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5.14 Archaeology Impacts

Since the Draft Environmental Impact Statement, the following substantive changes have been made to this section:

- A description of additional survey work completed for the area of potential effects (APE) of the Refined Preferred Alternative (RPA) has been provided in **Section 5.14.2**.
- **Section 5.14.3** has been revised to summarize the results of all Phase Ia investigations conducted within the APE.
- **Table 5.14-2** has been modified to show those sites identified through the Phase Ia investigations in the APE.
- **Section 5.14.4** has been revised to reflect the completion of archaeological surveys, including the number of sites recommended for additional study if impacted by the project.
- **Section 5.15.5** has been modified to summarize the results of archaeological surveys, to identify the number of sites recommended for additional study, and to discuss the Memorandum of Agreement (MOA).

5.14.1 Introduction

Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended, mandates that federal agencies, or their designees, consider the effects of their actions on historic properties. The definition of historic properties includes prehistoric or historical sites or districts that are on or may be eligible for listing in the National Register of Historic Places (NRHP). Tier 2 studies for the I-69 Evansville to Indianapolis project include the identification of archaeological resources (36 CFR 800.4), the assessment of adverse effects on archaeological resources (36 CFR 800.5), and consultation to develop methods to avoid, minimize, or mitigate any adverse effects (36 CFR 800.6).

Per 36 CFR 800.4(b)(2), Tier 2 archaeological research and evaluation was conducted in a series of steps, beginning with a literature review and file research as part of the preliminary alternatives screening process described in **Section 3.4**. The final step was completion of a Phase Ia investigation of the area of potential effects (APE) of the Refined Preferred Alternative (RPA). The results of that research and evaluation are provided in this section.

The current study is in compliance with the Indiana Historic Preservation Act (IC-14-21-1). The archaeological research and investigations have been conducted by, or directly supervised by professional archaeologists meeting the standards set forth by the U.S. Department of the Interior

detailed in 36 CFR Part 61 and the Secretary of Interior's *Standards and Guidelines for Archaeology and Historic Preservation* (48 FR 44716).

I-69 Section 6 entails upgrading an existing multi-lane, divided transportation facility to a full freeway design. Most of the right of way used for the I-69 Section 6 project already is devoted to transportation use. Accordingly, the impacts to most natural and cultural resources in I-69 Section 6 will be lessened.

5.14.2 Methodology

In the I-69 Tier 1 study, potentially eligible historical and archaeological resources were evaluated using eligibility criteria established under the NHPA (see **Section 5.13.3** for NRHP Criteria). The purpose of the Tier 1 research was to determine the "likely presence" of historical and archaeological resources within the APE, in accordance with 36 CFR 800.4(b)(2). The description and results of the Tier 1 evaluation are included in the Tier 1 FEIS Chapter 5 and Appendix P. That appendix includes a Memorandum of Agreement (MOA) between FHWA and the Indiana State Historic Preservation Officer (SHPO) identifying the corridor known as Alternative 3C as the preferred alternative, and agreeing to the steps that would be taken to continue the Section 106 process in Tier 2. Tier 1 Appendix P also includes FHWA documentation of Section 106 finding of potential adverse effects (800.11(e) documentation), and the Section 106 Compliance Plan, which provides a framework for completing the consultation process.

The Tier 2 Section 106 archaeological research has been phased to appropriately correspond with the project National Environmental Policy Act (NEPA) process. The *Draft Guidebook for Indiana Historic Sites and Structures Inventory—Archaeological Sites* (DHPA 2008), whose stipulations have been followed for these studies, define the phases of archaeological research summarized below.

- Phase Ia is a surface survey and visual inspection of the soil when ground surface visibility and survey conditions are adequate. When ground surface visibility and survey conditions are not adequate, shovel probes, cores, and/or auguring techniques are used to discover site evidence at or near the surface of the investigated location.
- Phase Ib is an intensive survey with the use of controlled surface collections, piece plotting, or subsurface sampling. For historical sites, it can also consist of deed searches and historical research to gather needed information for assessing the potential importance of those sites if this could not be determined at the Phase Ia level.
- Phase Ic is subsurface reconnaissance to locate archaeological sites buried in alluvial, colluvial, or eolian landforms.
- Phase II testing is conducted for sites identified through Phase I investigations that are potentially eligible for the NRHP. Sites are tested to determine the vertical extent of the site, the presence of subsurface cultural features (i.e. hearths, trash/storage pits, living surfaces), the nature and context of deposits, and extent of disturbance, if any. Field

research is conducted through the controlled excavation of test units (usually measuring between 1 meter x 1 meter and 2 meters x 2 meters). Testing may also involve the stripping of topsoil in areas to identify cultural features. Sites determined eligible for NRHP listing are recommended for avoidance or mitigation.

- Phase III projects are designed to recover data from significant archaeological sites that cannot be avoided. These projects involve large-scale excavations and recovery efforts to mitigate adverse effects on a site. Mitigation plans are developed to determine the methodology and research design for the project.

The Tier 2 research for the I-69 Section 6 corridor included literature review, background research, and site file research at the Indiana Department of Natural Resources (IDNR)-Division of Historic Preservation and Archaeology (DHPA) and other pertinent repositories. Previously recorded archaeological sites and previously conducted studies were identified within a 1.5-mile radius of the five alignments in the preliminary alternatives screening process. One of these alignments was Preliminary Alternative C, which used the SR 37 alignment. See **Section 3.4**. The research results were reviewed by IDNR-DHPA and have been considered in the selection of the RPA.

