

APPENDIX D

Section 106 of the NHPA

Minor Projects PA Project Submittal and Assessment Form

SECTION 1

Submittal of this form is only required for projects where Category B applies. Projects qualifying under Category A do not require submittal of this form. SECTION 2 (for Conditions of Category B.1 for curb/sidewalk) or SECTION 3 (for Conditions of Category B.9 for drainage structures) may be required as determined by INDOT-Cultural Resources Office (INDOT-CRO) review. INDOT-CRO will notify applicant if the Minor Projects PA does not apply.

Part I: Project Information-Completed by Applicant (Consultant/PM/Project Sponsor/INDOT District Staff)*

**A qualified professional historian (QP) is not required to complete Part I. INDOT-Cultural Resources Office (INDOT-CRO) staff will be responsible for completion of Part II.*

Original Submission Date: April 16, 2025 **Amended Submission Date*:**

**Consult with INDOT-CRO to determine whether an amendment is required. For revisions/updates to original form, please detail in applicable sections below. Please use red font to distinguish the revisions/updates.*

Submitted By (Provide Name and Firm/Organization):

Linda Weintraut, Ph.D.
Weintraut & Associates, Inc.
PO Box 5034
Zionsville, IN 46077
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317-733-9770

Project Designation Number: 2001922

Route Number: State Road (SR) 65

Feature crossed (if applicable):

City/Township: Town of Owensville/Montgomery Township **County:** Gibson County

Project Description: The preferred alternative will include a full depth pavement replacement on SR 65 throughout the project area. The typical roadway section will include two through 12-foot-wide travel lanes (one in each direction) and scattered on-street parking from Walnut Street to SR 65/Brummett Street, which is currently present. The roadway curve at Mill Street will be reconstructed to a design speed of 20 MPH meeting current INDOT design and safety standards.

New sidewalks and ADA compliant curb ramps will be constructed on both sides of SR 65 from approximately 170 feet north of Mill Street to Montgomery Street, and only on the west side of SR 65 from Montgomery Street to the intersection of SR 65/Brummett Street.

A new, fully enclosed, storm water sewer system will be constructed, which includes replacing the trunkline, adding more inlets to adequately contain and transport storm water, and constructing curb and gutters. Minor strip temporary and permanent ROW will be needed at the northeast corner of SR 65 and Montgomery Street for grading and drainage pipe installation. A new detention pond will be constructed near the project's southern terminus on the west side of SR 65, to collect the outflow of the storm water sewer system before the water is drained into the roadside ditch, adding water storage capacity to the system.

Additionally, the project would install a sidewalk along the east side of SR 65 on the Owensville Library property (IHSSI No. 051-493-06010, SHAARD-rated as Notable), which was previously identified as a contributing property within the Owensville Historic District (WA-1). However, the road is being slightly narrowed here so that the back of the proposed sidewalk closely lines up with the existing curb (that will be removed). By doing this, the project would add the proposed sidewalk without impacting the property or needing right-of-way for the

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sidewalk. However, right-of-way would be needed for grading and drainage pipe installation from the southwest corner of the library parcel (see attached plans).

If the project includes any curb, curb ramp, or sidewalk work, please specify the location(s) of such work: Along with pavement replacement treatment, the project will install new sidewalks and curb ramps throughout the project area (see attached plans).

For bridge or small structure projects, please list feature crossed, structure number, NBI number, and structure type: N/A

For bridge projects, is the bridge included in INDOT’s Historic Bridge Inventory (<https://www.in.gov/indot/2531.htm>)?

- Yes No

If yes, did the inventory determine the bridge eligible for or listed in the National Register of Historic Places? Please provide page # of entry in Historic Bridge Inventory.

- Yes No
- Inventory Page # _____

Will there be right-of-way acquisition as part of this project?

- Yes No

If yes was checked above, please check all that apply:

- Permanent Temporary Reacquisition

If applicable, identify right-of-way acquisition locations in text below and in attached mapping. Please specify how much (both temporary and permanent) and indicate what activities are included in the proposed right-of-way: This project is anticipated to require 1.26 acres of permanent right-of-way and 0.23 acres of temporary right-of-way for new sidewalks, curb ramps, road tie-ins, and drainage improvements (see attached plans).

Is there any potential for additional temporary right-of-way to be needed later for purposes such as access, staging, etc.?

- Yes No

Archaeology (check one):

- All proposed activities are presumed to occur in previously disturbed soils***
**INDOT-CRO will notify you if project area includes undisturbed soils and requires an archaeological reconnaissance.*
- Project takes place in undisturbed soils and the archaeology report is included in submission or will be forthcoming***
**If an archaeology report is required, the Minor Projects PA Form will not be finalized until the report is reviewed and approved by INDOT-CRO. For INDOT-sponsored projects, INDOT-CRO may be able to complete the archaeological investigation. If you would like to request that INDOT-CRO complete an archaeological investigation, please contact the INDOT-CRO archaeology team lead. See CRM Pt. 1 Ch. 3 for current contact information.*

Please specify all applicable categories and condition(s) (INDOT will highlight applicable conditions in yellow):

B-1. Replacement, repair, or installation of curbs, curb ramps, or sidewalks, including when such projects are associated with roadway work such as surface replacement, reconstruction, rehabilitation, or resurfacing

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projects, including overlays, shoulder treatments, pavement repair, seal coating, pavement grinding, and pavement marking, under the following conditions **[BOTH Condition A, which pertains to Archaeological Resources, and Condition B, which pertains to Above-Ground Resources, must be satisfied]**:

Condition A (Archaeological Resources)

One of the two conditions listed below must be satisfied (*EITHER Condition i or Condition ii must be satisfied*):

- i. Work occurs in previously disturbed soils; *OR*
- ii. Work occurs in undisturbed soils and an archaeological investigation conducted by the applicant and reviewed by INDOT Cultural Resources Office determines that no National Register-listed or potentially National Register-eligible archaeological resources are present within the project area. If the archaeological investigation locates National Register-listed or potentially National Register-eligible archaeological resources, then full Section 106 review will be required. Copies of any archaeological reports prepared for the project will be provided to the Division of Historic Preservation and Archaeology (DHPA) and any archaeological site form information will be entered directly into the State Historic Architectural and Archaeological Database (SHAARD) by the applicant. The archaeological reports will also be available for viewing (by Tribes only) on INSCOPE.

Condition B (Above-Ground Resources)

One of the two conditions listed below must be satisfied (*EITHER Condition i or Condition ii must be satisfied*):

- i. Work does not occur adjacent to or within a National Register-listed or National Register-eligible district or individual above-ground resource; *OR*
- ii. Work occurs adjacent to or within a National Register-listed or National Register-eligible district or individual above-ground resource under one of the two additional conditions listed below (*EITHER Condition a OR Condition b must be met and field work and documentation must be completed as described below*):
 - a. No unusual features, including but not limited to historic brick or stone sidewalks, curbs or curb ramps, stepped or elevated sidewalks and historic brick or stone retaining walls are present in the project area adjacent to or within a National Register-listed or National Register-eligible district or individual above-ground resource; *OR*
 - b. Unusual features, including but not limited to historic brick or stone sidewalks curbs or curb ramps, stepped or elevated sidewalks and historic brick or stone retaining walls are present in the project area adjacent to or within a National Register-listed or National Register-eligible individual above-ground resource or district and ANY ONE of the conditions (1, 2, or 3) listed below must be fulfilled:
 1. Unusual features described above will not be impacted by the project. Firm commitments regarding the avoidance of these features must be listed in the MPPA determination form and the NEPA document and must be entered into the INDOT Project Commitments Database. These projects will also be flagged for quality assurance reviews by INDOT Cultural Resources Office during/after project construction.
 2. Unusual features described above have been determined not to contribute to the significance of the historic resource by INDOT Cultural Resources Office in consultation with the SHPO based on an analysis and justification prepared by their staff or review of such information from other qualified professional historians.
 3. Impacts to unusual features described above have been determined by INDOT Cultural Resources Office to be so minimal that they do not diminish any of the characteristics that contribute to the significance of the historic resource, based on an analysis and justification prepared by their staff or review of such information from other qualified professional historians.

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Check if SECTION 2: Minor Projects PA Category B-1, Condition B-ii Submission is included.

Check if SECTION 3: Minor Projects PA Category B-9, Condition B-i-c-2 or B-ii-b-3 Submission is included.

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Part II: Completed by INDOT-CRO

Information reviewed (please check all that apply):

General project location map USGS map Aerial photographs Soil survey data

General project area photos Archaeology Reports Historic Property Reports

Indiana Historic Buildings, Bridges, and Cemeteries Map/Interim Report

Bridge inspection information/iTAMS Historic Bridge Inventory Database

SHAARD SHAARD GIS Streetview Imagery County GIS Data/Property Cards

Other (please specify): Project documentation submitted by Weintraut & Associates (March 4, 2024; April 22, 2025); annotated project design plans dated February 15, 2024;

Beard, Thomas C.

1994 Archaeological Field Reconnaissance: Waterworks Improvements for the Town of Owensville, Gibson County, Indiana. Archaeological Report prepared by Landmark and Associates for Foresight Development. Document on file at IDNR-DHPA (AR-26-00221).

Boland, Beth M. *How to Apply the National Register Criteria to Post Offices*. National Register Bulletin 13. Washington DC: U.S. Department of the Interior, National Park Service, 1994;

Goldbach, Jason

2025 Phase Ia Archaeological Field Reconnaissance Road Improvement Project: State Road (SR) 65, from 0.26 miles south of SR 168 (SCL Owensville) to SR 165 (West Brummitt Street) (Des. No. 2001922) and SR 168, from SR 65 to 0.73 miles east of SR 65 (ECL of Owensville) (Des. No. 2001920). Archaeological report prepared by Weintraut & Associates for WSP, Indianapolis. Document on file at IDNR-DHPA (AR-26-00570).

Moffatt, Charles David

2007 Three Proposed Drainage Improvements (Des. No. 0101035, 101039, and 0101042) and One Intersection Improvement (Des. No. 0200758) within and adjacent to Owensville, Gibson County, Indiana. INDOT Cultural Resources Section, Indianapolis. Document on file at IDNR-DHPA (AR 26-00214).

Myers-Rinehart, Ciarra N., Cassidy Hurt, Joshua A. Myers-Rinehart, and Dawn Bradley

2025 *Phase Ia Addendum Archaeological Survey of an Additional 1.65 acres for the Proposed SR 65/S. Mill Street Pavement Project in the City of Owensville, Montgomery Township, Gibson County, Indiana (INDOT Des. No. 2001922)*. Prepared for Indiana Department of Transportation, Vincennes District Office. Document on file at INDOT-CRO.

Are there any commitments associated with this project? If yes, please explain and include in the Additional Comments Section below. yes no

Does the project result in a de minimis impact to a Section 4(f) protected historic resource? If yes, please explain in the Additional Comments Section below. yes no

Additional Comments:

Above-ground Resources

An INDOT-Cultural Resources Office (CRO) historian who meets the Secretary of the Interior’s Professional Qualification Standards as per 36 CFR Part 61 first performed a desktop review, checking the Indiana Register of Historic Sites and Structures (State Register) and National Register of Historic Places (National Register) lists for

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Gibson County. No listed resources are present immediately adjacent to the project area, a distance that serves as an adequate area of potential effects given the project scope and terrain.

The National Register & Indiana Historic Sites and Structures Inventory (IHSSI) information for Gibson County is available in the Indiana State Historic Architectural and Archaeological Research Database (SHAARD) and the Indiana Historic Buildings, Bridges, and Cemeteries Map (IHBBCM). The *Gibson County Interim Report* (1984; Montgomery Township, Owensville Historic District, Owensville Scattered Sites) of the IHSSI was consulted. The SHAARD information was checked against the Interim Report hard copy maps. The IHBBCM contains the most up to date IHSSI information. Two (2) IHSSI documented resources rated higher than “Contributing” are located immediately adjacent to the project area.

- IHSSI# 051-493-06(001-107), Owensville Historic District; Art and Crafts, Bungalow, American Foursquare
- IHSSI# 051-493-06010, Carnegie Library, 110 S. Main St., Arts and Crafts, c. 1917, rated “Notable”

According to the IHSSI rating system, generally properties rated “Contributing” do not possess the level of historical or architectural significance necessary to be considered individually National Register-eligible, although they would contribute to a historic district. If they retain material integrity, properties rated “Notable” might possess the necessary level of significance after further research. Properties rated “Outstanding” usually possess the necessary level of significance to be considered National Register-eligible if they retain material integrity. Historic districts identified in the IHSSI are usually considered eligible for the National Register.

It should be noted that this review focuses only on the Category B-1 sidewalk and ADA-compliant curb ramp construction associated with this project’s scope of work. The remaining portion is limited to Category A-4 full depth pavement replacement activities which will not impact any listed or eligible resources.

Per the requirements of Category B-1 for the application of Condition B-ii of the Minor Projects Programmatic Agreement (MPPA), *“Field work and documentation required for the fulfillment of condition B-ii”* states that *“when the project takes place adjacent to or within a National Register-listed or National Register-eligible district or individual above-ground resource, it must be field-checked by INDOT Cultural Resources Office staff or other Qualified Professional historian (meeting the Secretary of Interior’s Professional Qualification Standards [48 Federal Register (FR) 44716]) and photographic documentation must be prepared illustrating both the presence and/or absence of any unusual features along the project route adjacent to or within a National Register-listed or National Register-eligible district or individual above-ground resource. This documentation must be submitted to INDOT Cultural Resources Office for review.”*

Because the location of this project is within and adjacent to National Register-eligible resources, a field check by a QP historian per Category B-1, Condition B-ii of the MPPA is required. A Weintraut & Associates, Inc. (Weintraut) QP historian conducted a field visit on April 16, 2025, and the written and photographic documentation of that field work is on file at INDOT-CRO.

The INDOT-CRO QP historian reviewed structures adjacent to the project area utilizing online aerials, street-view photography, Weintraut’s field work documentation, and the Gibson County GIS website. The project area is located along SR 65, locally known as Mill Street. The immediately adjacent building stock consists primarily of late nineteenth to late twentieth century residential and commercial structures. The resources discussed below (arranged from north to south) are adjacent to or within a National Register-eligible resource. The remaining locations are not considered within the historic boundaries of the Owensville Historic District (IHSSI# 051-493-06[001-197]), nor are they adjacent to structures that appear to possess the significance and/or integrity necessary to be considered National Register-eligible. Therefore, Category B-1, Condition B-i is applicable for the proposed work at those locations.

SR 65 and Brummitt St.

This intersection is within the National Register-eligible Owensville Historic District (IHSSI# 051-493-06[001-107]) and is immediately adjacent to four (4) IHSSI documented resources that are listed below with their locations.

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One of the resources is a United States Postal Service building (Owensville Post Office, IHSSI# 051-493-06013) located within the southwest quadrant of the intersection at 100 S. Mill St. The IHSSI dates this building to c. 1950, but according to the Gibson County GIS website, it was built in 1975. Although this property is 50 years old, it is not an excellent example of a particular style, form, or type. Additionally, there is no evidence to suggest that this property fulfills the significance and integrity criteria requirements for National Register eligibility in accordance with National Register Bulletin 13 (1994, *How to Apply the National Register Criteria to Post Offices*). There is one unusual feature present at this intersection (see Figure 1). **See “Site Concerns” below.**

- IHSSI# 051-493-06026, First General Baptist Church, Gothic Revival, c. 1903/1961, rated “Contributing”
 - o Located on the northeast quadrant of the intersection at 114 W. Brummitt St.
- IHSSI# 051-493-06010, Carnegie Library, Arts and Crafts, c. 1917, rated “Notable” – evaluated in “East side of SR 65 between Brummitt St. and Montgomery St.”
 - o Located on the southeast quadrant of the intersection at 110 S. Main St.
- IHSSI# 051-493-06013, Owensville Post Office, c. 1950, rated “Contributing”
 - o Located on the southwest quadrant of the intersection at 100 S. Mill St.
- IHSSI# 051-493-06009, House, Queen Anne, c. 1895, rated “Contributing”
 - o Located on the northwest quadrant of the intersection at 202 W. Brummitt St.

West side of SR 65 between Brummitt St. and Montgomery St.

This section is located along the west side of SR 65 between Brummitt St. and Montgomery St. and is located within the Owensville Historic District (IHSSI# 051-493-06[001-107]). The section is immediately adjacent to four (4) IHSSI documented resources that are listed below, arranged from north to south. There are two unusual features present at this intersection (see Figure 2 and 3). Additionally, this section contains two Section 4(f) protected historic resources. **See “Site Concerns” and “See Section 4(f) De Minimis Information” below.**

- IHSSI# 051-493-06013, Owensville Post Office, c. 1950, rated “Contributing” – evaluated in “SR 65 and W. Brummitt St.”
 - o Located at 100 S. Mill St.
- IHSSI# 051-493-06018, House, Bungalow/Craftsman, c. 1925, rated “Contributing”
 - o Located at 102 S. Mill St.
- IHSSI# 051-493-06017, House, Colonial Revival, c. 1890, rated “Contributing”
 - o Located at 104 S. Mill St.
- IHSSI# 051-493-06039, House, Queen Anne, c. 1895, rated “Contributing”
 - o Located at 108 S. Mill St.

East side of SR 65 between Brummitt St. and Montgomery St.

This section is located along the east side of SR 65 between Brummitt St. and Montgomery St. and is located within the Owensville Historic District (IHSSI# 051-493-06[001-107]). This section is immediately adjacent to one (1) IHSSI documented resource, the “Notable” rated Carnegie Library (IHSSI# 051-493-06010), locally known as the Owensville Public Library. The resource is an Arts and Crafts with a built date of c. 1917 and is located at 110 S. Main St. There are two unusual features (see Figure 4) present in this section. **See “Site Concerns” below.**

SR 65 and Montgomery St.

This intersection is partially located within the Owensville Historic District (IHSSI# 051-493-06[001-107]) and is immediately adjacent to three (3) IHSSI documented resources that are listed below. The QP historian did not note any unusual features adjacent to this intersection, and Category B-1, Condition B-ii-a is applicable for the proposed work at this site. However, there is one Section 4(f) protected historic resource. **See “See Section 4(f) De Minimis Information” below.**

- IHSSI# 051-493-06010, Carnegie Library, Arts and Crafts, c. 1917, rated “Notable” – evaluated in “East side of SR 65 between Brummitt St. and Montgomery St.”
 - o Located on the northeast quadrant of this intersection at 110 S. Main St.
- IHSSI# 051-493-06040, House, Queen Anne, c. 1900, rated “Contributing”
 - o Located on the southeast quadrant of this intersection at 202 S. Main St.
- IHSSI# 051-493-06039, House, Queen Anne, c. 1895, rated “Contributing”
 - o Located on the northwest quadrant of this intersection at 108 S. Mill St.

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SR 65 and Warrick St

This intersection is partially located within the Owensville Historic District (IHSSI# 051-493-06[001-107]) and is immediately adjacent to two (2) IHSSI documented resources that are listed below. The QP historian did not note any unusual features adjacent to this intersection, and Category B-1, Condition B-ii-a is applicable for the proposed work at this site. However, there is one Section 4(f) protected historic resource. **See “See Section 4(f) De Minimis Information” below.**

- IHSSI# 051-493-06101, House, Ranch, c. 1995, rated “Non-Contributing”
 - o Located on the northeast quadrant of this intersection at 108 W. Warrick St.
- IHSSI# 051-493-06102, House, Bungalow/Craftsman, c. 1920, rated “Contributing”
 - o Located on the southeast quadrant of this intersection at 109 W. Warrick St.

Section 4(f) De Minimis Information

An IHSSI documented resource (Carnegie Library, IHSSI# 051-493-06010) with a “Notable” rating is situated immediately in the northeast quadrant of the project area for SR 65 and Montgomery St. at 110 S. Main St. Approximately 0.012 of permanent ROW and 0.015 acre of temporary ROW acquisition is anticipated from the above noted resource. This ROW is needed for grading and drainage pipe installation construction activities. **INDOT and FHWA considers the taking of this minimal amount of permanent and temporary ROW from the property as a de minimis 4(f) use of the historic resource.**

A portion of the project area is located within the National Register-eligible Owensville Historic District (IHSSI# 051-493-06[001-107]). Approximately 0.017-acre of temporary ROW acquisition is anticipated for three (3) “Contributing” rated properties located within the historic district. This ROW is needed for construction activities associated with the Category B-1 sidewalk reconstruction occurring near these resources. The locations of these resources with their approximate temporary ROW amounts are as follows:

- 0.007-acre of temporary ROW acquisition from the house (IHSSI# 051-493-06017) at 104 S. Mill St. located on the west side of SR 65 between Brummitt St. and Montgomery St.
- 0.003-acre of temporary ROW acquisition from the house (IHSSI# 051-493-06018) at 102 S. Mill St. located on the west side of SR 65 between Brummitt St. and Montgomery St.
- 0.007-acre of temporary ROW acquisition from the house (IHSSI# 051-493-06102) at 109 W. Warrick St. located on the southeast quadrant of SR 65 and Warrick St.

INDOT and FHWA considers the taking of this minimal amount of temporary ROW from the properties as a de minimis 4(f) use of the historic resources.

Site Concerns

On April 16, 2025, a Weintraut QP historian surveyed the project route and photographed sites adjacent to or within a National Register-eligible resource. The survey revealed concerns at the locations listed below. Photographs of features to be avoided are attached to this determination form.

SR 65 and Brummitt St.

There are concrete steps and a metal railing (see Figure 1) located in the northeast quadrant that are associated with the “Contributing” rated First General Baptist Church (IHSSI# 051-493-06026), and also within the Owensville Historic District (IHSSI# 051-493-06[001-107]). Although project activities are not anticipated to impact the concrete steps and railing, it is best practice to avoid or replace in-kind as they add to the aesthetics of the resource and the historic district.

West side of SR 65 between Brummitt St. and Montgomery St.

This section is within the Owensville Historic District (IHSSI# 051-493-06[001-107]) and there are two unusual features present.

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- Brick steps and a brick-paved front walk (see Figure 2) are present and adjacent to the “Contributing” rated resource located at 102 S. Mill St. (House, IHSSI# 051-493-06018).
- A retaining wall (see Figure 3) is present and adjacent to the “Contributing” rated resource located at 108 S. Mill St. (House, IHSSI# 051-493-06039).

While it is unknown if the above-mentioned features are historic, they do add to the aesthetics of the resources and the historic district. Although project activities are not anticipated to impact these features, it is best practice to avoid or replace in-kind.

East side of SR 65 between Brumitt St. and Montgomery St.

There are two brick columns (see Figure 4) located immediately adjacent to the “Notable” rated Carnegie Library (IHSSI# 051-493-06010) located at 110 S. Main St. This resource is also located within the Owensville Historic District (IHSSI# 051-493-06[001-107]). According to information in Section 1, the project will be slightly narrowed adjacent to the library so that project activities don’t impact the brick columns. It is unknown if the brick columns are historic, but they do add to the aesthetics of the resource and the historic district. **According to Category B-1, Condition B-ii-b-1, a firm commitment must be made to avoid the brick pillars that are present adjacent to this resource.**

Commitments

In the “Section 2: Minor Projects PA Category B-1, Condition B-ii submission by Weintraut, it was noted that the project would not impact the unusual features. If this is not possible, or it is later determined that the above-mentioned features will be disturbed, INDOT Cultural Resources Office must be consulted before proceeding.

The commitments described above shall be included in the plans and environmental documentation for this project and entered into INDOT’s Project Commitment Database. This project will be flagged for a future quality assurance review by INDOT-CRO.

Based on the available information, as summarized above, no above-ground concerns exist at this time so long as the project scope remains unchanged.

Archaeological Resources

An INDOT CRO archaeologist who meets the Secretary of the Interior’s Professional Qualification Standards as per 36 CFR Part 61 reviewed the Phase Ia field reconnaissance report completed for the project by Weintraut & Associates (Goldbach 2025) and the Phase Ia field reconnaissance addendum report completed by WSP (Myers-Rinehart et al. 2025). A review of SHAARD and SHAARD GIS identified two previous investigations that overlap with portions of the project area (Beard 1994; Moffatt 2007). Three sites were previously recorded within or adjacent to the survey area: 12Gi1517, 12Gi1518, and 12Gi1530.

In September 2022, Weintraut & Associates surveyed an area that measured a total of approximately 3.83 acres via a combination of systematic shovel probing and visual confirmation of obviously disturbed areas. As a result of these efforts, nine new archaeological sites were recorded. Sites 12Gi1695 through 12Gi1703 are historical artifact scatters resulting from incidental discard and/or dumping over the course of several generations. No intact features or stratigraphy were encountered that would yield important information; therefore, the sites are not eligible for listing in the NRHP, and no further work is recommended. No evidence of previously recorded sites 12Gi517, 12Gi518, and 12Gi530 was identified within the survey area; however, cultural deposits may be present beyond the survey boundary. No additional investigation is recommended for the surveyed portion of the sites. Any portion that may extend beyond the surveyed area must be avoided or subjected to Phase Ia investigation.

In November 2024, WSP USA (WSP) investigated an additional 1.65 acres of proposed right-of-way via a combination of systematic shovel probing and visual confirmation of obviously disturbed areas. One new archaeological site was recorded as a result of these efforts. Site 12Gi1713 is a historical artifact scatter consisting

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of architectural materials that may be associated with the demolition of one or more structures in the vicinity. No artifact patterns, activity loci, or intact features were identified in the areas surveyed. No additional investigation is recommended for the surveyed portion of the site; however, any portion that may extend beyond the surveyed area must be avoided or subjected to Phase Ia investigation.

It is our opinion that the reports are acceptable, and we concur with the evaluations and recommendations made by Weintraut & Associates (Goldbach 2025) and WSP (Myers-Rinehart et al. 2025).

Therefore, there are no archaeological concerns provided that the project scope and footprint do not change.

Accidental Discovery: If any archaeological artifacts or human remains are uncovered during construction, demolition, or earth moving activities, construction within 100 feet of the discovery will be stopped, and INDOT-CRO and the Indiana Department of Natural Resources-Division of Historic Preservation and Archaeology (IDNR-DHPA) will be notified immediately.

Accidental Discovery: If any archaeological artifacts or human remains are uncovered during construction, demolition, or earth moving activities, construction within 100 feet of the discovery will be stopped, and INDOT-CRO and the Indiana Division of Natural Resources-Division of Historic Preservation and Archaeology (IDNR-DHPA) will be notified immediately.

INDOT-CRO staff reviewer(s): Taylor Payne and Dawn Alexander

INDOT Approval Date: February 2, 2026

Amendment Approval Date (if applicable):

****Be sure to attach this form to the National Environmental Policy Act documentation for this project. Also, the NEPA documentation shall reference and include the description of the specific stipulation in the PA that qualifies the project as exempt from further Section 106 review.*

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Figure 1: Concrete steps and railing at 114 W. Brummitt St. (First General Baptist Church, IHSSI# 051-493-06026)



Figure 2: Brick steps and brick-paved front walk at 102 S. Mill St. (House, IHSSI# 051-493-06018)

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Figure 3: Concrete retaining wall at 108 S. Mill St. (IHSSI# 051-493-06039)



Figure 4: Brick columns at 110 S. Main St. (IHSSI# 051-493-06010)

Minor Projects PA Project Submittal and Assessment Form – Section 2

SECTION 2: Minor Projects PA Category B-1, Condition B-ii Submission

- ❖ *Only complete this section if the MPPA flowchart indicates it is necessary.*
- ❖ *This section must be completed by a qualified professional historian (QP) who meets the Secretary of the Interior’s Professional Qualification Standards as per 36 CFR Part 61.*
- ❖ *All fieldwork must be conducted by a QP historian. The QP historian must be present during fieldwork.*
- ❖ *In assessing properties that are adjacent to or that contain locations where curb, curb ramp, or sidewalk work will occur, QPs should be on the lookout for the following properties:*
 - Previously un-surveyed historic districts that may be eligible for the National Register. If the QP identifies such a district, they should consult with INDOT-CRO before proceeding.*
 - Individual resources that were either previously un-surveyed or previously surveyed as “contributing” and that the QP believes merit a rating of “notable” or higher. If the QP identifies any such resources, they should follow the instructions found in Prompt 4 below.*

Date of submission: April 22, 2025

INDOT Designation Number (Des. No.): 2001922

Name and contact information of QP historian:

Doug Fivecoat
 Weintraut & Associates, Inc.
 PO Box 5034
 Zionsville, Indiana 46077
 317-733-9770
 dfivecoat@weintrautinc.com

Date of fieldwork: September 18, 2024

Name of QP who conducted fieldwork: Doug Fivecoat

Prompt 1. List all National Register-listed districts and individual resources that are adjacent to or contain locations where curb, curb ramp, or sidewalk work will occur.

None

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Prompt 2. List all IHSSI individual properties that meet ALL of the following conditions: 1) they are adjacent to locations where curb, curb ramp, or sidewalk work will occur; 2) they are rated “notable” or outstanding” (it is not necessary to include properties rated “contributing”); and 3) they are located outside of previously surveyed or National Register-listed historic districts.

None

Prompt 3. List any IHSSI districts that are adjacent to or contain locations where curb, curb ramp, or sidewalk work will occur and that are not listed on the National Register.

- Owensville Historic District (IHSSI Nos. 051-493-06001 through 060107)[Amended with the 2014 boundary provided within SHAARD]

Prompt 4. List any properties *not* included in the answers to Prompts 1-3 and that meet ALL of the following conditions: (a) they are recommended eligible for the National Register by the QP historian; (b) they are adjacent to locations where curb, curb ramp, or sidewalk work will occur; (c) they are located outside of previously surveyed or National Register-listed historic districts. Please include a brief description of any such properties. A full evaluation is not needed.

None

Prompt 5. List all unusual features that are adjacent to or within any of the properties or districts included in the answers to Prompts 1-4 AND that are adjacent to locations where curb, curb ramp, or sidewalk work will occur (refer to Condition B-ii-b).

Owensville Historic District (IHSSI Nos. 051-493-06001 through 060107)

- House at 202 West Brummitt Street (IHSSI No. 051-493-06009) – Retaining wall and concrete entry steps (both look modern).
- General Baptist Church (IHSSI No. 051-493-06026) – Concrete steps and metal railing
- Owensville Public Library (IHSSI No. 051-493-06010) – Brick columns and steps, as well as stone planting terrace walls
- House at 102 Mill Street (IHSSI No. 051-493-06018) – Brick entry steps and walk and stone planter boxes (boxes are modern stone)
- House at 104 Mill Street (IHSSI No. 051-493-06017) – Concrete steps to entry walk
- House at 108 Mill Street (IHSSI No. 051-493-06039) – Concrete retaining wall
- House at 109 Warrick Street (IHSSI No. 051-493-06102) – Concrete block retaining walls and walk steps
- House at 305 Mill Street – Concrete steps and railings leading to porch

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- House at 309 Mill Street – Concrete steps to enclosed porch (flower beds are modern)

Prompt 6. For each feature identified in Prompt 5, indicate whether the feature will be impacted by the project. If the feature will not be impacted by the project, state that a commitment to avoid the feature shall be included in the environmental documentation for the project and entered into INDOT’s project commitment database (refer to Condition B-ii-b-1). Project commitments require coordination with the INDOT Project Manager and project designer. <https://af-eng.com/about/>Please consult CRM Pt. 2, Ch. 3-3.1 for instructions regarding MPPA commitments.

- House at 202 West Brummitt Street (IHSSI No. 051-493-06009) – Concrete entry steps (Retaining wall appears modern)
 - *No impact. Project is not replacing this sidewalk area. Sidewalk stops just west of curb ramp before the wall of concrete blocks even begins. This commitment will be entered into INDOT’s project commitment database.*
- General Baptist Church (IHSSI No. 051-493-06026) – Concrete steps and metal railing
 - *No impact to existing steps and railing. Only constructing to sidewalk joint at east edge of stairs. This commitment will be entered into INDOT’s project commitment database.*
- Owensville Public Library (IHSSI No. 051-493-06010) – Brick columns and steps, as well as stone planter terrace walls, Decorative modern light poles
 - *No impact to brick columns or items behind them. No sidewalk being added here. No Impact to light poles. This commitment will be entered into INDOT’s project commitment database.*
- House at 102 Mill Street (IHSSI No. 051-493-06018) – Brick entry steps and walk (stone planter boxes are modern)
 - *No impact to brick, stone walls, or railings. Will build up to existing steps with no impact. This commitment will be entered into INDOT’s project commitment database.*
- House at 104 Mill Street (IHSSI No. 051-493-06017) – Concrete steps to entry walk
 - *No impact to existing steps against existing sidewalk. Will build up against existing steps. No impact to existing steps near building. This commitment will be entered into INDOT’s project commitment database.*
- House at 108 Mill Street (IHSSI No. 051-493-06039) – Concrete retaining wall
 - *No impact to steps. No impact to wall. Removing existing sidewalk and building new sidewalk away from wall. This commitment will be entered into INDOT’s project commitment database.*
- House at 109 Warrick Street (IHSSI No. 051-493-06102) – Concrete block retaining walls and walk steps
 - *No impact to retaining wall or steps. This commitment will be entered into INDOT’s project commitment database.*
- House at 305 Mill Street – Concrete steps and railings leading to porch

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- *Would have to rebuild the first 3 steps coming off the sidewalk. Would tie in to existing at the front of the larger trapezoid step. Would likely need to remove and reset the wooden post retaining wall on either side of the stairs. Planters behind the wall would remain undisturbed.*
- House at 309 Mill Street – Concrete steps to enclosed porch
 - *Would not impact the steps. Sidewalk would tie in at base of bottom step and at front of modern blocks. No planned disturbance of landscaping. This commitment will be entered into INDOT's project commitment database. Modern blocks may need to be shifted during construction if they are just stacked.*

Prompt 7. If any features identified in Prompt 5 cannot be avoided, describe the extent of anticipated impacts below. INDOT-CRO will review these impacts, consult with SHPO if necessary, and determine if the project meets the conditions of Category B-1 of the MPPA (refer to Conditions B-ii-b-2 and B-ii-b-3).

- House at 305 Mill Street – Concrete steps and railings leading to porch
 - *Would have to rebuild the first 3 steps coming off the sidewalk. Would tie in to existing at the front of the larger trapezoid step. Would likely need to remove and reset the wooden post retaining wall on either side of the stairs. Planters behind the wall would remain undisturbed.*
- House at 309 Mill Street – Concrete steps to enclosed porch
 - *Will not impact the steps. Sidewalk would tie in at base of bottom step and at front of modern blocks. Modern blocks may need to be shifted during construction if they are just stacked. No planned disturbance of landscaping.*

Please attach the following (in addition to the attachments required in Section 1 of this form):

- 1. Aerial photography map(s) of the project area that clearly indicates the locations of curb, curb ramp, and sidewalk work and includes SHAARD data.**
- 2. Photographs.** All photographs must include a caption indicating the photograph's location and orientation, the National Register-listed or National Register-eligible resources that are being shown, and the unusual features that are being shown, as applicable.
 - a. Photographs of locations where curb, curb ramp, or sidewalk work will occur adjacent to or within resources listed in the answers to Prompts 1-4. These photographs should clearly show the immediate area where curb, curb ramp, or sidewalk work will occur.
 - b. Photographs of each unusual feature described above. These photographs should highlight each unusual feature in some way, e.g. using the arrow comment tool in Adobe Acrobat. At least one photograph must be included showing the spatial relationship between each feature and its associated

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resource. When these features will be avoided, a note should be made in the photograph caption.

- c. Photographs of any properties included in the answer to Prompt 4.



EXCERPT

**Phase Ia Archaeological Field Reconnaissance:
Road Improvement Project: State Road (SR) 65, from 0.26 miles south of
SR 168 (SCL Owensville) to SR 165 (West Brummitt Street) (Des. No.
2001922) and SR 168, from SR 65 to 0.73 miles east of SR 65 (ECL of
Owensville) (Des. No. 2001920) Gibson County, Indiana.**

Prepared for:

Federal Highway Administration/Indiana Department of Transportation
and WSP, Inc.

Prepared by:

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August 29, 2025

Management Summary

The Indiana Department of Transportation (INDOT), with funding from the Federal Highway Administration (FHWA), is proposing a road improvement project along State Road (SR) 65 and SR 168 in the Town of Owensville, Gibson County, Indiana (INDOT Des. Nos.: 2001920 and 2001922). The project is funded in part by the FHWA, and therefore, at the request of WSP, Inc. (WSP), Weintraut & Associates (W&A) conducted Phase Ia archaeological investigations to meet requirements of Section 106 of the National Historic Preservation Act (Advisory Council on Historic Preservation [ACHP] 1966) that requires Federal agencies to take into account the effects of their undertakings on historic properties (Code of Federal Regulations [CFR] 2016).

The Area of Potential Effects (APE) for this project consists of the combined existing and acquired, temporary, and permanent rights-of-way (ROW). WSP provided a survey area encompassing the APE totaling approximately 5.6 hectares (ha), or 13.8 acres (ac), 3.97 ha (9.8 ac) for SR 168 (Walnut Street) (Des. No. 2001920) and 1.55 ha (3.83 ac) for SR 65 (South Mill Street) (Des. No. 2001922).

An archaeological records check of the Indiana State Historic Architectural and Archaeological Research Database (SHAARD) of the Indiana Department of Natural Resources, Division of

Historic Preservation and Archaeology (IDNR/DHPA), was conducted on August 23, 2022.

The results of the search showed that a portion of the survey had been previously surveyed (Beard 1994; Moffat 2007)), and that there were three industrial sites previously recorded in or adjacent to the survey area: 12GI1517, 12GI1518, and 12GI1530 (IDNR/DHPA 2022a).

Phase Ia archaeological field reconnaissance of the survey area was conducted September 26 through September 28, 2022. The field reconnaissance resulted in the recording of nine previously undocumented archaeological sites designated 12GI1695 through 12GI1703 and re-survey of previously recorded 12GI1517, 12GI1518 and 12GI1530.

The nine sites recorded during the current survey are historical artifact scatters resulting from incidental discard and/or dumping over the course of many generations. These sites are shallow, low density spreads of materials lacking meaningful stratigraphy or deposits that could yield important information. Therefore, sites 12GI1695 through 12GI1703 are not eligible for listing in the Indiana Register of Historic Sites and Structures (IRHSS) or the National Register of Historic Places (NRHP), and no further work is required.

The re-survey of previously recorded sites 12GI1517, 12GI1518 and 12GI1530 resulted in the recording of no artifacts or deposits within the survey area. Since no evidence of sites 12GI1517, 12GI1518, or 12GI1530 was encountered, no further work is recommended for any portions of these sites within survey area.

However, these recommendations are made with the understanding that if any previously unidentified intact archaeological deposits or human remains are uncovered during construction, demolition, or earthmoving activities, work within the area will stop and the IDNR/DHPA will be notified of the discovery within two (2) business days as required by Indiana Code 14-21-1-27 and 29.

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Introduction

In response to a request by WSP, Inc. (WSP), Weintraut & Associates, Inc. (W&A) conducted an archaeological records check and Phase Ia field reconnaissance for a road improvement project along State Road (SR) 65 and SR 168 in the Town of Owensville, Gibson County, Indiana proposed by the Indiana Department of Transportation (INDOT) (INDOT Des. Nos.: 2001920 and 2001922). Jason Goldbach, M.A., was the principal investigator, primary report author, and field supervisor. Jessica Simpson, B.S., Aaron Kidwell, B.A., and Jade Coulter, B.A. formed the field crew. Aaron Kidwell also served as laboratory technician. Jennifer Weintraut, M.Pl., created GIS graphics. Jade Coulter, B.A., conducted technical review. Elizabeth Warn, M.F.A., completed report layout. Linda Weintraut, Ph.D., provided project oversight review and final edits.

Project Description

The INDOT Vincennes District with funding from the Federal Highway Administration (FHWA) is proposing to proceed with a road improvement project on SR 65 and SR 168 in Owensville, Gibson County, Indiana. On the United States Geological Association (USGS) 7.5' series Owensville, Indiana, topographic quadrangle map (Figure 1).

INDOT Des. No.: 2001920

This project is a mill and Hot Mix Asphalt (HMA) overlay on SR 168 (West Walnut Street and East Walnut Street) from SR 65 (South Mill Street) to 0.73 mi east of SR 65 in Owensville. Americans with Disabilities Act (ADA) curb ramps will also be designed to correct deficiencies. The intent of the project is to restore the ride and improve the existing pavement condition. The SR 168 (Walnut Street) project area extends east from the center of the NE 1/4 of Section 12, Township 3 South, (T3S), Range 12 West (R12W), through the NW 1/4 of Section 7, T3S, R11W (see Appendix A for PLSS aliquots).

INDOT Des. No.: 2001922

This project will replace the pavement on SR 65 from the south town limits (0.26 mi south of SR 168) to the intersection with SR 165 in Owensville (intersection of South Mill Street and West Brummitt Street). Corrective drainage measures will be implemented to allow for proper surface drainage. ADA curb ramps will also be designed to correct deficiencies. The intent of the project is to restore the ride and improve the existing pavement condition. The SR 65 (South Mill Street) project area extends south to north through the NE 1/4 of Section 12, T3S, R12W.

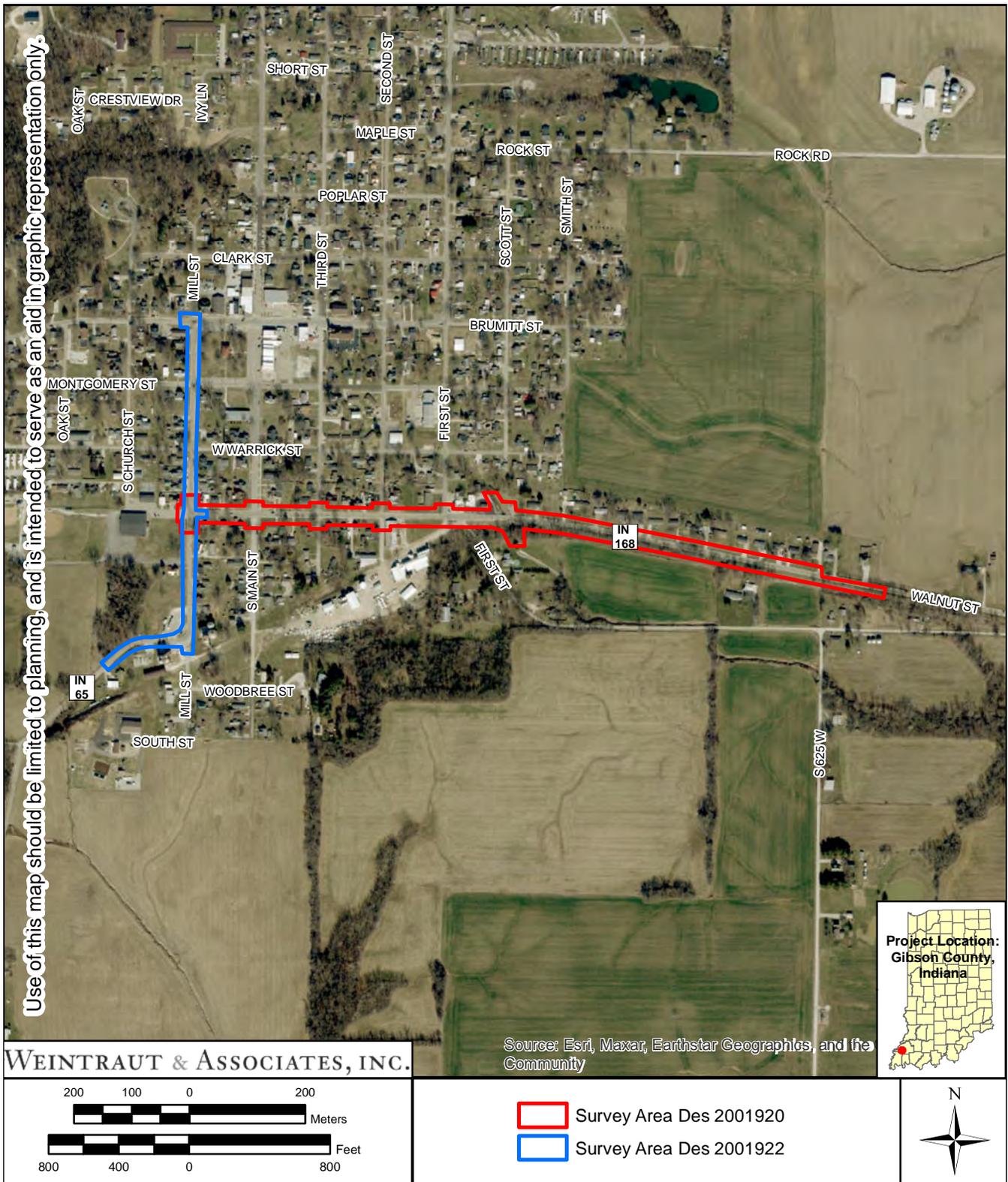


FIGURE 2. SURVEY AREA WITH ROAD MAP SHOWN ON A 2021 AERIAL PHOTOGRAPH.

Project Area

The area of potential effects (APE) is defined as the “geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist” (36 CFR 800.16(d)). For archaeological resources, the APE is the construction footprint, or project area. A survey area intended to encompass the APE was provided by WSP (Figure 2). The survey area for SR 168 (Walnut Street) (Des. No. 2001920) totals 3.97 ha (9.8 ac), and the survey area for SR 65 (South Mill Street) (Des. No. 2001922) totals 1.55 ha (3.83 ac).

Scope of Work

The purpose of this study was to determine if archaeological resources are present within the survey area, and if present, to make a preliminary assessment of their significance in meeting the criteria for listing in the Indiana Register of Historic Sites and Structures (IRHSS) and the National Register of Historic Places (NRHP). Archaeological sites and historic burial sites are protected under the Indiana Historic Preservation Act (Indiana Code 14-21-1) 312 IAC 21 and 22; and Section 106 of the National Historic Preservation Act (NHPA) (Advisory Council on Historic Preservation ([ACHP] 1966), as amended, and 36 CFR Part 800 (CFR 2016).

Environmental Setting

The survey area is located in the Glaciated Section of the Southwestern Lowlands Natural Region (Indiana Geographic Information Officer [IGIO] 2023). The Southwestern Lowlands Natural Region of Indiana is “characterized by its low relief and extensive aggraded valleys” where the majority of the region consists of level, poorly drained lowlands that are punctuated by well-drained, hilly uplands (Homoya et al. 1985:256). The Glaciated Section of the region is the Illinoian till plain and prior to historical settlement consisted of a mix of prairie and flatwoods, although when compared with the driftless section to the south, more southern species of trees are missing from the flatwoods (Homoya et al. 1985:256-257). This section “had the largest amount of prairie south of the Wisconsin glacial border in Indiana... (and) probably was very similar to the prairies of the Grand Prairie Region” (Homoya et al. 1985:257).

The survey area is located on a large highland loess formation that sits at the head of Owen Run to the northwest, the head of the Black River to the south, and Clark Run to the east side, all of which eventually drain to the Wabash River, part of the Lower Wabash River watershed (IGIO 2023).

Within the survey area, bedrock is classified as part of the Pennsylvanian system within Patoka and Shelburn rock units. Ditney, West

Franklin, and Holland/Holland Dark Phase cherts have been documented as part of the Patoka and Shelburn rock units in southwest Indiana (Cantin 2008:10, Table 1). Ditney chert is recently described, and little is known of its use or geographic distribution outside of the Bluegrass Site in Warrick County (Cantin 2008:24-26). West Franklin chert is also recently recognized, with the type site is in southwest Vanderburgh County (Cantin 2008:69). West Franklin chert may have been utilized by precontact populations that inhabited the region of the current survey area, but in contrast, the precontact utilization of Holland/Holland Dark Phase chert is well documented in the Ohio Valley throughout all periods beginning with the Paleoindian (Cantin 2008:32-37).

Soils in the survey area belong to the Sylvania-Alford soil association (IGIC 2022) and include Alford silt loam, 2 to 5 percent slopes, eroded (AlB2); Sylvania silt loam, 6 to 12 percent slopes, severely eroded (SyC3); Maplehill silt loam, frequently flooded (Ma); and Wakeland silt loam, 0 to 2 percent slopes, frequently flooded (Wa) (IGIO 2023) soil types.

Cultural Background

Situated in central Gibson County, the survey area is located within the town of Owensville along SR 65 and SR 168, consisting of portions of South Mill Street, East Walnut Street, West Walnut Street, and East Walnut Street; as well as portions located at the intersections of South Main Street, South Third Street, South Second Street and South First Street with Walnut Street. An inspection of Indiana State Historic Architectural and Archaeological Research Database (SHAARD) GIS shows most of the archaeological sites in the area are McGregor Industrial sites within the Town of Owensville (IDNR/DHPA 2022a).

The Paleoindian period (prior to ca. 7,500 BC) is well documented in the Lower Ohio Valley (Jefferies 2008:69-87). Based on a high density of Early Paleoindian sites, the Lower Ohio Valley, along with the lower Cumberland and Tennessee River valleys, have been postulated as “staging areas” where a wide range of ecotones would have provided a diverse resource base, rivers would have facilitated travel, and high-quality lithic materials would have been accessible (Anderson 1990:187-189). Although long associated with the hunting of mammoths and other megafauna with Clovis projectile points, the role of hunting, especially megafauna, varied in importance across different regions of eastern North America during the Early Paleoindian period (Tankersley 1996:26).

Projectile points associated with the Middle and Late Paleoindian periods are more numerous, suggesting population growth and expansion (Anderson 1990:204, Jefferies 2008:72).

Demographic and environmental changes led to a subsistence pattern that emphasized a mixed foraging strategy, hunting small and large game in Kentucky, and likely in the greater region of the Lower Ohio Valley (Jefferies 2008:78). According to SHAARD records, there are 21 Paleoindian sites in Gibson County, including six located in Montgomery Township (IDNR/DHPA 2022a).

The Early Archaic period (ca. 8,000-6,000 BC) is characterized by a greater diversity in cultural traditions in region of southern Indiana. Indiana State University’s Data Center Survey identified more point types from the Early Archaic than any other cultural period in the region (Stafford et al. 1988). An analysis of the point distribution in the Wabash Lowland region in Indiana indicates a decrease in residential mobility beginning in the Early Archaic period, with multi-seasonal base camps located in the lower portions of large river basins (Stafford 1994). With a decrease in residential mobility, a concomitant transition from foraging to collecting subsistence strategies is modeled for the region based on excavations conducted during the Caesars Archaeology Project (CAP) in Harrison County, perhaps influenced by

environmental change resulting in conditions more favorable to larger deer populations and more abundant nut mast (Stafford and Cantin 2009:307).

Based on a study of radiocarbon dates and associated projectile point types from CAP, Early Side-Notched points were associated with the beginning of the Early Archaic Period, followed by Thebes points, and then Kirk points with some overlap. At the very end of the period, Kirk points are replaced by Stilwell and Bifurcate points (Stafford and Cantin 2009:291-292; Figure 10.2). In his research on chert sources, Cantin asserts that Thebes home ranges may have been significantly larger than those of Kirk (2000:109-110), perhaps suggesting a decrease in the territorial range of the inhabitants of the region during the Early Archaic Period.

Early Archaic sites are numerous in Gibson County, with over 200 components listed (IDNR/DHPA 2022a). This includes a multitude of Kirk and Thebes points recorded in Montgomery Township (IDNR/DHPA 2022a).

Much of what is known of the Middle Archaic period (ca. 6,000-3,500 BC), in Indiana comes from sites excavated in the Lower Ohio Valley. However, similar to the Early Archaic, these sites are located in counties east of the survey area and outside the Lower Wabash subregion.

The excavations conducted during the Caesars Archaeology Project in Harrison County documented Middle Archaic occupations used to define the Knob Creek Complex and associated Knob Creek Stemmed projectile points, with radiocarbon dates ranging in age from 6,270 to 7,220 radiocarbon years before present (RCYBP) (Stafford and Cantin 2009:289; Table 10.1). The Bluegrass Site, a late Middle Archaic base camp occupation with a mortuary component located in an interior upland drainage basin in neighboring Warrick County, exhibited rock-filled pits and a well-preserved faunal assemblage (Stafford et al. 2000). These sites, along with others in the region, indicate that by 6,500 BP, some populations had become less mobile, with smaller home ranges and multi-seasonal base camps (Brown 1985; Jefferies 2008:121). Based on radiocarbon dates and the predominance of the Big Sandy II type projectile point, Stafford and Cantin (2009) proposed a Pre-French Lick phase for the range of 5,500 to 6,300 RCYBP at the end of the Middle Archaic period. There are nearly 100 Middle Archaic components listed in Gibson County, including 16 in Montgomery Township (IDNR/DHPA 2022a).

