NPS Form 10-900 **United States Department of the Interior** National Park Service

National Register of Historic Places Registration Form

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in National Register Bulletin, *How to Complete the National Register of Historic Places Registration Form.* If any item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions.

1. Name of Property

Historic name: <u>Houck Covered Bridge</u> Other names/site number: <u>Hamrick Covered Bridge</u> Name of related multiple property listing: <u>N/A</u> (Enter "N/A" if property is not part of a multiple property listing

2. Location

 Street & number: County Road 550 South over Big Walnut Creek.

 City or town: Greencastle State: IN County: Putnam

 Not For Publication:

 Vicinity:

 x

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, as amended,

I hereby certify that this <u>x</u> nomination _____ request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60.

In my opinion, the property $\underline{\mathbf{x}}$ meets _____ does not meet the National Register Criteria. I recommend that this property be considered significant at the following level(s) of significance:

_____national _____statewide _____klocal Applicable National Register Criteria:

 $\underline{\mathbf{x}}\mathbf{A}$ $\underline{\mathbf{B}}$ $\underline{\mathbf{x}}\mathbf{C}$ $\underline{\mathbf{D}}$

Signature of certifying official/Title:

Date

Indiana DNR-Division of Historic Preservation and Archaeology

State or Federal agency/bureau or Tribal Government

In my opinion, the property meets	does not meet the National Register criteria.
Signature of commenting official:	Date
Title :	State or Federal agency/bureau or Tribal Government

4. National Park Service Certification

I hereby certify that this property is:

- ____ entered in the National Register
- ____ determined eligible for the National Register
- ____ determined not eligible for the National Register
- ____ removed from the National Register
- ____ other (explain:) ______

Signature of the Keeper

Date of Action

5. Classification

Ownership of Property

(Check as many boxes as Private:	s apply.)
Public – Local	x
Public – State	
Public – Federal	

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Houck Covered Bridge Name of Property Putnam County, IN County and State

Category	of Propert	y
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(Check only one box.)

Building(s	
District	
Site	
Structure	X
Object	

Number of Resources within Property

(Do not include previously	listed resources in the count)
Contributing	Noncontributing

<u>0</u>	8	<u>0</u>	buildings
<u>0</u>		<u>0</u>	sites
<u>1</u>		<u>0</u>	structures
<u>0</u>		<u>0</u>	objects
<u>1</u>		<u>0</u>	Total

Number of contributing resources previously listed in the National Register <u>0</u>

6. Function or Use Historic Functions (Enter categories from instructions.)

TRANSPORTATION: road-related

Current Functions (Enter categories from instructions.)

TRANSPORTATION: pedestrian-related

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Houck Covered Bridge Name of Property Putnam County, IN County and State

7. Description

Architectural Classification

(Enter categories from instructions.)

OTHER: Covered Howe truss

Materials: (enter	categories from instructions.)
foundation:	STONE: Limestone
walls:	WOOD: Weatherboard

roof: METAL other:

Narrative Description

(Describe the historic and current physical appearance and condition of the property. Describe contributing and noncontributing resources if applicable. Begin with **a summary paragraph** that briefly describes the general characteristics of the property, such as its location, type, style, method of construction, setting, size, and significant features. Indicate whether the property has historic integrity.)

Summary Paragraph

The Houck Covered Bridge, built in 1880 in Washington Township, Putnam County, is 210 feet long. The double-span Howe truss is supported by cut limestone abutments and center pier. The bridge has board-and-batten siding and features a metal roof. The bridge is on the former alignment of County Road 550 South, which was realigned north of the bridge in 2014. The bridge was restored shortly after and is open to pedestrian traffic only.

Narrative Description

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The Houck Covered Bridge (photo 01) was once an important part of Putnam County's early transportation network. The bridge has a 210 feet double-span Howe truss (photos 03-04) that rests on cut limestone abutments and center pier (photo 10). The bridge is approximately 20' wide and 15' tall from the deck to the ridge. The bridge is positioned in an east/west alignment over Big Walnut Creek where it once carried Putnam County Road 550 South until the road was rerouted north of the bridge (the new bridge is seen under the old bridge in photo 10). The general terrain around the bridge is flat agricultural land and a wide, wooded creek bank. Modern wood guardrails are installed to each side of the road in front of the portals. The road approaches to the bridge are asphalt. The stone abutments and tapered center pier, composed of eight-to-ten courses of cut stone, are nearly 13 feet tall (photos 09-10).

