

Indiana Department of Transportation

County Boone

Route I-65 from SR 32 to SR 47

Des. No. 1802967

**FHWA-Indiana Environmental Document
CATEGORICAL EXCLUSION / ENVIRONMENTAL ASSESSMENT FORM
GENERAL PROJECT INFORMATION**

Road No./County:	Interstate 65 (I-65)/ Boone County
Designation Number:	Road Des. No. 1802967; Bridge Des. Nos. 1902059 and 1902060
Project Description/Termini:	I-65 Added Travel Lanes from 0.82 mile north of State Road (SR) 32 to 0.60 mile north of SR 47

After completing this form, I conclude that this project qualifies for the following type of Categorical Exclusion (FHWA must review/approve if Level 4 CE):

<input type="checkbox"/>	Categorical Exclusion, Level 2 – The proposed action meets the criteria for Categorical Exclusion Manual Level 2 - table 1, CE Level Thresholds. Required Signatories: ESM (Environmental Scoping Manager)
<input type="checkbox"/>	Categorical Exclusion, Level 3 – The proposed action meets the criteria for Categorical Exclusion Manual Level 3 - table 1, CE Level Thresholds. Required Signatories: ESM, ES (Environmental Services Division)
<input checked="" type="checkbox"/>	Categorical Exclusion, Level 4 – The proposed action meets the criteria for Categorical Exclusion Manual Level 4 - table 1, CE Level Thresholds. Required Signatories: ESM, ES, FHWA
<input type="checkbox"/>	Environmental Assessment (EA) – EAs require a separate FONSI. Additional research and documentation is necessary to determine the effects on the environment. Required Signatories: ES, FHWA

Note: For documents prepared by or for Environmental Services Division, it is not necessary for the ESM of the district in which the project is located to release for public involvement or sign for approval.

Approval _____
 ESM Signature _____ Date _____ ES Signature _____ Date _____

 FHWA Signature _____ Date _____

Release for Public Involvement

N/A _____ REB _____ 2-28-2020
 ESM Initials _____ Date _____ ES Initials _____ Date _____

Certification of Public Involvement _____
 Office of Public Involvement _____ Date _____

Note: Do not approve until after Section 106 public involvement and all other environmental requirements have been satisfied.

INDOT ES/District Env.
 Reviewer Signature: _____ Date: _____

Name and Organization of CE/EA Preparer: Monica Del Real & Briana Hope, American Structurepoint Inc.

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Part I - PUBLIC INVOLVEMENT

Every Federal action requires some level of public involvement, providing for early and continuous opportunities throughout the project development process. **The level of public involvement should be commensurate with the proposed action.**

Does the project have a historic bridge processed under the Historic Bridges PA*?	Yes	No
	<input type="checkbox"/>	<input checked="" type="checkbox"/>
If No, then:		
Opportunity for a Public Hearing Required?	<input checked="" type="checkbox"/>	<input type="checkbox"/>

*A public hearing is required for all historic bridges processed under the Historic Bridges Programmatic Agreement between INDOT, FHWA, SHPO, and the ACHP.

Discuss what public involvement activities (legal notices, letters to affected property owners and residents (i.e. notice of entry), meetings, special purpose meetings, newspaper articles, etc.) have occurred for this project.

Remarks: Notice of Entry letters were mailed to potentially affected property owners near the project area on April 2, 2019 notifying them about the project and that individuals responsible for land surveying and field activities may be seen in the area. A sample copy of the Notice of Entry letter is included in Appendix G, G-1.

To meet the public involvement requirements of Section 106, a legal notice of FHWA's finding of "No Historic Properties Affected" was published in *The Indianapolis Star* on December 21, 2019 and in the *Lebanon Reporter* on December 24, 2019 offering the public an opportunity to submit comment pursuant to 36 CFR 800.2(d), 800.3(e), and 800.6(a)(4). The public comment period closed 30 days later on January 24, 2020. The text of the public notice and the affidavit of publication appear in Appendix D, D-58 to D-61. On January 22, 2020 the State Historic Preservation Officer (SHPO) concurred with the Indiana Department of Transportation's (INDOT) finding of "No Historic Properties Affected." See Appendix D, D-56 to D-57 for reference. No other comments were received.

The project will meet the minimum requirements described in the current *INDOT Public Involvement Manual* which requires the project sponsor to offer the public an opportunity to submit comment and/or request a public hearing. Therefore, a legal notice will appear in a local publication contingent upon the release of this document for public involvement. This document will be revised after the public involvement requirements are fulfilled.

Public Controversy on Environmental Grounds

Will the project involve substantial controversy concerning community and/or natural resource impacts? Yes No

Remarks: At this time, there is no substantial public controversy concerning impacts to the community or to natural resources.

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Part II - General Project Identification, Description, and Design Information

Sponsor of the Project: INDOT INDOT District: Crawfordsville
Local Name of the Facility: I-65

Funding Source (mark all that apply): Federal State Local Other*

*If other is selected, please identify the funding source: _____

PURPOSE AND NEED:

Describe the transportation problem that the project will address. The solution to the traffic problem should NOT be discussed in this section. (Refer to the CE Manual, Section IV.B.2. Purpose and Need)

Need

The need for this project is based upon the 2033 forecasted traffic and decreasing level of service (LOS) within the project area.

LOS is a scale (A through F) which classifies operating conditions of roads. According to INDOT standards, a LOS of A, B, or C indicates a roadway is operating acceptably. The INDOT *Project Intent Report for I-65 from SR 32 to SR 47*, dated April 2017, showed that the stretch of I-65 between US 52 and Lafayette Avenue, referred to as Inside US 52 Urban, was anticipated to operate at an unacceptable LOS E by the year 2033 (Appendix J, J-11 to J-14).

Purpose

The purpose of this project is to maintain an acceptable LOS (LOS C or better) along I-65 between SR 32 and SR 47.

PROJECT DESCRIPTION (PREFERRED ALTERNATIVE):

County: Boone Municipality: Lebanon

Limits of Proposed Work: I-65 from 0.82 mile north of SR 32 to 0.60 mile north of SR 47

Total Work Length: 5.7 Mile(s) Total Work Area: 146 Acre(s)

Is an Interchange Modification Study / Interchange Justification Study (IMS/IJS) required?
If yes, when did the FHWA grant a conditional approval for this project?

Yes ¹	No
<input checked="" type="checkbox"/>	<input type="checkbox"/>
Date: February 19, 2020	

¹If an IMS or IJS is required; a copy of the approved CE/EA document must be submitted to the FHWA with a request for final approval of the IMS/IJS.

In the remarks box below, describe existing conditions, provide in detail the scope of work for the project, including the preferred alternative. Include a discussion of logical termini. Discuss any major issues for the project and how the project will improve safety or roadway deficiencies if these are issues.

This is page 3 of 46 Project name: I-65 Added Travel Lanes from SR 32 to SR 47 Date: February 28, 2020

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Location

The project is located in Center and Washington Townships, Boone County, Indiana, beginning approximately 0.82 mile north of SR 32, extending north and terminating approximately 0.60 mile north of SR 47. The project area is more specifically located on the Thorntown, Hazelrigg, and Lebanon United States Geological Survey (USGS) 7.5 Minute Quadrangle Maps in Sections 3, 10, 15, 14, 23, 26, and 35, Township 19 North, Range 1 West and Section 34, Township 20 North, Range 1 West. The total project length is approximately 5.7 miles. Activities related to the proposed project will occur along I-65 and the I-65 to Lafayette Avenue exit ramp in Boone County. Various maps and aerial photographs can be referenced in Appendix B, B-1 to B-5.

Existing Conditions

This section of I-65 is currently a four lane *Interstate*. The existing typical roadway section consists of four 12-foot wide travel lanes (two northbound, two southbound) bordered by 10-foot wide paved outside shoulders and 4-foot wide paved inside shoulders. An approximately 50-foot-wide grassed median separates the northbound and southbound lanes. Roadside ditches collect storm water runoff along the corridor from sheet flow, underdrains, and cross culverts. Existing right-of-way (ROW) is generally 240 to 260 feet wide along I-65. I-65 has a posted speed limit of 70 miles per hour (mph) for passenger cars, and 65 mph for heavy trucks. The surrounding land use is primarily agricultural, with some residential and commercial properties concentrated near the southern extent of the project area.

There is one existing interchange at SR 47 and two partial interchanges at Lafayette Avenue and US 52. There are three bridges carrying roadways over I-65 in the project area: the I-65 ramp to US 52, CR 300 N, and SR 47. There are five bridge crossings carrying I-65 in the project area: Prairie Creek (three separate crossings), Lafayette Avenue exit ramp, and Spring Creek. The existing bridges are identified with Appendix B, B-4 to B-5 and the table below:

Bridge No.	Description	Bridge Type	Bridge Out-to-Out Coping Width
I65-140-10081 BNBL and I65-140-10082 BSBL	I-65 over Prairie Creek/Farm Heritage Trail	Concrete continuous tee beam bridges	62.3-foot (each)
I65-141-04117D	I-65 northbound over I-65 to Lafayette Avenue Exit Ramp	Concrete continuous bridge	42.5-foot
I65-141-03143C	I-65 over Prairie Creek	Concrete arch bridge	232.1-foot
(52)I65-141-05570 C	I-65 to US 52 exit ramp over I-65	Steel continuous girder bridge	28-foot
I65-142-05571 BNBL and I65-142-05571 BSBL	I-65 over Prairie Creek	Continuous, R.C. girder bridges	42.5-foot (each)
I65-142-05572	CR 300 N over I-65	Steel continuous girder bridge	35-foot
I65-145-05573 BNBL and I65-145-05573 BSBL	I-65 over Spring Creek	Concrete continuous slab bridges	60-foot (each)
047-06-05574	SR 47 over I-65	Steel continuous girder bridge	48.7-foot

The existing I-65/Lafayette Avenue partial interchange utilizes a southbound left-side exit ramp to Lafayette Avenue [INDOT Bridge I65-141-04117D]. No access is provided to Lafayette Avenue from the northbound lanes.

The existing I-65/US 52 partial interchange utilizes a northbound right-side exit ramp to US 52. The exit ramp spans I-65 [INDOT Bridge I65-141-05570 C]. No access is provided to US 52 from the southbound lanes.

According to Indiana's 2013-2035 Future Transportation Needs Report "Keeping Indiana Moving" (<http://www.in.gov>)

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[/indot/files/LRP_FutureNeedsReport_041513.pdf](#)), I-65 is a statewide mobility corridor. Statewide mobility corridors are meant to provide mobility across the state, providing safe, high-speed connections for long-distance trips between the metropolitan areas of Indiana and those of surrounding states. INDOT has a strategic goal to directly connect metropolitan areas of 25,000 in population or greater. Other stretches of I-65 throughout the state have already been expanded to three travel lanes as deemed necessary, including the stretch of I-65 located directly south of this proposed project. In addition, the INDOT *Project Intent Report for I-65 from SR 32 to SR 47*, dated April 2017, showed that the portion of I-65 between US 52 and Lafayette Avenue was anticipated to operate at an unacceptable LOS E by the year 2033, and therefore this portion of I-65 between SR 32 and SR 47 has been identified for expansion to three travel lanes (Appendix J, J-11 to J-14).

