

## **APPENDIX F – CULTURAL RESOURCES INVENTORY REPORT**

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<u>County</u>	<u>Township</u>	<u>Range</u>	<u>Section</u>	<u>Study Unit</u>
Richland	134 North	49 West	3, 5, 8-12, 14-16, and 22	SR

## **Flickertail Solar Project Richland County, North Dakota**

### **Class III Cultural Resource Inventory for Archaeology and Architectural History**



**September 17, 2024**

#### **PREPARED FOR**

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Kansas City, Missouri 64106

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**FLICKERTAIL**  
**SOLAR PROJECT**

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#### **PRESENTED BY**

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## MANAGEMENT SUMMARY

This report presents the findings of a Class III Cultural Resource Inventory for Archaeology and Architectural History for the proposed Flickertail Solar Project (the Project) located 1.4 miles (2.3 kilometers) northwest of Galchutt in Richland County, North Dakota. At this location, Flickertail Solar Project, LLC (Flickertail) proposes to develop a solar facility on 3,464 acres (1,402 hectares) of private, leased land (Project Area). Approximately 79 percent of the Project Area (2,774 acres [1,123 hectares]) is cultivated cropland; the remaining areas consist predominantly of grasslands/herbaceous (512.1 acres [207.2 hectares]), trees (102.1 acres [41.3 hectares]), wetlands and riparian (61.7 acres [25.0 hectares]). The Project will be located in, or within portions of, Sections 3, 5, 8-12, 14-16, and 22 of Township 134 North, Range 49 West (Abercrombie Township).

The Project will require a Certificate of Site Compatibility from the North Dakota Public Service Commission (PSC); therefore, the Project is subject to review by the State Historical Society of North Dakota (SHSND) under North Dakota Century Code (NDCC) **49-22-09 – Factors to be considered in evaluating application and designations of sites, corridors, and routes.**

The purpose of this investigation was to identify archaeological and architectural resources within the Project Area. The investigation included the following items.

- 1) A Class I Inventory of the Study Area (i.e., the Project Area plus a 1-mile [1.6-kilometer] buffer) to identify the presence of previously documented archaeological resources.
- 2) A pedestrian survey of the entire Project Area to attempt to relocate previously recorded archaeological resources, and to assess the presence or absence of previously undocumented archaeological resources on the surface.
- 3) Shovel probing of select sites to assess the presence or absence of subsurface archaeological resources.
- 4) National Register of Historic Places (NRHP) eligibility determinations and guidance on site avoidance within the archaeological or architectural resources.

The Class I Inventory identified one historical archaeological site lead (32RIx0061 – [REDACTED] in the [REDACTED] of the Project Area, [REDACTED]

Evidence of Site Lead 32RIx0061 [REDACTED] was not observed in the Project Area; [REDACTED]

[REDACTED] If the site were present in this location, the construction of the [REDACTED] would have likely destroyed the site. Seven additional resources, including five architectural, one historic archaeological, and one archaeological were recorded in the Study Area, beyond the Project Area. Three of the resources (12PI0061, 32RI00757, and 32RI00851) have been evaluated as not eligible for listing in the NRHP, and the remaining four resources (32RI00685, 32RI00920, 32RIx0060, and 32RIx0389) are currently unevaluated for listing in the NRHP. These resources are at least 0.5 mile (0.8 kilometer) from the Project Area. **Based on this distance, it is Tetra Tech's opinion these resources will not be directly or indirectly impacted by the proposed Project.**



Pedestrian surveys were undertaken in late October/early November 2023. Approximately 79 percent (2,774 acres [1,122.6 hectares]) of the Project Area is cultivated cropland and non-cultivated areas make up approximately 21 percent (690.1 [279.3 hectares]) of the surveyed Project Area. Cultivated cropland included row crops such as corn, soybean. Ground surface visibility ranged from 60 to 100 percent in fields that had been tilled, and ranged from 10 to 30 percent in fields that had not been tilled or were planted with cover crop.

The non-cultivated areas within the Project Area consist predominantly of grasslands/herbaceous (512.1 acres [207.2 hectares]), trees (102.1 acres [41.3 hectares]), wetlands and riparian (61.7 acres [25.0 hectares]). Within non-cultivated areas, ground surface visibility ranged from 0 to 25 percent. Based on Tetra Tech's review of historical aerial photography, nearly all portions of the Project Area have been cultivated since the early 1950s. The potential for intact cultural materials to be present in the typical plowzone (approximately 12 to 18 inches [30.5 to 45.7 centimeters] bgs) is presumed to low within the Project Area. Based on the types of sites identified, it is likely that a limited number of Native American isolated finds or Euro-American artifact scatters associated with former farmsteads may be present within non-cultivated areas. **Tetra Tech recommends the development of an unanticipated discoveries plan to facilitate documentation and coordination with the SHSND if cultural materials are inadvertently uncovered during construction.**

Tetra Tech documented six cultural resources within the Project Area, including four Native American chipped stone isolated finds (32RIX408, 32RIX409, 32RIX410, 32RIX411); one former granary (32RI930), and one Euro-American artifact scatter (32RI931). Evidence of the previously recorded Site Lead 32RIx0061 [REDACTED] was not observed in the Project Area. Additional pedestrian surveys were undertaken in May 2024 to resurvey areas that had poor surface visibility during the previous pedestrian survey completed in late October/early November 2023. Shovel probing was also undertaken to assess the presence or absence of cultural material at the four isolated finds recorded in 2023.

Tetra Tech's eligibility recommendations and avoidance recommendations are presented below.

- Sites 32RIX408, 32RIX409, 32RIX410, 32RIX411: **Tetra Tech recommends the sites as not eligible under Criterion D; avoidance of the sites is not recommended.**
  - Sites 32RIX408 and 32RIX409 consisted of surface isolated finds within cultivated fields. Evidence of cultivation as observed as far back as 1952. A total of nine shovel tests were placed at each site; all failed to document additional cultural materials in the subsurface. Due to the absence of identified archaeological materials and a low potential for significant intact subsurface deposits at these sites, they would not provide significant archaeological research potential or information. As a result, the sites would not be significant under Criterion D: Archaeological Potential and are recommended not eligible for listing in the NRHP.
  - Sites 32RIX410 and 32RIX411 consisted of surface isolated finds within cultivated fields. Evidence of cultivation as observed as far back as 1952. Planned shovel probing could not be performed due to standing water at the sites. The absence of shovel probing data at these sites does not

change Tetra Tech's determinations or recommendations. Due to the absence of identified archaeological materials and a low potential for significant intact subsurface deposits at these sites, they would not provide significant archaeological research potential or information. As a result, the sites would not be significant under Criterion D: Archaeological Potential and are recommended not eligible for listing in the NRHP.

- Site 32RI931: **Tetra Tech recommends the sites as not eligible under Criteria A, B, and D; avoidance of the site is not recommended.**
  - Site 32RI931 consisted of surface artifact scatter associated with a former farmstead initially observed on the 1897 W.M. House plat map. The structure was last observed on a 1969 aerial photograph, and was not observed in the 1990 aerial photograph. Vegetation outlining the extent of the farmstead was observed from 1990 to 2020 on Google Earth arials. By October 2023, the trees were no longer present and the area appeared fallow. The artifacts observed on the surface are the result of the removal of the structure in the 1980s and the grubbing on the location in the early 2020s. The artifacts observed correlate with the historic document review. It is unknown how the former structure was removed from the site (i.e., burned and buried or hauled offsite). It is possible that intact features may be present on site. Due to the removal of the former structure, the integrity of Site 32RI931 has been severely reduced.

The site is not associated with significant events that have contributed to the broad patterns of the history of North Dakota, Richland County, or Abercrombie Township, and is therefore not recommended eligible under NRHP Criterion A. It is not associated with the life of a person or persons important to our history and research has revealed no associations between the site and important historical figures. Therefore, the feature is recommended not eligible for listing in the NRHP under Criterion B. The archaeological materials identified at Site 32RI931 appear to consist of materials that would be standard on a farmstead during the first half of the 1900s. Intact features may exist at the site, but due to the commonality of farmsteads within North Dakota, the research potential of any features at the site is likely limited or redundant with existing documentary records and would not provide significant information. Therefore, the feature is recommended not eligible for listing in the NRHP under Criterion D.

- Sites 32RI930: **Tetra Tech recommends the sites as not eligible under Criteria A, B, C, and D; avoidance of the site is not recommended.**
  - Site 32RI930 consists of an isolated granary that first appears on the 1961 aerial photograph, north of three other buildings formerly on the parcel. The current landowner stated that his father and uncle (who were previous owners), constructed the building in the 1950s for use as grain storage and has not been used since the 1960s. The other buildings formerly located on the site included

another wood granary and a shed/shop that housed tools, which was destroyed by fire. The granary is now unused and contains trash (old bed frames, crates, and wood). It is in disrepair and generally poor condition.

The building is not associated with significant events that have contributed to the broad patterns of the history of North Dakota, Abercrombie Township, or Richland County and is therefore not recommended eligible under NRHP Criterion A. It is not associated with the life of a person or persons important to our history and research has revealed no associations between the granary and important historical figures. Therefore, the feature is recommended not eligible for listing in the NRHP under Criterion B. The building is a simple, modest, utilitarian building, constructed of materials and style commonly found throughout this region, and it does not embody distinctive characteristics of a type, period, or method of construction. Further, the building does not possess characteristics that represent the work of a master, nor does it possess high artistic values that rise to the level of significance to be eligible under NRHP Criterion C. As such it is recommended not eligible under Criterion C. It is not known to have yielded, or be likely to yield, information important in prehistory or history and is not recommended eligible under NRHP Criterion D.

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## 1.0 INTRODUCTION

This report presents the findings of a Class III Cultural Resource Inventory for Archaeology and Architectural History for the proposed Flickertail Solar Project (the Project) located 1.4 miles (2.3 kilometers) northwest of Galchutt in Richland County, North Dakota (Appendix A: Figure 1). At this location, Flickertail Solar Project, LLC (Flickertail) proposes to develop a solar facility on 3,464 acres (1,401 hectares) of private, leased land (Project Area). Approximately 79 percent of the Project Area (2,774 acres [1,122 hectares]) is cultivated cropland; the remaining areas consist predominantly of grasslands/herbaceous (512.1 acres [207.2 hectares]), trees (102.1 acres [41.3 hectares]), wetlands and riparian (61.7 acres [25.0 hectares]). The Project will be located in, or within portions of, Sections 3, 5, 8-12, 14-16, and 22 of Township 134 North, Range 49 West (Abercrombie Township).

### 1.1 AGENCY INVOLVEMENT AND REGULATORY REQUIREMENTS

The Project will require a Certificate of Site Compatibility from the North Dakota Public Service Commission (PSC); therefore, the Project is subject to review by the State Historical Society of North Dakota (SHSND) under North Dakota Century Code (NDCC) **49-22-09 – Factors to be considered in evaluating application and designations of sites, corridors, and routes** (State of North Dakota 2024a). NDCC 49-22-09 states the commission shall be guided by, but is not limited to, the following considerations, where applicable, to aid the evaluation and designation of sites, corridors, and routes, including the effect of the proposed site or route on existing scenic areas, historic sites and structures, and paleontological or archaeological sites.

The Project must also comply with North Dakota's "Protection of human remains, and burial goods" law (NDCC 23-06-27) and accompanying administrative rules (North Dakota Administrative Code [NDAC] 40-02-03). These codes also apply to the Project if human remains are inadvertently discovered during the course of construction (State of North Dakota 2024b).

### 1.2 PURPOSE OF THE INVESTIGATION

The purpose of this investigation was to identify archaeological and architectural resources within the Project Area. The investigation included the following items.

- 1) A Class I Inventory of the Study Area (i.e., the Project Area plus a 1-mile [1.6-kilometer] buffer) to identify the presence of previously documented archaeological resources.
- 2) A pedestrian survey of the entire Project Area to attempt to relocate previously recorded archaeological resources, and to assess the presence or absence of previously undocumented archaeological resources on the surface.
- 3) Shovel probing of select sites to assess the presence or absence of subsurface archaeological resources.

- 4) National Register of Historic Places (NRHP) eligibility determinations and guidance on site avoidance within the archaeological or architectural resources.

## 1.3 ORGANIZATION OF THE REPORT

This report details the research methods, environmental and cultural background, results of the literature review, archaeological field survey results, recommendations, and conclusions. Mr. Adam Holven served as Principal Investigator for Archaeology, and Ms. Julia Mates served as the Principal Investigation for Architectural History. Ms. Abbie Kavouras and Mr. Holven served as authors. The field crew consisted of Mr. Mike Straskowski, Ms. Abbie Kavouras, Ms. Elizabeth Hingsberger, Mr. Andrew Shamoo, Mr. Matt Davis, Ms. Jaqy Spencer, Ms. Lizzy Symons, and Ms. Emily Davenport. Supporting documentation for this investigation includes Appendix A. Figures; Appendix B. Historical Map Log; Appendix C. Photo Log; and Appendix D. Shovel Probing Results.

## 1.4 BACKGROUND RESEARCH

The Study Area was investigated through a file review completed at the SHSND in December 2023. This file review included identifying archaeological sites, historical archaeological sites, architectural resources, and cultural resource investigations within the Study Area.

The background research also included a review of historic sources, including General Land Office (GLO) maps, historical atlases, county and regional histories, and aerial photographs. These documents were examined to identify historic structures, railroads, roads, and trails that might be present within the Project Area that might be encountered during the field survey. Table 1 identifies the resources reviewed for Richland County.

**Table 1.** Historical Resources Reviewed During the Investigation.

Source	Year
U.S. Department of the Interior Bureau of Land Management Plat Maps	1871
W.M. House Atlas	1897
United States Geological Survey (USGS) 30-minute Topographic Quadrangle	1904
Alden Publishing Company Atlas	1910
H.E. Wilson Guide and Atlas	1922
Army Map Service Aerial Photography	1952
Farm Service Agency (FSA)	1957-1962
United States Geological Survey (USGS) 7.5-minute Topographic Quadrangle	1959, 1960
United States Geological Survey (USGS) Aerial Photograph	1969, 1978
Google Earth Aerial Photography	1990-2024

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## **1.5 FIELD METHODS**

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The Class III investigation was conducted in accordance with North Dakota SHPO Guidelines Manual for Cultural Resource Inventory Projects (SHSND 2020).

### **1.5.1 Pedestrian Survey**

A systematic pedestrian surface survey at 15-meter (49.2-foot) interval transects was conducted to determine the presence of artifacts or features on the surface. An EOS Arrow 100 GNSS global positioning system (GPS) unit coupled with an Apple iPad operating ESRI Field Maps was used for navigation. If artifacts or features were identified during the pedestrian survey, an intensive surface survey of the area was conducted at 5-meter (16.4-foot) interval transects to delineate the site's surficial boundaries. Surveyors flagged site boundaries and recorded locations with the GPS using ESRI Survey123. The locations of temporally or culturally diagnostic artifacts and features were also recorded with the GPS. Potentially temporally or culturally diagnostic artifacts identified during the pedestrian survey were collected for further analysis and interpretation; non-diagnostic artifacts were left within site boundaries. The pedestrian survey also documented land use, ground cover, and surface visibility within the Project Area. Observations and photographic documentation of field conditions are on record at the Tetra Tech office in Bloomington, Minnesota.

