

APPENDIX N: ARCHAEOLOGY ANALYSIS

Mid-States Corridor Tier 1 Environmental Impact Statement

Prepared for

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Appendix N – Archaeology Analysis

TABLE OF CONTENTS

1. Introduct	tion		3
		dy Area	
		ites and Investigations	
	2.1	Previously Recorded Archaeological Sites	
	2.2	Previous Archaeological Investigations	
3. Historic F		ies, Mapped Structures, and Cemeteries	
	3.1	National Register of Historic Places Properties and Indiana Historic Sites and	
	Structi	ures Inventory (IHSSI)	8
	3.2	Historic Mapped Structures	8
	3.3	Cemeteries	8
4. Conclusio	ons		9

December 22, 2021 Page 2 of 23



Appendix N – Archaeology Analysis

1. INTRODUCTION

The following substantive changes have been made to this appendix since the Draft Environmental Impact Statement (DEIS) was published:

 This appendix has been updated to reflect the new information associated with impacts from Refined Preferred Alternative P (RPA P) and Alternative R. This information is contained in an addendum at the end of this document. No modifications have been made to the main portion of this document, which is unchanged from the DEIS.

A cultural resource records review was conducted in December 2020 and September 2021 for the Mid-States Corridor Tier 1 Environmental Impact Statement (EIS) using various online sources. The records review was completed to 1) determine if any previous surveys for cultural resources have been conducted; 2) to identify any previously recorded cultural resources; and 3) to provide information concerning what additional cultural resources could be expected within the Study Area. Specifically, information maintained by the National Register of Historic Places (NRHP) (available online at: nps.gov/subjects/nationalregister/database-research.htm) and with the Division of Historic Preservation and Archaeology (DHPA) Indiana State Historic Architectural and Archaeological Research Database (SHAARD), as well as online historic maps, were researched. No fieldwork occurred during the Tier 1 evaluations.

The online research results were placed within a matrix representing all previously documented cultural resources in all of the alternatives. Detailed findings and support for this analysis are provided in appendices at the end of this document. Their contents are as follows:

- Appendix N-1. Summary of archaeological sites by alternative and Local Improvement area.
- **Appendix N-2.** Summary of cultural history, as well as previously recorded potentially eligible and unevaluated archaeological sites.
- Appendix N-3. Summaries of historic mapped structures and cemeteries.
- Appendix N-4. Summary of cultural resource data from omitted alternatives.

1.1 Study Area

The Study Area encompasses a 610-m (2000-foot) wide corridor along 13 alternative alignments, representing approximately 18,465.8 ha (45,630.1 acres). These alternative corridors (unduplicated) begin at the Spencer/Dubois County line and go north for approximately 312-km (194-mi), crossing Daviess, Dubois, Greene, Lawrence, Martin and Orange counties in Southern Indiana. In addition to the proposed alternative corridors, 18 Local Improvements were examined for potential indirect impacts to cultural resources. Lastly, the records review initially included four alternatives that no longer have the potential to impact cultural resources. Although these four alternatives are now not under consideration for the project, the cultural resource records researched for those areas are documented separately in Appendix N-4. The alternatives omitted from the records review are listed below. The first three alternatives are excluded due to the decision to no longer consider freeway facility types. With a freeway facility type, land adjacent to these existing highways would have been impacted.

December 22, 2021 Page 3 of 23



Appendix N – Archaeology Analysis

- 1. the existing US 231 corridor in Spencer County;
- 2. portions of the existing US 231 hybrid alternative in Daviess and Martin counties;
- existing SR 37 corridor between Mitchell and Bloomington, with the exception of areas near Mitchell and Bedford where Alternatives O and M would intersect SR 37;
- 4. and the western route around Huntingburg and Jasper which includes portions of Alternatives C, M, O and P, because only the eastern route around these communities is being considered in the final alternatives.

2. ARCHAEOLOGICAL SITES AND INVESTIGATIONS

2.1 Previously Recorded Archaeological Sites

A total of 255 previously-identified archaeological sites have been recorded in the Study Area (n=224) and adjacent to (within 200-feet of) the Local Improvements (n=31) (see Attachment N-1). Of these sites, 141 (55 percent) lacked archaeological integrity or were otherwise considered not eligible for the NRHP. Of the remaining sites, 99 (39 percent) have not been fully evaluated for their NRHP eligibility. These unevaluated sites could contain significant archaeological deposits, but this is unknown until survey-level fieldwork (with possible additional studies) can be conducted to confirm their locations and assess integrity. Thirteen (5 percent) archaeological sites (12Du793, 814, 1028, 1042, and 1066; 12Lr287, 623, 669, 671, 672, 673, and 674; and 12Mn33) are recorded as 'potentially eligible' for NRHP listing and recommended for further archaeological work or avoidance if they would be impacted by ground disturbing activities. Furthermore, two (1 percent) of the archaeological sites (12Du666 and 12Du792) were determined eligible for the NRHP and would require mitigation if it cannot be avoided by the project. Note that 'potentially eligible' is a classification choice on the DHPA site form, typically assigned by the site recorder (e.g., a CRM consultant or other professional archaeologist), and is not necessarily indicative of SHPO concurrence with the recorder's recommendations. Although site-specific cases vary, 'potentially eligible' sites can require resurvey at the Phase Ia level or Phase Ib intensive survey to determine whether additional work (e.g., Phase II NRHP evaluation) is warranted. Generally, 'potentially eligible' sites require a Phase II NRHP evaluation. The eligible and potentially eligible sites are described in detail below. All eligible, potentially eligible, or otherwise unevaluated archaeological sites are also included within the summary table in Appendix N-2. According to state law (Indiana Code 14-21-1), protection is provided to known archaeological sites regardless of whether the project is considered a federal undertaking. Therefore, these archaeological sites would require additional evaluation and possible mitigation if they cannot be avoided.

2.1.1 Site 12Du666

Site 12Du666 is a historic cemetery recorded as an archaeological site during a survey for the proposed wastewater line near Haysville (Wappenstein 1998). The cemetery is adjacent to Local Improvement 15

December 22, 2021 Page 4 of 23



Appendix N – Archaeology Analysis

and is also recorded as CR-19-97 (IHSSI #037-173-05023). The site consisted of a single displaced headstone enclosed within a wire fenced area and surrounded by a pasture. The cemetery was assumed to date from the nineteenth/early twentieth centuries, and no additional information about it could be found. The cemetery registry and IHSSI files have no additional information regarding it. Considering the lack of in-situ grave markers and obvious burial locations, the cemetery should be avoided by at least a 100-foot buffer.

2.1.2 Sites 12Du792, 793, and 814

Sites 12Du792, 793, and 814 are prehistoric lithic artifact scatters found during a survey for the proposed US 231 bypass east of Huntingburg and Jasper (Miller 2006). All three sites were found in agricultural fields in the uplands, and are entirely within several of the currently proposed Alternates (C2, C3, M2, M3, O2, O3, P2e, P2w, P3e, and P3w). These sites had a high density and diversity of lithic materials, as well as temporally diagnostic artifacts, which suggested a greater likelihood for intact sub-plow zone deposits. As such, all three sites were recommended for Phase II NRHP evaluations.

Phase II NRHP evaluations at Sites 12Du792 and 12Du814 occurred in 2008 (Beard 2010). As a result, Site 12Du792 was determined to be eligible for inclusion on the NRHP due to the large prehistoric (Middle Archaic through Early Woodland) component and the intact features found associated with a historic, nineteenth century, rural residential occupation. Therefore, Site 12Du792 was recommended to be avoided or be mitigated through Phase III data recovery excavation. The portion of Site 12Du814 within the proposed US 231 bypass ROW was found to not contain significant archaeological deposits and the tested portion of the site was determined to be not eligible for the NRHP. However, the remainder of the site outside the proposed ROW was not evaluated and would require additional Phase II investigation to determine if NRHP eligible deposits are present in that part of the site. Site 12Du793 was avoided by the proposed US 231 ROW and no phase II investigations were previously conducted there.

2.1.3 Sites 12Du1028 and 1042

Sites 12Du1028 and 1042 were recorded during a Phase 1a archaeological reconnaissance for proposed US 231 alternates in the vicinity of Huntingburg (Picklesimer 2011). Site 12Du1028 was a moderate scatter of lithic artifacts recovered from the ground surface and shovel tests within an agricultural field on the floodplain of Sugar Creek (in Alternates C2, C3, M2, M3, O2, O3, P2E, P2W, P3E, and P3W). A Late Archaic/Early Woodland Saratoga Cluster hafted biface was among the tools from the site. Almost half of the artifacts were recovered from a single shovel probe at the site, and material extended to 64 cm below the ground surface, which suggested some stratification of material and good potential for intact subplow zone archaeological deposits at the site.

Site 12DU1042 is a moderate sized lithic artifact scatter recovered from shovel probes on a ridge top north of Holland Rd. (in Alternates B2 and B3). A Middle Woodland Lowe Cluster hafted biface, along with fire-cracked rock (FCR) and an unfinished bifacial tool were within the assemblage. Considering the diversity of artifacts, as well as the presence of FCR and temporally diagnostic material, the site was considered to have the potential to provide additional information about the Middle Woodland period in the region.

December 22, 2021 Page 5 of 23



Appendix N – Archaeology Analysis

2.1.4 Site 12Du1066

Site 12Du1066 is an Early Archaic lithic artifact scatter found during a survey for the proposed Huntingburg Airport Expansion and is within several of the proposed Alternates (C2, C3, M2, M3, O2, O3, P2e, P2w, P3e, and P3w) east of Huntingburg (Stillwell 2011). The site was recommended for a Phase II NRHP evaluation based on the presence of a moderate density of lithic artifacts, including a Thebes Cluster hafted biface.

2.1.5 Site 12Lr287

Site 12Lr287 is a multicomponent (Paleoindian through Middle Woodland) prehistoric site that was recorded by Indiana University's Glenn A. Black Laboratory of Archaeology (GBL) as part of a survey funded by a National Park Service grant administered by the DHPA (Meadows and Bair 2000). It is one of a series of sites recorded on the terraces and ridgetop adjacent to Salt Creek, adjacent to the M2 and M3 Alternates, as well as within the 200-foot buffer of Local Improvement 14. Although a portion of this site along Salt Creek has been completely destroyed, much of the site was reported to still be intact, with a high density surface artifact scatter and indications of features. Therefore, this site was recommended 'potentially eligible' for the NRHP.

2.1.6 Site 12Lr623

Site 12Lr623 is a prehistoric /lithic artifact scatter/camp with reported Archaic and Woodland components located near Salt Creek within the M2 and M3 Alternates also recorded by the GBL (Meadows and Bair 2000). Based on the local context, the high density of lithic materials, and the presence of temporally diagnostic artifacts, this site was recommended 'potentially eligible' for the NRHP.