Preferred Alternative

The project will be completed in phases. Phase I of the project will consist of improvements associated with mainline I-65. These improvements consist of the addition of travel lanes (one in each direction) along I-65, bridge improvements and widening at the Prairie Creek crossing located north of US 52 (INDOT Bridges I65-142-05571 BNBL and I65-142-05571 BSBL), removal of the I-65 bridge over Lafayette Avenue exit ramp, closure of the I-65/Lafayette Avenue partial interchange, replacement of existing cross culverts, and the addition of stormwater detention. Phase II of the project will include the reconfiguration of the I-65/Lafayette Avenue partial interchange. Phasing of the project is required due to the utilization of a Better Utilizing Investments to Leverage Development (BUILD) grant and associated time-limitations. BUILD grants provide opportunities for the US Department of Transportation to invest in road, rail, transit, and port projects that promise to achieve national objectives. The INDOT applied for a BUILD grant in July 2018 and was awarded a grant in November 2018.

The reconfiguration of the I-65/Lafayette Avenue partial interchange is due to the widening of I-65 to the median. The left-hand exit can no longer be accommodated and will be removed as part of Phase I. Phase II of the project will be constructed as concurrently as possible with Phase I to minimize closure time of the Lafayette Avenue exit. The schedule of Phase I, as dictated by the funding associated with the BUILD grant, does not allow adequate time for acquisition of ROW required to construct a new right-side exit ramp to Lafayette Avenue. For this reason, INDOT will fund Phase II of the project separately; with construction ideally beginning prior to completion of Phase I. Phase II will be completed under a different Des. No., which will be assigned once funding is secured. An additional information (AI) document will be completed once a Des. No. is assigned and the design and timeline of Phase II progresses.

Phase I:

Phase I of the project includes the addition of travel lanes along I-65 (one northbound and one southbound) within the roadway median and full depth pavement replacement of the existing travel lanes and shoulders including new underdrains and subgrade treatment. The typical section of I-65 will include six 12-foot wide travel lanes (three in each direction), bordered by 12-foot wide paved outside shoulders and 12-foot wide paved inside shoulders. A 45-inch concrete median barrier will be installed to separate direction of travel and provide protection between the added travel lanes. No work is proposed associated with the I-65/US 52 partial interchange or SR 47 interchange. All proposed improvements associated with Phase I will occur within existing ROW.

Due to the widening of I-65 to the median, the I-65 to Lafayette Avenue left-hand exit movement (I-65/Lafayette Avenue partial interchange) can no longer be accommodated and will be removed as part of Phase I. Due to the elimination of the Lafayette Avenue exit ramp, wayfinding signage will be installed to help drivers navigate toward Lafayette Avenue. This will include modifications to existing signs and/or installing new signs along I-65, in addition to new signage along the local roadway network. INDOT Bridge I65-141-04117, which currently carries the northbound lanes of I-65 over the Lafayette Avenue exit ramp, will be removed. The northbound lanes of I-65 will be lowered to match the elevation of the existing southbound lanes and shifted west, a maximum of 70 feet, into the median to be built off-line to aid in maintenance of traffic (MOT) considerations.

The single span concrete arch bridge over Prairie Creek (I65-141-03143C) south of US 52 is currently wide enough to accommodate the proposed typical roadway section of six 12-foot wide travel lanes (three northbound, three southbound), bordered by 12-foot wide paved outside shoulders and 12-foot wide paved inside shoulders, and concrete median barrier. No improvements are proposed to this bridge as part of Phase I.

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The twin bridges carrying I-65 over Prairie Creek (I65-142-05571 BNBL and I65-142-05571 BSBL), located north of US 52, will be replaced (Des. No. 1902059 and 1902060) with single span hybrid bulb tee beam bridges, both with a 110-foot span and 62-foot, 4.5-inch out-to-out coping width. The typical section of I-65 across the bridges will include three 12-foot wide travel lanes in each direction, bordered by 12-foot wide paved outside shoulders and 12-foot wide paved inside shoulders. The existing bridge piers will be cut and removed at the stream bottom. The pier stems will be removed, but the footing will stay in place. In order to remove the pier stems, soil will be excavated around the stems. The holes will be backfilled. Riprap will be placed along the stream banks for erosion control purposes.

The existing twin bridges carrying I-65 over Spring Creek (I65-145-05573 BNBL, I65-145-05573 BSBL) were previously widened to accommodate the future additional of a third travel lane in each direction. The existing typical roadway section consists of four 12-foot wide travel lanes (two northbound, two southbound) bordered by 22-foot wide paved outside shoulders and 10-foot wide paved inside shoulders. The bridges will be restriped to accommodate the added travel lanes with the proposed typical roadway section of six 12-foot wide travel lanes (three northbound, three southbound), bordered by a 10-foot wide paved outside shoulder and 10-foot wide paved inside shoulder.

The three bridges carrying roadways over I-65 in the project area: I-65 ramp to US 52, CR 300 N, and SR 47 have sufficient length to accommodate the addition of the 12-foot wide travel lane in each direction passing under the bridges. No improvements are proposed to these bridges.

The I-65 over Prairie Creek/Farm Heritage Trail bridges already carry three travel lanes of I-65 in each direction. No improvements are proposed. However, incidental construction, such as way finding signage updates and striping for MOT lane shifts will be required on the I-65 over Prairie Creek/Farm Heritage Trail bridges. Further details regarding existing and proposed bridge conditions are provided in the Design Criteria for Bridges section of this document.

Stormwater detention improvements are required due to the addition of the travel lanes resulting in increased paved, impervious surface area. Pipes within the median of I-65 and ditches along the outside lanes of the roadway will be utilized to increase the capacity of stormwater detention in the project area. All stormwater improvements will occur within the existing right-of-way.

The proposed project is not modifying the locations where storm water currently crosses under the roadway and existing drainage patterns will be maintained. Fourteen cross culverts are currently located within the project area. Ten of the culverts will be replaced and four of the culverts will remain in place. Further details regarding existing and proposed culverts are provided in the Design Criteria for Bridges section of this document.

Phase II:

Phase II of the project includes the reconfiguration of the I-65/Lafayette Avenue partial interchange. A right-hand flyover ramp will be constructed to allow motorists to diverge from southbound I-65 on a 290-foot long, 774-foot radius curve and cross over the I-65 southbound and northbound lanes on a 640-foot long, 314-foot radius curve. The ramp will terminate at Lafayette Avenue. The exit ramp tie-in will occur north of Kise Estates apartment complex to provide separation between the ramp terminal and the complex driveway. The roadway typical section of the right-hand flyover ramp to Lafayette Avenue consists of a single 16-foot wide travel lane with an 8-foot wide paved outside shoulder and 4-foot wide paved inside shoulder. An auxiliary lane between the US 52 on-ramp and the Lafayette Avenue off-ramp will be added to provide motorist a continuous lane between the two points. In addition, the single span concrete arch bridge over Prairie Creek (I65-141-03143C) will be widened to accommodate the auxiliary lane. The reconfiguration of the I-65/Lafayette Avenue partial interchange will require the acquisition of approximately 4.5 acres of new permanent ROW. As stated above, an AI will be completed once a Des. No. is assigned and the design and timeline of Phase II progresses.

Logical Termini:

The logical termini of the proposed project and phases were selected to provide independent utility and fulfill the purpose and need of the project. Phase I of the project includes the addition of travel lanes along I-65 mainline, the replacement of the Prairie Creek Bridges (I65-142-05571 BNBL and I65-142-05571 BSBL), and the removal of the current I-65 to Lafayette Avenue exit ramp. This phase begins at the existing terminus of a six-lane section of I-65 to the south, and continues north to the next major interchange at SR 47. The proposed project area extends approximately 0.60 mile north

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of SR 47 in order to tie-in to the existing lane configuration. This phase provides the added capacity and enhanced mobility expressed in the purpose and need. Phase II of the project includes reconfiguration of the I-65/Lafayette Avenue partial interchange. This phase will replace the existing interchange and maintain access to Lafayette Avenue.

MOT for the project will be completed in phases to maintain traffic along I-65. For more detail, refer to the MOT section of this document.

The preferred alternative described above meets the purpose and need of the project, to maintain an acceptable LOS along I-65 between SR 32 and SR 47. The INDOT *Project Intent Report for I-65 from SR 32 to SR 47* showed that I-65 between SR 32 and SR 47 would operate at a LOS C or better during the year 2033 with the proposed condition of three lanes in each direction (Appendix J, J-11 to J-14).

For reference to the road plans for I-65 mainline improvements and the reconfigured I-65/Lafayette Avenue partial interchange, see Appendix B, B-23 to B-51. For reference to the bridge plans for Prairie Creek Bridges (I65-142-05571 BNBL and I65-142-05571 BSBL), see Appendix B, B-52 to B-58.

OTHER ALTERNATIVES CONSIDERED:

Describe all discarded alternatives, including the Do-Nothing Alternative and an explanation of why each discarded alternative was not selected.

Do Nothing Alternative

This alternative involves not constructing added travel lanes to the I-65 median. This alternative would fail to address traffic congestion and connectivity enhancements described above. While this alternative eliminates costs and impacts to natural and cultural resources, it does not address the purpose and need. Therefore, this alternative was discarded.

Outside Travel Lanes Alternative

This alternative involves the widening of I-65 to the outside of the roadway edge of pavement through the addition of a travel lane, instead of to the median. This alternative meets the purpose and need; however, this alternative is not consistent with the existing six-lane section at the southern terminus of the project. Previous widening associated with the section of I-65 located south of the proposed project area was widened to the median. In addition, this alternative would result in an increased impact to natural resources, including wetlands, as compared to the preferred alternative. The majority of the wetlands delineated along the corridor are associated with the roadside ditches running along the outside of the travel lanes, which would be impacted if the roadway was widened to the outside. Anticipated wetland impacts for this alternative are approximately 6.5 acres. In addition to the widening of the existing mainline bridges, widening to the outside of the existing travel lanes would also require the reconstruction and lengthening of the three bridges carrying roadways over I-65, ultimately resulting in increased project costs and need to acquire additional permanent ROW. Therefore, this alternative was discarded.

I-65/Lafayette Avenue Partial Interchange Reconfiguration Alternatives

An Alternative Evaluation Report (Appendix J, J-15 to J-17) titled *Interstate Access Request at I-65 & US 52/Lafayette Ave, I-65 Added Travel Lanes From SR 32 to SR 47, Boone County, Indiana, Contract R-41847, Des# 1802967 (December 10, 2019)* was prepared by American Structurepoint. The report evaluated two additional alternatives beyond the preferred.

Loop Ramp - A loop ramp would require retaining walls and a new bridge that would span the lower portion of the ramp, northbound I-65, and southbound I-65. The loop ramp alternative would have a larger footprint when compared to the preferred alternative and encroaches on the floodway of Prairie Creek. Additionally, more pavement and a significant amount of fill material would be required for the loop ramp alternative. The loop ramp alternative would result in greater natural resource and ROW impacts and overall increased project costs. Therefore, this alternative was discarded.

Underpass - An underpass would require a ramp to cross under mainline I-65. The underpass alignment would be similar to the preferred alternative; therefore, both alternatives are comparable in regards to the interchange footprint. However, an underpass would require new bridges to be constructed along both the northbound and southbound lanes of I-65. The proposed profile of the underpass would maintain the approximate elevation of the current left-hand Lafayette Avenue

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exit, requiring significant elevation gain at the I-65 mainline approaches prior to crossing the underpass. Construction costs associated with the underpass are significantly higher than that of the preferred alternative and the loop ramp due to the large amount of earthwork required to bring the mainline of I-65 to an elevation that would meet vertical clearance requirements and the construction of new I-65 bridges. Additionally, this alternative would complicate drainage due to the creation of a low point under the I-65 bridges. The underpass alternative would result in a significant increase in cost due to earthwork and the addition of two new mainline I-65 bridges, create drainage challenges, and further complicate MOT resulting in additional inconveniences to the traveling public. Therefore, this alternative was discarded.