A Phase Ia archaeological field survey for the SR 37 corridor from Indian Creek south of the SR 37/SR 39 intersection in Martinsville to north of Teeters Road in Martinsville was completed in late 2015. Since this portion of the corridor was used by all preliminary alternatives, this work was initiated before the final alignment further north had been determined. The Phase Ia report for this survey was submitted to the SHPO in February 2016. The management summary from that report is included in **Appendix M**.

The Phase Ia archaeological field survey for the remainder of the DEIS preferred alternative was conducted in the fall of 2016. Building on the earlier work, the total area surveyed extended from Indian Creek south of the SR37/39 intersection in Martinsville to I-465 in Indianapolis. The Phase Ia report for this survey was submitted to the SHPO in June 2017. The management summary from that report is included in **Appendix M**.

A third Phase Ia archaeological field survey, for additional right of way in the RPA, was conducted in July 2017. Building on the earlier work, the survey area extended from Indian Creek south of the SR37/39 intersection in Martinsville to I-465 in Indianapolis. The Phase Ia report for this survey was submitted to the SHPO on November 27, 2017. The management summary from that report is included in **Appendix M**.

SHPO's response letters to these reports (April 14, 2016; June 19, 2017; August 7, 2017; and December 20, 2017) provided concurrence and direction regarding which sites have the potential to be NRHP eligible, and sites that may need Phase Ic and/or Phase II testing prior to the Record of Decision (ROD), where possible. See **Appendix M** for copies of correspondence.

Commitments for the completion of Phase Ic and Phase II investigations and any subsequent phases of archaeological investigation have been incorporated into the MOA between FHWA, the Indiana SHPO, and INDOT that is included in **Appendix M**. If the results of this additional

testing show that Phase III data recovery is warranted, that work will be completed before construction on the project can begin at that site.

Table 5.14-1 summarizes the phases and schedule for accomplishing the archaeological work in I-69 Section 6.

Table 5.14-1: Phases of Archaeological Research in Section 6

Phase	Work Completed	Section 106 Step	Schedule	Deliverable
Ia literature review	Archival research and site files check	Research design and identification	Before DEIS (inform selection of preferred alternative)	Technical report
Ia field research	Survey of APE of preferred alternative right of way	Identification	Before FEIS	Technical report/ results summarized in FEIS
Ic	Subsurface reconnaissance	Identification of buried sites	Before FEIS when possible	Technical report/ results summarized in FEIS where possible
II	Site evaluation research	Determination of NRHP eligibility	Before ROD when possible	Technical report/ results summarized in FEIS where possible
MOA	Plan outlining FHWA responsibilities and schedule for Section 106 completion	Mitigation of Adverse Effects	In FEIS	MOA
III	Data recovery of site	Mitigation of Adverse Effects	Following ROD but before construction	Technical report issued for each site subject to data recovery

5.14.2.1 Consultation Process

Section 106 consultation pertaining to archaeological resources was conducted in conjunction with consultation for aboveground resources. The timeline and results of the consultation process for I-69 Section 6 are detailed in **Section 5.13.2.1**. Topics specific to archaeological resources discussed at the I-69 Section 6 consulting party meetings focused on the phased research approach. Consulting parties were informed that the Phase Ia surveys had been started and would be completed in accordance with INDOT's standard practice for NEPA studies (described in the *Indiana Department of Transportation Cultural Resources Manual* (INDOT March 2014), and promulgated by INDOT. Documentation associated with consulting party meetings, including invitations, agenda, and minutes, is contained in **Appendix M**.

5.14.2.2 Area of Potential Effects

One of the first steps in the Section 106 process is to define the APE. The APE is "the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties. The area of potential effects is influenced by the scale and nature of an undertaking…" [36 CFR 800.16(d)]. The APE for archaeological resources, per 36 CFR 800.16(d), has been defined, through consultation with Indiana SHPO, as the right of way for the RPA.

5.14.2.3 Research Methods

As described in **Section 5.14.2**, Tier 2 archaeological studies for I-69 Section 6 were conducted in a series of steps, beginning with a literature search, IDNR-DHPA site files check, and archival research. Site recordation forms for all sites were copied, and site locations were georeferenced and entered into the I-69 Section 6 project geographic information system (GIS). The Phase Ia field investigations employed a combination of field methods, as described below.

Alternatives C1 through C4 and the RPA include the areas currently occupied by SR 37. Nearly all the existing SR 37 right of way has been heavily disturbed by roadway construction and maintenance activities that would have destroyed archaeological deposits. The field methods used in the existing SR 37 corridor confirm prior disturbance and comply with field methods approved by the DHPA (2008) and the INDOT (2014). These methods are described Phase Ia archaeological reports summarized in **Appendix M**.

Shovel testing

This method was utilized in areas where ground surface visibility was less than 30 percent. This method consists of excavating 30-centimeter-diameter shovel tests at 10-meter or 15-meter intervals (the intervals were decreased to five meters when delineating the perimeter of an archaeological site). Intervals of 30 meters were used in instances to confirm existing disturbances in settings such as road shoulders and residential landscaped yards. Shovel tests were excavated to a depth that penetrated subsoil by a depth of 10 centimeters or to the maximum possible depth. The fill from these shovel tests was screened through 0.25-inch hardware cloth and all artifacts encountered were collected and provenienced to the shovel test and in relation to the soil horizons.

A record was kept for all shovel tests excavated. This record includes soil profile, soil texture, Munsell soil color and presence/absence of cultural materials. Landform boundaries, negative shovel probes or study area limits determined recorded site boundaries. In areas of subsurface disturbance, the interval between shovel tests was increased or soil coring was substituted at the discretion of the field supervisor.