### **1.5.2 Shovel Probing**

Shovel probes were excavated by observed soil horizons and excavated no less than 10 centimeters (3.9 inches) into sterile subsoil. All excavated sediments were passed through 0.25-inch (0.64-centimeter) hardware mesh and examined for cultural materials. All cultural materials identified during shovel probing were collected for further examination. If archaeological materials were encountered in shovel probes and subsurface probing was required for site delineation, then radial shovel probes were excavated at 5-meter (16.4-foot) intervals along site margins until two sequential negative probes were excavated to determine the site extent.

### **1.5.3 Site Form Updates**

Following the completion of fieldwork, site forms were completed or updated and submitted to the SHSND.

### **1.5.4 Artifact Management**

Artifacts recovered during the archaeological survey were cleaned and analyzed and are temporarily housed in Tetra Tech's office in Bloomington, Minnesota. Artifacts were examined for diagnostic features and lithic raw materials were identified by color, texture, fossils, inclusions, luster, and translucence. Tetra Tech will return collected archaeological material to landowners upon completion of the investigation.

### **1.5.5 Assigning Temporal Affiliation**

During the field survey, identified archaeological resources were recorded, described, and mapped, and cultural affiliation was assigned when possible. Clear temporal affiliation was assigned to site types such as lithic scatters



(prehistoric) and abandoned farmsteads (historic). If sites contained features or artifacts of indeterminate temporal affiliation or contained both prehistoric and historic components, this information was also noted. The assigned cultural affiliations were used to confirm or update existing cultural affiliation determinations in the site forms for previously documented archaeological resources.

## 2.0 ENVIRONMENTAL BACKGROUND

A brief overview of past and present environmental conditions within the Study Area provides a foundation for understanding human subsistence and settlement patterns in the region over time. Understanding how environmental variables (availability of food, water, fuel, and tool materials) affected past decision-making leads to a greater awareness of a region's potential archaeological resources.

### 2.1 PHYSIOGRAPHIC AND GEOLOGIC SETTING

The Project Area lies within the Red River Valley of the Central Lowlands physiographic region in southeastern North Dakota (Bluemle 2000). This Red River Valley is characterized by flat plains created from the sedimentation on the floor of glacial Lake Agassiz. Lake Agassiz was formed when the route of the Red River to Hudson Bay was blocked by glacial ice. Surface geology within the Study Area consists of the Quaternary Oahe Formation, which consists of river sediment and windblown sand (NDGS 2023).

Raw materials for stone tool production would have been limited to former beach lines and stream valleys in the vicinity of the Project Area.

### 2.2 SOILS

A total of 23 soil map units encompasses the Project Area (U.S. Department of Agriculture-Natural Resources Conservation Service [USDA-NCRS] 2024a). A review of the parent materials for the soil map units identified that most parent materials for soils in the Project Area are glaciolacustrine, which were deposited by Glacial Lake Agassiz. The other predominant parent material is glaciofluvial deposits, which were deposited by the Late Pleistocene Sheyenne Delta. Buried soils or A horizons would not be expected in soils with these parent materials. Additionally, soils in the vicinity of Pitcairn Creek did not have buried A horizons or soils (USDA-NCRS 2024b). It is Tetra Tech's opinion there is a low potential for deeply buried agricultural resources in the Project Area. Archaeological materials, if present, would likely be present in the plowzone.

### 2.3 HYDROLOGY

Pitcairn Creek is located within the central portion of the Project Area and represents the closest source of natural water to the Project Area. Portions of the creek have been channelized in the western part of the Project Area. Seasonal wetlands are also present in the Project Area.

The Wild Rice River is located along the eastern border of the Study Area, approximately 0.3 mile (0.5 kilometer) east of the eastern-most portion of the Project Area. On a regional scale, the Project Area is located in the Western Wild Rice Watershed, an east-flowing tributary of the Red River (USGS 2024).

## **3.0 CULTURAL BACKGROUND**

This section provides a summary of the cultural background within Indiana and the region surrounding the Project Area. Similar to Section 2.0 (Environmental Background), a general understanding of a region's cultural resources is necessary for the interpretation of newly documented sites.

The Project Area lies within the Southern Red River Study Unit (SRRSU) (SHSND 2008, 2015). The Study Units (drainage basins) are used for prehistoric and proto-historic archaeological site studies and management in the state.

### **3.1 PRECONTACT PERIOD**

Prehistoric cultures within North Dakota are divided into five major traditions: Paleoindian, Plains Archaic, Plains Woodland, Plains Village, and Equestrian Nomadic (SHSND 2015). These traditions are subdivided into stages based largely on technological innovations that can be observed in the archaeological record. These innovations include changes in the forms of projectile point styles or the decoration of pottery. Behavioral adaptations such as changing subsistence and mobility patterns also serve as points of reference in determining the transition from one tradition to another. The following descriptions were compiled from the North Dakota Comprehensive Plan for Historic Preservation: Archaeological Component (SHSND 2008), Historic Preservation in North Dakota, 2010-2015: A Statewide Comprehensive Plan (SHSND 2015), and The Handbook of North American Indians Volume 13, Part 1 (DeMallie 2001).

#### **3.1.1 Paleoindian Tradition (11,500 – 7,500 B.P.)**

The Paleoindian Tradition is characterized by hunting and gathering adaptations with a notable concentration on now-extinct big game animals. The beginning of the Paleoindian Tradition focused attention on Pleistocene fauna such as mammoths and camelops; later focus was on species of bison intermediate in size between late Pleistocene and modern forms. Other characteristics of the Paleoindian Tradition include (1) geographically extensive interaction networks between social groups (Hayden 1981), and (2) distinctive lanceolate projectile point styles by which the various Paleoindian cultural complexes are identified. Cultural complexes represented in North Dakota from oldest to youngest include Clovis, Goshen, Folsom, Hell Gap-Agate Basin, Cody, Parallel Oblique Flaked, Pryor Stemmed, and Caribou Lake (SHSND 2008).

#### **3.1.2 Plains Archaic Tradition (7,500 – 2,000 B.P.)**

The Plains Archaic Tradition continued hunting and gathering adaptations seen during the Paleoindian Tradition, but with a focus on bison procurement and use of different types of stone tools. The Plains Archaic Tradition appears

to have been marked by cultural changes such as (1) further diversification in projectile point styles (possible representing regionalization of populations), (2) decline in the quality of flint knapping craftsmanship, and (3) reduction in the degree and extent of interaction between human populations in different areas and subareas. Hayden (1981) suggested that these cultural changes attest to an increase in the reliability of access to subsistence resources to the extent that it was no longer necessary to maintain extensive alliance networks to fall back on in times of resource failure. It seems equally likely that the negative environmental effects of the Altithermal led to a decline in the human carrying capacity on the Great Plains and thus to fewer groups of people.

Spanning 5,000 years, the Plains Archaic Tradition is subdivided into Early (7,500 to 4,500 B.P.), Middle (4,500 to 3,000 B.P.), and Late (3,000 to 2,400 B.P.) periods. Plains Archaic complexes recognized in North Dakota include Oxbow, McKean Lanceolate, Duncan, Hanna, Pelican Lake, and Yonkee (SHSND 2008).

### **3.1.3 Plains Woodland Tradition (2,400 – 800 B.P.)**

Plains Woodland Tradition lifeways are thought to have shared many similarities with those of the Plains Archaic. However, the practice of mound burial mortuary ceremonialism, the production and use of ceramic vessels, and possibly intensified use of indigenous seedy plants and grasses for food appear to have been Plains Woodland Tradition developments (Gregg 1994; Gregg et al. 1996).

The Plains Woodland Tradition is subdivided into three periods: Early (2,400 to 2,100 B.P.), Middle (2,100 to 1,400 B.P.), and Late (1,400 to 800 B.P.). Plains Woodland complexes recognized in North Dakota include Sonota/Besant, Laurel, Avonlea, Blackduck, Mortlach, Old Women's, and Sandy Lake (SHSND 2008).

### **3.1.4 Plains Village Tradition (A.D. 1200 - 1780)**

Unlike earlier cultural traditions, the Plains Village Tradition relied heavily on horticulture and, to a lesser extent, on hunting and gathering (Steinacher and Carlson 1998). Cultigens in use at this time included maize, beans, squash, sunflowers, gourds, and tobacco. Plains Villagers were prominent in North Dakota from as early as A.D. 1000 until 1780, after which the Villagers were decimated by exposure to European diseases. It is generally believed that the key element in Plains Village adaptive strategies was the production of a dependable, storable surplus food supply, primarily in the form of dried corn. Stored surpluses of food facilitated the formation of larger, more permanently situated residential earthlodge village communities (SHSND 2008).

### **3.1.5 Equestrian Nomadic Tradition (A.D. mid 1780s - 1880)**

The Equestrian Nomadic Tradition includes Native American lifeways that depended on horses, which were acquired by groups in the region during the 1700s (Lehmer 1971). The introduction of horses into the Native American cultures produced significant changes in subsistence economies, demographics, social organization, and settlement patterns. Horses were a considerable improvement over dogs as beasts of burden (Fredlund 1973), and they greatly increased the capacity of groups who adopted them to acquire and transport food (Beardsley et

al. 1956). The adoption of French and English trade goods by Native American groups during this period also resulted in considerable shifts in lifeways.

Equestrian Nomadic lifeways were taken up by a diversified lot of cultural groups, including the Algonkian Blackfeet, the Siouan Crow, and the Siouan Middle Dakota. During early historic times, tribes inhabiting the area surrounding the Sheyenne River included the Dakota (Yankton and Yanktonai), Cheyenne, Assiniboine, and Plains Ojibwa, and Ottawa (Swenson and Bleier 2008). Around 1800, the Red River Valley was populated by groups of Chippewa in the north, while Crow, Blackfoot, and Cree peoples populated the western portion of the valley (Dennis 2016). The Mandan, Hidatsa, and Arikara peoples inhabited villages along major rivers throughout much of the Dakotas during the late-prehistoric periods. The Proto-historic period in North Dakota (A.D. 1650-1800) was a time of Euro-American cultural impact on Native cultures, which came first from the north in the form of French and English trade goods. Trace amounts of European materials may have been available as early as 1613, when they could have been scavenged from the ships and stores abandoned by Hudson Bay exploration expeditions of 1612 and 1619 (Russell 1982). Goods may have also been acquired later from trading posts along the Saskatchewan River in southern Manitoba and Saskatchewan in the York Factory area of Hudson Bay in the fall of 1682 (Russell 1982).

## **3.2 HISTORIC CONTEXT**

This section provides a brief summary of the historical context for archaeological resources in present-day Richland County and the surrounding area. A general understanding of a region's cultural history is necessary for interpretations of newly documented resources.

### **3.2.1 Fur Trade Period (1738-1860s)**

The first Europeans to enter present-day North Dakota were French missionaries and fur traders. Phillipe Francois Renault, the director general of mines for France's Louisiana Territory, is said to be the first European explorer to physically reach eastern North Dakota. In 1719 he traveled up the Minnesota River and down the Red River into Canada (Severson and Seig 2006). No records of his route exist; thus, it is often said that la Verendrye was the first to arrive to the east. He sought a trade route to the Mandan and Hidatsa tribe from Canada in 1738, traveling along the Missouri River and back. He established the first trading center that influenced northeastern North Dakota, marking the beginning of the trading post era (Severson and Seig 2006).

While all the territory within the present-day boundaries of North Dakota was considered part of the 1803 Louisiana Purchase, only the areas drained by the Missouri River were included. The northeastern half of the state is in the Hudson Bay drainage basin, and therefore was not part of the transaction; the northeastern edge of the Louisiana Purchase lies a short distance west of the western border of present-day Richland County (Callan 1938). This area did not come into the United States until 1818, when Great Britain ceded the Red River Valley to the United States in the Treaty of 1818. News of the Lewis and Clark expedition into the eastern region spurred more exploration by tourists and the military (Severson and Seig 2006). Growing interest in the region led to the creation of the American

Fur Company in 1808, which merged with the Columbia Fur Company in 1821. Posts erected by these, and other companies, emerged and disappeared throughout the rest of the 19<sup>th</sup> century.

As fur trading increased in importance, the United States government hired explorers to map this previously uncharted part of the country. In 1823, Major Stephen Long passed through Richland County on his way to locate the boundary line (the 49 parallel) of the territory established in the 1818 treaty with Great Britain (Callan 1938). As Euro-Americans expanded further west in the 1820s, the Sheyenne River, which is located in the northwestern corner of present-day Richland County, became an important avenue of trade. Numerous trading posts were established along the Sheyenne River in the first half of the 1800s (Vehik and Vehik 1977; Whitehurst 1989). In 1826, the Columbia Fur Company established a post at the confluence of the Sheyenne and Red Rivers approximately 30 miles north of Richland County. By the 1830s, numerous trails between trading posts, villages, and forts crossed the Sheyenne River Valley, including an oxcart trail crossing near Kindred (Vehik and Vehik 1977; Whitehurst 1989; Gilman 1970), which lies immediately north of Richland County. Commercial trains of ox carts traversed the Red River Valley carrying furs and other goods to St. Paul, Minnesota (Ritterbush 1991).

In the Red River Valley, river crossings played an important role in the fur trade industry as well, as many Red River cart trails followed routes on either side of the Red River Valley in order to avoid muddy stream crossings near the river. Goods were often ferried over the river on makeshift rafts, or temporary bridges were built to aid in crossing. Norman W. Kittson, who formed the N.W. Kittson and Company trading company along the Minnesota River in 1842, passed through northern Richland County by means of a bridge site in the 1850s (Ritterbush 1991).

By the 1840s, several factors led to the decline of the fur trade industry in the region (Capace 2001). Smallpox epidemics decimated both Euro-American and Native American populations (Vehik and Vehik 1977; Robinson 1966; Whitehurst 1989), and overhunting resulted in the near extirpation of beaver and other mammals in the American West. Additionally, European fashion and hat-making trends shifted in favor of exotic furs. The industry was revived for a short time following the American Fur Company's emphasis on buffalo product trade in the 1840s. However, by the 1860s, the United States-Dakota war and resulting reservation policies ushered in the end of the fur-trading era.

With the collapse of the fur market in the region, the incentive to exploit bison and other mammals increased in the region. Bison were first hunted for their meat, and later for their pelts; at that point, bison hunts became larger and more organized (Severson and Seig 2006). The frontrunners in bison hunting were the Métis, a group of people formed as a result of interracial marriage between the Cree Indians and French settlers. Their prowess in bison hunting was a cause for concern. In 1845, Captain Edwin V. Sumner lead a military expedition to diffuse a war between the hungry Yanktonai Sioux Tribe and the Canadian Métis. This intervention had no effect on the Métis' hunting patterns, and they continued to decimate the bison population until they were gone (Severson and Seig 2006).