During the Late Archaic period (ca. 4,000-1,000 BC), site size continued to increase and site locations were situated to exploit seasonal resources. Definitive evidence of the use of weedy plants, such as goosefoot and lambsquarters, is known, and the number of tool

types, including many varieties of woodworking tools and tools for food processing, increases greatly in the Late Archaic Period (Jones and Johnson 2016; Smith and Yarnell 2009). In southern and central Indiana, Matanzas projectile points and bone pins are associated with the French Lick phase (Munson and Cook 1980). In the vicinity of the Falls of the Ohio region, the Old Clarksville phase (6,000 to 4,400 BP) (Granger 1988:179, Janzen 1977) and the Lone Hill phase (4,230 to 3,880 BP) (Janzen 2008) have been proposed, although these cultures appear to be restricted to areas east of the lower Wabash subregion.

Although these phases are not represented in Gibson County, data from these sites indicate that the settlement-subsistence patterns established in the Middle Archaic period continued into the Late Archaic. Base camps located near the abundant resources of the terraces and flood plain levees of large rivers were occupied on a multi-seasonal basis. Smaller sites are evidence of logistical forays to made to exploit resources in the uplands and other portions of major drainages. This pattern appears to have continued as late as 700 BC in the Lower Ohio Valley region of Indiana (Munson and Cook 1980:Table 23.7; Stafford 1994:231-232; Stafford and Cantin 2009). The Late Archaic Period is well represented in Gibson County, with over 150 associated components, including 19 located in Montgomery Township (IDNR/DHPA 2022a).

The Terminal Late Archaic period is associated most closely with the Riverton culture (ca. 1,500 to 700 BC), first defined by Winters (1963) as characterized by camps and settlements with storage pits located on low bluffs above the terraces of large rivers in the central and lower Wabash River Valley. The sites in the lower Wabash are characterized by several projectile point types and the presence of shell middens (Winters 1967). There are numerous Riverton components in Gibson County, included nearly 50 Riverton components in Montgomery Township (IDNR/DHPA 2022a).

In the Ohio Valley, the Early Woodland period (1000 to 200 BC) is characterized by an increase in ceremonialism and interregional exchange, and mortuary rituals including burial mounds and grave goods. Although these types of sites are well-documented in other parts of the Ohio Valley, large Early Woodland period sites are uncommon in southern Indiana, with the C.S. Lewis Mound in Shelby County the most well-known (Kellar 1960). Most sites from the period typically consist of small, seasonal or shorter duration camps situated adjacent to specific resource zones. Upland areas and small river valleys, except in areas adjacent to major rivers, appear to be abandoned or only infrequently used during this period (Sieber and Munson 1992).

There are over 80 sites associated with the Early Woodland period in Gibson County, including

14 in Montgomery Township (IDNR/DHPA 2022a). This period has been associated with the Adena culture in the mid-Ohio River Valley, characterized by conical burial mounds and diagnostic Adena, or Turkey-Tail points. There are over numerous components classified as Adena in Gibson County, including six mounds. Of the 45 Adena associations in Montgomery Township, one is recorded as a mound (IDNR/DHPA 2022a).

During the Middle Woodland (200 BC to AD 600), large geometric earthworks, elaborate mound groups, and large individual mounds were constructed, such as those at the Mann and Mount Vernon sites in adjacent Posey County (General Electric Company 1997; Kellar 1979). Crab Orchard, associated with the beginning of the Middle Woodland period, is well-documented Ohio River in neighboring Illinois, but is poorly understood in southwestern Indiana (Butler and Jefferies 1986; Kellar 1979:100-107; Maxwell 1951). However, a recent analysis of collections from avocational excavations and surface collections from the 1970s indicates there was an intensive Crab Orchard occupation of adjacent Vanderburgh County along the Ohio River between ca. 100 BC and AD 100 (Strezewski 2018a).

The Mann site is the type site for the Middle Woodland Mann Phase, known for its lamellar blades and ceramic styles similar to those more common in the Lower Mississippi Valley

(Ruby 1993:10-11). Recent excavations at Martin (12VG41) and analysis of materials from Kuester (12VG71) have provided valuable insight into Mann Phase occupations in southwestern Indiana (Strezewski 2014, 2018b). Only a small number of sites have been excavated as part of Phase II evaluations in Gibson County, and only one Phase III mitigation (12GI13) has been conducted according to SHAARD records (IDNR/DHPA 2022a). Portions of site 12GI13, Weber Village, was excavated in advance of the construction of power transmission facilities that yielded radiocarbon assays and artifacts associated primarily with the Middle and Late Woodland periods, although there was some evidence for Late Archaic and Mississippian period occupations (Duddleson et al. 2019:123).

The Late Woodland period (AD 500 to 950) has been dated as following the decline of Hopewell and viewed as a period of dramatic changes in settlement-subsistence strategies and socio-political organization patterns (Redmond and McCullough 2000). Late Woodland occupation of Gibson County declined compared with the Middle Woodland period, falling from well over 100 components to less than 50 (IDNR/DHPA 2022a).

Spanning the terminal Late Woodland and Mississippian period, the Yankeetown complex has been associated with the period between AD 800 and 1100 in the lower Wabash Valley

(Redmond 1986; Winters 1967). The core area of Yankeetown is the region upstream from Evansville in Vanderburgh and Warrick Counties, including the Yankeetown site on the Ohio River. The Yankeetown site was the subject of a recent riverbank investigation that documented numerous features, including eight associated with the Yankeetown occupation of the site. Radiocarbon dates from these deposits produced dates ranging from AD 890 to 1260 (Greenan and Garnewicz 2010).

In adjacent Vanderburgh County, the Yankeetown component at the aforementioned Kuester site is difficult to differentiate from the later Angel component due to being comingled within the uppermost stratum (Strezewski 2014:35). Yankeetown ceramics recovered from within and adjacent to a Mississippian-style structure are interpreted as possible evidence for a multi-ethnic household that likely occupied the site sometime between AD 1050 and 1150 (Strezewski 2014:114). In adjacent Posey County, excavations of house structures and features at the Dead Man's Curve site also suggest continuity between Yankeetown and Angel phase occupations (Alt et al. 2011).

The Late Precontact Period (AD 950-1650) witnessed a widespread intensification of maize horticulture and other modified plants, once tropical cultigens (beans and squash) became a greater part of the subsistence economy. A broad spectrum of wild game, including deer, remained

important to Protohistoric diets as well. The Mississippian Tradition is characterized by complex chiefdoms, and in Indiana, the Angel Mounds site and its affiliated settlements are the definitive example of large Mississippian population center with characteristic platform mounds and fortifications.

Located in Vanderburgh County, Angel Mounds is the type site for the Angel phase of the Middle Mississippian (900 BP to 500 BP) (Black 1967; Honerkamp 1975). The Angel phase adaptation was based on the intensive cultivation of maize and secondary cultigens. Primary settlements were hierarchically organized, with towns such as Angel having socio-political and religious control over a large geographic area. Large centrally located sites, such as Angel, were planned and typically have open plaza areas and community structures placed atop large flat-topped mounds, as well as organized residential areas with permanent houses. Angel phase sites have been documented as far west as the Tradewater River in Kentucky, as far east as the Anderson River in Indiana, and up the Wabash River as far as New Harmony (Hilgeman 2000:16-17). Despite its proximity to Vanderburgh County, there are no sites associated with Angel in Gibson County (IDNR/DHPA 2022a).

The depopulation and eventual abandonment of Angel and other Middle Mississippian chiefdoms precedes, and perhaps overlaps the

Caborn-Welborn phase (AD 1400 to 1700). The Caborn-Welborn phase is in many ways a continuation of the Mississippian period adaptation, and is argued to be a response of the population of Angel, and possibly other groups, to the social changes taking place in the Terminal Mississippian period (Green and Munson 1978, Pollack and Munson 2003). The distribution of Caborn-Welborn sites is more restricted than Angel phase sites, with the Posey County-Vanderburgh County line representing the eastern limit of the geographic distribution, and the mouth of the Saline River in southern Illinois its western limit (Hilgeman 2000:17-19). Settlement hierarchy is still apparent, but large Caborn-Welborn villages lack platform mounds (Munson 1983). Mortuary patterns are decentralized, with burials found in both blufftop cemeteries and domestic contexts (Pollack 2004). Excavated Caborn-Welborn sites in Indiana include Caborn (12PO32), a hamlet consisting of a linear distribution of structures, pits, midden and isolated burials (Pollack 2004:91), and Hovey Lake (12PO10), a large village with a habitation area surrounding a central plaza (Munson 1983, 1997). The Mann site also contains a veneer of Caborn-Welborn materials (Kellar 1979). As listed in SHAARD, there are no sites associated with Caborn-Welborn, in Gibson County (IDNR/DHPA 2022a).

Historic period trade goods are associated with Caborn-Welborn sites and are utilized as a

diagnostic of the phase (Pollack 2004). Recently, early (AD 1450 to 1600), middle (AD 1450 to 1600) and late (AD 1600 to 1700) Caborn-Welborn subdivisions have been proposed, with European trade goods becoming common in the Late Caborn-Welborn (Pollack 2004:143-149). Of four Late Caborn-Welborn sites, one is located in Indiana - the Murphy site in Posey County (12PO3). Pollack postulates that inhabitants of the region during Late Caborn-Welborn would have been affected by spread of European diseases and may have relocated elsewhere (Pollack 2004:148-149).

Although no definitive dates are known, the first Europeans to enter into Gibson County were French fur traders during the late-seventeenth century. At that time, several Native American tribes populated the state, with the Piankeshaw, a band of the Miami, occupying the Wabash River Valley (Jones and Johnson 2016:17). Euro-american settlement of Gibson County began before the beginning of the nineteenth century (Stormont 1914:37-38; HLF1 1984:xvii). One early twentieth century source notes that before that time, Gibson County was inhabited by the Shawnee, Sac, Fox, Kickapoo, Miami, and Pottawatomie tribes (Stormont 1914:32). Reportedly driven off two years before, Native Americans that remained in Gibson County in 1809 were subject to hostilities by a force led by Captain Jacob C. Warrick that included some of the earliest settlers of the area of Owensville (Stormont 1914:33-34). Seemingly unprovoked,

Warrick's group set fire to the last Native American village in the county, a Piankeshaw settlement located two miles east of Owensville, and later maintained some degree of silence about the event for fear of government reprisal (Stormont 1914:33-34).

Gibson County was established in 1813, along with of Posey, Warrick, Vanderburgh, and Pike Counties, from a portion of Knox County, with Owensville purchased from the government the same year (HLFI 1984:xvii). The early nineteenth century brought the arrival of white settlers in growing numbers coming mainly from southern states including Kentucky, Tennessee, Virginia, North Carolina and South Carolina (HLFI 1984:xvii). Early Owensville merchant John C. Warrick, son of the aforementioned Jacob C. Warrick, bought grain and pork from local farmers, warehoused the goods during the winter at a site on the Wabash River, and then moved the goods down river to market after the spring thaw, amassing a large fortune (Stormont 1914:344).

In the mid-nineteenth century, the construction of the Wabash and Erie Canal, and the later coming of the railroad, spurred agricultural growth in Gibson County (Stormont 1914:93,101-105). However, this nineteenth century economic growth slowed with the decline in river and canal traffic, and the eventual end of the golden age of agriculture in the early twentieth century (Phillips

1968:132). In the twentieth century, population growth plateaued in both Gibson County and Owensville (StatsIndiana 2023a, 2023b). When originally platted by Philip Brisco, a large, square park was donated to the town that is now at the center of the Owensville Historical District (HLFI 1984:5). Today, the square still serves as a focal point for the community and is the site of the Owensville Carnegie Library.

Archaeological Records Check and Archival Research

On August 23, 2022, the author conducted an archaeological records check of SHAARD (IDNR/DHPA 2022a). Site files, reports, and GIS data available from SHAARD, as well as other sources, were reviewed in order to locate, identify, and evaluate known and expected cultural resources that might be affected by the current project. The records check also identified cultural resources within 1.6 km (1 mi) radius around the survey area to establish a context used to formulate expectations for the types of archaeological sites that might be encountered during fieldwork.

Fifteen archaeological sites are located within 1.6 km (1 mi) of the survey area (Table 1). Information provided on site files available from SHAARD indicates that fourteen sites are MacGregor Industrial sites, the locations of which are based on archival research, not archaeological investigations (IDNR/DHPA 2022a). Site 12GI53 is a precontact camp of which little is known (IDNR/DHPA 2022a). Three of these sites, 12GI1517, 12GI1518, and 12GI1530 are located within or adjacent to the survey area.

TABLE 1. ARCHAEOLOGICAL SITES LOCATED WITHIN 1.6 KM (1 MI) OF SURVEY AREA.

Site Number	Site Type	Cultural Affiliation	Reference	Within Project Area
12GI53	Artifact scatter	Unidentified precontact	IDNR/DHPA 2022	No
12GI1512	Grist mill	Historical	IDNR/DHPA 2022	No
12GI1513	Flour mill	Historical	IDNR/DHPA 2022	No
12GI1514	Tile works	Historical	IDNR/DHPA 2022	No
12GI1515	Metal battan shop	Historical	IDNR/DHPA 2022	No
12GI1516	Brick manufacturer	Historical	IDNR/DHPA 2022	No
12GI1517	Saw mill	Historical	IDNR/DHPA 2022	Yes
12GI1518	Blacksmith	Historical	IDNR/DHPA 2022	Yes
12GI1521	Saw mill	Historical	IDNR/DHPA 2022	No
12GI1522	Blacksmith	Historical	IDNR/DHPA 2022	No
12GI1523	Printing, bakery	Historical	IDNR/DHPA 2022	No

12GII 524	Tin works	Historical	IDNR/DHPA 2022	No
12GII 525	Harness manufacturing	Historical	IDNR/DHPA 2022	No
12GII 529	Blacksmith	Historical	IDNR/DHPA 2022	No
12GII 530	Printing	Historical	IDNR/DHPA 2022	Yes

The results of the records check showed that portions of the current survey area had been previously surveyed (IDNR/DHPA 2022a). This survey was conducted in advance of the installation of waterlines along many of the streets within the current survey area (Beard 1994). However, the field methods implement-

ed during this survey consisted of the surface inspection of gardens and other areas of disturbance and did not include shovel test probes. Two other Phase Ia surveys have been conducted within 1.6 km (1 mi) of the survey area, neither of which recorded sites that were recommended for further investigation (Table 2).

TABLE 2. PREVIOUS INVESTIGATIONS WITHIN 1.6 KM (1 MI) OF THE SURVEY AREA.

Author	Year	Project Type	Sites within 1.6 km	Within project area?
Beard, Thomas C.	1994	Phase Ia survey	None	Yes
Holycross, David N.	2005	Phase Ia survey	None	No
Moffat, David	2007	Phase Ia survey	None	Yes
Richardson, John W.	1981	Phase Ia survey	None	No

SHAARD indicates there are no cemeteries within 30.5 meters (m) (100 feet [ft]) of the survey area (IDNR/DHPA 2022a). Within 1.6 km (1 mi), there are five cemeteries (Table 3).

The survey area is centered on SR 65 (South Mill Street) and SR 168 (East and West Walnut Street). Beginning at its northern terminus at Brummitt Street, the survey area extends south on Mill Street to Warrick Street with historical residences on the west side of the road and the

town park on the east side of the road within the Owensville Historical District (HLFI 1984:5). At its south end on South Mill Street, the survey area is adjacent to grain silos and loaders that once operated on the Owensville Branch of the Evansville and Terra Haute Railroad (Hammond and Tillman Publishing Company 1899:31,39). From here, the survey area extends west along SR 65 to near the head of the Black River. Walnut Street is depicted as lacking access to Mill Street on an 1899 plat map, terminating at

TABLE 3. CEMETERIES WITHIN 1.6 KM (1 MI) OF THE SURVEY AREA.

Cemetery ID	Name	Earliest Internment	Within 100 ft of Survey Area
CR-26-87	Yager	1787	No
CR-12-43	Manson	1841	No
CR-26-58	Independent Order of Odd Fellows Owensville	1859	No
CR-26-74	Owensville Old	1832	No
CR-26-63	Lucas	1841	No

Main Street (Hammond and Tillman Publishing Company 1899:31,39). Mill Street is shown as a through street in later quadrangle maps (USGS 1959).

Methodology

This Phase Ia archaeological investigation was undertaken to meet requirements of Section 106 of the National Historic Preservation Act (ACHP 1966), as amended, and 36 CFR Part 800 (CFR 2016) with the purpose of determining if archaeological resources are present within the survey area, and if present, to make a preliminary assessment of their significance in meeting the criteria for listing in the IRHSS and the NRHP. This study was conducted in accordance to, and compliance with, the Secretary of the Interior's *Standards and Guidelines for Archaeology and Historic Preservation* (48 FR 44716), the current *Guidebook for Indiana Historic Sites and Structures Inventory-Archaeological Sites* issued by the

IDNR/DHPA (2022b), INDOT's *Cultural Resource Manual* (2019), and recent amendments to the Indiana Historic Preservation Act (IC 14-21-1). The field work, laboratory analysis, and preparation of the final report and recommendations were accomplished or directly supervised by a Principal Investigator meeting the standards set forth in 36 CFR 61 of the National Historic Preservation Act and 312-IAC-21 of the Indiana Administrative Code.

Field Methods

The survey area was in a residential setting where ground surface visibility was minimal and there were no plowed farm fields. Therefore,

archaeologists employed a shovel probing methodology. Large portions of the survey area had been demarcated by utility location personnel. These areas, along with pavement, were evaluated as disturbed and were not probed. The remainder of the survey area was sampled with probes on one transect spaced at intervals spaced no more than 15 m (49 ft) apart. Shovel test probes measured a minimum of 30 centimeters (cm) (11.8 inches [in]) in diameter and extended a minimum of 10 cm (3.9 in) into culturally sterile subsoil, or to a maximum depth of 50 cm (19.7 in). Excavated soil was screened through 6.35 millimeter (mm) (0.25 in) wire mesh hardware cloth to ensure uniform recovery of cultural material and shovel probes were then backfilled. Artifacts recovered during shovel test probing were bagged and recorded according to the unique identification assigned to each shovel probe. Once artifacts were recovered from shovel test probes, the spacing was reduced, at minimum, to 5 m (16 ft) near the periphery of the site and continued until two sequential negative probes were excavated in order to determine site boundaries.

Laboratory Methods

All artifacts recovered as a result of this reconnaissance were processed and analyzed at W&A laboratory facilities. Processing involved gentle cleaning with a soft brush and tap water followed by a minimum 24-hour drying period. All recovered cultural material and project documentation will be curated at Ball State

University, Applied Anthropology Laboratory (BSU/AAL), Muncie, Indiana, upon approval of the final report by the IDNR/DHPA. W&A has sent notifications to landowners that artifacts have been recovered from their property and provided them with a list of recovered items. Landowners have been asked to respond within thirty (30) days from the date of notification if they desire the return of any artifact(s). Before artifact(s) are returned to a landowner, they will be fully documented in accordance with IDNR/DHPA guidelines.

Historical artifacts were classified, cataloged, and associated with specific date ranges based on morphological characteristics. The following classifications were used to determine date ranges for specific artifact types identified as the sites recorded as part of the current survey.

Nails recovered from archaeological contexts have been associated with specific historical periods based on morphological characteristics. These morphological characteristics, namely, the shapes of the cross section and heads, the number of tapered sides, etc., are determined by the types of process used in their manufacture, which have a well-documented history (Miller et al. 2000; Nelson 1968; Wells 1998). Manufacturing processes include hand-wrought, machine-cut, and drawn-wire types. Wrought nails are the earliest form of iron nails and were forged by blacksmiths and are rectangular- or square-shaped and taper on all

four sides from the head toward the point. Cut nails are manufactured by being stamped from a sheet of metal and therefore, only taper on two sides, but also exhibit square or rectangular cross-sections. Nails with square cross sections were distinguished from those with round cross sections, which were classified as wire nails. Wire nails began to be produced in large quantities in the late 1880s and by 1900 their manufacture had superseded cut nails (Wells 1998:87).

Glassware recovered during this survey included no elements, characteristics, or makers' marks that could be used to further refine the chronological associations of the sites. Colors identified as a result of this survey included aqua, clear, brown and red container glass. In the absence of other diagnostic indicators, these colors provide only the most general chronology by their association.

Aqua glass generally predates AD 1930, with notable exceptions such as Coca-Cola bottles and "Ball Blue" jars (Society for Historical Archaeology (SHA) 2023). By this time, selenium had come into use as a decolorizing agent that allowed for high-quality *clear glass* to be produced in large industrial tank furnaces, such as those used by the Owens Company, precipitating a decrease in demand for other colors, such as aqua (Miller and McNichol 2012:89).

Ceramic ware types recovered from sites recorded during the current survey include yellowware and whiteware.

Whiteware is defined as a refined, nonvitreous, white-bodied earthenware that exhibits a truly white color, unlike earlier ceramic types which have a bluish or cream-colored tint. Whitewares generally postdate 1805 (des Fontaines 1990:4; Miller et al. 2000:13). The whiteware recovered during field work included undecorated and transferware sherds.

Stoneware is fired at a much higher temperature than earlier redware, causing the clay to vitrify in the kiln and producing a type of ware that did not require glazing to hold liquid (Greer 2005). Stoneware can be dated by the type of glaze used to treat the vessel before firing. Sherds with salt glaze on the exterior portion and Albany slip on the interior portion became common after 1840. Sherds with salt glaze on the exterior and an unidentified slip on the inside are generally associated with the period between AD 1750 and 1870 (Ketchum 1983).

Ironstone is a semivitreous, white-bodied ware intermediate in hardness between refined earthenwares, such as whiteware, and porcelain. Early ironstones consisted of high-fired, fine-grained earthenwares with a slightly blue-gray tint produced by flint and blue oxide of cobalt (Stelle 2001). Ironstone first appeared in American markets in 1842 (Stelle 2001).

Results of the Reconnaissance

W&A archaeologists conducted Phase Ia field reconnaissance of the survey area on September 26 through September 28, 2022. Situated in a mostly residential area, much of the survey area was evaluated as disturbed based on the presence of demarcated buried utilities or pavement. During the archeological field reconnaissance, nine previously undocumented archaeological sites (12GI1695 through 12GI1703) were recorded, and three previously recorded sites (12GI1517, 12GI1518, 12GI1530) were re-surveyed. The results of the field work are organized into four segments of named roadways within the survey area.

SR 65 (South Mill Street) between SR 165 (West Brummitt) and SR 168 (West Walnut Street)

Beginning at the north/west end of the survey area at the intersection of SR 65 and SR 165, shovel test probes were placed on both the east and west sides of SR 65, extending south to near its intersection with SR 168, although much of the east side was within pavement or areas disturbed by buried utilities north of SR 168 (Figures 3 through 7).

As a result of the shovel test probing, sites 12GI1695 through 12GI1697 were recorded, and site 12GI1530 was re-surveyed, described below.

SR 65 (South Mill Street) south of SR 168 (West Walnut Street), and SR 65 west of South Mill Street

South of SR 168, shovel test probes were placed on both the east and west sides of SR 65, extending through a residential area south to near its intersection with SR 65 (Figures 8 through 13). At this intersection and southwest along South Mill Street/SR 65, large gravel parking/access areas associated with the grain silos and railroad, and buried utilities in a wooded area precluded the placement of shovel test probes.

As a result of the shovel test probing, sites 12GI1698 through 12GI1700 were recorded, described below.

SR 168 (West and East Walnut Street) between SR 65 (South Mill Street) and South First Street

On SR 168 east of SR 65, shovel test probes were placed on both the north and south sides of SR 168 through a mostly residential area, but also within an industrial portion near South First Street on the south side of SR 168 (Figures 14 through 22). With a small number of exceptions, buried utilities were located between the sidewalk and the roadway, and did not prevent placement of a transect of shovel test probes on both sides of the road in this portion of the survey area.

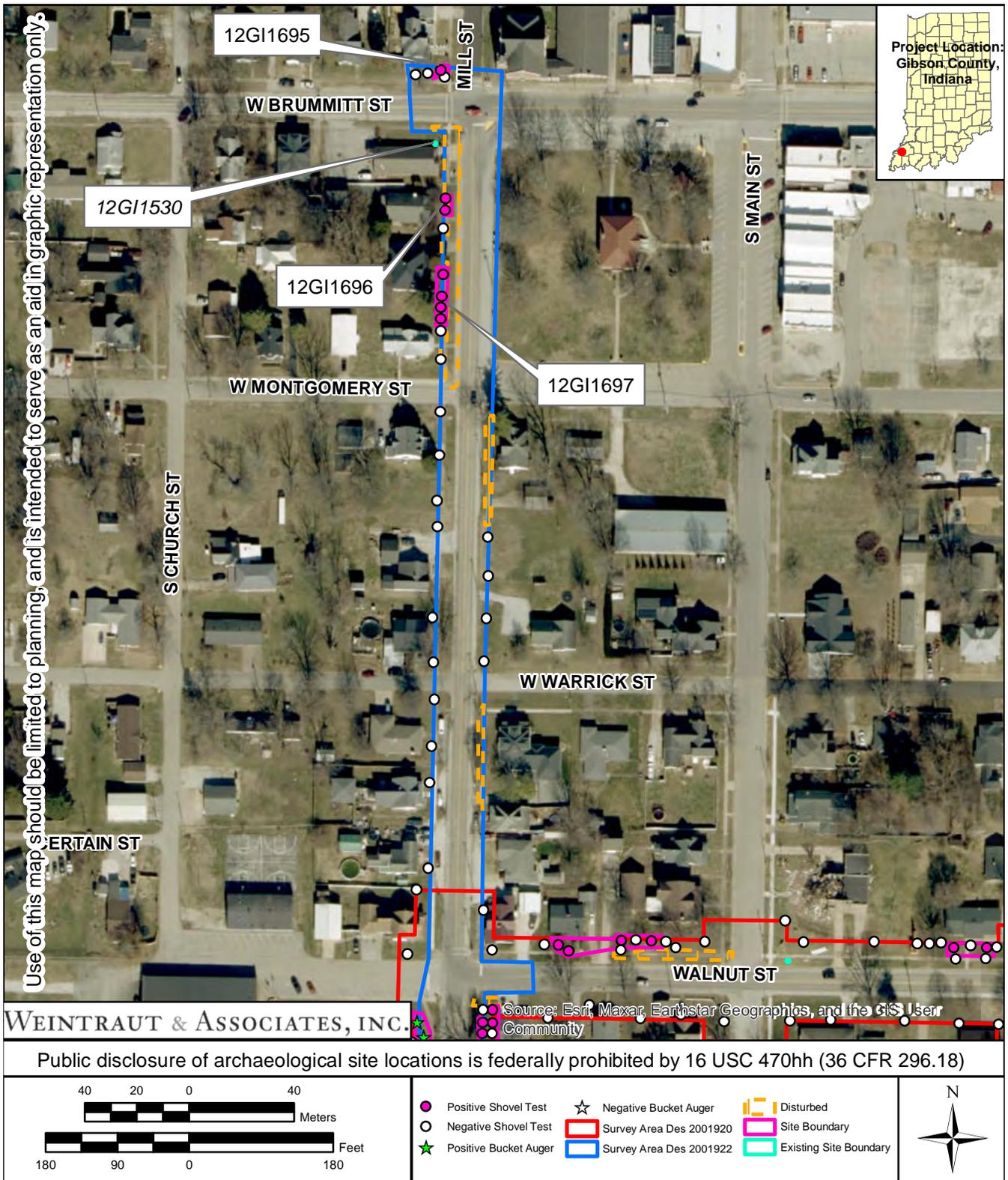


FIGURE 3. SURVEY AREA: SR 65 (SOUTH MILL STREET) BETWEEN WEST BRUMMITT STREET AND SR 168 (WEST WALNUT STREET) SHOWING LOCATION OF SHOVEL TEST PROBES, AREAS OF DISTURBANCE, AND LOCATIONS OF SITES 12GI1530, 12GI1695, 12GI1696, AND 12GI1697 (2021 AERIAL PHOTOGRAPH).



FIGURE 4. SURVEY AREA: EAST SIDE OF SR 65 (SOUTH MILL STREET) BETWEEN WEST BRUMMITT STREET AND WEST MONTGOMERY STREET,VIEW TO THE NORTHEAST.



FIGURE 5. SURVEY AREA:WEST SIDE OF SR 65 (SOUTH MILL STREET) BETWEEN WEST BRUMMITT STREET AND WEST MONTGOMERY STREET,VIEW TO THE NORTH.



FIGURE 6. SURVEY AREA: SR 65 (SOUTH MILL STREET) BETWEEN WEST MONTGOMERY STREET AND WEST WARRICK STREET,VIEW TO THE NORTHEAST.



FIGURE 7. SURVEY AREA: SR 65 (SOUTH MILL STREET) BETWEEN WEST WARRICK STREET AND SR 168 (WEST WALNUT STREET),VIEW TO THE NORTHWEST.



FIGURE 8. SURVEY AREA: SR 65 (SOUTH MILL STREET) SOUTH OF SR 168 (WEST WALNUT STREET) AND SR 65 WEST OF SR 65 (SOUTH MILL STREET) SHOWING LOCATION OF SHOVEL TEST PROBES, AREAS OF DISTURBANCE, AND LOCATION OF SITES 12GI1698, 12GI1699, AND 12GI1700 (2021 AERIAL PHOTOGRAPH).



FIGURE 9. SURVEY AREA: SR 65 (SOUTH MILL STREET) SOUTH OF SR 168 (WEST WALNUT STREET),VIEW TO THE SOUTH.



FIGURE 10. SURVEY AREA: EAST SIDE OF SR 65 (SOUTH MILL STREET),VIEW TO THE SOUTH TOWARDS INTERSECTION WITH SR 65.



FIGURE 11. SURVEY AREA: INTERSECTION OF SOUTH MILL STREET AND SR 65/SR 65 (SOUTH MILL STREET), VIEW TO THE EAST TOWARDS DISTURBED GRAVEL PARKING AREA.



FIGURE 12. SURVEY AREA: THE NORTH SIDE OF SR 65 WEST OF SR 65 (SOUTH MILL STREET), VIEW TO THE WEST SHOWING AREAS DISTURBED BY BURIED UTILITIES.



FIGURE 13. SURVEY AREA: THE NORTHWEST SIDE OF SR 65 AT SOUTHERN TERMINUS, VIEW TO THE NORTH-EAST SHOWING AREAS DISTURBED BY BURIED UTILITIES.

12GI530**UTM Coordinates (NAD 83):** 16S 439400 E, 4326257 N**Cultural Period:** Late 19th to Early 20th century historic**Site dimensions:** unknown**Elevation:** 160.6 m (527 ft) AMSL**Topographic setting:** Upland flat**Soil type:** Alford silt loam, 2 to 5% slopes, eroded (AIB2)**Nearest water source:** Owen Run**Distance and direction to nearest water:** 292.9 m (961 ft) north**Surface Visibility:** 0%; residential lawn, landscaped beds

Site 12GI530 is the location of a late nineteenth to early twentieth century printing workshop. Anchored in the southeast corner, the site is located in the SE ¼ of the NE ¼ of the

NW ¼ of the NE ¼ of Section 12 in Township 3 South, Range 12 West of the USGS 7.5' series Owensville, Indiana, topographic quadrangle map (Appendix B).



FIGURE 33. SITE 12GI530, VIEW TO THE SOUTH.



FIGURE 34. SITE 12GI1530 MAP SHOWING UTILITIES AND DISTURBANCE (2021 AERIAL PHOTOGRAPH).

The reported location of site 12GI1530 is on the southwestern corner of West Brummitt Street and SR 65 (South Mill Street) (Figure 33). The location is based on historical research conducted by John McGregor in 1987, receiving the McGregor Historical Industrial Site No. 8-229 (IDNR/DHPA 2022a). Available site files from SHAARD indicate that this site has never been visited or otherwise surveyed by archaeologists following its identification based on archival sources, and therefore, the existence of archaeological deposits or a site boundary had not been established (IDNR/DHPA 2022a). W&A archaeologists surveyed the portion of the survey area in the vicinity of site 12GI1530 on September 26, 2022. When W&A surveyed the area near 12GI1530, archaeologists found the location to be in an area of mowed grass flanked by concrete sidewalks, roadways, and buried utilities on the property of a U.S. post office. Within the survey area, areas of mowed grass between the sidewalk and the roadways were not sampled with probes due to the presence of buried utilities (Figure 34) and an area measuring approximately 1 m (3 ft) wide between the sidewalk and the post office was not sampled due to the presence of large rosebushes (see Figure 33).

A rectangular structure is shown abutting the southwestern corner of West Brummitt Street and SR 65 with a smaller square building to the west on a late nineteenth century town plat, presumably adjacent to or within the current

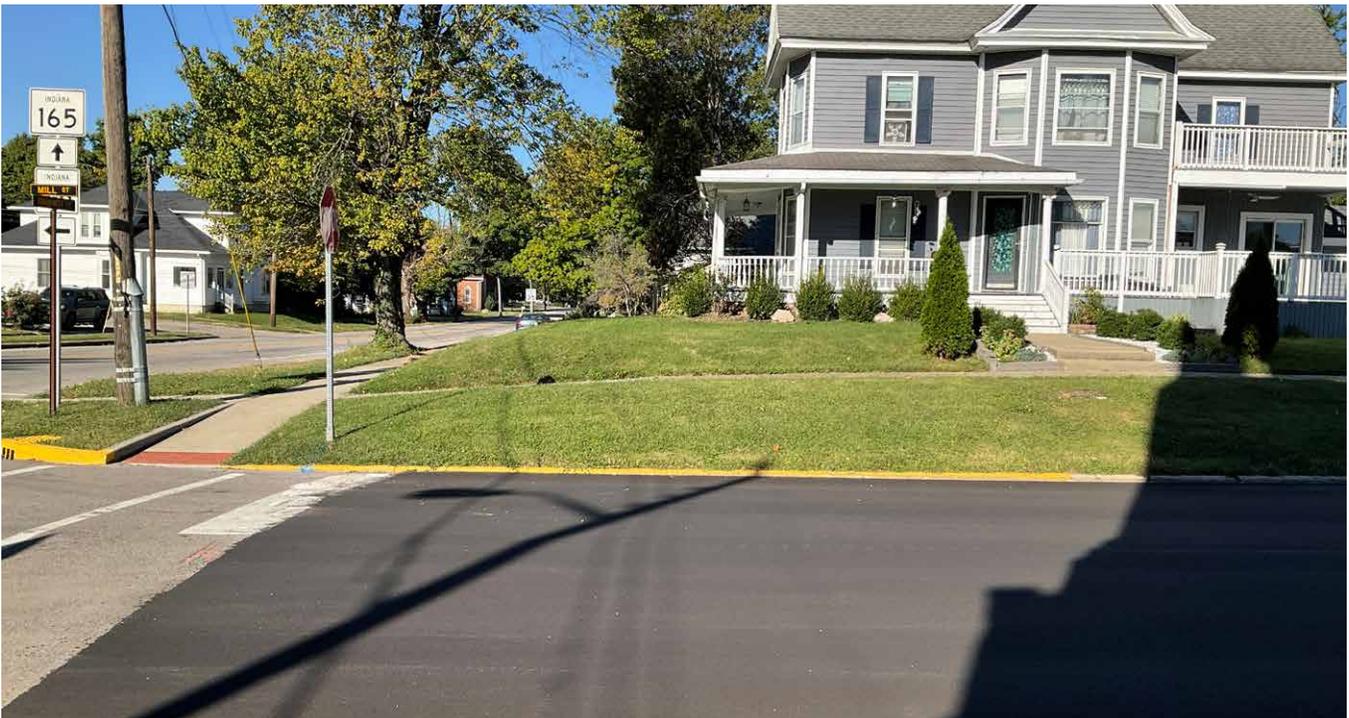
survey area (D.J. Lake and Company 1881:37). Near the turn of the century, a house is shown slightly south of this location with a different floor plan that appears to have changed little between 1895 and 1907 (Sanborn Insurance Company 1895, 1900, 1907).

Although no shovel test probes were possible, the portion of the survey area in the vicinity of site 12GI1530 is assessed as disturbed by the construction of paved sidewalks and the installation of buried utilities. The portion of the survey area adjacent to the reported location of 12GI1530 lacks significant archaeological deposits, and therefore, is recommended for no further archaeological investigation. However, if the project boundaries were to change and extend beyond the survey area, additional investigation would be necessary.

12GI1695**UTM Coordinates (NAD 83):** 16S 439399 E, 4236283 N**Cultural Period:** Mid-19th to early 20th century historic**Site dimensions:** 1 m (3 ft) N/S x 1 m (3 ft) E/W**Elevation:** 160.9 m (528 ft) AMSL**Topographic setting:** Upland flat**Soil type:** Alford silt loam, 2 to 5% slopes, eroded (AIB2)**Nearest water source:** Owen Run**Distance and direction to nearest water:** 254.5 m (835 ft) north**Surface Visibility:** 0%; residential lawn

Site 12GI1695 is a mid-nineteenth to early twentieth century historical artifact scatter. The site is located in the SE $\frac{1}{4}$ of the NE $\frac{1}{4}$ of the NW $\frac{1}{4}$ of the NE $\frac{1}{4}$ of Section 12, Township 3

South, Range 12 West, of the USGS 7.5' series Owensville, Indiana, topographic quadrangle map (Appendix B).

**FIGURE 35.** SITE 12GI1695, VIEW TO THE WEST

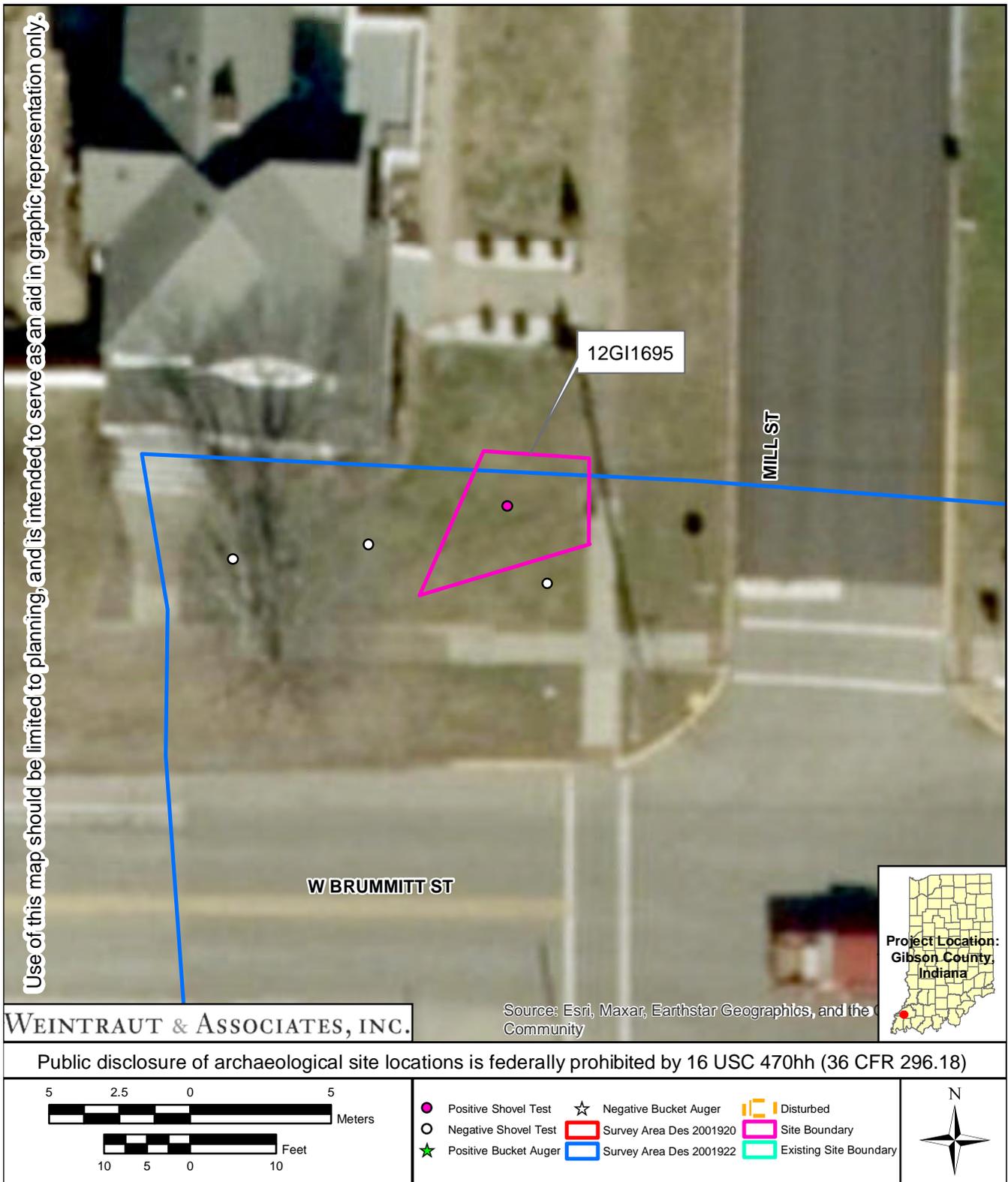


FIGURE 36. SITE 12GI1695 MAP SHOWING SHOVEL TEST PROBES AND UTILITIES (2021 AERIAL PHOTOGRAPH).

W&A archaeologists surveyed site 12GI1695 on September 26, 2022. The site is located at the northwest corner of SR 165 (West Brummitt Street) and North Mill Street in the residential yard the adjacent late nineteenth century Queen Anne-style house (IHSSI# 051-493-06009) (Figure 35).

On a transect along the northern boundary of the survey area, one shovel test probe excavated at a 15-m (49 ft) interval produced historical artifacts. Three additional probes excavated at a maximum of 5 m (16 ft) failed to produce additional artifacts (Figure 36).

Soils observed at 12GI1695 are consistent with the characteristics described for Alford series soils (Soil Survey Staff [SSS] 2023). In the shovel test probe profiles, Stratum I consisted of a dark

yellowish brown (10YR 4/4) silt loam extending to 32 cm (12.6 in) below surface. Below this, Stratum II, consisting of a silt clay loam with a yellowish brown (10YR 5/6) coloration. These strata were interpreted as Ap and B horizons.

Artifacts recovered from 12GI1695 include historical ($n=28$) materials weighing 74.0 grams (g) (Appendix C). The historical artifact assemblage consists of artifacts assigned to architectural and kitchen groups (South 2002) (Table 4). The architecture group is comprised of eight shards of flat aqua glass, likely from a window, and two brick fragments. The kitchen group includes 16 sherds of whiteware and one fragment of clear container glass. Three of the sherds of whiteware are decorated, and 13 are undecorated. Surface decorations include two with blue transfer patterns and one hand-painted (Figure 37).

TABLE 4. FUNCTIONAL CATEGORY TABLE OF HISTORICAL ARTIFACTS RECOVERED FROM SITE 12GI1695.

Functional Group*	Artifact	Form	Description	Count (n)	Date Range	Notes
Architecture	Ceramic	Earthenware	Brick Fragment	2		
	Glass		Pane	8		aqua
	Metal	Ferrous	Nail, square	1	Pre-1900	Wells 2000:87
Kitchen	Ceramic	Decorated Whiteware	Rim sherd	3	Post 1830	(3) hand painted (Majewski & O'Brien 1987:142)
		Undecorated Whiteware	Body sherd	13	Post 1830	Majewski & O'Brien 1987:142
	Glass	Container	Body fragment	1		clear
Total				28		

*After South 2002

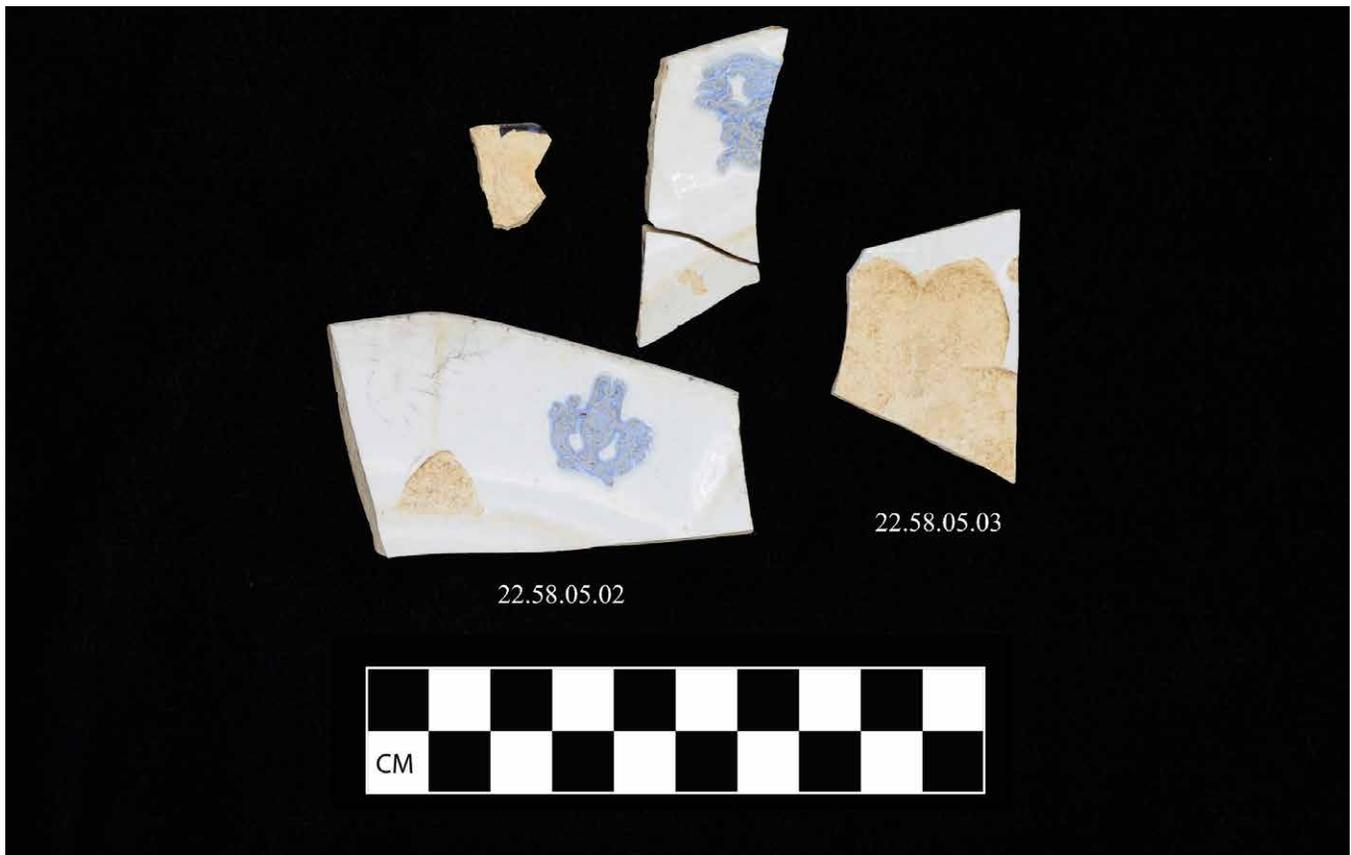


FIGURE 37. DECORATED WHITEWARE RECOVERED FROM SITE 12GI1695.

A rectangular structure is shown in the approximate location of 12GI1695 in the northwest quadrant of the intersection of SR 165 and North Mill Street with a smaller square building to the west on a late nineteenth century town plat, presumably adjacent to or within the current survey area (D.J. Lake and Company 1881:37). A similar structure is depicted in 1895 and 1900, and by 1907, a house is shown on the property that appears to match the planview of the current house adjacent to the site (Sanborn Insurance Company 1895, 1900, 1907).

Site 12GI1695 is a small historical artifact scatter. The remains encountered are interpreted as the

result of the demolition of a mid- to late nineteenth century structure at that location or a localized dump associated with the adjacent late nineteenth/early twentieth century house on the property.

The fragmentary nature of the artifacts and surface context indicate the deposits within the survey area lack the potential to yield important information. Due to a lack of significant deposits, the portion of site 12GI1695 within the survey area is recommended for no further archaeological investigation. Site 12GI1695 may extend outside the survey area, and if the project boundaries were to change and extend beyond the survey area, additional archaeological survey would be necessary.

12GI1696**UTM Coordinates (NAD 83):** 16S 439400 E, 4236230 N**Cultural Period:** Mid-19th to early 20th century historic**Site dimensions:** 8 m (26 ft) N/S x 3 m (10 ft) E/W**Elevation:** 160.3 m (526 ft) AMSL**Topographic setting:** Upland flat**Soil type:** Alford silt loam, 2 to 5% slopes, eroded (AIB2)**Nearest water source:** Owen Run**Distance and direction to nearest water:** 311.2 m (1,021ft) north**Surface Visibility:** 0%; residential lawn

Site 12GI1696 is a mid-nineteenth to early twentieth century historical artifact scatter. The site is located in the NE¹/₄ of the SE¹/₄ of the NW¹/₄ of the NE¹/₄ of Section 12, Township 3

South, Range 12 West, of the USGS 7.5' series Owensville, Indiana, topographic quadrangle map (Appendix B).

**FIGURE 38.** SITE 12GI1696, VIEW TO THE SOUTH.



FIGURE 39. SITE 12GI1696 MAP SHOWING SHOVEL TEST PROBES AND UTILITIES (2021 AERIAL PHOTOGRAPH).

W&A archaeologists surveyed site 12GI1696 on September 26, 2022. The site is located on the west side of SR 65 (South Mill Street) between West Brummitt Street and West Montgomery Street in the residential yard the adjacent early twentieth century Bungalow/Craftsman house (IHSSI# 051-493-06018) (Figure 38).

On a transect along the western boundary of the survey area, one shovel test probe excavated at a 15-m (49 ft) interval produced historical artifacts. One of two additional probes excavated at a maximum of 5 m (16 ft) produced additional artifacts (Figure 39).

Soils observed at 12GI1696 are consistent with the characteristics described for Alford

series soils, except for deeper Ap horizons (SSS 2023). In the shovel test probe profiles, Stratum I consisted of a dark yellowish brown (10YR 4/4) silt loam extending to between 32 and 38 cm (12.6 to 15.0 in) below surface. Below this, Stratum II consists of a silt clay loam with a yellowish brown (10YR 5/6) coloration. These strata were interpreted as Ap and B horizons.

Artifacts recovered from 12GI1696 include historical ($n=12$) materials weighing 36.07 g (Appendix C). The historical artifact assemblage consists of artifacts that were assigned to architectural, kitchen and unidentified groups (South 2002) (Table 5). The architecture group is comprised of two shards of flat aqua glass likely to be from a window, two square nails, one unidentified nail, one

TABLE 5. FUNCTIONAL CATEGORY TABLE OF HISTORICAL ARTIFACTS RECOVERED FROM SITE 12GI1696.

Functional Group*	Artifact	Form	Description	Count (n)	Date Range	Notes
Architecture	Ceramic	Earthenware	Brick Fragment	3		
	Synthetic	Mortar		1		
	Glass		Pane	2		aqua
	Metal	Ferrous	Nail, unidentified	1		
Nail, square			2	Pre-1900	Wells 2000:87	
Kitchen	Ceramic	Stoneware	Body sherd	1	AD 1750 to 1870	Salt glaze exterior, brown slip interior (Greer 2005; Ketchum 1983)
Unidentified	Glass	Clear		1		
	Metal	Ferrous		1		
Total				12		

*After South 2002



FIGURE 40. STONEWARE RECOVERED FROM SITE 12GI1696.

fragment of mortar, and three brick fragments. The kitchen group is comprised of just one body sherd of salt glazed stoneware with a brown slip (Figure 40). One fragment of ferrous metal and one sherd of clear glass remain unidentified.

No structures are shown in the location of 12GI1696 on South Mill Street on a late nineteenth century town plat (D.J. Lake and Company 1881:37), and a review of later insurance maps shows no structures in 1895, 1900, or 1907 at the location of the current house adjacent to the site (Sanborn Insurance Company 1895, 1900, 1907). This is consistent with the estimated c. 1925 date for the construction of the house currently occupying the property (IDNR/DHPA 2022a).

Site 12GI1696 is a small historical artifact scatter. The remains encountered are interpreted as the result of the demolition of a mid- to late nineteenth century structure on (what is now) an adjacent property during the nineteenth/early twentieth century. The fragmentary nature of the artifacts and surface context of the deposits indicate the the portion of site 12GI1696 within the survey area lacks significant deposits, and therefore is recommended for no further archaeological investigation. However, site 12GI1696 may extend outside the survey area. If project limits were to change to include areas outside the current survey area, addition survey would be required.

12GI1697**UTM Coordinates (NAD 83):** 16S 43399 E, 4236195 N**Cultural Period:** mid-19th to early 20th century historic**Site dimensions:** 22 m (72 ft) N/S x 4 m (13 ft) E/W**Elevation:** 158.8 m (521 ft) AMSL**Topographic setting:** Upland flat**Soil type:** Alford silt loam, 2 to 5% slopes, eroded (A1B2)**Nearest water source:** Owen Run**Distance and direction to nearest water:** 338.3 m (1,110 ft) north**Surface Visibility:** 0%; residential lawn

Site 12GI1697 is a mid-nineteenth to early twentieth century historical artifact scatter. The site is located in the NE $\frac{1}{4}$ of the SE $\frac{1}{4}$ of the NW $\frac{1}{4}$ of the NE $\frac{1}{4}$ of Section 12, Township 3

South, Range 12 West, of the USGS 7.5' series Owensville, Indiana, topographic quadrangle map (Appendix B).