Surface survey/collection

In areas where the ground surface permitted at least 30 percent visibility and survey conditions were adequate (such as in tilled fields), surface collection/survey was utilized. In most of these areas, the tilled fields exhibited ground surface visibility exceeding 80 percent. This method consists of visually examining the ground surface at a maximum of 10-meter intervals. Once cultural materials were discovered, intervals no greater than five meters were utilized in the site area and its vicinity. Typically, one or more shovel tests were excavated in the sites identified during the surface collection to better characterize soil conditions and artifact distributions in those site areas.

Visual inspection

Areas of obvious physical disturbance and steep slopes were visually inspected. In undeveloped areas, this consisted of a walkover at 10-meter intervals.

Field notes and map notations were employed to record area designations, field conditions, located sites and methods of investigation. Similar notes were taken for each site and include observations, methods of investigation, site size, and slope gradient and direction. Notes were retained for all shovel probes, and include information on Munsell soil color, soil texture, presence/absence of cultural materials, and stratigraphy. All artifacts located in the field were bagged, with the date and provenience marked on the bag. At least one shovel test was excavated at every site surveyed, even if it was discovered by surface survey, in an effort to gain information on site stratigraphy. All site boundaries were recorded by GPS to sub-meter accuracy. The results of the Phase Ia investigations are presented in **Section 5.14.3**.

5.14.3 Summary of Archaeological Resources

The 2015–2016 Phase Ia archaeological investigations, between Indian Creek and Teeters Road identified seven previously unrecorded archaeological sites. The sites included: three prehistoric isolated finds, one prehistoric site, two historical sites, and one multicomponent prehistoric/historical site. One previously unrecorded site, a historical school, was located immediately adjacent to the northern end of the survey area but was not intensively investigated. One previously recorded Late Prehistoric village site, the Martinsville Plaza site (12Mg52), was mapped within the APE but the recorded area was found to be disturbed and no cultural material was observed. The nine sites examined during the 2015–2016 archaeological investigations are summarized in **Table 5.14-2**.

The 2016–2017 Phase Ia archaeological investigations supplemented the 2015–2016 investigations to include all the right of way of the DEIS preferred alternative, from Indian Creek in Martinsville to I-465 in Indianapolis. This investigation identified 26 previously unrecorded archaeological sites and resurveyed 32 known archaeological sites. The previously unrecorded sites included five prehistoric isolated finds, 10 prehistoric sites, one historical isolated find, five historical sites, and five multicomponent prehistoric/historical sites. This survey also revisited 32

previously recorded sites, including the historical school (12Mg556) identified during the 2015–2016 survey. The previously recorded sites included six prehistoric isolated finds, 21 prehistoric sites, two historical sites, and three multicomponent prehistoric/historical sites. These sites are summarized in **Table 5.14-2.**

The July 2017 Phase Ia archaeological investigation of additional right of way for the RPA identified six previously unrecorded archaeological sites and resurveyed 18 known archaeological sites. The previously unrecorded sites included two prehistoric isolated finds, two prehistoric sites, and two historical sites. The investigation also revisited portions of 18 previously recorded sites that were investigated during the 2015–2016 and 2016–2017 surveys. They included two prehistoric isolated finds, 13 prehistoric sites, two historical sites and one multicomponent historical and prehistoric sites. These sites are summarized in **Table 5.14-2.**

As a result of the 2015–2016, 2016–2017, and 2017 surveys, sites 12Mg327, 12Mg430, 12Mg431, 12Mg551–12Mg558, 12Mg562, 12Mg563, 12Mg569–12Mg579, 12Jo10, 12Jo43, 12Jo157, 12Jo159–12Jo161, 12Jo359–12Jo362, 12Jo486–12Jo488, 12Jo580, 12Jo703–12Jo709, 12Jo715, 12Jo716, 12Jo718, 12Ma174–12Ma176, 12Ma241, 12Ma334, and 12Ma1007–12Ma1009 were recommend as not eligible for the NRHP.

There is insufficient information regarding sites 12Mg52, 12Mg334, 12Mg561, 12Mg571, 12Jo17, 12Jo42, 12Jo44, 12Jo62, 12Jo489, 12Ma52, 12Ma170, and 12Ma171 to determine whether they are eligible for inclusion in the NRHP. However, the portions of the sites that lie within the project area did not appear to contain significant archaeological deposits, and no further archaeological investigations were necessary. The portions of these sites outside the project area must be avoided or else further archaeological investigations must be conducted. In addition, site 12Mg525, an unevaluated resource, is in close proximity to the project, but lies outside the APE. Site 12Mg525 will be avoided by all project activities or else subjected to further archaeological investigations.

There is insufficient information regarding sites 12Mg564–12Mg568 to determine whether they are eligible for inclusion in the NRHP. These sites must be avoided by ground disturbing activities or else subjected to Phase II evaluative investigations. If the sites cannot be avoided, a work plan for the Phase II investigations will be submitted to and approved by the SHPO. A report of the investigations will be submitted to the SHPO for review and comment.

The 2015–2016 Phase Ia survey identified one area south of Martinsville near Indian Creek in the White River valley with the potential to contain subsurface deposits. The 2016–2017 survey identified two additional locales in the White River Valley near Crooked Creek (three separate areas) and Honey Creek. If construction will occur at these locations, a work plan for Phase Ic investigations will be submitted to and approved by the SHPO. A report of the investigations will be submitted to the SHPO for review and comment.

Two cemeteries, the Old Mount Olive Cemetery (CR-55-64) and Bell Cemetery (CR-49-57) are within 100 feet of the project area. A cemetery development plan will be completed for each cemetery per IC 14-21-1-26.5. The plans will be submitted to the DHPA for approval.

