian groups repetitively moved within a geographic range to intercept large herd animals during their migratory cycles (Gramly 1988; Stothers 1996). Over time, the focus likely shifted from large-scale expeditions to more regular, smaller-scale hunting, along with a decrease in the overall size of territory exploited by these groups.

Paleoindian sites are recognized in the archaeological record by the presence of narrow, lance-shaped spear points. These points may or may not have a flute (a large flat flake) removed from each side of the point. Early Paleoindian projectile points are often made of high-quality materials, usually from a widely dispersed area, which suggests a high level of mobility (Speth et al. 2010). Later Paleoindian points are more often made from local chert types, which may reflect a reduction in this mobility.

Paleoindian groups occupied the southern Great Lakes region circa 11,500 to 10,800 B.P. (Waters and Stafford 2007). In Ohio, Paleoindians lived in small groups and moved south to west across the state, advancing northward as the Wisconsin glacier retreated (Gordon 1996). Paleoindians hunted megafauna common to the area such as mastodon, caribou, giant beaver, musk-ox, and ground sloth (Gordon 1996). Due to their small group size and mobility, few sites have been studied and many of the artifact finds are isolates. A Paleoindian antler spear point uncovered in Hancock County dated to 11,000 B.P. is among the oldest artifacts discovered in Ohio (Gordon 1996). The retreat of the Wisconsin glacier and the changing ecology to a warmer and dryer climate ended the Paleoindian culture (Gordon 1996).

### **2.2.2 Archaic Period (10,000 – 3,500 B.P.)**

The Early Archaic (10,000 – 8,000 B.P.) time period is often identified in the archaeological record by the transition from large, lanceolate bifaces of Paleoindian assemblages, to smaller, notched and bifurcated bifaces (Stothers 1996; Stothers et al. 2001). Groundstone tools and other lithic tools such as graters, scrapers, and notched knives are also observed in the Early Archaic. Local cherts continue to be utilized as a resource. Early Archaic subsistence strategies continued the focus on large migrating Pleistocene

herd animals, but Early Archaic groups also began to exploit more local environmental resources, including smaller game animals. Early Archaic artifacts tend to display more diversity in style and function, which also may reflect diversity in resource exploitation.

Archaeologists observe minimal change between the Early and Middle Archaic periods. The Middle Archaic period (8,000 – 5,000 B.P.) is reflected by changes in projectile point and blade types, but these variations are more prominent in southern portions of the U.S., and are not evident in central Ohio (Vickery and Litfin 1992). The Middle Archaic may be described as a transitional period between the Early and Late Archaic periods.

During the Late Archaic (6,000 – 3,500 B.P.) there is a period with increased focus on regional mobility patterns, as well as an increase in resource diversity. Late Archaic groups incorporated plants as a larger part of their subsistence strategy. Late Archaic sites often represent repeated occupation over a long period of time, which suggests a regular, more localized pattern of movement across the landscape. Projectile points and other lithic tools also show increases in variation. Small side-notched and corner-notched points and side and end scrapers appear frequently in Late Archaic assemblages. Groundstone tools are also increasingly evident. Pottery begins to appear in the transition between the Late Archaic and Early Woodland periods.

### **2.2.3 Woodland Period (2,500 – 500 B.P.)**

Populations in the Woodland Period tended to be broad spectrum hunter-gatherers, living in semi-sedentary occupations made up of small groups, likely based on kinship. These occupations were typically located around riverine environments and organized around communal burials. Innovations such as pottery, horticulture, and the bow and arrow occur during the Woodland time period.

The Early Woodland period (2,500 – 1,900 B.P.) marks the transition from the nomadic Archaic subsistence strategy to a more localized, semi-sedentary subsistence strategy. The Adena culture is representative of the Early Woodland period in south-central Ohio. Cultural material associated with the Adena include stemmed projectile points with weak shoulders, ceramic vessels with flat bottoms and lug handles, drills, scrapers, and a variety of ornamental and ceremonial materials (Tuck 1978). The earliest earthworks and burial mounds in central and southern Ohio are attributed to the Adena. These earthworks were often constructed over another structure, indicated by the presence of postmold features. Burials are often associated with a variety of exotic materials, such as cut mica, copper, beads, gorgets, and shell. It is important to note, however, that “Adena,” like “Hopewell” in the Middle Woodland, refers more to a pattern of mortuary practices and exchange of goods, rather than to a discrete group of people.

While the Early Woodland/Adena lifestyle persisted into the Middle Woodland period in some peripheral areas, archaeologists generally describe the Middle Woodland period in Ohio (1,900 – 1,400 B.P.) as the period associated with the development of the Hopewell culture. The subsistence strategy was organized around a seasonal pattern of resource procurement and an increasing reliance on horticulture. The Middle Woodland period saw a continued increase in population and social organization, reflected in the numerous earthworks constructed in this period. These earthworks, often constructed in geometric figures, may have represented ceremonial centers, which suggests that populations may have been organized at some larger scale. The prehistoric trade of exotic materials also reached a high during the Middle Woodland as populations within the “Hopewell Interaction Sphere” traded materials from as far away as the Upper Peninsula of Michigan (copper), the Gulf Coast (shell and shark teeth), and the Carolinas (mica). It is likely that the Hopewell Interaction Sphere represents a broad but loosely organized pattern of exchange rather than a well-defined system of trade (Pacheco 1996).

The Hopewell culture seems to have developed simultaneously across the Midwest, in places such as Nebraska to Mississippi, Indiana to Minnesota, and from Virginia to Ohio, which is considered the epicenter of the Hopewell culture (OHC n.d.a). The Hopewell influences were strongest in the southern

part of the state, specifically in the Ohio, Scioto, and Miami valleys. Residential patterns of the Hopewell culture differed from the previous Adena culture, as people tended to reside in one location, normally near major waterways, until the resources were exhausted in that area, before moving to a new location (OHC n.d.a).

Around 400 A.D., the Hopewell culture began to decline, though the reason for this is unknown (OHC n.d.a). A prominent theory is due to a cultural collapse, as societies then shifted to larger, permanent, communities, which were more isolated from each other (OHC n.d.a).

A significant reduction in the extensive, extra-regional trade of exotic goods and materials marks the Late Woodland period (1,400 –1,000 B.P.). The construction of large ceremonial earthworks also ended in this period, as mortuary practices shifted to the interment of burials into existing, older mounds or small stone mounds. Isolated, individual burials are also observed. Late Woodland villages are located well to the north, east, and south of the Hopewell core (Seeman and Dancey 2000).

This period also is characterized by an increasingly sedentary residential pattern of large nucleated villages supported by a growing reliance on maize and other cultigens as a substantial part of the Late Woodland diet. Palisades or ditches were sometimes constructed around these villages. This need for defensive structures suggests an increasing instability at times. These villages, however, appear to be relatively brief occupations, generally lacking overlapping features (Seeman and Dancey 2000). Resource diversity also continued to increase, although reliance on aquatic resources was less pronounced in southern Ohio than in other areas of the Midwest. Some representative Late Woodland artifacts include small triangular points, scrapers, mortars and pestles, celts, and hoes. A distinct technological innovation of the period was the use of earthen ovens for steaming or baking food (Seeman and Dancey 2000). The Late Woodland is also represented by well-developed lithic, bone, fiber, and ceramic industries. Pottery in the early portion of the Late Woodland is generally thin, vertically cordmarked with angular shoulders (Newtown shoulder), while Middle Woodland containers typically have thicker walls and curved, indistinct shoulders (Seeman and Dancey 2000). The bow and arrow also became prevalent, though likely in the later portion of the Late Woodland.

#### **2.2.3.1 Late Woodland Societies**

A significant reduction in the extensive, extra-regional trade of exotic goods and materials marks the Late Woodland period (1,400 –1,000 B.P.). The construction of large ceremonial earthworks also ended in this period, as mortuary practices shifted to the interment of burials into existing, older mounds or small stone mounds. Isolated, individual burials are also observed. Late Woodland villages are located well to the north, east, and south of the Hopewell core (Seeman and Dancey 2000).

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The Cole Complex has been occasionally been described as a Late Woodland society, which gave way to the Fort Ancient culture (Dancey and Seeman 2005; Lentz 2003). Originally, the Cole Complex was defined by Baby and Potter (1965:5-6) as “a post-Hopewellian manifestation of a basic Woodland or Scioto tradition present in the Ohio Valley from Late Adena to Fort Ancient times.” Study of several sites within Ohio revealed that the Cole Complex was defined by distinctive cord-marked and plain pottery styles. The cord-marked vessels exhibited full cord-marking with rounded shoulders, an inverted and collared rim, and four castellations, which were evenly spaced around the rim (Dancey and Seeman 2005). The Cole Complex communities were noted to not have participated in elaborate Hopewellian ceremonialism, but practiced a more simple existence. They did not bury their dead in mounds; rather in glacial kames and escarpments, grave goods were plain, and community enclosures were small when compared to the large villages of the Hopewell and later Fort Ancient peoples.