**FIGURE 41.** SITE 12GI1697, VIEW TO THE SOUTH.



FIGURE 42. SITE 12G11697 MAP SHOWING SHOVEL TEST PROBES, LOCATION OF PROBE WITH CONCENTRATION OF COAL, AND UTILITIES (2021 AERIAL PHOTOGRAPH).

W&A archaeologists surveyed site 12GI1697 on September 26, 2022. The site is located on the west side of SR 65 (South Mill Street) between SR 165 (West Brummitt Street) and West Montgomery in the residential yard of the adjacent late nineteenth century Colonial Revival house (IHSSI# 051-493-06017) (Figure 41).

On the transect along the western boundary of the survey area, two shovel test probes excavated at a 15-m (49 -ft) interval produced historical artifacts. Two of three additional probes excavated at a maximum of 5-m (16-ft) intervals produced additional artifacts (Figure 42).

Soils observed at 12GI1697 are consistent with the characteristics described for Alford

TABLE 6. FUNCTIONAL CATEGORY TABLE OF HISTORICAL ARTIFACTS RECOVERED FROM SITE 12GI1697

Functional Group*	Artifact	Form	Description	Count (n)	Date Range	Notes
Activity	Cinder			3		
	Coal			9		
Architecture	Ceramic	Earthenware	Brick Fragment	10		
	Glass		Pane	4		aqua
	Metal	Ferrous	Nail, unidentified	4		
			Nail, square	3	Pre-1900	Wells 2000:87
Arms	Metal	Cuprous	Bullet shell	1	1887-1934	0.22 caliber rifle with "P" headstamp (Sullenbarger Associates and Past Architects 2008; Peterson 2019)
Kitchen	Glass	Body fragment		1	Pre-1930**	light aqua (Miller and McNichol 2012:89; SHA 2023)
		Rim fragment		1	Pre-1930**	aqua
Unidentified	Flora	Wood	Charcoal	4		
	Ceramic	Earthenware	Possible marble or bead	1		
	Metal	Ferrous	Container cap	5		
Total				46		

*After South 2002

** with some exceptions

series soils, except for deeper Ap horizons (SSS 2023). In the shovel test probe profiles, Stratum I consisted of a dark yellowish brown (10YR 4/4) silt loam extending to between 26 and 35 cm (10.2 to 13.8 in) below surface. Below this, Stratum II consists of a silt clay loam with a yellowish brown (10YR 5/6) coloration. These strata were interpreted as Ap and B horizons. One shovel test probe exhibited a stratigraphic profile in which a sod horizon between 0 and 16 cm (0 and 6.3 in) overlaid a dense stratum of coal extending to 16 cm (6.3 in) below surface (see Figure 43). Below this, a subsoil consisting of a silt clay loam with a yellowish brown (10YR 5/4) coloration was recorded. No artifacts

besides coal were observed in this probe, which is interpreted as the remains of a coal dump or depot related to home heating.

Artifacts recovered from 12GI1697 include historical ($n=46$) materials weighing 45.15 g (Appendix C). The historical artifact assemblage consists of artifacts that were assigned to activity, architectural, arms, kitchen, and unidentified groups (South 2002) (Table 6). Items belonging to the activity group included cinders ($n=3$) and coal ($n=9$), likely related to home heating. The architecture group is comprised of four shards of flat aqua glass (likely window glass), three square nails, four



FIGURE 43. RIM-FIRE COPPER SHELL FROM A 0.22 MM RIFLE RECOVERED FROM SITE 12GI1697.

unidentified nails, and ten brick fragments. The sole artifact assigned to the arms group is a rim-fire copper shell from a 0.22 mm rifle (Figure 43). The kitchen group is composed of one light aqua body fragment and one aqua rim fragment of container glass. One fragment of ceramic material (possibly from a marble or bead), four pieces of wood charcoal, and five fragments of a steel container cap remain unidentified and/or unassigned to an artifact group.

With the exception of the general late nineteenth to early twentieth centuries associations of aqua glass and square nails (Miller and McNichol 2012:89; SHA 2023; Wells 1998:87), only the rim-fire .22 caliber long cartridge can provide a more specific date range. The headstamp on the copper cartridge likely indicates manufacture by the Peters Cartridge Company located in southwest Ohio. Peters Cartridge Company was in operation between 1887 and 1934, and at one time ranked among the largest munitions manufacturers in the world (Sullenbarger Associates and Past Architects 2008:11-14; Peterson 2013).

A structure is shown in the location of 12GI1697 and the adjacent Colonial Revival house (IHSSI# 051-493-06017) on a late nineteenth century town plat (D.J. Lake and Company 1881:37), indicating it was built earlier than the estimated c. 1890 date provided on the site card (IDNR/DHPA 2022a). A review of later insurance maps shows additions made

to the original structure in 1900 and 1907 (Sanborn Insurance Company 1900, 1907).

Site 12GI1697 is a historical artifact scatter that includes a concentration of coal likely related to the heating of the adjacent Colonial Revival house (IHSSI# 051-493-06017) built sometime before 1881 (D.J. Lake and Company 1881:37). The activity, arms, and kitchen group artifacts are interpreted as the result of incidental deposition related to the occupation of the adjacent house in the late nineteenth to early twentieth century, and the architectural group artifacts as the result of the spread of demolition debris from adjacent properties and/or debris remaining from the original construction and multiple additions to IHSSI# 051-493-06017 during the late nineteenth and early twentieth centuries. The fragmentary nature of the artifacts and, with the exception of the concentration of coal, scattered surface context of the deposits indicate the portion of the site within the survey area lacks the potential to yield important information. Due to a lack of significant deposits, the portion of site 12GI1697 within the survey area is recommended for no further investigation. However, the site may extend to the west, and if the project boundaries were to change and extend beyond the survey area, additional investigation would be necessary.

12GI1698**UTM Coordinates (NAD 83):** 16S 43391 E, 4235915 N**Cultural Period:** Early 20th century historic**Site dimensions:** 23 m (75 ft) N/S x 5 m (16 ft) E/W**Elevation:** 157.3m (516 ft) AMSL**Topographic setting:** Upland flat**Soil type:** Alford silt loam, 2 to 5% slopes, eroded (AIB2)**Nearest water source:** Black River**Distance and direction to nearest water:** 179.5 m (589 ft) southwest**Surface Visibility:** 0%; residential lawn

Site 12GI1698 is an early twentieth century historical artifact scatter. The site is located in the SE¼ of the NE¼ of the SW¼ of the NE¼ of Section 12, Township 3 South, Range 12 West,

of the USGS 7.5' series Owensville, Indiana, topographic quadrangle map (Appendix B).

**FIGURE 44.** SITE 12GI1698, VIEW TO THE NORTH.

W&A archaeologists surveyed site 12GI1698 on September 28, 2022. The site is located on the southwest corner of SR 65 (South Mill Street) and SR 168 (West Walnut Street) in an open area of mowed grass on the property of REH Park (Figure 44), east of the Owensville Recreation Gym (IHSSI# 051-493-07052).

On the transect along the western boundary of the survey area in the vicinity of site 12GI1698, shovel test probes excavated at a 15-m (49 -ft) interval failed to produce cultural materials. However, a bucket auger placed in this location to assess soil stratigraphy within the survey area yielded historical artifacts and revealed an area of deep historical fill extending to 95 cm (37.4 in) below surface. Additional augers spaced no more than 7.5 m (24.6 ft) apart indicated this area of fill was deepest near the first auger, with a shallower deposit of fill found in the northernmost auger, and no fill in the southernmost auger (Figure 45).

In the soil profile of the first auger (Auger I), Stratum I consists of a dark yellowish brown (10YR 4/4) silt loam sod layer extending to 15 cm (5.9 in) below surface. Below this, Stratum II consists of a very fine sandy clay loam with a mix of dark yellowish brown (10YR 4/4) yellowish brown (10YR 5/8) coloration measuring approximately 44 cm (17.3 in) interpreted as fill. Below this, Stratum III is a second layer of fill consisting of a similar a mix of dark yellowish brown (10YR 4/4) and yellowish brown (10YR

5/8) soils, but exhibiting a silty clay loam texture. Stratum III extends to 68 cm (26.8 in) and also contains historical artifacts. Stratum IV consists of a yellowish brown (10YR 5/4) silty clay loam containing artifacts interpreted as a third and final layer of fill extending to 95 cm (37.4 in). Below this, a strong brown (7.5YR 5/8) massive silty clay loam with brownish yellow (10YR 6/6) mottling measuring 175 cm (68.9 in) in depth was interpreted as a culturally sterile C horizon. In the auger located 5 m (16 ft) north of Auger 1, the soils and stratigraphy were similar, but what is interpreted as the equivalent of Stratum II/ III in Auger 1, was more shallow (between 23 and 42 cm [9.1 and 16.5 in] below surface) and contained all of the artifacts found in this auger. Stratum IV contained no artifacts, and a similar sterile C horizon was encountered at 104 cm (40.9 in) below surface. In the auger located 5 m (16 ft) south of Auger 1, no artifacts were found, and a less complex stratigraphy was encountered, with a layer of sod overlying the same layer of fill found in the other augers between 26 and 46 cm (10.2 and 18.1 in), and a sterile subsoil below that. In the auger excavated 10 m (33 ft) south of Auger 1, a small number ($n=3$) of artifacts were recovered from Stratum I, but no layer of fill was encountered. Instead, Stratum II was a sterile subsoil consisting of a brown (10YR 4/3) silty clay loam with strong brown (7.5YR 4/6) mottling between 36 and 70 cm (14.2 and 27.6 in).

Artifacts recovered from 12GI1698 include historical ($n=118$) materials weighing 251.94 g



FIGURE 45. SITE 12GI1698 MAP SHOWING LOCATIONS OF SHOVEL TEST PROBES AND AUGERS (2021 AERIAL PHOTOGRAPH).

(Appendix C). The historical artifact assemblage consists of artifacts that were assigned to activity, agricultural, architectural, kitchen, and unidentified groups (South 2002) (Table 7). Items belonging to the activity group include only cinders/slag ($n=8$) that could be related to heating, but also to earlier steam-powered farming implements. The agricultural group is made up of 20 fragments of ceramic field tile. The architecture group is comprised of one shard of flat aqua glass likely from a window, four square nails, one wire nail, and 73 brick fragments. The kitchen group is composed of three clear fragments of container

glass and four mammal bone fragments. The unidentified and/or unassigned artifact group contains four pieces of ferrous metal. With the exception of the general pre-twentieth century association of square nails (Wells 1998:87); the artifacts recovered from site 12GI1698 lacked characteristics that can be associated with specific time periods. The majority of the artifacts recovered (66.9%) belong to the architectural group, and if the drain tile was used for drainage on the grounds of the school, and is considered architectural, the percentage increases to 83.9%.

TABLE 7. FUNCTIONAL CATEGORY TABLE OF HISTORICAL ARTIFACTS RECOVERED FROM SITE 12GI1698.

Functional Group*	Artifact	Form	Description	Count (n)	Date Range	Notes
Activity	Cinder			8		
Agricultural	Ceramic	Field tile		20		
Architec- ture	Ceramic	Earthenware	Brick Fragment	73		
	Glass		Pane	1		aqua
	Metal	Ferrous	Nail, wire	1		
			Nail, square	4	Pre-1900	Wells 2000:87
Kitchen	Fauna	Bone	Unidentified mam- mal fragment	4		
	Glass	Body fragment	clear	1		
		Rim fragment	clear	2		
Unidenti- fied	Metal	Ferrous		4		
Total				118		

*After South 2002

** with some exceptions

According to SHAARD, the Owensville Recreation Gym (IHSSI# 051-493-07052) was a c. 1950 addition to the Owensville High School built in 1916 (IDNR/DHPA 2022a). The high school was torn down in 1994, but the gym remains standing and is still in use. A late nineteenth century town plat (D.J. Lake and Company 1881:37) indicates there was an earlier public school to the southwest of the site that predates the 1916 school. A review of later insurance maps shows the same school on the 1881 plat map in 1907, but it was likely torn down prior to the construction of the school built in 1916 (Sanborn Insurance Company 1900, 1907).

Site 12GI1698 is a historical artifact scatter associated mainly with the demolition of the Owensville High School built in 1916 and demolished in 1994, but deeper strata observed in two of the augers contain a small amount of (architectural and unidentified) debris that may have resulted from the demolition of an earlier school on the property built before 1881 and likely demolished before 1916 (D.J. Lake and Company 1881:37, IDNR/DHPA 2022a).

The artifacts recovered from site 12GI1698 are interpreted as the result of the spread of demolition debris from the adjacent school(s) during the twentieth, and perhaps late nineteenth centuries, reflected in the high percentage of architectural artifacts present in the assemblage. Located in historical fill resulting from the

demolition of adjacent structures and the subsequent mechanical spreading and leveling of the soils containing the artifacts, these deposits lack context. Due to a lack of significant deposits, the portion of site 12GI1698 within the survey area is recommended for no further archaeological investigation. Site 12GI1698 may extend outside the survey area, and if the project boundaries were to change and extend beyond the survey area, additional archaeological survey would be necessary.

12GI1699**UTM Coordinates (NAD 83):** 16S 439392 E, 4235827 N**Cultural Period:** Mid-19th to early 20th century historic**Site dimensions:** 15 m (49 ft) N/S x 4 m (13 ft) E/W**Elevation:** 156.7 m (514 ft) AMSL**Topographic setting:** Upland flat**Soil type:** Alford silt loam, 2 to 5% slopes, eroded (AIB2)**Nearest water source:** Owen Run**Distance and direction to nearest water:** 151.2 m (496 ft) west**Surface Visibility:** 0%; residential lawn

Site 12GI1699 is a mid-nineteenth to early twentieth century historical artifact scatter. The site is located in the NE $\frac{1}{4}$ of the SE $\frac{1}{4}$ of the SW $\frac{1}{4}$ of the NE $\frac{1}{4}$ of Section 12, Township 3

South, Range 12 West, of the USGS 7.5' series Owensville, Indiana, topographic quadrangle map (Appendix B).

**FIGURE 46.** SITE 12GI1699, VIEW TO THE SOUTH.

W&A archaeologists surveyed site 12GI1699 on September 27, 2022. The site is located on the west side of SR 65 between SR 168 (West Walnut Street) and SR 65 in the residential yard of the only house remaining in this segment of the survey area with a street address of 412 South Mill Street (Figure 46).

On a transect along the western boundary of the survey area, one shovel test probe excavated at a 15-m (49 ft) interval produced historical artifacts. Two of four additional probes excavated at a maximum of 5-m (16 ft) intervals produced additional artifacts (Figure 47).

Soils observed at 12GI1699 are consistent with the characteristics described for Alford series soils, except for deeper Ap horizons (SSS 2023). In the shovel test probe profiles, Stratum I consisted of a dark yellowish brown (10YR 4/4) silt loam extending to between 37 and 45 cm (14.6 to 17.7 in) below surface. Below this,

Stratum II consists of a silt clay loam with a dark yellowish brown (10YR 4/6) or yellowish brown (10YR 5/6) coloration. These strata were interpreted as Ap and B horizons.

Artifacts recovered from 12GI1699 include historical ($n=17$) materials weighing 67.90 g (Appendix C). The assemblage consists of historical artifacts assigned to architectural and kitchen groups (South 2002) (Table 8). The architecture group is comprised of one unidentified nail and 11 brick fragments. The kitchen group includes two fragments of container glass and three sherds of undecorated whiteware.

On a late nineteenth century town plat, the location of site 12GI1699 is outside city limits, and is owned by W.A. Speck between 1881 and 1899 (D.J. Lake and Company 1881:37; Hammond and Tillman Publishing Company 1899:39). A review of later insurance maps show

TABLE 8. FUNCTIONAL CATEGORY TABLE OF HISTORICAL ARTIFACTS RECOVERED FROM SITE 12GI1699.

Functional Group*	Artifact	Form	Description	Count (n)	Date Range	Notes
Architec- ture	Ceramic	Earthenware	Brick Fragment	11		
	Metal	Ferrous	Nail, unidenti- fied	1		
Kitchen	Glass	Container	Body fragment	2		(1) red, (1) clear
	Ceramic	Undecorated Whiteware	Body sherd	3	Post 1830	Majewski & O'Brien 1987:142
Total				17		

*After South 2002

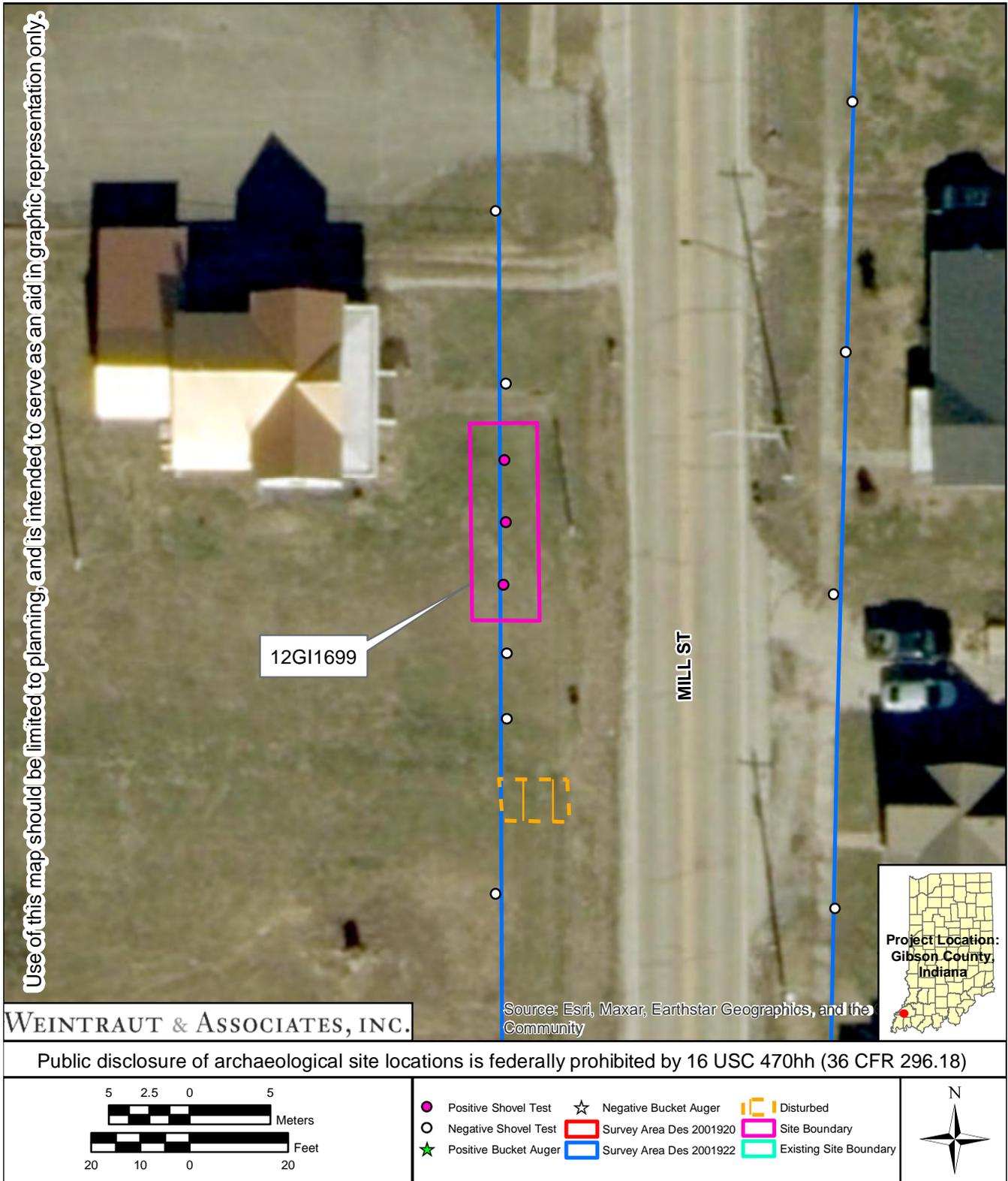


FIGURE 47. SITE 12GI1699 MAP SHOWING SHOVEL TEST PROBES AND UTILITIES (2021 AERIAL PHOTOGRAPH).

no structures adjacent to the site in the location of the current house (Sanborn Insurance Company 1907), but a structure is depicted in later USGS mapping (USGS 1959), indicating the house was built in the early or middle twentieth century.

Site 12GI1699 is a small historical artifact scatter. The architectural remains encountered are interpreted as the result of discard, perhaps related to the demolition of an outbuilding or other structure on the property, and the kitchen group artifacts as incidental discard. The small size of the site, the fragmentary nature of the artifacts, and surface context of the deposits indicate the site lacks significant deposits, and therefore, is recommended for no further archaeological investigation. Site 12GI1699 may extend outside the survey area, and if the project boundaries were to change and extend beyond the survey area, additional archaeological survey would be necessary.

12GI1700**UTM Coordinates (NAD 83):** 16S 439417 E, 4235914 N**Cultural Period:** Mid-19th to early 20th century historic**Site dimensions:** 22 m (72 ft) N/S x 8 m (26 ft) E/W**Elevation:** 157.3 m (516 ft) AMSL**Topographic setting:** Upland flat**Soil type:** Alford silt loam, 2 to 5% slopes, eroded (A1B2)**Nearest water source:** Black River**Distance and direction to nearest water:** 200.8 m (659 ft) west**Surface Visibility:** 0%; residential lawn

Site 12GI1700 is a mid-nineteenth to early twentieth century historical artifact scatter. The site is located in the NE ¼ of the NE¼ of the SW¼ of the NE¼ of Section 12, Township 3

South, Range 12 West, of the USGS 7.5' series Owensville, Indiana, topographic quadrangle map (Appendix B).



FIGURE 48. SITE 12GI1700, VIEW TO THE SOUTH.



FIGURE 49. SITE 12GI1700 MAP SHOWING SHOVEL TEST PROBES AND UTILITIES (2021 AERIAL PHOTOGRAPH).

W&A archaeologists surveyed site 12GI1700 on September 27, 2022. The site is located on the southeast corner of SR 65 (South Mill Street) and SR 168 (West Walnut Street) in the residential yard of a house with a street address of 103 West Walnut Street (Figure 48).

On a transect along the eastern boundary of the survey area, shovel test probes excavated at a 15-m (49 ft) interval produced historical artifacts. Including an additional probes excavated at maximum of 5-m (16 ft) intervals, a total of seven probes yielded historical artifacts (Figure 49).

Soils observed at 12GI1700 are consistent with the characteristics described for Alford series soils, except for deeper Ap horizons (SSS 2023). In the shovel test probe profiles, Stratum I consisted of a brown (10YR 4/3) silt loam extending to between 25 and 40 cm (9.8 to 15.7 in) below surface. Below this, Stratum II consists of a silt clay loam with a dark yellowish brown (10YR 4/6) or yellowish brown (10YR 5/6) coloration. These strata were interpreted as Ap and B horizons.

Artifacts recovered from 12GI1700 include historical ($n=56$) materials weighing 111.78 g (Appendix C). The historical artifact assemblage consists of artifacts that were assigned to activity, architectural, kitchen, and unidentified groups (South 2002) (Table 9). The activity group is limited to two pieces of coal likely related to home heating. The architecture group

is comprised of six unidentified nail, one square nail, five shards of pane glass, and 28 brick fragments. The kitchen group is comprised of nine fragments of container glass, one sherd of gray porcelain, and two sherds of whiteware, including one with a blue transfer print (Figure 50). The unidentified group includes one piece of rigid plastic tubing and one fragment of ferrous metal.

On a late nineteenth century town plat, the western terminus of SR 168 was Main Street, with divided residential lots meeting to form a larger block spanning the distance between West Warrick Street and the railroad to the south (D.J. Lake and Company 1881:37). At this time, the lot on which site 12GI1700 sits has its frontage on SR 65, but the house on the lot is at the south end, opposite the future location of West Walnut Street and site 12GI1700 (D.J. Lake and Company 1881:37). Near the beginning of the twentieth century, this area remained part of residential lots (Hammond and Tillman Publishing Company 1899:39). A review of later insurance maps shows SR 168 had been extended west past SR 65 by 1907, with a four-way intersection (Sanborn Insurance Company 1907). At this time, a stable shown to the east of the location of 12GI1700 (Sanborn Insurance Company 1907), but no structures (stables, outbuildings, or dwellings) are depicted in later USGS mapping (USGS 1959).

Site 12GI1700 is a small historical artifact scatter. The architectural remains encountered

TABLE 9. FUNCTIONAL CATEGORY TABLE OF HISTORICAL ARTIFACTS RECOVERED FROM SITE 12GI1700.

Functional Group*	Artifact	Form	Description	Count (n)	Date Range	Notes
Activity	Coal			2		
Architecture	Ceramic	Earthenware	Brick Fragment	28		
	Glass		Pane	5		aqua
	Metal	Ferrous	Nail, unidentified	6		
			Nail, square	1	Pre-1900	Wells 2000:87
Kitchen	Ceramic	Porcelain		1		Gray glaze exterior and interior
		Decorated Whiteware	Rim sherd	1	Post 1830	(1) blue transfer print Majewski & O'Brien 1987:142
		Undecorated Whiteware	Body sherd	1	Post 1830	Majewski & O'Brien 1987:142
	Glass	Basal fragment		3		Clear
		Body fragment		4	Pre-1930**	(3) clear, (1) aqua (Miller and McNichol 2012:89; SHA 2023)
		Rim fragment		2	Pre-1930**	(1) clear, (1) aqua
Unidentified	Synthetic	Plastic	Tubing	1		Rigid, black
	Metal	Ferrous		1		
Total				56		
*After South 2002						
** aqua glass with some exceptions						

may be related to the demolition of an outbuilding or other structure on the property, and the activity and kitchen group artifacts are likely the result of incidental discard, although it is also possible that this area was considered a peripheral area of the lot to the main house(s) and was occasionally used as a general area of discard. Due to a lack of significant deposits, the

portion of site 12GI1700 within the survey area is recommended for no further archaeological investigation. Site 12GI1700 may extend outside the survey area, and if the project boundaries were to change and extend beyond the survey area, additional archaeological survey would be necessary.

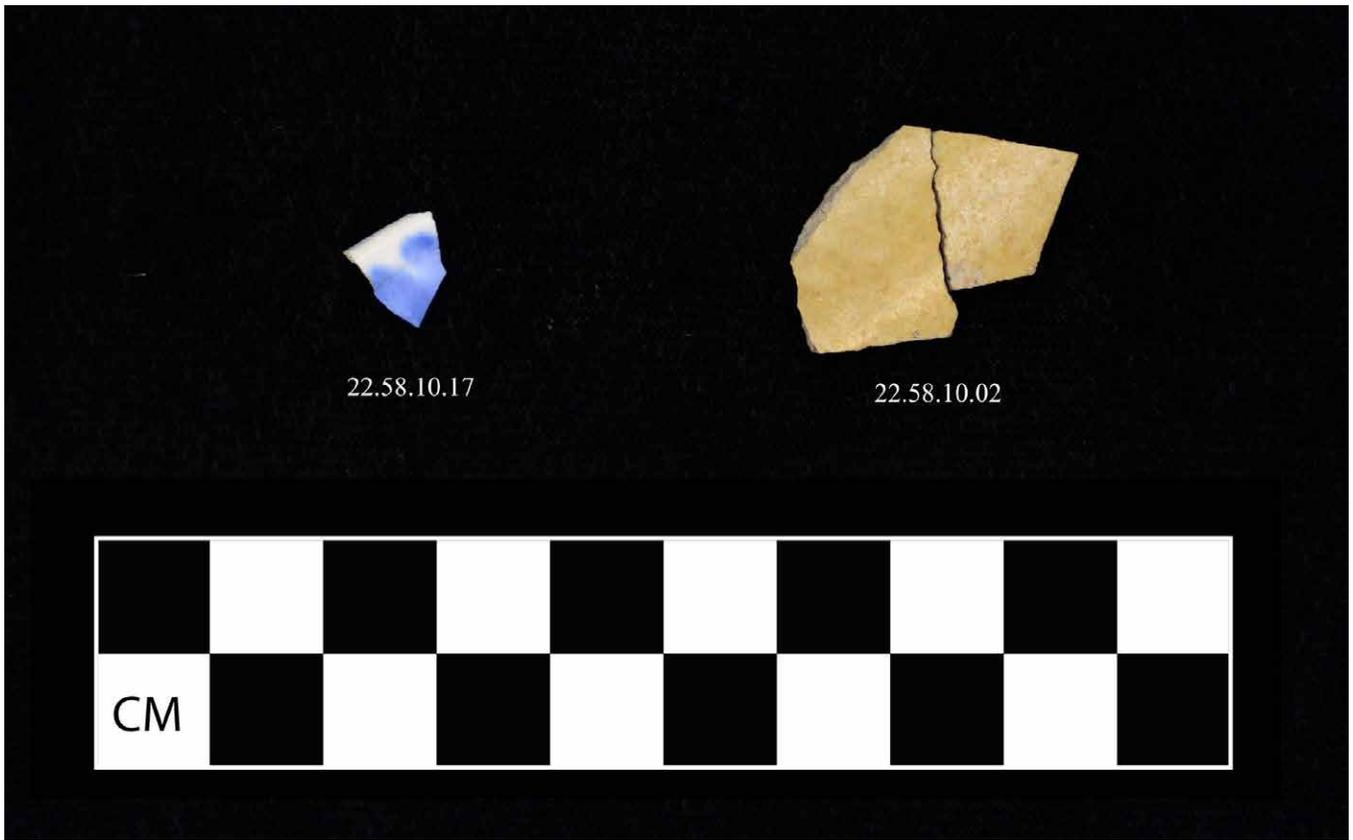


FIGURE 50. BLUE TRANSFER PRINT WHITEWARE AND PORCELAIN RECOVERED FROM SITE 12G11700.

12GI1701**UTM Coordinates (NAD 83):** 16S 439459 E, 4235949 N**Cultural Period:** Mid-19th to early 20th century historic**Site dimensions:** 8 m (26 ft) N/S x 43 m (141 ft) E/W**Elevation:** 158.2 m (519 ft) AMSL**Topographic setting:** Upland flat**Soil type:** Alford silt loam, 2 to 5% slopes, eroded (AIB2)**Nearest water source:** Black River**Distance and direction to nearest water:** 245.7 m (806 ft) west**Surface Visibility:** 0%; residential lawn

Site 12GI1701 is a mid-nineteenth to early twentieth century historical artifact scatter. The site is located in the NW $\frac{1}{4}$ of the NW $\frac{1}{4}$ of the SE $\frac{1}{4}$ of the NE $\frac{1}{4}$ of Section 12, Township 3

South, Range 12 West, of the USGS 7.5' series Owensville, Indiana, topographic quadrangle map (Appendix B).

**FIGURE 51.** SITE 12GI1701, VIEW TO THE WEST.

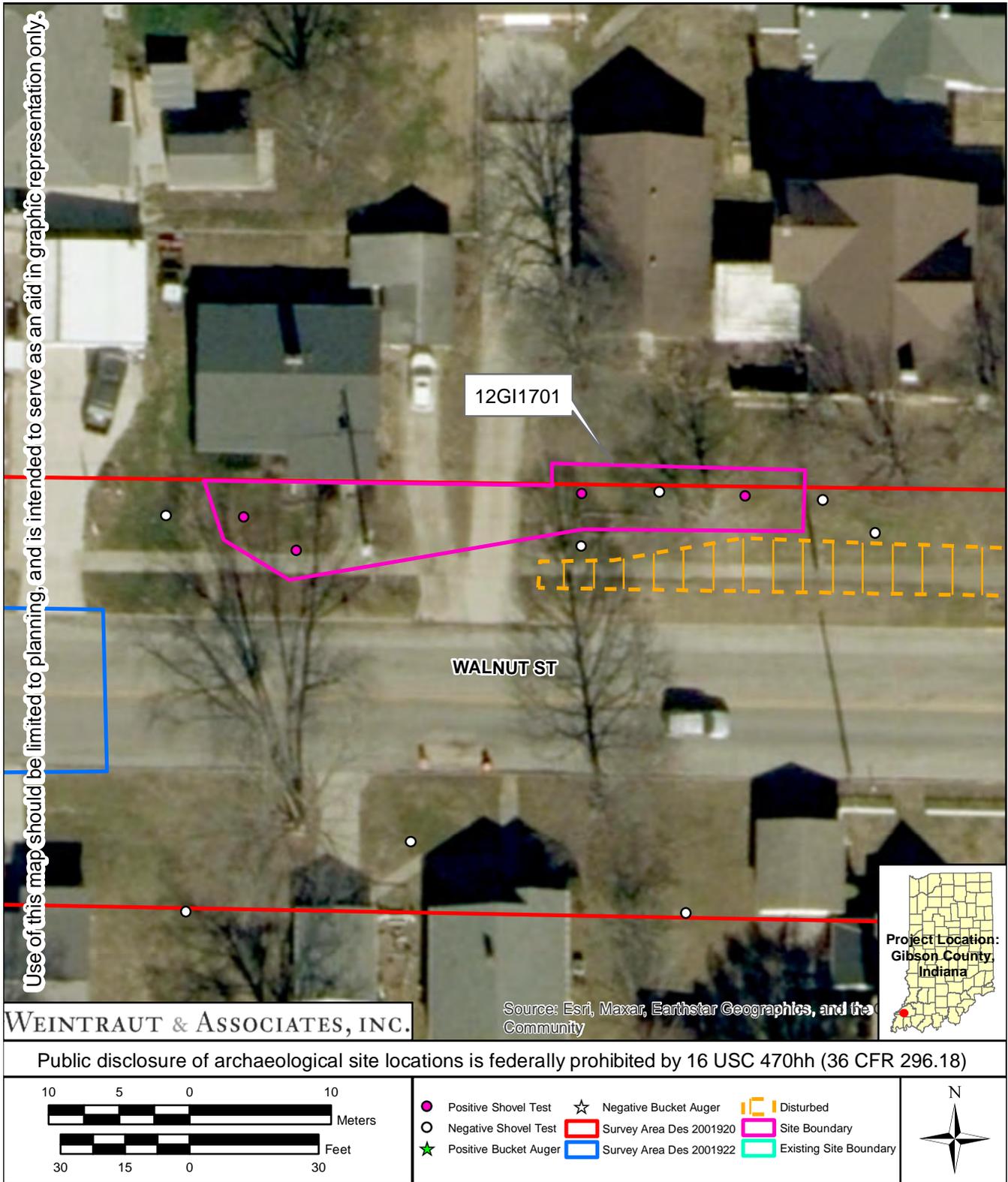


FIGURE 52. SITE 12GI1701 MAP SHOWING SHOVEL TEST PROBES AND UTILITIES (2021 AERIAL PHOTOGRAPH).

W&A archaeologists surveyed site 12GI1701 on September 27, 2022. The site is located on the north side of SR 168 (West Walnut Street) east of SR 65 in the residential yard of a house with a street address of 104 West Walnut Street (Figure 51).

On a transect along the northern boundary of the survey area, one shovel test probe excavated at a maximum of 15-m (49 ft) interval produced historical artifacts. An area of pavement and utilities precluded the placement of shovel test probes in the middle of the site, with the remaining positive probes located east of the area of disturbance. Three of eight additional probes excavated at a maximum of 5-m (16 ft) intervals produced additional artifacts (Figure 52).

Soils observed at 12GI1701 are consistent with the characteristics described for Alford series soils, except for deeper Ap horizons (SSS 2023). In the shovel test probe profiles hue and chroma were variable, but generally, Stratum I consisted of a brown (10YR 4/3) silt loam extending to between 30 and 40 cm (11.8 to 15.7 in) below surface. Below this, Stratum II consists of a silt clay loam with a yellowish brown (10YR 5/4). These strata were interpreted as Ap and B horizons.

Artifacts recovered from 12GI1701 include historical ($n=46$) materials weighing 159.08 g (Appendix C). The historical artifact assemblage consists of artifacts that were assigned to activity, architectural, kitchen, and unidentified groups

(South 2002) (Table 10). The activity group is composed of three pieces of coal and two cinders likely related to home heating. The architecture group is comprised of two unidentified nails, two square nails, two wire nails, one fencing staple, eight shards of pane glass, and seven brick fragments. The kitchen group is comprised of ceramic sherds and container glass. Ceramic sherds include one undecorated ironstone rim, one stoneware rim sherd with a red paste, a brown slip interior and a clear glaze exterior, one stoneware body with an Albany interior and unglazed or weathered exterior, one undecorated whiteware basal sherd, and one black transfer print whiteware body sherd (Figure 53). The undecorated basal sherd exhibits the lettering "SEMI" which, although partial, may indicate it was manufactured by the Steubenville Pottery Company c. 1904 (Kovel and Kovel 1986:121). Container glass present include one brown, six clear, and three light aqua body fragments, and one clear neck/finish fragment. The unidentified group includes two fragments of ferrous wire and two fragments of burned/melted clear glass.

A late nineteenth century town plat shows the western terminus of SR 168 was at Main Street, with divided residential lots meeting to form a larger block spanning the distance between West Warrick Street and the railroad to the south (D.J. Lake and Company 1881:37). At this time, the lots on which site 12GI1701 sits had their frontage on SR 65, and South Main Street, but the only houses in the vicinity was located farther

TABLE 10. FUNCTIONAL CATEGORY TABLE OF HISTORICAL ARTIFACTS RECOVERED FROM SITE 12G11701.

Functional Group*	Artifact	Form	Description	Count (n)	Date Range	Notes
Activity	Cinder/slag			2		
	Coal			3		
Architec- ture	Ceramic	Earthen- ware	Brick Fragment	7		
	Glass		Pane	8		(1) clear, (7) aqua
	Metal	Ferrous	Nail, square	2	Pre-1900	Wells 2000:87
			Nail, wire	2		
			Nail, unidentified	2		
Fencing staple			1			
Kitchen	Ceramic	Undecorated Iron-stone	Rim sherd	1		
		Stoneware	Red paste, rim sherd	1		Brown slip interior, clear glaze exterior;
			Body sherd	1	Post 1840	Albany interior, unglazed or weathered exterior (Greer 2005)
	Undecorated White-ware	Basal sherd	1	Post 1830	Embossed with "SEMI"; Majewski & O'Brien 1987:142	
		Decorated Whiteware	Body sherd	1	Post 1830	Black transfer print; Majewski & O'Brien 1987:142
	Glass	Body frag- ment		9	Pre-1930**	1 brown, 6 clear, 3 light aqua (Miller and McNichol 2012:89; SHA 2023)
			Neck/finish fragment	1		clear
Unidenti- fied	Metal	Ferrous	Wire	2		
	Glass			2		clear, melted/burned
Total				46		
*After South 2002						
** aqua glass with some exceptions						



FIGURE 53. DECORATED/DIAGNOSTIC CERAMICS RECOVERED FROM SITE 12GI1701.

north on the western lot, opposite the future location of SR '68 and site 12GI1701 (D.J. Lake and Company 1881:37). Near the beginning of the twentieth century, this area remained part of residential lots (Hammond and Tillman Publishing Company 1899:39).

A review of later insurance maps shows that by 1907 West Walnut Street extended west past SR 65, with a four-way intersection (Sanborn Insurance Company 1907). At this time, stables associated with nearby residences are depicted in the approximate location of 12GI1701; these stables appear to be associated with two residences located to the north with their

frontage on South Mill Street and South Main Street (Sanborn Insurance Company 1907) By the mid-twentieth century, these lots have been subdivided and dwellings are depicted along SR 168 in USGS mapping (USGS 1959).

Site 12GI1701 is a small historical artifact scatter within the survey area. The architectural remains encountered may be related to the demolition of late-nineteenth to early twentieth stables or other structures on the property, and the activity and kitchen group artifacts are likely the result of incidental discard, although it is also possible that this area was considered a peripheral area of the lot to the main house(s)

and was occasionally used as a general area of discard. However, no artifacts specifically related to horses or stables were recovered, and the small size of the site, the fragmentary nature of the artifacts, and surface context of the deposits indicate the site lacks the potential to yield important information. Due to a lack of deposits that have the potential to meet NRHP eligibility Criterion D, site 12GI1701 is recommended as not eligible to the IRHSS or NRHP and no further archaeological investigation is warranted.

Appendices:

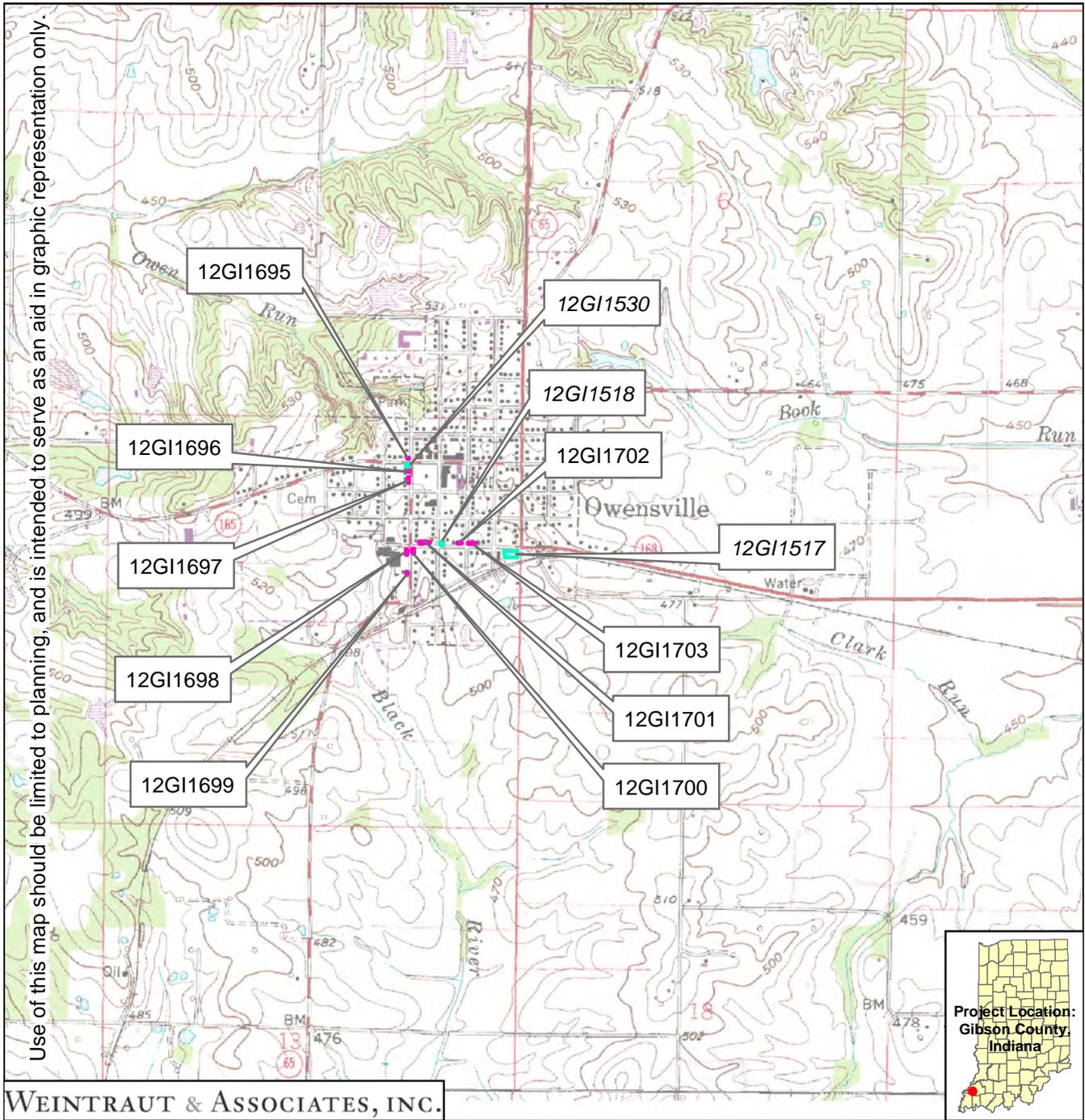
Appendix A

Appendix B

Appendix A

Des. no.	Township	Range	Section	1/4, 1/4, 1/4, 1/4-section	1/4, 1/4, 1/4-section	1/4, 1/4-section	1/4-section
20001920	3S	12W	12	NE	NE	SW	NE
				SE			
				NW	NW	SE	
				NE			
				SW			
				SE			
				NW	NE	SE	
				NE			
				SW			
				SE			
SE	NW	SW					
SW							
NE							
NW	SW	SW					
NE							
NW	SE	NW					
NE							
NW	SW	SE					
NE							
SE	SE	NE					
NW							
SW	SW	SW	NE				
2001922	3S	12W	12	SE	NE	NW	NE
				NE			
				SE	SE	SW	
				NE			
				SE	SE	SW	
				SW			

Appendix B

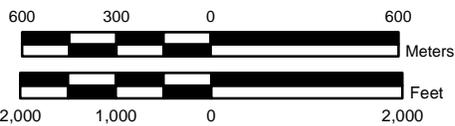


Use of this map should be limited to planning, and is intended to serve as an aid in graphic representation only.