As new states formed and dissipated, the eastern section of North Dakota became part of Wisconsin Territory (1836), Iowa Territory (1838), and Minnesota Territory (1849). After Minnesota became a State in 1858, the land between the Red and Missouri Rivers was left unorganized until it was made a part of the new Dakota Territory in 1861. The Richland County area was not placed in a county in this new territory until 1862, when it became part of Sheyenne County, which includes most of present-day Richland County (Callan 1938).

### **3.2.2 Military Period (1840s-1860s)**

Hostilities between Euro-Americans, Native Americans, and fur traders began to escalate as early as the 1820s. As the situation became untenable to the federal government, military troops were sent to quell hostilities. In 1849, Major Samuel Wood and Captain John Pope crossed the Red River at Graham's Point and entered Richland County to investigate complaints of relentless buffalo slaughter, trespassing by British subjects, and the selling of liquors to the Native Americans (Callan 1938). The next visit to the county would be Isaac I. Steven's expedition to the Pacific Coast in 1853, when he traveled on the west side of the Red River until he turned west at Graham's Point, crossed the Wild Rice and Sheyenne Rivers, and trekked onwards to Seattle. His mission was to make a preliminary survey for railroads, and a feasible pass over the Rocky Mountains; the Red River Valley and Western Railway extant in Richland County and the surrounding areas are a result of his surveys.

The next military expedition through Richland County was in 1856 when Colonel C.F. Smith set out to determine the location of a line of forts; a necessary action to protect the frontier as settlers continued to pour into the Dakota Territory in search of untouched land (Callan 1938). His report on the Red River valley area established the location of the first military fort (Fort Abercrombie) in North Dakota at Graham's Point in 1858. The fort would be used to train volunteers and officers for the Civil War and to protect the heavily utilized Red River Trail, where hundreds of ox carts were transporting goods to and from Minnesota points. With the establishment of Fort Abercrombie came the attraction of steam boating on the Red River, which further encouraged trade between the St. Paul Chamber of Commerce, trappers, and traders. By 1859, the Red River settlers were spending \$100,000 a year in St. Paul, largely on fur products (Robinson 1966). Several well-known trails radiated from Fort Abercrombie through parts of Richland County, such as the Sibley Trail (Callan 1938).

Fort Abercrombie was also set up to control Native Americans and to protect the routes to Montana, but it only increased the hostility of the Sioux, especially with the Yanktonais and Tetons. Furthermore, as a result of a crop failure in the fall of 1861 followed by a hard winter, the government failed deliver annuity payments and supplies to the Sioux during the spring and summer of 1862 (Callan 1938). The Sioux, desperate for food, turned to agency traders who sold them food on credit. Tempers flared in a meeting with Dakota leaders and the Bureau of Indian Affairs, subsequently igniting the Dakota War of 1862, a continuation of the Minnesota Massacre, which broke out in southern Minnesota under the command of Little Crow. The first attack is known as the Battle of Lower Sioux Agency, where on August 18, 1862, days after the meeting, the Dakota attacked the traders' store, barns, government personnels' living quarters, and other buildings of the Lower Sioux Agency settlement in Brown and Renville Counties, Minnesota (Callan 1938; DeCarlo 2014). The Sioux also attacked stage drivers and burned



merchandise, way stations, and tiny posts along the Red River, halting the steamboat industry and rendering wagon trails nearly impassable (Robinson 1966).

The Dakota War of 1862 involved numerous attacks on Fort Abercrombie. Attacks on Euro-American settlers at Breckenridge, a settlement immediately east of present-day Wahpeton, prompted around 77 settlers from the Richland County area to take shelter at Fort Abercrombie for protection. Minnesota Governor Alexander Ramsey placed Henry Sibley in charge of U.S. forces at the fort (DeCarlo 2014). An attempt to gather additional, much needed troops from Fort Snelling failed, as there was also a great need for men in Minnesota. On August 30, the Sioux attacked the fort and drove off the majority of the settlers' and Chippewa nations' livestock kept at the fort (Callan 1938). From September 6 to September 23, the fort was under siege. No more major attacks were made, but the Sioux continued to fire at the fort from the trees on the riverbank. Reinforcement troops led by Captain Emil Burger from Minnesota arrived on September 23; several small attacks on the Sioux followed, during which, one Sioux camp was burned. The Sioux forces were eventually driven westward. On September 30, approximately 220 men, women, and children left the fort for St. Cloud and St. Paul under military escort.

### 3.2.3 Settlement Period (1864 - 1890)

Settlement in the Red River Valley dramatically decreased for approximately 2 years following the Sioux attacks on Fort Abercrombie; an increased number of troops stationed at the fort and a district cavalry patrol slowly encouraged settlement. Morgan T. Rich visited the county 2 years after the siege of Fort Abercrombie. Astonished by the setting and soil fertility of the area, he returned to live in a dugout in the riverbank in 1869, beginning the settlement known as Richville, known as present-day Wahpeton (Callan 1938).

The territory of present-day Richland County was also underdeveloped in settlement due to insect infestations and periodic intertribal conflict. In 1870, a peace treaty was signed at Fort Abercrombie between the Sioux and the Chippewa, creating a greater sense of security. Steamboat traffic on the Red River also grew, supplying the northern part of the Red River Valley and creating many jobs for the early settlers. By 1875, many boats such as the *International*, *Dakota*, *Alpha*, and *Cheyenne* were carrying passengers up and down the Red River, and thousands of tons of freight, such as rails for the railroads, grain, and livestock (Robinson 1966). The steamboat industry continued through the late 19<sup>th</sup> century, expanding as railroads from St. Paul reached the Red River. New boats were built to ship wheat to railroad shipping points as late as 1895 (Robinson 1966). The last boat on the river sank in 1912.

The St. Paul and Pacific Railroad Company's Northern Pacific main line was the first railroad to reach present-day North Dakota. Completed in 1872, it was the most important of the Minnesota railroads. Stretching from St. Paul to the Red River at Breckenridge, Minnesota/Wahpeton, North Dakota, it facilitated settlement on the eastern border of the county, and provided easy access to western Minnesota, meeting the increasing demands in the Dakota Territory for food, building materials, and transportation more adequately than the cart and wagon (Callan 1938). In 1873 after the completion of the Northern Pacific, the Northern Pacific Railroad Company collapsed, spurring on

a nationwide financial panic that once again slowed immigration into the county (SHSND 2014). The Panic of 1873 left the state with inadequate railroad connections; the newly constructed Northern Pacific did not directly connect to St. Paul and could not run on specific lines during the winter. In 1879, the St. Paul Minneapolis and Manitoba Railway Company (Manitoba) took control over the St. Paul and Pacific Railway Company, immediately forging connections between the Red River Valley and Canadian markets by building two north-south railroads. The second north-south line passed through Richland County and through the Project Area; it was a direct extension of what was previously the Northern Pacific main line. The Manitoba extended this railroad 48 miles (77.2 kilometers) to Durbin via Wahpeton through Richland County. This led to the founding of Dwight (1880), Walcott (1880), Colfax (1881), and Galchutt (1882).

Those who came to North Dakota to acquire land could buy it from the bankrupt Northern Pacific Railway Company, who agreed to exchange previously purchased bonds for land at face value; thus, investors could purchase large tracts of land for only 16 cents per acre (Drache 1967). Others could acquire land through the federal government. The Pre-emption Law allowed a settler who did not own 320 acres (129.5 hectares) in any state or territory to buy 160 acres (64.7 hectares) for \$1.25 an acre, so as long as they have lived on the land for 6 months and made certain improvements. Other acts such as the Homestead Act, and the Timber Culture Act, also allowed for accessible land acquirement and the establishment of communities throughout the state, drawing in a flood of pioneers, though less than 500 people had moved to Richland County by 1873. In the same year, the county was named Richland County after Mr. Rich, and Wahpeton was named the county seat.

With the spreading news of a suitable climate and fertile soils combined with the establishment of land and immigration departments by the Northern Pacific Railroad Company, a steady stream of immigrants was pouring into the county by 1874. The majority of the immigrants were German and Norwegian, taking up homesteads along the Red, Wild Rice, and Sheyenne Rivers (Callan 1938). The sense of security within the county by 1877 was strong enough to allow the withdrawal of troops from Fort Abercrombie. As a result, the military reserve was opened for settlement and the buildings were auctioned off in 1879 (Callan 1938). Richland County saw a 300 percent increase in population – from 3,567 in 1880 to 10,751 in 1890 (Callan 1938). By 1900, the population of Richland County had risen to over 17,000 (United States Census Bureau 2024). The county's population peaked to around 21,000 in 1930 (Malloy et. al. 2022), and has gradually declined ever since, with a population of approximately 16,500 people as of 2020 (United States Census Bureau 2020).

By the end 1881, the Northern Pacific Railroad Company had sold most of its land west of the Red River, and soon numerous 'bonanza farms' were encompassing thousands to tens of thousands of acres cultivating wheat (Malloy 2022; Callan 1938). Perhaps the best know bonanza farm in Richland County was the Dwight Farm, which was founded in 1880 and reached a holding of 27,000 acres (10,926 hectares). While the scale of operation on bonanza farms was astounding, the harvest cycle was adapted to a wheat country where extensive agriculture was upheld by scant rainfall, resulting in relatively low yields per acre. The number of workers required on a given bonanza farm depended on the season; many workers were needed for seeding, then fewer for haying and plowing. Many



more workers were needed for the harvest, and even more for the threshing, then fewer for fall plowing, and only a handful to manage the stock during the winter (Robinson 1966). While some workers came from Minnesota and Wisconsin, many were Norwegian and German settlers working for cash to carry them through until their own land produced a crop.

With the rise of bonanza farming and the raising of grain came the demand for a means of processing it within the county. Two grist mills were built in 1881; one in Colfax, and one in Wahpeton. The arrival of the mills allowed for wheat to be processed at home in Richland County instead of sending it to Elizabeth, Minnesota to have it ground to flour. An 1891 issue of *The Wahpeton Times* boasted that the 100-barrel flour mill, costing the founders \$25,000 to erect, was second to none. The mill at Wahpeton was acquired by Braun Brothers & Eckes and served a wide territory in Richland County and Minnesota through the 1930s (Callan 1938).

In 1896-1897, coal began to be shipped from Bismarck, taking the edge off of the harsh winter conditions (SHSND 2014). In the early 1900s, in addition to wheat, the most important crops in the county were oats, barley, flax, rye, and hay (Gilbreath 1911). Potatoes also became an increasingly important crop during this time in the Red River Valley (Kenney 1995). By the early 1910s, degradation of land and a national wheat surplus decreased the profitability of bonanza farming, and many large farms were abandoned (Lee 2008). The bonanzas never dominated the agricultural scene; the average North Dakota farm in 1890 was only 72 acres (29.1 hectares) (Robinson 1966).

During the Great Depression in the 1930s, the number of farms increased in Richland County, but acres of wheat planted plummeted. Between 1930 and 1960, the number of farms in Richland County decreased; however, the average farm size increased by about 100 acres (40.5 hectares) (Malloy 2022). During this period, technological advances such as radios, telephones, and televisions, as well as appliances that minimized workloads, made farm life more tolerable (Malloy 2022).

### 3.2.4 Colfax

Colfax is located approximately 1.4 mile (2.3 kilometers) north of the Project Area and is located along the Red River Valley and Western Railroad (formerly Great Northern Railroad). In 1880, the St. Paul Minneapolis and Manitoba Railway Company (Manitoba) extended its second main line (now known as the Casselton Branch of the Great Northern Railway) from Wahpeton through the territory of present-day Richland County, bringing settlers from the southeast into the region. This led to the founding of Colfax in 1881, when Horace B. Crandall filed the plat of the original townsite (Callan 1938; Mitskog 1970). Due to its close proximity to Fort Abercrombie, the land in the vicinity of Colfax was settled rapidly and nearly filled by 1883 (Mitskog 1970). The first structures erected in the town were a hotel, store, and grist mill in 1881; the grist mill allowed for the processing of flour within the county and attracted more settlers (Mitskog 1970).

By 1900, Colfax had a population of 653 people (United States Census Bureau 2024). By 1906, the town boasted a grain elevator (1891), a hardware store (1897), a blacksmith shop (1904), and its first bank (1906). The hotel was

a booming business; the 16-bedroom, air-conditioned building attracted all sorts of travelers passing through town by passenger train. Colfax became an incorporated village in 1954 (Mitskog 1970). The population of Colfax declined through the 20<sup>th</sup> century with only 70 residents in 1970 (U.S. Census Bureau 2020), but has steadily risen since, with a reported count of 248 residents in 2021.

### **3.2.5 Galchutt**

Galchutt is an unincorporated community located approximately 1.4 mile (2.3 kilometers) southeast of the Project Area along the Red River Valley and Western Railroad (formerly Great Northern Railroad). Hans Galchutt homesteaded the area in 1878. The expansion of the Manitoba's second main line into Richland County led to the official foundation of Galchutt. After the expansion of the railway, Mr. Galchutt built the first home, store, and grain warehouse in 1882 (Committee of the Centennial History of Galchutt [CCHG] 1982).

Very little development occurred prior to the early 1900s. During this time, an additional store and home was erected, along with a schoolhouse and a hotel. The Galchutt depot was established in 1891 along the railroad. The first post office was established in the same year, with Mr. Galchutt as the postmaster. A millinery shop and meat market also emerged in the 1890s, followed by a feed mill in 1892, a blacksmith shop circa 1900, and a bank in 1904 (CCHG 1982). Frequent flooding was a persistent issue in Galchutt, leading to the grading and graveling of Highway 81 in 1935. During World War I, many troop trains via the Great Northern Railroad passed through Galchutt, and telegraph operators in town worked 24-hour shifts to aid in the war effort (CCHG 1982).

## **4.0 RESULTS OF THE LITERATURE REVIEW**

The purpose of the file search is to provide a general understanding of the cultural resources identified within the Study Area and to provide a general overview of land use change within the Study Area.

### **4.1 PREVIOUSLY DOCUMENTED CULTURAL RESOURCES**

#### **4.1.1 Previous Cultural Resource Investigations**

Three previous archaeological investigations intersect portions of the Project Area (Appendix A, Figure 2; Table 2). One of the investigations is for improvements to U.S. Interstate 29, and the other two are associated with a proposed natural gas pipeline.

An additional five previous cultural resource investigations have occurred outside the Project Area, but within the Study Area (Appendix A, Figure 2; Table 2). These surveys were conducted for bridges, fiber optic lines, and North Dakota Department of Transportation projects.