Recently; however, criticism of the definition of Cole being a “complex” have surfaced (Dancey and Seeman 2005). It has been said that sites exhibiting Cole Complex artifacts cover too long of a timespan (1000 years), the excavated deposits have yielded conflicting dates, and non-ceramic artifacts are found to be more similar to those excavated in northern areas, such as the Great Lakes region, rather than the Ohio Valley. Instead, it has been suggested that the Cole Complex be placed within ceramic manufacture through the Woodland and Late Prehistoric periods, rather than a specifically defined complex or culture (Dancey and Seeman 2005).

#### **2.2.4 Protohistoric Period (500 B.P. – contact)**

The Protohistoric period is at the terminus of the Late Woodland prehistoric time period and just before the earliest arrival of Europeans in northern Ohio. At this time, Native Americans are receiving European material indirectly from intermediate sources, but have never actually had physical contact with Europeans. The European material appears to be coming from French sources in the St. Lawrence River region and/or English sources in the Chesapeake Bay region (Pendergast 1985, 1990; Stothers et al. 1994). Some researchers have also suggested a third, as of yet unproven, Spanish source from the American southeast (Drooker 1997; Stothers and Abel 1991).

In southern Ohio, the Protohistoric period is dominated by the Fort Ancient peoples. The Project Area is located along the northern edge of the Fort Ancient cultural region. This culture has been associated with Mississippian cultures to the west and throughout the southeastern United States; however, Mississippian groups are noted to be larger with more complex practices (Fort Ancient 2013). It is currently unclear whether the Fort Ancient peoples originated from the Mississippian groups, or if they are their own separate culture, though the Fort Ancient peoples are considered descendants of Late Woodland peoples (Fort Ancient 2013; USDA/SCS 2003).

Fort Ancient groups relied heavily on maize agriculture. Their villages were densely occupied, being home to approximately 100-500 people (Fort Ancient 2013). The villages would vary in population throughout the year, as groups would leave villages in the winter to live in hunting camps. Village structures included a pattern of concentric circles with a central plaza, defined boundaries for cemeteries, and stockades. Residences were usually rectangular in shape. In addition to the villages, Fort Ancient peoples are known for their animal effigy mounds, specifically Alligator Mound in Granville and Serpent Mount in Peebles, Ohio (Fort Ancient 2013).

The Fort Ancient peoples abruptly disappear from the archaeological record around 1650 A.D. Potential theories include the decimation of the population from European explorers or they were driven out by warring contemporary groups, though there is no hard evidence for either theory (Fort Ancient 2013).

By the mid-1700s, European explorers had begun to make contact with the tribes occupying the Ohio River Valley, which included the Shawnee, Miami, and Delaware, among others (Fort Ancient 2013). While none of these groups have been able to be definitively linked to the Fort Ancient culture, the Shawnee is often described as the most likely historical descendent. These Native American groups were

spread out across the United States at the time of European contact, while the Shawnee were specifically encountered in Maryland and Pennsylvania prior to European contact in Ohio (Fort Ancient 2013).

## **2.3 Historic Cultural Setting**

The establishment of Detroit (1701) as a major center for fur trade and as the seat of European political and military power in the region led to an increase of non-Native people and a resurgence of Native Americans in the Ohio area throughout the eighteenth century (Nester 2000). By the mid-eighteenth century, British and French traders began to rival each other in the Ohio region. Following the French and Indian War (1756-1763), the French relinquished control of all Ohio lands to the British (Nester 2000). In the years following the treaty that ended the war, British colonists were often engaged in skirmishes and battles with the Native Americans, who were disgruntled with the postwar policies of the British. In an attempt to maintain peaceful relations with the tribes that participated as allies to the French during the war, Great Britain passed the Royal Proclamation of 1763, which restricted settlement west of the Appalachian Mountains (OHC 2015a). The proclamation only served to anger the colonists, who continued to move west and settle. The British victory in the French and Indian War and the events that followed shortly thereafter sparked the upheaval that would lead to the American Revolution against Great Britain (OHC 2015a). After the Revolutionary War (1775–1783), most of the Native American territory was ceded to the United States through a series of treaties, including the Treaty of Fort McIntosh (Pennsylvania) in 1785 and the Treaty of Greenville (Ohio) in 1795 (OHC 2015b).

Multiple states laid claim to the territory that is now Ohio, including New York, Connecticut, and Virginia; the latter laid claim to all territory northwest of the Ohio River (Bennett 1902). The Virginia Military District wanted these lands reserved for the purpose of rewarding honorably discharged Revolutionary soldiers, in case the territory reserved by the state south of the Ohio River was insufficient for the number of soldiers who fought for the state. Virginia was found to require the land, which were distributed by the Old Dominion. These lands lay between the Scioto and Little Miami rivers, from which were organized the following counties: Adams, Brown, Clinton, Clermont, Highland, Fayette, Madison, and Union counties. In addition, portions of multiple counties, including Franklin, were formed from this territory (Bennett 1902).

### **2.3.1 Franklin County**

Franklin County was first settled in 1797 on lands west of the Scioto River, granted to Revolutionary War veterans from Virginia (USDA/SCS 1980). The County was officially established in 1803 and named after Benjamin Franklin. Columbus was established as the Capitol of Ohio in 1812, became the County Seat in 1824, and was officially incorporated as a city in 1834 (USDA/SCS 1980; Caldwell and Gould 1872).

The National Road was completed to Columbus in 1836 and was an important mode of transportation historically as well as a main thoroughfare today. The first railroad passenger service in the county was completed in 1850 and travelled between Columbus and Xenia (USDA/SCS 1980).

The first town to be laid out in Franklin County was Franklinton and the earliest settlers of this town were Joseph Dixon, George Skidmore, John Brickell, Robert Armstrong, John Dill, and John Blair (Caldwell and Gould 1872). During this time, Indian tribes remaining in the region included the Iroquois, Delaware, Wyandot, and Mingoes. In 1803, 40 families settled in the County and laid out the town of Worthington in 1804 (Caldwell and Gould 1872).

Prairie and Pleasant Township were established as part of the Virginia Military Lands (Caldwell and Gould 1872). The Virginia Military District is comprised of the lands between the Scioto and Little Miami Rivers, was established in 1788, when the State of Virginia ceded to the United States land claimed northwest of the Ohio River, provided that the Virginia troops of the Continental establishment be paid their legal bounty from these lands. This region is not surveyed in Sections and Townships, resulting in irregular shaped townships. The result of this process allowed any person holding a Virginia military land warrant

to settle in any unclaimed land in the region, in any shape he pleased, which resulted in many early parcel boundary disagreements (Caldwell and Gould 1872).

Pleasant Township was organized in 1807; however, its current boundaries were established circa 1819 (Caldwell and Gould 1872). Darby was one of the early settlements of the township. Early settlers included Thomas Roberts, John Bigger, James Gardiner, Samuel Dyer, Samuel Kerr, and John Turner. In 1805, John Dyer constructed the earliest mill in the township (Caldwell and Gould 1872).

Prairie Township was organized in 1819. The earliest settlers were Samuel Higgins, Shadrick Postle, and William Mannon. In 1818, the Clover family established the first settlement, known as the "Clover Settlement" (Caldwell and Gould 1872).

Today the majority of land and population within Franklin County is located within Columbus. As of 2010, there were over 1.1 million inhabitants within Franklin County, while only 6,671 live in Pleasant Township and 16,498 inhabit Prairie Township.

## **2.4 Summary and Discussion**

This section presented the results of the cultural resources records review. The records check indicates that 251 previously identified archaeological sites, 2 of which are listed in the NRHP, 23 cemeteries, and 34 historic structures, 4 of which are listed as NRHP-DOE, within the study area, have been recorded within the 3.2 km (2 mi) study area. Of these resources, 43 archaeological sites are located within the Project Area and four archaeological investigations and one historic properties investigation have been conducted within the Project Area. The cultural context of the region suggests that additional unidentified cultural resources persist in this area.

These unidentified resources may represent a variety of time periods ranging from prehistoric Paleoindian period sites through protohistoric Native American sites. These sites may represent a variety of site types, including isolated artifacts to larger occupational sites. Terrace remnants and topographical rises, particularly in association with drainages or other water sources, are local landforms likely to contain archaeological deposits.

The historic context of the region suggests that unidentified historic archaeological sites may represent a variety of activities ranging from historic dump and debris discard areas to residential sites. Historic sites also tend to occur in conjunction with transportation features such as drainages, railroads, and roads. Additionally these types of transportation features can be considered cultural resources. Historic sites may be associated with the growth of Columbus, east of the Project Area. Cemeteries are also common historic resources. Above ground resources may be associated with historically mapped structures.

## **2.5 Archaeology Survey Research Design**

### **2.5.1 APE for Direct Effects**

The Project Area is defined as the vertical and horizontal space (the area within and immediately adjacent to planned construction) that will be impacted by Project activities. The APE for direct effects is defined as the 955.5 ha (2,361 ac) where proposed ground disturbing Project activities may occur. The solar panels will be mounted on racks with a relatively small area of ground disturbance. Additional ground disturbance will occur during installation and construction of the Project's electrical collection lines, access roads, and other Project infrastructure.