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-  Site Boundary
-  Existing Site Boundary



Appendix C

FS No	Site Number	BSU Accn_Cat No	Primary	Secondary	Tertiary	Quaternary	Quinary	Attributes	Remarks	N	Mass (g)
17	12G11695	22.58.05.01	Historic	Architectural	Ceramic	Brick fragment				2	12.66
17	12G11695	22.58.05.02	Historic	Ceramic	White-ware	Rim sherd			1 with hand painted blue eagle molded motif, 1 with hand painted blue Roman vase molded motif, 1 black hand painted	3	26.1
17	12G11695	22.58.05.03	Historic	Ceramic	White-ware	Body sherd			2 refits, edge of design or maker's mark	13	18.0
17	12G11695	22.58.05.04	Historic	Glass	Container	Body fragment		Clear		1	4.5
17	12G11695	22.58.05.05	Historic	Glass	Flat	Fragment		Light aqua		8	6.5
17	12G11695	22.58.05.06	Historic	Metal	Ferrous	Nail, square				1	6.2
18	12G11696	22.58.06.01	Historic	Architectural	Ceramic	Brick fragment				1	0.9
18	12G11696	22.58.06.02	Historic	Metal	Ferrous	Nail, square				1	2.3
19	12G11696	22.58.06.03	Historic	Architectural	Ceramic	Brick fragment				2	5.7
19	12G11696	22.58.06.04	Historic	Ceramic	Stoneware	Body sherd			Brown slip interior, gray salt glaze exterior	1	3.13
19	12G11696	22.58.06.05	Historic	Glass	Flat	Fragment		Light aqua		2	0.28
19	12G11696	22.58.06.06	Historic	Glass	Unidentified	Fragment		Clear		1	1.17

19	12GII696	22.58.06.07	Historic	Metal	Ferrous	Nail, square		1	3.12
19	12GII696	22.58.06.08	Historic	Metal	Ferrous	Nail, unidentified		1	3.41
19	12GII696	22.58.06.09	Historic	Metal	Ferrous	Unidentified fragment		1	5.11
19	12GII696	22.58.06.10	Historic	Synthetic	Mortar	Fragment		1	11.03
20	12GII697	22.58.07.01	Historic	Architectural	Ceramic	Brick fragment		1	0.55
20	12GII697	22.58.07.02	Historic	Metal	Brass	Rim-fire .22 long bullet casing	"P" head-stamp	1	0.51
20	12GII697	22.58.07.03	Historic	Metal	Ferrous	Metal cap		5	1.24
20	12GII697	22.58.07.04	Historic	Metal	Ferrous	Nail, square		1	3.32
20	12GII697	22.58.07.05	Historic	Metal	Ferrous	Nail, unidentified		3	6.40
20	12GII697	22.58.07.06	Historic	Mineral/Stone	Cinder/Slag	Fragment		2	1.83
20	12GII697	22.58.07.07	Historic	Mineral/Stone	Coal	Fragment		1	0.33
21	12GII697	22.58.07.08	Historic	Architectural	Ceramic	Brick fragment		1	0.87
21	12GII697	22.58.07.09	Historic	Glass	Container	Body fragment	Light aqua	1	0.54
21	12GII697	22.58.07.10	Historic	Mineral/Stone	Coal	Fragment		5	2.29
22	12GII697	22.58.07.11	Historic	Architectural	Ceramic	Brick fragment		8	9.20
22	12GII697	22.58.07.12	Historic	Glass	Container	Bottle neck and rim fragment	Aqua Possible hand blown/ applied lip	1	7.77
22	12GII697	22.58.07.13	Historic	Glass	Flat	Fragment	Light aqua	4	1.43
22	12GII697	22.58.07.14	Historic	Metal	Ferrous	Nail, square		2	3.57
22	12GII697	22.58.07.15	Historic	Metal	Ferrous	Nail, unidentified	Fragment	1	2.88

22	12G11697	22.58.07.16	Historic	Mineral/ Stone	Coal	Fragment		3	0.79
22	12G11697	22.58.07.17	Historic	Mineral/ Stone	Cinder/ Slag	Fragment		1	0.29
22	12G11697	22.58.07.18	Historic	Ceramic	Uniden- tified	Bead or marble		1	1.23
22	12G11697	22.58.07.19	Historic	Flora	Wood	Charcoal fragment		4	0.11
43	12G11698	22.58.08.01	Historic	Architectural	Ceramic	Brick frag- ment		40	53.26
43	12G11698	22.58.08.02	Historic	Glass	Contain- er	Rim frag- ment	Clear	1	1.78
43	12G11698	22.58.08.03	Historic	Metal	Ferrous	Nail, wire		1	4.85
43	12G11698	22.58.08.04	Historic	Metal	Ferrous	Unidentified fragment		2	11.64
43	12G11698	22.58.08.05	Historic	Mineral/ Stone	Cinder/ Slag	Fragment		8	4.58
43	12G11698	22.58.08.06	Historic	Fauna	Bone	Unidentified mammal fragment		4	3.00
44	12G11698	22.58.08.07	Historic	Architectural	Ceramic	Brick frag- ment		10	3.58
44	12G11698	22.58.08.08	Historic	Metal	Ferrous	Unidentified fragment		2	0.60
45	12G11698	22.58.08.09	Historic	Architectural	Ceramic	Brick frag- ment		21	46.53
45	12G11698	22.58.08.10	Historic	Ceramic	Earthen- ware	Field tile		20	107.06
45	12G11698	22.58.08.11	Historic	Glass	Contain- er	Rim frag- ment	Clear	1	0.76
45	12G11698	22.58.08.12	Historic	Glass	Flat	Fragment	Light aqua	1	0.36
45	12G11698	22.58.08.13	Historic	Metal	Ferrous	Nail, square		3	8.63
46	12G11698	22.58.08.14	Historic	Architectural	Ceramic	Brick frag- ment		2	1.14

46	I2GII698	22.58.08.15	Historic	Glass	Container	Body fragment	Clear		1	0.64
46	I2GII698	22.58.08.16	Historic	Metal	Ferrous	Nail, square			1	3.53
23	I2GII699	22.58.09.01	Historic	Architectural	Ceramic	Brick fragment			4	2.87
23	I2GII699	22.58.09.02	Historic	Glass	Container	Fragment	Red		1	1.33
23	I2GII699	22.58.09.03	Historic	Metal	Ferrous	Nail, unidentified			1	4.97
24	I2GII699	22.58.09.04	Historic	Ceramic	White-ware	Body sherd			1	2.19
25	I2GII699	22.58.09.05	Historic	Architectural	Ceramic	Brick fragment			7	52.80
25	I2GII699	22.58.09.06	Historic	Ceramic	White-ware	Body sherd			2	0.27
25	I2GII699	22.58.09.07	Historic	Glass	Container	Body fragment			1	3.47
26	I2GII700	22.58.10.01	Historic	Architectural	Ceramic	Brick fragment			9	14.68
26	I2GII700	22.58.10.02	Historic	Ceramic	Porcelain	Body sherd	Gray interior, gray exterior	Refit, semi-vitrified	1	2.27
26	I2GII700	22.58.10.03	Historic	Glass	Container	Basal fragment	Clear		1	12.48
27	I2GII700	22.58.10.04	Historic	Architectural	Ceramic	Brick fragment			6	7.66
27	I2GII700	22.58.10.05	Historic	Metal	Ferrous	Nail, unidentified			3	7.07
28	I2GII700	22.58.10.06	Historic	Architectural	Ceramic	Brick fragment			3	5.50
28	I2GII700	22.58.10.07	Historic	Glass	Container	Basal fragment	Clear		2	4.40
28	I2GII700	22.58.10.08	Historic	Glass	Container	Body fragment	Light aqua		1	3.28

28	12G11700	22.58.10.09	Historic	Glass	Container	Rim/Finish fragment	1 clear, 1 aqua	2	4.43
28	12G11700	22.58.10.10	Historic	Glass	Flat	Fragment	1 clear, 2 light aqua	3	2.26
28	12G11700	22.58.10.11	Historic	Metal	Ferrous	Nail, unidentified		1	4.63
29	12G11700	22.58.10.12	Historic	Architectural	Ceramic	Brick fragment		6	12.49
29	12G11700	22.58.10.13	Historic	Glass	Container	Fragment	Clear	1	0.16
29	12G11700	22.58.10.14	Historic	Glass	Flat	Fragment	1 clear, 1 light aqua	2	2.59
29	12G11700	22.58.10.15	Historic	Metal	Ferrous	Nail, unidentified		2	2.25
30	12G11700	22.58.10.16	Historic	Architectural	Ceramic	Brick fragment		4	5.74
30	12G11700	22.58.10.17	Historic	Ceramic	White-ware	Rim sherd	Blue transfer print	1	0.08
30	12G11700	22.58.10.18	Historic	Glass	Container	Body fragment	Clear	1	2.41
30	12G11700	22.58.10.19	Historic	Metal	Ferrous	Unidentified		1	3.54
30	12G11700	22.58.10.20	Historic	Mineral/Stone	Coal	Fragment		2	2.02
30	12G11700	22.58.10.21	Historic	Synthetic	Plastic	Tube	Black	1	2.00
31	12G11700	22.58.10.22	Historic	Ceramic	White-ware	Body sherd		1	0.32
31	12G11700	22.58.10.23	Historic	Glass	Container	Body fragment	Clear	1	1.30
31	12G11700	22.58.10.24	Historic	Metal	Ferrous	Nail, square		1	8.22
32	12G11701	22.58.11.01	Historic	Architectural	Ceramic	Brick fragment		4	8.48
32	12G11701	22.58.11.02	Historic	Ceramic	Iron-stone	Rim sherd	Burnt	1	8.9

32	12G11701	22.58.11.03	Historic	Ceramic	Stoneware	Body sherd	Albany interior, unglazed or weathered exterior		1	5.6
32	12G11701	22.58.11.04	Historic	Glass	Container	Body fragment	1 brown, 1 clear, 2 light aqua	one is embossed	4	9.4
32	12G11701	22.58.11.05	Historic	Glass	Flat	Fragment	Light aqua		1	1.0
32	12G11701	22.58.11.06	Historic	Metal	Ferrous	Nail, unidentified			2	17.4
32	12G11701	22.58.11.07	Historic	Metal	Ferrous	Nail, wire			1	5.0
32	12G11701	22.58.11.08	Historic	Metal	Ferrous	Wire			1	19.2
32	12G11701	22.58.11.09	Historic	Mineral/Stone	Coal	Fragment			2	0.5
32	12G11701	22.58.11.10	Historic	Mineral/Stone	Cinder/Slag	Fragment			1	3.22
33	12G11701	22.58.11.11	Historic	Ceramic	White-ware	Basal sherd		Partial markers mark "Semi"	1	1.48
33	12G11701	22.58.11.12	Historic	Glass	Container	Body fragment	Light aqua		1	0.70
33	12G11701	22.58.11.13	Historic	Glass	Container	Neck/Finish fragment	Clear		1	4.20
33	12G11701	22.58.11.14	Historic	Metal	Ferrous	Nail, square			1	1.86
34	12G11701	22.58.11.15	Historic	Architectural	Ceramic	Brick fragment			3	21.30
34	12G11701	22.58.11.16	Historic	Ceramic	Stoneware	Rim sherd	Red paste; brown slip interior, clear slip exterior		1	16.30
34	12G11701	22.58.11.17	Historic	Glass	Container	Body fragment	Clear		2	2.12

34	12G11701	22.58.11.18	Historic	Mineral/ Stone	Coal	Fragment			1	0.16
34	12G11701	22.58.11.19	Historic	Mineral/ Stone	Cinder/ Slag	Fragment			1	0.73
35	12G11701	22.58.11.20	Historic	Ceramic	White- ware	Body sherd	Black trans- fer print	Fleur-de-lis	1	0.55
35	12G11701	22.58.11.21	Historic	Glass	Contain- er	Body frag- ment	Clear		2	4.00
35	12G11701	22.58.11.22	Historic	Glass	Flat	Fragment	1 clear, 6 light aqua		7	7.68
35	12G11701	22.58.11.23	Historic	Glass	Uniden- tified	Fragment		Melted	2	4.13
35	12G11701	22.58.11.24	Historic	Metal	Ferrous	Nail, square			1	2.44
35	12G11701	22.58.11.25	Historic	Metal	Ferrous	Nail, wire			1	2.78
35	12G11701	22.58.11.26	Historic	Metal	Ferrous	Fencing staple			1	5.02
35	12G11701	22.58.11.27	Historic	Metal	Ferrous	Wire			1	4.98
36	12G11702	22.58.12.01	Historic	Metal	Ferrous	Nail, square			7	53.92
36	12G11702	22.58.12.02	Historic	Metal	Ferrous	Nail, uniden- tified			5	4.60
37	12G11702	22.58.12.03	Historic	Glass	Contain- er	Body frag- ment	Clear		1	0.98
37	12G11702	22.58.12.04	Historic	Glass	Flat	Fragment	Clear		1	0.25
37	12G11702	22.58.12.05	Historic	Metal	Ferrous	Nail, wire			1	2.45
38	12G11703	22.58.13.01	Historic	Glass	Contain- er	Body frag- ment	Aqua		1	2.55
38	12G11703	22.58.13.02	Historic	Glass	Lighting	Light bulb fragment		Possible automotive	1	1.47
38	12G11703	22.58.13.03	Historic	Metal	Ferrous	Nail, uniden- tified			2	5.19
38	12G11703	22.58.13.04	Historic	Mineral/ Stone	Cinder/ Slag	Fragment			3	6.00
39	12G11703	22.58.13.05	Historic	Architectural	Ceramic	Brick frag- ment			1	1.58

39	12G11703	22.58.13.06	Historic	Ceramic	White-ware	Body sherd		Weathered	2	1.21
39	12G11703	22.58.13.07	Historic	Glass	Contain-er	Body frag-ment	Clear		1	1.53
39	12G11703	22.58.13.08	Historic	Metal	Ferrous	Nail, wire			1	6.02
40	12G11703	22.58.13.09	Historic	Architectural	Ceramic	Brick frag-ment			1	6.42
40	12G11703	22.58.13.10	Historic	Ceramic	White-ware	Body sherd		Refit	1	3.71
40	12G11703	22.58.13.11	Historic	Glass	Contain-er	Body frag-ment	Clear		2	2.40
41	12G11703	22.58.13.12	Historic	Architectural	Ceramic	Brick frag-ment			1	0.78
41	12G11703	22.58.13.13	Historic	Glass	Lighting	Light bulb fragment			1	0.23
41	12G11703	22.58.13.14	Historic	Glass	Uniden-tified	Fragment		Melted	3	1.27
41	12G11703	22.58.13.15	Historic	Metal	Ferrous	Nail, uniden-tified			1	1.83
41	12G11703	22.58.13.16	Historic	Metal	Ferrous	Wire			1	1.04
41	12G11703	22.58.13.17	Historic	Synthetic	Celluloid	Hair pin			1	1.13
42	12G11703	22.58.13.18	Historic	Metal	Ferrous	Nail, square			1	5.13
Total									363	857.6

EXCERPT

***Phase Ia Addendum Archaeological Survey of 1.65 acres for
Proposed Improvements to SR 65***

**Owensville, Montgomery Township, Gibson County, Indiana
(INDOT Des. No. 2001922)**

WSP Project No.: US-WSP-30901022.004

WSP Report No: 25-011



Prepared for:

**Indiana Department of Transportation
Vincennes District**

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<https://www.in.gov/indot/>



12 December 2025

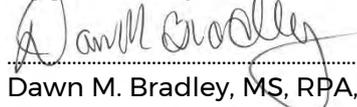


**Phase Ia Addendum
Archaeological Survey of 1.65
acres for Proposed
Improvements to SR 65,
Owensville, Montgomery
Township, Gibson County,
Indiana (INDOT Des. No.
2001922)**

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Management Summary

On November 26, 2024, at the request of the Indiana Department of Transportation (INDOT), WSP USA Inc. (WSP) conducted a Phase Ia archaeological survey for proposed pond and ditch construction along SR 65 from the intersection of SR 65 and S Mill Street in the south city limits of Owensville, Gibson County, Indiana (INDOT Des. No. 2001922). The survey was conducted to facilitate INDOT's compliance with the National Historic Preservation Act (NHPA) of 1966 and was designed to meet the requirements of Section 106 of the NHPA. The goal of this project was to identify any previously unrecorded archaeological sites in the survey area, and to assess whether they meet criteria for the Indiana Register of Historic Sites and Structures (IRHSS) and/or the National Register of Historic Places (NRHP). Fieldwork was carried out in accordance with the *Guidebook for Indiana Historic Sites and Structures Inventory - Archaeological Sites* (IDNR DHPA 2022) and the *Historic Property Identification and Evaluation - Archaeology* (INDOT 2024).

This survey is a continuation of Phase Ia survey completed for the project by Weintraut & Associates, Inc. in January of 2025 (Goldbach 2025). The current investigations address redesigns and addition of the pond near the southern terminus. These redesigns fall outside but adjacent to the survey area covered under the Weintraut & Associates survey (Goldbach 2025). The entire survey area under the current investigations is considered new right of way (ROW). The survey area is located in Section 12, Township 3S, Range 12W on the Owensville, Indiana USGS 7.5' topographic map quadrangle. The approximately 0.67 hectare ([ha]; 1.65 acre [ac]) survey area comprises two noncontiguous parcels along the north and south sides of SR 65. At the time of the survey, it consisted of an open, grass-covered field in a floodplain, and a wood lot, lawns, and a gravel lot that fall across rolling uplands.

Principal Investigator Dawn M. Bradley, MS, RPA, oversaw all aspects of the project, and WSP archaeologists Ciarra Myers-Rinehart (Field Director) and J Shanks completed the field survey. Cassidy Hurt analyzed the artifacts recovered under the supervision of laboratory manager Bridget Mohr. Mapping and report graphics were produced by Joshua A. Myers-Rinehart. The survey area consisted of an open grassy field, lawns, and a wood lot that fall across a floodplain and rolling uplands. Disturbances within the survey area included above ground and buried utilities, paved and gravel drives, and artificial drainages. An abundance of buried utilities and artificial drainages along SR 65 precluded shovel test investigation in a portion of the northern half of the survey area. The survey consisted of a combination of visual inspection and shovel testing, with a total of 56 shovel test probes (STPs) excavated. As a result of the current survey, one new archaeological site (12Gi1713) was documented.

Site 12Gi1713 is a scatter of mid-nineteenth to early twentieth century architectural materials possibly linked to the demolition of a building outside the survey area. The site yielded only a small amount of historic material (n=13), all of which was recovered from the Ap horizon, with no features identified. Site 12Gi1713 appears to extend beyond the boundaries of the survey area and was not able to be fully delineated. As such, the site cannot be assessed for its NRHP eligibility. However, given that the defined portions of the site within the survey area contained a limited number of artifacts without features or structural remnants, it is unlikely to contain significant information regarding historic sites within the southwestern Indiana region. Therefore, WSP recommends that no further work is required within the survey area, and that archaeological clearance be granted for the project.



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1.0 Introduction

On November 26, 2024, WSP USA Inc. (WSP) conducted an archaeological survey for proposed pond and ditch construction along SR 65 in Owensville, Gibson County, Indiana (**Figure 1.1**). The work was conducted at the request of the Indiana Department of Transportation (INDOT; INDOT Des. No. 2001922) in order to facilitate compliance with Section 106 of the National Historic Preservation Act (NHPA). Investigations were completed in compliance with established specifications for field investigations and National Register of Historic Places (NRHP) assessment according to the Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation (Federal Register, Vol. 48, No. 190, September 1983, P. 44716-44742, et seq.), and with the current revision of the Indiana Department of Natural Resources (DNR) Division of Historic Preservation and Archaeology (DHPA) *Guidebook for Indiana Historic Sites and Structures Inventory - Archaeological Sites* (IDNR DHPA 2022), and INDOT's *Historic Property Identification and Evaluation - Archaeology* (INDOT 2024).



Figure 1.1. Map showing the location of the survey area (INDOT Des. No 2001922) within Indiana and Gibson County.

The approximately 0.67 ha (1.65 ac) survey area consists of two noncontiguous parcels along the north and south sides of SR 65 from its intersection with S. Mill Street in the SE $\frac{1}{4}$ of the SW $\frac{1}{4}$ of the NE $\frac{1}{4}$ of Section 12, Township 3S, Range 12W, as shown on the USGS 7.5' series Owensville, Indiana topographic quadrangle (**Figures 1.2 and 1.3**).



This survey is a continuation of Phase Ia survey completed for the project by Weintraut and Associates, Inc. in January of 2025 (Goldbach 2025). This report has not yet been reviewed by the DHPA. The current investigations address redesigns and addition of the pond near the southern terminus that occurred following completion of the January survey. These redesigns fall outside but adjacent to the survey area covered under the Weintraut & Associates survey (Goldbach 2025).

Data available via Indiana State Historic Archaeological and Architectural Database (SHAARD) indicated four previous archaeological surveys and one archaeological site within 1.6 km (1 mi) of the survey area. Review of historic mapping and aerial images revealed six mapped structures within or immediately adjacent to the survey area as early as 1959 on a topographic map of Owensville (see **Figures 1.2 and 1.3**; USGS 1959). The 1959 topographic map also shows two tributaries running to the west of and through the survey area before emptying into the Black River to the southeast of the survey area. Based on these factors, the survey area was judged to have a low to moderate potential to contain precontact and historic sites.

A report for an additional previously completed survey (AR-26-00214; Moffatt 2007) was provided to WSP by INDOT CRO archaeologists following completion of the survey. It appears this report uses the incorrect township (3 North instead of 3 South) in the project in the report and, as it was entered into SHAARD with this incorrect information it did not appear during WSP's search for previous surveys in the area. Inclusion of this report as received from INDOT indicates that a portion of the 2007 survey area does overlap with the current survey area; however, this area had already been resurveyed as part of WSP's investigations.

The survey area is located on rolling uplands and floodplain landforms. Groundcover within the survey area consists of thick grasses and vines in the northern section, and manicured front lawns in the southern section. The parcel of the survey area on the north side of SR 65 is bisected by an existing power line corridor and contains above ground and buried utilities in the southeastern section of the wooded lot, and in the section of the survey area between the wood lot and a gravel parking lot. Due to disturbances to the immediate north of SR 65 consisting of artificial drainages and buried utilities, this portion of the survey area was not shovel tested. The section of the survey area on the south side of SR 65 is disturbed by buried utilities, artificial drainages, and paved and gravel drives. The survey area was investigated using a combination of visual inspection and shovel tests, with a total of 56 shovel tests excavated within the survey area. As a result of the current survey, one newly recorded archaeological site (12Gi1713) was recorded.

Site 12Gi1713 is a historic scatter that yielded 13 artifacts dating to the mid-nineteenth to early twentieth century. All cultural material was recovered from within the Ap soil horizon. The boundaries of the site could not be determined as it appears to extend outside the survey area, and as such, an NRHP eligibility assessment of the site cannot be determined. However, as the defined portion of the site yielded only 13 artifacts without any features, it is unlikely to yield significant information regarding historic sites in the southwestern Indiana region. Therefore, WSP recommends no further work on site 12Gi1713 within the defined survey area.

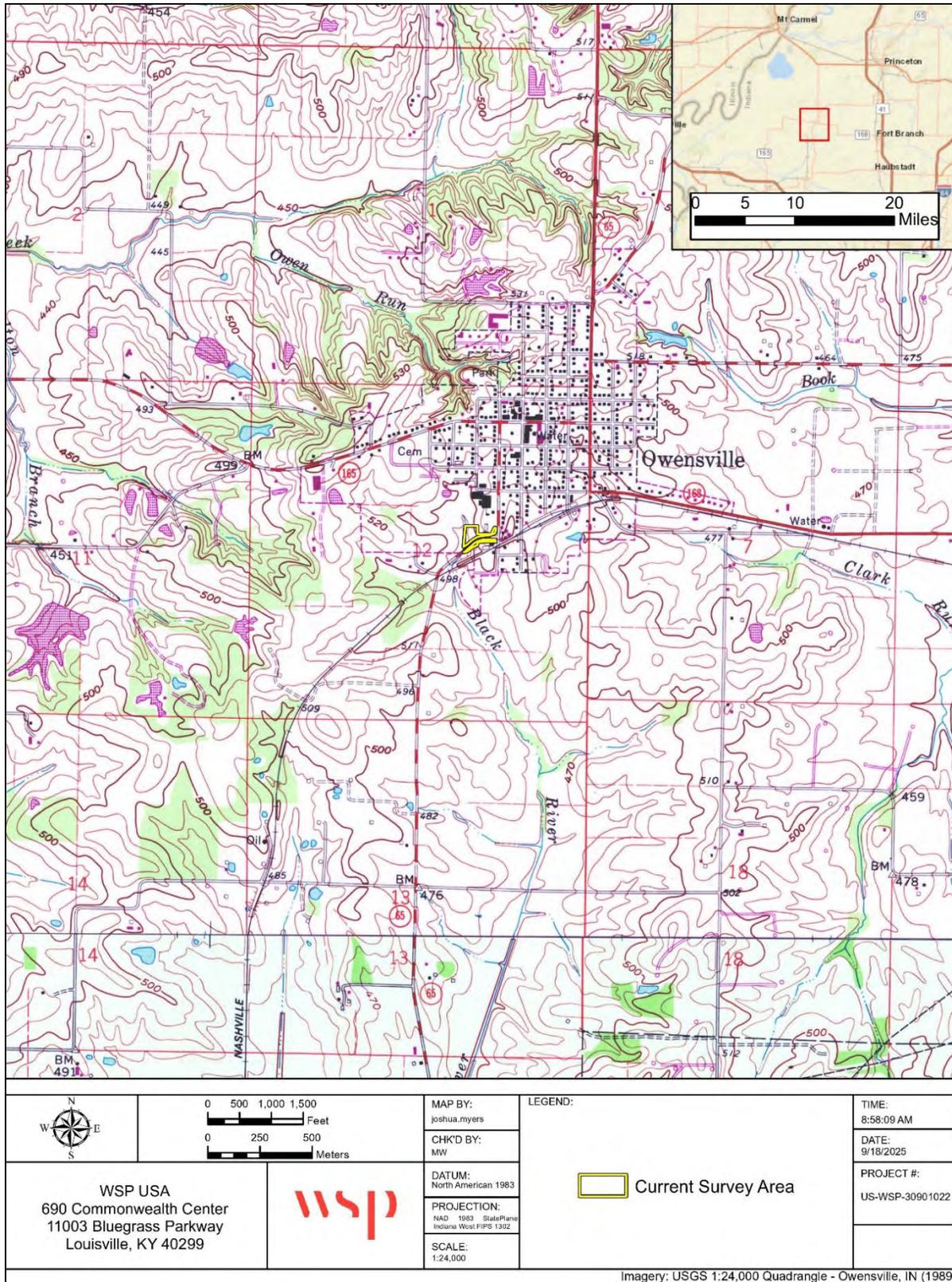


Figure 1.2. The survey area (INDOT Des. No 2001922) shown on the 1989 USGS Owensville, IN 7.5' topographic quadrangle (USGS 1989).

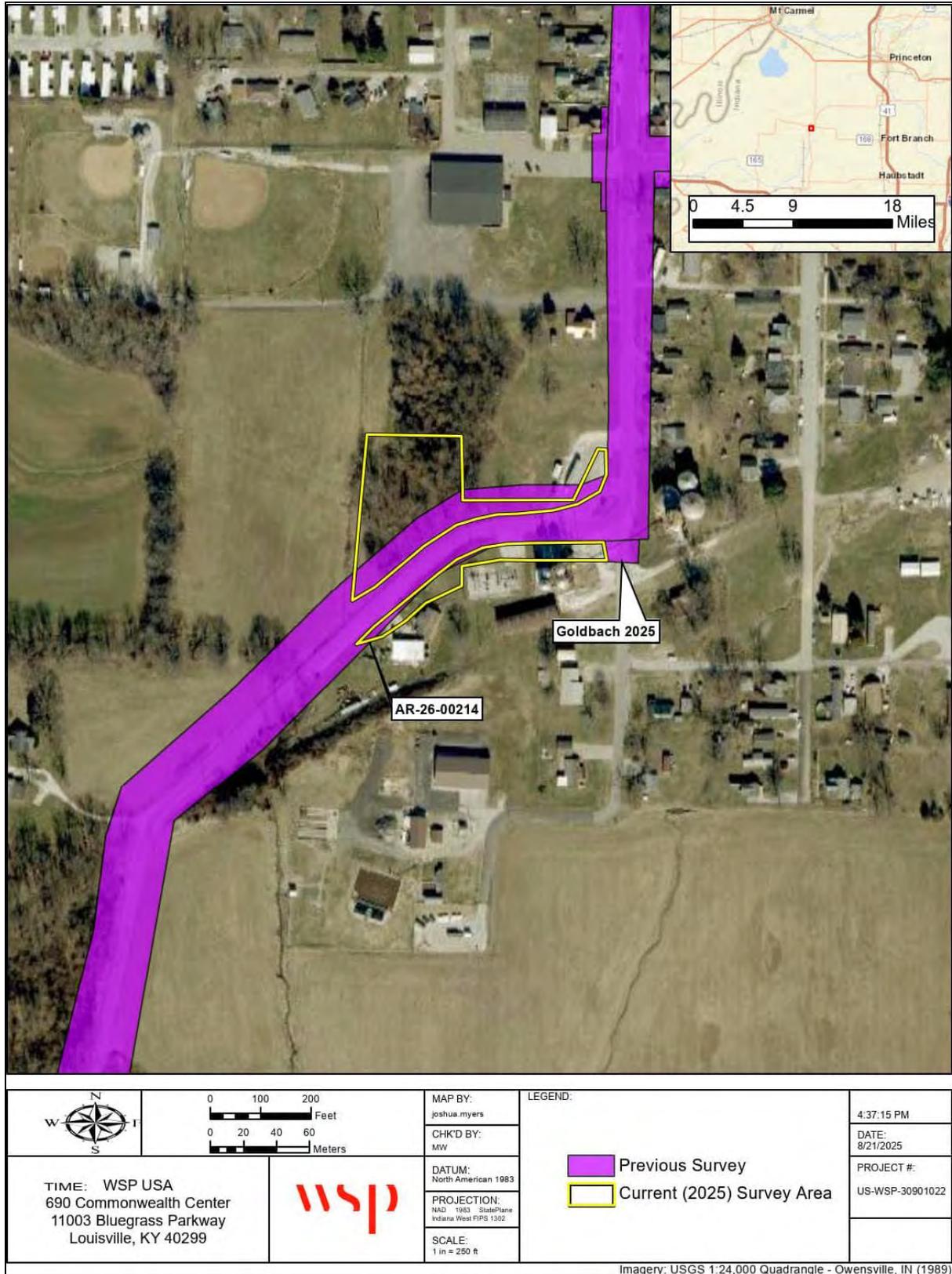


Figure 1.3. Survey area (INDOT Des. No 2001922) shown on a 2023 aerial map (Indiana Geographic Information Office [IGIO] 2023).



2.0 Environmental Setting

2.1 Physiography and Geology

The survey area is situated in the Southern Hills and Lowlands physiographic region of Indiana. The northern boundary of this region represents the southern terminus of Wisconsin glacial deposition in Indiana. Pre-Wisconsin glacial deposits can be found through a large portion of the region, including much of what is now Gibson County. The region is bounded to the west by the Wabash River, and to the south and east by the Ohio River. The survey area lies within the Wabash Lowland section of the Southern Hills and Lowlands region (**Figure 2.1**) and is characterized in part by floodplains with silty lacustrine deposits, but predominantly by low relief rolling hills with occasional thin horizons of glacial till. Thick aeolian deposits can be found on the uplands (Gray 2000). This area is underlain by the Patoka and Shelborn Formations, Pennsylvanian-aged siltstone and shale with occasional limestone and coal beds (IndianaMap Viewer 2024).

While no significant sources of chert have been identified in Gibson County, the adjacent Warrick, Posey, and Vanderburgh counties contain outcrops of Ditney (Warrick County) and West Franklin (Posey and Vanderburgh counties) chert types (Cantin 2008).

The Wabash River and its tributaries, the White and Patoka rivers, are the major water sources to the subregion (Gray 2000:7), and the survey area lies in the Lower Wabash watershed. The Wabash Valley Fault System lies in the southwestern portion of the Wabash Lowland, and the Owensville Fault run SW-NE immediately to the east of the survey area, with the survey area lying on the downthrown side (Indiana Geological Survey 2024).

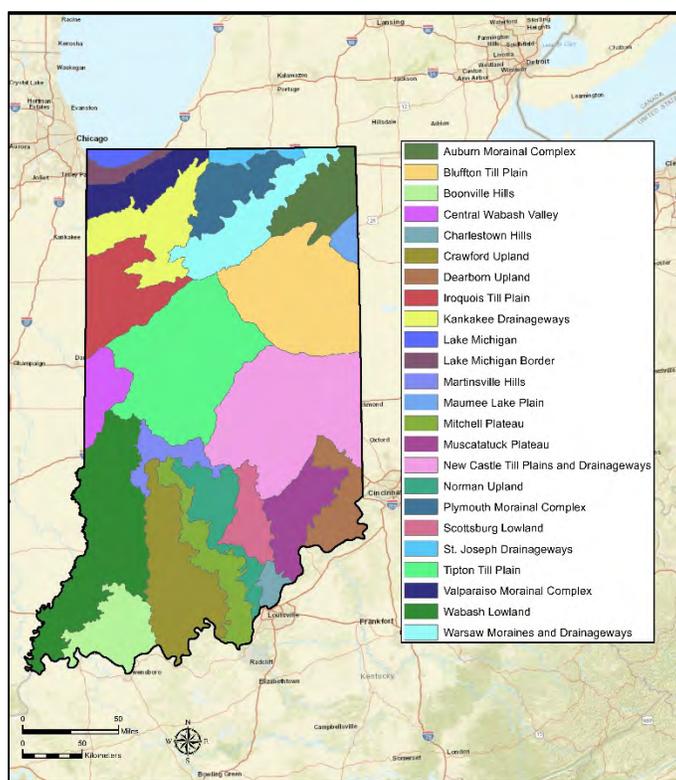


Figure 2.1. The survey area (INDOT Des. No 2001922) shown on a map of Indiana's physiographic regions (IN IGIO 2023).



2.2 Soils

Four soil types are defined within the survey area (**Table 2.1; Figure 2.2**): Alford silt loam, 2 to 5 percent slopes, eroded (AIB2); Sylvan silt loam, 6 to 12 percent slopes, severely eroded (SyC3); Uniontown silt loam, 2 to 6 percent slopes, eroded (UnB2); and Wakeland silt loam, 0 to 2 percent slopes, frequently eroded (Wa). Information about these soil types was compiled using the information available on the United States Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS) Web Soil Survey (USDA/NRCS Web Soil Staff 2024). The soils reflect the survey area's rolling upland and floodplain setting.

Table 2.1. Summary of Soil Types Found within the survey area.

Soil Type	Typical Soil Profile	Drainage	Parent Material	Landform
Alford silt loam, 2 to 5 percent slopes, eroded (AIB2)	silt loam (Ap) - silty clay loam (Bt1) - silt loam (Bt2) - silt loam (2BC)	Well drained	Loess over gritty loess	Loess hills
Sylvan silt loam, 6 to 12 percent slopes, severely eroded (SyC3)	silt loam (Ap) - silt loam (Bt) - silt (C)	Well drained	Loess	Loess hills
Uniontown silt loam, 2 to 6 percent slopes, eroded (UnB2)	silt loam (Ap) - silty clay loam (Bt) - silt loam (BCt) - silt (C)	Well drained	Silty lacustrine deposits	Lake terraces
Wakeland silt loam, 0 to 2 percent slopes, frequently flooded (Wa)	silt loam (Ap) - silt loam (Cg1) - silt loam (Cg2) - silt loam (Cg3)	Somewhat poorly drained	Silty alluvium	Flood plains



Figure 2.2. Soil types within the 2025 survey area (INDOT Des. No 2001922).



2.3 Modern Environmental Setting

The survey area falls in the Glaciated Section of the Southwestern Lowlands natural region (Homoya et al. 1985). This section, which falls on the portion of the Illinois till plain that stretches into Indiana, is characterized by flatwoods; species such as red maple (*Acer rubrum*), silver maple (*A. saccharinum*), shagbark hickory (*Carya ovata*) and green ash (*Fraxinus pennsylvanica*) can be found throughout, and this section represents the rough southern limit of Black ash (*Fraxinus nigra*) swamps. Fauna common to this area include the crawfish frog (*Rana areolate*) and the prairie kingsnake (*Lampropeltis calligaster*). This natural region has been subject to most of the coal strip-mining in Indiana (Whitaker et al. 2012). In the early nineteenth century, prairie land covered much of the Southwestern Lowlands natural region, though the amount of prairie land in this area, and throughout the state, decreased drastically during the nineteenth and twentieth centuries. Over the past fifty years or so, conservationist groups have made aggressive efforts to restore these habitats, reintroducing native grasses and establishing new prairie land. Grass species native to the region include Canada wild rye (*Elymus canadensis*), prairie cordgrass (*Spartina pectinata*), Indiangrass (*Sorghastrum nutans*), and prairie switchgrass (*Panicum virgatum*). Various species of the aster family are also naturally occurring, including pale purple coneflower (*Echinacea pallida*), tall coreopsis (*Coreopsis tripteris*), sky-blue aster (*Symphyotrichum oolentangiense*), and stiff-leaved goldenrod (*Solidago rigida*) (Whitaker et al. 2012).

The current climate of Indiana is classified as Humid continental (Dfa) in the north, and Humid subtropical (Cfa) in the south. These categories are characterized by humid, hot summers and variable rainfall year-round. Peak summer temperatures regularly exceed 80°F, and in recent years have occasionally exceeded 90°F mid-summer. Winters can be somewhat harsh, with low temperatures of 25°F or below.

2.4 Current Land Use Pattern in Survey Area

The survey area consists of uncultivated land. A tributary of the Black River runs along the western border of the survey area, and on the north side of SR 65, a grassy strip of land runs just east of the tributary. Most of the rest of the northern portion of the survey area consists of an unmaintained wood lot, with a small section devoted to a gravel lot. The southern portion of the survey area falls across lawns.



3.0 Cultural Background and Previous Investigations

3.1 Precontact Context

The Precontact period in the state of Indiana spans from around 10,000 B.C. or earlier, through approximately AD 1650, when European explorers produced the first written historical accounts of the area. Not surprisingly, the precontact cultures of Indiana follow the same general cultural sequence found in the surrounding Eastern Woodlands area of the United States. Of course, cultural variations are present and likely attributable to local or regional geographic and environmental conditions (Jones and Johnson 2003). Jones and Johnson (2003) as well as several others can be referred to for more detailed discussions of specific cultural periods.

While cultural change is a slow and continual process, archaeologists and other researchers divide the human history of a region into distinct cultural periods. Archaeologists and historians recognize four broadly defined precontact periods for the Ohio River Valley. These include the Paleoindian period (ca 10,000-8,000 BC), the Archaic period (8,000-1,000 BC), the Woodland period, (1,000 BC-AD 1000) and the Mississippian period (AD 1000-ca. 1650). The Historic period began with the arrival of the first European explorers and colonists.

3.1.1 Paleoindian (ca. 10,000-7,500 B.C.)

The first people to reach the interior of the New World are referred to as Paleoindians. These peoples are known by their efficient chipped stone tool kit, which includes tools known as fluted points. These point types are found throughout the Americas, including the Clovis, Folsom, and Hi-Lo points (DeRegnaucourt 1992; Dorwin 1966; Justice 1987).

From sites throughout North America we know that the Paleoindians were a highly mobile people, traveling across vast areas and exploiting resources where and when they could find them seasonally. They hunted or gathered a variety of animals and plants including deer, small mammals and nuts. The hunting of mega-fauna was rare and few sites east of the Mississippi contain evidence this activity (Fagan 1991). The analysis of Paleoindian traits suggests these groups consisted of small to medium sized bands of 25 to 30 related individuals (Tankersley 1989). As a consequence of this lifestyle, sites did not accumulate debris or a midden and are thus difficult to locate or identify. Previous studies have focused on high points overlooking river confluences for potential sites (Dorwin 1966; Griffin 1968; Holsten and Cochran 1986; Seeman and Prufer 1982); however, it has been shown more recently that Paleoindian sites are more frequent within or adjacent to river valleys (Tankersley et al. 1987).

3.1.2 Archaic (8,000-1,000 B.C.)

The Archaic occupation is traditionally broken into three periods: Early, Middle, and Late. The occupation is marked by great changes to the climate, flora, and fauna, and an adaptation of Archaic peoples to this environment. Food supplies became more stable allowing for localization and regionalization of Archaic cultures and spurring an increase in population. Point styles and types become increasingly smaller and are not as well made (Caldwell 1958).

Early Archaic (8,000-6,000 B.C.)

The Early Archaic Period has many similarities to the Paleoindian Period, including the geographic distribution of sites (Lurie and Demel 1992; Markman 1991; Springer et al. 1978). However, it does differ in the frequency of sites, the conspicuous absence of fluted points and the diversification of the stone tool assemblage. The point types became smaller, more diversified, and less finely made. The appearance of Hardin Barbed, Kirk, Thebes, etc. as well as



several bifurcated-base styles suggests the continued exploitation by small hunter-gatherer bands of large areas (Dragoo 1976; Justice 1987). Utility tools such as awls, drills, gouges, and grinding stones appear, as well as groundstone woodworking and food preparation tools including mortar and pestles, adzes, and axes (Chapman 1975; Jennings 1968).

Middle Archaic (6,000-3,500 B.C.)

The Middle Archaic occurred during a long-term warming and drying period known as the Hypsithermal. Pine dominated forests were replaced by deciduous forests of elm, hickory, and oak, which are more productive to human needs. Additionally, all major rivers and floodplains in the region had been established. An even greater variety of food resources became available, allowing Middle Archaic peoples to establish seasonal or multi-seasonal occupations. The utilization of seasonal resources and the diversification of subsistence related activities increased, including the domestication of a variety of squash (Watson 1988). The Middle Archaic economy became more diversified, utilizing deer, small mammals, fish, migratory waterfowl, and a wider variety of plant foods (Cleland 1966).

The Middle Archaic tool assemblage continued to diversify as well. Projectile points became even smaller with side notches and straight bases, including Godar, Matanzas, and Raddatz (Justice 1987). T-shaped drills become commonplace as well as ground stone tools like mortars, manos, metates, pestles, nutting stones, grooved axes, and celts. The addition of many of these stone tools indicates an increasing emphasis on plant harvesting within the subsistence system. Specialization in certain activities led to a more complex social structure creating status differentiation within the band (Griffin 1968).

Late Archaic (4,000-700 B.C.)

The Late Archaic gave rise to large multi-seasonal occupations on first terraces near waterways (Skinner and Norris 1981; Markman 1991; Yerkes 1987). These larger sites contained emerging political and economic complexity. Larger communities were accompanied by smaller encampments located in a variety of settings. The stabilization of regional and local environments influenced cultural differentiation as groups maximized the use of all resources within smaller areas (Yerkes 1987). Sites along waterways facilitated the exploitation of fish, shellfish, turtles, and migratory waterfowl, while sites in upland knolls allowed for the fall harvest of nuts and vegetables. These were supplemented by the cultivation of squash and the bottle gourd (Kay et al. 1980). Winter sites were situated above valleys or in narrow valleys to enable the exploitation of upland mammals and birds.

The Late Archaic period is also seen as the formative period of pre-Woodland traditions throughout eastern North America. Ground and polished stone artifacts called bannerstones are found during this period, usually with human burials. The Late Archaic saw the emergence of a trade network, including the exchange of copper and galena. The presence of these exotic grave goods, along with more elaborate, formalized burial practices, indicates an increased importance on ceremonialism (Chapman and Otto 1976).

3.1.3 Woodland (1,000 B.C.-A.D. 1000)

The Woodland occupation is often seen to represent the cultural expansion or transitional period, with greater territorial control and an increasingly elaborate ceremonial and mortuary system (Dragoo 1976; Griffin 1968). Traits that once typified the Woodland are now known to have existed in the Archaic (Dragoo 1976).



Early Woodland (1,000-200 B.C.)

Traditionally, the Late Archaic and the Early Woodland were separated by the introduction of pottery. However, more recent evidence collected in the Midwest suggests that pottery was manufactured as early as 2550 BC, well before the Woodland occupation. In addition, settlement patterns, social organization, and subsistence appear to have remained unchanged from the Late Archaic (Boszhardt et al. 1986). Pottery of this time was thick and porous, with a coarse grit temper (Galm 1975). The food economy continued the Late Archaic trend with greater amounts of potentially cultivated seed crops. Stemmed and contracting stemmed points are diagnostic of this period, including Ledbetter early in the period and Adena and Dickson later in the period. The most telling quality of the Early Woodland was the change in mortuary activities including the building of earthen mounds.

Middle Woodland (200 B.C.-A.D. 600)

The Middle Woodland is noted for the usage of large-scale burial mounds and geometric earthworks, in addition to a widespread trading network referred to as the Hopewell Interaction Sphere. Materials used in the manufacture of ceremonial objects were acquired from across North America: obsidian from the Rocky Mountains, copper and silver from the upper Great Lakes, quartz and mica from the lower Allegheny, shark and alligator teeth, marine shell and pearls from the Gulf Coast, and a wide variety of cherts. Examples of ceremonial artifacts produced include obsidian knives and blades, stone platform effigy pipes, copper breastplates and ear spoons, zoomorphic and geometric mica cutouts, and highly decorated ceramic vessels (Jennings 1968). High quality imported cherts included Wyandotte and Burlington. Pottery styles vary from rounded base jars to smaller decorative forms associated with the elaborate Hopewell Ceremonialism. Decorative forms are found on both ceremonial and utilitarian forms, including punctates, incising, and cordmarking, as well as zoned and stamped designs early in the period.

Lithic artifacts attributed to the Hopewell are Snyders points, Hopewell leaf-shaped blades, small side-notched points, prismatic blades and associated polyhedral cores and grooveless axes or celts. Grit-tempered pottery continued to be used, though it was more often decorated. Subsistence activities changed, with horticulture becoming a major supplement to hunting and gathering. Goosefoot, sumpweed, and sunflower were actively cultivated. Maize (corn); however, was not yet an important part of the diet.

More is known about burial mound sites and artifact styles than is known about the composition and distribution of settlements. Stylistic standards and regional chert distribution systems suggest an expanded economic and political organization. Mortuary programs featuring differential treatment of individuals suggest social inequality.

Late Woodland (A.D. 500-1200)

The Late Woodland period was marked by three distinct changes affecting the political and economic structures of the Middle Woodland: the development of maize horticulture, the adoption of the bow and arrow, and the appearance of nucleated settlements along with accelerated population growth. The territories and intragroup contacts within the Hopewell Interaction Sphere broke down with the increased concentration on horticulture (Cleland 1966). This increased self-sufficiency required less reliance on an exchange-redistribution network (Farnsworth 1973). In much of the Midwest, this was evidenced by the focus on small seasonal encampments in the uplands and riverine settings, instead of major riverine sites (Green 1987; Markman 1991).

The use of the bow and arrow increased hunting efficiency, while the upland sites provided an important subsistence base. Early historic groups in the Plains and the northeastern United States documented the use of these sites (Green 1987; Roper 1979). These sites were occupied



on a seasonally interchangeable basis. Central villages, or base camps, were established with habitation structures and cultivated fields for summer use. After harvest, these sites would be abandoned for hunting camps in the nearby forests, only to be returned to for spring sowing of the fields (Roper 1979). This reorganization, indicated by gradual restriction of the catchment area, suggests a more spatially confined and autonomous social unit (Roper 1979). These villages also replaced the mound/ceremonial centers, adopting cemeteries or clusters of small mounds.

The Late Woodland saw a marked change in point types as well. With the adoption of the bow and arrow, points became quite small, utilizing local chert types instead of exotics or imports. Small triangular or notched points dominate the assemblage. This included the Jack's Reef pentagonal and Madison triangular points. The ceramics used were varied, but mainly grit-tempered, with harder and thinner walls than Middle Woodland. Pottery was often cordmarked, punctated or collared during this period.

Throughout portions of central and southern Indiana is evidence of distinct Late Woodland mound-building traditions such as the Albee phase found in northwestern, central and southwestern Indiana (Jones and Johnson 2024). The Albee tradition, which dates from A.D. 800-1300, is most well-defined by its mortuary complex and the production of cord or fabric-marked pottery with wedge-shaped rims and collars (Winters 1963; McCord et al. 2005). Recent evidence acquired from radiocarbon dating of botanical remains indicates that Albee people likely depended predominantly on the cultivation of corn and some barley, with minimal reliance on squashes (Bush 2008). The Oliver Phase also emerged during this period though it is more commonly associated with the Mississippian period (Jones and Johnson 2004; Justice 2006).

3.1.4 Mississippian (A.D. 1000-1650)

A highly productive economic base developed during the late precontact period, a new cultural complex, based in the fertile Mississippi River Valley. The Mississippian culture represents the result of the socio-economic structures of the Woodland occupation. The central Mississippi Valley was the heart of the culture, but the peoples of the major river valleys of the Midwest and Southeast also followed the lifestyle. Corn horticulture, shell-tempered pottery, pyramid-shaped mounds, and a hierarchical population in ordered community centers characterized the culture. Mississippian sites can generally be characterized as either Middle Mississippian, which are typically found in southwestern Indiana, or Upper Mississippian, most often located in the northern, central, and southeastern regions of the state. Middle Mississippian sites exhibit the most "classic" Mississippian cultural traits, including palisaded settlements, intensive agriculture, platform mounds, nucleated villages, and hierarchical social organization. Shell-tempered pottery is common, as are Nodena and triangular points (Jones and Johnson 2024).

Angel Mounds, located on the Ohio River in Vanderburgh County, is perhaps the most well-known Mississippian site in Indiana. This site contains hallmark Middle Mississippian features, including a fortified village connected to smaller communities and a flat-top mound complex. Contrastingly, Upper Mississippian sites were subject to influence from cultural complexes such as the Oneota of the Upper Midwest and Fort Ancient in the Ohio River Valley (Jones and Johnson 2024). Shell-tempered pottery with distinct incises or trailed lines are common among Mississippian sites with Oneota influence, and many of these sites are found in wetlands. In the southeast, the Fort Ancient footprint includes circular farming villages with stockade walls located on arable land in floodplains (Jones and Johnson 2024).

Towards the end of the Mississippi period, the lower Ohio River Valley, saw a collapse and abandonment of the large chiefdoms, a broad regional area often referred to as the "Vacant Quarter" (Pollack and Munson 2008). However to the northeast of this "Vacant Quarter", which



included southwestern Indiana, this collapse was note seen and a late Mississippian tradition called the Caborn Welborn Phase (A.D. 1400-1700) emerged. The Caborn Welborn phase is noted for smaller occupational centers, usually dispersed villages and hamlets (Jones and Johnson 2008). This phase extended up through the contact period, though to date it has not been able to be attributed to any historically recorded Native American group.

3.1.5 Contact Period and Early European Exploration (A.D. 1650- 1775)

At the time of European contact, southwestern Indiana was inhabited by the Piankashaw Tribe, an Algonquin speaking member of the Miami Confederation (Goodspeed Bros. & Co., 1884; Jones and Johnson 2024). The Piankashaw once spread across Indiana and Illinois, with larger settlements known at the confluence of Vermilion River and Wabash River in Indiana, as well as at the French trading outpost at Vincennes (Oklahoma Historic Society 2025). At the time of European contact, the Algonquin speaking groups generally lived in villages in distinctive round-dome shaped dwellings comprised of woven reeds (IN DNR 2025). Miami villages tended to consist of clans, or larger groups of extended family members

With the encroachment of European explorers, and their obsessive need for fur trading, came a series of battles called the Beaver Wars (Evans 2017; IDNR 2025). Sparked in 1628 and lasting more than 70 years, this war was fought between the Algonquian speaking tribes in the Great Lakes region, backed by the French, and the Iroquois Confederacy, a union of five tribes centered around the St. Lawrence River area and generally aligned with the British. The conflict was brought on by the desire to control land, and the resources it provided for hunting and ultimately fur trading (specifically, beaver pellets). In 1701, the Great Peace of Montreal treaty was signed ending the conflict; while the Iroquois Confederacy came out as the “victors” indigenous communities on both sides suffered greatly (Potawatomi Nation 2023).

While the Piankashaw were generally cordial with both the French and the British, they had no affection for the new United States government which lead to continued hostilities up to the War of 1812 (Oklahoma Historic Society 2025). In 1767 the Piankashaw signed a treaty with the nearby Delaware Tribe whereby they ceded much of the land that became Greene County including the White River (Goodspeed Bros. & Co., 1884). As part of an 1810 treaty, the Piankashaw ceded their lands in both Indiana and Illinois and migrated into Missouri, joining other Piankashaw groups who had moved into the area earlier (Oklahoma Historic Society 2025). In 1832, the Piankashaw left Missouri for a reservation in Kansas with the Wea; in 1867, they combined with the Kaskaskia and Peoria in Kansas to form the Confederated Peoria and were assigned a reservation in what is now Ottawa County, Oklahoma.

The first European ventures into what is now Indiana occurred as early as 1660 by fur traders, explorers, and missionaries. Among the first missionaries were Jesuits, members of the Society of Jesus, who established missions in the hope of spreading Christianity to Native Americans. Foremost was Father Jacques Marquette, a priest from a mission in Mackinaw, Michigan. Many historians believe that Marquette was the first European to enter what is now Indiana during his travels around the southern tip of Lake Michigan in 1674 (Barnhart and Riker 1971). The next entry into the area was made in 1679 by the French explorer and architect, Robert Cavalier de LaSalle (Beck and D’Antonio 2025). During LaSalle’s journey from the Atlantic to the Gulf of Mexico, he crossed through northwestern Indiana, making a portage between the St. Joseph and Kankakee Rivers at what is now South Bend (Barnhart and Riker 1971).

The exact dates of the first French settlements in Indiana are somewhat uncertain. However, it is generally agreed that the first permanent settlements were built in the first half of the eighteenth century at the present-day locations of Fort Wayne (Kekionga), Lafayette (Ouiatenon), and Vincennes (Beck and D’Antonio 2025; Madison 1986). Fort Ouiatenon was established about



1717 among the Wea Indians on the Wabash River. The fort was originally established to break a trade relationship between the Wea and the English and was not intended as a permanent settlement. However, the fort remained for some 90 years and became a prominent feature of Indiana's colonial history. Fort Miami, or Kekionga as it was previously called, was a strategic spot because it was accessible by portage to the Little River that flowed to the Wabash and the St. Joseph Rivers. These could be used for transportation to the north. It was also the principal town of the Miami (Kekionga) and was important to maintaining trade with the French and discouraging trade between the Miami and the English. Fort Vincennes was built by the French in 1732 to guard the important Maumee-Wabash route connecting Lake Erie with the Ohio River. It was located at the junction of the Wabash River and the confluence of several Native American trails, including the Buffalo Trace, a great path through which all north bound Native Americans pass and a great place to trade (Madison 1986).

The French maintained control over most of the trade in the area. However, the English had learned of the huge quantities of fur available in Indiana and surrounding areas and had established a crude log fort on the Miami River north of present Dayton, Ohio. By 1744, English migration into the Ohio River Valley was so extensive that it initiated a series of wars which, by 1754, culminated in the 11-year French and Indian War (Madison 1986). In 1763 the Treaty of Paris delivered French possessions on the American continent to the English (Beck and D'Antonio 2025). The forts at Kekionga and Ouiatenon had been taken by the Ottawa Indians under the influence of Chief Pontiac, but Fort Vincennes had escaped destruction. Of the former French forts, the British were driven out of Fort Miami and Ouiatenon during Pontiac's Rebellion of 1763-1765. However, the post at Vincennes remained a French settlement until after the Revolutionary War (Madison 1986).

3.2 Historical Context (Post A.D. 1775)

3.2.1 Overview of Gibson County

When European Americans began moving to what is now Gibson County, the land was occupied by several Native American groups, namely the Fox, Kickapoo, Miami, Pottawatomi, Sac, and Shawnee tribes (Stormont 1914). Gibson County, named for General John Gibson, was formed in 1813 from the section of Knox County south of the White River, three years prior to Indiana's admission to the Union. Gibson County is bounded by Knox County to the north, Pike County to the east, Warrick County to the southeast, Vanderburgh County to the south, Posey County to the southwest, and Wabash and Edwards Counties in Illinois to the west. In 1814, Princeton was established as the county seat. The opening of the Wabash & Erie Canal in 1843 briefly expanded trade opportunities to the region, but the erosion seen along the banks required constant maintenance, rendering the canal a short-lived endeavor. Widespread railroad construction throughout the state during the nineteenth century connected Gibson County to the rest of Indiana and to neighboring states, with various railroad lines running through the county. Although Indiana was a part of the Union, its proximity to the Confederacy meant that many people escaping enslavement passed through the state. Many early Gibson County residents were openly Abolitionists, and several were involved in the Underground Railroad, providing shelter and helping to assure safe passage (Crenshaw 2024; Stormont 1914). Historically, agriculture has played a crucial role in the economic development of the county; fertile soils have allowed for cultivation of major crops such as wheat, corn, tobacco, sorghum, and potatoes (Tartt 1884). Gibson County remains largely rural, and agriculture continues to be a strong industry, as is livestock farming. Duke Energy built Gibson Generating Station, its largest power plant, in Montgomery Township between 1976 and 1982. Not only does the plant provide power to the county, but it employs many people in the area. In 1996, a Toyota Manufacturing Plant was built between Princeton and Fort Branch, providing over 7,000 jobs for residents of Gibson



County and the surrounding region. Additionally, dozens of coal mines are scattered throughout the county, the extraction of which further bolsters the economy.

3.2.2 Overview of Owensville

European Americans began settling in what is now Montgomery Township at the start of the nineteenth century, with many early pioneers coming from Indiana, Kentucky, and Tennessee. The city of Owensville, the sole city in the township, was platted in 1817 by Phillip Briscoe and named for Kentucky resident Thomas Owens (Stormont 1914). The following year saw the establishment of Owensville's first post office, with Briscoe assuming the role of Postmaster (Owensville Sesquicentennial Committee 1967; Tartt 1884). John C. Warrick was a pioneer of industry in the city and was heavily involved in early trade, using the Wabash River to ship agricultural commodities such as pork and grain. His business endeavors provided work for a great number of people in the area. Warrick was responsible for the construction of many early buildings that served as hotels, businesses, and residences. By 1838, he had built the first steam sawmill and flour mill. Sawmills proved to be an integral part of the Owensville community, and one or more was always present through the nineteenth and into the twentieth century (Stormont 1914; Tartt 1884). At its height, a sawmill owned by W.L. White produced three billion feet of lumber per annum (Owensville Sesquicentennial Committee 1967).

The first passenger and freight train to service Owensville passed through in 1879 on the Chicago & Eastern Railroad and offered a free trip to Princeton to all residents of the town. The presence of the railroad brought more economic opportunity as goods cultivated in and around Owensville, such as livestock and produce, could easily be transported elsewhere (Stormont 1914). In the early 1880s, a grist mill was opened by W.M. Scott and Samuel Hudleson, and William A. Redman and Co. built the Owensville Brick and Tile Works (Tartt 1884). By the turn of the century, many important industries were established including blacksmiths, furniture stores, lumber yards, grocery stores, hotels, bakeries, a newspaper, plumbers, a metal batten company, and hardware stores. Cars began arriving in Owensville in 1909 following significant road improvements (Owensville Sesquicentennial Committee 1967; Stormont 1914).

The first structure specifically built to house a school, a two-room brick building, was established in 1859 near the intersection of Walnut and S. Mill streets but was destroyed by a storm in 1875. The next year, a new school was erected in the same location, this time a four-room schoolhouse (Owensville Sesquicentennial Committee 1967). That same year, a fire ravaged through much of the downtown square causing irreversible damage to many store fronts in the area; brick buildings were constructed to replace several of the damaged structures (Tartt 1884). The four-room schoolhouse burned down in 1891 and was replaced with an eight-room school in 1892 that was destroyed in a fire in or before 1903. A new school building was erected in 1903 (Owensville Sesquicentennial Committee 1967).