**Table 2.** Previous Investigations Conducted within the Project Area and Study Area.

Report	Manuscript No.	Location
Historic Bridges in North Dakota (Johnson et al. 1992)	005920	Study Area
Safety Project Cultural Resource Review (North Dakota Department of Transportation 1992-1994)	006449	Study Area
Interstate Engineering's Pitcairn Creek Bridge Replacement: A Class III Cultural Resource Inventory in Richland County, North Dakota (Kulevsky 1996)	006775	Study Area
A Class III Cultural Resources Inventory for Vantage Point - Red River Rural Telephone Association – Buried Cable, Richland County, North Dakota (Harken 2006)	009676	Study Area
Bridge #123-14.0: A Class III Cultural Resource Inventory in Richland County, North Dakota (Bleier 2006)	009872	Study Area
I-29 Reconstruction Project; A Class III Cultural Resource Inventory in Richland County, North Dakota (Gordon 2016)	017072	Project Area and Study Area
Class III Archaeological Inventory Survey Report: WBI Energy Transmission, Inc. Wahpeton Expansion Project, Cass and Richland Counties, North Dakota (Dodson et al. 2022)	019949	Project Area and Study Area
Class III Archaeological Inventory Survey Report: WBI Energy Transmission, Inc. Wahpeton Expansion Project, Cass and Richland Counties, North Dakota (Malloy et al. 2022)	019950	Project Area and Study Area

#### 4.1.2 Archaeological Resources

One previously documented archaeological resource has been documented within the Project Area (Appendix A, Figure 2; Table 3). Site Lead 32RIX0061 is the [REDACTED] Site Lead and occupies 4.8 acres (1.9 hectares) of the Project Area. The site lead is unevaluated for listing in the NRHP National Register of Historic Places (NRHP).

Two additional archaeological site leads were identified within the Study Area, beyond the Project Area (Appendix A; Figure 2; Table 3). Both resources are unevaluated for listing on the NRHP. Site Lead 32RIX0060 is the reported location of the [REDACTED] and is located [REDACTED] from the Project Area. Site Lead 32RIX0389 is a reported location of the Native American burial mound, located approximately [REDACTED] [REDACTED] portion of the Project Area. The site form from August 1965 indicates that 2 mounds, roughly 20 feet (6.1 meters) in diameter and 3 feet (0.9 meter) high were located in virgin prairie. A review of current aerial photography revealed the site lead is located in a cultivated field. A review of LiDAR Maps hosted by the North Dakota Geological Survey (NDGS) failed to identify any mound-like features in the imagery in the reported location (NDGS 2016).

### 4.1.3 Architectural Resources

The file search did not identify any previously inventoried architectural resource within the Project Area; however, five previously inventoried architectural resources were identified within the Study Area (Appendix A, Figure 2; Table 3). Of the five architectural resources, three are considered not eligible for listing in the NRHP, and 2 are currently unevaluated for listing in the NRHP. The nearest architectural resource to the Project Area is [REDACTED] (Site 32RI00685; [REDACTED] and the furthest is Site 32RI00920 [REDACTED]

**Table 3.** Previously Documented Cultural Resources within the Study Area.

Site No.	Type	Location	Description	NRHP Status
32RI00685	Architectural	Study Area	[REDACTED]	Unevaluated
32RI00756	Architectural	Study Area	Wild Rice River Bridge	Not Eligible
32RI00757	Architectural	Study Area	Wild Rice River Bridge	Not Eligible
32RI00851	Architectural	Study Area	Bridge	Not Eligible
32RI00920	Architectural	Study Area	Farmstead	Unevaluated
32RIX0060	Historic Archaeological	Study Area	[REDACTED]	Unevaluated
32RIX0061	Historic Archaeological	Project Area	[REDACTED]	Unevaluated
32RIX0389	Archaeological	Study Area	Native American Mound/Burial	Unevaluated

## 4.2 HISTORICAL DOCUMENT REVIEW

Tetra Tech reviewed historical atlases, topographic quadrangles, and aerial photographs (Table 1) to identify the presence of structures, settlements, trails, roads, railroads, and other manufactured features that may have been historically present within the Project Area.

### 4.2.1 General Land Office Maps (1871)

The GLO maps did not reveal any historic features in the Study Area (Appendix B, Map 1). The northwest-southeast trending Wild Rice River and its tributaries were illustrated of the Project Area (General Land Office Survey Maps of North Dakota 1871).

### 4.2.2 1897 W.M. House Plat Map

A review of the 1897 W.M. House plat map revealed nine structures (S01 through S09), the Great Northern Railroad, and section line roads and within the Project Area (Appendix B, Map 2). Additional residences, schools, and a church were illustrated within the Study Area, as well as the Wild Rice River on the eastern edge of the Study Area.

### **4.2.3 1904 30-minute USGS Topographic Quadrangle**

A review of the 1904 30-minute USGS Wahpeton, North Dakota Topographic Quadrangle revealed seven structures within the Project Area. Structures S10 and S12 were observed on the 1904 topographic quadrangle, and structures S01, S02, S03, and S08 depicted on the 1897 W.M. House plat map were not illustrated on the 1904 topographic quadrangle.

### **4.2.4 1910 Alden Publishing Company Atlas**

A review of the 1910 Alden Publishing Company atlas revealed that seven structures were present within the Project Area (Appendix B, Map 4). Structures S15 and S16 were observed on the 1910 atlas, and structures S04, S05, and S10 depicted on the 1904 30-minute USGS Wahpeton, North Dakota Topographic Quadrangle were not illustrated on 1910 atlas. An unnamed creek in alignment with Pitcairn Creek was illustrated intersecting the Project Area. [REDACTED] was also illustrated in the approximate location of Site Lead 32RIX0060 [REDACTED].

### **4.2.5 1952 Army Map Service Aerial Photograph**

A review of the 1952 Army Map Service (AMS) aerial photograph revealed that much of the Project Area was agricultural cropland (Appendix B, Map 5). Farmsteads were observed at S06, S09, S12, S15, and S18 within the Project Area. A farmstead was also observed at S07, but this was observed to be outside the Project Area.

### **4.2.6 1957-1962 FSA Aerial Photographs**

A review of the 1957-1962 FSA aerial photograph revealed that much of the Project Area was agricultural cropland (Appendix B, Map 6). Structures were observed at S09, S12, S15, S18, and S19 within the Project Area. The aerial photographs revealed that the structure on the location of S06 was no longer present, only a vegetated area remained at S06.

### **4.2.7 7.5-minute Topographic Quadrangles**

A review of the 1959 7.5-minute USGS Mooreton NW, North Dakota, and the 1960 7.5-minute USGS Galchutt, North Dakota Topographic Quadrangles identified one structure (S19) in the Project Area (Appendix B, Map 7). No other structures were illustrated in the Project Area. A feature labeled "Flowing Well" was illustrated in the approximate location of S09. A double lane road was observed in the approximate location of U.S. Interstate 29 running north-south through the Project Area. S07 was observed to be located outside the Project Area.

### **4.2.8 1978 United States Geological Survey Aerial Photograph**

A review of the 1978 USGS aerial photograph revealed S19 was still present in the Project Area (Appendix B, Map 8). No other previously identified structures were observed in the Project Area.

#### **4.2.9 1990-2023 Aerial Imagery**

A review of the 1990 through 2020 Google Earth aerial imagery revealed that portions of the Project Area that were historically agricultural cropland were gradually converted to pasture over the course of the 30 years (Appendix B, Map 9). A review of the 2023 aerial photographs revealed that the trees surrounding structure location S06 were no longer present, and the area appeared fallow (Appendix B, Map 10).

### **4.3 LITERATURE REVIEW SYNOPSIS**

Based on the results of the literature review, one previously documented historical archaeological site (Site Lead 32RIX0061 - [REDACTED] Site Lead) is located within the Project Area and unevaluated for listing in the NRHP. The site lead is located near the [REDACTED]. If the site were present in this location, the construction of the [REDACTED] would have likely destroyed the site.

A total of 14 structure locations have been identified within the Project Area. Of these 14 structure locations, 13 are no longer present. Many of the structures appear to date from the late 1890s to the early 1900s and were subsequently destroyed and locations converted to agricultural uses between the 1950s and 1970s. One structure (S19) was first observed on aerial photographs in the late 1950s/early 1960s, and is still present in 2023 aerial photographs.

The aerial photograph review also confirmed that nearly all of the Project Area was in cultivated row crops at some point from the early 1950s to the present. In the last 30 years, more land in the Project Area has been taken out of crop production and put hay/pasture.

## **5.0 RESULTS OF THE ARCHAEOLOGICAL SURVEY**

The pedestrian survey was conducted by Tetra Tech archaeologists October 31 through November 6, 2023. Additional pedestrian survey and shovel probing was conducted by Tetra Tech archaeologists on May 29 and 30, 2024.

### **5.1 RESULTS OF FIELD SURVEYS**

Approximately 79 percent (2,774 acres [1,122.6 hectares]) of the Project Area is cultivated cropland and non-cultivated areas make up approximately 21 percent (690.1 [279.3 hectares]) of the surveyed Project Area. Cultivated cropland included row crops such as corn, soybean (Appendix C, Photographs 1 through 8). Ground surface visibility ranged from 60 to 100 percent in fields that had been tilled, and ranged from 10 to 30 percent in fields that had not been tilled or were planted with cover crop.

The non-cultivated areas within the Project Area consist predominantly of grasslands/herbaceous (512.1 acres [207.2 hectares]), trees (102.1 acres [41.3 hectares]), wetlands and riparian (61.7 acres [25.0 hectares]) (Appendix C, Photographs 9 through 17). Within non-cultivated areas, ground surface visibility ranged from 0 to 25 percent.

During the survey, Tetra Tech identified four Native American isolated finds, one Euro-American artifact scatter, and one Euro-American granary (Appendix A, Figures 3 and 4; Table 4). Additional details are provided in the section below.

**Table 4.** Newly Documented Cultural Resources within the Project Area.

Site No.	Type	Affiliation and Description	Recommended NRHP Status
32RI930	Architectural	Euro-American Granary	Not Eligible
32RIX408	Archaeological	Native American (Period Unknown) Isolated Find	Not Eligible
32RIX409	Archaeological	Native American (Late Archaic – Pelican Lake) Isolated Find	Not Eligible
32RI931	Historic Archaeological	Euro-American Artifact Scatter	Not Eligible
32RIX410	Archaeological	Native American (Period Unknown) Isolated Find	Not Eligible
32RIX411	Archaeological	Native American (Late Archaic – Pelican Lake) Isolated Find	Not Eligible

### 5.1.1 Site 32RI930

Site 32RI930 is a modest grain storage building (granary) located off County Road 6, approximately 0.2 mile (0.3 kilometer) east of the intersection of County Road 6 and 172<sup>nd</sup> Avenue Southeast in the northwest quarter of Section 14 of Abercrombie Township (Appendix A, Figures 3 and 4 – C4; Appendix C, Photographs 18 through 24). The granary is sited at the northern portion of the parcel; no other buildings or structures on the parcel. The GLO historic land patent records indicate Ole T. Tew was the landowner in 1882, and John Sakerson acquired the property in 1887 (Bureau of Land Management 1882 and 1887). When the granary was constructed, the property was owned by Lee Farms and is currently owned by the Lee family.

The granary is comprised of two elements: 1) a tall, one-story gabled element, and 2) an attached, shorter, shed roof element at the east elevation that was accessed by door, which is no longer present. All exterior walls are clad in shiplap siding. Other openings at the gable roof elevation includes a small, square opening under the gable of the two-story element along with two smaller square openings at the lower wall of the east (main) façade. The west elevation has an identical square opening under the gable of the two-story gabled element, and one small, square window opening at the lower wall; the shed roof element contains a small square opening at the west elevation. Square, metal, hinged openings are at the roof's slope on the south side, in the closed position. The interior of the



building is unfinished; as is the floor, which is dirt in some places and wood plank in others. There are two interior spaces, separated by an interior wood wall; the shed roof interior space is smaller than the gabled interior space.

The building first appears on 1957-1962 FSA aerial photographs (see Section 4.2.6; Appendix B, Map 6), north of three other buildings on the parcel and just south of what is currently County Road 6. The available written historical data did not reveal the original construction date or purpose of the building; however, the current landowner (Mr. Michael Lee) stated that his father and uncle (who were previous owners) constructed the building in the 1950s for use as grain storage. Mr. Lee indicated there was no residence on this parcel, rather it contained the granary and a few buildings, including another wood granary and a shed/shop that housed tools, which was destroyed by fire. Mr. Lee stated the existing granary never had plumbing or electricity and recalls that the building was constructed at its current site to store oats, wheat, and barley in the fall, which were taken to market in the following spring and summer. It has not been used since the 1960s and is in disrepair and generally poor condition.

The building is not associated with significant events that have contributed to the broad patterns of the history of North Dakota, Abercrombie Township, or Richland County and is therefore not recommended eligible under NRHP Criterion A. It is not associated with the life of a person or persons important to our history and research has revealed no associations between the granary and important historical figures. Therefore, the feature is recommended not eligible for listing in the NRHP under Criterion B. The building is a simple, modest, utilitarian building, constructed of materials and style commonly found throughout this region, and it does not embody distinctive characteristics of a type, period, or method of construction. Further, the building does not possess characteristics that represent the work of a master, nor does it possess high artistic values that rise to the level of significance to be eligible under NRHP Criterion C. As such it is recommended not eligible under Criterion C. It is not known to have yielded, or be likely to yield, information important in prehistory or history and is not recommended eligible under NRHP Criterion D.

The feature lacks sufficient significance and Tetra Tech recommends it not eligible for the NRHP under any of the criteria.

### **5.1.2 Site 32RIX408**

Site 32RIX408 is a Native American lithic isolated find identified during the pedestrian survey in the northwestern corner of the Project Area (Appendix A, Figures 3 and 4 – B2). The site was observed on a level plain within a cultivated agricultural field with 75 to 100 percent surface visibility (Appendix C, Photographs 25 and 26). The lithic isolated find consists of one retouched tertiary flake manufactured from ortho-quartzite (Bakken 2011) (Appendix C, Photograph 27).

Nine shovel probes were excavated at the site in May 2024; one shovel probe was placed at the find spot, and eight shovel probes were placed in 5-meter (16.4 feet) and 10-meter (32.8 feet) intervals from the find spot in the approximate cardinal directions (Appendix D). The shovel probes revealed a soil profile similar to the Maddock series (USDA-NCRS 2024b) (Appendix C, Photograph 28). In eight shovel probes, an A/B<sub>tw</sub> horizon was observed



extending to depths of 9 to 20 centimeters (3.5 to 7.9 inches) below ground surface (bgs). In the remaining two shovel probes, an Ap horizon was observed extending 18 to 20 centimeters (7.1 to 7.9 inches) bgs over an A horizon extending 29 to 36 centimeters (11.4 to 14.2 inches) bgs. The shovel probes were terminated in the Bw horizon, which was observed extending to a depth of 32 to 46 centimeters (12.6 to 18.1 inches) bgs. All shovel probes were negative for cultural materials.

The site is located within agricultural cropland and archaeological deposits present have likely been impacted by agricultural activities. It is likely that any cultural material in the vicinity of the find spot would be exposed on the surface with little potential for significant intact subsurface cultural deposits. All shovel probes were negative for cultural materials. Due to the absence of identified archaeological materials and a low potential for significant intact subsurface deposits at the site, the site does not provide significant archaeological research potential or information. As a result, the site would not be significant under Criterion D: Archaeological Potential and is recommended not eligible for listing in the NRHP.