The Do Nothing Alternative is not feasible, prudent or practicable because (Mark all that apply):

- It would not correct existing capacity deficiencies;
- It would not correct existing safety hazards;
- It would not correct the existing roadway geometric deficiencies;
- It would not correct existing deteriorated conditions and maintenance problems; or
- It would result in serious impacts to the motoring public and general welfare of the economy.
- Other (Describe)

ROADWAY CHARACTER: I-65 Mainline

Functional Classification: Interstate
 Current ADT: 51,740 VPD (2023) Design Year ADT: 55,730 VPD (2043)
 Design Hour Volume (DHV): 4,460 Truck Percentage (%) 29
 Designed Speed (mph): 70 Legal Speed (mph): 65 to 70

	Existing	Proposed
Number of Lanes:	4	6
Type of Lanes:	Travel	Travel
Pavement Width:	38 ft.	56 ft.
Shoulder Width:	4 to 10 ft.	12 ft.
Median Width:	50 ft.	16 ft.
Sidewalk Width:	N/A ft.	N/A ft.

Setting: Urban Suburban Rural
 Topography: Level Rolling Hilly

If the proposed action has multiple roadways, this section should be filled out for each roadway.

ROADWAY CHARACTER: I-65 to Lafayette Avenue Exit Ramp

Functional Classification: Interstate
 Current ADT: 1,010 VPD (2023) Design Year ADT: 1,330 VPD (2043)
 Design Hour Volume (DHV): 170 Truck Percentage (%) 4
 Designed Speed (mph): 25 Legal Speed (mph): 25

	Existing	Proposed
Number of Lanes:	1	1
Type of Lanes:	Travel	Travel
Pavement Width:	16 ft.	16 ft.
Shoulder Width:	N/A ft.	4 to 8 ft.
Median Width:	N/A ft.	N/A ft.
Sidewalk Width:	N/A ft.	N/A ft.

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Setting: Urban Suburban Rural
 Topography: Level Rolling Hilly

If the proposed action has multiple roadways, this section should be filled out for each roadway.

DESIGN CRITERIA FOR BRIDGES: I-65 over Prairie Creek/Trail

Structure/NBI Number(s): NBI 037211/037212 Sufficiency Rating: 93.5; June 17, 2019 INDOT Bridge Inspection Report
 (Rating, Source of Information)

	Existing	Proposed
Bridge Type:	Concrete continuous tee beam	Concrete continuous tee beam
Number of Spans:	2	2
Weight Restrictions:	N/A ton	N/A ton
Height Restrictions:	N/A ft.	N/A ft.
Curb to Curb Width:	59.5 ft.	59.5 ft.
Outside to Outside Width:	62.3 ft.	62.3 ft.
Shoulder Width:	12 ft.	12 ft.
Length of Channel Work:		0 ft.

Describe bridges and structures; provide specific location information for small structures.

Remarks: I-65 over Prairie Creek/Farm Heritage Trail bridges (I65-140-10081 BNBL and I65-140-10082 BSBL): The existing bridges are two span concrete continuous tee beam bridges with 62.3-foot out-to-out coping widths. INDOT Bridges I65-140-10081 BNBL and I65-140-10082 BSBL were constructed in 2014 and have had no reconstructions. The bridges are not listed on the Indiana Historic Bridge Inventory (IHBI) as eligible for inclusion in the NRHP.

No replacement or rehabilitation of these structures is proposed as part of this project. Only incidental construction, such as way finding signage updates and striping for MOT lane shifts, will be required on the I-65 over Prairie Creek/Farm Heritage Trail bridges.

Will the structure be rehabilitated or replaced as part of the project? Yes No N/A
If the proposed action has multiple bridges or small structures, this section should be filled out for each structure.

DESIGN CRITERIA FOR BRIDGES: I-65 over Prairie Creek south of US 52

Structure/NBI Number(s): NBI 037230 Sufficiency Rating: 91.9; June 17, 2019 INDOT Bridge Inspection Report
 (Rating, Source of Information)

	Existing	Proposed
Bridge Type:	Concrete arch bridge	Concrete arch bridge
Number of Spans:	1	1
Weight Restrictions:	N/A ton	N/A ton
Height Restrictions:	N/A ft.	N/A ft.
Curb to Curb Width:	221.7 ft.	221.7 ft.
Outside to Outside Width:	232.1 ft.	232.1 ft.
Shoulder Width:	12 ft.	12 ft.
Length of Channel Work:		0 ft.

Describe bridges and structures; provide specific location information for small structures.

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Remarks: The existing I-65 over Prairie Creek Bridge south of US 52 (I65-141-03143C) is a single span concrete arch bridge with a 232.1-foot out-to-out coping width. INDOT Bridge I65-141-03143C was constructed in 1948 and reconstructed in 1970. The bridge is not listed on the IHBI as eligible for inclusion in the NRHP.

No replacement or rehabilitation of this structure is proposed as part of Phase I of this project. As part of Phase II the bridge will be widened to accommodate a new auxiliary lane connecting the US 52 on ramp and proposed Lafayette Avenue right-hand exit ramp. As stated above, an AI will be completed once a Des. No. is assigned and the design and timeline of Phase II progresses.

Will the structure be rehabilitated or replaced as part of the project? Yes No N/A
If the proposed action has multiple bridges or small structures, this section should be filled out for each structure.

DESIGN CRITERIA FOR BRIDGE: I-65 over Lafayette Avenue Exit Ramp

Structure/NBI Number(s): NBI 37220 Sufficiency Rating: 89.9, June 17, 2019 Bridge Inspection Report
 (Rating, Source of Information)

	Existing		Proposed	
Bridge Type:	Concrete Continuous		N/A	
Number of Spans:	3		N/A	
Weight Restrictions:	N/A	ton	N/A	ton
Height Restrictions:	20	ft.	N/A	ft.
Curb to Curb Width:	39.6	ft.	N/A	ft.
Outside to Outside Width:	42.5	ft.	N/A	ft.
Shoulder Width:	4 to 8	ft.	N/A	ft.
Length of Channel Work:			N/A	ft.

Describe bridges and structures; provide specific location information for small structures.

Remarks: The existing I-65 northbound bridge over the exit ramp to Lafayette Avenue (INDOT Bridge I65-141-04117D) is a three span, continuous, concrete bridge with a 42.5 foot out-to-out coping width. INDOT Bridge I65-141-04117 was constructed in 1958 and reconstructed in 1996. The bridge is not listed on the IHBI as eligible for inclusion in the NRHP.

INDOT Bridge I65-141-04117 will be removed as part of Phase I of the project. The northbound lanes of I-65 will be lowered to match the elevation of the existing southbound lanes and shifted west, a maximum of 70 feet, into the median to be built off-line to aid in MOT considerations.

Will the structure be rehabilitated or replaced as part of the project? Yes No N/A
If the proposed action has multiple bridges or small structures, this section should be filled out for each structure.

DESIGN CRITERIA FOR BRIDGE: I-65 to Lafayette Avenue Flyover Ramp

Structure/NBI Number(s): N/A Sufficiency Rating: N/A
 (Rating, Source of Information)

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 County Boone

 Route I-65 from SR 32 to SR 47

 Des. No. 1802967
Existing
Proposed

Bridge Type:	N/A		Precast concrete hybrid bulb tee beam
Number of Spans:	N/A		2
Weight Restrictions:	N/A	ton	N/A
Height Restrictions:	N/A	ft.	16.5
Curb to Curb Width:	N/A	ft.	31.33
Outside to Outside Width:	N/A	ft.	34.33
Shoulder Width:	N/A	ft.	5.75 to 9.75
Length of Channel Work:			0

Describe bridges and structures; provide specific location information for small structures.

Remarks: As part of Phase II a new Lafayette Avenue Flyover Ramp will be constructed and span I-65 southbound and northbound lanes. The proposed structure is a two span, precast concrete hybrid bulb tee beam bridge with a 34.33-foot out-to-out coping width. The typical section across the bridge will include a single, 16-foot wide travel lane, bordered by a 9.75-foot wide paved outside shoulder and a 5.75-foot wide paved inside shoulder. As stated above, an AI will be completed once a Des. No. is assigned and the design and timeline of Phase II progresses. Any design changes to this structure will be discussed within the AI document.

Yes No N/A

Will the structure be rehabilitated or replaced as part of the project?

If the proposed action has multiple bridges or small structures, this section should be filled out for each structure.

DESIGN CRITERIA FOR BRIDGES: I-65 to US 52 exit ramp

Structure/NBI Number(s): NBI 37240 Sufficiency Rating: 77.4; August 12, 2019 Bridge Inspection Report
 (Rating, Source of Information)

Existing
Proposed

Bridge Type:	Steel continuous girder bridge		Steel continuous girder bridge
Number of Spans:	2		2
Weight Restrictions:	N/A	ton	N/A
Height Restrictions:	16.02	ft.	16.02
Curb to Curb Width:	25	ft.	25
Outside to Outside Width:	28	ft.	28
Shoulder Width:	4 to 8	ft.	4 to 8
Length of Channel Work:			N/A

Describe bridges and structures; provide specific location information for small structures.

Remarks: The existing I-65 to US 52 exit ramp (INDOT Bridge (52)I65-141-05570 C] is a two span steel continuous girder bridge with a 28-foot out-to-out coping width. INDOT Bridge (52)I65-141-05570 C was constructed in 1970 and reconstructed in 1987. The bridge is not listed on the IHBI as eligible for inclusion in the NRHP.

No replacement or rehabilitation of this structure is proposed as part of this project.

Yes No N/A

Will the structure be rehabilitated or replaced as part of the project?

If the proposed action has multiple bridges or small structures, this section should be filled out for each structure.

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 Route I-65 from SR 32 to SR 47

 Des. No. 1802967

DESIGN CRITERIA FOR BRIDGES: I-65 over Prairie Creek north of US 52

 Structure/NBI Number(s): NBI 37250/37260 Sufficiency Rating: 92.2; June 17, 2019 Bridge Inspection Reports
 (Rating, Source of Information)

	Existing		Proposed
Bridge Type:	Continuous, R.C. girder		Hybrid bulb tee beam
Number of Spans:	3		1
Weight Restrictions:	N/A	ton	N/A
Height Restrictions:	N/A	ft.	N/A
Curb to Curb Width:	40	ft.	59.33
Outside to Outside Width:	42.5	ft.	62.38
Shoulder Width:	6 to 10	ft.	12
Length of Channel Work:			298

Describe bridges and structures; provide specific location information for small structures.

Remarks: The existing I-65 over Prairie Creek twin bridges north of US 52 (INDOT Bridges I65-142-05571 BNBL and I65-142-05571 BSBL) are three span, concrete continuous, girder bridges. The current spans are 38-feet, 48-feet, and 38-feet, with an out-to-out coping width of 42.5-feet. The existing structures were constructed in 1970 and reconstructed in 1983. The bridges are not listed on the IHBI as eligible for inclusion in the NRHP.

The proposed structures are twin single span hybrid bulb tee beam bridges, both with a 110-foot span and 62-foot, 4.5-inch out-to-out coping width. The typical section of I-65 across the bridges will include three 12-foot wide travel lanes in each direction, bordered by 12-foot wide paved outside shoulders and 12-foot wide paved inside shoulders. The existing bridge piers will be cut and removed at the stream bottom. The pier stems will be removed, but the footing will stay in place. In order to remove the pier stems, soil will be excavated around the stems. The holes will be backfilled. Riprap will be placed along the stream banks for erosion control purposes.