2.1.7 Sites 12Lr667 through 12Lr674

These eight archaeological sites are clustered on the floodplain and sideslopes/terraces along Adamson Branch of Salt Creek, near its confluence with the East Fork of the White River in southwestern Lawrence County (in Alternates M2 and M3). The sites were recorded in 2000 by the GBL as part of the same survey that recorded Site 12Lr623 (Meadows and Bair 2000). All of the sites represent prehistoric lithic artifact scatters/camps of various Archaic through Woodland time periods. Three of the sites (12Lr667, 668, and 670) were considered to be eroded and unlikely to contain significant archaeological deposits. However, additional fieldwork was still recommended to fully assess this assumption and therefore they are considered 'unevaluated'. Sites 12Lr669, 671, 672, 673, and 674 were determined to have the potential for buried archaeological deposits beneath alluvium and were therefore recommended 'potentially eligible' for the NRHP.

2.1.8 Site12Mn33

Site 12Mn33 is a prehistoric rockshelter site (Warren Rockshelter Site) within Alternates M2 and M3 that had Late Prehistoric, Late Archaic/Early Woodland, and Early Archaic temporally diagnostic material found within it. The site was originally documented during a county-wide survey (Adams 1946) and was test excavated in the early 1990s as part of a research project to identify Late Prehistoric occupations in the

December 22, 2021 Page 6 of 23



Appendix N – Archaeology Analysis

region (Redmond and McCullough 1993). As a result of the excavations, the site was determined to have a high potential for containing undisturbed Archaic deposits and was recommended 'potentially eligible' for the NRHP.

2.2 Previous Archaeological Investigations

At least 86 previous archaeological investigations have been reported within the Study Area and omitted alternatives. Of these, 55 were conducted prior to the 2008 filing of the DHPA *Guidebook for Indiana Historic Sites and Structures Inventory and Archaeological Sites* (312 IAC 21-1-3), and would likely require resurvey to conform to current archaeological survey standards.

Archaeological survey areas conducted after 2008 overlap approximately 2 percent, or 386.4 ha (955.0 acres), of the current Study Area – primarily between Jasper and Huntingburg in Dubois County. These previous survey areas are unlikely to require additional survey; although, a more thorough review of survey methods, recommendations, and DHPA concurrence should be conducted once a final alignment is selected. A little over half (50.4 percent) of the previous survey area, covering approximately 389 ha (962 acres) of the Study Area, is represented by a single investigation that was conducted in 2006 for the proposed US 231 bypass between Jasper and Huntingburg in Dubois County (Miller 2006). This previous survey identified 76 new archaeological sites and reinvestigated four previously documented sites. Although some of this previous survey area will need to be resurveyed using current methods, data from the previous investigation can be used in developing a site location model for the preferred Mid-States alternative. In particular, an average site density of one archaeological site per 13 acres was estimated for the region. Furthermore, archaeological sites were most commonly found in well drained and relatively flat (less than 12 percent slope) settings within 250 meters of a water source.

Also, as part of the US 231 bypass project, three archaeological sites (12Du792, 12Du800, and 12Du814) within the current Study Area had Phase II NRHP evaluations conducted for them. As a result of these Phase II excavations, and as described above, Sites 12Du792 and 12Du814 were recommended to be avoided or have further evaluation/mitigation. Site 12Du800 was determined to be not eligible for the NRHP as a result of the Phase II evaluation.

Lastly, six floodplains along the US 231 bypass corridor had Phase Ic subsurface reconnaissance investigations conducted (Beard 2010). These floodplains were along Bruner Creek, Short Creek, Hunley Creek, Straight River, Patoka River, and the East Fork of Mill Creek, and were primarily mapped with moderately well-drained or poorly-drained Steff or Stendal series soils. No deeply buried archaeological deposits were found as a result of the Phase Ic investigation, and it was recommended that future deep subsurface reconnaissance efforts be focused on deep, well-drained soils in larger stream valleys (Beard 2010). Deep subsurface reconnaissance associated with the I-69 corridor project in the White River valley of southern Indiana documented Late Archaic through Late Prehistoric archaeological sites buried primarily in well-drained Inceptisol and Mollisol soils, 200 m or less from stream channels (Trader 2021). Alluvial and colluvial fans, that could contain older buried archaeological deposits along stream valley margins, are also recommended to be a focus of subsurface reconnaissance efforts in the region (Trader 2021).

December 22, 2021 Page 7 of 23



Appendix N – Archaeology Analysis

3. HISTORIC PROPERTIES, MAPPED STRUCTURES, AND CEMETERIES

3.1 National Register of Historic Places Properties and Indiana Historic Sites and Structures Inventory (IHSSI)

Local Improvement 4 crosses one historic district, the Jasper Downtown Historic District (NR-2444), that is listed on the National and Indiana Registers of Historic Places. No other NRHP or State Register listed properties are within the study area.

A total of 70 IHHSI sites and structures (not including 3 demolished structures and 10 cemeteries) are within the 12 alternatives. There are only three 'outstanding' rated resources, including a county bridge (093-039-15023) in Bedford, the Morgan C. Keane Farm (093-416-40036) in Mitchel, and the Frank Cunningham House (027-367-25097) in Loogootee. Six 'notable' resources were also within these alternatives and include two houses (027-367-25053 and 037-304-20004), two farmsteads (037-304-05071 and 101-008-30010), a bridge (117-226-20016), and a motel (101-367-05035).

An additional 64 IHSSI sites and structure (not including two cemeteries) are within 200-feet of the Local Improvements. 'Notable' (n=7) and 'outstanding' (n=1) resources are structures along Local Improvement 4, in downtown Jasper, and are mostly within the Jasper Downtown Historic District.

3.2 Historic Mapped Structures

In addition to the structures that have been recorded as IHSSI sites, several other buildings are depicted on historic maps within the Study Area. For this review, only the 1876 county atlases published by Baskin, Forester, and Company were consulted. Thirteen historic structures are depicted along the primary Alternates on the 1876 county atlases (Table N-1). Two structures are also shown along the Local Improvement items, one along Local Improvement 8 in Lawrence County and one along Local Improvement 9 in Greene County. None of these mapped structure locations correspond with any previously recorded archaeological site. At least two mapped structure locations correspond to extant structures, one of which is an IHSSI contributing house (037-147-50023). The remaining mapped structures appear to be associated with non-extant historic structures. Regardless, all mapped structures within the Study Area represent potential archaeological site locations and further research is recommended for these locations once a preferred alternate is selected.

3.3 Cemeteries

There are 15 cemeteries recorded within the Study Area, two of which are adjacent to any of the Local Improvements (Appendix N-3). Most (n=12) of the cemeteries within the Study Area appear to be family plots that may be larger than currently mapped and could contain unmarked graves. Three cemeteries

December 22, 2021 Page 8 of 23



Appendix N – Archaeology Analysis

are associated with religious institutions (Mt. Olive, St. Martins/Whitfield, and Truelove) and seem to have well-defined boundaries.

Indiana cemetery law (IC 14-21-1-26.5) requires that if project disturbances will occur within 30-m (100-feet) of a burial, a development plan may be required. Therefore, the cemeteries should be avoided by at least a 100-foot buffer to avoid potential impacts to unmarked graves. Otherwise, if these locations cannot be avoided by 100-foot, a cemetery development plan may be required, and potential archaeological testing may also be needed to confirm that no unmarked graves are within project construction limits.

4. CONCLUSIONS

The cultural resource records review for the Mid-States Tier 1 EIS identified that approximately 1.5 percent of the Study Area has been previously investigated for archaeological sites. Much of this previous survey was conducted along the central Alternates between Jasper and Huntingburg. And, based on this past survey data, an average density of one archaeological site per 13 acres is estimated and can be assumed for the study area. Also based on past research in the region, well-drained Inceptisol and Mollisol soils on floodplains, as well as alluvial and colluvial fan landforms along stream valleys, are considered to have the best potential to contain deeply buried archaeological deposits in the study area.

Two NRHP eligible archaeological sites and 13 'potentially eligible' archaeological sites are within the study area and may require Phase II NRHP evaluations and possibly Phase III mitigation if they cannot be avoided. A total of 99 archaeological sites within the study area are unevaluated for their NRHP eligibility and may require additional Phase 1a or Phase 1b intensive archaeological survey if they cannot be avoided. One eligible, one potentially eligible, and six unassessed archaeological sites are adjacent to Local Improvements, but it is unlikely that further work would be required for them unless construction would extend outside exiting disturbed ROW. Also, 13 historic structures that may be archaeological sites are mapped on the 1876 atlases within the study area.

The Jasper Downtown Historic District (NR-2444) is within Local Improvement 4 and is listed on the National and Indiana State Registers of Historic Places. Three 'outstanding' IHSSI rated resources and 13 'notable' resources are also within the study area. Seven of the 'notable' resources and one 'outstanding' resource are specifically within Local Improvement 4 in downtown Jasper. In addition, 15 cemeteries are within the study area, two of which are adjacent to Local Improvement 15.

December 22, 2021 Page 9 of 23



Summary of Results by Alternative

Table N-1 presents the aggregated results of the cultural resources records search for each proposed alternative. Identified archaeological sites have been separated based on their recommended NRHP eligibility as reported in SHAARD (see Appendix N-2). Note that it is unlikely that sites classified as 'ineligible' would require any additional survey. IHSSI Resources include all extant historic structures reported in SHAARD. These have been separated based on IHSSI ranking. Cemeteries in the IHSSI database, as well as demolished and non-contributing resources were not included. The final columns tabulate map structures identified on the 1876 county atlases and historic cemeteries recorded in SHAARD.

TABLE N-1: SUMMARY OF RESULTS OF THE CULTURAL RESOURCES RECORDS REVIEW BY ALTERNATIVE

Alternative		Archaeological Sites			IHSSI Resources			1876 Map Structures	Cemeteries
	Eligible	Potentially Eligible	Not Assessed	Ineligible	Outstanding	Notable	Contributing	Structures	
B2 & B3	0	1	30	33	0	0	14	2	5
C 2 & C3	1	4	23	98	0	1	31	1	1
M2 & M3	1	7	47	63	1	1	25	5	3
O2 & O3	2	4	25	67	0	3	15	2	4
P2e & P3e	1	4	33	64	0	2	27	6	4
P2w & P3w	1	4	28	65	1	3	26	2	2
Local Improvements	1	1	19	10	1	7	56	2	2

December 22, 2021 Page 10 of 23



Summary of Archaeological Sites within the Study Area

Table N-2 summarizes the type, period, and recommended NRHP eligibility for previously reported sites identified within the study area. Sites previously determined ineligible for NRHP listing have been excluded. A brief overview of relevant archaeological periods is presented below.