### **2.5.2 Archaeological Sensitivity Assessment**

The vast majority (>93 percent) of the Project Area is located in active agricultural fields. The model developed by Cardno to determine areas to be subject to Phase I archaeological reconnaissance survey is outlined below.

#### **2.5.2.1 *Precontact and Historic Archaeological Sensitivity***

A total of 251 archaeological sites have been recorded within 2 miles of the Project Area. Of these, 236 contain prehistoric components. The Project Area lies within the Darby Plain physiographic province section of the Till Plain physiographic region. The Darby Plain is described as having "broadly hummocky ground moraine with several broad, indistinct recessional moraines" (Brockman 1998). The landscape of the Darby Plain is typified by moderately low relief, with elevations ranging from 750 to 1100 ft amsl (Brockman 1998).

Several creeks and tributaries travel through and slightly west of the Project Area, including Hamilton Ditch/ Hellbranch Run and its tributaries. Big Darby Creek is located slightly west of the Project Area and the floodplains and terraces associated with these waterbodies within the Project Area are landforms likely to contain prehistoric deposits.

Distance to water and topography were considered in developing a model that could be used to identify areas with a higher likelihood for prehistoric sites. Distance to streams was buffered at distances ranging from 500- 1,000 feet around streams and rivers. A total of 61 percent of the previously recorded prehistoric archaeological sites within 2 miles of the Project Area were identified outside of the 1,000 foot stream buffer. The topographic variability in the area was negligible and did not inform on potential site locations.

Of the 251 archaeological sites previously identified within 2 miles of the Project Area, 236 have a prehistoric component. Of these 236 sites with prehistoric components, 37 are located between 0 and 500 feet of a waterbody, 30 are located within 500 and 750 feet of a waterbody, 25 sites are located between 750 and 1000 feet of a waterbody, and 143 sites are located over 1000 feet from a waterbody. This indicates the probability models previously used for similar solar projects, regarding prehistoric site density diminishing as distance to a permanent water source diminished, does not constitute accurate modeling for this region. In this scenario, only 39 percent of the prehistoric sites are within 1000 feet of a waterbody while 61 percent are located over 1000 feet from water.

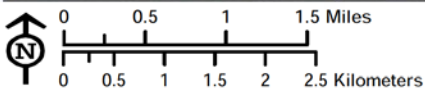
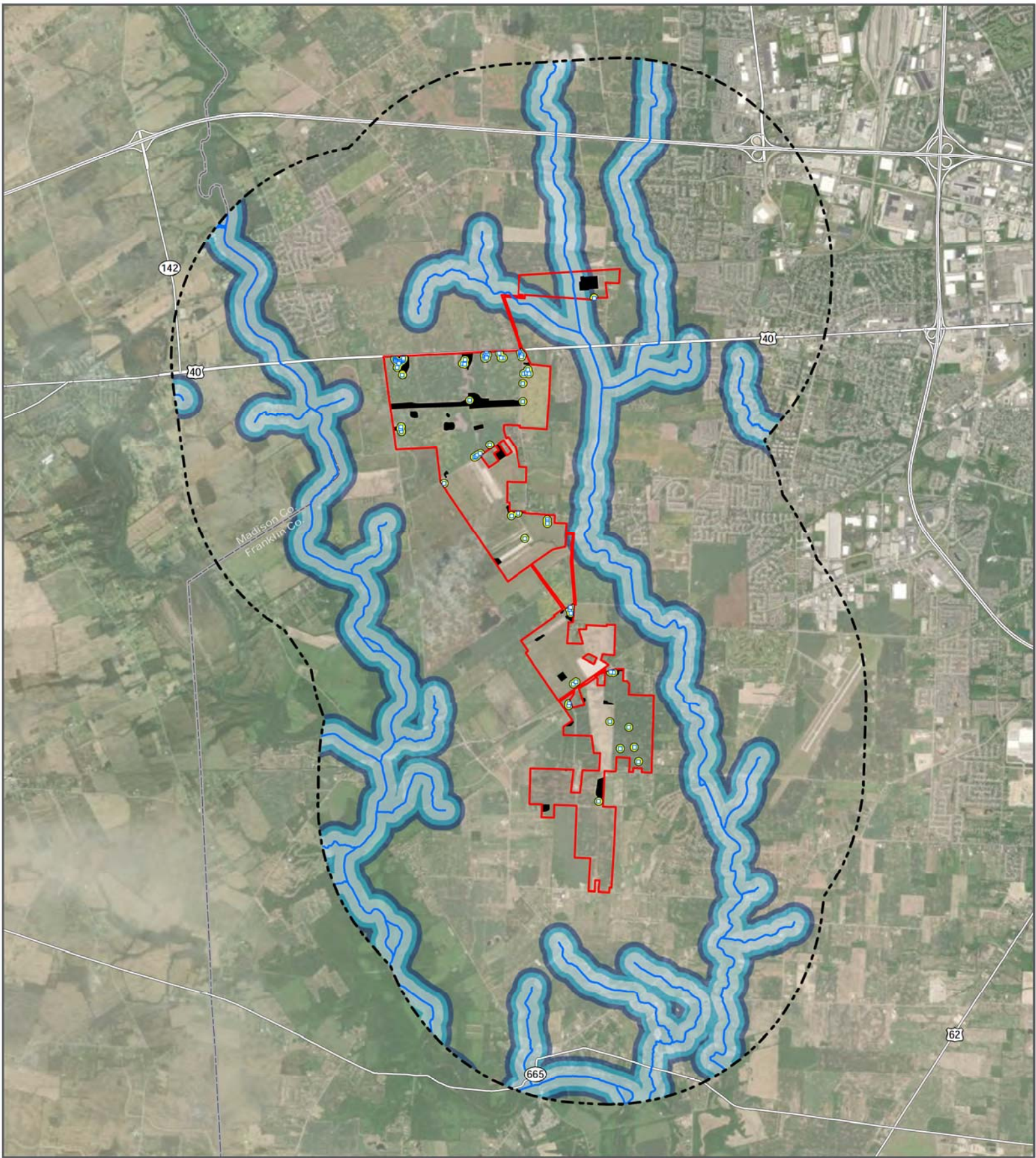
As a result, Cardno proposes the following workplan for the Pleasant Prairie Solar Energy Project. The northernmost parcel of the Project Area has been previously surveyed in 2016 by Weller and Associates (Weller 2016a and 2016b). These surveys investigated 132.1 acres of the current 2,361 acre Project Area. In addition, of the current Project Area, 155 acres of woodlots and residential parcels are excluded from the survey area as no subsurface work is anticipated in these locations. This results in 2,074 acres of the Project Area potentially requiring archaeological survey. The vast majority of the Project Area is reported to be located within agricultural fields that will have been tilled prior to archaeological reconnaissance. Cardno proposes to investigate 100 percent of tilled archaeological fields. Note that

there is a limited amount of sod farming in the project area. Areas of the sod farms that have been recently harvested will be investigated. The results of the pedestrian survey will be analyzed to determine the utility of shovel probing areas that do not exhibit appropriate ground surface visibility. Cardno will consult with OH-SHPO to discuss the need for shovel probing as needed.

In developing a historic model to help determine areas with increased likelihood for historic sites, Cardno referenced a series of historic maps available for Franklin County. Using this data, a 200 foot buffer was placed around structures visible on mapping from the late nineteenth century through the mid-twentieth century. Cardno has utilized this methodology on previous surveys and the results have yielded numerous previously unrecorded historic archaeological sites.

Referenced historic maps utilized for the current workplan include the 1856 *Map of Franklin County, Ohio* (Graham 1856), the 1872 *Caldwell's Atlas of Franklin County and the City of Columbus, Ohio* (Caldwell and Gould 1872), and the 1925 Columbus West 1:62,500 and 1955 Galloway 1:24,000, Ohio topographic quadrangles (USGS 1925 and 1955) (Appendix A).

The total Project Area consists of 2,361 acres. Of this acreage, 132.1 acres have been previously investigated for cultural resources in 2016 (Weller 2016a and 2016b; Figure 2). In addition, 155 acres consist of woodlots and residential parcels that will not be subject to earthmoving activities. Of the remaining 2,074 acres, Cardno proposes to investigate either a minimum of 1,555 acres (75% of the remaining 2,074 acres subject to earthmoving activities) or more of 2,074 acres, if surface conditions are adequate for pedestrian survey (>50 percent) (Figure 3). The investigated areas will include all defined prehistoric and historic high probability areas within the Project Area as well as additional areas defined by the Principal Investigator. The total area of proposed Phase I investigation meets, and in most cases far exceeds, the level of effort completed for other solar development projects in Ohio that have been completed in the past one to two years.