Prior to 1916, the school built in 1903 was torn down, and Owensville High School was built in its location in 1916. The new high school proved to be not just a center of learning but also an important part of the community. Sporting events brought people to Owensville from throughout the state, with Owensville High School hosting football, baseball, and track events. The new gymnasium, which still stands today, was host to many basketball games. The first use of the glass backboard can be attributed to Owensville High School. Music classes, both instrumental and choral, were eventually offered at the school, and many performances demonstrating the students' talents were put on for the community. The establishment of the Owensville Carnegie Library in 1917 helped to further connect Owensville residents to one another. Along with providing access to reading materials, the library served as a meeting place for various organizations and clubs and was a polling location during elections (Owensville Sesquicentennial Committee 1967).



When the United States entered into World War II, many Owensville residents made a nearly 60 mile round-trip commute daily to work in the defense plants that were established in Evansville. During this time, several Owensville women contributed to the war effort by knitting clothes for the Red Cross, and three women began teaching first aid courses in Owensville and surrounding areas. Following the war, many Owensvillians continued to work in manufacturing jobs in Evansville (Owensville Sesquicentennial Committee 1967). Today, much like the rest of the county, the modern Owensville economy predominantly depends on agriculture, auto manufacturing, energy production, and coal mining.

3.3 Previous Surveys and Recorded Sites

Information regarding previous archaeological surveys, archaeological sites, and other relevant investigations within 1.6 km (1 mi) of the survey area was collected from SHAARD by Dawn M. Bradley in December 2024. Cultural resource reports were also consulted as part of the literature search to better understand the archaeological research potential of the area, as were McGregor Industrial Site Records. The data provided by SHAARD and the McGregor Industrial Site Records showed four previous surveys have been conducted within 1.6 km (1 mi) of the survey area, and 24 archaeological sites have been documented within 1.6 km (1 mi) of the survey area (**Tables 3.1 and 3.2; Figures 3.1 and 3.2**).

Table 3.1. Previous archaeological surveys within a 1.6 km (1 mi) buffer of the survey area.

Reference Number	Year	Report Title	Author
AR-26-00221	1994	<i>Waterworks Improvements for the Town of Owensville, Gibson County, Indiana</i>	Thomas C. Beard
AR-26-00336	2005	<i>Archaeological Records Review, Reconnaissance, and Recommendation, Terracon Owensville Cell Tower, Gibson County, Indiana</i>	David N. Holycross
AR-26-00214	2007	<i>An Archaeological Records Check and Phase Ia Reconnaissance: Three Proposed Drainage Improvements (Des. No. 0101035, 0101039, and 0101042) and One Intersection Improvement (Des. No. 0200758) within and adjacent to Owensville, Gibson County, Indiana</i>	Charles David Moffatt
AR-26-00570	2025	<i>Phase Ia Archaeological Field Reconnaissance Road Improvement Project: State Road (SR) 65 from West Brummitt Street to 0.1 mi west of South Mill Street (Des. No. 2001922), and SR 168 from SR 65 to 0.8 mi east of South First Street (Des. No. 2001920) in Owensville, Gibson County, Indiana</i>	Jason Goldbach

Table 3.2. Previously recorded archaeological sites within a 1.6 km (1 mi) buffer of the survey area.

Site Trinomial	Temporal/Cultural Affiliation	Function	NRHP Recommendation
12Gi53	Precontact, indeterminate affiliation	Camp	Not assessed
12Gi1512	19th to 20 th century historic	Grist mill	Not assessed
12Gi1513	19th to 20 th century historic	Flour mill	Not assessed



Table 3.2. Previously recorded archaeological sites within a 1.6 km (1 mi) buffer of the survey area.

Site Trinomial	Temporal/Cultural Affiliation	Function	NRHP Recommendation
12Gi1514	19th to 20 th century historic	Tile works manufacturing facility	Not assessed
12Gi1515	19th to 20 th century historic	Metal batten shop	Not assessed
12Gi1516	19th to 20 th century historic	Brick manufacturer	Not assessed
12Gi1517	Early 20 th century historic	Sawmill	Not assessed
12Gi1518	Mid-19 th to early 20 th century historic	Blacksmith shop	Not assessed
12Gi1521	19th to 20 th century historic	Sawmill	Not assessed
12Gi1522	19th to 20 th century historic	Blacksmith shop	Not assessed
12Gi1523	19th to 20 th century historic	Printer, then bakery	Not assessed
12Gi1524	19th to 20 th century historic	Tin works	Not assessed
12Gi1525	19th to 20 th century historic	Harness manufacturer	Not assessed
12Gi1529	19th to 20 th century historic	Blacksmith shop	Not assessed
12Gi1530	Late 19 th to early 20 th century historic	Printing workshop	Not assessed
12Gi1695	Mid-19 th to early 20 th century historic	Structure	Not eligible, no further work required
12Gi1696	Mid-19 th to early 20 th century historic	Structure	Not eligible, no further work required
12Gi1697	Mid-19 th to early 20 th century historic	Structure	Not eligible, no further work required
12Gi1698	Late 19 th to mid-20 th century historic	School	Not eligible, no further work required
12Gi1699	Mid-19 th to early 20 th century historic	Structure	Not eligible, no further work required
12Gi1700	Mid-19 th to early 20 th century historic	Structure	Not eligible, no further work required
12Gi1701	Mid-19 th to early 20 th century historic	Structure	Not eligible, no further work required
12Gi1702	Mid-19 th to early 20 th century historic	Structure	Not eligible, no further work required
12Gi1703	Mid-19 th to early 20 th century historic	Structure	Not eligible, no further work required

Two of the previously completed surveys were directly adjacent or partially overlapped with the current survey area (**Figure 3.1**). The first, a records check and Phase Ia survey, was completed for proposed drainage improvements and one intersection improvement at SR 65, SR 165, and SR168 (Moffatt 2007). The survey area was investigated via visual inspection and pedestrian survey of exposed road cuts along the Owensville Cemetery as well as shovel test excavations in the southern portion along SR 65. No new archaeological sites were identified.

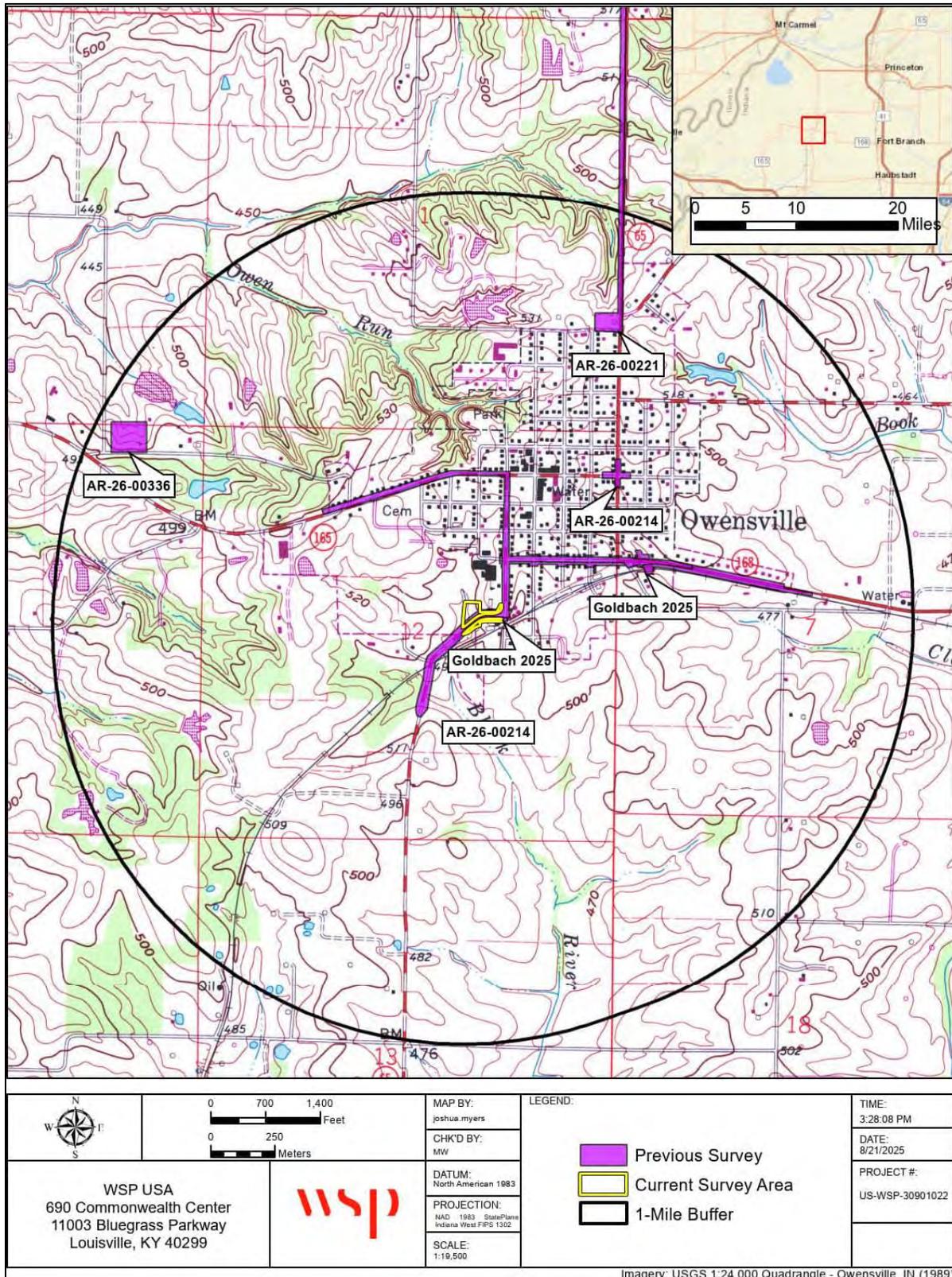


Figure 3.1. Previous archaeological surveys within 1.6 km (1 mi) of the survey area (INDOT Des. No 2001922) depicted on the 1989 USGS Owensville, IN topographic quadrangle (USGS 1989).



The second survey overlapping with or adjacent to the survey area, completed in 2022, was a Phase Ia survey conducted along SR 65 and SR 168 in Owensville, spanning an area of approximately 5.58 ha (13.8 ac; Goldbach 2025). The current survey investigates an additional 0.67 ha (1.65 ac), extending off of the SR 65 southern terminus of the 2022 survey area. During the 2022 Phase Ia survey, which involved a combination of shovel testing and bucket augering, nine new historic archaeological sites (12Gi1695 through 12Gi1703) were recorded (see **Table 3.2**).

Two additional previously completed surveys were noted within the one-mile buffer of the survey area. The first was completed in 1994 by Thomas C. Beard in preparation for a proposed new waterline and storage tank (Beard 1994). The Phase Ia survey encompassed an approximately 6.2 mi (10 km) corridor, in addition to a one ac plot of land, and involved a combination of visual inspection and shovel testing. No archaeological sites were identified during this investigation. In 2005, a Phase Ia survey within the 1.6 km (1 mi) buffer was conducted by Indiana State University for a proposed cell tower covering an area of approximately 0.08 ha (0.21 ac; Holycross 2005). Methodology included both shovel testing and visual inspection, and no new archaeological sites were recorded.

While no previously recorded archaeological sites were located within or directly adjacent to the current survey boundaries, 24 previously recorded sites are found within the 1.6 km (1 mi) buffer of the survey area (see **Table 3.2**). The only precontact site, 12Gi53, consists of a campsite of indeterminate cultural affiliation, and is located on private land. No formal investigation of the site has been conducted, and little information on the site is available in SHAARD. As such, the site was not assessed for its NRHP eligibility status as part of the site documentation.

Sites 12Gi1512 to 12Gi1518, 12Gi1521 to 12Gi1525, and 12Gi1529 to 12Gi1530 were all documented in SHAARD from information derived from the McGregor Industrial Site Records. As the McGregor historic industrial sites and structures assessment was a research project, information on the material culture present at these sites is limited, and few of these sites have been evaluated for their eligibility for listing on the NRHP as archaeological sites. Given the brevity of the McGregor report (1987), the following information is derived from the individual site entries into SHAARD (SHAARD 2025).

Site 12Gi1512 was the site of a grist mill, dating back to at least 1880. By 1900, the mill was owned by Harmon and Wallace. This site lies just outside the southern portion of the survey area, on the southwest corner of the intersection of SR 65 and S. Mill Street. Newer structures have been present at this location since at least 1986. Site 12Gi1513 is the former location of a flour mill owned by Owensville Milling Co.; it was present by at least 1900. Mobile homes and other structures have been present in this area since at least 1986. Owensville Brick and Tile sat at the location of 12Gi1514 from at least 1881; the factory changed hands in 1900, becoming Kimball and Mauck Tile Works. By 1986, a newer building was found here. Site 12Gi1515 was a metal batten shop dating to c. 1910 and remained until at least 1986. A brick manufacturer dating to c. 1910 was located at what is now site 12Gi1516. Site 12Gi1517 is the former location of an early twentieth century sawmill. As of 1986, this building was still present. A blacksmith shop dating to the mid-nineteenth to early twentieth century used to stand at site 12Gi1518. McGregor noted a newer building at the site in 1986.

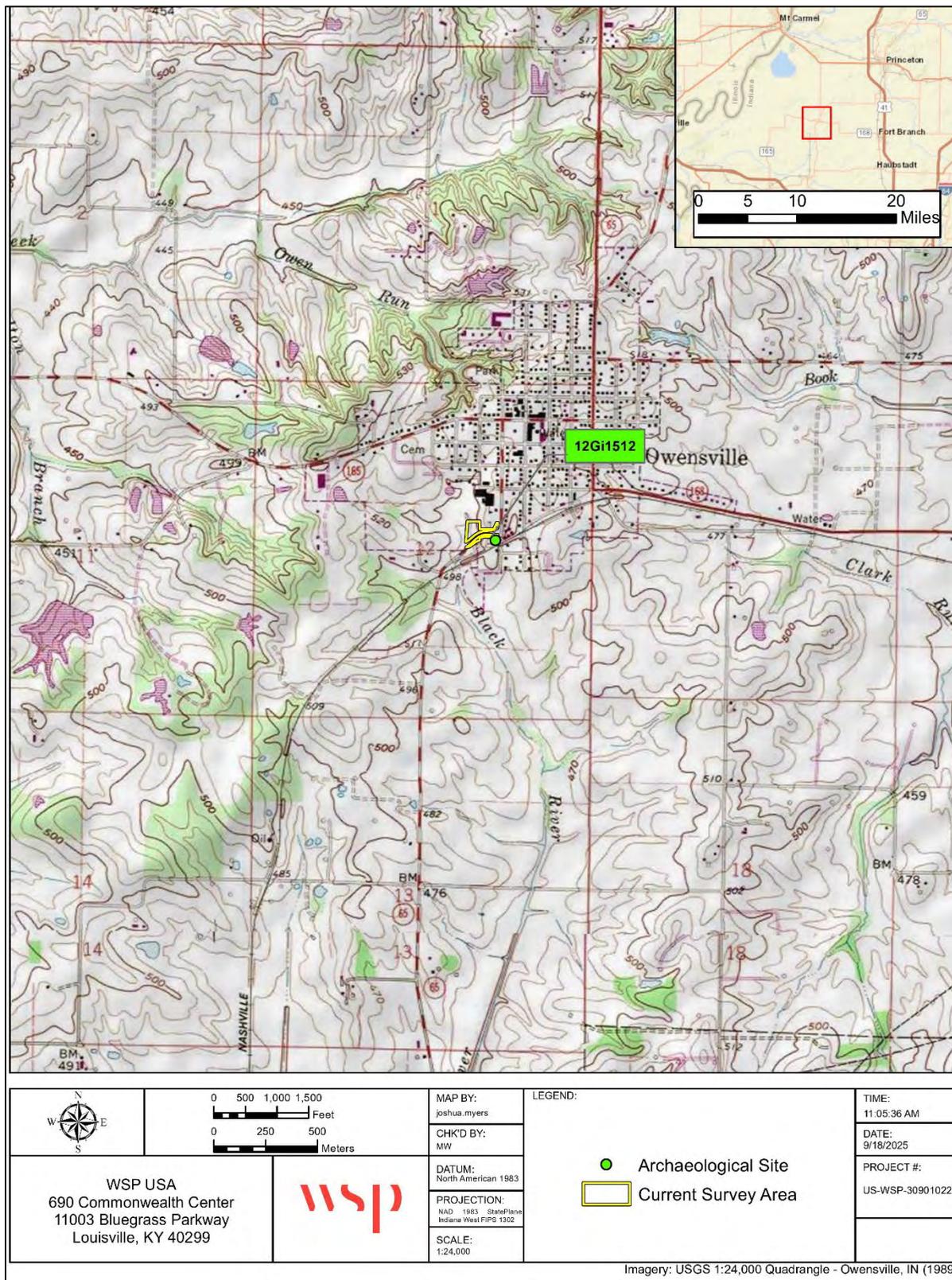


Figure 3.2. Previous recorded sites adjacent to the survey area (INDOT Des. No 2001922).



Site 12Gi1521 was a sawmill dating back to at least 1895, and in 1986, a new structure was found at this location. A blacksmith shop, now site 12Gi1522, was present from 1895 to 1900, and a new structure sat at this location by at least 1986. Site 12Gi1523 consisted of a print shop in 1907, followed by a bakery owned by O.N. Basford in 1913. By 1986, newer buildings had replaced the former. Site 12Gi1524 was a tin workshop dating to 1907. Newer buildings sat at the site by 1986. A harness manufacturer, now site 12Gi1525, was present by 1895. By 1986, newer buildings had replaced it. Site 12Gi1529 was formerly a blacksmith shop, owned by Elmer Thomson and dating to c. 1910. As of 1986, this building has been replaced by other structures. Site 12Gi1530 was the location of a printing workshop owned by J.P. Cox, dating to c. 1910, and replaced by newer buildings by 1986.

During their 2022 survey, Weintraut & Associates re-surveyed portions of sites 12Gi1517, 12Gi1518, and 12Gi1530 to assess their NRHP eligibility (Goldbach 2025). The former sawmill at site 12Gi1517 was demolished pre-2022, and the installation of buried utilities had disturbed the area; additionally, no artifacts were recovered. Site 12Gi1518, the former site of a blacksmith shop, had similarly been razed. Shovel tests yielded no cultural material, and the ground was found to be significantly disturbed. The printing press that once stood at site 12Gi1530 was no longer extant, and the area was found to be disturbed by buried utilities, sidewalks, and roads, which precluded shovel test excavation at the site. No further work was recommended at any of the sites but given that the site boundaries extended outside of their survey area, assessment of NRHP eligibility was not possible.

Sites 12Gi1695 to 12Gi1703 were all identified during the archaeological survey by Weintraut & Associates in 2022 (Goldbach 2025). These sites all consisted of scatters of historic artifacts, and all these assemblages dated from the mid-nineteenth to early twentieth century, except site 12Gi1698, which dated slightly later. Site 12Gi1698 is at the former location of two schools, Owensville High School and its predecessor, with artifacts dating to the late nineteenth to mid-twentieth century. These sites were all recommended ineligible for NRHP or IRHSS listing, and no further work was recommended.



4.0 Methodology

4.1 Survey Purpose and NRHP Criteria

The purpose of the archaeological survey was to identify if any archaeological sites eligible for the NRHP are located within the survey area. Resources were assessed against the criteria for the NRHP in order to determine their potential eligibility. These criteria require that “the quality of significance in American history, architecture, culture and archaeology should be present in buildings, structures, objects, sites, or districts that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and that the buildings, structures, objects, sites or districts” (NPS 1990:2). These criteria include:

- *Criterion A (Event)*. Association with one or more events that have made a significant contribution to the broad patterns of national, state, or local history.
- *Criterion B (Person)*. Association with the lives of persons significant in the past.
- *Criterion C (Design/Construction)*. Embodiment of distinctive characteristics of a type, period, or method of construction; or representation of the work of a master; or possession of high artistic values; or representation of a significant and distinguishable entity whose components may lack individual distinction.
- *Criterion D (Information Potential)*. Properties that yield, or are likely to yield, information important in prehistory or history. Criterion D is most often (but not exclusively) associated with archaeological resources. To be considered eligible under Criterion D, sites must be associated with specific or general patterns in the development of the region. Therefore, sites become significant when they are seen within the larger framework of local or regional development.

Factors that contribute to determining a site’s eligibility include the retention of spatial integrity, both horizontally and vertically, retention of relevant cultural features, overall artifact density and diversity, and recovery of diagnostic material leading to a determination of site function, age, and occupants. For historic sites in particular, completion of archival research is invaluable for determining who may have occupied a site. In general, archaeological sites that lack sub-plow zone artifact-bearing deposits, have low artifact densities, lack diagnostic materials, lack spatial integrity, lack artifact concentrations, or exhibit signs of earth disturbing activities are not good candidates for inclusion on the NRHP. Sites that contain concentrations of artifacts, intact surface and/or subsurface features, or intact subsurface remains generally have a higher potential to contain intact information concerning a particular time frame and/or site function and are generally considered good candidates for inclusion on the NRHP.

4.2 Field Methods

During the survey, the entire survey area was visually inspected for foundations, grave markers, vegetation patterns, topographic irregularities, and other indications of a potential archaeological site. Areas with steep (greater than 20 percent) slope were visually examined by pedestrian survey, with transects spaced to provide line-of-site inspection by field personnel who were no more than 10 m (32.8 ft) apart. The slopes were visually inspected for benches, rock outcrops, overhangs, and other above ground areas of potential cultural interest. No areas with both a less than 20 percent slope and good surface visibility that could be inspected by systematic pedestrian survey were encountered during the survey.

Areas with less than 20 percent slope and less than 30 percent surface visibility were investigated by shovel test excavation, with the exception of those sections where the ground



was impenetrable such as paved drives or gravel lots, as well as areas with abundant buried utilities. Each shovel test was assigned a unique number consisting of the excavator's initials and a sequential number (*i.e.* ABC1, ABC2, ABC3, etc.). Shovel test excavation was conducted at intervals of no greater than 15 m. All shovel tests were at least 30 cm (11.8 in) in diameter and were excavated at least 10 cm (3.9 in) into sterile subsoil or until 50 cm (19.7 in) was reached or until the water table, a large root, bedrock, or other obstruction was encountered. Soil from each shovel test was screened through 0.64 cm (0.25 in) hardware cloth. Measurements were recorded using the metric system, and information regarding each shovel test was recorded for each shovel test. Soils were described using the Munsell color chart and appropriate terminology. Photographs were taken of representative soil profiles throughout the survey area.

When cultural materials were found in a shovel test, the find was assigned a temporary field site (FS) number. Artifacts were placed in bags marked with the corresponding provenience information and taken to the lab for processing. Site boundaries were delineated by shovel testing at a reduced interval of 5 m (16.4 ft) or less until two negative shovel tests, a natural or man-made break, or the edge of the survey area were encountered. The data for each site was recorded on paper forms and a GPS device. Photographs were taken as needed to document general site conditions, representative soil profiles, and any observed features.

Mapping for the project, including site and shovel test locations, was completed using a hand-held Bad Elf GNSS Surveyor with approximately 1 m (3.3 ft) positioning. Detailed notes were maintained on a daily basis regarding the sites identified, methods employed within sections of the survey area, and environmental conditions within the survey area.

4.3 Laboratory Methods and Artifact Curation

This section presents the analytical procedures and descriptive categories utilized to analyze the cultural materials recovered from the archaeological site identified during the investigation. The analytical procedures and typological categories presented here include historic artifacts that were recovered from shovel tests at site 12G11713 during the investigation.

All cultural material recovered during the archaeological survey, as well as field notes, site forms, field maps, photographs, and other materials pertaining to the project, were returned to the WSP laboratory in Louisville, Kentucky, for processing, analysis, and temporary curation. Artifacts were washed with a brush in water and air-dried before being sorted based on the criteria described below. Artifacts from individual sites were catalogued according to provenience and relevant attributes. The analysis was designed to determine the occupation span, possible function, and degree of artifact preservation at each site. These data were used to help formulate management recommendations for each site. The analysis included the comprehensive description of recovered artifacts using well-established descriptive and typological criteria. After the analysis was complete, the collection was prepared for curation according to guidelines defined in 36 CFR 79. Final curation will be at the Indiana State Museum in Indianapolis.

Historic Artifact Analytic Methods

The analysis focused on determining the function and age of the artifacts. The historic artifacts were first divided into functional groups according to a system initially devised by South (1977). South's groups include architectural, arms, clothing, furnishing, kitchen, personal, transportation, activity, and other or unidentified. It should be noted that, while a particular technology may be invented fairly early, the widespread use of it is often much later, such as in the case of wire nails. There can be a significant amount of time between an invention and its first production and even greater time until production figures are high enough to affect the archaeological record (Adams 2003).



Architecture Group

Artifacts assigned to this group include all items associated with construction and hardware furnishings. Examples of specimens include bricks, mortar, cement, window glass, doorknobs, faucet parts, and various nails.

Brick manufacturing shifted from locally crafted handmade varieties to machine-made production during the late nineteenth century with the invention of steam-powered machinery (Gaskell and Filik 2017). With this chronological information in mind, bricks are classified according to method of manufacture. However, the fragmentary nature of most brick fragments often precludes an accurate assessment of age based on manufacture.

Nails like ceramics, form one of the most widespread categories of artifacts recovered from historic sites. As with many other materials, increasing industrialization has had a major impact on the manufacturing of nails and associated hardware. Archaeologists have devoted considerable attention to nails in order to identify their chronologically significant characteristics (Nelson 1968). These are identified by manufacturing process (wrought, cut, wire) and, when possible, their size and condition. Cut nails are stamped from a sheet of steel and consequently taper on two sides only. The artifacts show some variation between early and late forms. Early cut nails have a constricted shank just below the head and were first produced in the late 1790s. Late cut nails are not constricted below the head and were in general use by the late 1830s. While cut nails were used into the early twentieth century and are still made and used today for special purposes, they generally fell out of popular use c. 1880 when wire nails became more prevalent (Nelson 1968). Wire nails are made by cutting hardened steel wire and are round in cross section. Wire nails were first produced in the 1850s but were not commonly used until the 1880s. These nails are the dominant type manufactured today (Nelson 1968).

Research has shown that nail type, size or length, and condition can be used to determine the types of structures at archaeological sites. Keying these to nineteenth century building manuals (Lees 1986; McCorvie et al. 1989; Young and Carr 1989) provides corroboration of archaeological findings. A determination of a log or frame structure has been noted by researchers (see Lees 1986) based on nail size alone. Apparently, heavy framing nails, such as 9d to 40d, would be most likely used on frame structures rather than a log structure that required no heavy framing nails. According to Hill (1916), the presence of particular nail sizes should help distinguish log from frame construction. Young and Carr (1989) have defined two nail patterns for timber frame and balloon frame structures. In timber frame structures, large timbers were mortised and tenoned together, forming the framework for the roof and sides. Nails would be used for weather boarding, roofing, windows, doors, interior woodwork, and floors. Such nails would vary in size from 4d to 10d, Balloon frame structures became common after the mid-nineteenth century and used nails at the joints to form the frame. Larger heavyweight sized nails would therefore be essential for better holding and support of the frame. Unlike the log and timber frame structures, a large quantity of nails 10d and larger would be more common. However, the same number of smaller nails would also be needed for weather boarding, roofing, windows, doors, interior woodwork, and floors (Young and Carr 1989).



Nail condition has also been found to relate to structure placement and renovation. Nail condition concerns whether the nail is unaltered or straight, pulled or curved, and clinched or bent at a ninety-degree angle. Young (1992) found that unaltered nails tend to be found in relatively high frequencies in a building location. Unaltered nails are those nails that were lost during construction. Pulled nails are nails that have been removed from the structure for reuse or recycling. Higher frequencies of pulled nails tend to occur around structures that have been razed or demolished or that have undergone some renovation or maintenance. Clinched nails are bent at a ninety-degree angle and are used in doors and windows to secure the nail and the wood together. These nails often cannot be removed for recycling or reuse and are often left in the wooden member. Clinched nails can indicate a structure location.



5.0 Results

5.1 Survey Results

The survey area for the proposed project encompasses a total of 0.67 ha (1.65 ac) along SR 65 near its intersection with S. Mill Street (**Figure 5.1**; see **Figures 1.2** and **1.3**). Conditions within the survey area consisted of an open grassy field, a moderately dense wood lot, and lawns with less than 30 percent surface visibility on a floodplain and rolling uplands (**Figures 5.2 - 5.5**). Disturbances within the survey area consisted of above ground and buried utilities, paved and gravel covered drives, and artificial ditches (**Figures 5.6 - 5.11**). The buried utilities and artificial ditches were predominantly concentrated along SR 65, and the abundance of buried utilities precluded shovel testing in much of this disturbed area (**Figures 5.12 - 5.14**; see also **Figures 5.1, 5.4, and 5.9 - 5.10**). The survey area was investigated using a combination of visual inspection and shovel testing. No areas within the survey area presented steep slope (greater than 20 percent) and/or adequate surface visibility (greater than 30 percent) that would allow for systematic pedestrian survey.

A total of 51 shovel tests were excavated at no greater than 15 m (49.2 ft) intervals as part of this survey, revealing a fairly consistent soil profile with only slight variations in soil color and texture observed. Two general soil profiles were observed within the survey area. The first profile consisted of a dark gray (10YR 4/1) to dark grayish brown (10YR 4/2) silty loam Zone I that extended to a depth of 38 cm (15 in) below surface, underlain by a yellowish brown (10YR 5/4) to strong brown (7.5 YR 5/6) silty clay loam Zone II extending to the terminal depth of the shovel test at 56 cm (22 in) below surface (**Figure 5.15**). The second profile consisted of disturbed Zone I that extended to the terminal depth of the shovel test at 50 cm (19.7 in) below surface (**Figure 5.16**). The disturbance in this second profile was minor and was exhibited by slight mottling of the soil that is difficult to see in the profile photo due to poor lighting.

As a result of this survey, one newly recorded archaeological site (12Gi1713) was identified. Site 12Gi1713 consists of a scatter of historic architectural material dating from the mid-nineteenth to early twentieth century. Further discussion of the site can be found below in **Chapter 6** of this report.

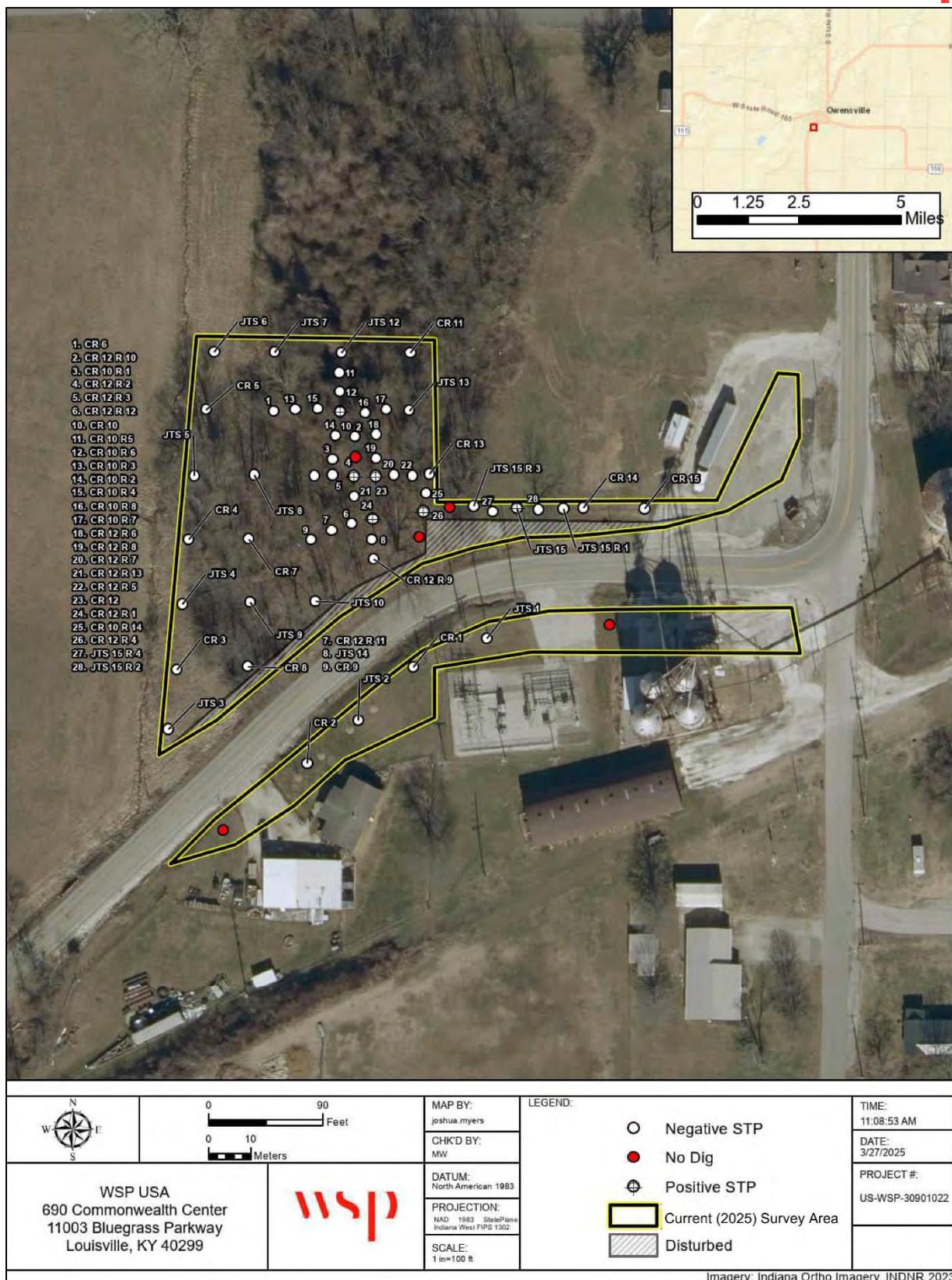


Figure 5.1. A 2023 aerial map of the survey area (INDOT Des. No 2001922) showing survey results (IN IGIO 2023).



Figure 5.2. Grassy field in floodplain along western edge of survey area, facing north.

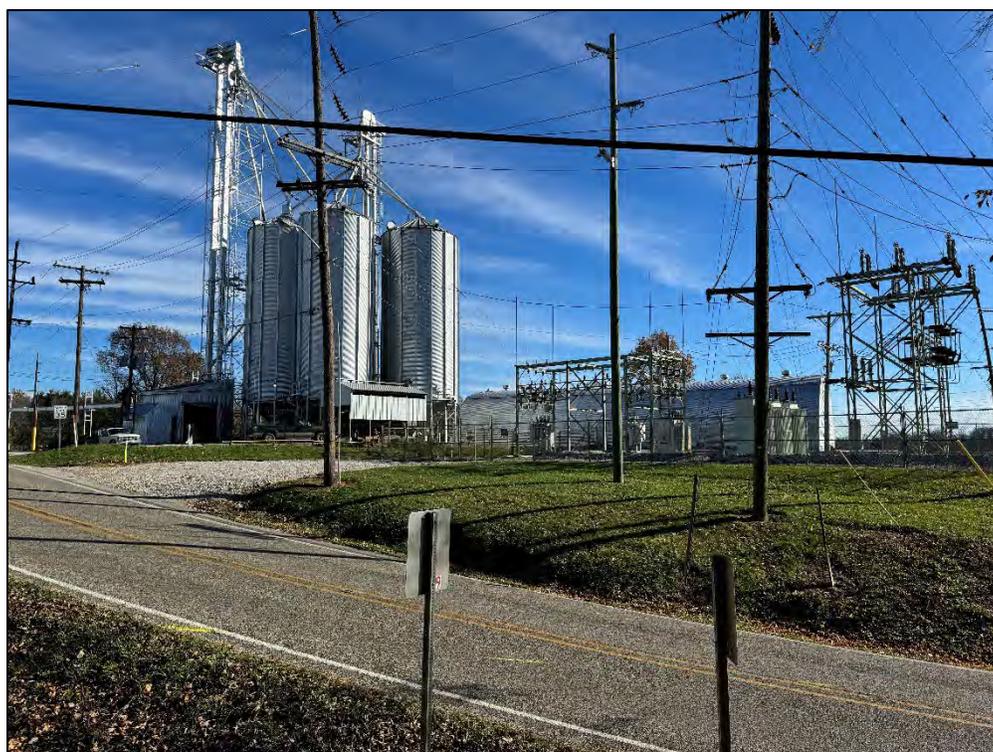


Figure 5.3. SR 65 and lawn in southern portion of survey area, facing southeast.



Figure 5.4. SR 65 and lawn in southern portion of survey area, facing southwest.



Figure 5.5. Density of trees in wood lot, facing south.



Figure 5.6. Marked utilities across lawns in southern portion of survey area, facing west.



Figure 5.7. Marked utilities across lawns in southern portion of survey area, facing east.



Figure 5.8. Power line corridor running through wood lot in northern portion of survey area, facing southeast.



Figure 5.9. Marked utilities just outside northern portion of survey area, facing west.



Figure 5.10. Marked utilities in northern portion of survey area, facing east.



Figure 5.11. Gravel lot in eastern portion of survey area, facing northeast.



Figure 5.12. Utilities and artificial ditching in northern portion of survey area along SR 65, facing southwest.



Figure 5.13. Utilities in northern portion of survey area along SR 65, facing southwest.

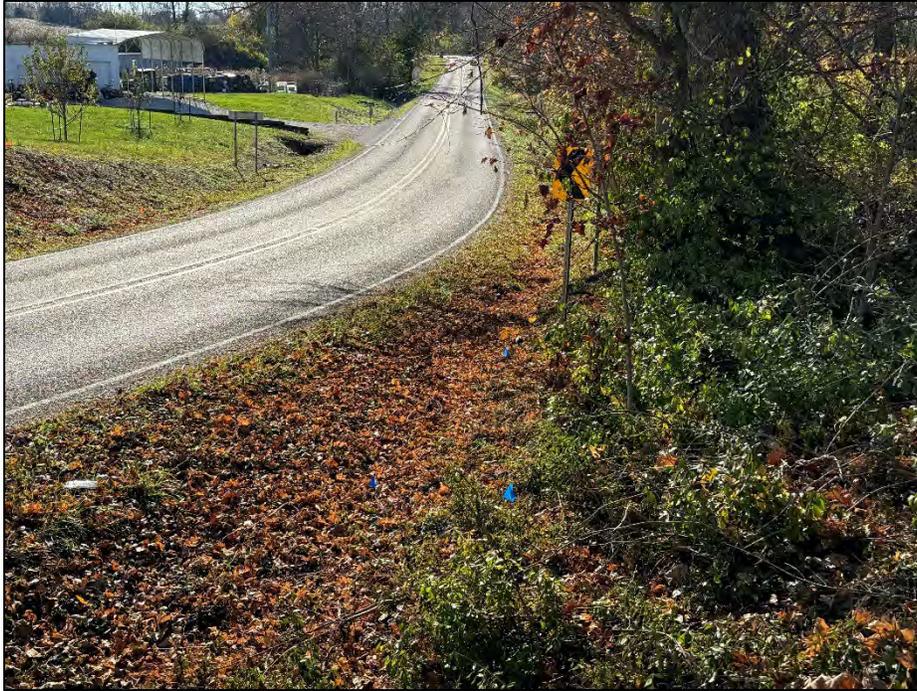


Figure 5.14. Utilities in northern portion of survey area along SR 65, facing southwest.

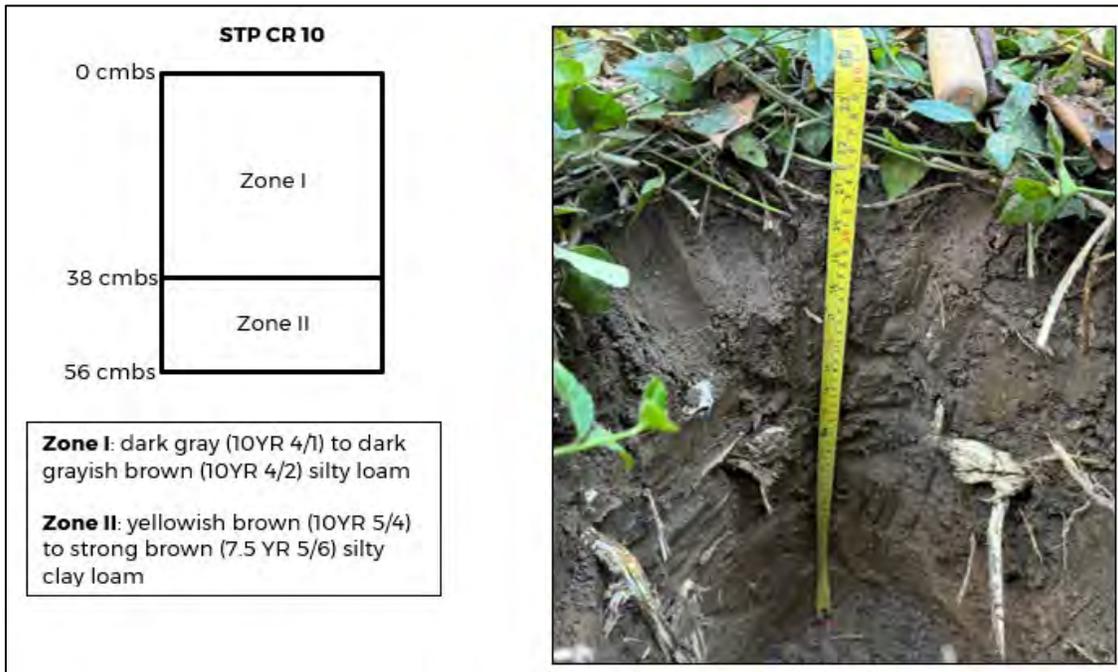


Figure 5.15. Representative soil profile (STP CR 10), facing north.

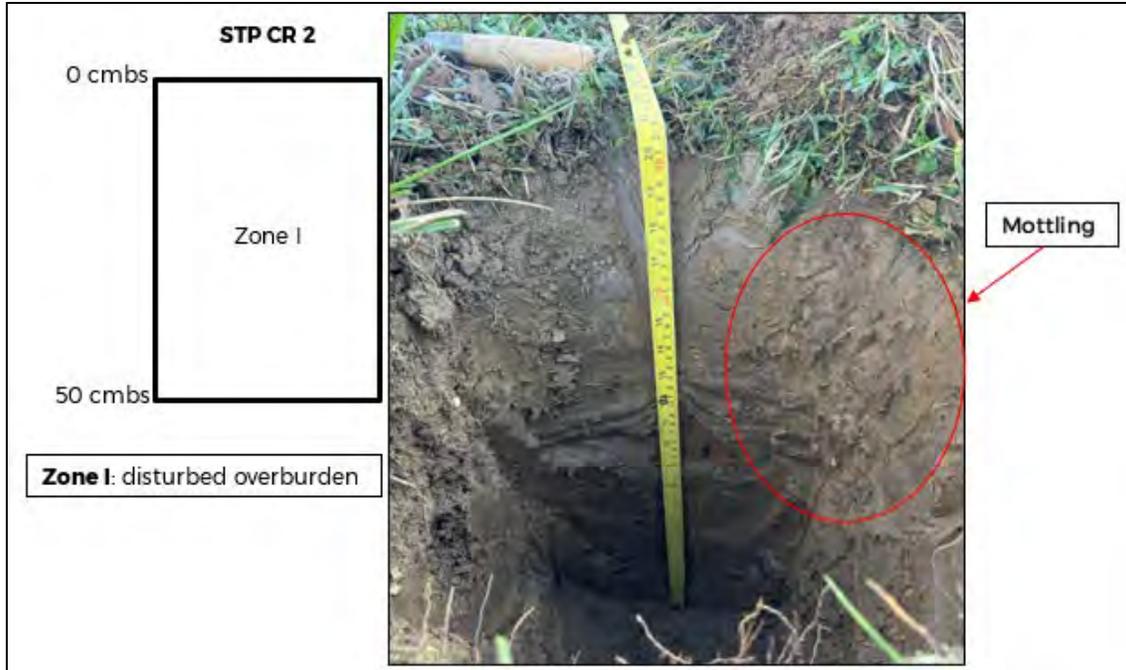


Figure 5.16. Representative soil profile showing disturbed overburden (STP CR 2), facing east.



6.0 Site Description

6.1 Site 12Gi1713

UTM Coordinates: 16S 439289E 4235732N

Cultural Period: Historic scatter, mid-nineteenth century to early twentieth century

Site Size: 0.06 ha (0.16 ac)

Topography/Landform: Rolling uplands

Elevation: 155 m (508 ft) AMSL

Soil Type: Alford silt loam, 2 to 5 percent slopes, eroded; Sylvan silt loam, 6 to 12 percent slopes, severely eroded

Watershed: Lower Wabash

Nearest water source: Tributary of the Black River

Distance and direction to nearest water source: 32 m (105 ft) west

Recommendation: The site extends outside the survey area; therefore, the site could not be assessed for NRHP eligibility. No further work required within the survey area.

Description

Site 12Gi1713 is located in the SE $\frac{1}{4}$ of the SW $\frac{1}{4}$ of the NE $\frac{1}{4}$ of Section 12, Township 3S, Range 12W, as shown on the USGS 7.5' series Owensville, Indiana topographic quadrangle (**Figure 6.1**). The site consists of a scatter of 13 historic artifacts from a mid-nineteenth to early twentieth century structure that was discovered during shovel testing and covers an area of approximately 0.16 ac (0.06 ha). The site is located on rolling uplands in a wood lot and a power line corridor (**Figures 6.2-6.7**). The southern, southeastern, and eastern portions of the site along the survey area boundary were previously disturbed by the installation of various surface and buried utilities (**Figures 6.8-6.9**). Surface visibility was limited (less than 10 percent), so the area was systematically shovel tested to further investigate the site. The site was partially delineated with shovel test probes, but the site extends outside the survey area boundaries, which precluded full delineation.

Shovel testing was conducted at 15 m intervals, and the site boundary was defined by two consecutive negative shovel tests at a no greater than 5 m (16.4 ft) intervals as possible. No shovel test excavations were completed outside of the current survey boundary. No structures or features, either on the surface or subsurface, were observed during the survey of the area. A total of 32 shovel tests were excavated during site delineation, with six containing cultural material, and 13 artifacts were recovered. All artifacts were found in Zone I, and no features were observed in the shovel tests. A typical soil profile in the site consisted of a dark gray to dark grayish brown (10YR 4/1-4/2) silty loam Ap-horizon (Zone I) to a depth of 38 cm (15 in) below surface, underlain by a yellowish brown to strong brown (10YR 5/4-7.5 YR 5/6) silty clay loam Bt-horizon (Zone II) extending to the terminal depth of the shovel test at 56 cm (22 in) below surface (**Figure 6.10**).

Site 12Gi1713 appears to consist of a scatter of architectural material resulting from the demolition of one or more buildings from outside the survey area. No structures were present on any historic maps at the location of site 12Gi1713. A series of buildings that lie to the east of the wooded portion of the survey area is present on historic aerial imagery as early as 1958. These structures are also present on the 1959 7.5' Owensville, Indiana topographic map (USGS 1959; see **Figure 1.2**). One of these structures, the building closest to the survey area, is shown in varying degrees of dilapidation on aerial photographs beginning in 2016 and continuing through 2022. As of 2024, this building no longer stands, but the others remain. While little information about the now-raised structure could be gleaned, a modern photograph indicates that this building was constructed with concrete or cinder blocks and had a metal roof (**Figure 6.11**).

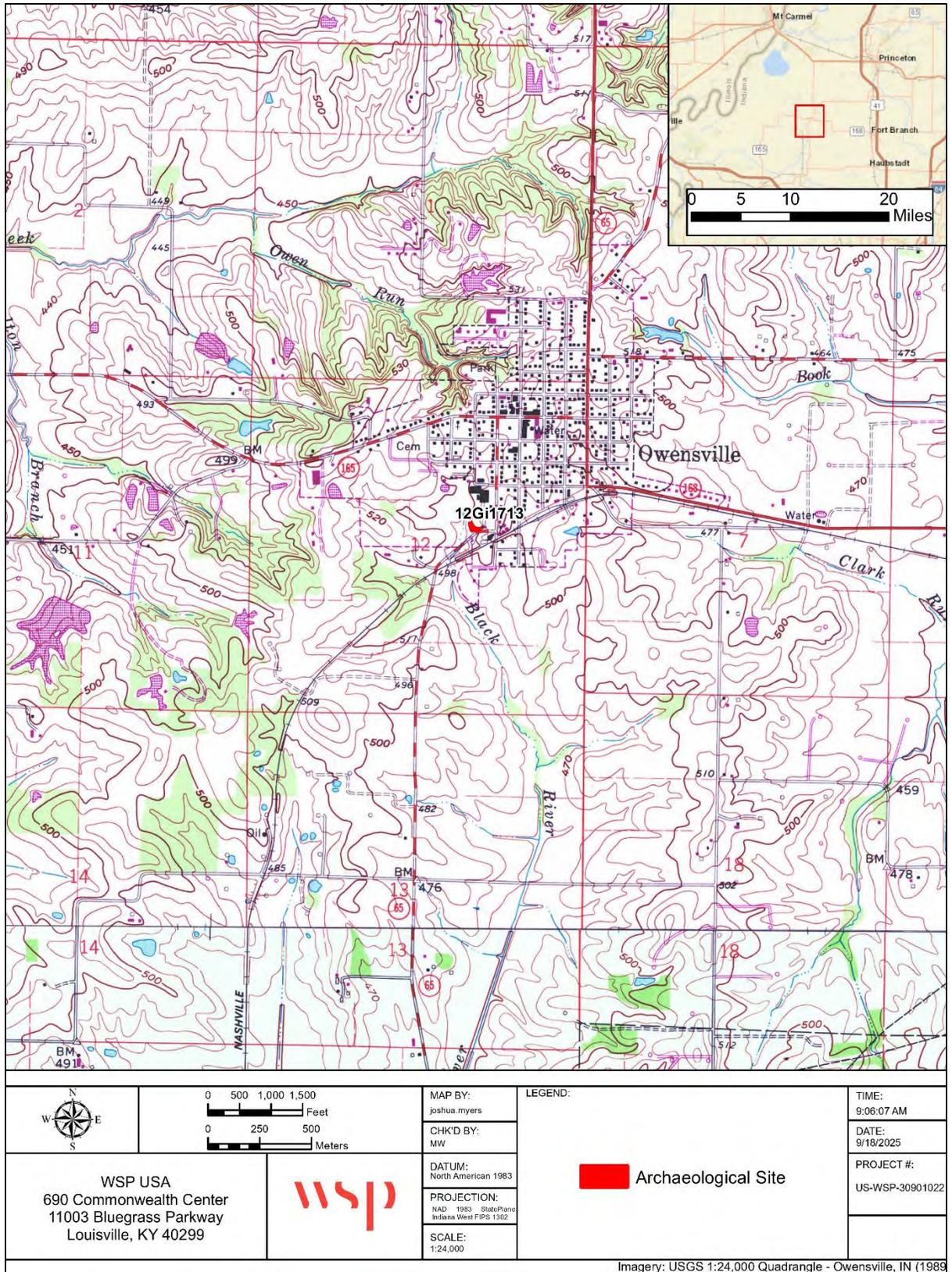


Figure 6.1. Site 12G11713 shown on the 1989 USGS Owensville, IN 7.5' topographic quadrangle (INDOT Des. No 2001922; USGS 1989).