A Brief Overview of Archaeological Periods in South-Central Indiana

The study area includes portions of the Highland Rim, Shawnee Hills, and Southwestern Lowlands natural regions, primarily traversing areas of rolling-to-steeply sloped uplands with occasional broad, level floodplain valleys along the Ohio, Patoka, and White Rivers and their major tributaries. Recognized archaeological periods in these regions of South-Central Indiana span the entire range of human occupation, beginning prior to 8,000 BC and extending up to the mid-twentieth century. This time span has been divided into several archaeologically distinct periods (e.g., Paleoindian, Archaic, Woodland, Late Prehistoric/Mississippian, and Historic), each with its own subdivisions and regional manifestations. Each period is discussed in more detail below.

Paleoindian (before 8000 BC)

The Paleoindian cultural tradition in the northeastern United States has been recognized as part of a widespread, homogeneous New World culture typified by a distinctive lithic assemblage. The most distinctive members of this assemblage are lanceolate shaped, often fluted, projectile points. In general, Paleoindian sites reflect areas where small groups of people would perform specific tasks of short duration. This type of site casts a very low archaeological profile across the landscape. In this region of Indiana, evidence for the presence of Early and Late Paleoindian occupations is most common in the form of isolated finds of fluted and unfluted points (Stafford et al. 1988:29–30).

Archaic (8000-1000 BC)

The division between hunters who used early fluted points and their descendants in the Archaic period is a purely arbitrary one (Griffin 1978:226). Yet as the time dimension increases, typological comparisons of artifact assemblages begin to take on distinct regional characteristics. The typical artifact assemblage for the Archaic is composed of corner- and side-notched projectile points that increase in both quantity and stylistic variation through time but that are accompanied by a decrease in quality of individual workmanship (Munson and Cook 1980). The Archaic is customarily divided into three subperiods: Early (8000–6000 BC), Middle (6000–3500 BC), and Late (3500–1000 BC).

Early Archaic (8000–6000 BC)

In general, Early Archaic sites are widely dispersed throughout southwestern and central Indiana (Mohow 1992:17; Stafford et al. 1988:33). Smith (1984) indicates that the Early Archaic period of southern Indiana occurred during a climatic shift toward a more modern ecosystem. The distribution of sites in nearly all topographic settings indicates highly mobile broad spectrum adaptation (Cantin 2000; Mohow 1992). On the Ohio River and its tributaries, large Early Archaic sites are found frequently on both the floodplain and terraces, but not in the uplands (Ellis et al. 1990). In contrast, Stafford et al. (1988:33) note that Early Archaic diagnostic points in southwestern Indiana "occur in a wide variety of upland and terrace settings, but may be less frequently represented in major floodplains". Similarly, Munson (1980) noted in her investigations of the Patoka River drainage that the settlement pattern was characterized by moderately dispersed site locations that focused on terraces and low ridgespur zones. These patterns for the Wabash and Ohio drainage basins are evident from Paleoindian through Middle to Late Archaic.

December 22, 2021 Page 11 of 23



Middle Archaic (6000–3500 BC)

A shift to exploitation of a fuller range of habitats and a logistical subsistence strategy is recognized during the Middle Archaic period (Stafford 1994; Stafford et al. 1988; Stafford et al. 2000). These changes are indicated by the presence of a wider range of plant and animal remains, evidence of larger occupations, and the occurrence of more diverse artifact assemblages, including ground stone tool forms, which first appear around this time (Stafford et al. 2000). These changes during this period are most likely responses to shifting environmental regimes, increasing populations, and technological advances.

Late Archaic (3500–1000 BC)

After 3000 BC, a shift in settlement and mobility strategies is noted, possibly related to the changing climatic regimen in the region (i.e., Brown and Vierra 1983). The full development of a logistically organized hunting and gathering settlement-subsistence system is established throughout much of the Ohio Valley by this time (Anslinger et al. 1994:23–25). In addition to a change in settlement and subsistence during the Late Archaic, population increase is also suggested. For example, more Late Archaic sites than Early and Middle Archaic sites are recorded in the region (Stafford et al. 1988). This increase in site occurrence may be related to changing population levels during the Archaic period but may also be a result of site survey biases. For example, many site deposits with earlier components may be inaccessible to traditional survey methods, as they may possibly be buried in deep stream alluvium. A better understanding of the site types of this time period from the region is required for testing the current Late Archaic settlement-subsistence model and temporal placement.

Woodland Period (1000 BC-AD 900)

The Woodland period, like the preceding Archaic period, is divided into three subperiods: Early Woodland (1000 BC–200 BC), Middle Woodland (200 BC–AD 400), and Late Woodland (AD 400–900). Overall, the Woodland period witnessed a continuation and elaboration of cultural practices that began during the Late Archaic. During this period of interregional dynamism, there was a trend toward more sedentary life ways, increasingly elaborate burial ceremonialism, cultivation of plant foods, and possibly stratified social organization. These trends, along with the appearance of fired ceramic vessels, mark the transition between Archaic and Woodland peoples (Griffin 1978).

Early Woodland (1000 BC-200 BC)

The Early Woodland period in Indiana is demonstrated by the Adena and early Crab Orchard phases. Evidence for the Adena in Indiana comes mostly from the north-central and east-central portions of the state and is characterized by the presence of large burial mounds containing log tombs and grave goods (e.g., Cochran 1991). Typical diagnostic artifacts from the time period include large bladed, stemmed bifaces, such as Adena and Dickson cluster hafted bifaces, as well as diagnostic cord-marked pottery.

Middle Woodland (200 BC-AD 400)

The Middle Woodland in Indiana has been considered a continuation of the Early Woodland, with more complex social interactions, evident by an increase in trade materials and a larger span of typical artifacts. Diagnostic artifacts include Snyders, Chesser, Lowe, and Steuben hafted bifaces (Justice 1987), as well as copper celts, beads, and stone platform pipes.

December 22, 2021 Page 12 of 23



Late Woodland (AD 500-1200)

The Late Woodland in Indiana (AD 500–1200) is marked by the widespread use of arrow points and full scale agriculture. Diagnostic artifacts include Small Triangular cluster, Jack's Reef, and Raccoon side-notched hafted bifaces (Justice 1987).

<u>Late Prehistoric/Mississippian (AD 900–1650)</u>

The Late Prehistoric period of the region has been associated with Middle Mississippian cultures more readily recognized in the Mississippi River valley and the lower parts of the Ohio River valley, although Mississippian influences were seen in a much larger geographic area. The Mississippian period was characterized by a chiefdom level of sociopolitical organization and the intensive utilization of agriculturally based subsistence. Maize (*Zea mays*), beans (*Phaseolus vulgaris*), and squash (*Cucurbita* sp.) were the principal crops. Nevertheless, hunting and gathering continued to be important in many areas (Smith 1978).

Settlements were arranged in a hierarchical manner, were fortified, contained substructure mounds that were for either ceremonial purposes or dwellings for the elite and were occupied year-round. Mississippian structures were built utilizing wattle and daub construction, and the wall posts were set in trenches. Although continuously occupied villages were in the settlement system, much of the Mississippian population lived in smaller hamlets and farmsteads. These were scattered up and down not only the major rivers, but also along the secondary streams.

The Mississippian period is dated to approximately AD 1100 in the middle Ohio River area. These societies lasted until circa 350 BP Artifacts diagnostic of the Mississippian period include shell-tempered pottery, effigy pipes, and triangular points, as well as Nodena and Cahokia hafted biface forms (Justice 1987).

Historic (ca. AD 1650-1960)

The Historic period began with the arrival of the first Europeans to the region and continued well into the twentieth century. Permanent European settlements in Southern Indiana were absent until the mideighteenth century, and most historic period sites in the region date to the nineteenth or twentieth centuries. Common site types include farmsteads, residences, and historic artifact scatters.

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December 22, 2021 Page 14 of 23



TABLE N-2: SUMMARY OF ARCHAEOLOGICAL SITES WITHIN THE STUDY AREA (EXCLUDING SITES PREVIOUSLY DETERMINED INELIGIBLE FOR NRHP LISTING)

Site #	Site Type	Time Period(s)	NRHP	Alternative(s)
Da-0070	Isolated Find	Unidentified Prehistoric	Not Assessed	P2w, P3w
Da-0325	Lithic Scatter	Early Archaic, Paleoindian	Not Assessed	C2, C3
Da-0363	Lithic Scatter	Early Archaic, Late Archaic, Middle Woodland, Paleoindian	Not Assessed	P2E, P3E, P2w, P3w
Da-0364	School	Historic	Not Assessed	P2E, P3E, P2w, P3w
Da-0593	Lithic Scatter	Unidentified Prehistoric	Not Assessed	B2, B3
Da-0594	Lithic Scatter	Unidentified Prehistoric	Not Assessed	B2, B3
Da-0625	Lithic Scatter	Unidentified Prehistoric	Not Assessed	B2, B3
Da-0626	Lithic Scatter	Unidentified Prehistoric	Not Assessed	B2, B3
Da-0627	Lithic Scatter	Unidentified Prehistoric	Not Assessed	B2, B3
Da-0628	Lithic Scatter	Unidentified Prehistoric	Not Assessed	B2, B3
Da-0629	Lithic Scatter	Unidentified Prehistoric	Not Assessed	B2, B3
Da-0630	Lithic Scatter	Unidentified Prehistoric	Not Assessed	B2, B3
Da-0631	Lithic Scatter	Unidentified Prehistoric	Not Assessed	B2, B3
Da-0632	Lithic Scatter	Unidentified Prehistoric	Not Assessed	B2, B3
Da-0633	Lithic Scatter	Unidentified Prehistoric	Not Assessed	B2, B3
Da-0731	Lithic Scatter	Unidentified Prehistoric	Not Assessed	C2, C3
Da-0732	Lithic Scatter	Unidentified Prehistoric	Not Assessed	C2, C3
Da-0861	Lithic Scatter	Unidentified Prehistoric, Historic Isolate	Not Assessed	C2, C3
Du-0002	Rockshelter, Burial	Unidentified Prehistoric	Not Assessed	C2, C3, M2, M3, O2, P2E, P3E, P2w, P3w
Du-0004	Camp	Unidentified Prehistoric	Not Assessed	C2, C3, M2, M3, O2, P2E, P3E, P2w, P3w
Du-0062	Lithic Scatter	Unidentified Prehistoric	Not Assessed	C2, C3, M2, M3, O2, P2E, P3E, P2w, P3w
Du-0127	Camp	Early Archaic	Not Assessed	B2, B3
Du-0130	Camp	Unidentified Prehistoric	Not Assessed	B2, B3
Du-0131	Camp	Late Archaic	Not Assessed	B2, B3
Du-0141	Camp	Early Archaic	Not Assessed	C2, C3, M2, M3, O2, P2E, P3E, P2w, P3w
Du-0143	Camp	Archaic	Not Assessed	C2, C3, M2, M3, O2, P2E, P3E, P2w, P3w
Du-0162	Camp	Early Paleoindian, Late Archaic, Middle Woodland,	Not Assessed	C2, C3, M2, M3, O2, P2E, P3E, P2w, P3w
		Paleoindian, Terminal Late Archaic		
Du-0178	Camp	Early Archaic	Not Assessed	LI 5
Du-0182	Camp	Archaic	Not Assessed	C2, C3, M2, M3, O2, P2E, P3E, P2w, P3w