- Historic Structure
- Historic Structure Buffer (200' radius)
- ~ Watercourse
- 500ft Watercourse Buffer
- 750ft Watercourse Buffer
- 1000ft Watercourse Buffer
- Survey Exclusion Area \*
- \* Woodlots/Farms/Residences (data created by Cardno)
- Project Area
- 2-mile Buffer
- Highway/Freeway

7.5' Quadrangles:  
Galloway, OH (1982)  
Harrisburg, OH (1976)

PLSS: unsectioned

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## Archaeological Probability Model

### Phase I Cultural Workplan for the Pleasant Prairie Solar Energy Project

Pleasant Prairie Solar Energy, LLC  
Franklin County, Ohio

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### **2.5.3 Phase I Archaeological Survey Methodology**

Cardno will conduct the archaeological fieldwork using methods consistent with the OH-SHPO guidelines and in consultation with OH-SHPO (OH-SHPO/OHC 2014). Cardno will perform the Phase I in order to identify archaeological sites and other cultural resources throughout the Project Area.

#### **2.5.3.1 Pedestrian Surface Survey Methodology**

In areas with greater than 50 percent surface visibility, Cardno will conduct a controlled surface survey. This survey will be conducted in transects spaced at a maximum 10 m (33 ft) interval. When the field crew identifies cultural material on the surface, additional survey on a 5 m (16 ft) grid surrounding the artifacts will be conducted. Artifacts will be marked with pin flags mapping the artifact distribution across the ground surface. These locations will be assigned individual Provenience Numbers (PN). At prehistoric sites, Cardno will record and collect all materials located within the Project Area. Archaeologists will record the artifact distribution, along with relevant landscape features, with a Trimble R1 GNSS Receiver unit capable of sub-meter accuracy.

#### **2.5.3.2 Shovel Test Survey Methodology**

In areas with less than 50 percent surface visibility, Cardno will conduct systematic shovel probe excavation. STPs will be excavated in transects spaced at 15 m (49.2 ft) intervals. Adherence to these intervals will be maintained as closely as possible, although STPs may be occasionally off set due to the presence of wetlands, subsurface utilities, and hardscape features. Pursuant to OH-SHPO guidelines, shovel tests will be 50 centimeters (cm) (19.6 inches [in]) in diameter and extend into undisturbed soils. Soils removed from the probes will be screened for cultural materials through ¼-in hardware mesh and immediately backfilled. The crew will document and characterize soil stratigraphy according to the Munsell color guide (Munsell 1994). STPs that exhibit disturbance such as mixed and mottled “A” and “B” horizons or subsoil present at the ground surface will be noted, but not fully excavated. Shovel tests located in wet soils will be treated in the same fashion.

When the crew identifies an archaeological site, they will excavate STPs at a 5 m (16.4 ft) interval until two negative test probes have been excavated in each cardinal direction along the grid. The crew then will collect and bag artifacts by individual shovel probe, record relevant information such as soils and depth of deposits, map features with a GPS, and take photographs. Archaeologists will record the artifact distribution, along with relevant landscape features, with a Trimble R1 GNSS Receiver unit capable of sub-meter accuracy.

#### **2.5.3.3 Artifact Analysis**

Artifacts will be transferred to Cardno’s archaeological laboratories. Following review and concurrence of all reports of investigations by OH-SHPO, Cardno will return the artifacts to the individual property owners associated with the artifacts. If the property owner wishes to donate the artifacts for curation, a signed Deed of Gift letter will accompany the artifacts and associated records to the curation facility. Thorough documentation of artifacts will be conducted prior to returning artifacts to landowners.

Ohio Archaeological Inventory forms will be submitted for each site identified during the course of the investigation.

#### **2.5.3.4 Archaeological Site Avoidance/ Minimization**

It is anticipated that archaeological sites that are considered potentially eligible for the NRHP, identified during the Phase I survey will be avoided or minimized by Project design. If a potentially NRHP eligible archaeological site cannot be avoided by the proposed Project, then additional Phase II archaeological evaluation and, potentially, Phase III mitigation would be conducted at the site. The nature of the required

additional archaeological investigations associated with a resource considered potentially eligible for the NRHP would be determined based on consultation with the OH-SHPO.

Many archaeological sites are not typically considered NRHP-eligible and will not require avoidance or additional archaeological investigations. These site types include isolate prehistoric and historic finds, small, low-density prehistoric scatters that lack subsurface features or diagnostic artifacts, and historic scatters that cannot be associated with specific households, historic contexts, or historic events.

#### **2.5.4 Historic Resources Survey Research Design**

The historic resources survey design follows guidance in the *Guidelines for Conducting History/Architecture Surveys in Ohio* (rev. 2014), the *NPS Guidelines for Local Surveys: A Basis for Preservation Planning, Parts 1 and 2* (rev. 1985), National Register Bulletin 15, *How to Apply the National Register Criteria for Evaluation* (rev. 1995), and National Register Bulletin 16A, *How to Complete the National Register Registration Form* (rev. 1997). In addition, given the number of rural properties expected to be examined in this project, NRHP Bulletin 30, *Guidelines for Evaluating and Documenting Historic Rural Landscapes* (rev. 1999) will be utilized.

The goal of this historic resources survey research design is to:

- Define the APE for Direct and Indirect Effects on historic resources (see Section 2.5.4.1)
- Establish the criteria by which historic resources will be evaluated (See Section 2.5.4.2)
- Propose a methodology for reconnaissance and intensive survey of historic resources (See Section 2.5.4.3)
- Establish expectation regarding resource typologies and survey results (See Section 2.5.4.4)
- Define the deliverables for the historic resource survey (See Section 2.5.4.5)

##### **2.5.4.1 APE for Direct and Indirect Effects**

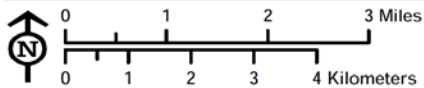
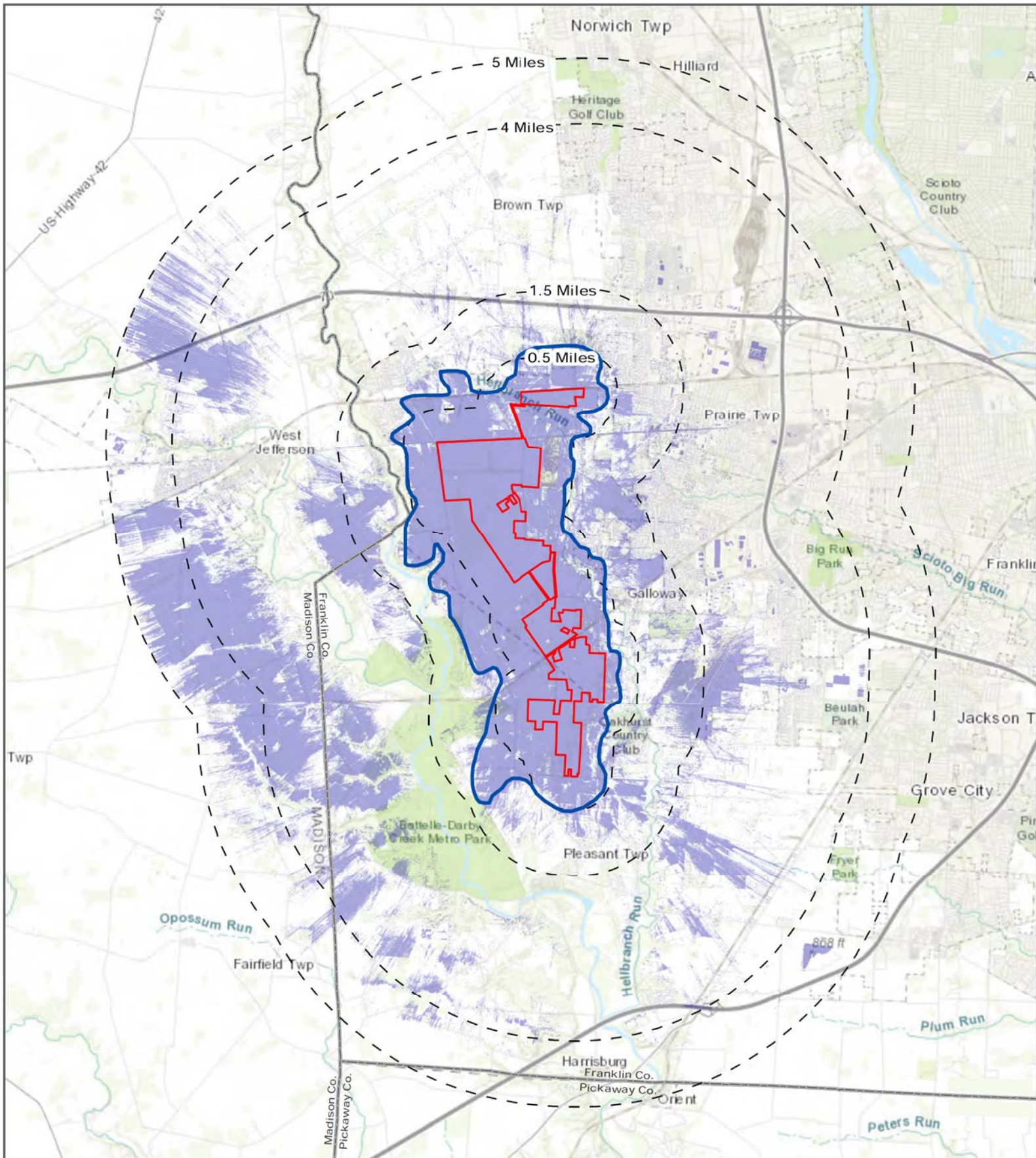
The Pleasant Prairie Phase 1 project APE has an area of direct impact that measures 2,361 acres. There are no previously documented aboveground historic resources or NRHP-listed resources within the Project Area. However, there will likely be unrecorded resources within the direct project area that will be identified and evaluated for NRHP listing. Direct effects to any NRHP eligible properties will be evaluated per 36 CFR 800.5, *Assessment of Adverse Effects*. Direct effects are not anticipated as the project will shift to avoid any eligible properties.