The heavy oak timber frame is composed of sawn lumber (photos 03, 04, 09). Ten panels of heavy oak timber X-bracing connect the trusses below the bridge deck and overhead in each span. Pairs of iron rods that allow for tightening are placed between each panel (seen in photo 05). Wide floor boards composing the bridge deck run perpendicular with the flow of traffic. Wood runners, parallel with the flow of traffic, create a wide lane on top the deck boards. A wood rail is attached to the braces in the walls about two feet above the deck. The bridge's sides are covered with boards and narrow battens, painted red (photos 01, 10). The top of the walls are left open for ventilation. Two openings are centered in each span on each side of the bridge. The openings on the south side feature pent roofs covered with metal and supported by wood braces. Each end wall that forms the portal for the bridge has a gabled wall with overhang (photos 02, 07). The end walls are covered with vertical plank siding including the inside, finished wall of the portal. Rafters and spaced boards form the understructure of the roof on which the metal roof is installed; this is from the 21st century rehabilitation.

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Putnam County, IN County and State

8. Statement of Significance

Applicable National Register Criteria

(Mark "x" in one or more boxes for the criteria qualifying the property for National Register listing.)

- A. Property is associated with events that have made a significant contribution to the broad patterns of our history.
- B. Property is associated with the lives of persons significant in our past.
- C. Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.
 - D. Property has yielded, or is likely to yield, information important in prehistory or history.

Criteria Considerations

(Mark "x" in all the boxes that apply.)

- A. Owned by a religious institution or used for religious purposes
- B. Removed from its original location
- C. A birthplace or grave
- D. A cemetery
- E. A reconstructed building, object, or structure
- F. A commemorative property
- G. Less than 50 years old or achieving significance within the past 50 years

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Houck Covered Bridge

Name of Property Areas of Significance (Enter categories from instructions.) <u>ENGINEERING</u> <u>TRANSPORTATION</u>

Period of Significance 1880-1932

Significant Dates

Significant Person (last name, first name)

(Complete only if Criterion B is marked above.)

Cultural Affiliation

Architect/Builder (last name, first name)

Massillon Bridge Company

Putnam County, IN County and State

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Period of Significance (justification)

The period of significance begins when the covered bridge was constructed in 1880. An improved route between Greencastle and Manhattan was proposed in 1932 which ran through Hamrick Station, a point about a mile east of the Houck Covered Bridge. This likely lessened traffic by 1940, therefore 1932 ends the period of significance. Furthermore, the bridge was bypassed for vehicular traffic in 2014.

Criteria Considerations (explanation, if necessary)

Statement of Significance Summary Paragraph (Provide a summary paragraph that includes level of significance, applicable criteria, justification for the period of significance, and any applicable criteria considerations.)

The Houck Covered Bridge, 1880, is a fine example of a Howe truss bridge and is one of nine covered bridges extant in Putnam County. The Houck Covered Bridge is eligible for the National Register of Historic Places based on two criteria. Criterion A is applicable under transportation as an area of significance. The bridge, which created an important crossing over Big Walnut Creek in Washington Township, embodies the importance bridges served to the early development of transportation in the county. Criterion C is applicable with engineering as an area of significance. The bridge represents the development of the Howe truss in wood form prior to the use of steel or concrete for bridge construction. The relative rarity of surviving examples of covered bridges further establishes the significance of the Houck Covered Bridge.

Narrative Statement of Significance (Provide at least **one** paragraph for each area of significance.)

ENGINEERING & TRANSPORTATION

The Houck Covered Bridge's superstructure is an example of the Howe truss, a series of vertical and cross-members that function together and are partially held in tension by metal rods (photos 03-06). The Howe Truss was invented by William H. Howe, born in 1803, who was a millwright by occupation and patented the truss in 1840. The incorporation of iron bars and turnbuckles allowed tension to be regulated in the bridge and hold the top and bottom cords together. Other all-wood bridges encountered separation from the main cords, but the introduction of the iron assemblies resolved this problem. Howe patented a second truss system in 1846 as he continued to fine-tune his trademark invention. Howe's truss went on to be a popular choice for all-steel bridge construction for railroads that carried a great deal more weight than the forerunning wood bridges. The wood X-brace members are in compression and the iron tie rods form the equalizing tension.