December 22, 2021 Page 15 of 23



Site #	Site Type	Time Period(s)	NRHP	Alternative(s)
Du-0215	Lithic Scatter	Early Archaic, Early Woodland, Late Archaic, Middle	Not Assessed	C2, C3, M2, M3, O2, P2E, P3E, P2w, P3w
		Archaic		
Du-0217	Lithic Scatter	Unidentified Prehistoric	Not Assessed	LI 1
Du-0218	Lithic Scatter	Unidentified Prehistoric	Not Assessed	LI 1
Du-0243/795	Camp	Unidentified Prehistoric	Not Assessed	C2, C3, M2, M3, O2, P2E, P3E, P2w, P3w
Du-0255	Lithic Scatter	Unidentified Prehistoric	Not Assessed	C2, C3, M2, M3, O2, P2E, P3E, P2w, P3w
Du-0266	Unknown	Unidentified Prehistoric	Not Assessed	C2, C3, M2, M3, O2, P2E, P3E, P2w, P3w
Du-0272	Unknown	Unknown	Not Assessed	B2, B3
Du-0273	Unknown	Archaic	Not Assessed	B2, B3
Du-0275	Lithic Scatter	Early Archaic	Not Assessed	B2, B3
Du-0284	Isolate Find	Early Archaic	Not Assessed	LI 3
Du-0285	Isolate Find	Early Archaic	Not Assessed	LI 3
Du-0287	Lithic Scatter	Unidentified Prehistoric	Not Assessed	C2, C3, M2, M3, O2, P2E, P3E, P2w, P3w
Du-0308	Camp	Unidentified Prehistoric	Not Assessed	B2, B3
Du-0310	Camp	Unidentified Prehistoric	Not Assessed	B2, B3
Du-0323	Camp	Early Woodland, Late Archaic, Middle Woodland	Not Assessed	C2, C3, M2, M3, O2, P2E, P3E, P2w, P3w
Du-0359	Camp	Unidentified Prehistoric	Not Assessed	B2, B3
Du-0360	Camp	Unidentified Prehistoric	Not Assessed	B2, B3
Du-0361	Isolated Find	Unidentified Prehistoric	Not Assessed	B2, B3
Du-0362	Isolated Find	Unidentified Prehistoric	Not Assessed	B2, B3
Du-0378	Camp	Unidentified Prehistoric	Not Assessed	B2, B3
Du-0379	Camp	Unidentified Prehistoric	Not Assessed	B2, B3
Du-0391	Unknown	Unidentified Prehistoric	Not Assessed	B2, B3
Du-0399	Unknown	Unidentified Prehistoric	Not Assessed	C2, C3, M2, M3, O2, P2E, P3E, P2w, P3w
Du-0413	Lithic Scatter	Unidentified Prehistoric	Not Assessed	LI 2
Du-0427	Lithic Scatter	Unidentified Prehistoric	Not Assessed	C2, C3, M2, M3, O2, P2E, P3E, P2w, P3w
Du-0439	Lithic Scatter	Unidentified Prehistoric	Not Assessed	B2, B3
Du-0461	Unknown	Unknown	Not Assessed	C2, C3, M2, M3, O2, P2E, P3E, P2w, P3w
Du-0465	Isolated Find	Unknown	Not Assessed	C2, C3, M2, M3, O2, P2E, P3E, P2w, P3w
Du-0473	Unknown	Unknown	Not Assessed	C2, C3, M2, M3, O2, P2E, P3E, P2w, P3w
Du-0474	Unknown	Unknown	Not Assessed	C2, C3, M2, M3, O2, P2E, P3E, P2w, P3w
Du-0475	Unknown	Unknown	Not Assessed	C2, C3, M2, M3, O2, P2E, P3E, P2w, P3w
Du-0591	Camp	Unidentified Prehistoric	Not Assessed	B2, B3
Du-0666	Cemetery	Historic	Eligible	LI 15

December 22, 2021 Page 16 of 23



Site #	Site Type	Time Period(s)	NRHP	Alternative(s)
Du-0667	Lithic Scatter	Early Archaic, Middle Woodland	Not Assessed	B2, B3
Du-0668	Isolated Find	Paleoindian	Not Assessed	B2, B3
Du-0792	Lithic Scatter, Historic Residence	Early Archaic, Late Archaic, Late Archaic/Early Woodland, Early Woodland, Historic	Eligible	C2, C3, M2, M3, O2, P2E, P3E, P2w, P3w
Du-0793	Lithic Scatter	Unidentified Prehistoric	Potentially Eligible	C2, C3, M2, M3, O2, P2E, P3E, P2w, P3w
Du-0814	Lithic Scatter	Late Archaic/Early Woodland, Middle Woodland	Potentially Eligible	C2, C3, M2, M3, O2, P2E, P3E, P2w, P3w
Du-1028	Lithic Scatter	Late Archaic/Early Woodland	Potentially eligible	C2, C3, M2, M3, O2, P2E, P3E, P2w, P3w
Du-1042	Lithic Scatter	Middle Woodland	Potentially eligible	B2, B3
Du-1066	Lithic Scatter	Early Archaic	Potentially Eligible	C2, C3, M2, M3, O2, P2E, P3E, P2w, P3w
Lr-0240	Unknown	Unknown	Not Assessed	M2, M3
Lr-0276	Unknown	Unknown	Not Assessed	M2, M3
Lr-0287	Lithic Scatter, Midden	Paleoindian, Archaic, Woodland	Potentially Eligible	LI 14
Lr-0361	Lithic Scatter	Unidentified Prehistoric	Not Assessed	02
Lr-0623	Camp, Lithic Reduction, Lithic Scatter	Archaic, Late Archaic, Late Woodland, Middle Archaic, Woodland	Potentially Eligible	M2, M3, LI 14
Lr-0624	Camp, Lithic Scatter	Middle Woodland, Woodland	Not Assessed	M2, M3, LI 14
Lr-0625	Camp, Lithic Scatter	Archaic, Terminal Late Archaic	Not Assessed	M2, M3, LI 14
Lr-0667	Camp, Lithic Scatter	Archaic, Early Archaic, Late Archaic, Middle Archaic, Middle/Late Archaic	Not Assessed	M2, M3
Lr-0668	Camp, Lithic Scatter	Archaic, Late Archaic	Not Assessed	M2, M3
Lr-0669	Lithic Scatter	Unidentified Prehistoric	Potentially Eligible	M2, M3
Lr-0670	Camp, Lithic Scatter	Archaic, Early Woodland, Late Archaic, Woodland	Not Assessed	M2, M3
Lr-0671	Base Camp, Lithic Scatter	Archaic, Early Archaic, Late Archaic	Potentially Eligible	M2, M3
Lr-0672	Base Camp, Hunting and Butchering	Archaic, Early Archaic, Early Woodland, Late Archaic, Late Archaic/Early Woodland, Middle Archaic, Middle/Late Archaic, Terminal Late Archaic, Woodland	Potentially Eligible	M2, M3
Lr-0673	Base Camp, Lithic Reduction, Lithic Scatter	Archaic, Early Archaic, Late Archaic, Late Archaic/Early Woodland, Late Paleoindian, Middle Archaic, Middle/Late Archaic, Paleoindian, Terminal Late Archaic, Terminal Middle Woodland, Woodland	Potentially Eligible	M2, M3
Lr-0674	Camp, Lithic Scatter	Archaic, Early Archaic, Late Archaic, Terminal Late Archaic, Woodland	Potentially Eligible	M2, M3
Mn-0033	Rockshelter	Middle Archaic, Late Archaic, Terminal Middle Woodland, Mississippian	Potentially Eligible	M2, M3

December 22, 2021 Page 17 of 23



Site #	Site Type	Time Period(s)	NRHP	Alternative(s)
Mn-0121	Camp	Unidentified Prehistoric	Not Assessed	M2, M3, LI 13
Mn-0122	Camp	Unidentified Prehistoric	Not Assessed	M2, M3, LI 13
Mn-0143	Camp	Early Archaic	Not Assessed	M2, M3, P2E, P3E, P2w, P3w, LI 6
Mn-0157	Lithic Scatter	Archaic, Early Archaic	Not Assessed	M2, M3, P2E, P3E
Mn-0182	Camp	Early Woodland, Late Archaic	Not Assessed	M2, M3, P2E, P3E, P2w, P3w
Mn-0194	Isolated Find	Unidentified Prehistoric	Not Assessed	M2, M3, P2E, P3E, P2w, P3w, LI 6
Mn-0195	Lithic Scatter	Unidentified Prehistoric	Not Assessed	M2, M3, P2E, P3E, P2w, P3w, LI 6
Mn-0229	Isolated Find	Early Archaic	Not Assessed	M2, M3
Mn-0291	Camp	Early Archaic	Not Assessed	M2, M3
Mn-0327	Camp	Historic, Unidentified Prehistoric	Not Assessed	M2, M3, P2E, P3E, P2w, P3w, LI 6
Mn-0331	Lithic Scatter	Unidentified Prehistoric	Not Assessed	P2E, P3E
Mn-0334	Lithic Scatter	Unidentified Prehistoric	Not Assessed	P2E, P3E
Mn-0387	Camp	Unidentified Prehistoric	Not Assessed	M2, M3
Mn-0440	Camp, Lithic Scatter	Unidentified Prehistoric	Not Assessed	M2, M3
Mn-0442	Camp	Late Archaic	Not Assessed	M2, M3
Mn-0443	Camp	Late Archaic	Not Assessed	M2, M3
Mn-0456	Camp	Early Archaic, Late Archaic, Middle Archaic	Not Assessed	M2, M3
Mn-0484	Lithic Scatter	Unidentified Prehistoric	Not Assessed	M2, M3, P2E, P3E
Mn-0560	Farmstead	Historic	Not Assessed	M2, M3, P2E, P3E
Mn-0561	Farmstead	Historic	Not Assessed	M2, M3, P2E, P3E
Mn-0575	Lithic Scatter	Unidentified Prehistoric	Not Assessed	M2, M3
Mn-0633	Farmstead	Historic	Not Assessed	M2, M3
Mn-0662	Lithic Scatter	Unidentified Prehistoric	Not Assessed	M2, M3, P2E, P3E, P2w, P3w, LI 6
Or-0017	Historic Isolate, Lithic	Historic, Unidentified Prehistoric	Not Assessed	02
	Scatter			
Or-0380	Unknown	Unknown	Not Assessed	02
Or-0414	Unknown	Late Woodland	Not Assessed	02
Or-0422	Unknown	Unknown	Not Assessed	O2, LI 17
Or-0423	Unknown	Unknown	Not Assessed	02
Or-0424	Animal Bone	Unidentified Prehistoric	Not Assessed	02

December 22, 2021 Page 18 of 23



Historic Cemeteries within the Study Area

Table N-3 summarizes historic cemeteries recorded in SHAARD and identified within the study area. In addition to the DHPA cemetery registry number (SHAARD ID), the historic name, and Alternative(s) it is along are provided for each cemetery.