### 5.1.3 Site 32RIX409

Site 32RIX409 is a prehistoric lithic isolated find identified during the pedestrian survey of the northern portion of the Project Area (Appendix A, Figures 3 and 4 – A3). The site was observed on a level plain within a cultivated agricultural field with 30 percent surface visibility (Appendix C, Photographs 29 and 30). The lithic isolated find consists of one projectile point manufactured from quartzite (Bakken 2011). The projectile point was broken immediately below the shoulders, but based on the small portion of notching that remains, the point is similar in morphology to Pelican Lake points, which date to the Late Archaic Period circa 3,500 to 2,000 B.P (Perino 1979; Morrow 2016) (Appendix C, Photograph 31).

Nine shovel probes were excavated at the site in May 2024; one shovel probe was placed at the find spot, and eight shovel probes were placed in 5-meter (16.4 feet) and 10-meter (32.8 feet) intervals from the find spot in the approximate cardinal directions (Appendix D). The shovel probes revealed a soil profile similar to the Hegne series (USDA-NCRS 2024b) (Appendix C, Photograph 32). An A/Bg horizon was observed extending to depths of 19 to 25 centimeters (7.5 to 9.8 inches) bgs. The shovel probes were terminated in the Bg horizon, which was observed extending to depths of 30 to 38 centimeters (11.8 to 15.0 inches) bgs. All shovel probes were negative for cultural materials.

The site is located within agricultural cropland and archaeological deposits present have likely been impacted by agricultural activities. It is likely that any cultural material in the vicinity of the find spot would be exposed on the surface with little potential for significant intact subsurface cultural deposits. All shovel probes were negative for cultural materials. Due to the absence of identified archaeological materials and a low potential for significant intact subsurface deposits at the site, the site does not provide significant archaeological research potential or information. As a result, the site would not be significant under Criterion D: Archaeological Potential and is recommended not eligible for listing in the NRHP.

#### 5.1.4 Site 32RI931

Site 32RI931 is a moderately dense Euro-American artifact scatter identified during the pedestrian survey in the northern portion of the Project Area (Appendix A, Figures 3 and 4 – J3). The site was observed on a level plain within a fallow agricultural field with 25 percent surface visibility (Appendix C, Photographs 33 and 34). The pedestrian survey identified approximately 300 artifacts consisting of historic glass, ceramic (whiteware, brick), stoneware, and metal scrap (Appendix C, Photographs 35 through 43). Diagnostic artifacts observed include a Thatcher Glass Manufacturing Company bottle produced circa 1944 to 1985 (Lockhart 2007) (Appendix C, Photograph 37), a “PONDS” milk glass cosmetic jar produced circa 1905-1950s (McCarthy 2022) (Appendix C, Photograph 42), and an “OVEN SERVE WARE” base produced circa 1930s (Gonzalez 2024). A modern 1980s aluminum Shasta soda can was also observed (Shasta Beverages Inc. 2019; Appendix C, Photograph 43). No infrastructure (i.e., power line poles or driveways) or features (i.e., foundations or extant structures) were observed at this location.

A structure was observed in the approximate location of 32RI931 on the 1897 W.M. House plat and was subsequently observed on the 30-minute 1904 USGS Wahpeton, North Dakota Topographic Quadrangle and the 1910 Alden Publishing Co. plat (see Sections 4.2.2 through 4.2.4). A structure in the location of the site was observed on the 1952 AMS aerial photograph; however, the structure was not observed on the 1957-1962 FSA aerial photograph (see Sections 4.2.5 and 4.2.6). The area around the former structure appeared to be vegetated from late 1960s through 2020. By October 2023, the vegetation was no longer present, and the area appeared fallow.

The NRHP eligibility of Site 32RI931 was evaluated using the framework and requirements discussed in *Farms in North Dakota: A Historic Context* (SHSND 2014), and guidelines for applying NRHP criteria for evaluation (National Park Service [NPS] 1990).

The artifacts observed on the surface of the site were likely the result of the removal of the structure in the 1950s and the grubbing on the location in the early 2020s. It is unknown how the former structure was removed from the site (i.e., burn and buried or hauled offsite). It is possible that intact features may be present on site. Due to the removal of the former structure, the integrity of Site 32RI931 has been significantly reduced. While the overall integrity is poor, the site retains integrity of setting, as the surrounding area has primarily remained agricultural since its original settlement. The physical location of the farmstead still exists; however, the structure and tree rows around the former structure are no longer present at the site location. As a result, site retains limited integrity of location. Since the structure and tree lines associated with the farmstead are no longer extant, the layout of the farmstead is not readily apparent, and the site's integrity of design is poor. Similarly, because the structure associated with the farmstead is no longer present, the integrity of materials and workmanship of the former structure is severely reduced. Due to the removal of the structure, the site has no integrity of materials and workmanship. Since the site lacks the structure associated with the farmstead, the site's integrity of feeling and association are also poor.

Site 32RI931 was first observed in the 1897 W.M. House plat and is likely associated with homesteading and agriculture within southeastern North Dakota during the Second Dakota Boom. Both homesteading and agriculture have been identified as historically significant in North Dakota (SHSND 2014). Homesteading is considered significant as it was the driving phenomenon of permanent settlement of the state, while agriculture is considered significant as the basis of homesteading and of the region's economy. While Site 32RI931 is associated with homesteading and agriculture within North Dakota, the site is not likely to be considered historically important within either of the significant contexts. The farmstead was not an early settlement of the area nor was it unique in its pattern of settlement. The area of the site was first settled at least 25 years prior, with additional settlement occurring in the last two decades of the 1800s as a result of the construction of the nearby railroad (see Section 3.2.3). Specific agricultural practices at the site are unknown; however, it was most likely wheat was grown (Robinson 1966), which was common for the area and the Red River Valley of North Dakota. Agricultural activities at the site would not likely be considered historically important for the history of agriculture within North Dakota. The site would not likely be considered historically important or considered eligible for NRHP listing under Criterion A: Events.

In 1897 and 1910, the quarter section containing Site 32RI931 was owned by Ingebrigt M. Lakkin (Ingebret Lokken). A review of U.S. Naturalization records revealed that Mr. Lokken immigrated from Norway to the United States in 1860. North Dakota marriage records revealed he was married in Richland County in 1892. Mr. Lokken's occupation is unknown; however, as a Norwegian immigrant, it is likely that he was a farmer. Mr. Lokken was not listed in the 1910 resident directory, nor were any residents within Section 10 of Abercrombie Township. The 1922 H.E. Wilson's Guide and Atlas to Richland County, North Dakota does not include illustrations of structures; however, it revealed that the quarter section was owned by J.J. Hull. According to J.J. Hull's obituary, he was born in 1854 and moved to Wahpeton in 1893. Mr. Hull was listed in the title owner index and the resident taxpayer list in the 1922 H.E. Wilson's Guide and Atlas to Richland County. It is unknown if the structure was occupied all the way to the 1950s. Based on a review of available historical documents and a review of state and regional history, there is no evidence that indicates Ingebret Lokken or his family, or J.J. Hull or his family, would be considered historically significant or important. There is no evidence that Ingebret Lokken or J.J. Hull innovated agricultural practices within the region, completed unique or outstanding accomplishments, or are well known on a national level (Callan 1938; Mitskog 1970). As Site 32RI931 is not associated with a historically important individual, the site would not be considered significant under Criterion B: Important Persons.

No standing structures remain at the site. As a result, the site would not be considered significant under Criterion C: Design/Construction.

The archaeological materials identified at Site 32RI931 consist of materials that would be standard on a farmstead during the first half of the 1900s. Intact features may exist at the site, but due to the commonality of farmsteads within North Dakota, the research potential of the site is likely limited or redundant with existing documentary records and would not provide significant information under Criterion D: Information Potential.

Due to the lack of integrity at the site and lack of historical significance, association with a historic person, or information potential, Tetra Tech recommends that Site 32RI931 is considered not eligible for listing in the NRHP.

### 5.1.5 Site 32RIX410

Site 32RIX410 is a prehistoric lithic isolated find identified during the pedestrian survey of the eastern portion of the Project Area (Appendix A, Figures 3 and 4 – C4). The site was observed on a level plain within a cultivated and tilled agricultural field with 90 to 100 percent surface visibility (Appendix C, Photographs 44 and 45). The lithic isolated find consists of two tertiary flakes approximately 23 meters (75.5 feet) apart, both manufactured from Swan River Chert (Bakken 2011) (Appendix C, Photographs 46 and 47). Due to inundated field conditions, Tetra Tech was unable to shovel probe at 32RIX410 in May 2024.

The site is located within agricultural cropland that is periodically flooded due to poor drainage. Archaeological deposits present have likely been impacted by agricultural activities. It is likely that any cultural material in the vicinity of the find spot would be exposed on the surface with little potential for significant intact subsurface cultural deposits. Due to limited identified archaeological materials and a low potential for significant intact subsurface deposits at the site, the site does not provide significant archaeological research potential or information. As a result, the site would not be significant under Criterion D: Archaeological Potential.

### 5.1.6 Site 32RIX411

Site 32RIX411 is a prehistoric lithic isolated find identified during the pedestrian survey of the eastern portion of the Project Area (Appendix A, Figures 3 and 4 – C4). The site was observed on a level floodplain within a fallow agricultural field with 90 to 100 percent surface visibility (Appendix C, Photographs 48 and 49). The lithic isolated find consists of one projectile point manufactured from Swan River Chert (Bakken 2011). The projectile point is similar in morphology to Pelican Lake points, which date to the Late Archaic Period circa 3,500 to 2,000 B.P (Perino 1979; Morrow 2016) (Appendix C, Photograph 50). Due to inundated field conditions, Tetra Tech was unable to shovel probe at 32RIX411 in May 2024.

The site is located within agricultural cropland that is periodically flooded due to poor drainage. Archaeological deposits present have likely been impacted by agricultural activities. It is likely that any cultural material in the vicinity of the find spot would be exposed on the surface with little potential for significant intact subsurface cultural deposits. Due to limited identified archaeological materials and a low potential for significant intact subsurface deposits at the site, the site does not provide significant archaeological research potential or information. As a result, the site would not be significant under Criterion D: Archaeological Potential.

## 6.0 DISCUSSIONS AND RECOMMENDATIONS

The Class I Inventory identified one historical archaeological site lead (32RIx0061 – [REDACTED] in the [REDACTED] of the Project Area, near the [REDACTED]

Evidence of Site Lead 32RIx0061 [REDACTED] was not observed in the Project Area; [REDACTED]  
[REDACTED] If the site were present in this location, the construction of the [REDACTED] would have likely destroyed the site. Seven additional resources, including five architectural, one historic archaeological, and one archaeological were recorded in the Study Area, beyond the Project Area. Three of the resources (12PI0061, 32RI00757, and 32RI00851) have been evaluated as not eligible for listing in the NRHP, and the remaining four resources (32RI00685, 32RI00920, 32RIx0060, and 32RIx0389) are currently unevaluated for listing in the NRHP. These resources are at least 0.5 mile (0.8 kilometer) from the Project Area. **Based on this distance, it is Tetra Tech's opinion these resources will not be directly or indirectly impacted by the proposed Project.**

Pedestrian surveys were undertaken in late October/early November 2023. Approximately 79 percent (2,774 acres [1,122.6 hectares]) of the Project Area is cultivated cropland and non-cultivated areas make up approximately 21 percent (690.1 [279.3 hectares]) of the surveyed Project Area. Cultivated cropland included row crops such as corn, soybean. Ground surface visibility ranged from 60 to 100 percent in fields that had been tilled, and ranged from 10 to 30 percent in fields that had not been tilled or were planted with cover crop.

The non-cultivated areas within the Project Area consist predominantly of grasslands/herbaceous (512.1 acres [207.2 hectares]), trees (102.1 acres [41.3 hectares]), wetlands and riparian (61.7 acres [25.0 hectares]). Within non-cultivated areas, ground surface visibility ranged from 0 to 25 percent. Based on Tetra Tech's review of historical aerial photography, nearly all portions of the Project Area have been cultivated since the early 1950s. The potential for intact cultural materials to be present in the typical plowzone (approximately 12 to 18 inches [30.5 to 45.7 centimeters] bgs) is presumed to low within the Project Area. Based on the types of sites identified, it is likely that a limited number of Native American isolated finds or Euro-American artifact scatters associated with former farmsteads may be present within non-cultivated areas. **Tetra Tech recommends the development of an unanticipated discoveries plan to facilitate documentation and coordination with the SHSND if cultural materials are inadvertently uncovered during construction.**

Tetra Tech documented six cultural resources within the Project Area, including four Native American chipped stone isolated finds (32RIX408, 32RIX409, 32RIX410, 32RIX411); one former granary (32RI930), and one Euro-American artifact scatter (32RI931). Evidence of the previously recorded Site Lead 32RIx0061 [REDACTED] was not observed in the Project Area. Additional pedestrian surveys were undertaken in May 2024 to resurvey areas that had poor surface visibility during the previous pedestrian survey completed in late October/early November 2023. Shovel probing was also undertaken to assess the presence or absence of cultural material at the four isolated finds recorded in 2023.

Tetra Tech's eligibility recommendations and avoidance recommendations are presented below.

- Sites 32RIX408, 32RIX409, 32RIX410, 32RIX411: **Tetra Tech recommends the sites as not eligible under Criterion D; avoidance of the sites is not recommended.**

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- Sites 32RIX408 and 32RIX409 consisted of surface isolated finds within cultivated fields. Evidence of cultivation as observed as far back as 1952. A total of nine shovel tests were placed at each site; all failed to document additional cultural materials in the subsurface. Due to the absence of identified archaeological materials and a low potential for significant intact subsurface deposits at these sites, they would not provide significant archaeological research potential or information. As a result, the sites would not be significant under Criterion D: Archaeological Potential and are recommended not eligible for listing in the NRHP.
  - Sites 32RIX410 and 32RIX411 consisted of surface isolated finds within cultivated fields. Evidence of cultivation as observed as far back as 1952. Planned shovel probing could not be performed due to standing water at the sites. The absence of shovel probing data as these sites does not change Tetra Tech's determinations or recommendations. Due to the absence of identified archaeological materials and a low potential for significant intact subsurface deposits at these sites, they would not provide significant archaeological research potential or information. As a result, the sites would not be significant under Criterion D: Archaeological Potential and are recommended not eligible for listing in the NRHP.
  - Site 32RI931: **Tetra Tech recommends the sites as not eligible under Criteria A, B, and D; avoidance of the site is not recommended.**
    - Site 32RI931 consisted of surface artifact scatter associated with a former farmstead initially observed on the 1897 W.M. House plat map. The structure was last observed on a 1969 aerial photograph, and was not observed in the 1990 aerial photograph. Vegetation outlining the extent of the farmstead was observed from 1990 to 2020 on Google Earth aerials. By October 2023, the trees were no longer present and the area appeared fallow. The artifacts observed on the surface are the result of the removal of the structure in the 1980s and the grubbing on the location in the early 2020s. The artifacts observed correlate with the historic document review. It is unknown how the former structure was removed from the site (i.e., burn and buried or hauled offsite). It is possible that intact features may be present on site. Due to the removal of the former structure, the integrity of Site 32RI931 has been severely reduced.