Indirect effects for the project were determined through a preliminary viewshed analysis as well as prior experience of the effects of vegetation and topography on visibility. Per 36 CFR 80.5, *Assessment of Adverse Effects*, the most likely indirect effects would be (2)(v) Introduction of visual, atmospheric, or audible elements that diminish the integrity of a property's significance historic features. Visual impacts are considered most likely, as utility-scale solar farms produce minimal noise and atmospheric conditions. Therefore, potential visual effects were taken into consideration when developing the project's APE. All relevant adverse effects will be applied to any listed and eligible resources within the project's APE.

In order to accurately determine the project's APE, given what is known about potential indirect effects, a preliminary viewshed analysis was prepared using the Environmental Systems Research Institute (ESRI) ArcGIS software with Spatial Analyst Extension. The viewshed analysis was based on a digital elevation model (DEM), which considers the screening effects of topography, vegetation, and buildings. Results are reported in a first-run LiDAR, given a six feet tall observer and are restricted to a five-mile radius, as has been customary for solar projects in Ohio. The DEM used for this examination was downloaded from the Ohio Geographically Referenced Information Program, online at:

<http://gis5.oit.ohio.gov/geodatadownload/>

Simulations prepared for previous solar projects indicate that a two-mile study area range is most adequate for dealing with solar projects in central Ohio topographic conditions. Visual resource analysis for this project determined that the practical limits for panel visibility end at approximately a half-mile due to the relatively low height of the panel array, which is estimated at 20 feet. As can be seen in Figure 4 visibility is most pronounced west and south of the project area and extends past a half mile in some areas. To the north and east, visibility is limited to approximately a half-mile or less, due to the presence of significant vegetation, extant buildings, and topography. Given these conditions, the proposed APE is curtailed on the north and east, and slightly expanded on the west and south, as can be seen in Figure 5 below. Cardno's architectural historians approach the concept of APE with fluidity; that is, areas directly adjacent to the APE will be included if on-the-ground conditions merit this expansion. Field survey will be limited to eligible properties that exist in proximity to, although directly outside the APE.



- Visibility Range Rings
- Proposed Historic APE
- Project Area

■ Areas within which panels are visible \*

\* Based on first-return LiDAR, given a 20-foot panel height, a 6-foot tall observer, and restricted to a 5-mile radius.

7.5' Quadrangles:  
Galloway, OH (1982)  
Harrisburg, OH (1976)

PLSS: unsectioned

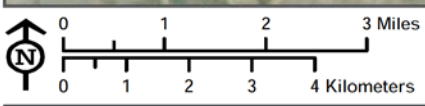
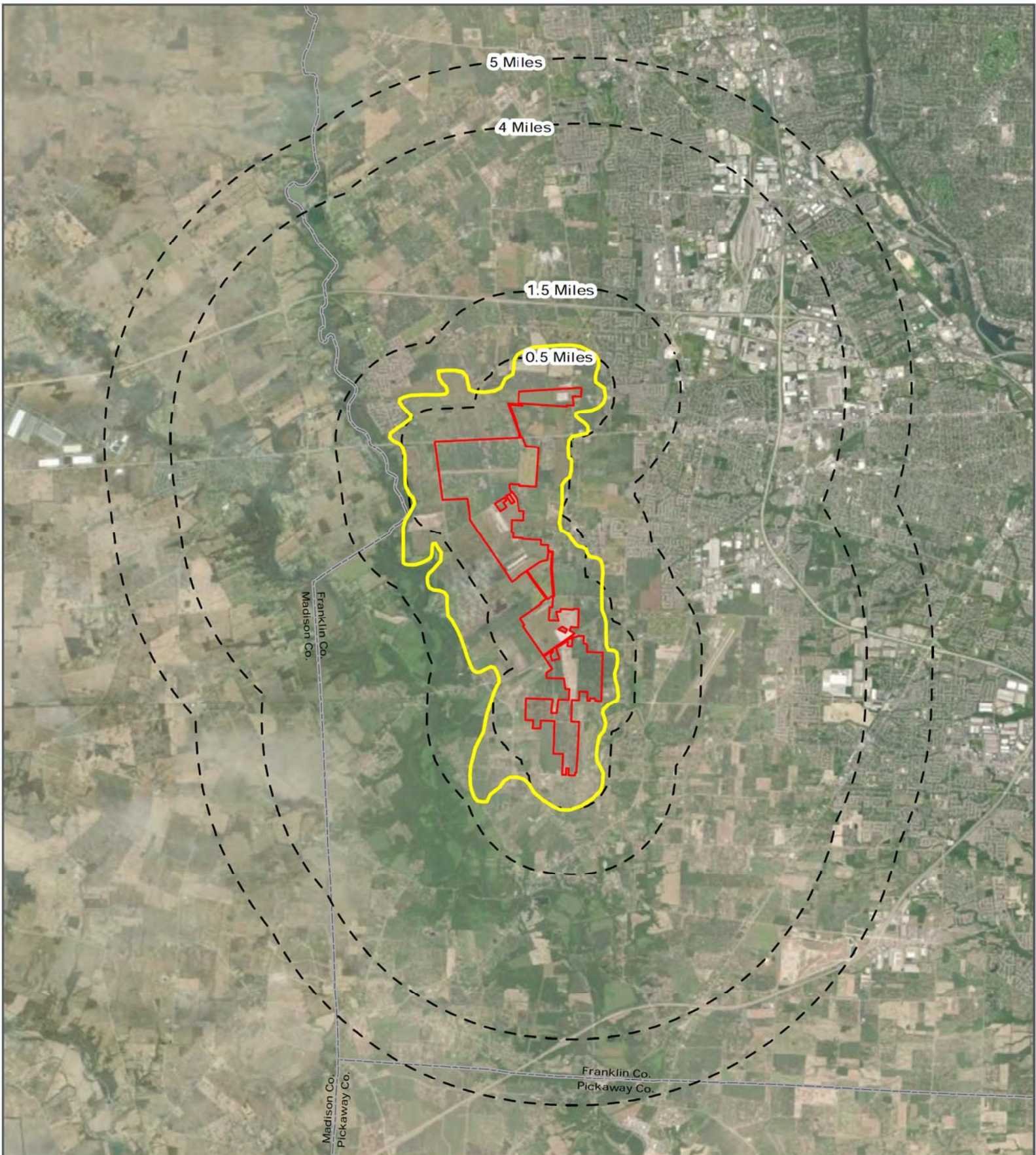
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## Viewshed Model with APE for Indirect Effects

Phase I Cultural Workplan  
for the Pleasant Prairie Solar Energy Project  
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- ▭ Project Area
- ▭ Proposed Historic APE
- Visibility Range Rings

7.5' Quadrangles:  
 Galloway, OH (1982)  
 Harrisburg, OH (1976)

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**Aerial Photo with APE for Indirect Effects**  
 Phase I Cultural Workplan  
 for the Pleasant Prairie Solar Energy Project  
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#### **2.5.4.1 Criteria for Evaluating the Significance for Historic Resources**

Cardno will conduct reconnaissance architectural history survey using methods consistent with both the NPS guidelines and the Ohio State Historic Preservation Office/ Ohio History Connection (OH-SHPO/OHC) guidelines (Derry et al. 1977; OH-SHPO/OHC 2014). Eligibility will be assessed based on the historic context and following the guidance outlined in Section 2.5.4 above.

Historic/architectural survey work will determine the presence of resources that are listed in or potentially eligible for the NRHP. During the course of the investigation, Cardno will evaluate the documented properties for potential eligibility that warrant further investigation, based on the NRHP Criteria for Evaluation (36 CFR Part 60.4), which states “The quality of significance in American history, architecture, archaeology, and culture is possible in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, material, workmanship, feeling, and association” and meet at least one of the following four criteria defined by the NPS:

Criterion A: Are associated with events that have made a significant contribution to the broad patterns of our history; or

Criterion B: Are associated with the lives of persons significant in our past; or

Criterion C: Embody the distinctive characteristics of a type, period, or method of construction or represent the work of a master, or possess high artistic values, or represent a significant and distinguishable entity whose components may lack individual distinction; or

Criterion D: Have yielded, or may be likely to yield, information important in prehistory or history.

Archaeological sites are primarily assessed under Criterion D.

Buildings less than 50 years old do not meet the NRHP criteria unless they are of exceptional importance under Criterion Consideration G, as described in NPS Bulletin No. 22, *How to Evaluate and Nominate Potential National Register Properties That Have Achieved Significance Within the Last 50 Years* (rev 1998).