TABLE N-3: SUMMARY OF HISTORIC CEMETERIES

SHAARD_ID	Name	Alternative(s)
CR-19-122	Alexander	B2, B3
CR-19-26	Bruner	B2, B3, C2, C3, M2, M3, O2, O3, P2e, P2w, P3e, P3w
CR-19-42	Burton	02, 03
CR-19-93	Saint Johns	Local Improvement 15
CR-19-97 (Site #12Du666)	Unknown	Local Improvement 15
CR-14-39	Glendale Public/ Gregory	B2, B3
CR-51-100	Helphistine	M2, M3, P2e, P3e
CR-14-40	Hudsonville/Armes	B2, B3
CR-14-43	Mount Olive	P2e, P2w, P3e, P3w
CR-19-130	Mount Zion	B2, B3
CR-59-16	Old Baptist	02, 03
CR-59-107	Rigg	02, 03
CR-51-94	Truelove	M2, M3, P2e, P3e
IHSSI #101-680-00043	Peyton Cemetery	M2, M3
IHSSI #101-367-05024	Wood Cemetery	P2w, P3w

December 22, 2021 Page 19 of 23



Cultural Resource Data for the Omitted Alternatives

The following tables summarize the significant or potentially significant archaeological sites, the IHSSI resources, and cemetery data for the three Alternatives omitted from the project.

TABLE N-4A: SUMMARY ARCHAEOLOGICAL SITES (EXCLUDING SITES PREVIOUSLY DETERMINED INELIGIBLE FOR NRHP LISTING).

Site #	Site Type	Time Period(s) Represented	NRHP Eligibility	Alternative
Lr-0881	Camp, Lithic Reduction, Lithic Scatter	Archaic, Early Archaic, Historic, Late Archaic, Middle Archaic	Potentially Eligible	SR 37
Mo-1154	Camp, Lithic Reduction, Lithic Scatter	Archaic, Early Archaic, Middle Archaic, Unidentified Prehistoric	Potentially Eligible	SR 37
Sp-0201	Lithic Scatter, Village	Archaic, Early Archaic, Late Archaic	Potentially Eligible	US 231
Sp-0959	Lithic scatter	Unidentified Prehistoric	Potentially Eligible	US 231
Sp-0965	Lithic scatter	Unidentified Prehistoric	Potentially Eligible	US 231
Sp-0972	Lithic scatter	Unidentified Prehistoric	Potentially Eligible	US 231
Sp-0973	Lithic scatter	Unidentified Prehistoric	Potentially Eligible	US 231
Sp-1005	Historic Scatter, Lithic Scatter	Unidentified prehistoric, Historic 19/20th centuries	Potentially Eligible	US 231
Sp-1006	Lithic Scatter	Woodland	Potentially Eligible	US 231
DA-0369	School	Historic	Not Assessed	P231
Du-0175	Historic Isolate, Lithic Scatter	Historic, Unidentified Prehistoric	Not Assessed	C, M, O, P
Du-0177	Camp	Unidentified Prehistoric	Not Assessed	C, M, O, P
Du-0206	Lithic Scatter	Unidentified Prehistoric	Not Assessed	C, M, O, P
Du-0259	Isolated Find	Unidentified Prehistoric	Not Assessed	C, M, O, P
Du-0261	Isolated Find	Unidentified Prehistoric	Not Assessed	C, M, O, P
Du-0262	Lithic Scatter	Unidentified Prehistoric	Not Assessed	C, M, O, P
Du-0603	Kill Site, Lithic Scatter	Unidentified Prehistoric	Not Assessed	C, M, O, P
Du-0604	Lithic Scatter	Unidentified Prehistoric	Not Assessed	C, M, O, P
Lr-0237	Unknown	Unknown	Not Assessed	SR 37
Lr-0245	Unknown	Unknown	Not Assessed	SR 37
Lr-0284	Unknown	Unknown	Not Assessed	SR 37
Lr-0351	Isolated Find	Late Archaic	Not Assessed	SR 37
Lr-0352	Lithic Scatter	Unidentified Prehistoric	Not Assessed	SR 37
Lr-0353	Lithic Scatter	Unidentified Prehistoric	Not Assessed	SR 37
Lr-0354	Isolated Find	Unidentified Prehistoric	Not Assessed	SR 37
Lr-0355	Lithic Scatter	Unidentified Prehistoric	Not Assessed	SR 37
Lr-0356	Isolated Find	Unknown	Not Assessed	SR 37
Lr-0357	Isolated Find	Unidentified Prehistoric	Not Assessed	SR 37
Lr-0358	Lithic Scatter	Unidentified Prehistoric	Not Assessed	SR 37
Lr-0359	Lithic Scatter	Late Archaic	Not Assessed	SR 37
Lr-0360	Lithic Scatter	Early Archaic	Not Assessed	SR 37

December 22, 2021 Page 20 of 23



Site #	Site Type	Time Period(s) Represented	NRHP Eligibility	Alternative
Lr-0415	Lithic Scatter	Late Woodland	Not Assessed	SR 37
Lr-0508	Quarry	Historic, 19th-20th Century	Not Assessed	SR 37
Mo-0074	Lithic Scatter	Archaic	Not Assessed	SR 37
Mo-0083	Lithic Scatter	Unidentified Prehistoric	Not Assessed	SR 37
Mo-0095	Lithic Scatter	Unidentified Prehistoric	Not Assessed	SR 37
Mo-0237	Isolated Find	Unidentified Prehistoric	Not Assessed	SR 37
Mo-0305	Lithic Scatter	Unidentified Prehistoric	Not Assessed	SR 37
Mo-0852	Wall	Historic, 19th-20th Century	Not Assessed	SR 37
Sp-0090	Camp	Early Woodland, Late Archaic	Not Assessed	US 231
Sp-0170	Camp	Early Archaic	Not Assessed	US 231
Sp-0193	Camp	Unidentified Prehistoric	Not Assessed	US 231
Sp-0253	Camp	Historic, 19th Century, Unidentified Prehistoric	Not Assessed	US 231
Sp-0256	Habitation	Unidentified Prehistoric	Not Assessed	US 231
Sp-0276	Habitation	Late Archaic	Not Assessed	US 231
Sp-0340	Camp	Early Archaic	Not Assessed	US 231
Sp-0341	Camp	Late Paleoindian, Early Archaic	Not Assessed	US 231
Sp-0468	Lithic Scatter	Unidentified Prehistoric	Not Assessed	US 231
Sp-0607	Habitation	Early Archaic, Late Archaic	Not Assessed	US 231
Sp-0609	Habitation	Unidentified Prehistoric	Not Assessed	US 231
Sp-0648	Lithic Scatter	Unidentified Prehistoric	Not Assessed	US 231
Sp-0804	Dump	Historic	Not Assessed	US 231
Sp-0958	Farmstead	Historic	Not Assessed	US 231
Sp-0961	Historic Scatter	Historic	Not Assessed	US 231
Sp-0963	Historic Scatter, Lithic Scatter	Historic, Unidentified Prehistoric	Not Assessed	US 231
Sp-1443	Unknown	Unknown	Not Assessed	US 231

December 22, 2021 Page 21 of 23



TABLE N-4B: SUMMARY OF IHSSI RESOURCES

SHAARD_ID	Historic Name	Rating	Alternative
027-576-00004	Brinegar Chapel	Notable	P231
027-476-00017	School Number 6	Contributing	P231
101-367-05042	House	Contributing	P231
101-367-05045	Fish Cemetery	Contributing	P231
101-008-05038	Saint Martin Church	Contributing	P231
101-008-05011	Saint Martin Cemetery	Contributing	P231
101-008-30002	House	Contributing	P231
037-304-05047	Cooper Cemetery	Contributing	C, M, O, P
037-304-05048	Jacob Backer House	Contributing	C, M, O, P
037-304-05072	House	Notable	C, M, O, P
037-304-05075	Henry J. and Anna Huebner Farm	Contributing	C, M, O, P
037-304-05076	Sebastian Huebner House	Contributing	C, M, O, P
037-304-10047	Sherritt's Graveyard	Notable	C, M, O, P
037-304-10048	Dubois County Bridge Number 24	Contributing	C, M, O, P
037-304-10060	Farm	Notable	C, M, O, P
037-304-10061	Albert Schuetter House	Contributing	C, M, O, P
037-304-10062	Semmersheim House	Contributing	C, M, O, P
037-304-15027	Joe and Mary Merter-Brescher House	Contributing	C, M, O, P
037-304-20008	Robert and Bernadine Hopf House	Contributing	C, M, O, P
037-304-20009	Albert Schmitt Farm	Contributing	C, M, O, P
093-039-26004	House	Contributing	SR 37
093-039-26005	House	Non-Contributing	SR 37
093-039-26006	House	Notable	SR 37
093-039-26007	House	Notable	SR 37
093-039-26008	Frank Owen House	Notable	SR 37
093-039-26009	Trueblood House	Notable	SR 37
093-039-40004	Red Cross Cemetery	Contributing	SR 37
093-039-40008	Wesley Chapel Methodist Episcopal Church	Contributing	SR 37
093-039-40016	John Nugent House	Notable	SR 37
093-416-40031	Farm	Contributing	SR 37
093-416-40032	Farm	Contributing	SR 37
093-480-21016	House	Contributing	SR 37
105-115-45144	Stipp-Bender House	Notable	SR 37
105-115-45146	House	Contributing	SR 37
105-115-45147	House	Contributing	SR 37
105-115-45149	House	Contributing	SR 37
105-115-45154	House	Contributing	SR 37
105-115-45158	House	Contributing	SR 37

December 22, 2021 Page 22 of 23



SHAARD_ID	Historic Name	Rating	Alternative
105-115-45186	House	Contributing	SR 37
105-115-45187	House	Contributing	SR 37
105-115-45194	House	Contributing	SR 37
105-115-75002	Barn	Contributing	SR 37
105-115-75003	Barn	Contributing	SR 37
105-480-75016	Pickle Cemetery	Contributing	SR 37
037-147-50053	Dubois County Bridge Number 150	Contributing	US231
147-110-20053	Bridge	Contributing	US231
147-147-10003	Bridge	Contributing	US231
147-147-10037	William Hawk Farm	Contributing	US231
147-147-10055	William Krouse, Sr. Farm	Contributing	US231
147-546-35061	Farm	Notable	US231
147-546-35062	House	Contributing	US231