Putnam County, IN County and State

The oldest extant covered bridge in Indiana is thought to be the Ramp Creek Bridge that crosses Raccoon Creek at the entrance to Brown County State Park. The Burr arch bridge was built between 1836 and 1838 in Putnam County and moved to the park in 1932. This was one of two dual-lane bridges thought to be the first covered bridges constructed in Putnam County with public funds. The bridges were located on the New Albany-Crawfordsville Turnpike which is modern-day U.S. 231. The Ramp Creek Bridge spanned Ramp Creek near Fincastle near the Putnam-Montgomery County Line while the other bridge spanned Big Raccoon Creek near the small village of Raccoon.¹ There are estimated to have been 31 covered bridges constructed in Putnam the last one was built over Little Walnut Creek.² While generally thought of as a mid-19th century method for bridge construction, Putnam County Commissioners continued to commission covered bridges into the first two decades of the 20th century. Today, the county retains nine of its historic covered bridges dating from 1880 to 1922.

These are the following:

Cornstalk Covered Bridge (1917), Burr arch truss by J. A. Britton Pine Bluff Covered Bridge (1886), Howe truss by J. A. Britton Rolling Stone Covered Bridge (1915), Burr arch truss by J. A. Britton Baker's Camp Covered Bridge (1901), Burr arch truss by J. J. Daniels Edna Collins Covered Bridge (1922), Burr arch truss by Charles Hendrix Dunbar Covered Bridge (1880), Burr arch truss by J. J. Daniels Oakalla Covered Bridge (1898), Burr arch truss by J. J. Daniels Houck Covered Bridge (1880), Howe truss by Massillon Bridge Company Dick Huffman Covered Bridge (1880), Howe truss by E. Anderson & Sons

Houck Covered Bridge was one of very few crossings over Big Walnut Creek in Washington Township during the 19th century. The bridge, located at what was known as Hutchinson Ford, is also referred to as the Hamrick Bridge for Hamrick Station, one mile east of the bridge.³ Hamrick Station was located at the crossing of the Terre Haute & Indianapolis Railroad Vandalia Line with a road leading between Greencastle and Manhattan. County Road 550 South, on which the bridge was located, intersects the route at Hamrick Station where a post office, railroad station, and schoolhouse were located by 1879.

The nearest crossing over Big Walnut Creek was southwest of Houck Covered Bridge between Reelsville and Pleasant Garden, both in Washington Township. This crossing was therefore vital in regional connectivity. Additional roadways and a crossing were proposed southwest of the bridge in the 1879 plat map of Washington Township, but do not appear to have been constructed. In a state highway map of 1932, a county road was proposed for improvement between Greencastle and Manhattan on the National Road (U.S. 40). The road, modern-day

¹ Romine, pg. 5

² Romine, pg. 6

³ Romine, pg. 28

Houck Covered Bridge

Putnam County, IN

Name of Property County and State County Road 375 West, never became part of the state highway system, but was improved by 1940. This likely lessened traffic on 550 South, crossing Big Walnut Creek at the Houck Covered Bridge. With the improved road, access to Reelsville could easily be made on U.S. 40 west from Manhattan. The Houck Covered Bridge was bypassed to the north with a new alignment of the county road in 2014.

The names associated with the bridge figure prominently in Washington Township as landholders in the area of the crossing. The 1879 plat map of Washington Township show P. (Phillip) Hutcheson and D. (David) Houck as landowners on the north and south sides of the county road leading to the crossing, respectively. David Houck was the son of pioneer settlers in Putnam County who moved to Washington Township and purchased 400 acres of land during the 1860s-1870s. He resided near the bridge when it was constructed in 1880 prior to moving to Greencastle in 1892.⁴ Phillip Hutcheson moved onto the farm he owned in Washington Township by 1840 and continued to live there into the 1910s.⁵ Prior to the construction of the bridge, the ford took on the name of Hutchingson, the adjacent landowner. Houck Covered Bridge was constructed by the Massillon Bridge Company of Massillon, Ohio. The company was one of the leading bridge builders in the Midwest with a significant number of contracts in Indiana, Illinois, and Ohio.

Prior to 1855, most bridges in Indiana were either privately built by landowners or were constructed by private companies who may have required the payment of tolls. The state legislature authorized county governments to construct or financially assist with the construction of bridges in 1855. By 1870, county governments had the sole responsibility for constructing bridges, which is essentially still in place today. Crossing waterways up to this point was done either by fords or ferries. Eventually, open wood structures were built, then later, contractors built wood bridges on stone abutments. Stone arched bridges were being introduced at the same time.