Table 5.14-2: Summary of Archaeological Sites Investigated

Site No.	Artifacts	Site Type	Site Size (Meters)	Land-Form	Soils	Recommendation
2015–2016 Archaeological Survey (February 2016 Report)						
12Mg52 (resurvey)	None	Late Prehistoric Village	305 x 305 m (1000 x 1000 ft.)	Upland Ridge	Princeton fine sandy loam	Portion within survey corridor not eligible – No further work within survey corridor
12Mg551	12 brick fragments 5 whiteware sherds 3 stoneware sherds 1 porcelain sherd 6 window glass 4 vessel glass 2 wire nails	Nineteenth–Twentieth Century Historical Artifact Scatter	9 x 30 m (30 x 90 ft.)	Upland Ridge	Princeton fine sandy loam	Not eligible – No further work
12Mg552	9 lithic debitage	Unidentified Prehistoric Artifact Scatter	17 x 22 m (56 x 72 ft.)	Upland Ridge	Pike silt loam	Not eligible – No further work
12Mg553	12 brick fragments 1 ironstone sherd 6 whiteware sherds 1 redware sherd 1 yellowware sherd 4 window glass 3 vessel glass 3 cut nails 2 unidentified metal 1 asphalt 2 lithic debitage	Nineteenth Century Historical and Unidentified Prehistoric Artifact Scatter	15 x 50 m (50 x 165 ft.)	Upland Ridge	Pike silt loam	Not eligible – No further work
12Mg554	1 projectile point	Early Archaic Isolated Find	5 x 5 m (16 x 16 ft.)	Upland Ridge	Pike silt loam	Not eligible – No further work
12Mg555	1 porcelain sherd 2 vessel glass 1 aluminum pull tab	Twentieth Century House	30 x 50 m (100 x 150 ft.)	Upland Ridge	Parke silt loam	Not eligible – No further work
12Mg556	None	Late Nineteenth–Twentieth Century Historical School	15 x 22 m (50 x 72 ft.)	Upland Ridge	Pike silt loam	Not evaluated – Further investigation
12Mg557	1 projectile point	Late Archaic Isolated Find	5 x 5 m (16 x 16 ft.)	Upland Ridge	Princeton fine sandy loam	Not eligible – No further work
12Mg558	1 lithic debitage	Unidentified Prehistoric Isolated Find	5 x 5 m (16 x 16 ft.)	Upland Ridge	Pike silt loam	Not eligible – No further work
2016–2017 Archaeological Survey (June 2017 Report)						
12Mg327 (resurvey)	None	Twentieth Century Farmstead	41 x 50 m (133 x 164 ft.)	Floodplain Ridge	Genesee silt loam	Not eligible – No further work
12Mg334 (resurvey)	None	Late Archaic Lithic Scatter	20 m x 50 m (65 x 164	Outwash Plain	Martins-ville loam	Portion within survey corridor not eligible –

Site No.	Artifacts	Site Type	Site Size (Meters)	Land-Form	Soils	Recommendation
			ft.)			No further work within survey corridor
12Mg430 (resurvey)	None	Unidentified Prehistoric Isolated Find	5 x 5 m (16 x 16 ft.)	Outwash Plain	Martins-ville loam	Not eligible – No further work
12Mg431 (resurvey)	None	Unidentified Prehistoric Lithic Scatter	1 x 1 m (3 x 3 ft.)	Outwash Plain	Martins-ville loam	Not eligible – No further work
12Mg556 (resurvey)	2 brick fragments 3 ironstone sherds 1 stoneware sherd 1 redware sherd 7 window glass 1 glass marble 21 vessel glass 1 metal buttonhook 1 cut nail 1 nail 2 unidentified metal 1 coal 2 slag 1 plastic button 1 unidentified plastic	Late Nineteenth–Twentieth Century Historical School	27 x 30 m (88 x 99 ft.)	Upland Ridge	Pike silt loam	Not eligible – No further work
12Mg561	5 lithic debitage 12 brick fragments 2 porcelain sherds 2 ironstone sherds 1 whiteware sherd 14 window glass 1 lamp chimney glass 21 vessel glass 2 cut nails 4 wire nails 2 screws 1 unidentified metal	Unidentified Prehistoric Lithic Scatter and Twentieth Century Farmstead	65 x 100 m (213 x 330 ft.)	Terrace Ridge	Martins-ville silt loam	Portion within survey corridor not eligible – No further work within survey corridor
12Mg562	2 lithic debitage	Unidentified Prehistoric Lithic Scatter	5 x 5 m (16 x 16 ft.)	Upland	Princeton fine sandy loam	Not eligible – No further work
12Mg563	1 projectile point/drill	Late Archaic Isolated Find	5 x 5 m (16 x 16 ft.)	Upland	Princeton fine sandy loam	Not eligible – No further work
12Mg564	6 lithic debitage 1 battered rock 20 fire-cracked rock	Unidentified Prehistoric Lithic Scatter	20 x 50 m (65 x 164 ft.)	Terrace	Genesee silt loam	Unevaluated – Avoidance or Phase II Testing
12Mg565	12 lithic debitage 1 lithic drill 1 biface fragment 9 fire-cracked rock	Unidentified Prehistoric Lithic Scatter	18 x 55 m (59 x 180 ft.)	Ridge Spur	Princeton fine sandy loam	Unevaluated – Avoidance or Phase II Testing
12Mg566	4 lithic debitage 15 fire-cracked rock	Unidentified Prehistoric Lithic Scatter	12 x 65 m (39 x 213 ft.)	Ridge Spur	Princeton fine sandy loam	Unevaluated – Avoidance or Phase II Testing