#### **2.5.4.2 Historic Resources Survey Methodology**

A combination reconnaissance and limited intensive survey work will incorporate archival research to identify and evaluate resources over 47 years in age. The 47 year mark is utilized to allow for analysis of resources that may turn 50 years old prior to the project review or construction. Documentation of resources between 47 and 50 years old will be restricted to situations in which the resources in question are recommended eligible, and have ability to be NRHP-listed within the project's review and construction period. In addition, resources that are less than 50 years in age will be analyzed to determine if they meet NRHP Criterion Consideration G, properties that have achieved significance within the last 50 years.

All county roads and a few farm roads will be driven within the APE to identify potentially eligible properties. The focus of field survey will be to assess NRHP eligibility. Properties that meet one or more of the NRHP criterion above will receive an intensive level survey, documenting all buildings, outbuildings, structures, and objects on the property, regardless of contributing or non-contributing status. An integrity assessment will be included within the NRHP analysis as well. Properties that will not be recommended eligible will likely form the bulk of the survey work. In these instances, reconnaissance survey will photo-document examples of properties that will not be recommended eligible to provide a representative sampling of the types of properties within the APE. Survey of properties will include documentation by qualified architectural historians using field notes and photographs. Survey work will photograph and assess properties from public right-of-way and evaluate solely based on the visible exterior of the properties. No inspections or evaluations requiring access to the interior of buildings, or any portion of private property, will be conducted as part of the survey effort.

#### **2.5.4.3 Expected Survey Results**

Due to the relative size of the APE and the early nineteenth century Euro-American and African American settlement of the area, Cardno expects to find a few resources potentially eligible for listing in the NRHP. The landscape was historically agricultural and for the most part remains that way today. There are no NRHP listed above-ground historic properties within the larger two-mile study area; however, six historic properties have been determined eligible for the NRHP. There is one three volume historic report that focuses on an important transportation route, US 40/The National Road, located within the project area (Miller, Cowden, and Walsh 1998). This report was downloaded from the Ohio SHPO's online system in its entirety for further review.

Thirty-four previously identified OHI-recorded buildings and 23 OGS-designated cemeteries identified within the two-mile study area suggests the likelihood that additional historic buildings and cemeteries will be identified within the APE. Resources may include those typical of agricultural landscapes such as farmhouses, barns, and agricultural support buildings as well as other residential dwellings. Based on initial research, it is not expected that any OGS-identified cemetery would be eligible for NRHP listing under Criterion Consideration D.

The Project Area itself does not include major population centers or industries; however, the location is directly west of suburban Columbus, the state capital. Approximately one mile northwest of the project area is the small, unincorporated community of Lake Darby, which includes the Westpoint, Westpoint North, and Lake Darby Estates neighborhoods. Approximately three-quarters of a mile east of the project area is the Galloway, an unincorporated rural and suburban community in Prairie Township. Other small communities include West Jefferson, situated approximately three miles northwest of the project area in neighboring Madison County. It is expected that additional historic residential resources will be newly identified within the APE, associated with these population areas.

#### **2.5.4.4 Historic Resources Survey Report and Inventory Forms**

Per the Survey Report Submission Requirements, one color hard copy and one digital PDF copy of the survey report, which will include GIS data, will be submitted to the OH-SHPO for project review. In addition, Ohio Historic Inventory forms will be updated for previously inventoried resources within the APE and new forms will be submitted for any resources identified during the survey which are recommended eligible for the NRHP.

### 3 Applicable Regulations and Guidelines

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The proposed Project will require a Certificate of Environmental Compatibility and Public Need from the Ohio Power Siting Board (OPSB). The Project is not a federal undertaking subject to review under Section 106 of the National Historic Preservation Act (NHPA); however, the Phase I archaeological reconnaissance will be conducted in a way consistent to satisfy requirements of Section 106 of the NHPA.

OPSB OAC 4906-4-08 requires the provision of information on cultural resources. Specifically, registered landmarks and significant cultural resources within 10 miles of the Project Area must be indicated on a map and described. The Project will seek a waiver from this rule and will investigate the Project footprint, in accordance with OHC expectations for archaeological investigations. Significant cultural resources include “those districts, buildings, structures, and objects that are recognized by, registered with, or identified as eligible for registration by the... Ohio historical society [sic]” [OAC 4906-4-08 (D)]. It is further required that the impact of the proposed facility on the preservation and continued meaningfulness of these landmarks be evaluated and plans described to avoid or mitigate any adverse impact [OAC 4906-4-08 (D)].

Pursuant to Ohio Revised Code §149.53, if archaeological artifacts or human remains are identified during Project activities in any location, work within the area must stop and the OH-SHPO must be notified within two (2) business days.

### 4 Conclusion and Recommendations

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Pleasant Prairie has contracted Cardno to conduct a Phase I archaeological and architectural reconnaissance prior to the construction activities related to the Pleasant Prairie Solar Energy Center Project in Franklin County, Ohio and the enclosed workplan details the proposed cultural resources effort for this project.

The proposed Project involves the installation of up to a 250 MW solar energy project. The Project is located in Franklin County, Ohio, on the Galloway, Ohio 7.5' topographic quadrangle map and totals approximately 955.5 ha (2,361 ac).

Cardno conducted a records search using data on file at the OH-SHPO in September 2020. Cardno focused on previously recorded resources within 3.2 km (2 mi) of the proposed Project Area, but also examined the larger region where appropriate. The records check indicates that 251 previously identified archaeological sites, 2 of which are listed in the NRHP, 23 cemeteries, and 34 historic structures, 4 of which are listed as NRHP-DOE, have been recorded within the 3.2 km (2 mi) study area. Of these resources, 43 archaeological sites are located within the Project Area and four archaeological investigations and one historic properties investigation have been conducted within the Project Area.

The Project Area consists of agricultural land, fallow grasslands, and remnant woodlots in Franklin County, Ohio. The workplan proposes to conduct Phase I archaeological reconnaissance testing on a minimum of 629 ha (1,555 ac) of the 839 ha (2,074 ac), which have not been previously investigated for cultural resources and exclude woodlots and residential parcels which will not be utilized for Project activities. This will result in a minimum of 75% of the 2,074 acres being investigated for cultural resources. The archaeological reconnaissance testing strategy is based upon the probability model outlined within this document.

In addition, an APE for the historic properties viewshed is proposed within this workplan, which will define the areas to be investigated for above ground resources. The APE was designed based upon the maximum viewshed to and from the Project Area.

The records review and workplan presented within this document is provided to OH-SHPO for approval in advance of cultural resource investigations, to evaluate the proposed sampling strategy, field methodologies, as well as to ensure that the proposed scope of the survey is consistent with OH-SHPO's standards. Please provide a formal response indicating OHPO's concurrence with and/or comments regarding the workplan presented within this document.

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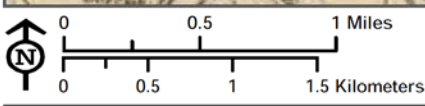
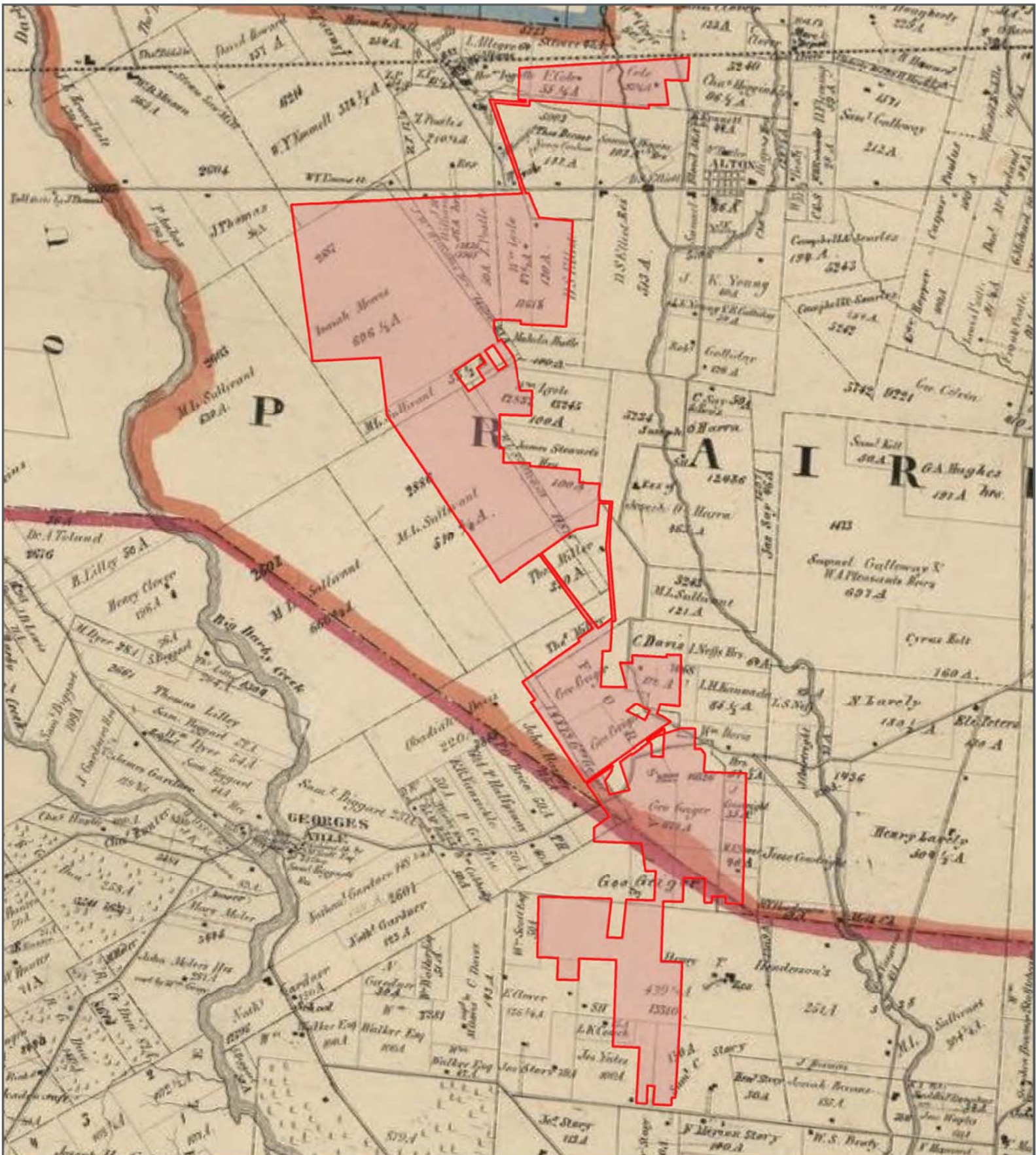
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Phase I Cultural Workplan for the  
Pleasant Prairie Solar Energy Center  
Project  
Franklin County, Ohio