The site is not associated with significant events that have contributed to the broad patterns of the history of North Dakota, Richland County, or Abercrombie Township, and is therefore not recommended eligible under NRHP Criterion A. It is not associated with the life of a person or persons important to our history and research has revealed no associations between the site and important historical figures. Therefore, the feature is recommended not eligible for listing in the NRHP under Criterion B. The archaeological materials identified at Site 32RI931 appear to consist of materials that would be standard on a farmstead during the first half of the 1900s. Intact features may exist at the site, but due to the commonality of farmsteads within North Dakota, the research

potential of any features at the site is likely limited or redundant with existing documentary records and would not provide significant information. Therefore, the feature is recommended not eligible for listing in the NRHP under Criterion D.

- Sites 32RI930: **Tetra Tech recommends the sites as not eligible under Criteria A, B, C, and D; avoidance of the site is not recommended.**
  - Site 32RI930 consists of an isolated granary that first appears on the 1961 aerial photograph, north of three other buildings on the parcel. The current landowner stated that his father and uncle (who were previous owners), constructed the building in the 1950s for use as grain storage and has not been used since the 1960s. The other buildings formerly located on the site included another wood granary and a shed/shop that housed tools, which was destroyed by fire. The granary is now unused and contains trash (old bed frames, crates, and wood). It is in disrepair and generally poor condition.

The building is not associated with significant events that have contributed to the broad patterns of the history of North Dakota, Abercrombie Township, or Richland County and is therefore not recommended eligible under NRHP Criterion A. It is not associated with the life of a person or persons important to our history and research has revealed no associations between the granary and important historical figures. Therefore, the feature is recommended not eligible for listing in the NRHP under Criterion B. The building is a simple, modest, utilitarian building, constructed of materials and style commonly found throughout this region, and it does not embody distinctive characteristics of a type, period, or method of construction. Further, the building does not possess characteristics that represent the work of a master, nor does it possess high artistic values that rise to the level of significance to be eligible under NRHP Criterion C. As such it is recommended not eligible under Criterion C. it is not known to have yielded, or be likely to yield, information important in prehistory or history and is not recommended eligible under NRHP Criterion D.



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[ndgov.hub.arcgis.com/datasets/46013a21dba248a098e7449b3bccb806/explore?location=46.449570%2C-96.874326%2C13.64](https://gishubdata-ndgov.hub.arcgis.com/datasets/46013a21dba248a098e7449b3bccb806/explore?location=46.449570%2C-96.874326%2C13.64), accessed July 9, 2024.

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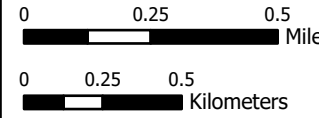
## **APPENDIX A – FIGURES**

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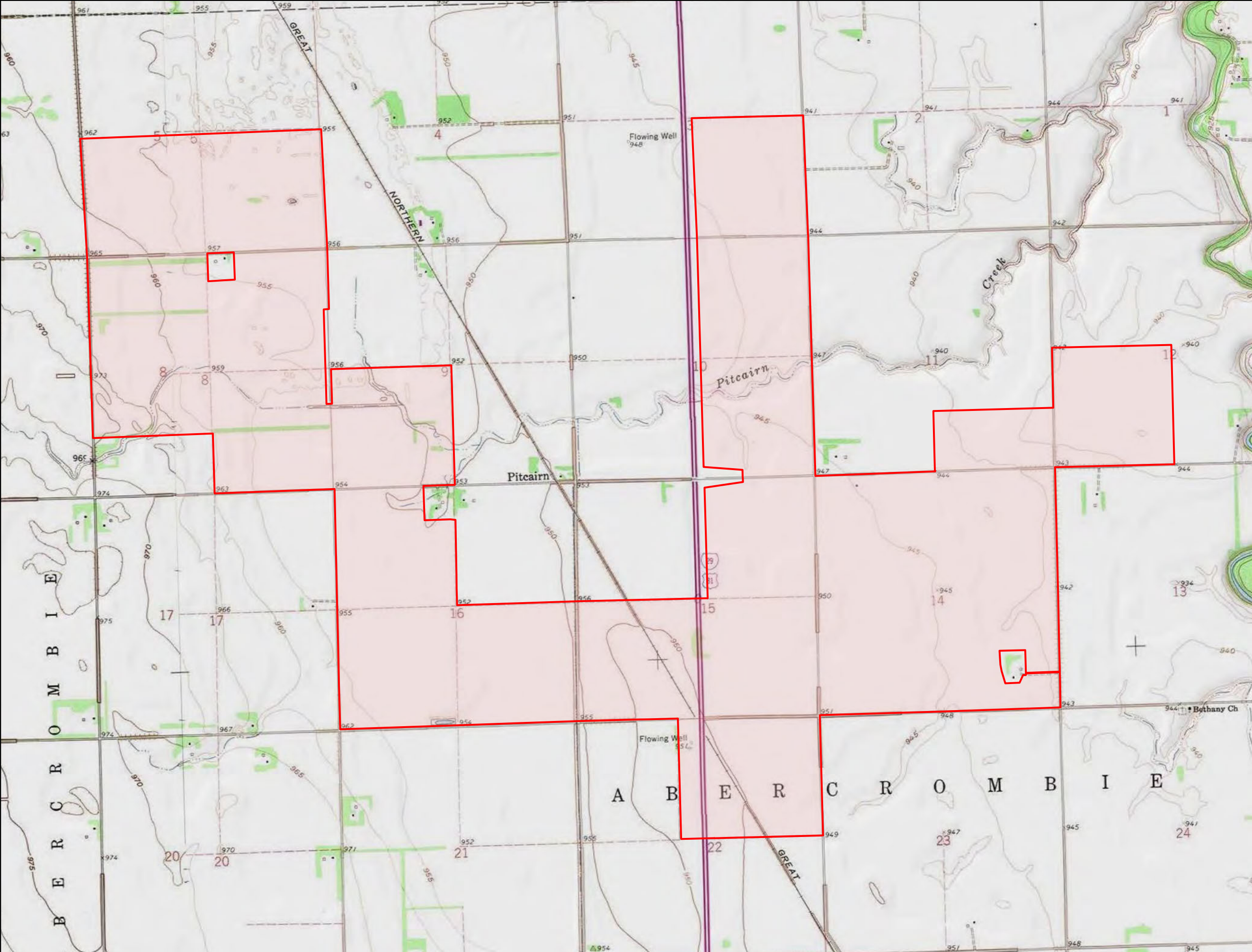


Project Area



**Figure 1**  
**Project Location**








**Flickertail Solar**  
**Richland County**  
**North Dakota**

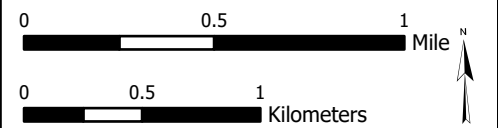


Source: Map adapted from USA Topo Maps Server (1960 Galchutt and 1959 Mooreton NW USGS 7.5-minute Topographic Quadrangles) and Project data by Flickertail Solar Project, LLC. Scale: 1:24,000





-  Project Area
-  Study Area
- Previously Documented Resources**
  -  Archaeological Resource (Polygon)
  -  Architectural Resource (Point)
  -  Architectural Resource (Polygon)
  -  Historical Archaeological (Polygon)
  -  Previous Investigation







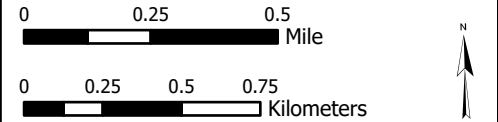
**Figure 2**  
**File Search Results**

**Flickertail Solar**  
**Richland County**  
**North Dakota**





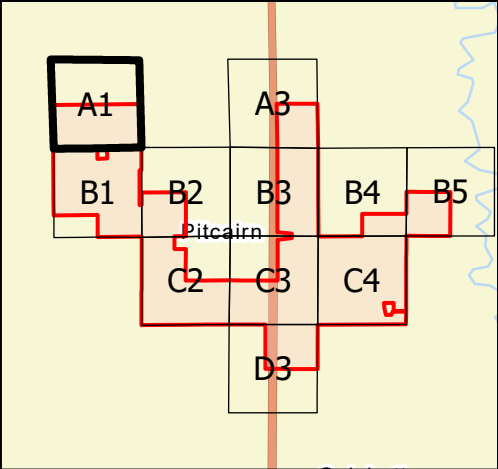
-  Project Area
- Cultural Resources**
-  Archaeological Site (Point)
  -  Archaeological Site (Polygon)
  -  Architechural Site (Point)



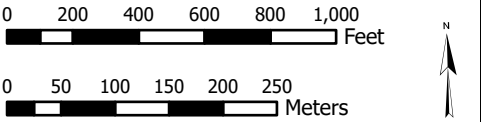
**Figure 3**  
**Results of Survey**  
**Overview**

**Flickertail Solar**  
**Richland County**  
**North Dakota**





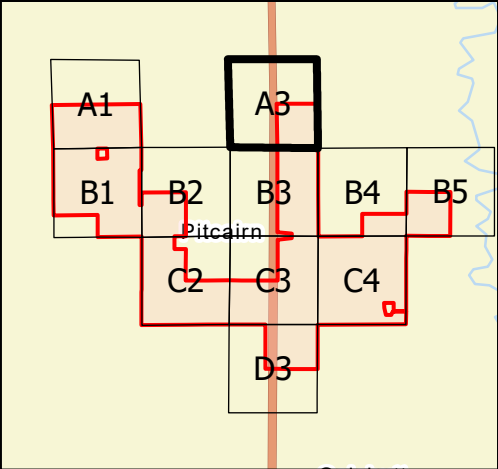
- Project Area
- Cultural Resources**
  - Archaeological Site (Point)
  - Archaeological Site (Polygon)
  - Historic Aerial Site Boundary
  - Surface Artifact Scatter
- Shovel Test Result**
  - Negative









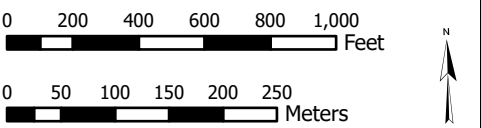
**Figure 4 - A1**  
**Results of Survey**

**Flickertail Solar**  
**Richland County**  
**North Dakota**





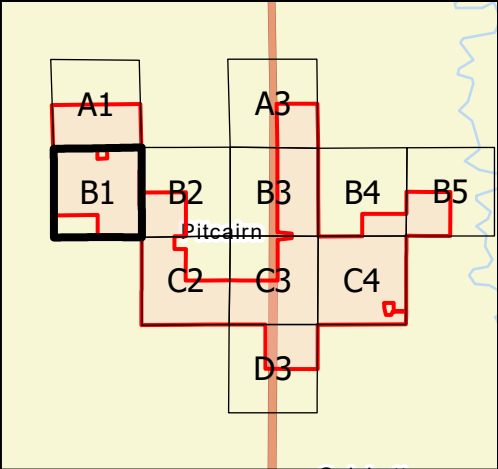
-  Project Area
- Cultural Resources**
-  Archaeological Site (Point)
  -  Archaeological Site (Polygon)
  -  Historic Aerial Site Boundary
  -  Surface Artifact Scatter
- Shovel Test Result**
-  Negative



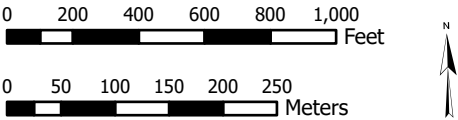
**Figure 4 - A3**  
**Results of Survey**

**Flickertail Solar**  
**Richland County**  
**North Dakota**





- Project Area
- Cultural Resources**
- Archaeological Site (Point)
  - Archaeological Site (Polygon)
  - Historic Aerial Site Boundary
  - Surface Artifact Scatter
- Shovel Test Result**
- Negative

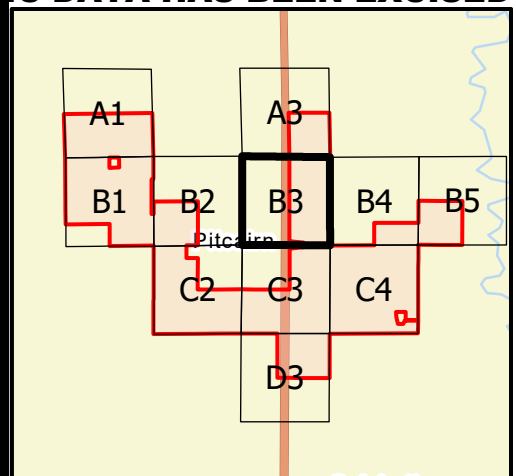


**Figure 4 - B1**  
**Results of Survey**

**Flickertail Solar**  
**Richland County**  
**North Dakota**







 Project Area

## Cultural Resources

 Archaeological Site (Point)

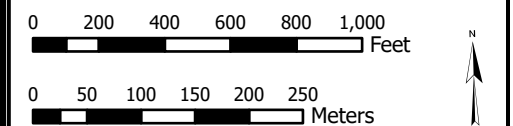
Archaeological Site (Polygon)