Will the structure be rehabilitated or replaced as part of the project? Yes No N/A

If the proposed action has multiple bridges or small structures, this section should be filled out for each structure.

DESIGN CRITERIA FOR BRIDGES: CR 300 N over I-65

 Structure/NBI Number(s): NBI 037270 Sufficiency Rating: 96.1; June 17, 2019 INDOT Bridge Inspection Report
 (Rating, Source of Information)

	Existing		Proposed
Bridge Type:	Steel continuous girder bridge		Steel continuous girder bridge
Number of Spans:	2		2
Weight Restrictions:	N/A	ton	N/A
Height Restrictions:	16	ft.	16
Curb to Curb Width:	32	ft.	32
Outside to Outside Width:	35	ft.	35
Shoulder Width:	6.5	ft.	6.5
Length of Channel Work:			N/A

Describe bridges and structures; provide specific location information for small structures.

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County Boone Route I-65 from SR 32 to SR 47 Des. No. 1802967

Remarks: The existing CR 300 N over I-65 bridge (I65-142-05572) is a two span steel continuous girder bridge with a 35-foot out-to-out coping width. INDOT Bridge I65-142-05572 was constructed in 1970 and has had no reconstructions. The bridge is not listed on the IHBI as eligible for inclusion in the NRHP.

No replacement or rehabilitation of this structure is proposed as part of the project.

Yes
 No
 N/A

Will the structure be rehabilitated or replaced as part of the project?
 If the proposed action has multiple bridges or small structures, this section should be filled out for each structure.

DESIGN CRITERIA FOR BRIDGES: I-65 over Spring Creek

Structure/NBI Number(s): NBI 037280 Sufficiency Rating: 96.1; June 12, 2019 INDOT Bridge Inspection Report
 (Rating, Source of Information)

Existing **Proposed**

Bridge Type:	Concrete continuous slab bridges	Concrete continuous slab bridges
Number of Spans:	3	3
Weight Restrictions:	N/A	N/A
Height Restrictions:	N/A	N/A
Curb to Curb Width:	57.1	57.1
Outside to Outside Width:	60	60
Shoulder Width:	10 to 22	10
Length of Channel Work:		0

Describe bridges and structures; provide specific location information for small structures.

Remarks: The existing I-65 twin bridges over Spring Creek (I65-145-05573 BNBL and I65-145-05573 BSBL) are three span concrete continuous slab bridges with 60-foot out-to-out coping widths. INDOT Bridges I65-145-05573 BNLB and I65-145-05573 BSLB were constructed in 1970 and reconstructed in 2002. The bridges are not listed on the IHBI as eligible for inclusion in the NRHP.

The bridges will be restriped to be consistent with the proposed typical roadway section of six 12-foot wide travel lanes (three northbound, three southbound), bordered by a 10-foot wide paved outside shoulder and 10-foot wide paved inside shoulder.

Yes
 No
 N/A

Will the structure be rehabilitated or replaced as part of the project?
 If the proposed action has multiple bridges or small structures, this section should be filled out for each structure.

DESIGN CRITERIA FOR BRIDGE: SR 47 over I-65

Structure/NBI Number(s): NBI 017700 Sufficiency Rating: 97.4; February 12, 2019 INDOT Bridge Inspection Report
 (Rating, Source of Information)

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 Des. No. 1802967
Existing
Proposed

Bridge Type:	Steel continuous girder bridge		Steel continuous girder bridge	
Number of Spans:	2		2	
Weight Restrictions:	N/A	ton	N/A	ton
Height Restrictions:	15.93	ft.	15.93	ft.
Curb to Curb Width:	46.7	ft.	46.7	ft.
Outside to Outside Width:	48.7	ft.	48.7	ft.
Shoulder Width:	12	ft.	12	ft.
Length of Channel Work:			N/A	ft.

Describe bridges and structures; provide specific location information for small structures.

Remarks: The existing SR 47 bridge over I-65 (INDOT Bridge 047-06-05574 is a two span, steel continuous girder bridge with a 47-foot out-to-out coping width. INDOT Bridge 047-06-05574 was constructed in 1970 and reconstructed in 1985. The bridge is not listed on the IHBI as eligible for inclusion in the NRHP.

No replacement or rehabilitation of this structure is proposed as part of the project.

Yes No N/A

Will the structure be rehabilitated or replaced as part of the project?

If the proposed action has multiple bridges or small structures, this section should be filled out for each structure.

DESIGN CRITERIA FOR BRIDGE: I-65 Cross Culverts

Existing Structure Number	Existing Structure Station*	Existing Structure** (Size & Material)	Existing Structure Length (feet)	Proposed Structure Number	Proposed Structure Station*	Proposed Structure* (Size & Material)	Proposed Structure Length (feet)
12a	151+89	18" RCP	62	12	152+05	12'x3' RCB	180
12b	152+18	18" RCP	74				
13	171+38	30" PL	115	13	171+38	36" RCP	115
				13	171+38	42" CMP	115
14	225+99	72" x 48" CMP	227	14	225+99	12'x5' RCB	227
15	280+29	48" CMP	212	15	280+29	3.40' PL	212
16	305+30	78" x 52" PL	261	16	305+30	16'x7' RCB	261
17	338+89	58" x 28" CMP	188	17	338+89	5'x3' RCB	188
18	349+39	50" x 30" CMP	204	18	349+39	14' x 3' RCB	204
19	382+31	48" x 30" PL	272	19	382+31	19'x3' RCB	272
20	393+29	27" PL	139	20	393+69	27" PL	139
21	403+31	36" CMP	185	21	403+31	36" CMP	185
22	403+99	36" CMP	215	22	403+39	36" CMP	215
23	436+29	31" x 18" PL	211	23	436+29	12'x3' RCB	211
24	445+30	32" x 21" PL	242	24	445+30	9'x3' RCB	242

*Project plan sheets reflecting structure locations can be found in Appendix B, B-29 to B-49. The Station numbers refer to measurements along the centerline of I-65 and are in the unit of feet.

**Reinforced Concrete Pipe (RCP), Plastic Lined (PL), Corrugated Metal Pipe (CMP), Reinforced Box Culvert (RCB)

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MAINTENANCE OF TRAFFIC (MOT) DURING CONSTRUCTION:
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	Yes	No
Is a temporary bridge proposed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is a temporary roadway proposed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Will the project involve the use of a detour or require a ramp closure? (describe in remarks)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Provisions will be made for access by local traffic and so posted.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Provisions will be made for through-traffic dependent businesses.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Provisions will be made to accommodate any local special events or festivals.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Will the proposed MOT substantially change the environmental consequences of the action?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there substantial controversy associated with the proposed method for MOT?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Remarks:

The MOT for the project will require a Traffic Management Plan (TMP) due to the significance of the project, including the closure of an exit ramp. The TMP is currently under development and anticipated to be completed prior to the public hearing for this project. The project will follow the 2017 INDOT Interstate Highways Congestion Policy (IHCP).

Phase I: I-65 Added Travel Lanes
 It is anticipated that construction will be completed in phases, generally maintaining two travel lanes in each direction along I-65. To accomplish this, the outside shoulder will be closed and strengthened so that travel lanes can be shifted to the outside to allow for construction in the median. Short-term lane closures may be required for the shoulder work. At least one lane of traffic will remain open in each direction. Closures will occur at nighttime only and anticipated to last 3 to 4 weeks.

In the event that the US 52 entrance ramp to I-65 southbound does not provide adequate spacing in advance of the construction zone, consideration will be given to closing the US 52 entrance ramp and temporarily detouring US 52 traffic to the SR 47 interchange approximately 4.5 miles north. This will be included in the TMP and public notified by the INDOT Crawfordsville District communication group.

As part of Phase I of the project the existing I-65 to Lafayette Avenue exit ramp will be removed. Traffic traveling southbound of I-65 to Lafayette Avenue will be detoured to the SR 32 interchange. The detour route utilizes SR 32 eastbound, Ping Drive, Main Street, and Sam Ralston Road. A capacity analysis was performed for this detour route and concluded that no improvement or intersection modifications were required in order to accommodate the added detour traffic. All major intersections along the detour route are expected to maintain an acceptable LOS. Adequate advance warning signage and lane shifts will be utilized in advance of the detour.

Phase II: I-65/Lafayette Avenue Partial Interchange Reconfiguration (Flyover Ramp)
 Construction of the partial interchange will occur on mostly new alignment. Rolling closures along I-65 are expected to allow for setting beams of the new bridge over I-65 to Lafayette Avenue. The rolling closures will follow the IHCP and be detailed within the TMP. Typically, the rolling closures occur at nighttime and include the use of police to slow traffic down to 20 mph to create a 20 minute traffic free gap to allow time to set a beam.

The closures/lane restrictions will pose a temporary inconvenience to traveling motorists (including school buses and emergency services); however, no significant delays are anticipated and all inconveniences will cease upon project completion. Delays may occur during construction but will cease with project completion.

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County Boone Route I-65 from SR 32 to SR 47 Des. No. 1802967

ESTIMATED PROJECT COST AND SCHEDULE*:
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Engineering: \$ 5,535,000 (2019) Right-of-Way: \$ 130,000 (2022) Construction: \$ 51,991,000 (2021)

Anticipated Start Date of Construction: Winter 2021

Date project incorporated into STIP January 16, 2019; STIP 2018-2021; July 2, 2019; STIP 2020-2024

** The project costs reflected in the STIP cover Phase I of the project only. Phase II does not currently have funds secured. All proposed right-of-way acquisition is within Phase II of the project. An AI will be completed once a Des. No. is assigned and the design and timeline of Phase II progresses.*

Is the project in an MPO Area? **Yes** **No**

If yes,
 Name of MPO _____

Location of Project in TIP _____

Date of incorporation by reference into the STIP _____

RIGHT OF WAY:

Land Use Impacts	Amount (acres)	
	Permanent	Temporary
Residential	0.0	0.0
Commercial	0.0	0.0
Agricultural	4.5	0.0
Forest	0.0	0.0
Wetlands	0.0	0.0
Other:	0.0	0.0
Other:	0.0	0.0
TOTAL	4.5	0.0

Describe both Permanent and Temporary right-of-way and describe their current use. Typical and Maximum right-of-way widths (existing and proposed) should also be discussed. Any advance acquisition or reacquisition, either known or suspected, and there impacts on the environmental analysis should be discussed.

Remarks: Existing ROW width along I-65 varies from approximately 240 to 260 feet wide.

The project requires approximately 4.5 acres of permanent ROW. New permanent ROW will be required for Phase II of the project, reconfiguration of the I-65/Lafayette Avenue partial interchange. New permanent ROW is required for the construction of the flyover ramp that will extend west from the existing edge of ROW into the adjacent agricultural field. Phase I of the project, mainline I-65 improvements, will not require the acquisition of new temporary or permanent ROW.

If the scope of work or permanent or temporary ROW amounts change, the INDOT Environmental Services Division (ESD) and the INDOT District Environmental Section will be contacted immediately.

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Part III – Identification and Evaluation of Impacts of the Proposed Action

SECTION A – ECOLOGICAL RESOURCES

	<u>Presence</u>	<u>Impacts</u>	
		<u>Yes</u>	<u>No</u>
Streams, Rivers, Watercourses & Jurisdictional Ditches	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Federal Wild and Scenic Rivers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
State Natural, Scenic or Recreational Rivers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Nationwide Rivers Inventory (NRI) listed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Outstanding Rivers List for Indiana	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Navigable Waterways	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Remarks: Based on a desktop review, the aerial map of the project area (Appendix B, B-4 to B-5), and the water resources map in the Red Flag Investigation (RFI) report (Appendix E, E-13 to E-14) there are 12 rivers and streams located within the 0.5 mile search radius. Based on a site visit on July 24th through 26th 2019 by American Structurepoint, Inc. there are ten streams within the project area.