Site No.	Artifacts	Site Type	Site Size (Meters)	Land-Form	Soils	Recommendation
12Mg567	2 lithic debitage 9 fire-cracked rock	Unidentified Prehistoric Lithic Scatter	10 x 20 m (33 x 66 ft.)	Terrace	Shoals silt loam	Unevaluated – Avoidance or Phase II Testing
12Mg568	2 lithic debitage 1 pottery sherd 3 fire-cracked rock	Woodland Artifact Scatter	15 x 35 m (50 x 115 ft.)	Ridge Spur	Princeton fine sandy loam	Unevaluated – Avoidance or Phase II Testing
12Mg569	1 Raddatz projectile point 1 whiteware sherd	Middle Archaic and Nineteenth – Twentieth Century Artifact Scatter	5 x 10 m (16 x 33 ft.)	Ridge Spur	Parke silt loam	Not eligible – No further work
12Mg570	1 lithic debitage	Unidentified Prehistoric Isolated Find	5 x 5 m (16 x 16 ft.)	Terrace	Martins-ville loam	Not eligible – No further work
12Mg571	3 brick fragments 12 ironstone sherds 9 whiteware sherds 2 porcelain sherds 4 stoneware sherds 9 window glass 1 chimney glass 1 glass canning lid liner 1 glass insulator 1 unidentified glass 13 vessel glass 2 cut nails 1 metal radiator cap 2 mussel shell	Twentieth Century Artifact Scatter	18 x 80 m (59 x 262 ft.)	Terrace	Ockley loam	Portion within survey corridor not eligible – No further work within survey corridor
12Mg572	1 Kramer projectile point 2 stoneware sherds 9 window glass 2 vessel glass 2 metal bolts 1 unidentified metal	Early Woodland Isolated Find and Nineteenth to Twentieth Century Artifact Scatter	27 m x 118 m (89 x 390 ft.)	Ridge	Gilpin silt loam	Not eligible – No further work
12Mg573	1 biface fragment 3 lithic debitage	Unidentified Prehistoric Lithic Scatter	15 m x 70 m (50 x 230 ft.)	Floodplain Rise	Genesee silt loam	Not eligible – No further work
12Mg574	4 lithic debitage 1 uniface	Unidentified Prehistoric Lithic Scatter	20 x 35 m (65 x 116 ft.)	Floodplain Rise	Genesee silt loam	Not eligible – No further work
12Mg575	2 lithic debitage	Unidentified Prehistoric Lithic Scatter	1 x 1 m (3 x 3 ft.)	Upland	Miami silt loam	Not eligible – No further work
12Mg576	1 lithic debitage	Unidentified Prehistoric Isolated Find	5 x 5 m (16 x 16 ft.)	Terrace	Pits	Not eligible – No further work
12Mg577	1 lithic debitage 1 uniface	Unidentified Prehistoric Lithic Scatter	5 x 10 m (16 x 33 ft.)	Upland	Fincastle silt loam	Not eligible – No further work
12Jo10 (resurvey)	None	Woodland Camp	120 x 150 m (394 x	Outwash Plain	Ockley loam	Portion within survey corridor not eligible –

Site No.	Artifacts	Site Type	Site Size (Meters)	Land-Form	Soils	Recommendation
			492 ft.)			No further work within survey corridor
12Jo17 (resurvey)	None	Unidentified Prehistoric Lithic Scatter	Unknown	Outwash Plain	Fox loam	Portion within survey corridor not eligible – No further work within survey corridor
12Jo42 (resurvey)	1 biface	Archaic/ Woodland Lithic Scatter	244 x 305 m (800 x 1000 ft.)	Outwash Plain	Fox loam	Portion within survey corridor not eligible – No further work within survey corridor
12Jo43 (resurvey)	None	Early Archaic Lithic Scatter	85 x 141 m (279 x 463 ft.)	Outwash Plain	Fox loam	Not eligible – No further work
12Jo44 (resurvey)	None	Late Paleoindian/ Late Archaic Lithic Scatter	66 x 158 m (218 x 517 ft.)	Outwash Plain	Fox loam	Portion within survey corridor not eligible – No further work within survey corridor
12Jo62 (resurvey)	1 lithic debitage	Unidentified Prehistoric Camp	230 x 320 m (754 x 1050 ft.)	Outwash Plain	Ockley loam	Portion within survey corridor not eligible – No further work within survey corridor
12Jo157 (resurvey)	None	Unidentified Prehistoric Camp	32 x 36 m (105 x 118 ft.)	Outwash Plain	Ockley loam	Not eligible – No further work
12Jo159 (resurvey)	None	Unidentified Prehistoric Isolated Find	5 x 10 m (16 x 33 ft.)	Outwash Plain	Ockley loam	Not eligible – No further work
12Jo160 (resurvey)	None	Unidentified Prehistoric Lithic Scatter	40 x 100 m (131 x 328 ft.)	Terrace	Ockley loam	Not eligible – No further work
12Jo161 (resurvey)	None	Unidentified Prehistoric Lithic Scatter	1 x 10 m (3 x 33 ft.)	Terrace	Ockley loam	Not eligible – No further work
12Jo359 (resurvey)	None	Unidentified Prehistoric Isolated Find	5 x 5 m (16 x 16 ft.)	Outwash Plain	Fox loam	Not eligible – No further work
12Jo360 (resurvey)	None	Unidentified Prehistoric Isolated Find	5 x 5 m (16 x 16 ft.)	Outwash Plain	Fox loam	Not eligible – No further work
12Jo361 (resurvey)	None	Unidentified Prehistoric Isolated Find	5 x 5 m (16 x 16 ft.)	Outwash Plain	Fox loam	Not eligible – No further work
12Jo362 (resurvey)	None	Unidentified Prehistoric and Nineteenth – Twentieth Century Artifact Scatter	7 x 15 m (25 x 50 ft.)	Outwash Plain	Fox loam	Not eligible – No further work
12Jo486 (resurvey)	None	Unidentified Prehistoric Lithic Scatter	2 x 5 m (6 x 16 ft.)	Terrace	Ockley loam	Not eligible – No further work
12Jo487	4 whiteware sherds	Unidentified	40 x 75 m	Outwash	Fox loam	Not eligible – No