 Historic Aerial Site Boundary

 Surface Artifact Scatter

### Shovel Test Result

- Negative

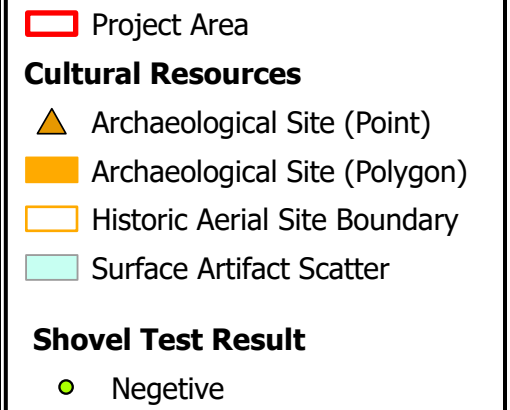


### Figure 4 - B3 Results of Survey

**Flickertail Solar  
Richland County  
North Dakota**



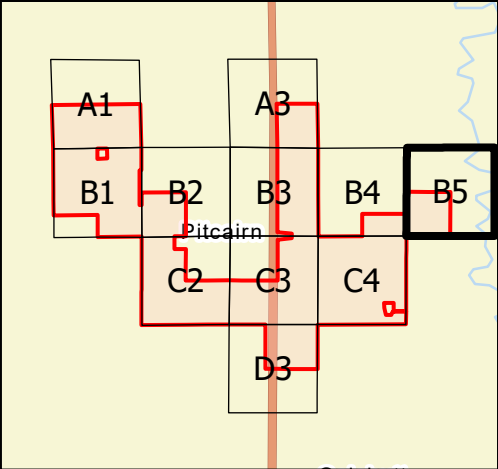




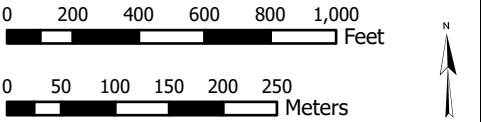
### Figure 4 - B4 Results of Survey

**Flickertail Solar  
Richland County  
North Dakota**





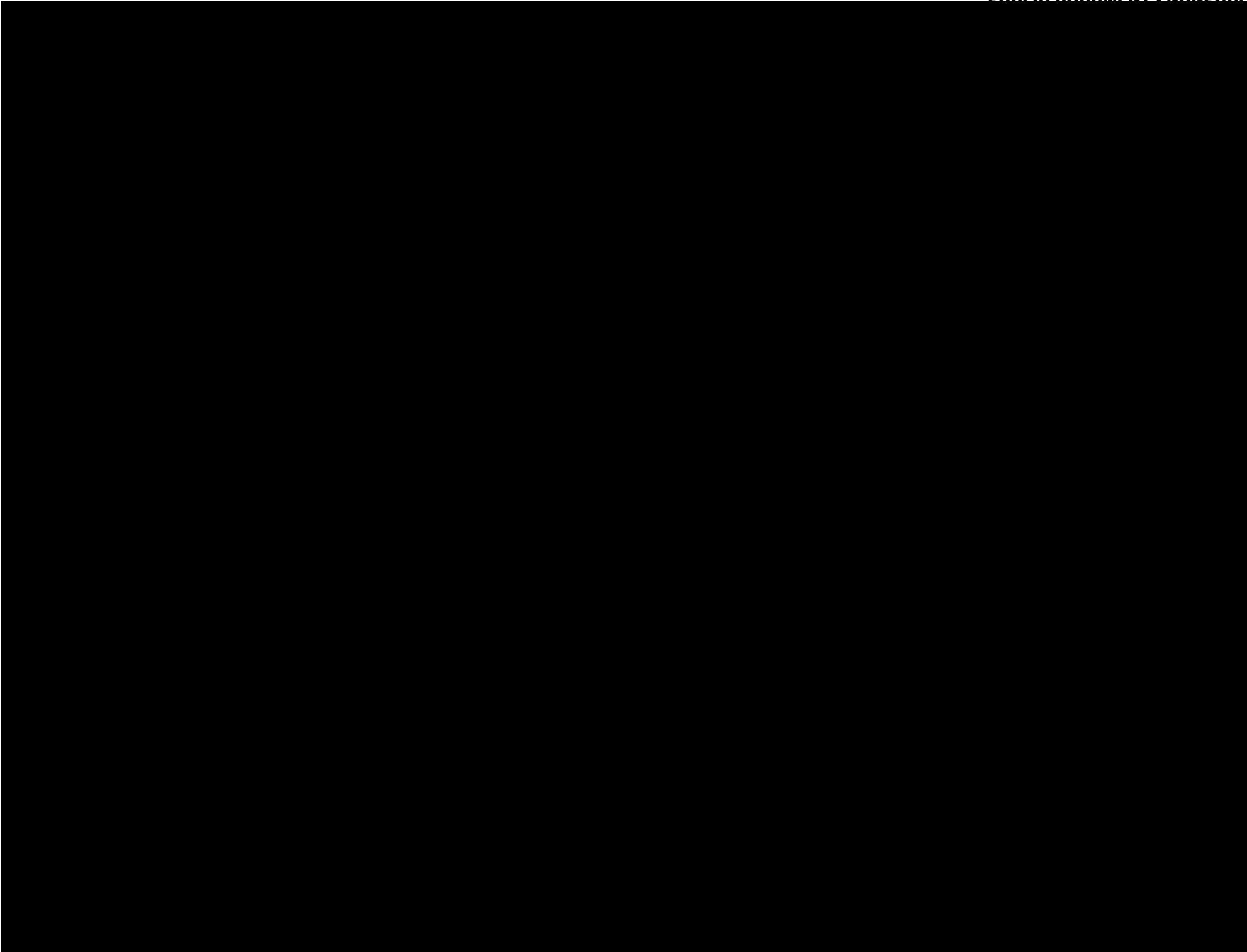
- Project Area
- Cultural Resources**
- Archaeological Site (Point)
  - Archaeological Site (Polygon)
  - Historic Aerial Site Boundary
  - Surface Artifact Scatter
- Shovel Test Result**
- Negative

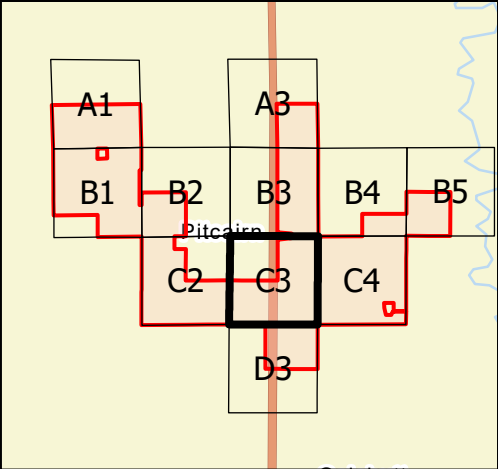








**Figure 4 - B5  
Results of Survey**

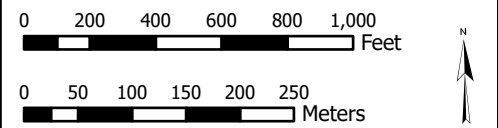
**Flickertail Solar  
Richland County  
North Dakota**







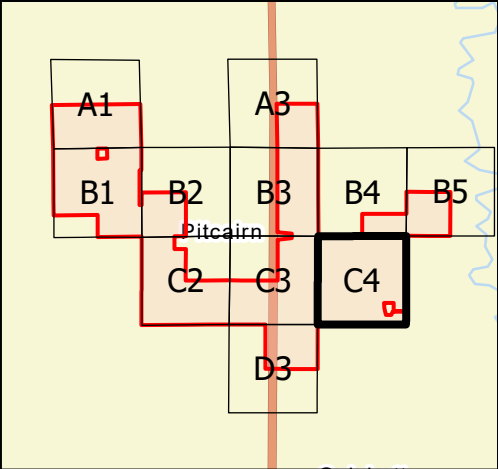
-  Project Area
- Cultural Resources**
-  Archaeological Site (Point)
  -  Archaeological Site (Polygon)
  -  Historic Aerial Site Boundary
  -  Surface Artifact Scatter
- Shovel Test Result**
-  Negative



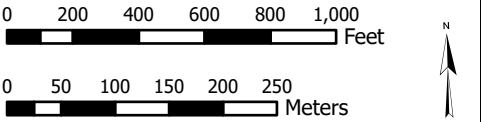
**Figure 4 - C3**  
**Results of Survey**

**Flickertail Solar**  
**Richland County**  
**North Dakota**





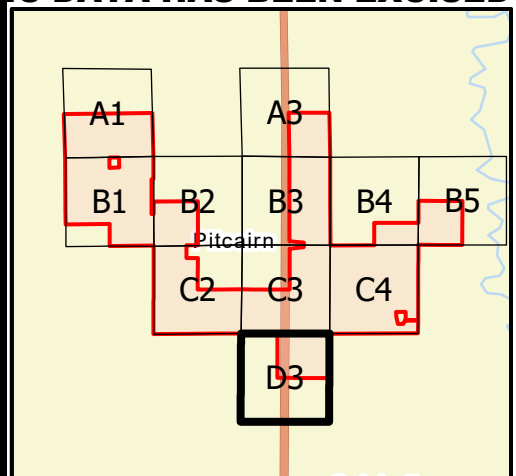
- Project Area
- Cultural Resources**
- Archaeological Site (Point)
  - Archaeological Site (Polygon)
  - Historic Aerial Site Boundary
  - Surface Artifact Scatter
- Shovel Test Result**
- Negative



**Figure 4 - C4**  
**Results of Survey**





**Flickertail Solar**  
**Richland County**  
**North Dakota**





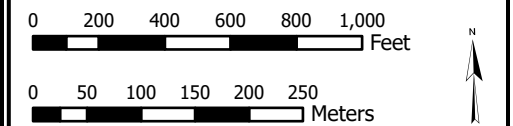
 Project Area

## Cultural Resources

-  Archaeological Site (Point)
-  Archaeological Site (Polygon)
-  Historic Aerial Site Boundary
-  Surface Artifact Scatter

### Shovel Test Result

- Negative



### Figure 4 - D3 Results of Survey

**Flickertail Solar  
Richland County  
North Dakota**



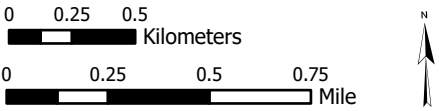
## **APPENDIX B – HISTORICAL MAP LOG**

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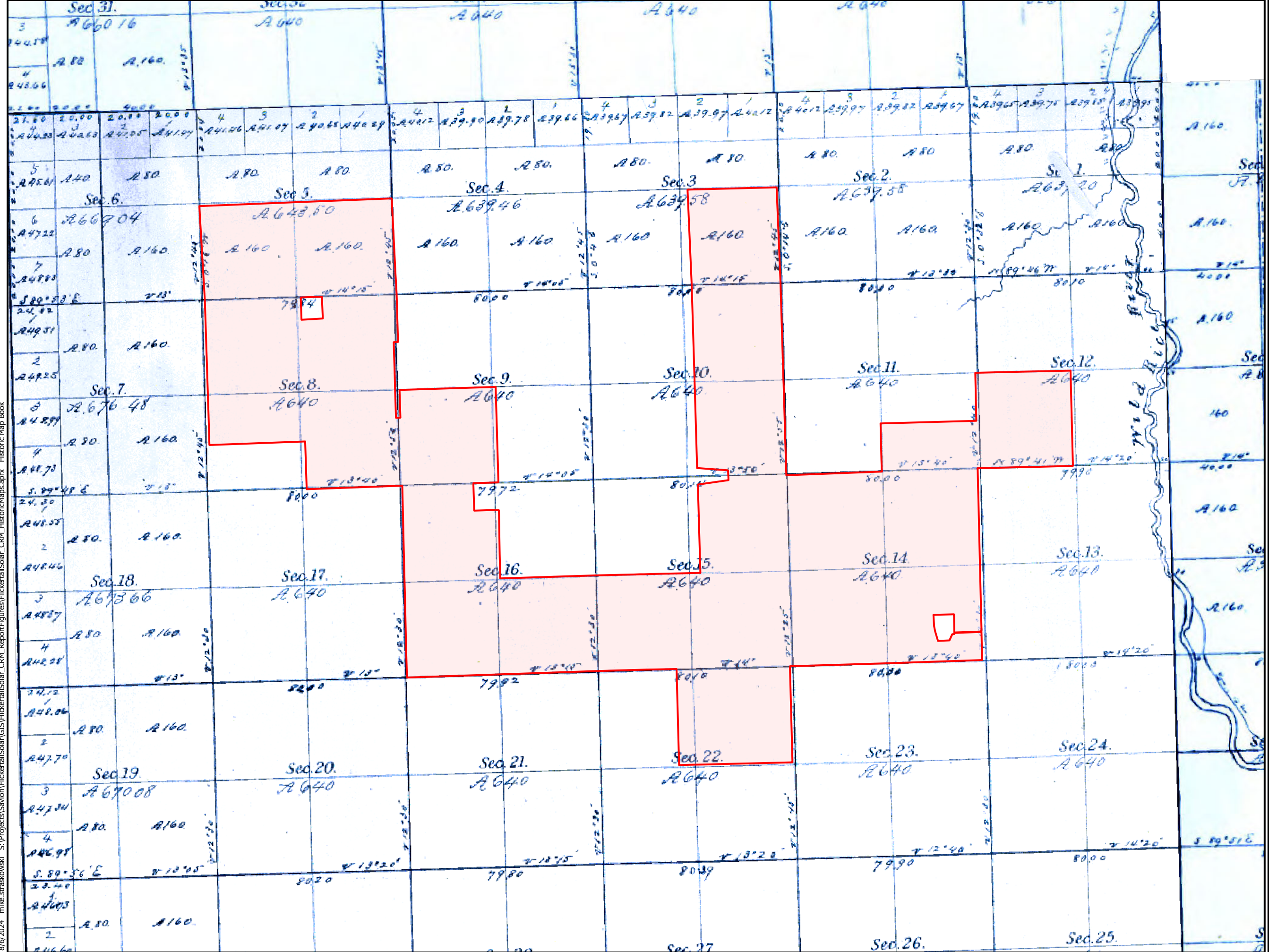


Project Area



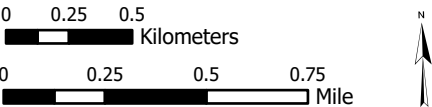
Map 1  
1871 BLM GLO Plat

Flickertail Solar  
Richland County  
North Dakota





-  Project Area
-  Historic Structure



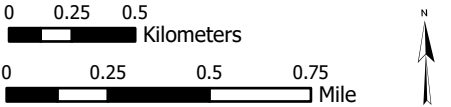
**Map 2**  
**1897 WM House Plat**

**Flickertail Solar**  
**Richland County**  
**North Dakota**





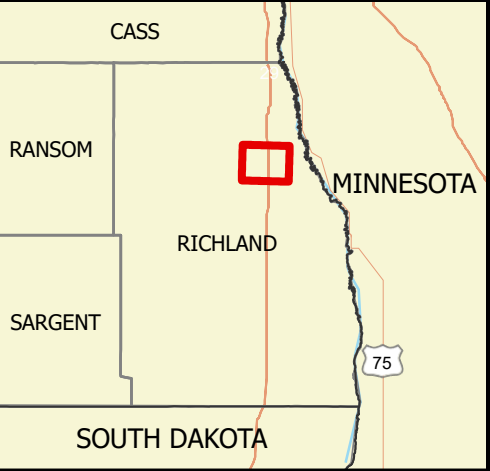
- Project Area
- Historic Structure



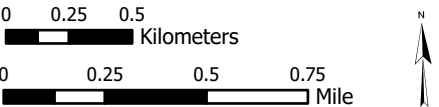
**Map 3**  
**1904 30-minute USGS**  
**Topographic Quadrangle**

**Flickertail Solar**  
**Richland County**  
**North Dakota**





-  Project Area
-  Historic Structure

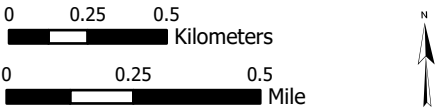


**Map 4**  
**1910 Alden Publishing**  
**Company Atlas**  
**Flickertail Solar**  
**Richland County**  
**North Dakota**