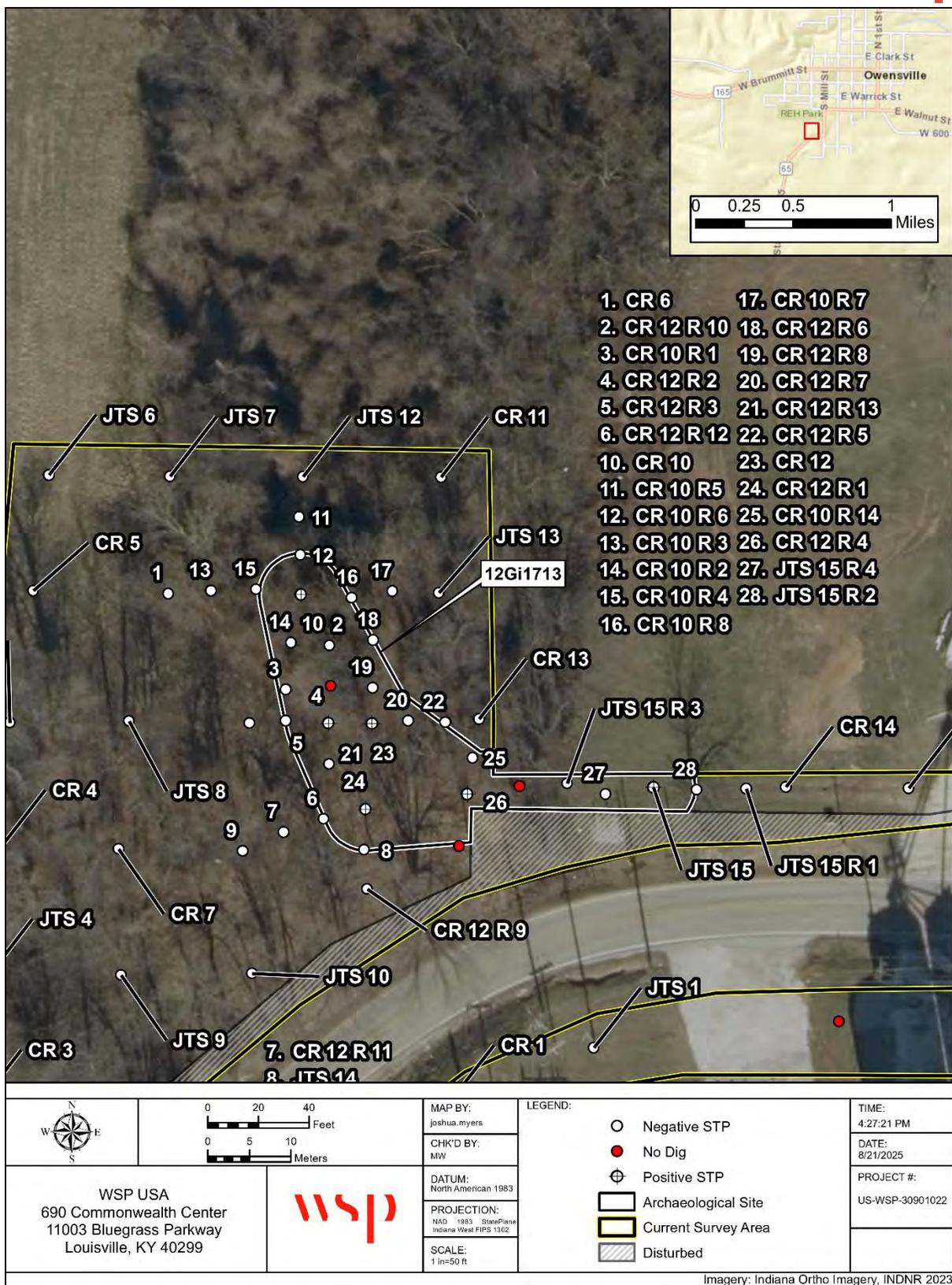


Figure 6.2. Aerial map showing site 12Gi1713 and STPs (INDOT Des. No 2001922).



Figure 6.3. Portion of site 12Gi1713 in wood lot, facing north.



Figure 6.4. Portion of site 12Gi1713 in wood lot, facing southwest.



Figure 6.5. Portion of site 12Gi1713 in wood lot, facing south.



Figure 6.6. Portion of site 12Gi1713 in utility corridor, facing northwest.



Figure 6.7. Portion of site 12Gi1713 in utility corridor, facing north.



Figure 6.8. Buried utilities along southern edge of site 12Gi1713 and survey area.



Figure 6.9. Above-ground and buried utilities along southeastern portion of and just outside of site 12Gi1713 and survey area.



Figure 6.10. Representative soil profile of positive STP (CR 10) at site 12Gi1713, facing north.



Figure 6.11. Pre-2024 photo of a structure that no longer stands (left), facing west.

An 1881 atlas plat map shows one structure along S. Mill Street slightly to the northeast of the survey area and site 12Gi1713 on a parcel then-owned by W.A. Speck (D.J. Lake & Co. 181:37; **Figure 6.12**). By the 1907 Sanborn Fire Insurance Map, four buildings appear on this same parcel (Sanborn Map Company 1907; **Figure 6.13**). On the 1959 7.5' Owensville topographic map, only one structure appears in the same area (see **Figure 1.2**), but aerial images from 1985 and 1993 show at least three structures. Beginning on the 1998 aerial and continuing through the most recent available aerial image from 2022, only two structures are present. The small footprint of the structure that disappeared from mapping between 1993 and 1998 suggests that it was an outbuilding of some sort.

Owensville High School was previously located to the north of these structures, at the southwest corner of Walnut and S. Mill Street. The earliest evidence of a school in this location on historic maps is the 1881 atlas plat map. A school continues to appear in the same location on the 1895, 1900, and 1907 Sanborn Fire Insurance maps (Sanborn Map Company 1895, 1900, 1907; see **Figure 6.13**), and appears slightly farther west on a 1910 Rural Delivery Service map of Gibson County (United States Post Office Department 1910; **Figure 6.14**), and in the same location as the 1881-1907 maps on the 1959 Owensville 7.5' topographic map (see **Figure 1.2**). An IHSSI county survey dates the Owensville High School building to 1916 (Historic Landmarks Foundation of Indiana 1984), indicating that the Owensville High School building replaced an earlier school in the same general location. This is further supported by a pamphlet published for the Owensville Sesquicentennial recounting the history of the town. The pamphlet mentions four iterations of a school in the same location as Owensville High School, but preceding it: a two-room brick schoolhouse built in 1859 and blown down by a storm in 1875; a four-room schoolhouse built in 1876 and burned down in 1891; an eight-room school built in 1892 and burned down in or before 1903; and a school built in 1903 that was torn down in or before 1916 to build the larger Owensville High School (Owensville Sesquicentennial Committee 1967). Further details about the previous schools were not available, and the presence of only one school preceding the high school is supported by historic imagery. Owensville High School was consolidated with other



secondary education institutions in 1974, and the building was razed sometime between 1993 and 1998 according to aerial photographs.

The 1881 atlas plat map and the 1907 Sanborn Fire Insurance Map depict structures on the south side of SR 65 in or near the southern portion of the survey area (see **Figures 6.12 and 6.13**). On the 1881 map, one set of structures is labeled “T.J. Boren Lumber Yard,” and the other is identified as “S.G. Mill Scott & Hudleson.” By the 1907 Sanborn Fire Insurance Map, the building labeled “S.G. Mill Scott & Hudleson” on the 1881 map is now labeled “Harmon and Wallace Flour Mill,” and the Evansville Light & Power Co. and a corn crib are shown where “T.J. Boren Lumber Yard” was on the 1881 plat map, with a reference to “scattered lumber piles” in the area. These structures are absent from the 1910 postal service map. Three structures appear on the 1959 topographic map (see **Figure 1.2**), and a series of buildings appears on aerial imagery from 1958 through the most recent available aerial photo from 2022. Site 12Gi1512, previously recorded during the McGregor Industrial Site assessment, sits where the mill used to be, and this area is now occupied by grain silos. These grain silos have been in this location since at least 1986 according to McGregor’s assessment (1986). According to the county assessor’s office, Duke Energy currently owns the land formerly owned by Evansville Light & Power Co., and the land where the mill used to be is now owned by Superior Ag Resources Coop (Schneider Corp. 2024). The latter company also owns a large parcel of land on the north side of SR 65, including land that makes up part of the survey area and a portion of the site.

Based on the historic map research, site 12Gi1713 appears to consist of architectural debris from a structure to the east, northeast, or south of the survey area, and is not indicative of a historic occupation within the survey area. No evidence of a structure within the survey area could be found, but historic maps and imagery depict eight or more structures in the vicinity of the site that are no longer present. The structure that was located to the east of the site was constructed from cinderblocks or concrete and demolished between 2022 and 2024. Slightly to the northeast, four or more buildings appeared on a 1907 historic map, but were not present on the next available map from 1959; what was likely an outbuilding of unknown material in this area was built at an unknown time and torn down between 1993 and 1998. North of the outbuilding was Owensville High School and four different schools preceding it according to historic research, although only one previous iteration can be corroborated with historic mapping. The high school was demolished between 1993 and 1998, and the previous school or schools prior to 1916. On the south side of SR 65, a mill (site 12Gi1512) was formerly present on land now occupied by grain silos, which have sat on this parcel since at least 1986. The site most likely consists of debris from the demolition of one or more of these buildings.

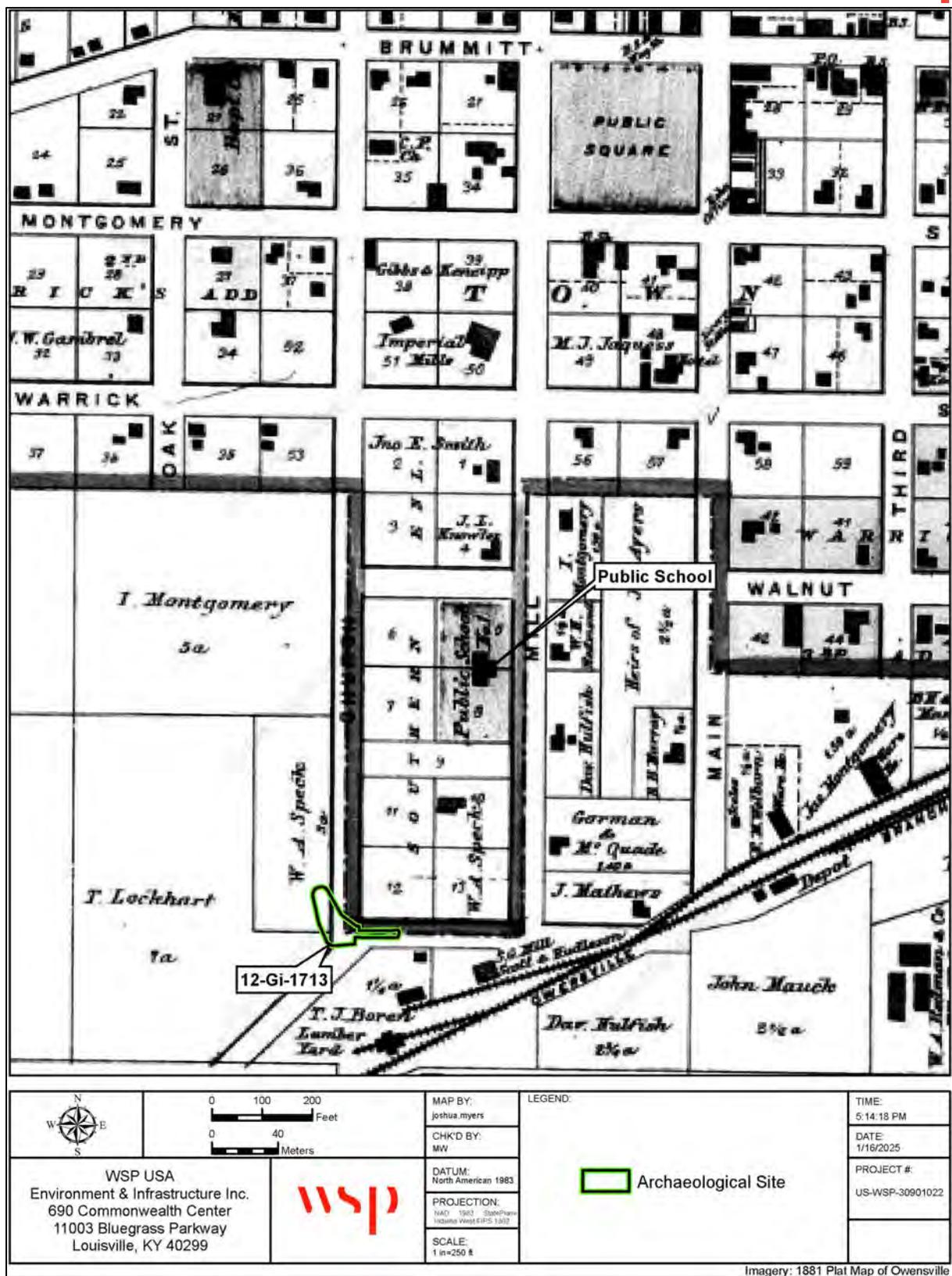


Figure 6.12. 1881 Plat Map of Owensville showing site 12Gi1713 in relation to historic structures (Griffing 1881).

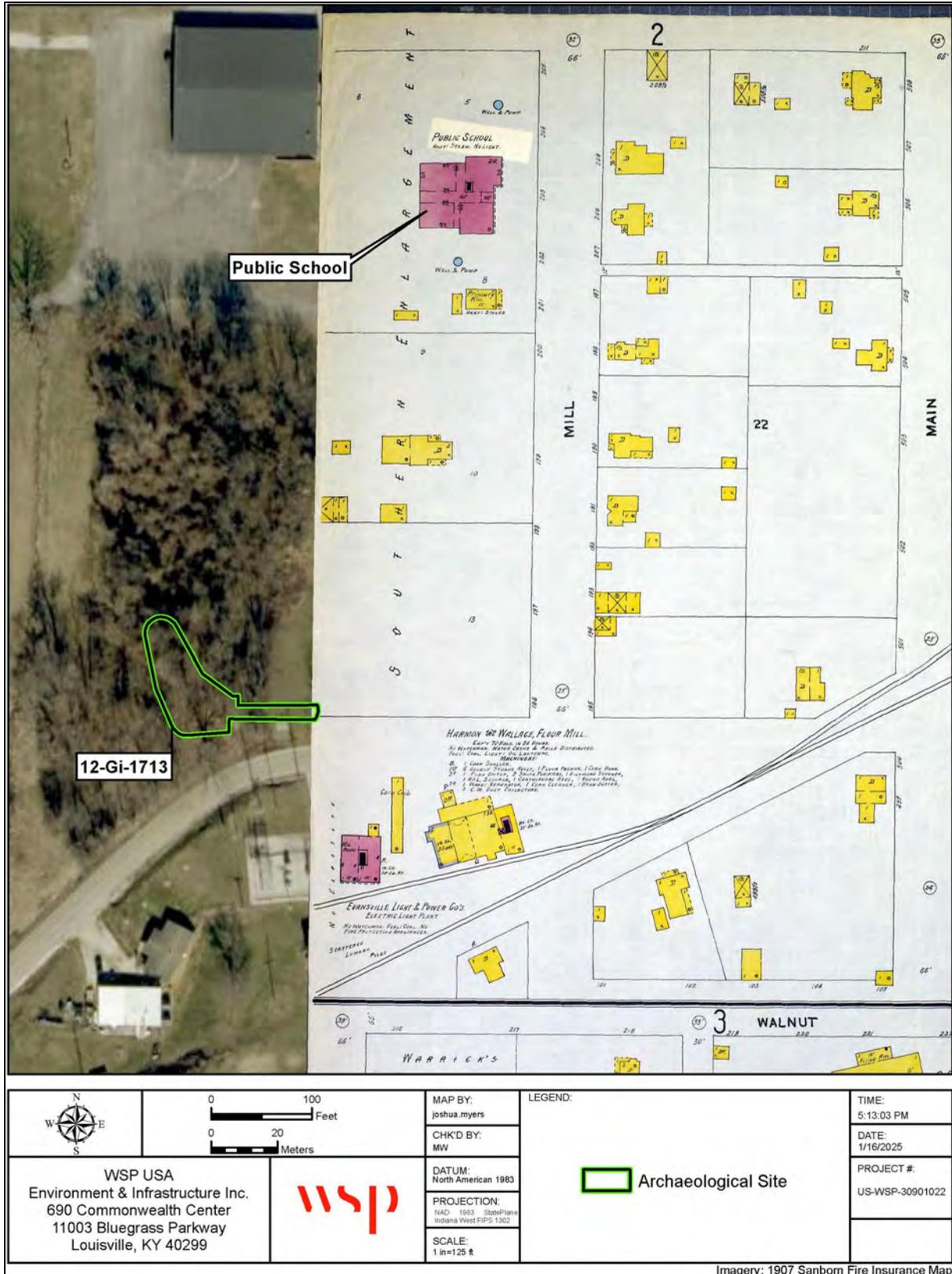


Figure 6.13. 1907 Sanborn Fire Insurance Map showing site 12Gi1713 in relation to historic structures (Sanborn Map Company 1907).

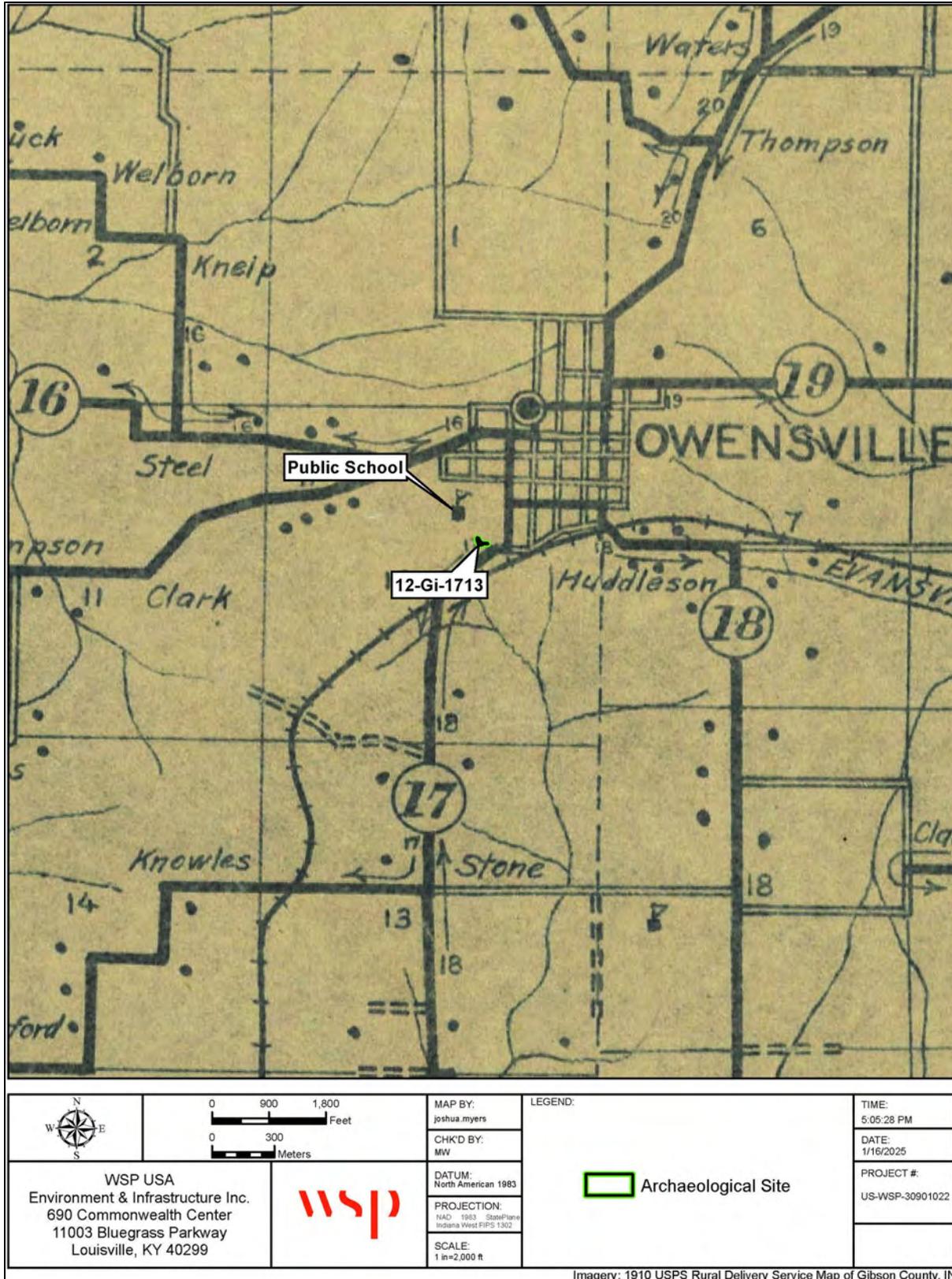


Figure 6.14. 1910 USPS Rural Delivery Service Map of Gibson County showing site 12Gi1713 in relation to former location of school (IN State Library 2025).



Site 12Gi1713 Materials Recovered

A total of 13 historic artifacts were recovered from six shovel tests (STPs CR 10, CR 12, CR 12 Radial [R], CR 12 R2, CR 12 R4, and JTS 15) (**Table 6.1**). All recovered artifacts conformed to the architecture functional group.

Table 6.1. Summary of Artifacts Recovered from Site 12Gi1713.

Provenience	Depth (cmbs)	Group	Artifact	Description	Date Range	Total
STP CR 10	0-38	Architecture	Brick	Fragment, machine-made	-	1
			Late cut nail	Fragment	1835-1880*	3
			Mortar	Fragment	-	2
STP CR 12	0-17	Architecture	Brick	Fragment, machine-made	-	1
			Wire nail	Fragment	Post 1880	1
			Mortar	Fragment	-	1
STP CR 12 R1	0-17	Architecture	Brick	Fragment, machine-made		1
STP CR 12 R2	0-18	Architecture	Brick	Fragment, machine-made		1
STP CR 12 R4	0-36	Architecture	Wire nail	Pulled, 40d	Post 1880	1
STP JTS 15	0-31	Architecture	Brick	Fragment, height 3.75 inches, width 2.5 inches	-	1
Site 12Gi1713 Grand Total						13

**while most popular for use during this time period, manufacture of cut nails continued into the twentieth century.*

Architectural artifacts recovered included five fragments of machine-made brick, three fragments of mortar, three late cut nail fragments, one whole wire nail, and one wire nail fragment. Temporally sensitive artifacts represented in this assemblage consist of the late cut nail fragments, dating from 1835 to 1880 and wire nails, which date from post 1880 (Nelson 1968). The single whole wire nail was determined to be size 40d and in pulled condition, which, based on findings by Young (1992), suggests a framing nail ultimately removed from a structure for reuse or recycling.

Overall, the artifacts recovered during the current investigation suggest the assemblage represents architectural debris from a demolished structure dating from the mid-nineteenth through early twentieth century.



Figure 6.15. Examples of artifacts recovered from Site 12Gi1713.

(A) Brick, fragment, STP JTS 15; **(B)** Late cut nail fragment, STP CR 10; **(C)** Wire nail, pulled, 40d, STP CR 12, Radial 4.

Summary and Recommendations

Site 12Gi1713 is a historic artifact scatter consisting of mid-nineteenth to early twentieth century architectural material, likely from a building that was demolished nearby. A review of historic mapping indicates that no structure has ever sat at the location of the site or within the survey area, but at least eight historic structures to the east, northeast, and south of the site and the survey area have been razed. It is likely the case that the debris recovered from site 12Gi1713 came from the demolition of at least one of these buildings. All artifacts were found in the Ap horizon, and no intact features were encountered. Additionally, the defined portion of the site within the survey area has been disturbed by the installation of a power line corridor and multiple underground utilities. Consequently, the defined portion of the site within the survey area has a low potential to contain intact cultural deposits that would yield significant information regarding historic occupations in the region.

The NRHP eligibility of site 12Gi1713 cannot be assessed as the site extends outside the survey area and therefore has not been fully delineated and investigated. However, it is unlikely that further investigation within the current site boundaries would yield information that would contribute to our understanding of the historic inhabitants of this site or the region. Therefore, WSP recommends that no additional work is required within the survey area.



7.0 Conclusion and Recommendations

On November 26, 2024, at the request of INDOT, WSP conducted a Phase Ia archaeological survey for proposed pond and ditch construction along SR 65 near the intersection of SR 65 and S Mill Street in Owensville, Gibson County, Indiana (INDOT Des. No. 2001922). The survey was conducted to facilitate INDOT's compliance with the NHPA of 1966 and was designed to meet the requirements of Section 106 of the NHPA. The goal of this project was to identify any previously unrecorded archaeological sites in the survey area, and to assess whether they meet criteria for the IRHSS and/or the NRHP. Fieldwork was carried out in accordance with the *Guidebook for Indiana Historic Sites and Structures Inventory - Archaeological Sites* (IDNR DHPA 2022) and the *Historic Property Identification and Evaluation - Archaeology* (INDOT 2019).

The survey area is located in Section 12, Township 3S, Range 12W on the Owensville, Indiana USGS 7.5' topographic map quadrangle. The approximately 0.67 ha (1.65 ac) survey area comprises two noncontiguous parcels along the north and south sides of SR 65. The survey area consisted of an open, grass-covered field in a floodplain, a wood lot, lawns, and a gravel lot that fall across rolling uplands.

Records provided by SHAARD showed three prior archaeological surveys and 24 previously recorded sites within 1.6 km (1 mi) of the survey area. One of these surveys was immediately adjacent to the survey area. A review of historic maps and aerial images revealed six mapped structures directly adjacent to the eastern and northeastern portion of the survey area as early as 1959. Based on a review of the physical setting, soils, geology, historic maps and aerial images, and prior surveys, the survey area was judged to have a low to moderate potential to contain precontact archaeological sites and a moderate to high potential for historic archaeological sites.

The Phase Ia survey was completed using a combination of shovel test excavation and visual inspection. The entire survey area was visually inspected to assess conditions, as well as to determine if above ground features which may indicate precontact or historic occupations such as foundations or rockshelters were present; no such features were identified during the survey. Disturbances within the survey area included above ground and buried utilities, paved and gravel drives, and artificial drainages; these areas were avoided, including a portion of the survey area that runs along the north side of SR 65. Shovel tests were excavated across the remainder of the survey area at no more than 15 m intervals. A total of 56 STPs were excavated, and as a result, one new archaeological site, 12Gi1713, was recorded.

Site 12Gi1713 is a historic scatter consisting of 13 artifacts dating from the mid-nineteenth to early twentieth century, that appears to extend beyond the limits of the survey area. No features or structures were encountered during the survey. Due to the limits of the survey area, the full extent of the site could not be defined, and as such an NRHP eligibility assessment of the site cannot be determined. However, given that the site contains only 13 pieces of cultural material and no known features, it is unlikely to yield significant information regarding historic sites in the southwestern Indiana region. Therefore, WSP recommends that no further work on this site is required within the survey area and that archaeological clearance be granted for the project.



INDOT Project DES 2001922 in Owensville: Property Q

From Owensville Clerk Treasurer <owensvillect@owensville.org>

Date Mon 9/22/2025 2:52 PM

To Chad Kelly <ckelly@kaskaskiaeng.com>

Good Afternoon,

The property in question is where the old Owensville High School used to stand before they tore it down. The town does not have any activities on this lot. The REH Center(GYM) right behind it(West) has different activities from time to time. The town also installed a community sign just west of the sidewalk on this property. Any more questions, feel free to contact me.

Vanessa Riggs
Clerk Treasurer
Town of Owensville
PO Box 296
Owensville, In. 47665
Phone 812-724-4151
Fax 812-724-4113
Email owensvillect@owensville.org



RE: Section 4(f) discussion SR 65 Owensville, Des. 2001922

From Beauchamp, Tomas <TBeauchamp@indot.IN.gov>

Date Mon 9/29/2025 10:18 AM

To Chad Kelly <ckelly@kaskaskiaeng.com>; Passmore, Andrew D <APassmore@indot.IN.gov>; Falls, Ryan G <RFalls@indot.IN.gov>

Cc Schwering, Taylor <Taylor.Schwering@wsp.com>; Chen, Emily <Emily.Chen@wsp.com>; Hinkle, Meghan <meghan.hinkle@wsp.com>

Hi Chad,

Thanks for the update. That sounds good.

It appears that the vacant lot publicly owned but is **not** a designated for public recreation. In the 4f section you'll want to indicate it's a potential 4f resource and then go into the info from VR and then state that the property is not considered a 4f resource because it's not designated for public rec.

The adjacent rec center appears to be a nonprofit but the city/county may have a "proprietary interest" in the resource, which means it could possibly be considered a 4f resource [handled on case-by-case basis] but in this case I don't think your project will involve / impact that property, thus, no 4f concerns. So state something like that in the 4f section. The FHWA 4f Toolkit Q/A part [at bottom] addresses that kind of situation if you're interested in citing it.

I appreciate you running this down.

Tomas

Tomas Beauchamp

Environmental Manager

Division of Environmental Services

Indiana Department of Transportation

100 North Senate Ave., Room 642

Indianapolis, IN 46204

Mobile Phone: 317-419-0348

Email: tbeauchamp@indot.in.gov

Normal Work Hours: 7:30-3:30 M-F

From: Chad Kelly <ckelly@kaskaskiaeng.com>

Sent: Monday, September 29, 2025 9:25 AM

To: Beauchamp, Tomas <TBeauchamp@indot.IN.gov>; Passmore, Andrew D <APassmore@indot.IN.gov>; Falls, Ryan G <RFalls@indot.IN.gov>

Cc: Schwering, Taylor <Taylor.Schwering@wsp.com>; Chen, Emily <Emily.Chen@wsp.com>; Hinkle, Meghan <meghan.hinkle@wsp.com>

Subject: Re: Section 4(f) discussion SR 65 Owensville, Des. 2001922

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Good morning, Tomas.

The WSP team managed to get a hold of the Owensville Clerk Treasurer, Vanessa Riggs, last week. She indicated the Town of Owensville does not currently, or plan to, utilize the subject lot/parcel adjoining SR 65. If any events are held, they are typically within the adjacent gym or the western adjoining ball field. She also mentioned the town just installed a community sign west of the sidewalk, close to the project area limits. I figured the sign wouldn't hinder much in terms of the project and could just be reinstalled once the contractor concludes work in that vicinity.

With Owensville concurring no current/future use of that lot, I believe we have what we need to write this off as a 4(f) resource in the CE. Let me know if you concur and/or have any other thoughts.

Many thanks,

Chad Kelly

Project Manager

Certified: WBE/DBE/WOSB/EDWOSB

630.333.7282 cell | 630.332.9157 office

From: Beauchamp, Tomas <TBeauchamp@indot.IN.gov>

Sent: Monday, September 22, 2025 1:44 PM

To: Hinkle, Meghan <Meghan.Hinkle@wsp.com>; Passmore, Andrew D <APassmore@indot.IN.gov>; Falls, Ryan G <RFalls@indot.IN.gov>; Chad Kelly <ckelly@kaskaskiaeng.com>

Cc: Schwering, Taylor <Taylor.Schwering@wsp.com>; Mccallister, Patrick <Patrick.McCallister@wsp.com>; Chen, Emily <Emily.Chen@wsp.com>; Moffett, Mary <MMoffett@indot.IN.gov>

Subject: RE: Section 4(f) discussion SR 65 Owensville, Des. 2001922

Hello All,

Mary found some information online that appears to indicate that the Owensville REH Center is a nonprofit.

Here's some links to that information.

Guidestar (mentions Jennifer Pfohl): <https://www.guidestar.org/profile/46-4350835>

Charity Navigator: <https://www.charitynavigator.org/ein/464350835>

FastPeopleSearch: https://www.fastpeoplesearch.com/jennifer-pfohl_id_G-5618698644361251509

Here's an overview

You could try contacting Jennifer Pfohl at the addy and tel number below. It appears that she is the contact.

Guidestar

(mentions Jennifer Pfohl): <https://www.guidestar.org/profile/46-4350835>

Mission

OWENSVILLE REH CENTER INC. IS AN ORGANIZATION FORMED TO PROVIDE A FACILITY OR FACILITIES FOR EDUCATION, RECREATION, HISTORY, AND AN

EMERGENCY STORM SHELTER FOR THE CITIZENS OF OWENSVILLE/MONTGOMERY TOWNSHIP AND SURROUNDING COMMUNITIES.

Principal Officer
JENNIFER PFOHL

Main address
205 West Walnut Street
Owensville, IN 47665 United States

Charity Navigator
provides an address and telephone number

205 WEST WALNUT STREET OWENSVILLE IN 47665-0000
[812-664-1032](tel:812-664-1032)

Hope this helps

Tomas Beauchamp
Environmental Manager
Division of Environmental Services
Indiana Department of Transportation
100 North Senate Ave., Room 642
Indianapolis, IN 46204
Mobile Phone: 317-419-0348
Email: tbeauchamp@indot.in.gov
Normal Work Hours: 7:30-3:30 M-F

From: Beauchamp, Tomas
Sent: Monday, September 22, 2025 2:19 PM
To: Hinkle, Meghan <[Meghan.Hinkle@wsp.com](mailto: Meghan.Hinkle@wsp.com)>; Passmore, Andrew D <[APassmore@indot.IN.gov](mailto: APassmore@indot.IN.gov)>; Falls, Ryan G <[RFalls@indot.IN.gov](mailto: RFalls@indot.IN.gov)>; Chad Kelly <[ckelly@kaskaskiaeng.com](mailto: ckelly@kaskaskiaeng.com)>
Cc: Schwering, Taylor <[Taylor.Schwering@wsp.com](mailto: Taylor.Schwering@wsp.com)>; Mccallister, Patrick <[Patrick.McCallister@wsp.com](mailto: Patrick.McCallister@wsp.com)>; Chen, Emily <[Emily.Chen@wsp.com](mailto: Emily.Chen@wsp.com)>
Subject: RE: Section 4(f) discussion SR 65 Owensville, Des. 2001922

Meghan,

A possible contact name for the vacant lot.

OWENSVILLE — The Owensville Recreation, Events, and Health (REC) Center needs a new floor and possibly some repairs beneath it, but first, the board of the non-profit organization has to find out how much money is available. Stacy McClellen, representing the REH Center Board, appeared Tuesday before the Owensville Town Council to discuss the condition of the facility and inquire about funding. The most pressing issue is the gym floor, which is in disrepair and will need to be completely replaced. "Water got underneath the floor when we had the big, heavy rains in the spring," McClellen said. "One of the pumps had gone out but we were not aware of that."

Tomas Beauchamp
Environmental Manager
Division of Environmental Services

Indiana Department of Transportation
100 North Senate Ave., Room 642
Indianapolis, IN 46204
Mobile Phone: 317-419-0348
Email: tbeauchamp@indot.in.gov
Normal Work Hours: 7:30-3:30 M-F

From: Hinkle, Meghan <[Meghan.Hinkle@wsp.com](mailto: Meghan.Hinkle@wsp.com)>
Sent: Tuesday, September 9, 2025 12:27 PM
To: Passmore, Andrew D <[APassmore@indot.IN.gov](mailto: APassmore@indot.IN.gov)>; Beauchamp, Tomas <[TBeauchamp@indot.IN.gov](mailto: TBeauchamp@indot.IN.gov)>; Falls, Ryan G <[RFalls@indot.IN.gov](mailto: RFalls@indot.IN.gov)>; Chad Kelly <[ckelly@kaskaskiaeng.com](mailto: ckelly@kaskaskiaeng.com)>
Cc: Schwering, Taylor <[Taylor.Schwering@wsp.com](mailto: Taylor.Schwering@wsp.com)>; Mccallister, Patrick <[Patrick.McCallister@wsp.com](mailto: Patrick.McCallister@wsp.com)>; Chen, Emily <[Emily.Chen@wsp.com](mailto: Emily.Chen@wsp.com)>
Subject: Section 4(f) discussion SR 65 Owensville, Des. 2001922

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Good Afternoon Everyone,

As we have been working through the Section 106 MPPA coordination, and updating the CE document based on INDOT's first review, we realize there are quite a few questions we all have about the 4(f) resources within and adjacent to this project area and how to appropriately coordinate/document the impacts in the CE document. We would like to schedule a call with all of you to discuss this further, so we know the CE coordination and documentation is fully addressed prior to the next submission of the CE document.

Looking at our calendars we have the following availability. Please let me know what time works for you.

Monday, September 15th at 9:30am
Tuesday, September 16th at 1pm
Monday, September 22nd at 11:30am or 1:30pm
Tuesday, September 23rd anytime after 11am

Just to summarize the potential 4(f) resources for the project, the northern portion of the project has several residential houses and the Owensville Public Library that could be eligible for listing on the national register; however, this project is coordinating through the MPPA and an HPR will not be completed so we will not fully know through the MPPA coordination. Additionally, in the southern portion of the project area there is a gymnasium that might be a recreational 4(f) resource, but we are not able to find who owns the gymnasium and if it is open for public use. All of these properties we will be purchasing a small amount of ROW from in order to reconstruct curb ramps, sidewalks, and/or roadway drainage. I have attached the early coordination letter with project graphics above for everyone's reference.

Thanks,

Meghan Hinkle

Senior Environmental Compliance Specialist,

Senior Professional, Environmental Science

M +1 317-716-8446

WSP

115 W. Washington Street, Suite 1270S
Indianapolis, Indiana 46204

wsp.com



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APPENDIX E

Red Flag Investigation and Hazardous Materials



INDIANA DEPARTMENT OF TRANSPORTATION

100 North Senate Avenue
Room N758-ES
Indianapolis, Indiana 46204

PHONE: (855) 463-6848
(855) INDOT4U

Eric Holcomb, Governor
Michael Smith, Commissioner

Date: April 15, 2024

To: Site Assessment & Management (SAM)
Environmental Policy Office - Environmental Services Division (ESD)
Indiana Department of Transportation (INDOT)
100 N Senate Avenue, Room N758-ES
Indianapolis, IN 46204

From: Erin Purdy
Kaskaskia Engineering Group, LLC
323 Main St, Suite E
Evansville, IN 47708
epurdy@kaskaskiaeng.com

Re: RED FLAG INVESTIGATION
DES No. 2001922, State Project
HMA Pavement Replacement
SR 65, 0.26 Mile South of SR 168 (S. Limits Owensville) to SR 165
Gibson County, Indiana

PROJECT DESCRIPTION

Brief Description of Project: The Indiana Department of Transportation (INDOT) has identified the need to address the deteriorated pavement conditions and drainage deficiencies along SR 65. The project is located on SR 65, and spans from approximately 0.26 mile south of SR 168 (S. Limits Owensville) to SR 165 through the town of Owensville in Gibson County, Indiana. INDOT proposes to:

- SR 65 will have full depth pavement replacement from approximately 400ft west of Mill Street to the intersection of SR 165. The remaining south portion of the project limits will be milling and repaving 1.5 inches of surface. The full depth pavement replacement will include new curb and gutter, sidewalks, curb ramps, and enclosed drainage system.
- A 10-foot parking lane will be added on both sides of SR 65 from Warrick Street to SR 168, with a curb and gutter separating the parking lane from the sidewalk.
- Adjusting the curve design speed to 20 MPH and roadway geometrics at Mill Street and SR 65.
- Adjusting the design at SR 168 and SR 65 to include a 30-foot radii with 10:1 tapers and a 2-foot offset.
- The storm sewer on SR 65 within the project limits will be redesigned to be enclosed and include replacement of the trunkline and the addition of inlets.
- A new detention pond is also proposed near the project’s southern terminus on the west side of SR 65.

Bridge Work Included in Project: Yes No Structure #(s) _____

If this is a bridge project, is the bridge Historical? Yes No , Select Non-Select

(Note: If the project involves a historical bridge, please include the bridge information in the Recommendations Section of the report).

Culvert Work Included in Project: Yes No Structure #(s) _____

Proposed right of way: Temporary # Acres 0.24 Permanent # Acres 1.81, Not Applicable

Type and proposed depth of excavation:

- Mill/Overlay: 1.5inches
- Full Depth Pavement: 3ft
- Sidewalk improvements:3ft
- Storm Sewer improvements: 15ft
- Detention Pond: 10ft
- Curve refinements: 3ft
- SR65/SR168 intersection improvements: 3ft

Maintenance of traffic (MOT): The MOT will consist of temporary road closures with an official detour. Flaggers will be utilized for the milling work.

Work in waterway: Yes No Below ordinary high water mark: Yes No

State Project: LPA:

Any other factors influencing recommendations: N/A

INFRASTRUCTURE TABLE AND SUMMARY

Infrastructure			
Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A:			
Religious Facilities	6*	Recreational Facilities	4
Airports ¹	N/A	Pipelines	2
Cemeteries	4	Railroads	N/A
Hospitals	N/A	Trails	2
Schools	N/A	Managed Lands	N/A

¹In order to complete the required airport review, a review of public-use airports within 3.8 miles (20,000 feet) is required.

Explanation:

Religious Facilities*: Six (6) religious facilities, two (2) mapped and four (4) unmapped are located within the 0.5 mile search radius. The nearest facility, General Baptist Church, is located adjacent to the east of the terminus of the project area. Coordination with General Baptist Church will occur.

Cemeteries: Four (4) cemeteries are located within the 0.5 mile search radius. The nearest cemetery, Owensville Old Cemetery, is located 0.10 mile northwest of the project area. No impact is expected.

Recreational Facilities: Four (4) recreational facilities are located within the 0.5 mile search radius. Two (2) recreational facilities are adjacent to the project area. Library Park is located on the East side of the project area, between Montgomery St. and Brummitt St. Owensville Recreation Gym is located on the West side of the project area, south of Walnut St. Coordination with the Owensville/Montgomery Township Park and Recreation Board will occur.

Pipeline: Two (2) pipeline segments are located within the 0.5 mile search radius. The nearest pipeline segment, Community Natural Gas Co. Inc., is located 0.20 mile west of the project area. No impact is expected.

Trails: Two (2) trail segments are located within the 0.5 mile search radius. The nearest trail segment, Montgomery Park, is located 0.10 northwest of the project area. No impact is expected.

WATER RESOURCES TABLE AND SUMMARY

Water Resources			
Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A:			
NWI - Points	N/A	Canal Routes - Historic	N/A
Karst Springs	N/A	NWI - Wetlands	7
Canal Structures – Historic	N/A	Lakes	6
NPS NRI Listed	N/A	Floodplain - DFIRM	N/A
NWI-Lines	N/A	Cave Entrance Density	N/A
IDEM 303d Listed Streams and Lakes (Impaired)	1	Sinkhole Areas	N/A
Rivers and Streams	12	Sinking-Stream Basins	N/A

If unmapped water features are identified that might impact the project area, direct coordination with INDOT ESD Ecology and Waterway Permitting will occur.

Explanation:

IDEM 303d Listed Streams and Lakes (Impaired): One (1) Impaired Stream segment is located 0.15 mile north of the project area. No impact is expected.

Rivers and Streams: Twelve (12) river and stream segments are located within the 0.5 mile radius. One (1) river segment, Black River, is located within the project area. A Waters of the US Report is recommended based on mapped features, and coordination with INDOT ESD Ecology and Waterway Permitting will occur.

NWI-Wetlands: Seven (7) wetland polygons are located within the 0.5 mile search radius. The nearest wetland polygon is located 0.21 mile east of the project area. No impact is expected.

Lakes: Six (6) lake polygons are located within the 0.5 mile search radius. The nearest lake polygon is located 0.21 mile east of the project area. No impact is expected.

MINING AND MINERAL EXPLORATION TABLE AND SUMMARY

Mining/Mineral Exploration			
Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A:			
Petroleum Wells	4	Mineral Resources	N/A
Mines – Surface	N/A	Mines – Underground	N/A

Explanation:

Petroleum Wells: Four (4) petroleum wells are located within the 0.5 mile search radius. The nearest petroleum well is located 0.18 mile southwest of the project area. No impact is expected.

HAZARDOUS MATERIAL CONCERNS TABLE AND SUMMARY

Hazardous Material Concerns			
Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A:			
Superfund	N/A	Manufactured Gas Plant Sites	N/A
RCRA Generator/ TSD	N/A	Open Dump Waste Sites	N/A
RCRA Corrective Action Sites	N/A	Restricted Waste Sites	N/A
State Cleanup Sites	1	Waste Transfer Stations	N/A
Septage Waste Sites	N/A	Tire Waste Sites	N/A
Underground Storage Tank (UST) Sites	2	Confined Feeding Operations (CFO)	N/A
Voluntary Remediation Program	N/A	Brownfields	N/A
Construction Demolition Waste	N/A	Institutional Controls	1
Solid Waste Landfill	N/A	NPDES Facilities	2
Infectious/Medical Waste Sites	N/A	NPDES Pipe Locations	1
Leaking Underground Storage (LUST) Sites	3	Notice of Contamination Sites	N/A

Unless otherwise noted, site specific details presented in this section were obtained from documents reviewed on the Indiana Department of Environmental Management (IDEM) Virtual File Cabinet (VFC).

Explanation:

State Cleanup Sites: One (1) state cleanup site is located within the 0.5 mile search radius. The site, Montgomery Manufacturing, 109 W Montgomery Street/202 South Main Street, AI ID #35359, is located adjacent to the east of the project area, south of Montgomery Street. The facility constructed and repaired clocks and timers and used various solvents, which included tetrachloroethene (PCE) and trichloroethene (TCE). Remediation of the soil and groundwater at the site has included removal of 4,860 tons of impacted soil (soil target=1 mg/kg PCE) from the southwest corner of Main and West Warrick and in-situ reductive dechlorination. Soil and groundwater contamination remain on- and off-site from Montgomery Street south to past West Warrick Street. COCs include PCE, TCE, and breakdown products resulting from the reductive dechlorination process. Groundwater has been as shallow as less than five (5) feet below ground surface and flow direction is to the west and southwest. An Environmental Restrictive Covenant (ERC) was recorded on the property on October 3, 2023. The ERC specifically prohibits the use of the property for residential purposes or the use or extraction of groundwater on the property. On January 4, 2024, the Town of Owensville adopted a "Resolution Approving Reliance on Town of Owensville Ordinance Chapter 12.2 For Purpose of Obtaining IDEM Site Closure", which states that no groundwater wells are within the plume boundary and any use/installation of groundwater wells within the plume boundary is prohibited. Coordination will be conducted with the IDEM Institutional Controls section (institutionalcontrols@idem.IN.gov) and the IDEM Project Manager, Nicolas Monroe (NMonroe@idem.in.gov) before RFC. A Phase II Environmental Site Assessment (ESA) is recommended to occur before RFC. Prior to any investigation activities, a scope of work plan (SOW) will be prepared and submitted to INDOT SAM for review and approval.

If groundwater monitoring wells are encountered in the project area, they should be maintained in-place. If they cannot be maintained, then the contractor must contact the INDOT Project Manager who will notify the INDOT Permits Group. The INDOT Permits Group will notify the permit holder that the well must be removed prior to construction. The permit holder is responsible for coordination with IDEM and the INDOT Permits Group for replacement or relocation of the well.

If a property owner cannot be found in connection with the monitoring well, then well abandonment will be included in the project contract. All well abandonment activities must be completed by an Indiana Licensed Well Driller in accordance with 312 IAC 13-10. Regardless of whether the well is abandoned by the contractor or the property owner, a record of well abandonment, including the well driller's license number, must be provided to the INDOT Project Manager once the well has been abandoned.

Underground Storage Tank (UST) Sites: Two (2) Underground Storage Tank (UST) sites are located within the 0.5 mile radius. Both UST sites are located adjacent to the project area and are associated with Consolidated Grain & Barge, previously known as Gibson County Co Op Owensville Grain, 420 South Mill Street, AI ID # 31397. One (1) 500 gallon gasoline UST was removed in October of 1988. No record of confirmatory sampling was found. If excavation occurs in this area, proper handling, removal, and disposal of soil and/or groundwater may be necessary. Refer to Appendix G of the SAM Manual for the recommended procedure to manage and report contamination.

Leaking Underground Storage Tank (LUST) Sites: Three (3) Leaking Underground Storage Tank (LUST) sites are located within the 0.5 mile search radius. Two (2) LUST sites are located 0.12 mile east of the northern terminus of the project area.

Hurst & Gardner Inc./Get N' Go, 120 North Third Street, AI ID # 30946, is currently a gas station. One (1) 1,000 gallon gasoline UST was removed in November 1993. After overexcavation of contaminated soils, confirmatory soil samples were less than 100 parts per million (ppm) Total Petroleum Hydrocarbons (TPH), which is less than the closure limit in effect at that time. No impact is expected.

Bittner Car Wash, Third and Brummitt, AI ID #31697. Two (2) USTs were removed in August 1992, and confirmatory soil sample results were less than the detection limit of 20 ppm for TPH. Also, IDEM issued a No Further Action Pursuant to Spill Recovery Response Report for a 15 gallon spill of gasoline in March of 1993 on February 24, 2017. No impact is expected.

Institutional Controls: One (1) Institutional Control site is located within the 0.5 mile search area. Montgomery Manufacturing Company, 109 West Montgomery Street/202 S Main St., AI ID #35359, is located adjacent to the east of the project area, south of Montgomery Street. See the State Cleanup Section above for additional information.

NPDES Facilities: Two (2) NPDES Facilities are located within the 0.5 mile search radius. The nearest NPDES Facility, Owensville Municipal WWTP, 506 S Mill Street, Permit No. IN0038288 is located 0.11 mile south of the project area. Permit No. IN0038288 is set to expire August 31, 2024. No impact is expected.

NPDES Pipe Locations: One (1) NPDES Pipe is located within the 0.5 mile search radius. The NPDES Pipe Location, Owensville Municipal WWTP, Permit No. IN0038288001A is located 0.12 mile south of the project area. Permit No. IN0038288001A is set to expire August 31, 2024. No impact is expected.

ECOLOGICAL INFORMATION SUMMARY

The Gibson County listing of the Indiana Natural Heritage Data Center information on endangered, threatened, or rare (ETR) species and high quality natural communities is provided at https://www.in.gov/dnr/nature-preserves/files/np_gibson.pdf. A preliminary review of the Indiana Natural Heritage Database by INDOT ESD did not indicate the presence of ETR species within the 0.5 mile search radius. Coordination with USFWS and IDNR will occur.

A review of the USFWS database did not indicate the presence of endangered bat species in or within 0.5 mile of the project area. The range-wide programmatic consultation for the Indiana Bat and Northern Long-eared Bat will be completed according to the most recent "Using the USFWS's IPaC System for Listed Bat Consultation for INDOT Projects".

RECOMMENDATIONS SECTION

Include recommendations from each section. If there are no recommendations, please indicate N/A:

INFRASTRUCTURE:

Religious Facilities: One (1) religious facility is located adjacent to the east of the northern terminus of the project area. Coordination with General Baptist Church will occur.

Recreational Facilities: Two (2) recreational facilities are adjacent to the project area. Library Park is located on the east side of the project area, between Montgomery St. and Brummitt St. Owensville Recreation Gym is located on the west side of the project area, south of Walnut St. Coordination with Owensville/Montgomery Township Park and Recreation Board will occur.

WATER RESOURCES:

A Waters of the US Report is recommended based on the presence of mapped features, and coordination with INDOT ESD Ecology and Waterway Permitting will occur for the following features:

- One stream segment, Black River, flows through the project area.

MINING/MINERAL EXPLORATION: N/A

HAZARDOUS MATERIAL CONCERNS:

State Cleanup/Institutional Control Sites: Montgomery Manufacturing, 109 W Montgomery Street/202 South Main Street, AI ID #35359, is located adjacent to the east of the project area and south of Montgomery Street. The facility constructed and repaired clocks and timers and used various solvents, which included tetrachloroethene (PCE) and trichloroethene (TCE). Remediation of the soil and groundwater at the site has included removal of 4,860 tons of impacted soil (soil target=1 mg/kg PCE) from the southwest corner of Main and West Warrick and in-situ reductive dechlorination. Soil and groundwater contamination remain on- and off-site from Montgomery Street south to past West Warrick Street. COCs include PCE, TCE, and breakdown products resulting from the reductive dechlorination process. Groundwater has been as shallow as less than five (5) feet below ground surface and flow direction is to the west and southwest. An Environmental Restrictive Covenant (ERC) was recorded on the property on October 3, 2023. The ERC specifically prohibits the use of the property for residential purposes or the use or extraction of groundwater on the property. On January 4, 2024, the Town of Owensville adopted a "Resolution Approving Reliance on Town of Owensville Ordinance Chapter 12.2 For Purpose of Obtaining IDEM Site Closure", which states that no groundwater wells are within the plume boundary and any use/installation of groundwater wells within the plume boundary is prohibited. Coordination will be conducted with the IDEM Institutional Controls section (institutionalcontrols@idem.IN.gov) and the IDEM Project Manager, Nicolas Monroe (NMonroe@idem.in.gov) before RFC. A Phase II Environmental Site Assessment (ESA) is recommended to occur before RFC. Prior to any investigation activities, a scope of work plan (SOW) will be prepared and submitted to INDOT SAM for review and approval.

If groundwater monitoring wells are encountered in the project area, they should be maintained in-place. If they cannot be maintained, then the contractor must contact the INDOT Project Manager who will notify the INDOT Permits Group. The INDOT Permits Group will notify the permit holder that the well must be removed prior to construction. The permit holder is responsible for coordination with IDEM and the INDOT Permits Group for replacement or relocation of the well. If a property owner cannot be found in connection with the monitoring well, then well abandonment will be included in the project contract. All well abandonment activities must be completed by an Indiana Licensed Well Driller in accordance

with 312 IAC 13-10. Regardless of whether the well is abandoned by the contractor or the property owner, a record of well abandonment, including the well driller’s license number, must be provided to the INDOT Project Manager once the well has been abandoned.

Underground Storage Tank (UST) Sites: Two (2) UST sites are located within the project area and are associated with Consolidated Grain & Barge, previously known as Gibson County Co Op Owensville Grain, 420 South Mill Street, AI ID # 31397. One (1) 500 gallon gasoline UST was removed in October of 1988. No record of confirmatory sampling was found. If excavation occurs in this area, proper handling, removal, and disposal of soil and/or groundwater may be necessary. Refer to Appendix G of the SAM Manual for the recommended procedure to manage and report contamination.

ECOLOGICAL INFORMATION: Coordination with USFWS and IDNR will occur. The range-wide programmatic consultation for the Indiana Bat and Northern Long-eared Bat will be completed according to the most recent “Using the USFWS’s IPaC System for Listed Bat Consultation for INDOT Projects”.