TABLE N-4C: SUMMARY OF HISTORIC CEMETERIES

SHAARD_ID	Name	Alternative
CR-19-23	Sherritt	C, O, M, P
CR-19-73	Chattin	C, O, M, P
CR-47-100	Lemon-Taylor	SR 37
CR-47-109	Unknown	SR 37
CR-51-88	Whitfield/ St. Martin	P231
CR-51-124	Fish	P231

December 22, 2021 Page 23 of 23



APPENDIX N: ARCHAEOLOGY ANALYSIS ADDENDUM

Mid-States Corridor Tier 1 Environmental Impact Statement

Prepared for

Indiana Department of Transportation

Mid-States Corridor Regional Development Authority

JANUARY 2023

Prepared by

Cultural Resource Analysts







TABLE OF CONTENTS

 Introdu 	ction		3
		udy Area	
		Sites and Investigations	
	2.1	Previously Recorded Archaeological Sites	
	2.2	Previous Archaeological Investigations	
3. Historic		ties, Mapped Structures, and Cemeteries	
	3.1		
		tures Inventory (IHSSI)	7
	3.2	Historic Mapped Structures	8
	3.3	Cemeteries	8
4. Conclus	ions		8

January 2023 Page 2 of 19



1. INTRODUCTION

This addendum has been added to Appendix N to address the following substantive changes since the Draft Environmental Impact Statement (DEIS) was published:

- During the Screening of Alternatives, preliminary Alternative R was evaluated before being removed from further consideration. Alternative R consists of upgrading US 231 from I-64 to I-69. Many comments on the DEIS requested further consideration of an upgrade of US 231 in addition to the five alternatives presented in the DEIS. In response to these comments, this FEIS further evaluates the costs, impacts and benefits of Alternative R. See FEIS Vol. I Section 2.5.1 for details about Alternative R.
- Multiple comments were received from local officials in Loogootee and Martin County about the
 alignment of Alternative P in Martin County, in particular in the vicinity of Loogootee. The DEIS
 showed Alternative P with an alignment west of Loogootee. Portions of this alignment are in
 Daviess County. These comments requested modifications to Alternative P to bring it through or
 to the east of Loogootee.

In response to these comments, three additional variations of Alternative P have been added in Martin County. All variations of Alternative P are within Section of Independent Utility (SIU) 4. See FEIS Vol. I **Section 2.7** for a discussion of Tier 2 sections for all alternatives. Alternative P with these variations has been designated as Refined Preferred Alternative P (RPA P). It is evaluated separately from any alternative considered in the DEIS. A single variation of RPA P will be selected in Tier 2 studies for SIU 4. See FEIS Vol. I **Section 2.5.2** for details about the variations of RPA P near Loogootee.

A cultural resource records review was conducted in December 2020, September 2021, and December 2022 for the Mid-States Corridor Tier 1 Environmental Impact Statement (EIS) using various online sources. The records review was completed to 1) determine if any previous surveys for cultural resources have been conducted; 2) to identify any previously recorded cultural resources; and 3) to provide information concerning what additional cultural resources could be expected within the Study Area. Specifically, information maintained by the National Register of Historic Places (NRHP) (available online at: nps.gov/subjects/nationalregister/database-research.htm) and with the Division of Historic Preservation and Archaeology (DHPA) Indiana State Historic Architectural and Archaeological Research Database (SHAARD), as well as online historic maps, were researched. No fieldwork occurred during the Tier 1 evaluations.

The online research results were placed within a matrix representing all previously documented cultural resources in all of the alternatives. Detailed findings and support for this analysis are provided in appendices at the end of this document. Their contents are as follows:

- Appendix N-1. Summary of archaeological sites by alternative and Local Improvement area.
- Appendix N-2. Summary of cultural history, as well as previously recorded potentially eligible and unevaluated archaeological sites.

January 2023 Page 3 of 19



• **Appendix N-3.** Summaries of historic cemetery information.

1.1 Study Area

The Study Area for the DEIS encompassed a 610-m (2000-foot) wide corridor along 13 alternative alignments, representing approximately 18,465.8 ha (45,630.1 acres). These alternative corridors (unduplicated) begin at the Spencer/Dubois County line and go north for approximately 312-km (194-mi), crossing Daviess, Dubois, Greene, Lawrence, Martin and Orange counties in Southern Indiana. In addition to the proposed alternative corridors, 18 Local Improvements were examined for potential indirect impacts to cultural resources. Lastly, the records review initially included four alternatives that no longer have the potential to impact cultural resources. Although these four alternatives are now not under consideration for the project, the cultural resource records researched for those areas are documented separately in Appendix N-4. The alternatives omitted from the records review are listed below. The first three alternatives are excluded due to the decision to no longer consider freeway facility types. With a freeway facility type, land adjacent to these existing highways would have been impacted.

- 1. the existing US 231 corridor in Spencer County;
- 2. portions of the existing US 231 hybrid alternative in Daviess and Martin counties;
- existing SR 37 corridor between Mitchell and Bloomington, with the exception of areas near Mitchell and Bedford where Alternatives O and M would intersect SR 37;
- and the western route around Huntingburg and Jasper which includes portions of Alternatives C,
 M, O and P, because only the eastern route around these communities is being considered in the final alternatives.

In response to comments on the DEIS, two additional alternatives, RPA P and Alternative R, were considered in this FEIS. This document is an Addendum to Appendix N in the DEIS, which is unchanged. The introduction to this addendum describes these added alternatives. The information in this addendum pertains only to these two additional alternatives considered in the FEIS. The Study Area described below is for these two additional alternatives. This additional Study Area overlaps in some areas with the Study Area considered in the DEIS.

The Study Area encompasses a 610-m (2000-foot) wide corridor along two alternative alignments (Alternative R and RPA P), representing approximately 10,021.2 ha (24,763 acres). These alternative corridors (unduplicated) begin at the Spencer/Dubois County line and go north for approximately 312-km (194-mi), crossing Daviess, Dubois, Greene, and Martin counties in Southern Indiana.

January 2023 Page 4 of 19



2. ARCHAEOLOGICAL SITES AND INVESTIGATIONS

2.1 Previously Recorded Archaeological Sites

A total of 135 previously-identified archaeological sites have been recorded in the Study Area (see Attachment N-1). Of these sites, 80 (59 percent) lacked archaeological integrity or were otherwise considered not eligible for the NRHP. Of the remaining sites, 49 (36 percent) have not been fully evaluated for their NRHP eligibility. These unevaluated sites could contain significant archaeological deposits, but this is unknown until survey-level fieldwork (with possible additional studies) can be conducted to confirm their locations and assess integrity. Five (4 percent) archaeological sites (12Du793, 814, 1028, 1066, and 1074) are recorded as 'potentially eligible' for NRHP listing and recommended for further archaeological work or avoidance if they would be impacted by ground disturbing activities. Furthermore, one (1 percent) of the archaeological sites (12Du792) was determined eligible for the NRHP and would require mitigation if it cannot be avoided by the project. Note that 'potentially eligible' is a classification choice on the DHPA site form, typically assigned by the site recorder (e.g., a Cultural Resource Management consultant or other professional archaeologist), and is not necessarily indicative of SHPO concurrence with the recorder's recommendations. Although site-specific cases vary, 'potentially eligible' sites can require resurvey at the Phase Ia level or Phase Ib intensive survey to determine whether additional work (e.g., Phase II NRHP evaluation) is warranted. Generally, 'potentially eligible' sites require a Phase II NRHP evaluation. The eligible and potentially eligible sites are described in detail below. All eligible, potentially eligible, or otherwise unevaluated archaeological sites are also included within the summary table in Appendix N-2. According to state law (Indiana Code 14-21-1), protection is provided to known archaeological sites regardless of whether the project is considered a federal undertaking. Therefore, these archaeological sites would require additional evaluation and possible mitigation if they cannot be avoided. The NRHP eligible and potentially eligible archaeological sites are discussed further below.

2.1.1 Sites 12Du792, 793, and 814

Sites 12Du792, 793, and 814 are prehistoric lithic artifact scatters found during a survey for the proposed US 231 bypass east of Huntingburg and Jasper (Miller 2006). All three sites were found in agricultural fields in the uplands, and are entirely within proposed Alternative P and RPA P. These sites had a high density and diversity of lithic materials, as well as temporally diagnostic artifacts, which suggested a greater likelihood for intact sub-plow zone deposits. As such, all three sites were recommended for Phase II NRHP evaluations.

Phase II NRHP evaluations at Sites 12Du792 and 12Du814 occurred in 2008 (Beard 2010). As a result, Site 12Du792 was determined to be eligible for inclusion on the NRHP due to the large prehistoric (Middle Archaic through Early Woodland) component and the intact features found associated with a historic, nineteenth century, rural residential occupation. Therefore, Site 12Du792 was recommended to be avoided or be mitigated through Phase III data recovery excavation. The portion of Site 12Du814 within the proposed US 231 bypass ROW was found to not contain significant archaeological deposits and the

January 2023 Page 5 of 19



tested portion of the site was determined to be not eligible for the NRHP. However, the remainder of the site outside the proposed ROW was not evaluated and would require additional Phase II investigation to determine if NRHP eligible deposits are present in that part of the site. Site 12Du793 was avoided by the proposed US 231 ROW and no phase II investigations were previously conducted there.

2.1.2 Sites 12Du1028 and 12Du1074

Sites 12Du1028 and 1074 were recorded during a Phase 1a archaeological reconnaissance for proposed US 231 Alternatives in the vicinity of Huntingburg (Picklesimer 2011). Both sites are within proposed Alternative P and RPA P. Site 12Du1028 is a moderate scatter of lithic artifacts recovered from the ground surface and shovel tests within an agricultural field on the floodplain of Sugar Creek. A Late Archaic/Early Woodland Saratoga Cluster hafted biface was among the tools from the site. Almost half of the artifacts were recovered from a single shovel probe at the site, and material extended to 64 cm below the ground surface, which suggested some stratification of material and good potential for intact sub-plow zone archaeological deposits at the site.

Site 12Du1174 is a Late Archaic prehistoric site where a high density and diversity of lithic artifacts was found. Based on these artifacts, the site was considered to have the potential to provide significant information about the Late Archaic time period in the region.

2.1.3 Site 12Du1066

Site 12Du1066 is an Early Archaic lithic artifact scatter found during a survey for the proposed Huntingburg Airport Expansion and is within proposed Alternative P and RPA P east of Huntingburg (Stillwell 2011). The site was recommended for a Phase II NRHP evaluation based on the presence of a moderate density of lithic artifacts, including a Thebes Cluster hafted biface.

2.2 Previous Archaeological Investigations

At least 46 previous archaeological investigations have been reported within the Study Area. Of these, 55 were conducted prior to the 2008 filing of the DHPA *Guidebook for Indiana Historic Sites and Structures Inventory and Archaeological Sites* (312 IAC 21-1-3), and would likely require resurvey to conform to current archaeological survey standards.