-  Project Area
-  Historic Structure

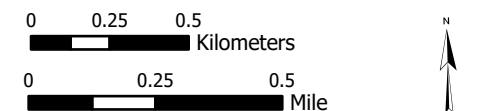


**Map 5**  
**1952 Aerial**  
**Photograph**

**Flickertail Solar**  
**Richland County**  
**North Dakota**



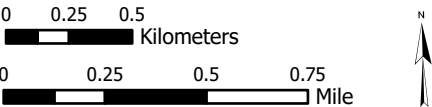
-  Project Area
-  Historic Structure



**Map 6**  
**1957-1962 FSA Aerial**  
**Photographs**  
**Flickertail Solar**  
**Richland County**  
**North Dakota**



-  Project Area
-  Historic Structure



**Map 7**  
**1959 Mooreton NW**  
**and 1960 Galchutt**  
  
**Flickertail Solar**  
**Richland County**  
**North Dakota**

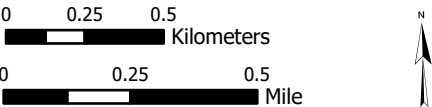


Source: Map adapted from 1960 7.5-minute USGS Galchutt,ND and 1959 7.5-minute USGS Mooreton NW, ND Topographic Quadrangles. Project data by Flickertail Solar Project, LLC. Mapped Structures provided by Tetra Tech, Inc. Scale: 1:30,000





-  Project Area
-  Historic Structure



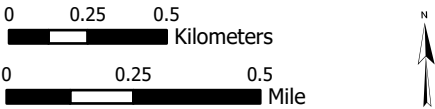
**Map 8**  
**1978 Aerial**  
**Photograph**

**Flickertail Solar**  
**Richland County**  
**North Dakota**





-  Project Area
-  Historic Structure

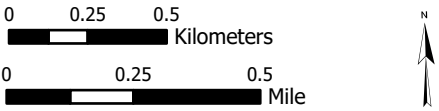


**Map 9**  
**1997 Aerial**  
**Photograph**  
**Flickertail Solar**  
**Richland County**  
**North Dakota**





-  Project Area
-  Historic Structure



**Map 10**  
**2023 Aerial**  
**Photograph**

**Flickertail Solar**  
**Richland County**  
**North Dakota**



## **APPENDIX C – PHOTOGRAPHS**

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Class III Culture Resource Inventory



**Photograph 1 (West): An overview of a harvested soybean field in the northwestern portion of the Project Area viewed from the east. Photograph taken on 11/02/2023.**



**Photograph 2 (South): An overview of a cultivated soybean field in the northwestern portion of the Project Area viewed from the north. Photograph taken on 11/03/2023.**



Class III Culture Resource Inventory



**Photograph 3 (East):** An overview of a corn field in the northwestern portion of the Project Area viewed from the west. Photograph taken on 11/02/2023.



**Photograph 4 (East):** An overview of a harvested and tilled cornfield in the southwestern portion of the Project Area viewed from the west. Photograph taken on 11/02/2023.



Class III Culture Resource Inventory



**Photograph 5 (South):** An overview of a harvested and tilled agricultural field in the southeastern portion of the Project Area, viewed from the north. Photograph taken on 11/01/2023.



**Photograph 6 (East):** An overview of a cut wheat field in the southeastern portion of the Project Area viewed from the west. Photograph taken on 11/03/2023.



Class III Culture Resource Inventory



**Photograph 7 (West):** An overview of an immature corn field in the northwestern portion of the Project Area viewed from the east. Photograph taken on 05/28/2024.



**Photograph 8 (South):** An overview of a harvested corn field in the north central portion of the Project Area viewed from the north. Photograph taken on 05/29/2024.



Class III Culture Resource Inventory



**Photograph 9 (North):** An overview of a alfalfa field in the southern portion of the Project Area viewed from the south. Photograph taken on 11/04/2023.



**Photograph 10 (West):** An overview of a cut hay field in the northwestern portion of the Project Area viewed from the east. Photograph taken on 11/01/2023.

Class III Culture Resource Inventory



**Photograph 9 (Northwest):** An overview of an unmanaged grassy field in the southeastern portion of the Project Area viewed from the southeast. Photograph taken on 11/06/2023.



**Photograph 10 (Northeast):** An overview of a hay field in the northern portion of the Project Area viewed from the southwest. Photograph taken on 11/05/2023.



Class III Culture Resource Inventory



**Photograph 11 (South):** An overview of a pasture in the northern portion of the Project Area viewed from the north. Photograph taken on 11/05/2023.



**Photograph 12 (East):** An overview of a wetland in the southern portion of the Project Area viewed from the west. Photograph taken on 10/31/2023.

Class III Culture Resource Inventory



**Photograph 13 (Northwest):** An overview of a wetland in the southern portion of the Project Area viewed from the southeast. Photograph taken on 10/31/2023.



**Photograph 14 (East):** An overview of a drainage in the southwestern portion of the Project Area viewed from the west. Photograph taken on 11/01/2023.



Class III Culture Resource Inventory



**Photograph 15 (East):** An overview of a treeline in the northwestern portion of the Project Area viewed from the west. Photograph taken on 11/02/2023.



**Photograph 16 (Southeast):** An overview of a treeline in the northwestern portion of the Project Area viewed from the northwest. Photograph taken on 11/02/2023.



Class III Culture Resource Inventory



**Photograph 17 (Southwest):** An overview of a wetland in the southern portion of the Project Area viewed from the northeast. Photograph taken on 11/07/2023.



**Photograph 18 (East):** An overview of the granary at Site 32RI930 viewed from the west. Photograph taken on 11/01/2023.



Class III Culture Resource Inventory



**Photograph 19 (Northeast):** An overview of the granary at Site 32RI930 viewed from the southwest. Photograph taken on 11/01/2023.



**Photograph 20 (Southeast):** An overview of the granary at the Site 32RI930 viewed from the northeast. Photograph taken on 11/01/2023.

Class III Culture Resource Inventory



**Photograph 21 (Southwest):** An overview of the granary at the Site 32RI930 viewed from the northwest. Photograph taken on 11/01/2023.



**Photograph 22 (East):** A view of the interior of the granary at Site 32RI930 viewed from the west. Photograph taken on 11/01/2023.



Class III Culture Resource Inventory



**Photograph 23 (North):** A view of the interior of the granary at Site 32RI930 viewed from the south. Photograph taken on 11/01/2023.



**Photograph 24 (Southeast):** A view of the ceiling of the granary at Site 32RI930 viewed from the south. Photograph taken on 11/01/2023.

Class III Culture Resource Inventory



**Photograph 25 (East):** An overview of Site 32RIX408 viewed from the west. Photograph taken on 11/02/2023.



**Photograph 26 (South):** An overview of Site 32RIX408, viewed from the north. Photograph taken on 11/02/2023.



Class III Culture Resource Inventory



Photograph 27 (N/A): A view of a flake identified at Site 32RIX408. Photograph taken on 11/02/2023.



Photograph 28 (N/A): A view of the soil profile in a shovel test excavated at Site 32RIX408. Photograph taken on 05/29/2024.



Class III Culture Resource Inventory



**Photograph 29 (North):** An overview of Site 32RIX409 viewed from the south. Photograph taken on 11/05/2023.



**Photograph 30 (West):** An overview of Site 32RIX409 viewed from the east. Photograph taken on 11/05/2023.



Class III Culture Resource Inventory



**Photograph 31 (N/A): A view of a projectile point recovered from Site 32RIX409.  
Photograph taken on 03/12/2024.**



**Photograph 32 (N/A): A view of the soil profile in a shovel test excavated at Site 32RIX409.  
Photograph taken on 05/30/2024.**



Class III Culture Resource Inventory



**Photograph 33 (North):** An overview of Site 32RI931 viewed from the south. Photograph taken on 11/05/2023.



**Photograph 34 (South):** An overview of Site 32RI931 viewed from the north. Photograph taken on 11/05/2023.



Class III Culture Resource Inventory



**Photograph 35 (N/A): A sampling of glass artifacts identified at Site 32RI931. Photograph taken on 11/05/2023.**



**Photograph 36 (N/A): A view of a Thatcher Glass Manufacturing Company glass bottle identified at Site 32RI931. Photograph taken on 11/05/2023.**



Class III Culture Resource Inventory



**Photograph 37 (N/A):** A view of a Ponds cosmetic milk glass jar identified at Site 32RI931. Photograph taken on 11/05/2023.



**Photograph 38 (West):** A view of a glass insulator identified at Site 32RI931. Photograph taken on 11/05/2023.



Class III Culture Resource Inventory



**Photograph 39 (N/A): A view of bricks identified at Site 32RI931. Photograph taken on 11/05/2023.**



**Photograph 40 (N/A): A view of a stoneware fragment identified at Site 32RI931. Photograph taken on 11/05/2023.**



Class III Culture Resource Inventory



Photograph 41 (N/A): A view of metal scrap identified at Site 32RI931. Photograph taken on 11/05/2023.



Photograph 42 (N/A): A view of a roof shingle (left) and an OvenServe Ware base (right) identified at Site 32RI931. Photograph taken on 11/05/2023.



Class III Culture Resource Inventory



**Photograph 43 (N/A): A view of a Shasta soda can from Site 32RI931. Photograph taken on 11/05/2023.**



**Photograph 44 (North): An overview of Site 32RIX410 viewed from the south. Photograph taken on 11/06/2023.**



Class III Culture Resource Inventory



**Photograph 45 (West):** An overview of Site 32RIX410 viewed from the east. Photograph taken on 11/06/2023.



**Photograph 46 (North):** A view of a flake identified at Site 32RIX410. Photograph taken on 11/06/2023.



Class III Culture Resource Inventory



**Photograph 47 (N/A):** A view of a flake identified at Site 32RIX410. Photograph taken on 11/06/2023.



**Photograph 48 (South):** An overview of Site 32RIX411 viewed from the north. Photograph taken on 11/06/2023.



Class III Culture Resource Inventory



**Photograph 49 (East):** An overview of Site 32RIX411 viewed from the west. Photograph taken on 11/06/2023.



**Photograph 50 (North):** A view of a projectile point recovered from Site 32RIX411. Photograph taken on 03/18/2024.

## **APPENDIX D – SHOVEL PROBING RESULTS**

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## Shovel Testing Results at Site 32RIX408

Site	Test No.	Depth (cm below surface)	Soil Horizon	Description	Shovel Test Result
32RIX408	1	13	A/Bwp	10YR 3/1 Loamy Sand	No Cultural Material Recovered
32RIX408	1	34	Bw	10YR 4/3 Loamy Sand	No Cultural Material Recovered
32RIX408	1 – 5W	13	A/Bwp	10YR 3/1 Loamy Sand	No Cultural Material Recovered
32RIX408	1 – 5W	33	Bw	10YR 4/3 Loamy Sand	No Cultural Material Recovered
32RIX408	1 – 10W	20	A/Bwp	10YR 3/1 Loamy Sand	No Cultural Material Recovered
32RIX408	1 – 10W	22	A/Bwp	10YR 2/1 Loamy Sand	No Cultural Material Recovered
32RIX408	1 – 10W	42	Bw	10YR 4/3 Loamy Sand	No Cultural Material Recovered
32RIX408	1 – 5N	9	A/Bwp	10YR 3/1 Loamy Sand mottled with 10yr 5/2	No Cultural Material Recovered
32RIX408	1 – 5N	32	Bw	10YR 4/3 Loamy Sand	No Cultural Material Recovered
32RIX408	1 – 10N	11	A/Bwp	10YR 3/1 Loamy Sand mottled with 10yr 4/3	No Cultural Material Recovered
32RIX408	1 – 10N	38	Bw	10YR 4/3 Loamy Sand mottled with 10yr 5/4	No Cultural Material Recovered



32RIX408	1 – 5E	20	Ap	10YR 3/1 Loamy Sand mottled with 10yr 2/1	No Cultural Material Recovered
32RIX408	1 – 5E	29	A	10YR 2/1 Loamy Sand	No Cultural Material Recovered
32RIX408	1 – 5E	40	Bw	10YR 4/3 Loamy Sand	No Cultural Material Recovered
32RIX408	1 – 10E	18	Ap	10YR 3/1 Loamy Sand mottled with 10yr 2/1	No Cultural Material Recovered
32RIX408	1 – 10E	36	A	10YR 2/1 Loamy Sand	No Cultural Material Recovered
32RIX408	1 - 10E	46	Bw	10YR 4/3 Loamy Sand	No Cultural Material Recovered
32RIX408	1 – 10S	14	A/Bwp	10YR 3/1 Loamy Sand	No Cultural Material Recovered
32RIX408	1 – 10S	33	Bw	10YR 4/3 Loamy Sand mottled with 10yr 3/3	No Cultural Material Recovered
32RIX408	1 – 5S	16	A/Bwp	10YR 3/1 Loamy Sand mottled with 10yr 2/1	No Cultural Material Recovered
32RIX408	1 – 5S	35	Bw	10YR 4/3 Loamy Sand	No Cultural Material Recovered

## Shovel Testing Results at Site 32RIX409

Site	Test No.	Depth (cm below surface)	Soil Horizon	Description	Shovel Test Result
32RIX409	1	20	A/Bg	10YR 2/1 Silty Clay Loam	No Cultural Material Recovered
32RIX409	1	38	Bg	2.5Y 4/2 Silt Loam	No Cultural Material Recovered
32RIX409	1 – 5W	22	A/Bg	10YR 2/1 Silty Clay Loam	No Cultural Material Recovered
32RIX409	1 – 5W	35	Bg	2.5Y 4/2 Silty Clay Loam	No Cultural Material Recovered
32RIX409	1 – 10W	19	A/Bg	10YR 2/1 Silty Clay Loam	No Cultural Material Recovered
32RIX409	1 – 10W	36	Bg	2.5Y 4/2 Silty Clay Loam	No Cultural Material Recovered
32RIX409	1 – 5N	21	A/Bg	10YR 2/1 Silty Clay Loam	No Cultural Material Recovered
32RIX409	1 – 5N	36	Bg	2.5Y 4/2 Silty Clay Loam	No Cultural Material Recovered
32RIX409	1 – 10N	24	A/Bg	10YR 2/1 Silty Clay Loam	No Cultural Material Recovered
32RIX409	1 – 10N	36	Bg	2.5Y 4/2 Silty Clay Loam	No Cultural Material Recovered
32RIX409	1 – 5S	19	A/Bg	10YR 2/1 Silty Clay Loam	No Cultural Material Recovered
32RIX409	1 – 5S	30	Bg	2.5Y 4/2 Silty Clay Loam	No Cultural Material Recovered

32RIX409	1 – 5E	20	A/Bg	10YR 2/1 Silty Clay Loam	No Cultural Material Recovered
32RIX409	1 – 5E	36	Bg	2.5Y 4/2 Silty Clay Loam	No Cultural Material Recovered
32RIX409	1 – 10S	21	A/Bg	10YR 2/1 Silty Clay Loam	No Cultural Material Recovered
32RIX409	1 – 10S	35	Bg	2.5Y 4/2 Silty Clay Loam	No Cultural Material Recovered
32RIX409	1 – 10E	25	A/Bg	10YR 2/1 Silty Clay Loam	No Cultural Material Recovered
32RIX409	1 – 10E	37	Bg	2.5Y 4/2 Silty Clay Loam	No Cultural Material Recovered