A *Wetland Delineation Report* was approved on January 14, 2020 by INDOT Ecology and Waterway Permitting Office. Please refer to Appendix F, F-1 to F-102 for excerpts from the *Wetland Delineation Report*. It was determined that 10 streams (Prairie Creek, UNT 1 through UNT 6 to Prairie Creek, Spring Creek, and UNT 1 through UNT 2 to Spring Creek) totaling 7,923 linear feet (3.161 acre) are located within the investigated area. See the table below for additional information regarding the delineated resources. The U.S. Army Corps of Engineers (USACE) makes all final determinations regarding jurisdiction.

Delineated Streams						
Delineated Resource	Lat/Long	OHWM	Narrative Quality	Length in Investigated Area (linear feet)	Length of Impacts (linear feet)	Area of Impacts (acres)
Prairie Creek (Crossing 1)	40.054746 °N 86.494114 °W	25 feet wide by 2 feet deep	Average	4,446	177	0.031
Prairie Creek (Crossing 2)	40.066966 °N 86.494936 °W	20 feet wide by 1 foot deep	Average			
Prairie Creek (Crossing 3)	40.075696 °N 86.499081 °W	20 feet wide by 1.5 feet deep	Average			
UNT 1 to Prairie Creek	40.048712 °N 86.491434 °W	10 feet wide by 0.5 feet deep	Poor	483	0	0
UNT 2 to Prairie Creek	40.063742 °N 86.497270 °W	3.5 feet wide by 0.5 feet deep	Poor	99	0	0
UNT 3 to Prairie Creek	40.067163 °N 86.494634 °W	11 feet wide by 0.25 feet deep	Poor	30	0	0
UNT 4 to Prairie Creek	40.102180 °N 86.509861 °W	6 feet wide by 1.3 feet deep	Poor	1,460	328	0.009

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Delineated Resource	Lat/Long	OHWL	Narrative Quality	Length in Investigated Area (linear feet)	Length of Impacts (linear feet)	Area of Impacts (acres)
UNT 5 to Prairie Creek	40.101746 °N 86.509744 °W	5 feet wide by 0.5 feet deep	Poor	197	75	0.004
UNT 6 to Prairie Creek	40.102164 °N 86.509881 °W	2.6 feet wide by 0.4 feet deep	Poor	18	0	0
Spring Creek	40.117994 °N 86.51525 °W	26 feet wide by 2.5 feet deep	Average	1,014	0	0
UNT 1 to Spring Creek	40.122188 °N 86.515911 °W	4.1 feet wide by 0.2 feet deep	Poor	29	29	0.003
UNT 2 to Spring Creek	40.137371 °N 86.522526 °W	3.3 feet wide by 0.4 feet deep	Poor	147	0	0
Total				7,923	609	0.047

On February 13, 2020 American Structurepoint Inc. determined that no Federal, Wild and Scenic Rivers; State Natural, Scenic, and Recreational Rivers; Outstanding Rivers for Indiana; navigable waterways or National Rivers Inventory waterways are present in the project area. Therefore, no impacts are expected.

One stream, Spring Creek, is a 303d listed impaired stream. Spring Creek is listed as impaired for *Escherichia coli* (*E. coli*). Workers who are working in or near water with *E. coli* should take care to wear appropriate PPE, observe proper hygiene procedures, including regular hand washing, and limit personal exposure. This is incorporated as a firm commitment within the environmental document.

Four of the ten streams are anticipated to be permanently impacted due to the replacement of culverts and placement of riprap for the roadway within the project area. Anticipated impacts to streams total 609 linear feet (0.047 acre). All stream impacts are a result of Phase I of the project. No stream impacts are anticipated for Phase II of the project. Avoidance and minimization of impacts to jurisdictional waterways has been incorporated into the design to the maximum extent practical. This includes the use of headwalls on culverts where practical to reduce encapsulation. However, a majority of the delineated streams are located immediately adjacent to the existing roadway and therefore there are no practical alternatives which avoid impacts to the jurisdictional waterways while meeting the purpose and need of the project.

Mitigation will likely be needed and will be determined during permitting. If mitigation is needed, the INDOT is proposing to purchase credits through the Indiana Department of Natural Resources (IDNR) In-Lieu Fee program.

Early coordination letters were sent to the US Fish and Wildlife Service (USFWS), the IDNR Division of Fish and Wildlife (IDNR-DFW), and the USACE Louisville District on October 11, 2019. The USACE Louisville District did not respond to the early coordination letter.

The IDEM automated response to early coordination was received on October 11, 2019 (Appendix C, C-4 to C-10).

The USFWS responded on November 5, 2019 (Appendix C, C-31 to C-32) with measures regarding time of year restrictions within the stream channel, minimization of inchannel work, construction of new structures, use and placement of riprap, and revegetation within the riparian zone.

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The IDNR-DFW responded on November 8, 2019 (Appendix C, C-22 to C-24) with recommendations regarding stream crossing modifications and wildlife passage, bank stabilization practices, mitigation requirements for impacts to riparian habitat, minimization of inchannel work, use and placement of riprap, and timing restrictions on work in the waterways.

All applicable IDEM, USFWS, and IDNR-DFW recommendations are included in the Environmental Commitments section of this CE document.

Other Surface Waters	<u>Presence</u>	<u>Impacts</u>	
		Yes	No
Reservoirs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lakes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Farm Ponds	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Detention Basins	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Storm Water Management Facilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other: _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Remarks: Based on a desktop review, the aerial map of the project area (Appendix B, B-4 to B-5), and the water resource maps in the RFI report (Appendix E, E-13 to E-14) there are fourteen lakes located within the 0.5 mile search radius. Based on a site visit on July 24th through 26th 2019 by American Structurepoint, Inc. there are no lakes located within the project area.

A *Wetland Delineation Report* was approved on January 14, 2020 by INDOT Ecology and Waterway Permitting Office. Please refer to Appendix F, pages F-1 to F102 for the *Wetland Delineation Report*. No reservoirs, lakes, farm ponds, detention basins, or storm water management facilities were identified within the proposed project area. Therefore, no impacts are expected.

Early coordination letters were sent to the USFWS, the IDNR-DFW, and the USACE Louisville District on October 11, 2019. The USACE Louisville District did not respond to the early coordination letter.

The IDEM automated response to early coordination was received on October 11, 2019 (Appendix C, C-4 to C-10).

The USFWS responded on November 5, 2019 (Appendix C, C-31 to C-32). No specific recommendations for surface waters were included in the USFWS response.

The IDNR-DFW responded on November 8, 2019 (Appendix C, C-22 to C-24). No specific recommendations for surface waters were included in the IDNR-DFW response.

All applicable IDEM, USFWS, and IDNR-DFW recommendations are included in the Environmental Commitments section of this CE document.

Wetlands	<u>Presence</u>	<u>Impacts</u>	
		Yes	No
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Total wetland area: 7.612 acre(s) Total wetland area impacted: 4.074 acre(s)

(If a determination has not been made for non-isolated/isolated wetlands, fill in the total wetland area impacted above.)

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Wetland No.	Type	Total Size (Acres)	Impacted Acres	Comments
Wetland A-1	Palustrine Emergent	0.011	0.000	- Dominant vegetation consisted of <i>Typha angustifolia</i> , <i>Agrostis gigantea</i> , and <i>Poa pratensis</i> - Located along the northbound lanes of I-65, south of UNT 1 to Prairie Creek -Poor quality, likely water of the U.S.
Wetland A-2	Palustrine Emergent	0.089	0.000	- Dominant vegetation consisted of <i>Agrostis gigantea</i> and <i>Echinochloa crus-galli</i> - Located along the northbound lanes of I-65, north of UNT 1 to Prairie Creek -Poor quality, likely water of the U.S.
Wetland B	Palustrine Emergent	0.005	0.000	- Dominant vegetation consisted of <i>Typha angustifolia</i> - Located along the northbound lanes of I-65 south of the Farm Heritage Trail -Poor quality, likely water of the U.S.
Wetland C	Palustrine Emergent	0.003	0.000	- Dominant vegetation consisted of <i>Ulmus americana</i> , <i>Fraxinus pennsylvanica</i> , <i>Populus deltoides</i> and <i>Carex molesta</i> . Although the wetland included sapling/shrubs this was not a dominant component of the absolute cover of the wetland - Located along the northbound lanes of I-65 south of the Farm Heritage Trail -Poor quality, likely water of the U.S.
Wetland D	Palustrine Emergent	0.002	0.000	- Dominant vegetation consisted of <i>Bidens frondosa</i> - Located along the northbound lanes of I-65 south of the Farm Heritage Trail -Poor quality, likely water of the U.S.
Wetland E	Palustrine Emergent	0.018	0.000	- Dominant vegetation consisted of <i>Typha angustifolia</i> - Located along the northbound lanes of I-65 north of the Farm Heritage Trail -Poor quality, likely water of the U.S.
Wetland F	Palustrine Emergent	0.003	0.000	- Dominant vegetation consisted of <i>Acer saccharinum</i> , <i>Fraxinus pennsylvanica</i> , and <i>Typha angustifolia</i> . Although the wetland included sapling/shrubs this was not a dominant component of the absolute cover of the wetland - Located along the northbound lanes of I-65 north of the Farm Heritage Trail -Poor quality, likely water of the U.S.
Wetland G-1	Palustrine Scrub-Shrub	0.001	0.000	- Dominant vegetation consisted of <i>Juglans nigra</i> , <i>Morus Alba</i> <i>Salix nigra</i> , <i>Poa pratensis</i> , and <i>Schedonorus arundinaceus</i> - Located along the northbound lanes of I-65 south of Riley Road -Poor quality, likely water of the U.S.
Wetland G-2	Palustrine Emergent	0.041	0.000	- Dominant vegetation consisted of <i>Typha angustifolia</i> , <i>Poa pratensis</i> , and <i>Schedonorus arundinaceus</i> - Located along the northbound lanes of I-65 south of Riley Road -Poor quality, likely water of the U.S.
Wetland H	Palustrine Emergent	0.004	0.000	- Dominant vegetation consisted of <i>Juglans nigra</i> , <i>Acer saccharinum</i> , and <i>Bromus ciliates</i> - Located along the northbound lanes of I-65 north of Riley Road -Poor quality, likely water of the U.S.