Archaeological survey areas conducted after 2008 overlap approximately 7 percent, or 690.4 ha (1706 acres), of the current Study Area – primarily between Jasper and Huntingburg in Dubois County. These previous survey areas are unlikely to require additional survey; although, a more thorough review of survey methods, recommendations, and DHPA concurrence should be conducted once a final alignment is selected. A little over half (50.4 percent) of the previous survey area, covering approximately 389 ha (962 acres) of the Study Area, is represented by a single investigation that was conducted in 2006 for the proposed US 231 bypass between Jasper and Huntingburg in Dubois County (Miller 2006). This previous survey identified 76 new archaeological sites and reinvestigated four previously documented sites. Although some of this previous survey area will need to be resurveyed using current methods, data from the previous investigation can be used in developing a site location model for the preferred Mid-States alternative. An average site density of one archaeological site per 13 acres was estimated for the region.

January 2023 Page 6 of 19



Furthermore, archaeological sites were commonly found in well drained and relatively flat (less than 12 percent slope) settings within 250 meters of a water source.

Also, as part of the US 231 bypass project, three archaeological sites (12Du792, 12Du800, and 12Du814) within the current Study Area had Phase II NRHP evaluations conducted for them. As a result of these Phase II excavations, and as described above, Sites 12Du792 and 12Du814 were recommended to be avoided or have further evaluation/mitigation. Site 12Du800 was determined to be not eligible for the NRHP because of the Phase II evaluation.

Lastly, six floodplains along the US 231 bypass corridor had Phase Ic subsurface reconnaissance investigations conducted (Beard 2010). These floodplains were along Bruner Creek, Short Creek, Hunley Creek, Straight River, Patoka River, and the East Fork of Mill Creek, and were primarily mapped with moderately well-drained or poorly-drained Steff or Stendal series soils. No deeply buried archaeological deposits were found as a result of the Phase Ic investigation, and it was recommended that future deep subsurface reconnaissance efforts be focused on deep, well-drained soils in larger stream valleys (Beard 2010). Deep subsurface reconnaissance associated with the I-69 corridor project in the White River valley of southern Indiana documented Late Archaic through Late Prehistoric archaeological sites buried primarily in well-drained Inceptisol and Mollisol soils, 200 m or less from stream channels (Trader 2021). Alluvial and colluvial fans, that could contain older buried archaeological deposits along stream valley margins, are also recommended to be a focus of subsurface reconnaissance efforts in the region (Trader 2021).

3. HISTORIC PROPERTIES, MAPPED STRUCTURES, AND CEMETERIES

3.1 National Register of Historic Places Properties and Indiana Historic Sites and Structures Inventory (IHSSI)

Alternative R crosses two historic districts, the Jasper Downtown Historic District (NR-2444) and the Huntingburg Commercial Historic District (NR-1824), that are listed on the National and Indiana Registers of Historic Places. Five individually listed historic properties are also within Alternative R: The Town Hall and Fire Engine House (NR-0034) in Huntingburg, as well as the Saint Joseph Catholic Church, the Gramelspacher-Gutzweiler House (NR-0159), the Dubois County Courthouse (NR-1280), and the Louis H. Sturm Hardware Store (NR-1725) in Jasper. No other NRHP or State Register listed properties are within the study area.

A total of 325 IHHSI sites and structures (not including 90 demolished/non-contributing structures and 8 cemeteries) are within the two alternatives. Most of these individual resources are located within the Jasper and Huntingburg Historic Districts along Alternative R.

January 2023 Page 7 of 19



3.2 Historic Mapped Structures

In addition to the structures that have been recorded as IHSSI sites, other buildings are depicted on historic maps within the Study Area. For this review, the 1876 county atlases published by Baskin, Forster, and Company were consulted. Six historic structures are depicted along the Alternatives on the 1876 county atlases (Table N-1). None of these mapped structure locations correspond with any previously recorded archaeological site and are likely associated with non-extant historic structures. Therefore, the mapped structures within the Study Area represent potential archaeological site locations and further research is recommended for these locations during Tier 2 studies.

3.3 Cemeteries

There are eight cemeteries recorded within the Study Area (Appendix N-3). Most (n=5) of the cemeteries within the Study Area appear to be family plots that may be larger than currently mapped and could contain unmarked graves. Three cemeteries are associated with larger communities and/or religious institutions (Fairmount, Goodwill, and St. Martins/Whitfield) and seem to have well-defined boundaries.

Indiana cemetery law (IC 14-21-1-26.5) requires that if project disturbances will occur within 30-m (100-feet) of a burial, a development plan may be required. Therefore, the cemeteries should be avoided by at least a 100-foot buffer to avoid potential impacts to unmarked graves. Otherwise, if these locations cannot be avoided by 100-foot, a cemetery development plan may be required, and potential archaeological testing may also be needed to confirm that no unmarked graves are within project construction limits.

4. CONCLUSIONS

The cultural resource records review for the Mid-States Tier 1 EIS identified that approximately 7 percent of the Study Area has been previously investigated for archaeological sites. Much of this previous survey was conducted along Alternative P and RPA P between Jasper and Huntingburg. And, based on this past survey data, an average density of one archaeological site per 13 acres is estimated and can be assumed for the study area. Also based on past research in the region, well-drained Inceptisol and Mollisol soils on floodplains, as well as alluvial and colluvial fan landforms along stream valleys, are considered to have the best potential to contain deeply buried archaeological deposits in the study area.

One NRHP eligible archaeological site and five 'potentially eligible' archaeological sites are within the study area and may require Phase II NRHP evaluations and possibly Phase III mitigation if they cannot be avoided. A total of 49 archaeological sites within the study area are unevaluated for their NRHP eligibility and may require additional Phase 1a or Phase 1b intensive archaeological survey if they cannot be avoided. Also, six historic structures that may be archaeological sites are mapped on the 1876 atlases within the study area.

The Jasper Downtown Historic District (NR-2444) and the Huntingburg Commercial Historic District (NR-1824), both along Alternative R, are listed on the National and Indiana State Registers of Historic Places.

January 2023 Page 8 of 19



Several 'outstanding' and 'notable' IHSSI rated resources are also within the study area – mainly along Alternative R. In addition, eight cemeteries are within the study area.

January 2023 Page 9 of 19

Summary of Results by Alternative

Table N-1 presents the aggregated results of the cultural resources records search for each proposed alternative. Identified archaeological sites have been separated based on their recommended NRHP eligibility as reported in SHAARD (see Appendix N-2). Note that it is unlikely that sites classified as 'ineligible' would require any additional survey. IHSSI Resources include all extant historic structures reported in SHAARD. These have been separated based on IHSSI ranking. Cemeteries in the IHSSI database, as well as demolished and non-contributing resources were not included. The final columns tabulate map structures identified on the 1876 county atlases and historic cemeteries recorded in SHAARD.

Table N-1. Summary of Results of the Cultural Resources Records Review by Alternative

Alternative	Archaeological Sites				IHSSI Resources			1876 Map Structures	Cemeteries
	Eligible	Potentially Eligible	Not Assessed	Ineligible	Outstanding	Notable	Contributing	Structures	
RPA P	1	5	40	70	2	11	78	4	4
R	0	0	18	23	21	43	243	4	6







Summary of Archaeological Sites within the Study Area

Table N-2 summarizes the type, period, and recommended NRHP eligibility for previously reported sites identified within the study area. Sites previously determined ineligible for NRHP listing have been excluded. A brief overview of relevant archaeological periods is presented below.

A Brief Overview of Archaeological Periods in South-Central Indiana

The study area includes portions of the Highland Rim, Shawnee Hills, and Southwestern Lowlands natural regions, primarily traversing areas of rolling-to-steeply sloped uplands with occasional broad, level floodplain valleys along the Ohio, Patoka, and White Rivers and their major tributaries. Recognized archaeological periods in these regions of South-Central Indiana span the entire range of human occupation, beginning prior to 8,000 BC and extending up to the mid-twentieth century. This time span has been divided into several archaeologically distinct periods (e.g., Paleoindian, Archaic, Woodland, Late Prehistoric/Mississippian, and Historic), each with its own subdivisions and regional manifestations. Each period is discussed in more detail below.

Paleoindian (before 8000 BC)

The Paleoindian cultural tradition in the northeastern United States has been recognized as part of a widespread, homogeneous New World culture typified by a distinctive lithic assemblage. The most distinctive members of this assemblage are lanceolate shaped, often fluted, projectile points. In general, Paleoindian sites reflect areas where small groups of people would perform specific tasks of short duration. This type of site casts a very low archaeological profile across the landscape. In this region of Indiana, evidence for the presence of Early and Late Paleoindian occupations is most common in the form of isolated finds of fluted and unfluted points (Stafford et al. 1988:29–30).

Archaic (8000-1000 BC)

The division between hunters who used early fluted points and their descendants in the Archaic period is a purely arbitrary one (Griffin 1978:226). Yet as the time dimension increases, typological comparisons of artifact assemblages begin to take on distinct regional characteristics. The typical artifact assemblage for the Archaic is composed of corner- and side-notched projectile points that increase in both quantity and stylistic variation through time but that are accompanied by a decrease in quality of individual workmanship (Munson and Cook 1980). The Archaic is customarily divided into three subperiods: Early (8000–6000 BC), Middle (6000–3500 BC), and Late (3500–1000 BC).

Early Archaic (8000–6000 BC)

In general, Early Archaic sites are widely dispersed throughout southwestern and central Indiana (Mohow 1992:17; Stafford et al. 1988:33). Smith (1984) indicates that the Early Archaic period of southern Indiana occurred during a climatic shift toward a more modern ecosystem. The distribution of sites in nearly all topographic settings indicates highly mobile broad spectrum adaptation (Cantin 2000; Mohow 1992). On the Ohio River and its tributaries, large Early Archaic sites are found frequently on both the floodplain and terraces, but not in the uplands (Ellis et al. 1990). In contrast, Stafford et al. (1988:33) note that Early Archaic diagnostic points in southwestern Indiana "occur in a wide variety of upland and terrace settings, but may be less frequently represented in major floodplains". Similarly, Munson (1980) noted in her investigations of the Patoka River drainage that the settlement pattern was characterized by moderately dispersed site locations that focused on terraces and low ridgespur zones. These patterns for the Wabash and Ohio drainage basins are evident from Paleoindian through Middle to Late Archaic.





Middle Archaic (6000–3500 BC)

A shift to exploitation of a fuller range of habitats and a logistical subsistence strategy is recognized during the Middle Archaic period (Stafford 1994; Stafford et al. 1988; Stafford et al. 2000). These changes are indicated by the presence of a wider range of plant and animal remains, evidence of larger occupations, and the occurrence of more diverse artifact assemblages, including ground stone tool forms, which first appear around this time (Stafford et al. 2000). These changes during this period are most likely responses to shifting environmental regimes, increasing populations, and technological advances.