Site No.	Artifacts	Site Type	Site Size (Meters)	Land-Form	Soils	Recommendation
(resurvey)	2 stoneware sherds 1 vessel glass	Prehistoric and Nineteenth – Twentieth Century Artifact Scatter	(131 x 246ft.)	Plain		further work
12Jo488 (resurvey)	None	Late Woodland Lithic Scatter and Nineteenth – Twentieth Century Artifact Scatter	50 x 120 m (164 x 394 ft.)	Outwash Plain	Ockley loam	Not eligible – No further work
12Jo489 (resurvey)	5 lithic debitage	Middle Archaic/ Middle Woodland Lithic Scatter	45 x 260 m (148 x 853 ft.)	Outwash Plain	Ockley loam	Portion within survey corridor not eligible – No further work within survey corridor
12Jo580 (resurvey)	None	Unidentified Prehistoric Lithic Scatter	20 x 20 m (66 x 66 ft.)	Outwash Plain	Ockley loam	Not eligible – No further work
12Jo703	7 ironstone sherds 3 whiteware sherds 1 porcelain sherd 4 stoneware sherds 1 window glass 8 vessel glass 1 tableware glass 1 unidentified glass 1 wire nail 1 nail 1 metal handle	Late Nineteenth – Early Twentieth Century Artifact Scatter	21 x 49 m (68 x 160 ft.)	Floodplain rise	Fox loam	Not eligible – No further work
12Jo704	1 ironstone sherd 1 stoneware sherd	Late Nineteenth – Early Twentieth Century Artifact Scatter	4 x 9 m (14 x 31 ft.)	Floodplain rise	Fox loam	Not eligible – No further work
12Jo705	1 projectile point fragment	Unidentified Prehistoric Isolated Find	5 x 5 m (16 x 16 ft.)	Terrace	Fox loam	Not eligible – No further work
12Jo706	6 lithic debitage 6 ironstone sherds 1 whiteware sherd 1 stoneware sherd 1 unidentified porcellaneous sherd 11 vessel glass 1 unidentified glass 6 window glass 4 wire nails 1 nail 2 wire 1 metal wrench 1 metal rivet 1 metal gas fixture 1 unidentified metal	Unidentified Prehistoric Lithic Scatter and Twentieth Century Farm	113 x 166 m (371 x 545 ft.)	Terrace	Fox complex, Fox loam, Ockley loam	Not eligible – No further work
12Jo707	1 ironstone sherd	Nineteenth – Twentieth Century Isolated Find	5 x 5 m (16 x 16 ft.)	Terrace	Ockley loam	Not eligible – No further work

Site No.	Artifacts	Site Type	Site Size (Meters)	Land-Form	Soils	Recommendation
12Jo708	1 lithic core 1 lithic debitage 2 brick fragments 5 ironstone sherds 5 whiteware sherds 1 redware sherd 6 stoneware sherds 10 window glass 26 vessel glass 3 lamp chimney glass 34 cut nails 2 wire nails 2 nails 1 fence staple 1 metal spring 1 cupric token 1 slag	Unidentified Prehistoric Lithic Scatter and Late Nineteenth –Early Twentieth Century Artifact Scatter	24 x 32 (78 x 105 ft.)	Upland	Miami silt loam	Not eligible – No further work
12Jo709	1 ironstone sherd 1 window glass 1 vessel glass 1 nail	Late Nineteenth – Early Twentieth Century Artifact Scatter	7 x 17 m (23 x 56 ft.)	Floodplain rise	OckleyOckely loam	Not eligible – No further work
12Ma52 (resurvey)	None	Unidentified Prehistoric Village	210 x 275 m (689 x 902 ft.)	Floodplain	Genesee silt loam	Portion within survey corridor not eligible – No further work within survey corridor
12Ma170 (resurvey)	1 Kirk Stemmed Cluster projectile point	Early Archaic Camp	100 x 250 m (328 x 820 ft.)	Upland	Crosby silt loam	Portion within survey corridor not eligible – No further work within survey corridor
12Ma171 (resurvey)	1 fire-cracked rock	Late Woodland/ Mississippian Camp	35 x 145 m (115 x 475 ft.)	Upland	Brookston silty clay loam	Portion within survey corridor not eligible – No further work within survey corridor
12Ma174 (resurvey)	None	Unidentified Prehistoric Lithic Scatter	85 x 150 m (279 x 492 ft.)	Outwash plain	Crosby silt loam	Portion within survey corridor not eligible – No further work within survey corridor
12Ma175 (resurvey)	None	Unidentified Prehistoric Isolated Find	5 x 5 m (16 x 16 ft.)	Outwash plain	Crosby silt loam	Portion within survey corridor not eligible – No further work within survey corridor
12Ma176 (resurvey)	None	Unidentified Prehistoric Camp	75 x 135 m (246 x 443 ft.)	Outwash plain	Fox loam	Not eligible – No further work
12Ma241 (resurvey)	None	Unidentified Prehistoric Camp	225 x 1700 m (738 x 5580 ft.), in U-shape	Upland	Sleeth loam	Portion within survey corridor not eligible – No further work within survey corridor
12Ma334 (resurvey)	None	Unidentified Prehistoric Lithic Scatter	30 x 30 m (100 x 100 ft.)	Terrace	Fox loam	Not eligible – No further work