Indiana's wood bridge builders often favored the Burr arch truss which combined king post trusses with a stiffening double wood arch. J. J. Daniels, active in Parke County, and the Kennedy Brothers, active in Rush County, both favored Burr arch trusses. The majority of surviving wood truss bridges in Indiana are Burr arch designs. The Howe Truss concept is more determinate in that specific members act in either compression or tension, while for the Burr arch, the arches have a role that is difficult to determine, even today. Both truss types offered viable solutions to spanning Indiana's waterways before iron or concrete became the most sought after solutions.

⁴ Weik, pg. 511

⁵ Weik, pg. 513

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Indiana has the third highest number of covered bridges in the nation. Between 1820 and 1922, it was estimated that 600 covered bridges were constructed of various truss patterns. By 1977, 102 were extant, which dwindled to 98 extant covered bridges by the early 1990s. The first covered bridge in Indiana was constructed around 1820 at Mooresville (now Floyd's Knob); several more followed through the late 1830s. Several covered bridges were constructed during this early time across the National Road (Richmond to Terre Haute) and then the Michigan Road (Madison to Michigan City). A litany of internal infrastructure improvements during the 1830s was brought to a halt during financial woes the state faced in the 1840s.

Developmental History/Additional historic context information

9. Major Bibliographical References

Bibliography (Cite the books, articles, and other sources used in preparing this form.)

Allen, Richard S. Covered Bridges of the Middle West. Bonanza Books, New York: 1970

Atlas of Putnam County, Indiana. J. H. Beers & Co. Publishers, Chicago: 1879.

Black, Archibald. The Story of Bridges. McGraw-Hill Book Co., New York: 1936.

Boykin, Linda L. *The Wooden Age of Indiana's Covered Bridges*, Butler University Thesis, 1986.

Gould, George E. <u>Indiana Covered Bridges Thru the Years</u>. Indiana Covered Bridge Society, Indianapolis: 1977.

Indiana State Highway Maps: 1919, 1926, 1932, 1940.

Ketcham, Bryan. <u>Covered Bridges on the Byways of Indiana</u>. Oxford Printing Co., Oxford, Ohio: 1949.

Reed, Robert. Indiana's Covered Bridges. Arcadia Publishing, Chicago: 2004.

Romine, Malcolm S. The Covered Bridges of Putnam County, Indiana. Mitchell Fleming Printing, Knightstown, IN: 2021.

Weik, Jesse W. <u>Weik's History of Putnam County, Indiana</u>. B. F. Bowen & Co., Indianapolis: 1910.

Previous documentation on file (NPS):

- _____ preliminary determination of individual listing (36 CFR 67) has been requested
- _____ previously listed in the National Register
- _____previously determined eligible by the National Register
- _____designated a National Historic Landmark
- _____ recorded by Historic American Buildings Survey #_____
- recorded by Historic American Engineering Record #_____
- recorded by Historic American Landscape Survey #_____

Houck Covered Bridge

Name of Property Primary location of additional data:

_____ State Historic Preservation Office

- _____ Other State agency
- _____ Federal agency
- Local government
- _____ University
- Other
 - Name of repository:

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Historic Resources Survey Number (if assigned): HB-2016, 133-530-45010

10. Geographical Data

Acreage of Property Less than one acre

Use the UTM system

UTM References

Datum (indicated on USGS map):

NAD 1927 or	NAD 1983	
1. Zone:	Easting:	Northing:
2. Zone:	Easting:	Northing:
3. Zone:	Easting:	Northing:
4. Zone:	Easting :	Northing:

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Verbal Boundary Description (Describe the boundaries of the property.)

The south and north boundaries are lines parallel to and 10 feet south and north of the sides of the bridge and extend along the former right-of-way for County Road 550 South which is approximately 40 feet wide. Similarly, the east and west boundaries are lines parallel to and 10 feet east and west of the edge of the portals. Nothing in this boundary description should be construed as intent to include adjacent private property.

Boundary Justification (Explain why the boundaries were selected.)

The boundary described includes the outer extents of the covered bridge, its abutments, all parts of the wooden bridge, and the portion of County Road 550 South's former alignment that features approaches to the bridge.