Late Archaic (3500–1000 BC)

After 3000 BC, a shift in settlement and mobility strategies is noted, possibly related to the changing climatic regimen in the region (i.e., Brown and Vierra 1983). The full development of a logistically organized hunting and gathering settlement-subsistence system is established throughout much of the Ohio Valley by this time (Anslinger et al. 1994:23–25). In addition to a change in settlement and subsistence during the Late Archaic, population increase is also suggested. For example, more Late Archaic sites than Early and Middle Archaic sites are recorded in the region (Stafford et al. 1988). This increase in site occurrence may be related to changing population levels during the Archaic period but may also be a result of site survey biases. For example, many site deposits with earlier components may be inaccessible to traditional survey methods, as they may possibly be buried in deep stream alluvium. A better understanding of the site types of this time period from the region is required for testing the current Late Archaic settlement-subsistence model and temporal placement.

Woodland Period (1000 BC-AD 900)

The Woodland period, like the preceding Archaic period, is divided into three subperiods: Early Woodland (1000 BC–200 BC), Middle Woodland (200 BC–AD 400), and Late Woodland (AD 400–900). Overall, the Woodland period witnessed a continuation and elaboration of cultural practices that began during the Late Archaic. During this period of interregional dynamism, there was a trend toward more sedentary life ways, increasingly elaborate burial ceremonialism, cultivation of plant foods, and possibly stratified social organization. These trends, along with the appearance of fired ceramic vessels, mark the transition between Archaic and Woodland peoples (Griffin 1978).

Early Woodland (1000 BC-200 BC)

The Early Woodland period in Indiana is demonstrated by the Adena and early Crab Orchard phases. Evidence for the Adena in Indiana comes mostly from the north-central and east-central portions of the state and is characterized by the presence of large burial mounds containing log tombs and grave goods (e.g., Cochran 1991). Typical diagnostic artifacts from the time period include large bladed, stemmed bifaces, such as Adena and Dickson cluster hafted bifaces, as well as diagnostic cord-marked pottery.

Middle Woodland (200 BC-AD 400)

The Middle Woodland in Indiana has been considered a continuation of the Early Woodland, with more complex social interactions, evident by an increase in trade materials and a larger span of typical artifacts. Diagnostic artifacts include Snyders, Chesser, Lowe, and Steuben hafted bifaces (Justice 1987), as well as copper celts, beads, and stone platform pipes.

January 2023 Page 12 of 19



Late Woodland (AD 500–1200)

The Late Woodland in Indiana (AD 500–1200) is marked by the widespread use of arrow points and full scale agriculture. Diagnostic artifacts include Small Triangular cluster, Jack's Reef, and Raccoon side-notched hafted bifaces (Justice 1987).

<u>Late Prehistoric/Mississippian (AD 900–1650)</u>

The Late Prehistoric period of the region has been associated with Middle Mississippian cultures more readily recognized in the Mississippi River valley and the lower parts of the Ohio River valley, although Mississippian influences were seen in a much larger geographic area. The Mississippian period was characterized by a chiefdom level of sociopolitical organization and the intensive utilization of agriculturally based subsistence. Maize (*Zea mays*), beans (*Phaseolus vulgaris*), and squash (*Cucurbita* sp.) were the principal crops. Nevertheless, hunting and gathering continued to be important in many areas (Smith 1978).

Settlements were arranged in a hierarchical manner, were fortified, contained substructure mounds that were for either ceremonial purposes or dwellings for the elite and were occupied year-round. Mississippian structures were built utilizing wattle and daub construction, and the wall posts were set in trenches. Although continuously occupied villages were in the settlement system, much of the Mississippian population lived in smaller hamlets and farmsteads. These were scattered up and down not only the major rivers, but also along the secondary streams.

The Mississippian period is dated to approximately AD 1100 in the middle Ohio River area. These societies lasted until circa 350 BP Artifacts diagnostic of the Mississippian period include shell-tempered pottery, effigy pipes, and triangular points, as well as Nodena and Cahokia hafted biface forms (Justice 1987).

Historic (ca. AD 1650-1960)

The Historic period began with the arrival of the first Europeans to the region and continued well into the twentieth century. Permanent European settlements in Southern Indiana were absent until the mideighteenth century, and most historic period sites in the region date to the nineteenth or twentieth centuries. Common site types include farmsteads, residences, and historic artifact scatters.

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January 2023 Page 15 of 19

Table N-2. Summary of Archaeological Sites within the Study Area (Excluding Sites Previously Determined Ineligible for NRHP Listing).

Site #	Site Type	Time Period(s)	NRHP	Alternative(s)
Da-0070	Isolated Find	Unidentified Prehistoric	Not Assessed	RPA P
Da-0363	Lithic Scatter	Early Archaic, Late Archaic, Middle Woodland, Paleoindian	Not Assessed	RPA P
Da-0364	School	Historic	Not Assessed	RPA P
Da-0369	School	Historic	Not Assessed	R
Du-0002	Rockshelter, Burial	Unidentified Prehistoric	Not Assessed	RPA P
Du-0004	Camp	Unidentified Prehistoric	Not Assessed	RPA P
Du-0053	Lithic scatter	Unidentified Prehistoric	Not assessed	R
Du-0062	Lithic Scatter	Unidentified Prehistoric	Not Assessed	RPA P
Du-0083	Unknown	Unidentified Prehistoric	Not Assessed	R
Du-0141	Camp	Early Archaic	Not Assessed	RPA P
Du-0143	Camp	Archaic	Not Assessed	RPA P
Du-0162	Camp	Early Paleoindian, Late Archaic, Middle Woodland, Paleoindian, Terminal Late Archaic	Not Assessed	RPA P
Du-0178	Camp	Early Archaic	Not Assessed	R
Du-0182	Camp	Archaic	Not Assessed	RPA P
Du-0214	Lithic scatter	Unidentified Prehistoric	Not Assessed	RPA P
Du-0215	Lithic Scatter	Early Archaic, Early Woodland, Late Archaic, Middle Archaic	Not Assessed	RPA P
Du-0217	Lithic Scatter	Unidentified Prehistoric	Not Assessed	R
Du-0218	Lithic Scatter	Unidentified Prehistoric	Not Assessed	R
Du-0243/795	Camp	Unidentified Prehistoric	Not Assessed	RPA P
Du-0255	Lithic Scatter	Unidentified Prehistoric	Not Assessed	RPA P
Du-0266	Unknown	Unidentified Prehistoric	Not Assessed	RPA P
Du-0284	Isolate Find	Early Archaic	Not Assessed	R
Du-0285	Isolate Find	Early Archaic	Not Assessed	R
Du-0287	Lithic Scatter	Unidentified Prehistoric	Not Assessed	RPA P
Du-0323	Camp LINDIAN 12	Early Woodland, Late Archaic, Middle Woodland	Not Assessed	RPA P





Site #	Site Type	Time Period(s)	NRHP	Alternative(s)
Du-0399	Unknown	Unidentified Prehistoric	Not Assessed	RPA P
Du-0413	Lithic Scatter	Unidentified Prehistoric	Not Assessed	R
Du-0427	Lithic Scatter	Unidentified Prehistoric	Not Assessed	RPA P
Du-0461	Unknown	Unknown	Not Assessed	RPA P
Du-0465	Isolated Find	Unknown	Not Assessed	RPA P
Du-0473	Unknown	Unknown	Not Assessed	RPA P
Du-0474	Unknown	Unknown	Not Assessed	RPA P
Du-0475	Unknown	Unknown	Not Assessed	RPA P
		Early Archaic, Late Archaic,		
Du-0792	Lithic Scatter, Historic Residence	Late Archaic/Early Woodland,	Eligible	RPA P
		Early Woodland, Historic		
Du-0793	Lithic Scatter	Unidentified Prehistoric	Potentially Eligible	RPA P
D.: 004.4	Lithia Caattan	Late Archaic/Early Woodland,	Potentially	DDA D
Du-0814	Lithic Scatter	Middle Woodland	Eligible	RPA P
Du-1028	Lithic Scatter	Late Archaic/Early Woodland	Potentially eligible	RPA P
Du-1066	Lithic Scatter	Early Archaic	Potentially Eligible	RPA P
Du-1074	Lithic Scatter	Late Archaic	Potentially Eligible	RPA P
Mn-0143	Camp	Early Archaic	Not Assessed	RPA P
Mn-0157	Lithic Scatter	Archaic, Early Archaic	Not Assessed	RPA P
Mn-0158	Lithic Scatter	Unidentified Prehistoric	Not Assessed	RPA P
Mn-0159	Lithic Scatter	Middle Woodland	Not Assessed	RPA P
Mn-0160	Lithic Scatter	Unidentified Prehistoric	Not Assessed	RPA P
Mn-0161	Lithic Scatter	Unidentified Prehistoric	Not Assessed	RPA P
Mn-0182	Camp	Early Woodland, Late Archaic	Not Assessed	RPA P
Mn-0194	Isolated Find	Unidentified Prehistoric	Not Assessed	RPA P
Mn-0195	Lithic Scatter	Unidentified Prehistoric	Not Assessed	RPA P
Mn-0239	Camp	Unidentified Prehistoric	Not Assessed	RPA P
Mn-0327	Camp	Historic, Unidentified Prehistoric	Not Assessed	RPA P
Mn-0331	Lithic Scatter	Unidentified Prehistoric	Not Assessed	RPA P

January 2023 Page 17 of 19



Site #	Site Type	Time Period(s)	NRHP	Alternative(s)
Mn-0334	Lithic Scatter	Unidentified Prehistoric	Not Assessed	RPA P
Mn-0472	Lithic Scatter	Unidentified Prehistoric	Not Assessed	RPA P, R
Mn-0484	Lithic Scatter	Unidentified Prehistoric	Not Assessed	RPA P
Mn-0662	Lithic Scatter	Unidentified Prehistoric	Not Assessed	RPA P

January 2023 Page 18 of 19



Historic Cemeteries within the Study Area

Table N-3 summarizes historic cemeteries recorded in SHAARD and identified within the study area. In addition to the DHPA cemetery registry number (SHAARD ID), the historic name, type, and Alternative(s) it is along are provided for each cemetery.

Table N-3. Summary of Historic Cemeteries

SHAARD_ID	Name	Cemetery Type	Alternative(s)
CR-19-26	Bruner	Family	R, RPA P
CR-19-144	Fairmount	Community	R
CR-51-124	Fish	Family	R
CR-51-70	Goodwill	Community	RPA P
CR-51-125	Gootee	Family	RPA P, R
CR-19-92	Reed	Family	R
CR-51-88	St. Martins/Whitfield	Church	R
CR-51-89 (IHSSI #101-367-05024)	Wood Cemetery	Family	RPA P