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Route I-65 from SR 32 to SR 47

Des. No. 1802967

Wetland No.	Type	Total Size (Acres)	Impacted Acres	Comments
Wetland I	Palustrine Emergent	0.004	0.000	- Dominant vegetation consisted of <i>Cyperus esculentus</i> and <i>Echinochloa crus-galli</i> - Located along the northbound lanes of I-65 south of Lafayette Avenue -Poor quality, likely water of the U.S.
Wetland J	Palustrine Emergent	0.001	0.000	- Dominant vegetation consisted of <i>Persicaria pensylvanica</i> - Located along the northbound lanes of I-65 south of Lafayette Avenue -Poor quality, likely water of the U.S.
Wetland K-1	Palustrine Forested	0.013	0.013	- Dominant vegetation consisted of <i>Acer rubrum</i> , <i>Salix nigra</i> , and <i>Viburnum recognitum</i> - Located east of the northbound lanes of I-65 and south of the southbound ramp to Lafayette Avenue -Poor quality, likely water of the U.S.
Wetland K-2	Palustrine Emergent	0.047	0.047	- Dominant vegetation consisted of <i>Eleocharis palustris</i> and <i>Carex hystericina</i> - Located east of the northbound lanes of I-65 and south of the southbound ramp to Lafayette Avenue -Poor quality, likely water of the U.S.
Wetland L-1	Palustrine Forested	0.027	0.027	- Dominant vegetation consisted of <i>Acer rubrum</i> , <i>Morus alba</i> , <i>Leersia oryzoides</i> , <i>Impatiens capensis</i> , and <i>Typha angustifolia</i> - Located east of the northbound lanes of I-65 and north of the southbound ramp to Lafayette Avenue -Poor quality, likely water of the U.S.
Wetland L-2	Palustrine Emergent	0.119	0.119	- Dominant vegetation consisted of <i>Schedonorus arundinaceus</i> , <i>Juncus torreyi</i> , and <i>Typha angustifolia</i> - Located east of the northbound lanes of I-65 and north of the southbound ramp to Lafayette Avenue -Poor quality, likely water of the U.S.
Wetland M	Palustrine Emergent	0.127	0.040	- Dominant vegetation consisted of <i>Typha angustifolia</i> - Located along the northbound lanes of I-65 north of the I-65 over Prairie Creek Bridge (I65-141-03143C) -Poor quality, likely water of the U.S.
Wetland N	Palustrine Emergent	0.374	0.172	- Dominant vegetation consisted of <i>Poa pratensis</i> - Located along the northbound lanes of I-65 and northbound US 52 exit ramp -Poor quality, likely water of the U.S.
Wetland O	Palustrine Emergent	0.033	0.000	- Dominant vegetation consisted of <i>Typha angustifolia</i> - Located along the northbound lanes of I-65 north of the US 52 exit ramp -Poor quality, likely water of the U.S.
Wetland P	Palustrine Emergent	0.023	0.000	- Dominant vegetation consisted of <i>Typha angustifolia</i> , <i>Leersia oryzoides</i> , and <i>Convolvulus arvensis</i> - Located along the northbound lanes of I-65 south of CR 300 N -Poor quality, likely water of the U.S.
Wetland Q	Palustrine Emergent	0.031	0.031	- Dominant vegetation consisted of <i>Schoenoplectus tabernaemontani</i> and <i>Leersia oryzoides</i> - Located along the northbound lanes of I-65 south of CR 300 N -Poor quality, likely water of the U.S.
Wetland R	Palustrine Emergent	0.062	0.062	- Dominant vegetation consisted of <i>Typha angustifolia</i> - Located along the northbound lanes of I-65 south of CR 300 N -Poor quality, likely water of the U.S.

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Wetland No.	Type	Total Size (Acres)	Impacted Acres	Comments
Wetland S	Palustrine Emergent	0.428	0.428	- Dominant vegetation consisted of <i>Typha angustifolia</i> and <i>Eleocharis palustris</i> - Located along the northbound lanes of I-65 north of CR 300 N -Poor quality, likely water of the U.S.
Wetland T	Palustrine Emergent	0.084	0.084	- Dominant vegetation consisted of <i>Typha angustifolia</i> and <i>Leersia oryzoides</i> - Located along the northbound lanes of I-65 north of CR 300 N -Poor quality, likely water of the U.S.
Wetland U	Palustrine Emergent	0.074	0.074	- Dominant vegetation consisted of <i>Typha angustifolia</i> and <i>Carex vulpinoidea</i> - Located along the northbound lanes of I-65 north of CR 300 N -Poor quality, likely water of the U.S.
Wetland V	Palustrine Emergent	0.135	0.135	- Dominant vegetation consisted of <i>Eleocharis palustris</i> and <i>Typha angustifolia</i> - Located along the northbound lanes of I-65 north of CR 300 N -Poor quality, likely water of the U.S.
Wetland W	Palustrine Emergent	0.009	0.009	- Dominant vegetation consisted of <i>Typha angustifolia</i> and <i>Schedonorus arundinaceus</i> - Located along the northbound lanes of I-65 north of CR 300 N -Poor quality, likely water of the U.S.
Wetland X	Palustrine Emergent	0.082	0.082	- Dominant vegetation consisted of <i>Agrostis gigantea</i> and <i>Carex vulpinoidea</i> - Located along the northbound lanes of I-65 south of CR W 450 N -Poor quality, likely water of the U.S.
Wetland Y	Palustrine Scrub-Shrub	0.045	0.004	- Dominant vegetation consisted of <i>Salix interior</i> , <i>Solidago gigantea</i> , <i>Impatiens capensis</i> , and <i>Convolvulus arvensis</i> - Located along the northbound lanes of I-65 along the southern bank of UNT 4 to Prairie Creek -Poor quality, likely water of the U.S.
Wetland Z	Palustrine Emergent	0.081	0.000	- Dominant vegetation consisted of <i>Typha angustifolia</i> - Located along the southbound lanes of I-65 north of CR 300 N -Poor quality, likely water of the U.S.
Wetland AA	Palustrine Emergent	0.065	0.000	- Dominant vegetation consisted of <i>Phalaris arundinacea</i> and <i>Convolvulus arvensis</i> - Located along the northbound lanes of I-65 along the northern bank of UNT 4 to Prairie Creek -Poor quality, likely water of the U.S.
Wetland AB	Palustrine Emergent	0.336	0.336	- Dominant vegetation consisted of <i>Salix interior</i> , <i>Typha angustifolia</i> , <i>Leersia oryzoides</i> , and <i>Agrostis gigantea</i> . Although the wetland included sapling/shrubs this was not a dominant component of the absolute cover of the wetland - Located along the northbound lanes of I-65 north of CR W 450 N -Poor quality, likely water of the U.S.
Wetland AC	Palustrine Emergent	0.314	0.005	- Dominant vegetation consisted of <i>Agrostis stolonifera</i> and <i>Scirpus atrovirens</i> - Located along the northbound lanes of I-65 south of CR W 450 N -Poor quality, likely water of the U.S.

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Wetland No.	Type	Total Size (Acres)	Impacted Acres	Comments
Wetland AD	Palustrine Forested	0.204	0.000	- Dominant vegetation consisted of <i>Fraxinus pennsylvanica</i> , <i>Ulmus Americana</i> , <i>Acer negundo</i> , and <i>Lysimachia nummularia</i> , <i>Cinna latifolia</i> , and <i>Glyceria striata</i> - Located along the northbound lanes of I-65 north of Spring Creek -Average quality, likely water of the U.S.
Wetland AE	Palustrine Emergent	0.032	0.032	- Dominant vegetation consisted of <i>Agrostis gigantea</i> and <i>Typha latifolia</i> - Located along the northbound lanes of I-65 north of Spring Creek -Poor quality, likely water of the U.S.
Wetland AF	Palustrine Emergent	0.194	0.019	- Dominant vegetation consisted of <i>Typha latifolia</i> and <i>Phalaris arundinacea</i> - Located along the northbound lanes of I-65 south of SR 47 -Poor quality, likely water of the U.S.
Wetland AG	Palustrine Emergent	0.038	0.000	- Dominant vegetation consisted of <i>Agrostis gigantea</i> and <i>Schedonorus arundinaceus</i> - Located along the northbound lanes of I-65 south of SR 47 -Poor quality, likely water of the U.S.
Wetland AH	Palustrine Emergent	0.269	0.000	- Dominant vegetation consisted of <i>Carex molesta</i> , <i>Echinochloa crus-galli</i> , and <i>Cyperus esculentus</i> - Located along the northbound lanes of I-65 north of SR 47 -Poor quality, likely water of the U.S.
Wetland AI	Palustrine Emergent	0.120	0.120	- Dominant vegetation consisted of <i>Cyperus esculentus</i> and <i>Leersia oryzoides</i> - Located along the northbound lanes of I-65 south of SR 47 -Poor quality, likely water of the U.S.
Wetland AJ	Palustrine Emergent	0.008	0.008	- Dominant vegetation consisted of <i>Typha angustifolia</i> and <i>Leersia oryzoides</i> - Located along the northbound lanes of I-65 south of CR W 700 N -Poor quality, likely water of the U.S.
Wetland AK	Palustrine Emergent	0.010	0.010	- Dominant vegetation consisted of <i>Leersia oryzoides</i> - Located along the northbound lanes of I-65 south of CR W 700 N -Poor quality, likely water of the U.S.
Wetland AL	Palustrine Emergent	0.617	0.009	- Dominant vegetation consisted of <i>Populus deltoids</i> , <i>Diospyros virginiana</i> , <i>Juglans nigra</i> , <i>Solidago altissima</i> , <i>Ambrosia trifida</i> , and <i>Carex vulpinoidea</i> . Although the wetland included trees and saplings/shrubs, this was not a dominant component of the absolute cover of the wetland - Located along the northbound lanes of I-65 south of CR W 700 N -Poor quality, likely water of the U.S.
Wetland AM	Palustrine Emergent	0.014	0.000	- Dominant vegetation consisted of <i>Scirpus atrovirens</i> and <i>Cyperus esculentus</i> - Located along the I-65 median south of CR W 700 N -Poor quality, likely water of the U.S.
Wetland AN	Palustrine Forested	0.013	0.013	- Dominant vegetation consisted of <i>Tilia Americana</i> , <i>Fraxinus pennsylvanica</i> , <i>Toxicodendron radicans</i> , and <i>Menispermum canadense</i> - Located along the southbound lanes of I-65 south of SR 47 -Poor quality, likely water of the U.S.
Wetland AO	Palustrine Forested	0.083	0.083	- Dominant vegetation consisted of <i>Populus deltoides</i> and <i>Solidago gigantea</i> - Located along the southbound lanes of I-65 south of SR 47 -Poor quality, likely water of the U.S.