11. Form Prepared By

name/title:	Kurt West Garner		
organization:	Putnam County Heritage Preservation Society, Inc.		
street & number:	12954 6 th Road		
city or town:	Plymouth	state: IN	zip code: 46563
e-mail:	kwgarner@kwgarner	.com	
telephone:	574-780-1423		
date:	February 1, 2023		

Additional Documentation

Submit the following items with the completed form:

- Maps: A USGS map or equivalent (7.5 or 15 minute series) indicating the property's location.
- Sketch map for historic districts and properties having large acreage or numerous resources. Key all photographs to this map.
- Additional items: (Check with the SHPO, TPO, or FPO for any additional items.)

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Putnam County, IN County and State

Photographs

Submit clear and descriptive photographs. The size of each image must be 3000x2000 at 300 ppi (pixels per inch) or larger. Key all photographs to the sketch map. Each photograph must be numbered and that number must correspond to the photograph number on the photo log. For simplicity, the name of the photographer, photo date, etc. may be listed once on the photograph log and doesn't need to be labeled on every photograph.

Photo Log

Name of Property:	Houck Covered Bridge		
City or Vicinity:	Greencastle		
County:	Putnam	State:	Indiana
Photographer:	Kurt West Garner		
Date Photographed:	July 18, 2022		

Description of Photograph(s) and number, include description of view indicating direction of camera: Looking southwest at bridge from new alignment of county road

1 of 10.

Description of Photograph(s) and number, include description of view indicating direction of camera: Looking west at east portal

2 of 10.

Description of Photograph(s) and number, include description of view indicating direction of camera: Looking west through bridge from east end

3 of 10.

Description of Photograph(s) and number, include description of view indicating direction of camera: Looking northwest inside bridge

4 of 10.

Description of Photograph(s) and number, include description of view indicating direction of camera: Looking south out of opening inside bridge

5 of 10.

Houck Covered Bridge

Putnam County, IN

Name of Property Description of Photograph(s) and number, include description of view indicating direction of camera: Looking west inside bridge toward west portal

6 of 10.

Description of Photograph(s) and number, include description of view indicating direction of camera: Looking southeast at bridge's west portal

7 of 10.

Description of Photograph(s) and number, include description of view indicating direction of camera: Looking southeast at bridge from near new county road alignment

8 of 10.

Description of Photograph(s) and number, include description of view indicating direction of camera: Looking east at underside of bridge from west creek bank

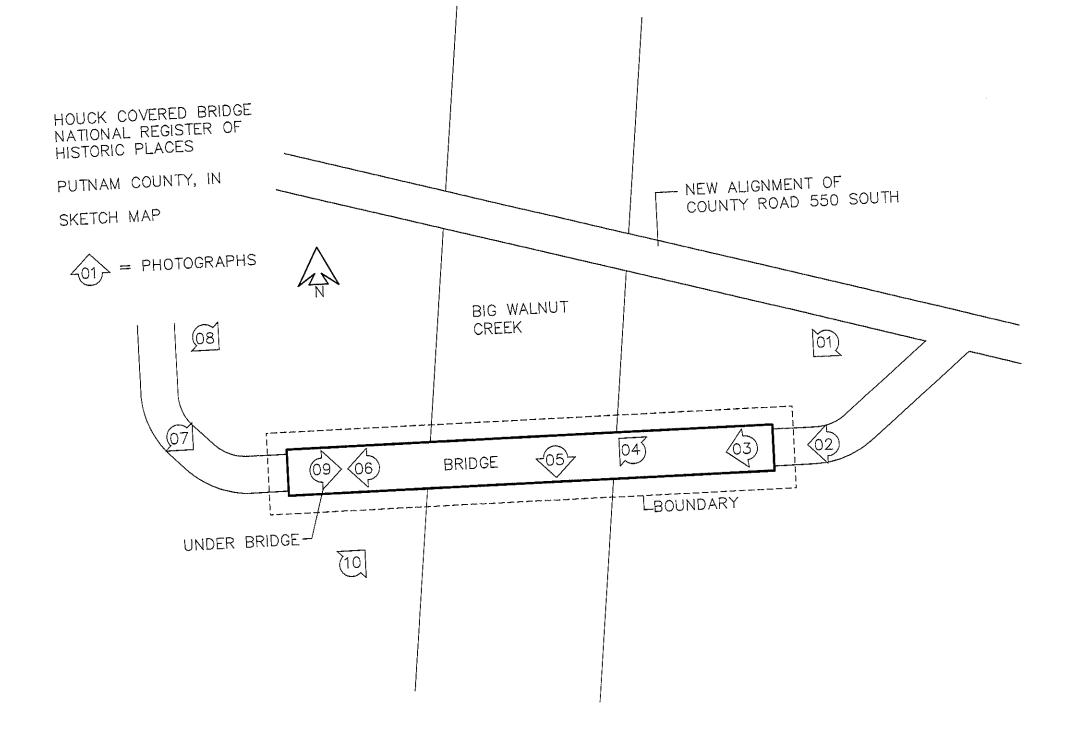
9 of 10.