Site No.	Artifacts	Site Type	Site Size (Meters)	Land-Form	Soils	Recommendation
12Ma1007	1 Kirk Corner Notched Cluster projectile point	Early Archaic Isolated Fine	5 x 5 m (16 x 16 ft.)	Upland	Fox complex	Not eligible – No further work
12Ma1008	3 ironstone sherds 2 stoneware sherds 1 window glass 1 vessel glass	Twentieth Century Farmstead	86 x 132 m (282 x 433 ft.)	Upland	Ockley silt loam	Not eligible – No further work
July 2017 Archaeological Survey (September 2017 Report)						
12Mg52 (resurvey)	None	Late Prehistoric Village	305 x 305 m (1000 x 1000 ft.)	Terrace	Princeton fine sandy loam	Portion within survey corridor not eligible – No further work within survey corridor
12Mg567 (resurvey)	3 fire-cracked rock	Unidentified Prehistoric Lithic Scatter	10 x 20 m (33 x 66 ft.)	Terrace	Shoals silt loam	Unevaluated – Avoidance or Phase II Testing
12Mg571 (resurvey)	1 ironstone sherds 3 stoneware sherds 1 glass canning lid liner	Twentieth Century Artifact Scatter	25 x 100 m (82 x 328ft.)	Terrace	Ockley loam	Portion within survey corridor not eligible – No further work within survey corridor
12Mg574 (resurvey)	None	Unidentified Prehistoric Lithic Scatter	20 x 35 m (65 x 116 ft.)	Floodplain Rise	Genesee silt loam	Not eligible – No further work
12Mg578	6 debitage	Unidentified Prehistoric Lithic Scatter	42 x 45 m (138 x 148 ft.)	Terrace	Fox loam	Not eligible – No further work
12Mg579	1 Merom point	Late Archaic Isolated Find	5 x 5 m (16 x 16 ft.)	Terrace	Ockley loam	Not eligible – No further work
12Jo42 (resurvey)	None	Archaic/ Woodland Lithic Scatter	244 x 305 m (800 x 1000 ft.)	Outwash Plain	Fox loam	Portion within survey corridor not eligible – No further work within survey corridor
12Jo43 (resurvey)	None	Early Archaic Lithic Scatter	85 x 141 m (279 x 463 ft.)	Outwash Plain	Fox loam	Not eligible – No further work
12Jo44 (resurvey)	None	Late Paleoindian/ Late Archaic Lithic Scatter	66 x 158 m (218 x 517 ft.)	Outwash Plain	Fox loam	Portion within survey corridor not eligible – No further work within survey corridor
12Jo62 (resurvey)	None	Unidentified Prehistoric Camp	230 x 320 m (754 x 1050 ft.)	Outwash Plain	Ockley loam	Portion within survey corridor not eligible – No further work within survey corridor
12Jo161 (resurvey)	None	Unidentified Prehistoric Lithic Scatter	1 x 10 m (3 x 33 ft.)	Terrace	Ockley loam	Not eligible – No further work
12Jo360 (resurvey)	None	Unidentified Prehistoric Isolated Find	5 x 5 m (16 x 16 ft.)	Outwash Plain	Fox loam	Not eligible – No further work
12Jo708	1 whiteware sherd	Unidentified	34 x 45	Upland	Miami silt	Not eligible – No

Site No.	Artifacts	Site Type	Site Size (Meters)	Land-Form	Soils	Recommendation
(resurvey)	4 ironstone sherd 5 window glass 2 vessel glass 5 wire nails 4 cut nails 3 wire 1 faunal bone	Prehistoric Lithic Scatter and Late Nineteenth –Early Twentieth Century Artifact Scatter	(111 x 148 ft.)		loam	further work
12Jo715	1 scraper	Unidentified Prehistoric Isolated Find	5 x 5 m (16 x 16 ft.)	Terrace	Ockley loam	Not eligible – No further work
12Jo716	4 debitage	Unidentified Prehistoric Lithic Scatter	11 x 14 m (36 x 46 ft.)	Terrace	Ockley loam	Not eligible – No further work
12Jo718	1 vessel glass 1 wire nail 1 metal fragment	Twentieth Century Artifact Scatter	5 x 5 m (16 x 16 ft.)	Terrace	Fox loam	Not eligible – No further work
12Ma170 (resurvey)	None	Early Archaic Camp	100 x 250 m (328 x 820 ft.)	Upland	Crosby silt loam	Portion within survey corridor not eligible – No further work within survey corridor
12Ma171 (resurvey)	None	Late Woodland/ Mississippian Camp	35 x 145 m (115 x 475 ft.)	Upland	Brookston silty clay loam	Portion within survey corridor not eligible – No further work within survey corridor
12Ma174 (resurvey)	None	Unidentified Prehistoric Lithic Scatter	85 x 150 m (279 x 492 ft.)	Outwash plain	Crosby silt loam	Not eligible – No further work
12Ma175 (resurvey)	None	Unidentified Prehistoric Isolated Find	5 x 5 m (16 x 16 ft.)	Outwash plain	Crosby silt loam	Not eligible – No further work
12Ma241 (resurvey)	None	Unidentified Prehistoric Camp	225 x 1700 m (738 x 5580 ft.), in U-shape	Upland	Sleeth loam	Not eligible – No further work
12Ma1008 (resurvey)	None	Twentieth Century Farmstead	86 x 132 m (282 x 433 ft.)	Upland	Ockley silt loam	Not eligible – No further work
12Ma1009	None	Twentieth Century Farmstead	45 x 152 m (148 x 377 ft.)	Outwash plain	Fox loam	Not eligible – No further work