INDOT ESD concurrence: Tracy Barnes Digitally signed by Tracy Barnes
Date: 2024.04.15 09:22:09 -04'00' (Signature)

Prepared by:



Erin Purdy
Environmental Scientist
Kaskaskia Engineering Group, LLC

Graphics:

A map for each report section with a 0.5 mile search radius buffer around all project area(s) showing all items identified as possible items of concern is attached. If there is not a section map included, please change the YES to N/A:

SITE LOCATION: YES

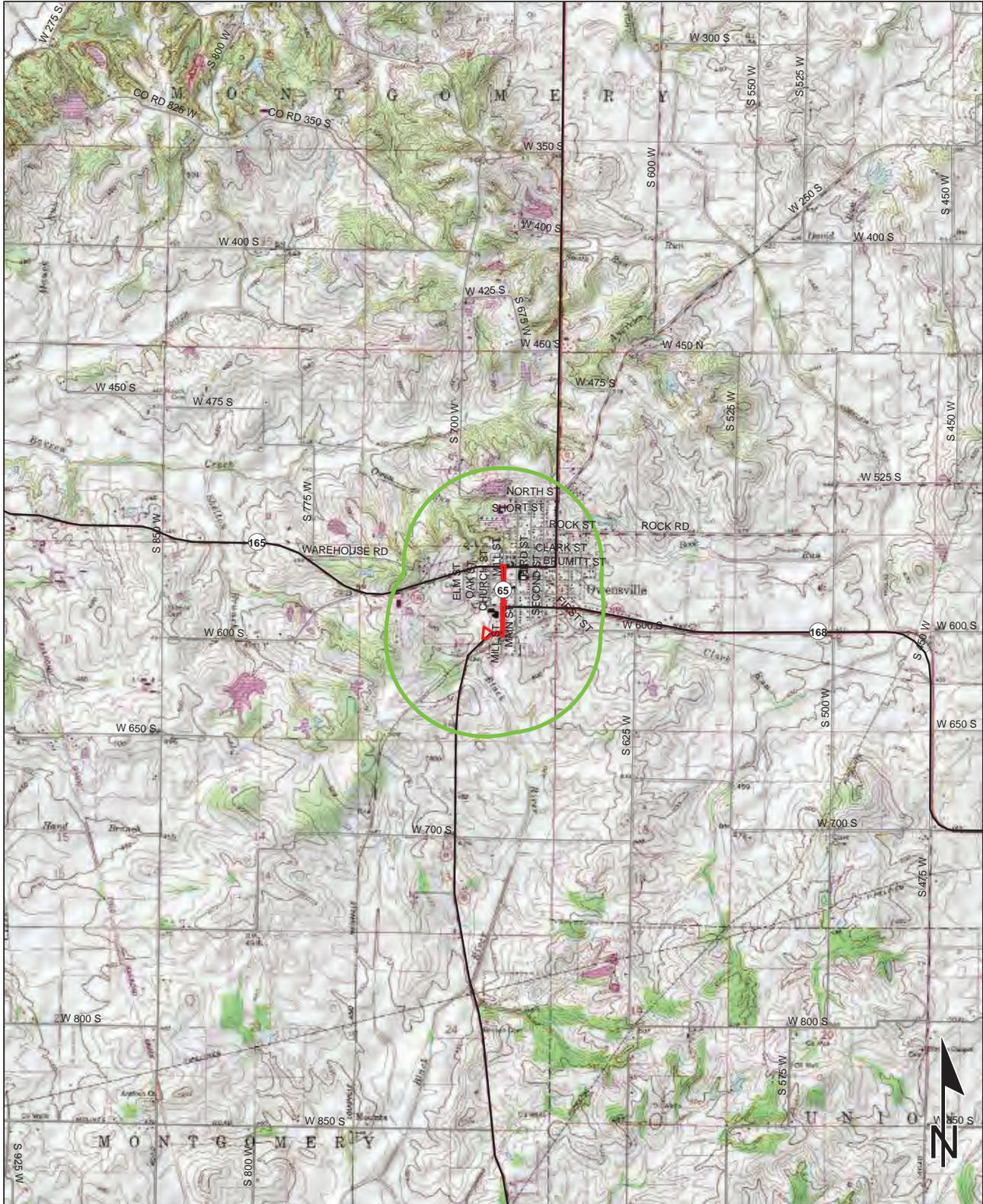
INFRASTRUCTURE: YES

WATER RESOURCES: YES

MINING/MINERAL EXPLORATION: YES

HAZARDOUS MATERIAL CONCERNS: YES

Red Flag Investigation - Site Location
SR 65, 0.26 Mile South of SR 168 (S. Limits Owensville) to SR 165
Des. No. 2001922, HMA Pavement Replacement
Gibson County, Indiana



Sources:
0.6
0.3
0
0.6
 Miles

Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

Map Projection: UTM Zone 16 N **Map Datum:** NAD83

This map is intended to serve as an aid in graphic representation only. This information is not warranted for accuracy or other purposes.

OWENSVILLE QUADRANGLE
INDIANA
7.5 MINUTE SERIES
(TOPOGRAPHIC)

Red Flag Investigation - Infrastructure

SR 65, 0.26 Mile South of SR 168 (S. Limits Owensville) to SR 165

Des. No. 2001922, HMA Pavement Replacement

Gibson County, Indiana



Sources:
Non Orthophotography
Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)
Map Projection: UTM Zone 16 N **Map Datum:** NAD83

This map is intended to serve as an aid in graphic representation only. This information is not warranted for accuracy or other purposes.



	Religious Facility		Recreation Facility		Project Area
	Airport		Pipeline		Half Mile Radius
	Cemeteries		Railroad		Toll
	Hospital		Trails		Interstate
	School		Managed Lands		State Route
			County Boundary		US Route
					Local Road

Red Flag Investigation - Water Resources

SR 65, 0.26 Mile South of SR 168 (S. Limits Owensville) to SR 165

Des. No. 2001922, HMA Pavement Replacement

Gibson County, Indiana



Sources:
Non Orthophotography
Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)
Map Projection: UTM Zone 16 N **Map Datum:** NAD83

This map is intended to serve as an aid in graphic representation only. This information is not warranted for accuracy or other purposes.

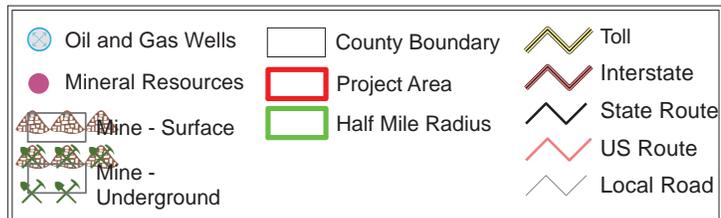


Red Flag Investigation - Mining and Mineral Exploration
 SR 65, 0.26 Mile South of SR 168 (S. Limits Owensville) to SR 165
 Des. No. 2001922, HMA Pavement Replacement
 Gibson County, Indiana



Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)
Map Projection: UTM Zone 16 N **Map Datum:** NAD83

This map is intended to serve as an aid in graphic representation only. This information is not warranted for accuracy or other purposes.



Red Flag Investigation - Hazardous Material Concerns

SR 65, 0.26 Mile South of SR 168 (S. Limits Owensville) to SR 165

Des. No. 2001922, HMA Pavement Replacement Gibson County, Indiana



	Brownfield		RCRA Generator/TSD		Institutional Controls
	RCRA Corrective Action Sites		Restricted Waste Site		County Boundary
	Confined Feeding Operation		Septage Waste Site		Project Area
	Notice_of_Contamination		Solid Waste Landfill		Half Mile Radius
	Construction/Demolition Site		State Cleanup Site		Toll
	Infectious/Medical Waste Site		Superfund		Interstate
	Leaking Underground Storage Tank		Tire Waste Site		State Route
	Manufactured Gas Plant		Underground Storage Tank		US Route
	NPDES Facilities		Voluntary Remediation Program		Local Road
	NPDES Pipe Locations		Waste Transfer Station		
	Open Dump Waste Site				



This map is intended to serve as an aid in graphic representation only. This information is not warranted for accuracy or other purposes.

Sources:

Non Orthophotography

Data - Obtained from the State of Indiana Geographical Information Office Library

Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

Map Projection: UTM Zone 16 N **Map Datum:** NAD83

APPENDIX F

Water Resources

Waters Determination Report
SR 65, 0.26 mile south of SR 168 (southern limits of Owensville) to SR 165
Owensville, Gibson County, IN
SR 65 Pavement Replacement in Owensville
Des No 2001922
Asset ID: NA

Prepared by: April Arroyo-Monroe
Contact Information: april@kaskaskiaeng.com, 812-314-7041
Kaskaskia Engineering Group, LLC
Completed Date: April 22, 2024

1.0 PROJECT INFORMATION

Date of Waters Field Investigation:

September 22, 2023 and April 20, 2024

Project Location:

Lat/Lon: 38.26749 -87.69430
Owensville Quadrangle
Section 12, Township 3 South, Range 12 West
Montgomery Township
Owensville, Gibson County, Indiana

Photo directional
map and photo log
have been omitted
to avoid
duplication.

Project Description:

The proposed state project (Des. Nos. 2001922) is located in Owensville, Gibson County, Indiana on SR 65, from 0.26 mile south of SR 168 to the intersection with SR 165 within the Indiana Department of Transportation (INODT) Vincennes District. It goes through the Montgomery Township (Figure 1). The project includes a full-depth pavement replacement, including ADA ramps, along the entire route. On October 6, 2022, Kaskaskia Engineer Group, LLC (KEG) investigated the area of the pavement replacement. On February 9, 2023, INDOT Ecology and Waterways found the area to have No Waters of the US within an investigated area (response from INDOT EWPO attached). KEG was informed of a change to the original project on September 8, 2023, to include a detention pond in the southwest end (Owensville town limits) of the pavement replacement. This report is to address that change in the project. The project will include a dry detention basin to attenuate peak stormwater flow from Owensville to UNT to Black River. The basin outlet structure will discharge into the existing roadside drainage feature (see attached excerpt from No WOTUS Concurrence), between the new basin and SR 65, which flows to UNT of Black River. The maximum depth of the 0.5-acre dry basin will be approximately 5 feet. This report is limited to areas of the project where work is to leave the pavement, which is the detention pond investigated area.

2.0 OFFICE EVALUATION

Results:

USGS Mapping

The USGS Owensville Quadrangle, Indiana 7.5-minute topographic quadrangle map indicates no blue-line channels within the investigated area (Figures 2 and 3).

NWI Mapping

The US Fish and Wildlife Service's National Wetland Inventory (NWI) map was reviewed

for the presence of potential wetlands in, or adjacent to, the investigated area (Figure 4). There are no NWI features in or adjacent to the investigated area. The closest NWI wetland is a Freshwater Forested/Shrub Wetland 0.22 miles to the southwest.

Mapped Soil Units

The Web Soil Survey geographic database for Gibson County, Indiana (USDA- NRCS Web Soil Survey, 2024), (Table 2, Figure 5) shows four soil units within the investigated area. Two are non-hydric (Sylvan silt loam [SyC3] and Alford silt loam [AIB2]) and two are Predominantly Non-hydric (Wakefield silt loam [Wa] and Uniontown silt loam [UnB2]).

Table 1 - Soil Units

Soil Unit Symbol	Soil Unit Name	Hydric Rating	Hydric Status
Wa	Wakeland silt loam, 0% to 2% slopes, frequently flooded	5%	Predominantly Non-Hydric
SyC3	Sylvan silt loam, 6% to 12% slopes, severely eroded	0%	Non-Hydric
AIB2	Alford silt loam, 2% to 5% slopes, eroded	0%	Non-Hydric
UnB2	Uniontown silt loam, 2% to 6% slopes, eroded	6%	Predominantly Non-Hydric

Source: NRCS Web Soil Survey, 2024

Hydrology

NHD

According to the USGS NHD map, there is one flowline, StreamRiver, which flows from north to south on the west side of the investigated area (Figure 6).

Watershed

USGS Streamstats indicates the drainage area for the NHD line in the southwest portion of the investigated area is 0.05 square mile. The investigated area is within USGS 12-digit Hydrological Unit Code (HUC) 051201130503 (sub-watershed Headwaters Black River). According to the US Army Corps of Engineers (USACE) Antecedent Precipitation Tool (ATP), it was a wetter than normal period in an incipient drought during the dry season, based on the previous 3 months precipitation compared to the 30-year average (USACE APT v 2.0).

Floodplain

According to an Indiana Department of Natural Resources Floodplain Analysis and Regulatory Assessment (Figure 7), the investigated area is not within a regulatory floodplain.

Karst

This project lies within the karst region in Indiana. There are no mapped karst features within or adjacent to the investigated area.

3.0 FIELD RECONNAISSANCE

A field visit was conducted by KEG staff on September 22, 2023 and April 20, 2024, to document and survey the presence of streams, wetlands, and other water resources within the investigated area. The field investigation area, shown on the attached maps, encompassed a slightly larger area than the construction survey footprint to account for water resources adjacent to the project site.

Results:

Bats and Birds

No structures are being replaced in this project, thus there was no USFWS Structure survey.

Wildlife Evidence and Concerns

At the time of the field visit, there was no evidence of terrestrial wildlife using the stream.

Karst

No karst or karst-like features were found within the investigated areas.

Streams

There was one intermittent stream, UNT to Black River, identified within the Investigated Area.

UNT to Black River

Hydrologic conditions were wetter than normal. UNT to Black River would likely be classified as an intermittent stream because it had a defined bed and bank and during an incipient drought in the dry season, a well-defined Ordinary High Water Mark (OHWM), yet there was no water present during the site visit. The upstream drainage was primarily rural town/city. The stream had an OHWM approximately 5.00 feet wide and 1.00 feet deep (Lat/Lon: 38.26786 -87.69452) as measured approximately 27 feet from the northwest corner of the project area. Both banks were an estimated 2 feet high and 8 feet wide. The OHWM was characterized by an abrupt change in vegetation, absent vegetation, and shelving on the banks. UNT to Black River had a very well-defined bed and bank within this reach with gravel and sand for substrate. There were no riffles, pools, or plants within the stream at the OHWM. Dominant vegetation along the banks was tall fescue (*Schedonorus arundinaceus* - FACU), Canada goldenrod (*Solidago canadensis* - FACU), jewelweed (*Impatiens capensis* - FACW), giant ragweed (*Ambrosia trifida* - FAC), and hedge bindweed (*Calystegia sepium* - FAC). The in-stream cover was approximately 95%. Based on a qualitative assessment, this resource was an average quality due to in-stream cover and good riparian and aquatic habitat potential.

UNT to Black River flows south to the Black River to Old Channel River to the Wabash River. The Wabash River is an USACE-identified Section 10 River (ACOE Public Notice September 19, 2012). UNT to Black River would likely be a Waters of the United States (US).

Table 2 - Stream Summary Table

ID	Coordinates (Decimal Degrees)		USGS Blue-Line (Y/N)	Stream Type	Riffle	Substrate	OHWM Width (ft.)	OHWM Depth (ft.)	Stream Relative Quality	Estimated Amount of Aquatic Resources within Investigated Area (acres / linear feet)	Photo #	Likely Water of the U.S.?
	Latitude	Longitude			Pools Y/N							
UNT to Black River	38.26786	-87.69452	N	Intermittent	N	Sand and gravel	5	1	Average	356.67 lf / 0.41 acre	7,9,11,13	Y
					N							

Wetlands:

No wetlands were identified within the investigated area. The land surrounding the stream was mown hay field to the northwest (Photo 12) and to the south/southwest was a narrow non-forested riparian corridor (between the stream and a steeply sloped Eastern walnut (*Juglans nigra* - FACU) dominated deciduous forest (Photo 9 and Figure 9 Photo Map (aerial view)). There was a corridor through the forest, to the southeast of the stream, that was steeply sloped, roughly mown/maintained, and (Photos 5 and 7) dominated by tall fescue. The area is not in a documented floodway, the stream is intermittent, most of the vegetation not on a slope is mown/maintained and this environment is not conducive to the development of wetlands.

Roadside Ditches

There were no roadside ditches found within the investigated area. The roadside ditch adjacent to the east side but outside of the investigated area was addressed in the initial No Waters of the US discussion and determination with INDOT EWPO (see attached).

4.0 CONCLUSIONS

One intermittent stream within the investigated area, UNT to Black River, is represented by an NHD line, has a defined bed and bank, an ordinary high water mark, and connection to a Section 10 traditional navigable waterway; based on these qualities it was determined that it is likely a jurisdictional intermittent stream. Every effort should be taken to avoid and minimize impacts to waterways. If impacts are necessary, then mitigation may be required. The INDOT Environmental Services Division should be contacted immediately if impacts will occur. The final determination of jurisdictional waters is ultimately made by the USACE. This report is our best judgment based on the guidelines set forth by the USACE.

5.0 ACKNOWLEDGEMENT

This waters determination report has been prepared based on the best available information, interpreted in the light of the investigator's training, experience, and professional judgment in conformance with the 1987 *Corps of Engineers Wetlands Delineation Manual*, the appropriate regional supplement, the USACE *Jurisdictional Determination Form Instructional Guidebook*, and other appropriate agency guidelines.

Respectfully,

Kaskaskia Engineering Group, LLC



April Arroyo-Monroe

Date: April 22, 2024

From: [Rehder, Crystal](#)
To: [April C. Arroyo-Monroe](#)
Cc: [Davis, Taylor](#); [Curry, Jennifer](#); [Molly Barletta](#); [Virginia Flynn](#)
Subject: FW: Question re: a project that was a No WOTUS but had a new area added to it
Date: Wednesday, September 27, 2023 3:52:41 PM
Attachments:

Hi April,

Thanks for checking. A report for just the new section will be sufficient.

Crystal Rehder

(317) 499-3274

From: April C. Arroyo-Monroe <april@kaskaskiaeng.com>
Sent: Wednesday, September 27, 2023 4:27 PM
To: Rehder, Crystal <CRehder@indot.IN.gov>
Cc: Curry, Jennifer <JCurry1@indot.IN.gov>; Molly Barletta <MBarletta@kaskaskiaeng.com>; Virginia Flynn <VFlynn@kaskaskiaeng.com>
Subject: Question re: a project that was a No WOTUS but had a new area added to it

****** This is an EXTERNAL email. Exercise caution. DO NOT open attachments or click links from unknown senders or unexpected email. ******

Crystal-

I have a project that was a No WOTUS with a Concurrence from EWPO, Des 2001922 (attached).

A new area has been added to the project limits.

The new area has a stream and I need to write a Waters of the US report. Would you prefer I write it for the entire project area or just the new section (please see attached Field Map)?

Thank you,
April Arroyo-Monroe

April Arroyo-Monroe
Environmental Scientist
Certified: WBE/DBE/WOSB/EDWOSB
812.314.7041 office



Esri, HERE, Garmin, INCREMENT P, NGA, USGS

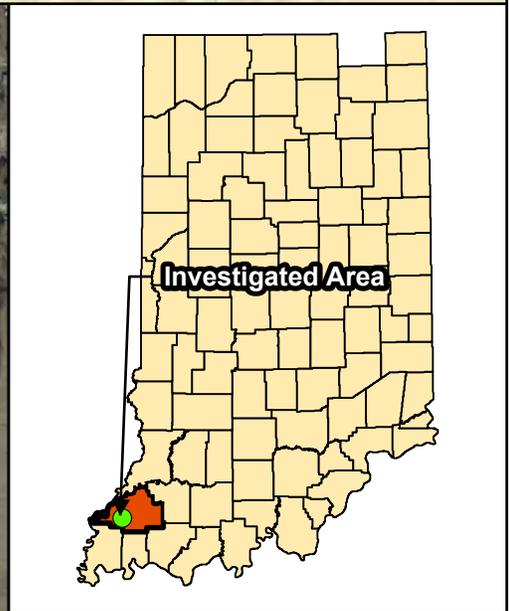


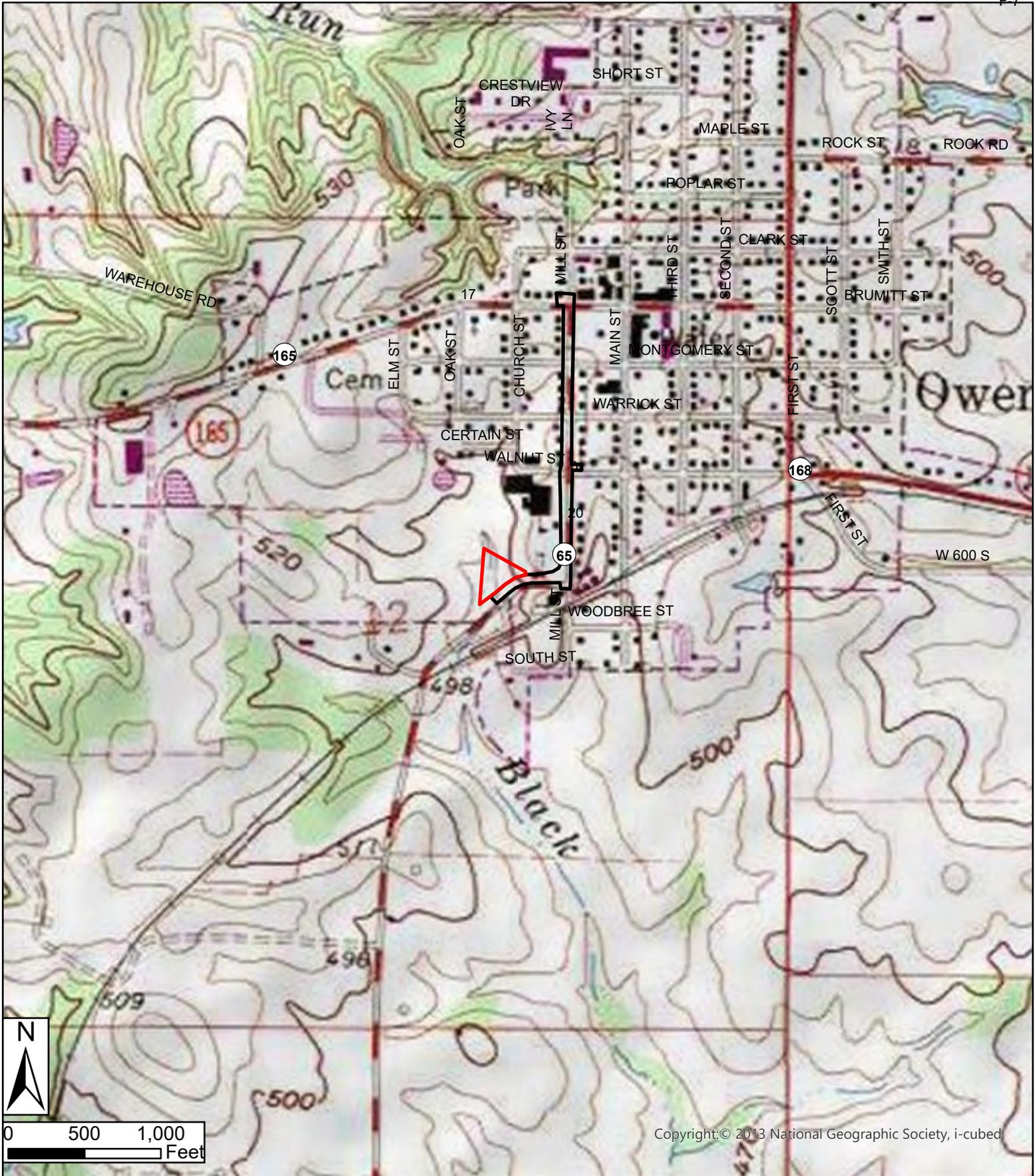
Figure 1
 Site Location Map
 Pavement Replacement
 SR 65, 0.26 mi S. SR 168 to SR 165
 Owensville, Gibson County, Indiana
 Des #2001922

 No Waters of the US Area
 Investigated Area

Map Source: Esri and IndianaMAP, 2024



Created on Date:2/20/2024



Copyright: © 2013 National Geographic Society, i-cubed

Figure 2
 USGS Topographic Owensville Quadrangle
 Large Scale Map 1:10,000
 Pavement Replacement
 SR 65, 0.26 mi S. SR 168 to SR 165
 Owensville, Gibson County, Indiana
 Des #2001922

No Waters of the US
 Investigated Area

Map Source: Esri and IndianaMAP, 2024



Created on Date: 2/20/2024

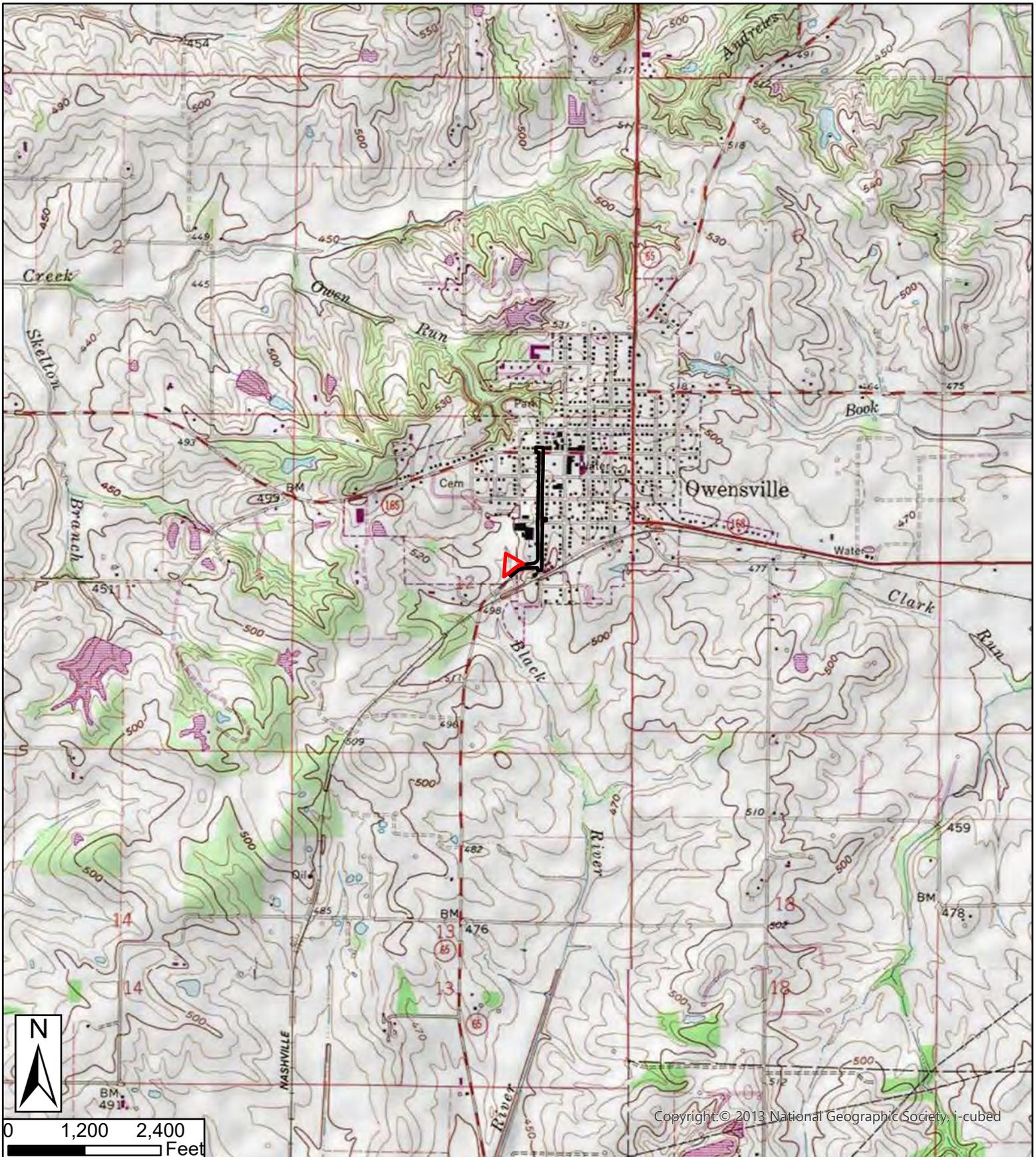


Figure 3
 USGS Topographic Owensville Quadrangle
 Small Scale Map 1:24,000
Pavement Replacement
 SR 65, 0.26 mi S. SR 168 to SR 165
 Owensville, Gibson County, Indiana
 Des #2001922

 No Waters of the US
 Investigated Area

 Map Source: Esri and IndianaMAP, 2024


 Created on Date: 2/20/2024

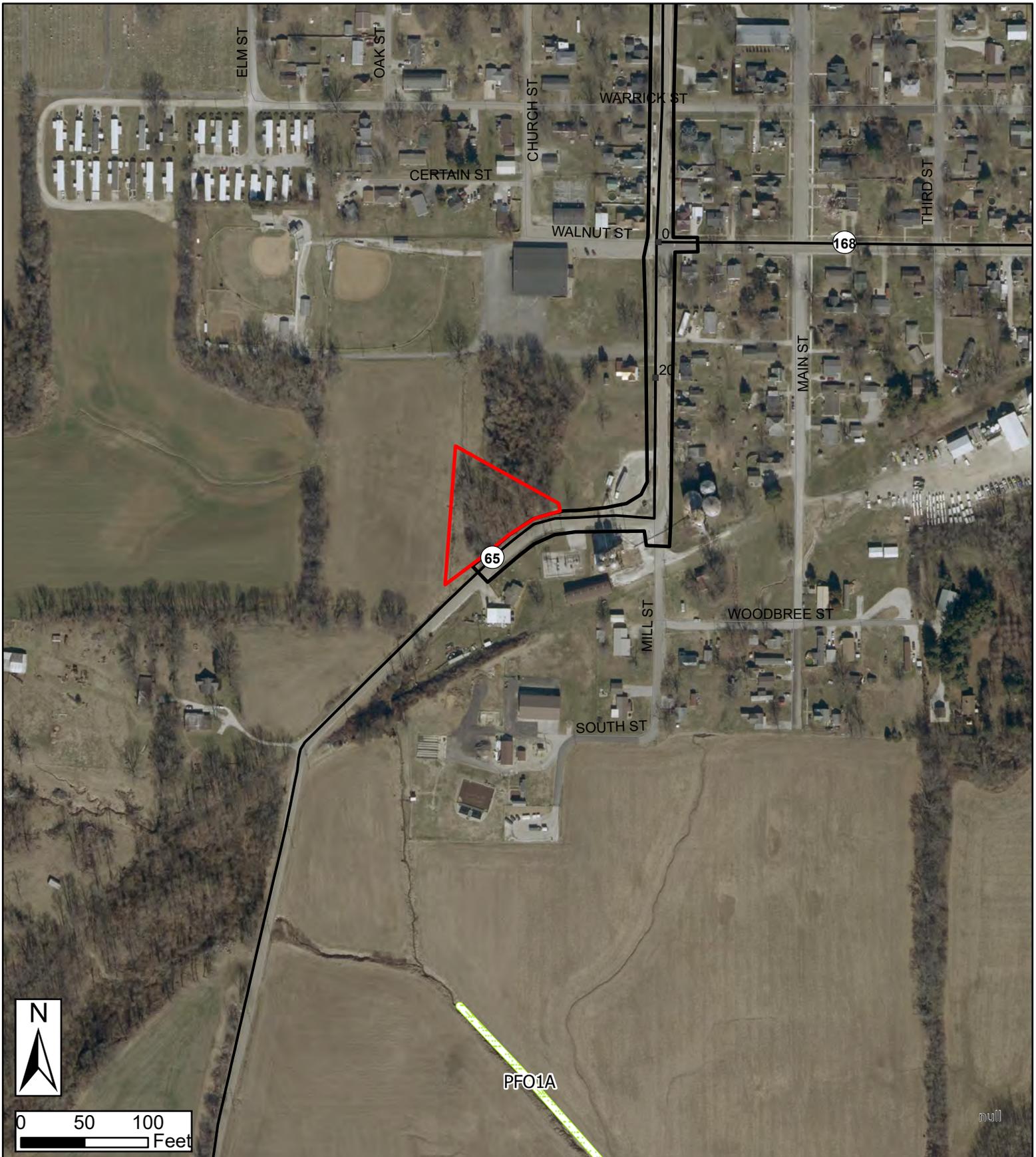


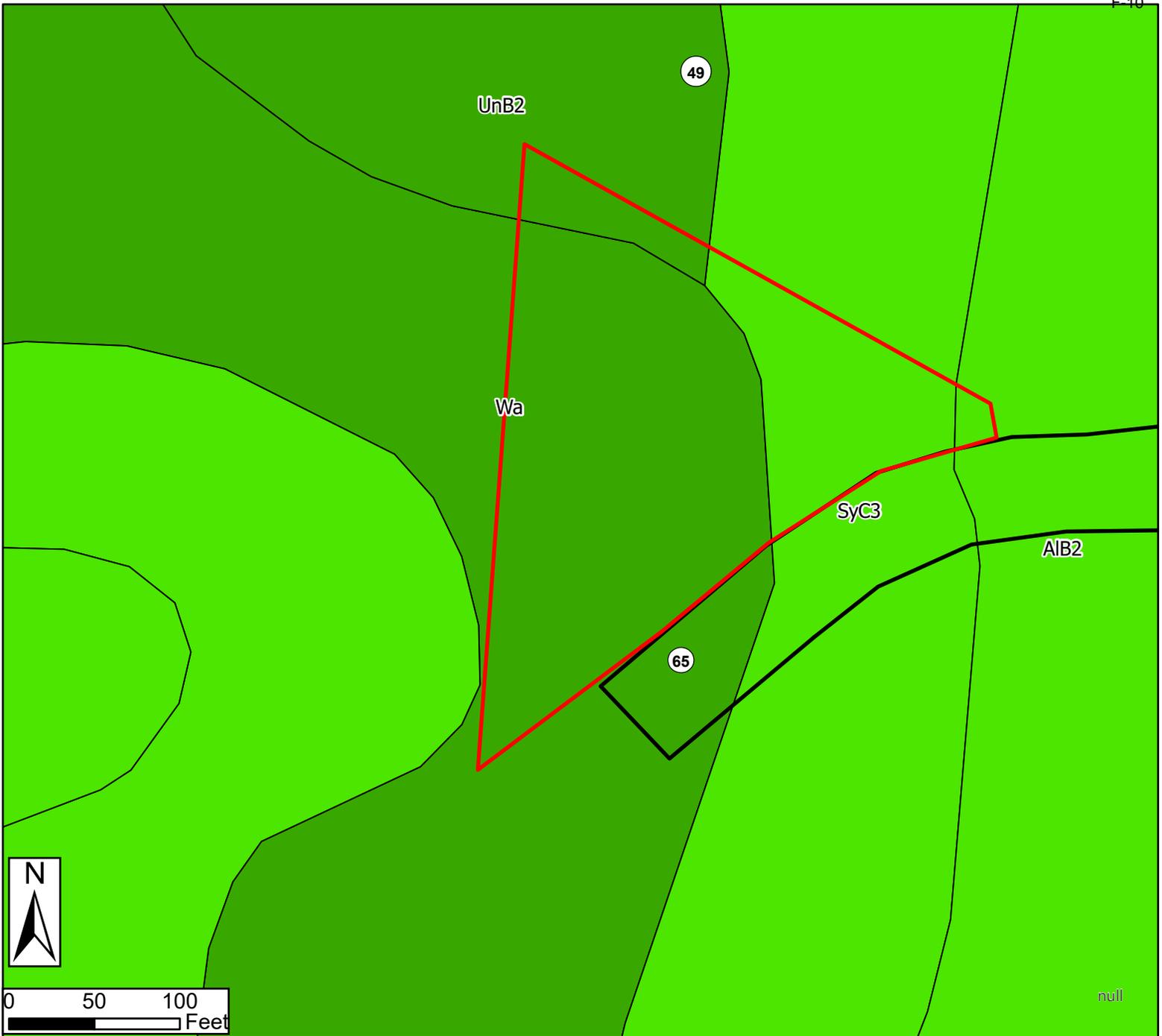
Figure 4
National Wetland Inventory Map
Pavement Replacement
 SR 65, 0.26 mi S. SR 168 to SR 165
 Owensville, Gibson County, Indiana
 Des #2001922

No Waters of the US	Freshwater Forested/ Shrub Wetland
Investigated Area	Freshwater Emergent Wetland
Freshwater Emergent Wetland	Freshwater Pond
	Lake
	Riverine

Source: USFWS NWI Wetlands 2024

Kaskaskia
 Engineering Group, LLC

Created on Date: 2/20/2024



Soil Unit Symbol	Soil Unit Name	Hydric Rating	Hydric Status
Wa	Wakeland silt loam, 0% to 2% slopes, frequently flooded	5%	Predominantly Non-Hydric
SyC3	Sylvan silt loam, 6% to 12% slopes, severely eroded	0%	Non-Hydric
AIB2	Alford silt loam, 2% to 5% slopes, eroded	0%	Non-Hydric
UnB2	Uniontown silt loam, 2% to 6% slopes, eroded	0%	Non-Hydric

Figure 5
USDA Soils Map
Pavement Replacement
 SR 65, 0.26 mi S. SR 168 to SR 165
 Owensville, Gibson County, Indiana
 Des #2001922

No Waters of the US	33% - 65% Partially Hydric
Investigated Area	66% - 99% Predominantly Hydric
0% Non-Hydric	100% Hydric
1% - 32% Predominantly Non-Hydric	

Source: USDA NRCS 2024

Kaskaskia
 Engineering Group, LLC

Created on Date: 2/20/2024



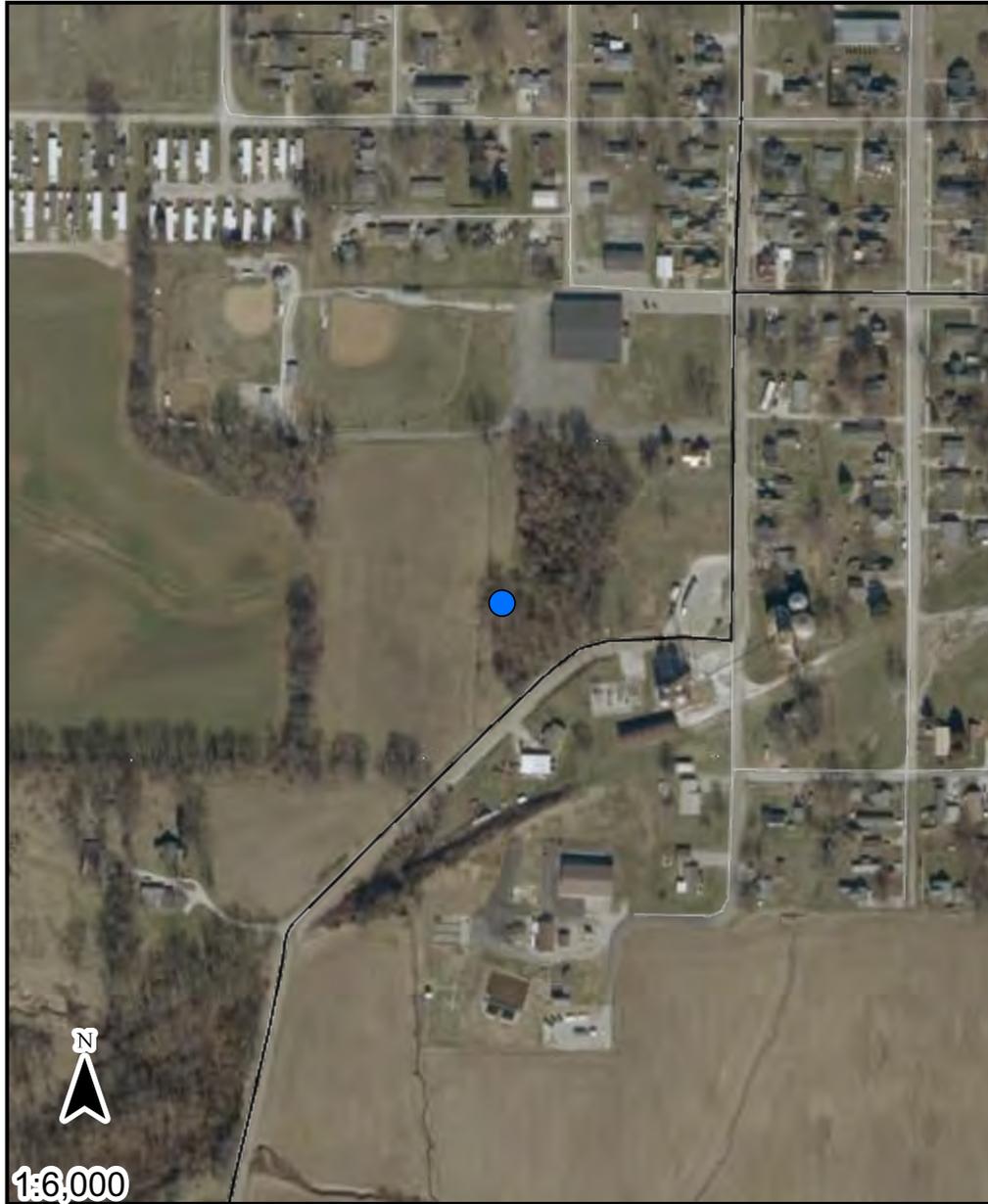
Figure 6
NHD Map
Pavement Replacement
 SR 65, 0.26 mi S. SR 168 to SR 165
 Owensville, Gibson County, Indiana
 Des #2001922

No Waters of the US	Pipeline
Investigated Area	Stream/River
Connector	Artificial Path
Canal/Ditch	
Underground Conduit	

Map Source: Esri and IndianaMAP, 2024

Kaskaskia
 Engineering Group, LLC

Created on Date: 2/20/2024



- Point of Interest
 - Base Flood Elevation Point
 - CreateINFIPReport_PointOfInterest
- POI
- POI
- FloodHazard_BestAvai_DN
- Not Mapped

Long: -87.69444052513121
 Lat: 38.26765638266596

The information provided below is based on the point of interest shown in the map above.

County: **Gibson**

Approximate Ground Elevation: **489.9 feet (NAVD88)**

Stream Name:

Base Flood Elevation: **460.9 Feet (NAVD88)**

Black River

Drainage Area: **Not Available**

Best Available Flood Hazard Zone: **Not Mapped**

National Flood Hazard Zone: **Not Mapped**

Is a Flood Control Act permit from the DNR needed for this location? **See following pages**

Is a local floodplain permit needed for this location? **Contact your local Floodplain Administrator-**

Floodplain Administrator: **No Floodplain Administrator Name Available**

Community Jurisdiction: **Town Of Owensville, City proper**

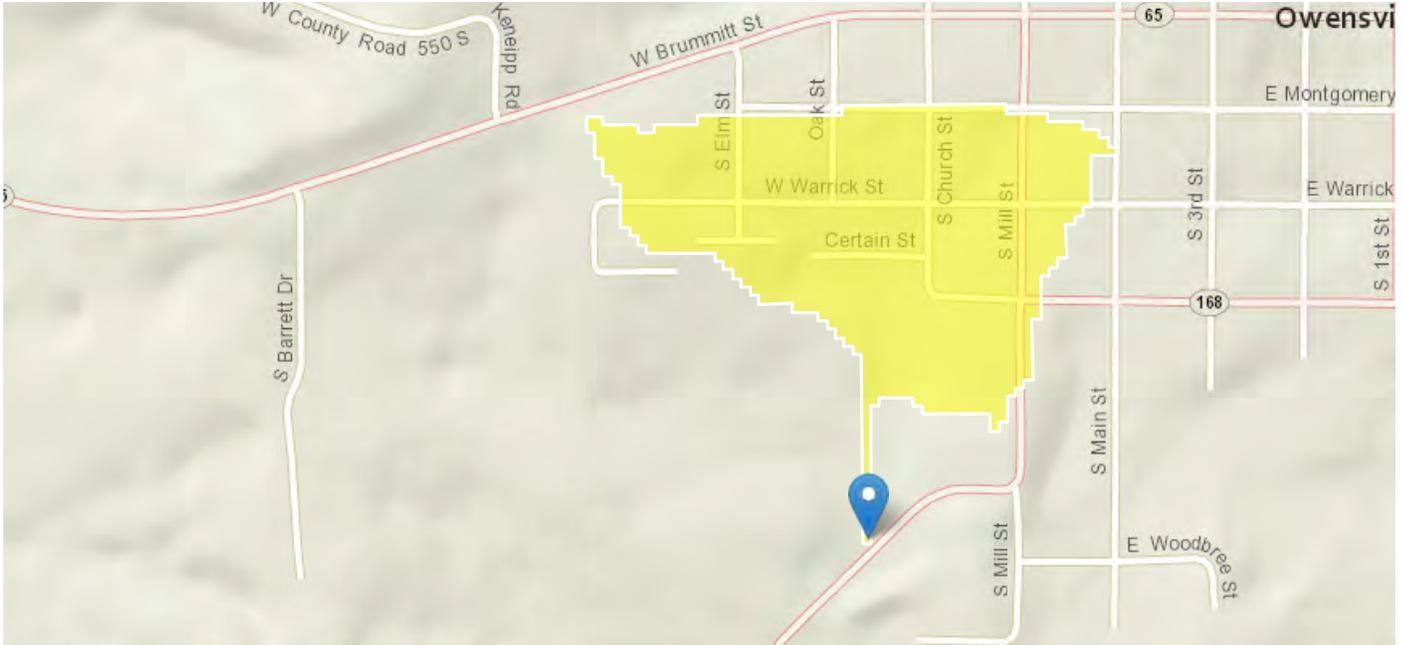
Phone: **No Phone Number Available**

Email: **No Email Address Available**

US Army Corps of Engineers District: **Louisville**

StreamStats Report Des 2001922

Region ID: IN
Workspace ID: IN20240220205635087000
Clicked Point (Latitude, Longitude): 38.26684, -87.69471
Time: 2024-02-20 14:56:55 -0600



+ Collapse All

➤ Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	0.054	square miles
K2INDNR	Average hydraulic conductivity (ft/d) for the full depth of unconsolidated deposits from InDNR well database.	28	ft per day
LC01FOREST	Percentage of forest from NLCD 2001 classes 41-43	0	percent
LOWREG	Low Flow Region Number	1730	dimensionless
QSSPERMTHK	Index of the permeability of surficial Quaternary sediments computed as in SIR 2014-5177	64.12	dimensionless
T2INDNR	Average transmissivity (ft ² /d) for the full depth of unconsolidated deposits from InDNR well database.	1850	square feet per day

USGS Data Disclaimer: Unless otherwise stated, all data, metadata and related materials are considered to satisfy the quality standards relative to the purpose for which the data were collected. Although these data and associated metadata have been reviewed for accuracy and completeness and approved for release by the U.S. Geological Survey (USGS), no warranty expressed or implied is made regarding the display or utility of the data for other purposes, nor on all computer systems, nor shall the act of distribution constitute any such warranty.

UNT to Black River OHWM Lat: 38.26786 Lon: -87.69452

UNT to Black River



0 50 100 Feet

Figure 8
Water Resources Map
Pavement Replacement
SR 65, 0.26 mi S. SR 168 to SR 165
Owensville, Gibson County, Indiana
Des #2001922

-  No Waters of the US
-  Investigated Area
-  Stream
-  Data Point



Created on Date:4/19/2024

From: [Moffett, Mary](#)
To: [April C. Arroyo-Monroe](#)
Cc: [Rehder, Crystal](#)
Subject: RE: No Waters of the US concurrence requested for Des. No. 2001922
Date: Thursday, February 9, 2023 2:42:57 PM
Attachments:

Hi April,

Thanks again for your patience as we looked into this. Based on the information provided below, we have determined that no Waters of the U.S. report will be needed. Again, if you have any questions about what I discussed in my last message regarding the non-WOTUS concurrence for Des. No. 1900271, please don't hesitate to reach out.

Thank you,

Mary Margaret Moffett

Ecology and Waterway Permitting Office

Indiana Department of Transportation

100 N. Senate Avenue N758-ES

Indianapolis, IN 46204

Phone: 317-694-3038

Email: mmoffett@indot.in.gov

From: April C. Arroyo-Monroe
Sent: Tuesday, December 13, 2022 2:34 PM
To: 'MMoffett@indot.IN.gov' <MMoffett@indot.IN.gov>; Rehder, Crystal <CRehder@indot.IN.gov>

Cc: Virginia Flynn <VFlynn@kaskaskiaeng.com>; Molly Barletta <MBarletta@kaskaskiaeng.com>; Falls, Ryan G <RFalls@indot.IN.gov>

Subject: No Waters of the US concurrence requested for Des. No. 2001922

Hello Mary and Crystal,

I am requesting a No Waters of the US Concurrence for Des. No. 2001922

This project is pavement replacement with drainage improvements along SR 65 in the town of Owensville in Gibson County, from 0.26 mi south of SR 168 (the south city limits) to the SR 165 intersection. I have attached maps and photos of the route.

This project will be designed as a 4R project (within the area of pavement replacement). Along with the pavement replacement, drainage improvements, new sidewalks, curve improvement and radii improvements should be anticipated. ADA curb ramps are included. An enclosed drainage system with curb and gutter should be anticipated from SR 165 to the 90-degree curve at Mill St (the urban area). The drive and public road approaches are anticipated to be replaced to the R/W line. The sidewalk is anticipated to be replaced within the urban area. Radii improvement potential is being considered at the 90-degree curve at the southwestern intersection of SR 165 and Mill St. I do not have the plans yet to provide more exact information beyond what is presented here.

Our field work found no wetlands or Waters of the US in or adjacent to the investigated area.

Please do not hesitate to reach out if you have any questions or concerns regarding this request.

Thank you,

April

April Arroyo-Monroe

Environmental Scientist

Certified: WBE/DBE/WOSB/EDWOSB

812.314.7041 office

April@kaskaskiaeng.com

Appendix 2 - PRELIMINARY JURISDICTIONAL DETERMINATION (PJD) FORM

BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR PJD:

B. NAME AND ADDRESS OF PERSON REQUESTING PJD: April Arroyo-Monroe, Evansville, IN

C. DISTRICT OFFICE, FILE NAME, AND NUMBER:

D. PROJECT LOCATION(S) AND BACKGROUND INFORMATION:

The proposed state project (Des. Nos. 2001922) is located in Owensville, Gibson County, Indiana on SR 65, from 0.26 mile south of SR 168 to the intersection with SR 165 within the Indiana Department of Transportation (INODT) Vincennes District. It goes through the Montgomery Township . The project includes a full depth pavement replacement, including ADA ramps, along the entire route. A dry detention basin will be built in the southwest in order to attenuate peak stormwater flow from Owensville to UNT to Black River. The basin outlet structure will discharge into the existing roadside drainage feature, between the new basin and SR 65, which flows to UNT of Black River. The maximum depth of the 0.5-acre dry basin will be approximately 5 feet.

(USE THE TABLE BELOW TO DOCUMENT MULTIPLE AQUATIC RESOURCES AND/OR AQUATIC RESOURCES AT DIFFERENT SITES)

State: **IN** County/parish/borough: **Gibson** City: **Owensville**

Center coordinates of site (lat/long in degree decimal format):

Lat.: **38.26749** Long.: **-87.69430**

Universal Transverse Mercator: **16**

Name of nearest waterbody: **UNT to Black River**

E. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

Office (Desk) Determination. Date:

Field Determination. Date(s):

TABLE OF AQUATIC RESOURCES IN REVIEW AREA WHICH “MAY BE” SUBJECT TO REGULATORY JURISDICTION.