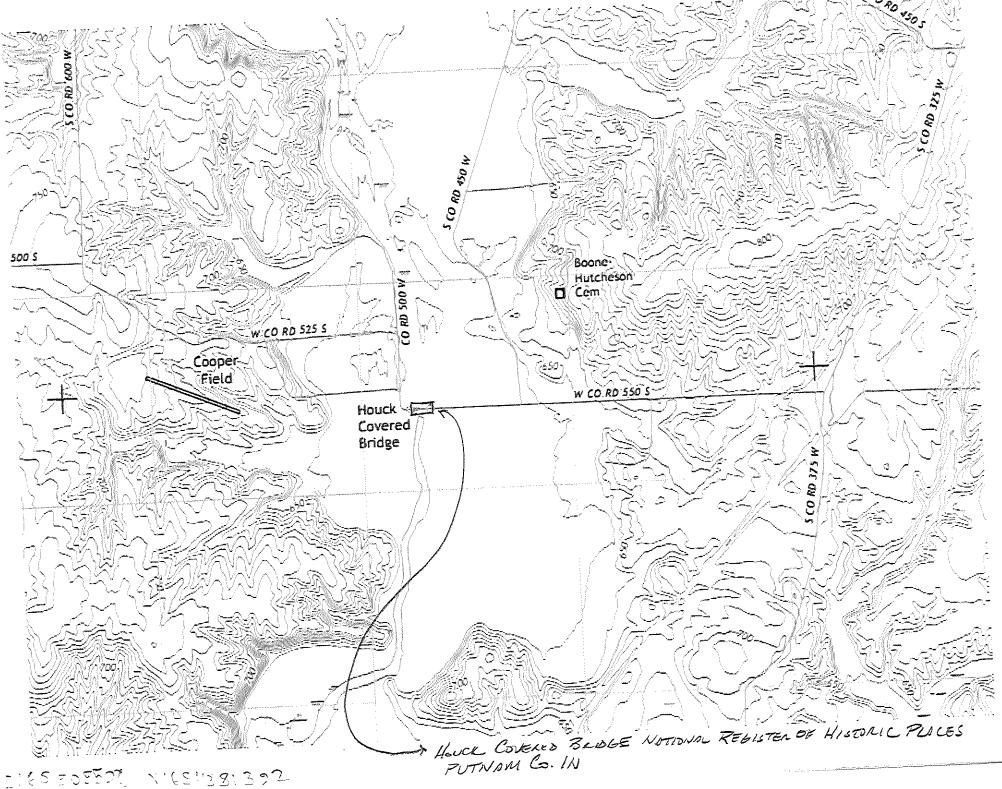
Description of Photograph(s) and number, include description of view indicating direction of camera: Looking northeast at bridge from west creek bank

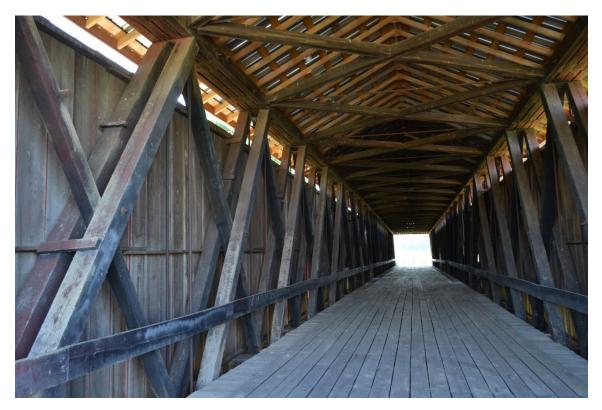
10 of 10.

Estimated Burden Statement: Public reporting burden for this form is estimated to average 100 hours per response including time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding this burden estimate or any aspect of this form to the Office of Planning and Performance Management. U.S. Dept. of the Interior, 1849 C. Street, NW, Washington, DC.

Paperwork Reduction Act Statement: This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties, and to amend existing listings. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C.460 et seq.).







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IN_PutnamCounty_HouckCoveredBridge_0007



IN_PutnamCounty_HouckCoveredBridge_0009



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