APPENDIX

A

HISTORIC MAPS



 Project Area

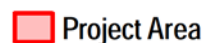
Basemap:  
Franklin County (1856)

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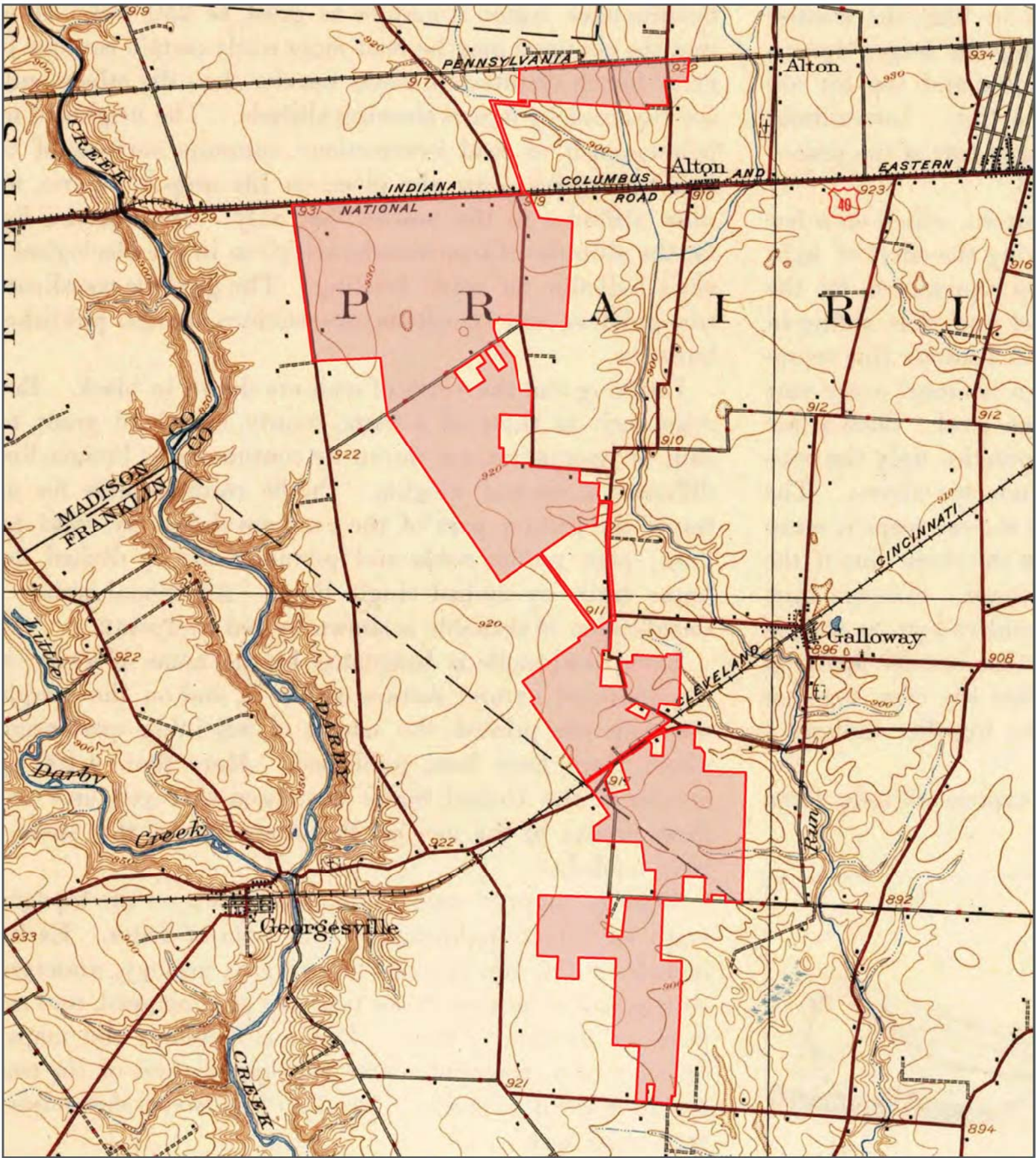
## Appendix A1 - John Graham 1856 Map of Franklin County


### Phase I Cultural Workplan for the Pleasant Prairie Solar Energy Project Pleasant Prairie Solar Energy, LLC Franklin County, Ohio

  
3901 Industrial Boulevard,  
Indianapolis, IN 46254 USA  
Phone (+1) 317.388.1982  
Fax (+1) 317.945.6309  
[www.cardno.com](http://www.cardno.com)



GIS Analyst: Kevin Gabe



 Project Area

15" Quadrangle:  
West Columbus, OH (1925)

PLSS: unsectioned

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Appendix A3 - USGS 15' Topographic Quadrangle Map  
West Columbus, OH (1925)  
Phase I Cultural Workplan  
for the Pleasant Prairie Solar Energy Project  
Pleasant Prairie Solar Energy, LLC  
Franklin County, Ohio

  
3901 Industrial Boulevard,  
Indianapolis, IN 46254 USA  
Phone (+1) 317.388.1982  
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## **Attachment B**

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# **Pleasant Prairie Solar Energy Project**

## **Programmatic Agreement**

**PROGRAMMATIC AGREEMENT**  
**Between**  
**Pleasant Prairie Solar Energy LLC**  
**and the**  
**Ohio State Historic Preservation Office**  
**for the Administration of The Pleasant Prairie Solar Energy Center Project**  
**Franklin County, Ohio**

**WHEREAS**, Pleasant Prairie Solar Energy LLC, ("Pleasant Prairie Solar") has proposed to construct the Pleasant Prairie Solar Energy Center ("Project") in Franklin County;<sup>1</sup> and

**WHEREAS**, Pleasant Prairie Solar will need to file an Application for a Certificate of Environmental Compatibility and Public Need to construct a solar-powered electric generation facility with the Ohio Power Siting Board ("OPSB") (OPSB Case No. 20-1680-EL-BGN); and

**WHEREAS**, constructing the Pleasant Prairie Solar Energy Center may affect cultural resources, including "landmarks" as that term is defined in Ohio Administrative Code ("OAC") Rules 4906-4-08(D) and 4906-5-07(E); and

**WHEREAS**, applicants for certificates for electric generation facilities under OAC Chapters 4906-4 and 4906-5 must identify cultural resources, provide an evaluation of impacts by such facilities on such resources, and describe plans to avoid, minimize, or mitigate any adverse effects to such resources; and

**WHEREAS**, OPSB is coordinating with the Ohio State Historic Preservation Office ("SHPO") pursuant to Ohio Revised Code ("RC") Section 149.53, and Pleasant Prairie Solar is working with SHPO to fulfill its duties under the OAC as a certificate applicant to provide plans to avoid, minimize, or mitigate any adverse effects of the Pleasant Prairie Solar Energy Center on cultural resources, including "landmarks" under the OAC. Specifically, Pleasant Prairie Solar has submitted, and obtain concurrence from SHPO on the Project's Phase I Archaeological survey work plan, but due to weather conditions, has not been able to complete this survey or obtain survey concurrence in time to file with the OPSB Certificate of Environmental Compatibility and Public Need filing.