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Wetland No.	Type	Total Size (Acres)	Impacted Acres	Comments
Wetland AP	Palustrine Emergent	0.025	0.025	- Dominant vegetation consisted of <i>Typha angustifolia</i> - Located along the southbound lanes of I-65 south of SR 47 -Poor quality, likely water of the U.S.
Wetland AQ	Palustrine Emergent	0.266	0.266	- Dominant vegetation consisted of <i>Echinochloa crus-galli</i> , <i>Cyperus esculentus</i> , and <i>Hordeum jubatum</i> - Located along the southbound lanes of I-65 south of SR 47 -Poor quality, likely water of the U.S.
Wetland AR	Palustrine Emergent	0.066	0.000	- Dominant vegetation consisted of <i>Typha angustifolia</i> - Located along the southbound lanes of I-65 within the SR 47 interchange -Poor quality, likely water of the U.S.
Wetland AS	Palustrine Emergent	0.025	0.000	- Dominant vegetation consisted of <i>Typha angustifolia</i> - Located along the southbound lanes of I-65 within the SR 47 interchange -Poor quality, likely water of the U.S.
Wetland AT	Palustrine Emergent	0.037	0.037	- Dominant vegetation consisted of <i>Echinochloa crus-galli</i> - Located within the I-65 median, south of SR 47 -Poor quality, likely water of the U.S.
Wetland AU	Palustrine Emergent	0.487	0.240	- Dominant vegetation consisted of <i>Fraxinus pennsylvanica</i> , <i>Typha angustifolia</i> , <i>Schedonorus arundinaceus</i> , and <i>Agrostis gigantea</i> . Although the wetland included trees and saplings/shrubs, this was not a dominant component of the absolute cover of the wetland - Located along the southbound lanes of I-65 south of SR 47 -Poor quality, likely water of the U.S.
Wetland AV	Palustrine Emergent	0.261	0.261	- Dominant vegetation consisted of <i>Leersia oryzoides</i> and <i>Typha latifolia</i> - Located along the southbound lanes of I-65 south of Spring Creek -Poor quality, likely water of the U.S.
Wetland AW	Palustrine Emergent	0.009	0.009	- Dominant vegetation consisted of <i>Scirpus atrovirens</i> and <i>Leersia oryzoides</i> - Located along the southbound lanes of I-65 south of Spring Creek -Poor quality, likely water of the U.S.
Wetland AX	Palustrine Emergent	0.420	0.007	- Dominant vegetation consisted of <i>Scirpus atrovirens</i> , <i>Carex vulpinoidea</i> , and <i>Phalaris arundinacea</i> - Located along the southbound lanes of I-65 south of CR W 450 N -Poor quality, likely water of the U.S.
Wetland AY	Palustrine Emergent	0.003	0.003	- Dominant vegetation consisted of <i>Typha angustifolia</i> - Located within the I-65 median, north of CR W 450 N. -Poor quality, likely water of the U.S.
Wetland AZ	Palustrine Emergent	0.006	0.006	- Dominant vegetation consisted of <i>Hordeum jubatum</i> , <i>Agrostis gigantea</i> , and <i>Typha angustifolia</i> - Located along the I-65 median south of CR W 450 N -Poor quality, likely water of the U.S.
Wetland BA	Palustrine Emergent	0.010	0.010	- Dominant vegetation consisted of <i>Phalaris arundinacea</i> - Located along the southbound lanes of I-65 south of UNT 4 to Prairie Creek -Poor quality, likely water of the U.S.
Wetland BB	Palustrine Emergent	0.174	0.174	- Dominant vegetation consisted of <i>Leersia oryzoides</i> and <i>Phalaris arundinacea</i> - Located along the southbound lanes of I-65 south of UNT 4 to Prairie Creek -Poor quality, likely water of the U.S.

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Wetland No.	Type	Total Size (Acres)	Impacted Acres	Comments
Wetland BC	Palustrine Emergent	0.007	0.007	- Dominant vegetation consisted of <i>Panicum anceps</i> and <i>Typha angustifolia</i> - Located along the I-65 median south of UNT 4 to Prairie Creek -Poor quality, likely water of the U.S.
Wetland BD	Palustrine Emergent	0.267	0.267	- Dominant vegetation consisted of <i>Scirpus atrovirens</i> - Located along the southbound lanes of I-65 north of CR W 300 N -Poor quality, likely water of the U.S.
Wetland BE	Palustrine Emergent	0.012	0.000	- Dominant vegetation consisted of <i>Typha angustifolia</i> and <i>Cirsium discolor</i> - Located along the southbound lanes of I-65 north of Prairie Creek. -Poor quality, likely water of the U.S.
Wetland BF	Palustrine Emergent	0.133	0.133	- Dominant vegetation consisted of <i>Typha angustifolia</i> - Located along the southbound lanes of I-65 north of the US 52 exit ramp -Poor quality, likely water of the U.S.
Wetland BG	Palustrine Emergent	0.006	0.000	- Dominant vegetation consisted of <i>Phragmites australis</i> - Located along the southbound lanes of I-65 along the US 52 exit ramp -Poor quality, likely water of the U.S.
Wetland BH-1	Palustrine Forested	0.170	0.000	- Dominant vegetation consisted of <i>Salix nigra</i> , <i>Typha angustifolia</i> , <i>Poa pratensis</i> , and <i>Leersia oryzoides</i> - Located along the southbound lanes of I-65 within the US 52 interchange -Poor quality, likely water of the U.S.
Wetland BH-2	Palustrine Emergent	0.255	0.115	- Dominant vegetation consisted of <i>Typha angustifolia</i> and <i>Poa pratensis</i> - Located along the southbound lanes of I-65 within the US 52 interchange -Poor quality, likely water of the U.S.
Wetland BI	Palustrine Emergent	0.083	0.000	- Dominant vegetation consisted of <i>Scirpus atrovirens</i> and <i>Poa pratensis</i> - Located along the US 52 on ramp -Poor quality, likely water of the U.S.
Wetland BJ	Palustrine Emergent	0.134	0.134	- Dominant vegetation consisted of <i>Typha angustifolia</i> , <i>Echinochloa crus-galli</i> , and <i>Cyperus esculentus</i> - Located along the I-65 median south of the US 52 exit ramp -Poor quality, likely water of the U.S.
Wetland BK	Palustrine Emergent	0.136	0.136	- Dominant vegetation consisted of <i>Typha angustifolia</i> , <i>Leersia oryzoides</i> , <i>Juncus dudleyi</i> , and <i>Lysimachia nummularia</i> - Located along the southbound lanes of I-65 south of the US 52 on ramp -Poor quality, likely water of the U.S.
Wetland BL	Palustrine Emergent	0.015	0.015	- Dominant vegetation consisted of <i>Cyperus esculentus</i> and <i>Persicaria pennsylvanica</i> - Located along the I-65 median north of the I-65 over Prairie Creek Bridge (I65-141-03143C) -Poor quality, likely water of the U.S.
Wetland BM	Palustrine Emergent	0.038	0.038	- Dominant vegetation consisted of <i>Schoenoplectus tabernaemontani</i> - Located along the I-65 median north of the Lafayette Avenue exit ramp -Poor quality, likely water of the U.S.
Wetland BN	Palustrine Emergent	0.158	0.158	- Dominant vegetation consisted of <i>Typha angustifolia</i> - Located along the southbound lanes of I-65 south of the Lafayette Avenue exit ramp -Poor quality, likely water of the U.S.

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Wetland No.	Type	Total Size (Acres)	Impacted Acres	Comments
Wetland BO	Palustrine Emergent	0.021	0.021	- Dominant vegetation consisted of <i>Morus alba</i> , <i>Viburnum recognitum</i> , <i>Cornus sericea</i> , and <i>Eleocharis palustris</i> - Located along the I-65 median northwest of the I-65 over Lafayette Avenue Exit Bridge (I65-141-4117E) -Poor quality, likely water of the U.S.
Wetland BP	Palustrine Emergent	0.016	0.016	- Dominant vegetation consisted of <i>Eleagnus umbellata</i> and <i>Cyperus esculentus</i> - Located along the I-65 median south of the Lafayette Avenue exit ramp -Poor quality, likely water of the U.S.
Wetland BQ	Palustrine Emergent	0.010	0.010	- Dominant vegetation consisted of <i>Cyperus esculentus</i> - Located along the I-65 median south of the Lafayette Avenue exit ramp -Poor quality, likely water of the U.S.
Wetland BR	Palustrine Emergent	0.010	0.010	- Dominant vegetation consisted of <i>Typha angustifolia</i> , <i>Carex frankii</i> , and <i>Persicaria pensylvanica</i> - Located along the I-65 median south of the Lafayette Avenue exit ramp -Poor quality, likely water of the U.S.
Wetland BS	Palustrine Emergent	0.014	0.014	- Dominant vegetation consisted of <i>Hordeum jubatum</i> and <i>Typha angustifolia</i> - Located along the I-65 median south of the Lafayette Avenue exit ramp -Poor quality, likely water of the U.S.
Wetland BT	Palustrine Emergent	0.001	0.001	- Dominant vegetation consisted of <i>Echinochloa crus-galli</i> - Located along the southbound lanes of I-65 north of Dead End Road -Poor quality, likely water of the U.S.
Wetland BU	Palustrine Emergent	0.013	0.000	- Dominant vegetation consisted of <i>Echinochloa crus-galli</i> - Located along the southbound lanes of I-65 south of Dead End Road -Poor quality, likely water of the U.S.
Wetland BV	Palustrine Emergent	0.002	0.000	- Dominant vegetation consisted of <i>Typha angustifolia</i> and <i>Schoenoplectus tabernaemontani</i> - Located along the southbound lanes of I-65 north of Garrofolo Boulevard -Poor quality, likely water of the U.S.
Wetland BW	Palustrine Emergent	0.002	0.000	- Dominant vegetation consisted of <i>Typha angustifolia</i> - Located along the southbound lanes of I-65 north of Garrofolo Boulevard -Poor quality, likely water of the U.S.
Wetland BX	Palustrine Emergent	0.027	0.000	- Dominant vegetation consisted of <i>Typha angustifolia</i> - Located along the southbound lanes of I-65 north of Garrofolo Boulevard -Poor quality, likely water of the U.S.

Documentation

ES Approval Dates

Wetlands (Mark all that apply)

Wetland Determination
Wetland Delineation
USACE Isolated Waters Determination
Mitigation Plan

X

January 14, 2020

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Improvements that will not result in any wetland impacts are not practicable because such avoidance would result in (Mark all that apply and explain):

- Substantial adverse impacts to adjacent homes, business or other improved properties;
- Substantially increased project costs;
- Unique engineering, traffic, maintenance, or safety problems;
- Substantial adverse social, economic, or environmental impacts, or
- The project not meeting the identified needs.

X

Measures to avoid, minimize, and mitigate wetland impacts need to be discussed in the remarks box.

Remarks: Based on a review of the National Wetlands Inventory (NWI) online mapper (<https://www.fws.gov/wetlands/data/Mapper.html>), the USGS topographic map (Appendix B, B-2 to B-3), and the water resources map in the RFI report (Appendix E, E-13 to E-14) there are 64 wetlands located within the 0.5 mile search radius. Based on a site visit on July 24th through 26th 2019 by American Structurepoint, Inc. there are 81 wetlands located within the project area.

A *Wetland Delineation Report* was approved on January 14, 2020 by INDOT Ecology and Waterway Permitting Office. Please refer to Appendix F, F-1 to F-102 for the *Wetland Delineation Report*. It was determined that 81 wetlands (Wetland A – Wetland BX) totaling 7.612 acres are located within the project area. See the table above for additional information regarding the delineated resources. The USACE makes all final determinations regarding jurisdiction.

49 of the 81 wetlands are anticipated to be permanently impacted due to the placement of fill for the added travel lanes. Permanent impacts to wetlands total 3.868 acres (3.768 acres emergent, 0.004 acre scrub-shrub, and 0.096 acre forested) within Phase I and 0.206 acre (0.166 acre emergent and 0.040 acre forested) within Phase II. Total wetland impacts for the project are 4.074 acres (3.934 acres emergent, 0.004 acre scrub-shrub, and 0.136 acre forested). Avoidance and minimization of impacts to wetlands has been incorporated into the design to the maximum extent practical. A majority of the delineated wetlands are located immediately adjacent to the existing roadway and therefore there are no practical alternatives which avoid impacts to the wetlands while meeting the purpose and need of the project. Two additional alternatives, the do nothing alternative and the outside travel lanes alternative, were considered. The do nothing alternative would eliminate wetland impacts, but would not meet the purpose and need of the project. The outside travel lanes alternative would lead to higher wetland impacts as a majority of the wetlands delineated along the corridor are associated with the roadside ditches running along the outside of the travel lanes. Anticipated wetland impacts for this alternative are approximately 6.5 acres.

Mitigation will likely be needed and will be determined during permitting. If mitigation is needed, the INDOT is proposing to purchase credits through the IDNR In-Lieu Fee program.

Early coordination letters were sent to the USFWS, the IDNR-DFW, and the USACE Louisville District on October 11, 2019. The USACE Louisville District did not respond to the early coordination letter.

The IDEM automated response to early coordination was received on October 11, 2019 (Appendix C, C-5 to C-11).