5.14.4 Mitigation

Per 36 CFR 800.5(a)(1), an adverse effect is defined as a direct or indirect alteration to NRHP or NRHP-eligible resources through a federal undertaking. Adverse effects of an undertaking, as related to archaeological resources, generally involve partial or complete destruction of a site. On February 14, 2017, FHWA signed a Finding of Effects for Section 6 of the I-69 Evansville to Indianapolis Study: Historic Properties Affected – Adverse Effect, for aboveground historic properties. The SHPO concurred with the Adverse Effect finding on April 13, 2017. See the *Identification of Effects Report* and 800.11(e) documentation in **Appendix M**.

On March 20, FHWA notified the Advisory Council on Historic Preservation (ACHP) of its findings and determinations, submitted supporting documentation, and invited ACHP's participation in consultation. On April 6, 2017, the ACHP stated, "we do not believe that our participation in the consultation to resolve adverse effects is needed" and declined to participate in consultation of the project. On July 26, 2017, the ACHP was notified of an objection to certain induvial effect findings for an aboveground historic property. The ACHP responded on August 17, 2017, that the FHWA had correctly applied the criteria of adverse effect. On November 13, 2017, the MOA was signed by all required and invited signatories. All documentation referenced herein is provided in **Appendix M.**

Based on the results of the 2015–2016, 2016–2017, and 2017 investigations, insufficient information is available regarding sites 12Mg564–12Mg568 to determine whether they are eligible for inclusion in the NRHP. These sites must be avoided by ground disturbing activities or else subjected to Phase II evaluative investigations. If the sites cannot be avoided, a work plan for the Phase II investigations will be submitted for approval by the SHPO. A report of the investigations will be submitted to the SHPO for review and comment.

There is insufficient information regarding sites 12Mg52, 12Mg334, 12Mg561, 12Mg571, 12Jo10, 12Jo17, 12Jo42, 12Jo44, 12Jo62, 12Jo489, 12Ma52, 12Ma170, 12Ma171, 12-Ma-0174, 12-Ma-0175, and 12-Ma-0241 to determine whether they are eligible for inclusion in the NRHP. However, the portions of the sites that lie within the project area did not appear to contain significant archaeological deposits and no further archaeological investigations were necessary. The portions of these sites outside the project area must either be avoided or further archaeological investigations must be conducted.

The archaeological surveys identified three alluvial locales in the White River valley with the potential to contain subsurface deposits. One of the locales is south of Martinsville near Indian Creek, one is near Crooked Creek (three separate areas), and one is near Honey Creek. If construction will occur at these locations, a work plan for Phase Ic investigations will be submitted to the SHPO for approval. A report of the investigations will be submitted to the SHPO for review and comment.

Two cemeteries, the Old Mount Olive Cemetery (CR-55-64) and Bell Cemetery (CR-49-57), are within 100 feet of the project area. A cemetery development plan will be completed for each cemetery per IC 14-21-1-26.5. The plans will be submitted to the DHPA for approval.

Commitments for the completion of the additional archaeological investigations at these sites are included in an MOA (see **Appendix M**). The MOA also includes general mitigation as part of a larger mitigation stipulation for the I-69 corridor that was provided for in the I-69 Tier I MOA.

If the results of further archaeological testing show that additional archaeological investigations or mitigation would be warranted, that work will be completed, in consultation with the IDNR-DHPA and any appropriate consulting parties, before construction of the project begins in those areas. Should any archeological discoveries be made that are subject to Section 4(f), these sites will be considered pursuant to 23 CFR 774.9(e).

5.14.5 Summary

Section 106 of the NHPA of 1966, as amended, mandates that federal agencies consider the effects of their actions on historic properties, including archaeological resources. A phased approach has been used to accomplish this task. The literature review and research phase was completed, and Phase Ia archaeological surveys were conducted within the RPA right of way.

Phase Ia archaeological surveys have been completed for the I-69 Section 6 RPA to identify whether NRHP-eligible archaeological resources are located within the APE, and to determine what effect the proposed I-69 undertaking could have on those resources. The APE was investigated through shovel testing, surface collection/survey, and visual inspection. The 2015–2016, 2016–2017, and 2017 Phase Ia archaeological research identified 72 sites within the APE (see **Table 5.14-2**). Fifty-five sites were determined to not be eligible for listing in the NRHP. Five sites were determined potentially eligible for listing in the NRHP. Twelve sites had insufficient data for eligibility determinations outside the I-69 Section 6 APE, and these sites should be clearly marked so they can be avoided by ground disturbing activities. Three alluvial locales (five individual areas) were recommended for Phase Ic archaeological investigations. In addition, site 12Mg525 is located in close proximity to the project and will be clearly marked and avoided. Otherwise, further investigation will be required.

On February 14, 2017, FHWA signed a Finding of Effects for Section 6 of the I-69 Evansville to Indianapolis Study: Historic Properties Affected – Adverse Effect. On March 17, 2017, the Finding of Effects was submitted to the SHPO and all Section 6 consulting parties. The SHPO concurred with the Adverse Effect finding on April 13, 2017. On September 13, 2017, a draft MOA was sent for review and comment to the Indiana SHPO and all Section 6 consulting parties. On November 13, 2017, the MOA was signed by all required and invited signatories. All documentation referenced herein is provided in **Appendix M.**