**NOW, THEREFORE**, Pleasant Prairie Solar and SHPO have agreed to carry out their remaining respective duties under RC Section 149.53 and OAC Chapters 4906-4 and 4906-5, in accordance with the following stipulations set forth in this Programmatic Agreement (PA):

## **STIPULATIONS**

### **I. Roles and Responsibilities**

- a) SHPO shall be responsible for providing technical assistance and guidance as needed and reviewing Project documentation, in accordance with SHPO's assigned duties under the OAC and RC.
- b) Pleasant Prairie Solar shall be responsible for preparing cultural resources documentation for SHPO and maintaining cultural resources records on the Pleasant Prairie Solar Energy Center.
- c) Pleasant Prairie Solar shall utilize persons meeting the applicable Professional Qualifications Standards set forth in the *United States Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation* to conduct identification of cultural resources.

### **II. Archaeological and Cultural Resource Review Phasing**

#### **a) Phase 1: Complete archaeological and historic/architectural surveys**

Archaeological surveys for the Pleasant Prairie Solar Energy Center certificate application were initiated in October 2020 and approximately 250 ac of the direct Area of Potential Effect (APE) remains to be tilled by a single landowner, where facilities are proposed. Survey methodology has followed guidelines stipulated in the SHPO concurrence letter to the Phase I Cultural Work Plan<sup>2</sup>. Once fieldwork is able to continue, the entire APE will have been visually inspected, with a focus on locating archaeological areas and micro-

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<sup>1</sup> A map of the area is attached and incorporated into this Programmatic Agreement as Appendix 1.

<sup>2</sup> Biehl, Stephen M. 2020. RE: *Phase I Cultural Work Plan: Pleasant Prairie Solar Energy Project, Prairie and Pleasant Townships, Franklin County, Ohio*. Ohio History Connection.

landforms within the APE. Pleasant Prairie Solar plans to complete the surveys as soon as feasible and anticipates submitting a technical report documenting these surveys to SHPO in late March 2021.

**b) Phase 2: Evaluate "landmarks" through research and analysis**

As part of Pleasant Prairie Solar's compliance efforts before the OPSB regarding consultation and coordination with SHPO, the cultural resources identified by surveys described in Section II.a of this PA will be recorded as stipulated in the SHPO-approved survey plan<sup>3</sup>, and subsequently evaluated according to the eligibility criteria for listing in the National Register of Historic Places (NRHP). See Code of Federal Regulations Title 36 Part 60.4 (36 CFR § 60.4).

To date, 136 archaeological sites have been recorded within the Project Area. Cultural resources evaluated as eligible for the NRHP will be treated as landmarks. Technical reports will include recommendations for NRHP eligibility, as well as evaluations of the effects of Pleasant Prairie Solar on identified cultural resources. If a cultural resource is determined to be eligible for listing in the NRHP and avoidance of adverse impacts is not feasible, a mitigation plan will be submitted for SHPO review, with measures for minimization of impacts included where feasible.

**c) Phase 3: Develop a plan for avoiding, minimizing, or mitigating adverse effects to NRHP-eligible cultural resources, including "landmarks"**

Pleasant Prairie Solar will make every effort to avoid adverse effects on NRHP-eligible cultural resources, including "landmarks" as that term is used in OAC Rules 4906-4-08(D) and 4906-5-07(E), by adjusting Project facilities. If avoidance is not feasible, Pleasant Prairie Solar will work with SHPO to develop a minimization/mitigation plan that will be memorialized in a Memorandum of Understanding (MOU) and may include the following mitigation treatment strategies: additional survey work, thematic or multiple property studies, NRHP nominations, offset funding for restoration of local landmarks, support for local preservation organizations, heritage tourism projects, development of education materials and lesson plans, and website development. It is anticipated that these or similar mitigation treatment strategies will be appropriate for Pleasant Prairie Solar, should they be necessary. Nevertheless, the results of the surveys and evaluations described above in Sections II.A and II.B will be used to develop appropriate and meaningful mitigation for adverse effects to cultural resources eligible for listing on the NRHP.

**III. Project Review and Concurrence**

Provided that Pleasant Prairie Solar follows the phasing approach in Section II of this PA, and subject to this PA's terms, SHPO's execution of this PA constitutes its concurrence regarding avoidance or mitigation of adverse effects to cultural resources by the Pleasant Prairie Solar Energy Center.

**IV. Technical Assistance and Educational Activities**

Staff in SHPO's Resource Protection and Review (RPR) Department will provide technical assistance and consultation as requested by Pleasant Prairie Solar, or as proposed by SHPO, in order to assist Pleasant Prairie Solar in carrying out the terms of this PA.

**V. Post-Review Discovery**

In the event that Pleasant Prairie Solar discovers a previously unidentified site within the area of potential effect (APE) that may be eligible for listing in the NRHP that would be affected by the Project, Pleasant Prairie Solar shall promptly stop work in the immediate vicinity of the site and notify OPSB and SHPO within 24 hours (or as soon as practicable) of the discovery.

If Pleasant Prairie Solar and SHPO concur that the discovered resource is eligible for listing in the NRHP, Pleasant Prairie Solar will consult with SHPO to evaluate measures that will avoid, minimize, or mitigate any adverse effects. Upon agreement regarding such measures, Pleasant Prairie Solar shall implement them and notify OPSB of its action.

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<sup>3</sup> Peterson, Ryan J. 2020. *Phase I Cultural Work Plan: Pleasant Prairie Solar Energy Project, Prairie and Pleasant Townships, Franklin County, Ohio*. Cardno, Inc.

If Pleasant Prairie Solar and SHPO cannot reach agreement regarding the eligibility of a post-review discovery, the matter will be referred to OPSB for review. If Pleasant Prairie Solar and SHPO cannot reach agreement on measures to avoid, minimize, or mitigate adverse effects, the matter shall be referred to OPSB for appropriate action.

If Pleasant Prairie Solar discovers any human or burial remains during implementation of the Project, Pleasant Prairie Solar shall cease work immediately, notify SHPO and OPSB, and adhere to applicable state and federal laws regarding the treatment of human or burial remains.

#### **VI. Dispute Resolution**

Should any signatory to this PA object to actions proposed herein or dispute the meaning of this PA's terms, the disputing signatory shall serve all other signatories with notice of its objection or dispute and shall consult to resolve the objection or dispute. If the objection or dispute cannot be resolved within 30 days of service of the notice of objection or dispute, then SHPO may make a final decision on the dispute and advise Pleasant Prairie Solar to proceed accordingly.

#### **VII. Duration, Amendment, and Effect**

This PA will continue in full force until December 31, 2021, provided that its cessation shall not affect the continued application of Section V of this PA. At the request of any signatory party, this PA may be reviewed for amendments at any time. This PA may be amended when such an amendment is agreed to in writing by all signatories. The amendment will be effective on the date a copy signed by all of the signatories is submitted to SHPO. Execution of this PA by Pleasant Prairie Solar and SHPO constitutes final concurrence by SHPO for purposes of OPSB review of the Projects' certificate application and implementation of this PA's terms is evidence that Pleasant Prairie Solar has fulfilled its duties as an applicant with respect to cultural resources under the RC and OAC.

#### **VIII. Counterparts**

This PA may be executed in two or more counterparts, each of which shall be deemed to be an original and taken together shall be deemed to be one and the same instrument.

#### **IX. Execution and Electronic Signatures**

This PA is not binding upon the signatory parties unless executed in full, and is effective on the last date of signature by the signatory parties.

Any signatory party hereto may deliver a copy of its counterpart signature page to this PA electronically pursuant to RC Chapter 1306. Each signatory party hereto shall be entitled to rely upon an electronic signature of any other signatory party delivered in such a manner as if such signature were an original.

[signatures follow on next page]

Ohio History Connection

State Historic Preservation Office

Diana Welling

Digitally signed by Diana Welling  
DN: cn=Diana Welling, o=Ohio History  
Connection, ou=State Historic Preservation  
Office, email=dwelling@ohiohistory.org, c=US  
Date: 2021.01.19 13:54:11 -05'00'

1/19/2021

Diana Welling

Date

Department Head & Deputy State Historic Preservation Officer for  
Resource Protection & Review

Contact Information

800 E. 17<sup>th</sup> Ave.  
Columbus, Ohio 43211  
(614) 298-2000  
dwelling@ohiohistory.org

**Pleasant Prairie Solar Energy LLC**

*Michael Kaplan*

1/25/2021

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**Michael Kaplan**  
**Vice President**  
Authorized Signatory  
Pleasant Prairie Solar Energy LLC

**Date**

Contact Information

One South Wacker Drive  
Suite 1800  
Chicago, Illinois 60606  
(312) 582-1293  
mkaplan@invenenergy.com

## Appendix 1



**This foregoing document was electronically filed with the Public Utilities**

**Commission of Ohio Docketing Information System on**

**2/19/2021 12:43:45 PM**

**in**

**Case No(s). 20-1679-EL-BGN**

Summary: Application - 12 of 25 (Exhibit I –Phase 1 Cultural Resources In Progress Technical Memorandum) electronically filed by Christine M.T. Pirik on behalf of Pleasant Prairie Solar Energy LLC