Site number	Latitude (decimal degrees)	Longitude (decimal degrees)	Estimated amount of aquatic resource in review area (acreage and linear feet, if applicable)	Type of aquatic resource (i.e., wetland vs. non-wetland waters)	Geographic authority to which the aquatic resource “may be” subject (i.e., Section 404 or Section 10/404)
UNT to Blackriver	38.26786	-87.69452	356.67 lf/ 0.41 aac	non-wetland	404

- 1) The Corps of Engineers believes that there may be jurisdictional aquatic resources in the review area, and the requestor of this PJD is hereby advised of his or her option to request and obtain an approved JD (AJD) for that review area based on an informed decision after having discussed the various types of JDs and their characteristics and circumstances when they may be appropriate.
- 2) In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring "pre-construction notification" (PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an AJD for the activity, the permit applicant is hereby made aware that: (1) the permit applicant has elected to seek a permit authorization based on a PJD, which does not make an official determination of jurisdictional aquatic resources; (2) the applicant has the option to request an AJD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an AJD could possibly result in less compensatory mitigation being required or different special conditions; (3) the applicant has the right to request an individual permit rather than accepting the terms and conditions of the NWP or other general permit authorization; (4) the applicant can accept a permit authorization and thereby agree to comply with all the terms and conditions of that permit, including whatever mitigation requirements the Corps has determined to be necessary; (5) undertaking any activity in reliance upon the subject permit authorization without requesting an AJD constitutes the applicant's acceptance of the use of the PJD; (6) accepting a permit authorization (e.g., signing a proffered individual permit) or undertaking any activity in reliance on any form of Corps permit authorization based on a PJD constitutes agreement that all aquatic resources in the review area affected in any way by that activity will be treated as jurisdictional, and waives any challenge to such jurisdiction in any administrative or judicial compliance or enforcement action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an AJD or a PJD, the JD will be processed as soon as practicable. Further, an AJD, a proffered individual permit (and all terms and conditions contained therein), or individual permit denial can be administratively appealed pursuant to 33 C.F.R. Part 331. If, during an administrative appeal, it becomes appropriate to make an official determination whether geographic jurisdiction exists over aquatic resources in the review area, or to provide an official delineation of jurisdictional aquatic resources in the review area, the Corps will provide an AJD to accomplish that result, as soon as is practicable. This PJD finds that there "*may be*" waters of the U.S. and/or that there "*may be*" navigable waters of the U.S. on the subject review area, and identifies all aquatic features in the review area that could be affected by the proposed activity, based on the following information:

SUPPORTING DATA. Data reviewed for PJD (check all that apply)

Checked items should be included in subject file. Appropriately reference sources below where indicated for all checked items:

- Maps, plans, plots or plat submitted by or on behalf of the PJD requestor:
Map: Figures 1-9 by PJD requester.
- Data sheets prepared/submitted by or on behalf of the PJD requestor.
 - Office concurs with data sheets/delineation report.
 - Office does not concur with data sheets/delineation report. Rationale: _____.
- Data sheets prepared by the Corps: _____.
- Corps navigable waters' study: _____.
- U.S. Geological Survey Hydrologic Atlas: NHD Figure 6.
 - USGS NHD data.
 - USGS 8 and 12 digit HUC maps.
- U.S. Geological Survey map(s). Cite scale & quad name: QUAD IN 10,000 and 24,000 Figures 2 and 3.
- Natural Resources Conservation Service Soil Survey. Citation: NRCS Figure 5.
- National wetlands inventory map(s). Cite name: USFWS Figure 4.
- State/local wetland inventory map(s): _____.
- FEMA/FIRM maps: IDNR Figure 7.
- 100-year Floodplain Elevation is: _____.(National Geodetic Vertical Datum of 1929)
- Photographs: Aerial (Name & Date): _____
or Other (Name & Date): Ground Level September 22, 2023 and April 20, 2024.
- Previous determination(s). File no. and date of response letter: _____.
- Other information (please specify): _____.

IMPORTANT NOTE: The information recorded on this form has not necessarily been verified by the Corps and should not be relied upon for later jurisdictional determinations.

Signature and date of
Regulatory staff member
completing PJD

April Amoy-Mone April 22, 2024

Signature and date of
person requesting PJD
(REQUIRED, unless obtaining
the signature is impracticable)¹

¹ Districts may establish timeframes for requestor to return signed PJD forms. If the requestor does not respond within the established time frame, the district may presume concurrence and no additional follow up is necessary prior to finalizing an action.

APPENDIX G

Public Involvement



Corporate Office
7172 N. Keystone Ave. Ste. G
Indianapolis, IN 46240
317.466.9520
www.eticagroup.com
Certified WBE | DBE

SAMPLE

Notice of Survey

2/14/2022

**SUBJECT: Des 2001922 SR 65 – Gibson County
Pavement Replacement
Etica Project 210045.03**

Dear Property Owner:

Our information indicates that you own or occupy property near the above referenced project. Our employees will be performing a survey of the project area soon. It may be necessary for them to come onto your property to complete this work. This is permitted by law per Indiana Code IC 8-23-7-26. They will show you their identification, if you are available, before coming onto your property. If you have sold this property, or it is occupied by someone else, please let us know the name and address of the new owner or current occupant so we can contact them about the survey.

At this stage, we generally do not know what effect, if any, our project may eventually have on your property. If we determine later that your property is involved, you will be contacted with additional information.

The survey work may include mapping the location of features such as trees, fences, watercourses, bridges, culverts, hardscapes, marked utilities, drives, etc., along with obtaining ground elevations. The survey is needed to perform a topographic survey of the corresponding adjacent roadway and adjacent intersection. Please be assured of our sincere desire to cause you as little inconvenience as possible during this survey. If any problems do occur, please contact me or **Eric Arthur, PE of WSP Engineering at 317.972.4511** for questions concerning this project.

Sincerely,

Rodney J. Kelly, PS
Director of Surveying Services
Etica Group
317.268.1833
Cc: (Eric Arthur, PE)
File: (Etica 210045.03)

APPENDIX H (TBC)

Air Quality

APPENDIX I

Additional Information



WSP USA
115 West Washington Street
Suite 1270S
Indianapolis, IN 46204

Tel.: +1 317 972-1706
Fax: +1 317 972-1708
wsp.com

Excerpt

**Engineering Assessment Report
INDOT Vincennes District**

SR 65 Pavement Replacement in Owensville

Des No: 2001922
SR 65 from 0.26 mile south of SR 168 to SR 165

Gibson County, Indiana



September 29, 2022
Revised February 8, 2023 and March 10, 2023

Prepared by Jane Canada, PE
WSP USA, Inc.



1. PURPOSE OF REPORT

The purpose of this report is to document the engineering assessment phase of project development, including all coordination that has been completed in preparation for this road project. This document outlines the proposal and is intended to serve as a guide for subsequent survey, design, environmental, right of way and other project activities leading to construction.

This report looks specifically at alternatives related to the 90-Degree Curve at Mill Street, intersection improvements at SR 65 and SR 168, on-street parking between Warrick Street and SR 168, and where to end the enclosed sewer system on SR 65. These items and their alternatives are discussed in Section 9 of this report. The preferred alternatives identified in this document is considered predecisional, pending the outcome of the environmental studies and final design.

2. PROJECT LOCATION

The project is located along SR 65 from approximately 0.26 miles south of SR 168 to SR 165 in Owensville, Indiana. The project is in section 12, T-3-S, R-12-W in Montgomery Township in Gibson County. The reference post location is from RP 19+085 to RP 20+027. The latitude and longitude of the project is 38°16'10" N and 87°41'34" W, respectively. SR 65 is functionally classified as a major collector in the project limits. The project is in the Indiana Department of Transportation's Vincennes District, Evansville and Vincennes Sub-Districts. The project location map and functional classification map can be found in **Figure 1**.

3. PROJECT PURPOSE AND NEED

The existing pavement along SR 65 through Owensville is showing signs of structural issues, such as alligator cracking, longitudinal cracking, and rutting. The purpose of this project is to upgrade the deteriorating existing asphalt pavement and improve drainage conditions. This is proposed to be done with a combination of preventative maintenance and full depth as appropriate.

4. PROJECT HISTORY

The most recent work along the project corridor included a 1 lift HMA overlay completed in 2002 (DES 9502660).

5. EXISTING FACILITY

The existing roadway facility is classified as a rural major collector and is not part of the US National Highway System (NHS). The roadway is not on the National Truck Network. The posted speed limit varies between 25, 30 and 35 mph along the project corridor with a warning speed of 20 mph at the 90-degree curve at Mill Street.

5.1. Roadway

The total project length is roughly 0.47 miles. The existing cross section is inconsistent. Generally, the existing right-of-way is 60-feet from SR 165 to Mill Street and 50-feet for the remainder of



the project. Offset sidewalk is located on both sides of the road, with some gaps, from SR 165 to approximately 0.30 miles south.

From the beginning of the project on the south to 150-feet west of Mill Street, the existing roadway is 24-feet wide (approximately 0.10 miles). This section consists of two 11-foot travel lanes with 1-foot shoulders on either side.

From 150-feet west of Mill Street to SR 168, the existing roadway varies from 28-feet to 24 feet (approximately 0.15 miles). This section consists of two 12-foot travel lanes with varying shoulders that range from 4-foot to 0-feet on either side. Straight curb is present on SR 65 for approximately 260-feet south of SR 168 on the west side.

From SR 168 to Montgomery Street, the existing roadway is approximately 32-feet wide (approximately 0.15 miles). This section consists of two 12-foot travel lanes with 4-foot shoulders on either side. Curb is not present on the mainline but is found at intersections. The block between Warrick Street and SR 168 has resident-made parking lanes on both sides of the street. Parts of these parking lanes are paved, graveled or are simply bare dirt.

From Montgomery Street to SR 165, the existing roadway is approximately 45-feet wide (approximately 0.06 miles). This section consists of two 12-foot travel lanes with one 9-foot parking lane on the west and a 12-foot lane on the east with straight curb on both sides.

5.2. Pedestrian Connectivity

The existing sidewalks are discontinuous through the project limits but are consistently 5-feet wide. All present sidewalks are offset from the travel way by 8 to 15-feet. ADA compliant curb ramps do not exist at the public road approaches. Sidewalk transitions do not exist at the commercial and/or residential driveways. There is one existing unsignalized crossing, east/west across SR 65 at SR 168 (Walnut Street).

5.3. Curves and Intersections

There are two curves at the far south beginning of the project limits. The first is sufficient for a 35- mph travel speed. This curve leads into a 90-degree turn at Mill Street that requires southbound vehicles to slow to 20-mph. There are gravel lots on either side of the road that stretch from the edge of pavement into the private properties beyond. It is clear for the site photos that large vehicles use these gravel areas when navigating the turn. Site visits and aerial imagery also shows that large vehicles encroach into the opposing lane here.

There are 5 public intersections within the project limits. These are Brummitt Street (SR 165), Montgomery Street, Warrick Street, Walnut Street (SR 168), and Mill Street (90-degree curve). Of these intersections two are with other state routes: SR 165 and SR 168. The intersection of SR 65 and SR 168 is relatively tight and experiences a significant truck traffic. It is clear from site photos turning vehicles have mounted the curb here several times.

Existing project photos are included in **Figure 2** the Abbreviated Engineers Report.



Roadway Information	
Geometric Criteria	
Design Speed	Varies 25 to 35 mph
Functional Class	Major Collector
Design Criteria	Reconstruction (Non-Freeway) 4R, Figure 53-8 Partial 3R, Figure 56-4E
Rural/Urban	Urban & Rural
Terrain	Level
Access Control	None

3R - Mill and Overlay – Rural Section		
	Existing	Proposed
Travel Lane Count	2	2
Travel Lane Width	11-ft	11-ft (match existing)
Shoulder Width (Usable)	1-ft	1-ft
Shoulder Width (Paved)	1-ft	1-ft

4R - Reconstruction – Urban Section - Uncurbed		
	Existing	Proposed
Travel Lane Count	2	2
Travel Lane Width	11-ft	12-ft
Shoulder Width (Usable)	1-ft	9-ft
Shoulder Width (Paved)	1-ft	8-ft

4R - Reconstruction – Urban Section - Curbed		
	Existing	Proposed
Travel Lane Count	2	2
Travel Lane Width	12-ft	12-ft
Auxiliary Lane Count	0	2 – Parking, 1 – Turn Lane (as needed)
Auxiliary Lane Width	N/A	10-ft
Curb Offset	Varies	2-ft to 4-ft
Curb Type	Vertical or Not Present	Curb and Gutter
Sidewalk Width	5-ft	5-ft
Sidewalk Buffer	Varies	8-ft (typ.) 5-ft (min.)

The proposed improvements are discussed more in the Alternatives and Recommendations.



5.4. Pavement

In general, the pavement distresses show signs of both an aging asphalt surface as well as base failures, and include longitudinal, block and some alligator cracking. Drainage issues are causing failures along the edge of shoulder as well. Full replacement is warranted within the urban section of the project.

Historic construction logs provided in INDOT's Abbreviated Engineer's Report indicate that only HMA pavement is present within the project limits. A generic pavement cross section of 12-inches on Type IBC subgrade will be used to estimating purposes within this document.

5.5. Existing Drainage

The existing drainage includes a combination of closed systems with concrete curbs and open systems with ditches. Generally, curbs are only present at intersections in the urban section of the project. Inlets are present at the intersections of SR 165, Montgomery Street, and Warrick Street. Based on 2018 LiDAR elevation data, approximately 14 acres off-site drain to the SR 65 right of way within project limits. This includes 11 acres north of SR 168 and 3 acres south of it. All storm sewer found on the project is in poor condition and many connections between structures could not be field verified because of this.

Between SR 165 and Montgomery Street, runoff from the right of way and from 3.5 acres offsite, mostly on the east side, drain to gutters along both sides of SR 65 to storm drains at the intersection with Montgomery Street.

Between Montgomery Street and SR 168, runoff from the right of way and from 7 acres offsite east, drain to grass buffers adjacent to the roadway and storm drains along Mill Street, including two inlets at the intersection with Warrick Street and one inlet 185 feet north of Warrick Street. Paving done by adjacent property owners within INDOT right-of-way has increased the impervious area between Warrick Street and SR 168. Poor drainage in this area was noted by INDOT's Abbreviated Engineer's Report.

Between SR 168 and the junction of SR 65 and Mill Street, runoff from the right of way and from 2 acres west of the road drain to roadside ditches, except for a 250-foot stretch of curb with 4-foot paved shoulder on the west side of the road just south of Walnut Street.

From approximately 100 feet west of the SR 65 junction with Mill Street to the southern limit of the project site, the project right of way and approximately 1.3 acres off-site area drain south along roadside ditches.

The roadside ditches are steep and located just outside the narrow shoulder. On the east side the ditch is riprap lined on the west side there is a combination of riprap and sodded ditches. The ditch on the east/south side of SR 65 continues south beyond the project limits. Both ditches end at the 90-degree curve at Mill Street and drains to the east outside the project limits.

From SR 165 to approximately Walnut Street stormwater appears to exit the site to the west along Warrick Street via both overland flow and storm sewer. This then drains to a wide, man-



made channel two parcels west of the intersection of Warrick Street and Church Street. This channel continues south and releases to a natural channel just south of the Owensville Recreation Gym property which connects to Black River. This channel is perpetuated by culverts under Certain Street and the Owensville Recreation Gym parking lot.

From Walnut Street to the junction of SR 65 and Mill Street north, the project appears to outlet to Clarks Run east of the project via roadside ditches. The remainder of the project drains to the Black River just south of the project limits via roadside ditches.

6. KICK-OFF MEETING

The meeting minutes from the kick-off meeting held on March 8, 2022 are included in **Figure 3**. The primary topic during the meeting was evaluating how to improve the 90-degree curve at Mill Street, intersection improvements for truck movements at the intersection with SR 168, how to address the ad-hoc parking lanes, and how best to address drainage improvements.

7. TRAFFIC DATA AND CAPACITY ANALYSIS

Traffic Data			
Construction Year	2025	AADT	2242 VPD
Design Year	2045	AADT	3139 VPD
DHV	2045		404 VPH
Directional Distribution			43/57%
Trucks		AADT	10.0%
		DHV	10.6%
Construction Year	2025	AADTT	224
Traffic Growth Rate			2.0%

Capacity analysis is omitted because it is not relevant to the project.

8. CRASH DATA AND ANALYSIS

Crash data from ARIES database was collected and filtered for the project area. A 250' influence area was assumed along the cross streets and at the end points of the corridor. From 2017 to 2021, there were a total of thirteen crashes within the project limits. Four of the crashes were non-incapacitating injury crashes and the remaining nine were property damage only crashes. An expanded crash summary can be found in **Figure 4**. All of the crashes with non-incapacitating injuries were located at the 90-degree curve at Mill Street and seven of the thirteen total crashes occurred at this location. The most common type of crashes in this location were head on collisions involving vehicles crossing the centerline and drivers running off the road due to unsafe speeds. Four crashes occurred at the intersection of SR 165 and SR 65. These were all right-angle crashes caused by improper yielding at the stop sign. These are summarized in the crash data presented for Des. 1900271 on SR 165 as well.

Improvements to the curve at Mill Street discussed in this report will make it easier for vehicles to stay in their lane while navigating this curve. Since head on collisions at this curve are currently



the most common type of crash occurring within the project limits, it is anticipated that future crashes will be reduced.

9. DESIGN ALTERNATIVES AND RECOMMENDATIONS

SR 65 will have full depth pavement replacement from approximately the alley north of Mill Street to SR 165 to address the pavement deterioration and improve drainage. This will be achieved with an urban cross section as described in Section 5. Curb and gutter will be added and/or perpetuated in this section of the project. The southern, rural portion of the project will address pavement issues with a preventative maintenance mill and overlay.

The current storm sewer infrastructure is in poor shape on SR 65. It is also likely undersized based on flooding complaints made by residents after large storm events. This project will fully redesign the storm sewer on SR 65 within the project limits, replace the trunkline and add inlets as needed to maintain acceptable spread during large storm events. It appears that water captured on the roadway from SR 165 to SR 168 outfalls to the existing storm sewer on Warrick Street. This extends approximately 500-ft west along Warrick Street from SR 65 to 100-ft west of Church Street where the system outfalls to an existing ditch flowing south. Additional survey information and drainage design is required to determine if the existing infrastructure outside the current project limits can handle to proposed follows from SR 65. If they are found to be deficient coordination on how best to proceed will need to take place between WSP, the District, and INDOT Hydraulics.

This report looks specifically at alternatives related to the 90-Degree Curve at Mill Street, intersection improvements at SR 65 and SR 168, on-street parking between Warrick Street and SR 168, and where to end the enclosed sewer system on SR 65. These aspects of the project are discussed in more detail below along with possible alternatives and recommendations for final design.

9.1. Mill Street 90-Degree Curve

The 90-degree curve at Mill Street and SR 65 is currently deficient as it pertains to lane encroachment and design speed. The existing curve has only a 60-foot radius which is significantly smaller than the 107-foot recommended minimum for a 20-mph road with no superelevation. There is evidence of vehicles, especially large trucks, encroaching both across the centerline and outside of the roadway shoulder. This curve is signed with a warning speed of 20-mph; however, based on field visits it appears many vehicles do not slow down to the warning speed before negotiating the curve.

Figure 5 shows five possible proposed alignments for 35, 30, 25 and 20 mph design speeds. Ideally, the mainline design speed of 35 would be maintained throughout the curve section. However, this alternative would have significant relocation impacts to the Northwest parcel likely resulting in a total acquisition. Based on early coordination with INDOT, this level on impact and right-of-way acquisition is out of scope. Therefore the 35-mph curve correction was not looked at as a viable alternative. This is also true for the 30-mph curve which would also likely lead to the removal and relocation of the existing weigh station on the Northwest parcel.



9.1.1. Alternative A: Do Nothing

This alternative would be a no-build scenario to the existing roadway, which will result in no improvement to the curves level of service or safety. This alternative does not meet the need nor achieve the purpose of the project and will not be considered further in cost estimation and design.

9.1.2. Alternative B: Use 20 MPH as Curve Design Speed

This portion of the project is defined as low-speed urban roadway. Therefore, the guidance provided by IDM Figure 43-3D "RADIUS FOR NORMAL-CROWN SECTION AND REMOVE (ADVERSE)-CROWN SECTION" is applicable. This figure provides guidance on sufficiently large radii in low-speed urban applications that do not require superelevation. For a design speed of 20 mph, any curve with a radius of 107-feet or more does not require superelevation.

Utilizing the application of a low-speed urban corridor here allows the use of smaller curves requiring no superelevation. In this location, it is a benefit to the project as this left directional curve at Mill Street is immediately after a right directional curve. This right directional curve is near the end of the project where only a preventative maintenance is justified based on condition. Applying superelevation to the curve at Mill Street would necessitate changes to the curve adjacent to it due to their close proximity. These changes would likely require the full depth reconstruction of some, or all, of this curve which would add cost the project.

20-mph design speed is not consistent with the 35-mph design speed posted on either side of the curve area. However, this section of SR 65 currently has warning signs directing vehicles to lower their speed to 20-mph when negotiation the curve heading south. However, the existing curve only has a 60-foot radius. Upgrading the curve to a 107-foot radius would allow the existing signage to be maintained and would provide consistency for motorist familiar with this area. However, the infrastructure would actually be designed to accommodate a 20-mph speed.

Any changes to the curve will require right-of-way acquisition on the parcel location to the Northwest of the curve. However, this alternative impacts the northwest parcel the least. This alternative also stays completely out of the curve to the southwest allowing full depth replacement to end on the tangent between the two curves.

The approximately impacts of this alignment can be seen in **Figure 6**. The Opinion of Probable Construction cost is shown below. This estimate considers only pavement costs and to allow for an easy comparison between alternatives. A detailed breakdown can be seen in **Figure 7**. This only includes the area reconstructed to improve this curve.

Alternative	Pavement Construction Cost
B: 20 MPH Design Speed	\$108,110.00

9.1.3. Alternative C: Use 25 MPH as Curve Design Speed

As previously stated in alternative B, this portion of the project is defined as low-speed urban. Guidance from IDM Figure 43-3D was also used for this alternative. Therefore, with a design



speed of 25-mph this minimum radius of this curve needs to be at least 198-ft. This is to minimize impacts to the adjacent horizontal curve to the south by not applying superelevation to this low-speed curve.

25-mph is not consistent with the 35-mph posted speeds on either side of the existing curve. However, the speed reduction is less than what is existing and what is proposed in alternative B. This will provide a greater level of comfort for drivers but comes with bigger impacts to the northwest parcel. Additionally, the full depth reconstruction would get into the curve to the south. This does not mean that the entire curve to the south will need to be reconstructed, but it does mean its superelevation transition will continue partially into the new 25-mph curve. From a design perspective this is acceptable, but not ideal.

The approximate impacts of this alignment can be seen in **Figure 8**. The Opinion of Probable Construction cost is shown below. This estimate considers only pavement costs and to allow for an easy comparison between alternatives. A detailed breakdown can be seen in **Figure 7**. This only includes the area reconstructed to improve this curve.

Alternative	Pavement Construction Cost
C: 25 MPH Design Speed	\$131,645.00

9.1.4. Alternative Recommendation

Alternative B – 20 mph curve is preferred. Alternative B is approximately 22% less expensive than Alternative C when looking just a pavement cost. It is reasonable to assume that this 22% can be carried across all pay items required in this area. Additionally, the amount of new pavement outside of the existing roadway for Alternative C is 182% more than what is required for Alternative B. This would require more significant right-of-way takes from the northwest property if Alternative C was pursued. This would increase the likelihood of condemnation creating delays to the project's timeline and increasing right-of-way costs.

Alternative B will improve the curve by enlarging it to meet recommended standards for a design speed of 20 mph with no superelevation. It will do this with minimal need for right-of-way acquisition and require less full depth replacement. The increase in shoulder width from 2-feet to 8-feet will also improve the ability of large vehicles to navigate the curve. With 8-foot shoulders, two WB-50s can navigate the curve at the same time without any encroachment.

9.2. Intersection of SR 168 and SR 65

The state routes of SR 168 and SR 65 meet at a 2-way stop intersection in Owensville. Traffic on SR 65 is free flowing north and south while vehicles on SR 168/Walnut Street stop and wait for a gaps to either turn on to SR 65 or continue straight in the east/west direction. The east side of this intersection is where SR 168 terminates. To the west is Walnut Street which is a local roadway maintained by the Town of Owensville. INDOT traffic counts show that most traffic headed westbound on SR 168 turns onto SR 65 rather than continuing straight. SR 168 and SR 65 both have a large amount of truck traffic. From photos of the site it is clear that particularly large



vehicles making northbound right turns mount the existing curb. Vehicles making eastbound right turns from SR 65 to SR 168 also have difficulty avoiding the curb in this location.

Both SR 65 and SR 168 are classified as collectors within the project limits. Per IDM Figure 46-1E SUGGESTED DESIGN-VEHICLE SELECTION, the minimum design vehicle required for an intersection of two collectors is a WB-50. This is a relatively large vehicle and trucks meeting the description of the WB-50 do make turns at this intersection, with curb impacts and encroachments. Due to the urban nature of this intersection the Indiana Design Vehicle (WB-65) was not looked at in any alternatives explored below. This is because radii large enough to accommodate a WB-65, with only acceptable encroachments, would impact the houses on the east side of the intersection. It was assumed that total takes, and relocations were not desirable. Therefore, all alternative only look at WB-50 turning movements.

9.2.1. Alternative A: Do Nothing

This alternative would be a no-build scenario to the existing roadway, which will result in no improvement to the intersection turning radii. This alternative does not meet the need nor achieve the purpose of the project and will not be considered further in cost estimation and design.

9.2.2. Alternative B: 30-Foot Radii – 10:1 Tapers with 2-Foot Offset

The recommended radii shown in IDM Figure 46-2D EDGE-OF-TRAVELED-WAY DESIGN FOR TURN AT INTERSECTION for a WB-50 are simply too large for this urban intersection. Using a 60-foot radius would require a total take and relocation of the property to the northeast corner and significant impacts to the southeastern parcel. After several iterations, the combination of using a 30-foot radius with 10:1 tapers and a 2-foot offset was determined to provide sufficient area for WB-50 turns while also not significantly impacting adjacent properties.

Per IDM 46-2.01(01) the inside clearance for a right turning vehicle should at a minimum be 1-foot from the curb line. **Figures 9 and 10** show WB-50 turning movements for this alternative and both and northbound and westbound right turns can be executed with more than a 1-foot clearance.

IDM Figure 46-2A GUIDELINES FOR ENCROACHMENT FOR RIGHT TURN, URBAN INTERSECTION shows that 1-foot of clearance into opposing lanes is allowable for collector-to-collector intersections like SR 65 and SR 168. For northbound right turns in this alternative, less than 1-foot encroachment into opposing lanes is achievable. Westbound lefts and northbound rights by a WB-50 occurring at the same time can take place without encroachments. **Figure 9** shows these movements happening concurrently. For westbound right turns there may be minor encroachment into the opposing lane. When looking at **Figure 10** it can be seen that southbound vehicles do have sufficient width avoid this encroachment as the 4-foot shoulder, which will be maintained, provides additional width.

The Opinion of Probable Construction cost is shown below. This estimate considers only pavement costs and to allow for an easy comparison between alternatives. A detailed breakdown can be seen in **Figure 11**. This only includes the area reconstructed to improve this intersection.



Alternative	Pavement Construction Cost
Alternative B: 30-Foot Radii – 10:1 Tapers with 2-Foot Offset	\$30,360.00

9.2.3. Alternative C: 30 and 40-Foot Radii with Parking Lane

IDM 46-2.01(03) discusses how the addition of a parking lane or large shoulder lane through the intersection can help large vehicle turning movements. In this alternative a 10-foot parking lane/shoulder was added north and south of the intersection on SR 65. Several different sized radii were tried and a 30-foot radius was ultimately chosen for the northeast corner and 40-foot radius for the southern. These radii were selected based on the impacts they had to the adjacent parcels and to keep encroachments to a minimum.

Per IDM 46-2.01(01) the inside clearance for a right turning vehicle should at a minimum be 1-foot from the curb line. **Figures 12 and 13** show WB-50 turning movements for this alternative and both and northbound and westbound rights can be executed with more than a 1-foot clearance.

IDM Figure 46-2A GUIDELINES FOR ENCROACHMENT FOR RIGHT TURN, URBAN INTERSECTION shows that 1-foot of clearance into opposing lanes is allowable for collector-to-collector intersection like SR 65 and SR 168. For northbound right turns in this alternative, less than 1-foot encroachment into opposing lane is not achievable. **Figure 12** shows that for a short stretch there is 2.81-feet of encroachment. However, there is sufficient width in the lanes on SR 168 to allow westbound vehicles to avoid this encroachment. Should a westbound left and northbound right by a WB-50 occur at the same time there should not be any encroachment between the two turns. For northbound right turns encroachment into the opposing lane can be avoided in this alternative. However, should a westbound right and southbound left by a WB-50 occur at the same time there will be encroachment of nearly 3-feet on the turning paths. See **Figure 13**.

The Opinion of Probable Construction cost is shown below. This estimate considers only pavement costs and to allow for an easy comparison between alternatives. A detailed breakdown can be seen in **Figure 11**. This only includes the area reconstructed to improve this intersection.

Alternative	Pavement Construction Cost
Alternative C: 30 and 40-Foot Radii with Parking Lane	\$32,975.00

9.2.4. Alternative Recommendation

Alternative B: 30-Foot Radii – 10:1 Tapers with 2-Foot Offset is the preferred alternative. Alternative B is approximately 9% less expensive than Alternative C when looking solely at pavement costs. It also has slightly less impacts to the northeastern parcel. Alternative B allows the curb ramp to be further south which will help the contractor stay further away from the decorative stacked wall behind the sidewalk. The impacts to the southern parcel are similar between the two alternatives, but Alternative B does have slightly less impact.

Both alternatives have some opposing lane encroachments beyond what Figure 46-2A deems desirable.



9.3. On-Street Parking Improvements

This alternative specifically looks at the block of SR 65 between Warrick Street and SR 168 where residents have converted the grass buffer between the roadway and the existing sidewalk into on-street parking. In some instances, cars are simply parking in the grass, in others the residents have made modifications to within the right-of-way such as HMA paving and gravel. The more sustainable resident improvements have been made on the west side of SR 65. On the east there is still evidence that parking occurs in the buffer area, however there is a “No Parking” sign present which is not found on the west side. All parcels have driveway access to allow for off-street parking; however, these make-shift parking lanes are being utilized.

9.3.1. Alternative A: Restore Existing Cross Section

This alternative would be to restore the existing cross section. This means removing the paving and gravel that has been placed in the right-of-way and restoring the grass buffer. This cross section would deviate from existing only by the addition of curb and gutter. This cross section and plan view can be seen in **Figure 14**.

As part of this alternative the existing driveway approaches would be reconstructed out of concrete. Currently all drive approaches on this block are gravel within the right-of-way. This alternative would make parking in the grass buffer more difficult, but also improve vehicular access to the properties via improved driveways. This cross section is more in keeping with the cross sections found on the rest of the urban corridor. The smaller paved area would provide more pervious area of infiltration during rain events and equate to less pavement maintenance in the future. However, residents are using the area as parking today and it is likely that they will continue to do so post construction. This alternative does not provide the functionality the residents appear to want. This could lead to difficulty acquiring temporary or permanent right-of-way from the property owners should it be needed.

The Opinion of Probable Construction cost is shown below. A detailed breakdown can be seen in **Figure 15**. This only includes the pavement cost to reconstruction on the block between Warrick Street and SR 168.

Alternative	Pavement Construction Cost
Alternative A: Restore Existing Cross Section	\$215,360.00

9.3.2. Alternative B: At-Grade Parking Lane West Side Only

This alternative would provide a 10-foot parking lane on the west side of SR 65 on the block from Warrick Street to SR 168 with a curb and gutter separating the parking lane from the sidewalk behind. This cross section can be seen in **Figure 16**.

This alternative would provide standard parking lanes where residents are showing a demand for them. The widening of the street here would likely require temporary right-of-way to be acquired to provide upgraded driveways to properties. Communications poles on the west side would need to be relocated as well and it is possible that permanent right-of-way would be needed to relocate them to the back of sidewalk. However, the increase in roadway width could be utilized to increase the spread storage on the roadway when during larger rain events. By allowing the parking lane



to temporarily flood during large storms there would likely be a savings on permanent drainage structures in this block. The separation of the sidewalk from the parking lane with a vertical curb and gutter section also provides increased comfort for pedestrians.

The Opinion of Probable Construction cost is shown below. A detailed breakdown can be seen in **Figure 15**. This only includes the reconstruction cost of the block Warrick Street and SR 168.

Alternative	Pavement Construction Cost
Alternative B: At-Grade Parking Lane West Side Only	\$208,800.00

9.3.3. Alternative C: At-Grade Parking Lane on Both Sides

This alternative would provide a 10-foot parking lane on both sides of SR 65 on the block from Warrick Street to SR 168 with a curb and gutter separating the parking lane from the sidewalk behind. This cross section can be seen in **Figure 17**.

This alternative would provide standard parking lanes where residents are showing a demand for them. The widening of the street here would likely require temporary right-of-way to be acquired to provide upgraded driveways to properties. By providing the parking lane on the east side as well two more properties will likely be impacted, however temporary right-of-way is all that is anticipated. As with Alternative B, communications poles on the west side would need to be relocated as well and it is possible that permanent right-of-way would be needed to relocate them to the back of sidewalk. This is also likely on the east side. There is one pole on the southeast portion of the block that is currently in a precarious location between two driveways. In any alternative, it would be preferable to move this pole away from these driveways. However, this alternative will limit the locations where this could take place within the existing right-of-way therefore making the need for permanent right-of-way more likely. This alternative would increase in roadway width could be utilized to increase the spread storage on the roadway when during larger rain events. This would allow for Indiana Design Manual standards for spread to be met with less drainage structures. The separation of the sidewalk from the parking lane with a vertical curb and gutter section also provides increased comfort for pedestrians.

The Opinion of Probable Construction cost is shown below. A detailed breakdown can be seen in **Figure 15**. This only includes the reconstruction cost of the block Warrick Street and SR 168.

Alternative	Pavement Construction Cost
Alternative C: At-Grade Parking Lane on Both Sides	\$205,740.00



9.3.4. Alternative Recommendation

Alternative C – At-Grade Parking Lane on Both Sides is the preferred alternative. The cost for Alternatives A, B and C are nearly identical. This is in large part due to the savings in drainage structures versus the overall pavement width. Although the parking lane adds cost in pavement, they save cost for drainage making the difference in cost between the alternatives almost negligible. The additional impervious area is only around 1500 sft therefore it is assumed that no BMPs or detention would be required based on this area alone.

With cost not being a major differentiator, Alternative C becomes the preferred alternative as it provides the functionality of a parking lane that is most consistent how it appears existing parking is occurring. WSP and INDOT will coordinate with the Town of Owensville during the early stages of design to get their input. This is currently only the preliminary preferred alternative for Stage 1 design. The final design in this area may evolve during this this coordination effort with the Town of Owensville.

9.4. Drainage Alternatives

Based on the existing cross section and adjacent buildings, using an urban cross section with curb and gutter and an enclosed storm sewer is the best cross section for SR 65 from SR 165 to 250-foot south of SR 168. On the east side of the road the urban cross section also makes the most sense all the way down to the curve at Mill Street due to the proximity of the existing houses to the roadway. However, the area on the west side of SR 65 between the Owensville Recreation Gym and the Mill Street curve may benefit from more rural type of cross section with a side ditch.

9.4.1. Alternative A: Urban Cross Section with Enclosed Storm Sewer

This alternative would carry the urban cross section to the beginning of the Mill Street Curve where the rural shoulder section would begin. This cross section would provide consistency and more easily allow for the addition of sidewalk in the future. However, this would mean replacing the existing large ditch that is on the west side of SR 65 in this area. The existing ditch has a large capacity to handle large rain events and prevent ponding on the roadway. To keep roadway spread within acceptable limits several inlets and larger diameter pipes would need to be installed. This infrastructure generally requires more maintenance to ensure the system is functioning as necessary, however this maintenance will be required on the project regardless as the urban cross section is predominantly used. The lane and curb offset dimensions and general construction limits can be seen in **Figure 18**.

The Opinion of Probable Construction cost is shown below. A detailed breakdown can be seen in **Figure 19**. This only includes the reconstruction cost of the west side of SR 65 from the Owensville Recreation Gym driveway to the Mill Street Curve.

Alternative	Pavement & Drainage Construction Cost
Alternative A: Urban Cross Section with Enclosed Storm Sewer	\$ 52,046.60



9.4.2. Alternative B: Rural Cross Section with Roadside Ditch

This alternative would begin the more rural cross section found on the Mill Street Curve further north, on the west side of SR 65 starting at the Owensville Recreation Gym driveway. This cross section mirrors what is currently found on site in this area. However, currently the drainage ditch starts just outside the travel way with 2:1 side slopes. This would be unacceptable to maintain in a 4R reconstruction project. The proposed lane and shoulder dimensions can be seen in **Figure 20** along with the general construction limits of this alternative. In this alternative the ditch capacity would be largely maintained, but with appropriate, recoverable side slopes within the clear zone of the roadway. A paved side ditch is proposed here which should mean less need for on-going maintenance in the future.

The Opinion of Probable Construction cost is shown below. A detailed breakdown can be seen in **Figure 19**. This only includes the reconstruction cost of the west side of SR 65 from the Owensville Recreation Gym driveway to the Mill Street Curve.

Alternative	Pavement & Drainage Construction Cost
Alternative B: Rural Cross Section with Roadside Ditch	\$46,915.00

9.4.3. Alternative Recommendation

9.4.1. Alternative A: Urban Cross Section with Enclosed Storm Sewer is the recommended alternative. This was chosen to provide consistency in the cross section. Its initial cost of installation is approximately 10% more than Alternative B. It will have a higher lifetime maintenance cost but is more appropriate for the urban context. This alternative will be more appropriate for any future development that may occur on the west side of SR 65 in this location.

10. MAINTENANCE OF TRAFFIC DURING CONSTRUCTION

This project is considered mobility significant project per INDOT's Significant Work Zone Impact Determination Worksheet. See **Figure 21**. This project is considered significant as it will require major reconstruction, is in an urban area, and requires a detour. This determination was made despite the AADT is less than 3000 vpd and that the existing street grid in Owensville will provide mobility for local drivers throughout construction. A Traffic Management Plan will be required for this project that also covers KIN projects of SR 165 and SR 168 which will be bundled with this project (Des. 1900271 and 2001920 respectively).

A detour route will be required due to the narrow, urban cross section that is being completely reconstructed. For the entirety of construction one official detour for thru traffic will be in place. This detour will follow SR 68, US 41, to SR 64. This detour route is 37 miles long and takes approximately 43 minutes to drive with no traffic. Because of this, the Contractor shall minimize full closure areas limiting them to one block at a time to maintain mobility on local streets within the Town of Owensville. See **Figure 22**. Flaggers will be utilized for milling, the application of the surface HMA layer, and striping. The Contractor shall work with residents and commercial properties maintain access via temporary driveways.



11. ENVIRONMENTAL ISSUES

A CE Level 2 Environmental Document is anticipated. A Red Flag Investigation, USFWS Consultation, Section 106 Submission, WOTUS report and permit determination will be performed as part of this project. There are possible impacts and right-of-way acquisitions at the Town Square, which includes a Carnegie Library. These impacts may warrant a Section 4(f) Investigation. A 401/404 permit is not anticipated. A Rule 5 permit for erosion control will be required.

12. SURVEY REQUIREMENTS

The survey limits corridor starts approximately 450 feet west of the intersections of SR 65 and Mill Street corresponding to the town limits as marked by a roadway town limits sign. The survey limits head north along SR 65 to the intersection of SR 65 and SR 165 (Brummitt Street). The survey corridor is approximate 2,400 linear feet long. The survey corridor width is 100-feet wide, 50-feet half width as measured from the centerline of SR 65 or to the adjoining front faces of houses / buildings or to the front yard perimeter fencing as located within the half width survey corridor, which ever criteria is met first.

The major intersections will be surveyed 100 feet each direction of the intersection of SR 65 matching the corridor width requirements. This excludes alleyways. This includes heading south 100 feet along Mill Street at the south survey limits and 100 feet north along Mill Street at the north survey limits.

There are two "offsite" survey areas that are also included as part of the survey limits. This include an additional 200-feet of survey along the north/west ditch line of SR 65 south of the main survey limits. The second location is the ally/gravel driveway south of SR 65 at Mill Street. Survey limits will extend for approximately 100-feet east of the Mill Street alignment.

13. RIGHT-OF-WAY IMPACT

Approximately 0.52 acres of permanent right-of-way and 0.25 acres of temporary right-of-way is anticipated with the preferred alternative, totaling up to 18 impacted parcels. An approximate total right-of-way cost is shown below.

Preliminary Right-of-Way Estimate				
	Amount	Approx. R/W Cost per Acre	Approx. Appraisal Cost per Parcel*	Total Cost
Approx. Permanent (acre)	0.52	\$87,000		\$45,240
Approx. Temporary (acre)	0.25	\$43,000		\$10,750
Approx. Impacted Parcels	18		\$4,920	\$88,560
Approx. Total R/W Cost				\$144,560

* Note – Appraisal cost includes the following approximated values, \$1830 in appraisal cost, \$920 in appraisal review cost, \$1930 in permanent acquisitions negotiation cost, \$240 in appraisal problem analysis.



14. RAILROAD IMPACT

There are no railroad segments located within a 4-mile radius of the project. No railroad coordination is anticipated. CSX once had a rail line through Owensville, but that line was abandoned in 1998. No railroad facilities are located in the Town.

15. UTILITY IMPACT

There are seven (7) utilities throughout the project limits. Impacts will be assessed as the design progresses.

- Community Natural Gas (Owensville)
- Duke Energy
- Frontier
- Gibson Water, Inc.
- Insight Communications (Evansville)
- Town of Owensville – Water, Sanitary Sewer, and Lighting
- Smithville Telephone (Bartholomew County)

Efforts will be made during to avoid utility impacts where practical, however some impacts are likely. These impacts will be assessed during the design process and coordinated with the utility companies as required by INDOT and Indiana law.

16. RELATED PROJECTS

The Preventative Maintenance Overlay projects of SR 168 from SR 65 to 0.73 miles east of SR 65 (Des. 2001920) and SR 165 from 0.47 miles west of SR 65 to SR 65 (Des. 1900271) will be bundled with this project.

17. COORDINATION MEETINGS

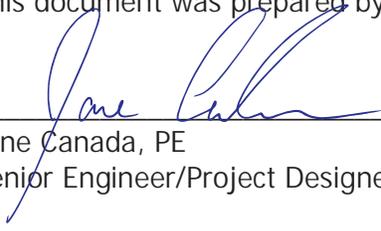
The kick-off meeting for this project as well as Des. 2001920 and Des. 1900271 was held via Teams on March 8, 2022. Representatives from INDOT, WSP and Hanson were in attendance. Utilities and the Town of Owensville have received initial notices of the project. They will be invited to the Preliminary Field Check meeting which will be held after Stage 1 plans.

Additional coordination meetings to discuss the alternatives discussed here may be scheduled as needed.



18. CONCURRENCE

This document was prepared by:


_____ Date: 3/10/2023
Jane Canada, PE
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Reviewed by:

_____ Date:
Katrina Pinkstaff, PE
District Pavement Asset Engineer

Reviewed by:

_____ Date:
Duane Decker, PE
District Scoping Manager

Reviewed by:

_____ Date:
Khalil Dughaish, PE
Systems Asset Manager, Vincennes

Land and Water Conservation Fund (LWCF) County Property List for Indiana (Last Updated March 2022)

ProjectNumber	SubProjectCode	County	Property
1800184	1800184	Gibson	Hemmer Woods Nature Preserve
1800304	1800304G	Gibson	Hemmer Woods
1800413	1800413B	Gibson	Hemmer Woods Nature Preserve
1800606	1800606	Gibson	Hopkins Family Park

*Park names may have changed. If acquisition of publically owned land or impacts to publically owned land is anticipated, coordination with IDNR, Division of Outdoor Recreation, should occur.

Table: ACSDT5Y2022.B17001

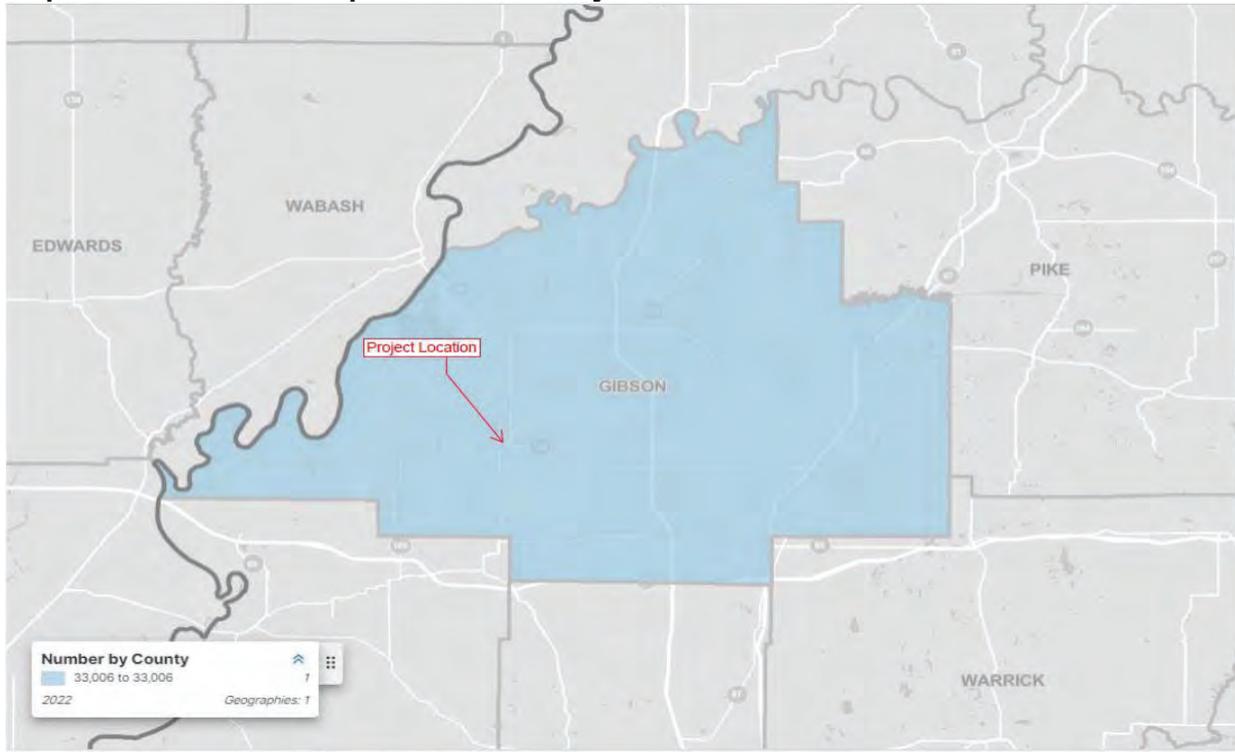
	Gibson County, Indiana	Census Tract 501; Gibson County; Indiana
Label	Estimate	Estimate
Total:	32,198	4,037
Income in the past 12 months below poverty level:	3,210	264
Male:	1,302	135
Under 5 years	89	0
5 years	11	0
6 to 11 years	157	11
12 to 14 years	164	27
15 years	31	12
16 and 17 years	22	0
18 to 24 years	192	35
25 to 34 years	99	8
35 to 44 years	180	0
45 to 54 years	134	29
55 to 64 years	91	0
65 to 74 years	94	13
75 years and over	38	0
Female:	1,908	129
Under 5 years	41	3
5 years	24	0
6 to 11 years	195	26
12 to 14 years	27	0
15 years	30	0
16 and 17 years	55	0
18 to 24 years	349	46
25 to 34 years	248	7
35 to 44 years	298	0
45 to 54 years	125	0
55 to 64 years	186	44
65 to 74 years	162	0
75 years and over	168	3
Income in the past 12 months at or above poverty level:	28,988	3,773
Male:	15,003	1,815
Under 5 years	953	62
5 years	297	18
6 to 11 years	1,080	117
12 to 14 years	625	105
15 years	215	73
16 and 17 years	457	62
18 to 24 years	1,134	171
25 to 34 years	1,811	175
35 to 44 years	1,847	216
45 to 54 years	1,980	283
55 to 64 years	2,269	289
65 to 74 years	1,516	183
75 years and over	819	61
Female:	13,985	1,958
Under 5 years	910	112
5 years	220	22
6 to 11 years	1,262	175
12 to 14 years	345	84
15 years	141	43
16 and 17 years	465	73
18 to 24 years	842	62
25 to 34 years	1,677	295
35 to 44 years	1,606	184
45 to 54 years	1,863	292
55 to 64 years	2,070	382
65 to 74 years	1,536	139
75 years and over	1,048	95

Note: this analysis was performed for this project prior to the issuance of recent federal Executive Orders (EO) from January 2025, including EO 14154, EO 14148, and EO 14173. As such, this analysis is included for transparency but is no longer applicable to the impacts analysis for federal projects, and this impact was not considered in the federal decision.

Table: ACSDT5Y2022.B03002

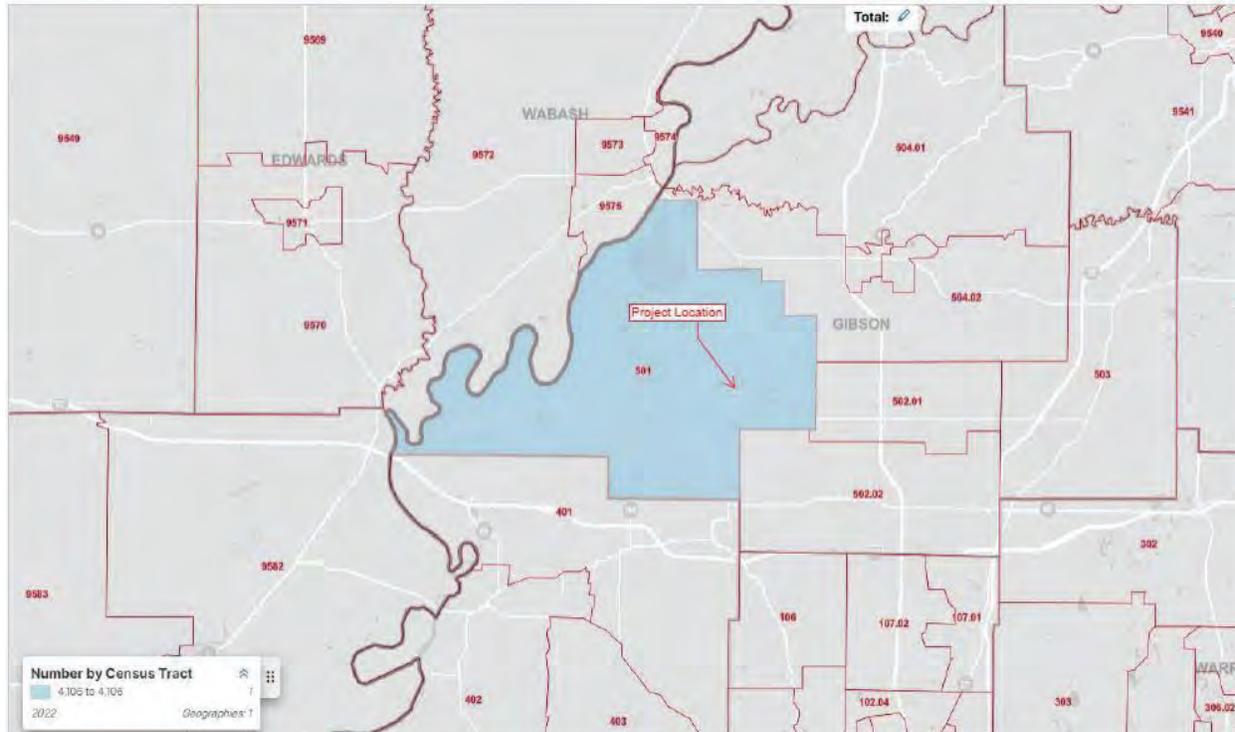
	Gibson County, Indiana	Census Tract 501; Gibson County; Indiana
Label	Estimate	Estimate
Total:	33,006	4,106
Not Hispanic or Latino:	32,357	4,104
White alone	30,005	3,972
Black or African American alone	587	15
American Indian and Alaska Native alone	6	0
Asian alone	159	9
Native Hawaiian and Other Pacific Islander alone	190	0
Some other race alone	276	0
Two or more races:	1,134	108
Two races including Some other race	318	19
Two races excluding Some other race, and three or more races	816	89
Hispanic or Latino:	649	2
White alone	181	2
Black or African American alone	3	0
American Indian and Alaska Native alone	1	0
Asian alone	0	0
Native Hawaiian and Other Pacific Islander alone	0	0
Some other race alone	390	0
Two or more races:	74	0
Two races including Some other race	59	0
Two races excluding Some other race, and three or more races	15	0

Map 1: COC Location Map – Gibson County



Source: US Census Bureau Maps, accessed February 28, 2024

Map 2: AC-1 Location Map – Tract 501, Gibson County



Source: US Census Bureau Maps, accessed February 28, 2024

Census Table	Census Table Line Item	COC	AC-1	Notes
		Gibson County	Census Tract 501, Gibson County	
Low-Income				
B17001	Pop, for whom Poverty Status Determined: Total	32,198	4,037	
B17001	Pop, for whom Poverty Status Determined: Income past 12 mos below poverty level	3,210	264	
	<i>% Low-Income</i>	10	7	
	<i>125 % COC</i>	12	8	
	<i>Potential Low-Income EJ Impact?</i>		No	Is the AC greater than 50%?
			No	Is the AC 125% higher than the COC?
Minority				
B03002	Total Population: Total	33,006	4,106	
B03002	Total Population - Not Hispanic or Latino: White Alone	30,005	3,972	
	<i>Number Non-White/Minority</i>	3,001	134	
	<i>% Non-White/Minority</i>	9	3	
	<i>125 % COC</i>	11	4	
	<i>Potential Minority EJ Impact?</i>		No	Is the AC greater than 50%?
			No	Is the AC 125% higher than the COC?