The USFWS responded on November 5, 2019 (Appendix C, C-36 to C-38). No specific recommendations for wetlands were included in the USFWS response.

The IDNR-DFW responded on November 8, 2019 (Appendix C, C-25 to C-27) with information regarding potential impacts to habitat for Threatened and Endangered Species (further detailed in the Threatened and Endangered Species section of this document).

All applicable IDEM, USFWS, and IDNR-DFW recommendations are included in the Environmental Commitments section of this CE document.

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	<u>Presence</u>	<u>Impacts</u>	
		Yes	No
Terrestrial Habitat	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Unique or High Quality Habitat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Use the remarks box to identify each type of habitat and the acres impacted (i.e. forested, grassland, farmland, lawn, etc).

Remarks: Based on a desktop review, a site visit on July 24th through 26th 2019 by American Structurepoint, Inc., and the aerial map of the project area (Appendix B, B-4 to B-5), the project area primarily consists of maintained ROW, agricultural use, and woody vegetation along the banks of Prairie Creek. The dominant species consisted of tall fescue (*Schedonorus arundinaceus*), Kentucky bluegrass (*Poa pratensis*), reedtop (*Agrostis gigantea*), cattail (*Typha angustifolia*), and yellow nutsedge (*Cyperus esculentus*). Photos of the project area taken during the July 24th – 26th site visit can be referenced in Appendix B, B-6 to B-22.

The project will clear approximately 2.4 acre of brush and trees. Tree clearing is necessary for the replacement of the Prairie Creek Bridges (I65-142-05571 BNBL and I65-142-05571 BSBL) and construction of the new I-65 to Lafayette Avenue flyover ramp. Tree species identified within the wooded areas include Eastern redbud (*Cercis canadensis*), silver maple (*Acer saccharinum*), red maple (*Acer rubrum*), honey locust (*Gleditsia triacanthos*), black walnut (*Juglans nigra*), mulberry species (*Morus, sp.*), Eastern cottonwood (*Populus deltoides*), and box elder (*Acer negundo*).

The remainder of impacts to terrestrial habitat (approximately 70 acres) will include maintained roadside ROW and agricultural fields. Mature trees are identified as Do Not Disturb within the roadway plans, where possible. Implementation of standard INDOT specifications for re-vegetation of disturbed areas will promote re-establishment of similar ground cover in the areas temporarily impacted by construction equipment access. Mitigation for disturbance of terrestrial habitat is not anticipated as their function can be replaced onsite.

Early coordination letters were sent to the USFWS and the IDNR-DFW on October 11, 2019.

The IDNR-DFW responded on November 8, 2019 (Appendix C, C-25 to C-27) with recommendations to avoid or minimize impacts to terrestrial habitat. This include recommendations regarding the timing of construction work within waterways, clearing restrictions, sediment and erosion control, and revegetation disturbed areas and stream banks.

The USFWS responded on November 5, 2019 (Appendix C, C-36 to C-38) with information regarding potential impacts to habitat for Threatened and Endangered Species (further detailed in the Threatened and Endangered Species section of this document).

All applicable USFWS and IDNR-DFW recommendations are included in the Environmental Commitments section of this CE document.

If there are high incidences of animal movements observed in the project area, or if bridges and other areas appear to be the sole corridor for animal movement, consideration of utilizing wildlife crossings should be taken.

Karst	Yes	No
Is the proposed project located within or adjacent to the potential Karst Area of Indiana?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Are karst features located within or adjacent to the footprint of the proposed project?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
If yes, will the project impact any of these karst features?	<input type="checkbox"/>	<input type="checkbox"/>

Use the remarks box to identify any karst features within the project area. (Karst investigation must comply with the Karst MOU, dated October 13, 1993)

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Remarks: Based on a desktop review, the project is located outside the designated karst region of Indiana as outlined in the October 13, 1993 Memorandum of Understanding (MOU). According to the topo map of the project area (Appendix B, B-2 to B-3) and the RFI report (Appendix E, E-1 to E-21) there are no karst features identified within or adjacent to the project area.

In the early coordination response, the Indiana Geological Survey (IGS) did not indicate that karst features exist in the project area (Appendix C, C-11 to C-13). The response indicated moderate liquefaction potential and floodway as geological hazards. The response also indicated that mineral resources exist within the project area. Bedrock resources are classified as having "Moderate Potential" and Sand and Gravel resources are classified as having "High Potential." Petroleum exploration wells were also noted. The features will not be affected because the project requires minimal excavation. Response from IGS has been communicated with the designer on January 31, 2020. No impacts are expected.

	<u>Presence</u>	<u>Impacts</u>	
Threatened or Endangered Species		Yes	No
Within the known range of any federal species	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Any critical habitat identified within project area	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Federal species found in project area (based upon informal consultation)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
State species found in project area (based upon consultation with IDNR)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is Section 7 formal consultation required for this action?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Remarks: Based on a desktop review and the RFI Report, completed by American Structurepoint, Inc. on January 30, 2020, the IDNR Boone County Endangered, Threatened and Rare (ETR) Species List has been checked and is included in Appendix E, E-21. The highlighted species on the list reflect the federal and state identified ETR species located within the county. According to the IDNR-DFW early coordination response letter dated November 8, 2019 (Appendix C, C-25 to C-27), the Natural Heritage Program's Database has been checked and the state endangered Marsh Wren (*Cistothorus palustris*) and the American Badger (*Taxidea taxus*), a state species of special concern, have been documented within 0.5 mile of the project area. The IDNR stated that impacts to the American badger or its preferred habitat are unlikely as a result of this project. Specific recommendations regarding the Marsh Wren and sensitive wetland habitat were included within the November 8, 2019 letter. Based upon further correspondence with the IDNR-DFW on December 10, 2019 (Appendix C, C-25 to C-26), it was determined that wetlands within and adjacent to the project area do not provide suitable habitat for the Marsh Wren and no significant negative impacts are expected to this bird species as a result of this project. Therefore the specific recommendations regarding the Marsh Wren provided in the November 8, 2019 letter were determined inapplicable to this project.

Project information was submitted through the USFWS's Information for Planning and Consultation (IPaC) portal, and an official species list was generated (Appendix C, C-39 to C-41). The project is within range of the federally endangered Indiana bat (*Myotis sodalis*) and the federally threatened northern long-eared bat (NLEB) (*Myotis septentrionalis*). No additional species were found within or adjacent to the project area other than the Indiana bat and NLEB.

Based on construction of the new I-65 to Lafayette Avenue flyover exit ramp which extends more than 300 feet from an existing roadway, this project does not qualify for the Range-wide Programmatic Informal Consultation for the Indiana bat and northern long-eared bat (NLEB). On December 6, 2019 further coordination occurred with INDOT on how to proceed with determining impacts to bats. It was determined that Standard Informal Consultation would be initiated with the USFWS. On December 18, 2019 a Standard Informal Consultation for the Indiana Bat and Northern Long-Eared Bat letter was sent to the USFWS (Appendix C, C-33 to C-52). The letter included project information, proposed Avoidance and Minimization Measures (AMMs), and a proposed effect finding of "May Affect, Not Likely to Adversely Affect – with

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AMMs". The USFWS responded on January 21, 2020 stating that if tree-clearing is avoided during the period of April 1 – September 30, then they concur that the proposed project is not likely to adversely affect the Indiana bat or the northern long-eared bat (Appendix C, C-53 to C-56).

This precludes the need for further consultation on this project as required under Section 7 of the Endangered Species Act, as amended. If new information on endangered species at the site becomes available, or if project plans are changed, USFWS will be contacted for consultation.

SECTION B – OTHER RESOURCES

Drinking Water Resources

- Wellhead Protection Area
- Public Water System(s)
- Residential Well(s)
- Source Water Protection Area(s)
- Sole Source Aquifer (SSA)

	<u>Presence</u>	<u>Impacts</u>	
		<u>Yes</u>	<u>No</u>
Wellhead Protection Area	X		X
Public Water System(s)	X		X
Residential Well(s)			
Source Water Protection Area(s)			
Sole Source Aquifer (SSA)			

If a SSA is present, answer the following:

	<u>Yes</u>	<u>No</u>
Is the Project in the St. Joseph Aquifer System?	<input type="checkbox"/>	<input type="checkbox"/>
Is the FHWA/EPA SSA MOU Applicable?	<input type="checkbox"/>	<input type="checkbox"/>
Initial Groundwater Assessment Required?	<input type="checkbox"/>	<input type="checkbox"/>
Detailed Groundwater Assessment Required?	<input type="checkbox"/>	<input type="checkbox"/>

Remarks:

Sole Source Aquifer (SSA)
 The project is located in Boone County, which is not located within the area of the St. Joseph Sole Source Aquifer, the only legally designated sole source aquifer in the state of Indiana. Therefore, the FHWA/EPA Sole Source Aquifer Memorandum of Understanding (MOU) is not applicable to this project. Therefore a detailed groundwater assessment is not needed and no impacts are expected.

Wellhead Protection Area and Source Water
 The Indiana Department of Environmental Management's Wellhead Proximity Determinator website (<http://www.in.gov/idem/cleanwater/pages/wellhead/>) was accessed on October 10, 2019 by American Structurepoint, Inc. This project is located within a Wellhead Protection Area (WHPA). In an early coordination letter dated November 7, 2019, IDEM stated the project is located within the Lebanon Utilities WHPA (Appendix C, C-20). An inquiry into the WHPA and protection plan, along with a copy of the early coordination letter were sent to the Lebanon Utilities on December 4, 2019. The Lebanon Utilities responded with a copy of their WHPA protection plan on December 5, 2019 (Appendix J, J-18 to J-22). Due to the scope of the project no impacts to the WHPA are anticipated. Appropriate contacts identified within the protection plan will be contacted in the event of a spill. No impacts are expected.

Water Wells
 The Indiana Department of Natural Resources Water Well Record Database website (<https://www.in.gov/dnr/water/3595.htm>) was accessed on October 10, 2019 by American Structurepoint, Inc. There are five wells located adjacent to the project area. No wells were identified within the project area. The features will not be affected because of the location outside of the construction limits and utilization of best management practices during construction of the project. Therefore, no impacts are expected. Should it be determined during the ROW phase that these wells are affected, a cost to cure will likely be included in the appraisal to restore the wells.

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Urban Area Boundary

Based on a desktop review of the INDOT MS4 website (<https://entapps.indot.in.gov/MS4/>) by American Structurepoint, Inc. on October 10, 2019, and the RFI report; this project is located in an Urban Area Boundary (UAB). An early coordination letter was sent on October 11, 2019, to the City of Lebanon MS4 Coordinator (Appendix C, C-1 to C-3). The MS4 coordinator did not respond within the 30-day time frame.

Public Water System

Based on a desktop review, a site visit on July 24th through 26th 2019 by American Structurepoint, Inc., the aerial map of the project area (Appendix B, B-4 to B-5), and utilities coordination, this project is located where there is a public water system. The public water system will not be affected based upon the current plans and scope of the project. Utility coordination was initiated on July 10, 2019 with the Lebanon Utilities and will continue throughout the project.

Flood Plains

- Longitudinal Encroachment
- Transverse Encroachment
- Project located within a regulated floodplain
- Homes located in floodplain within 1000' up/downstream from project

<u>Presence</u>	<u>Impacts</u>	
	<u>Yes</u>	<u>No</u>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
X	X	<input type="checkbox"/>
X	X	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discuss impacts according to classification system described in the "Procedural Manual for Preparing Environmental Studies".

Remarks:

Based on a desktop review of the Indiana Department of Natural Resources Indiana Floodway Information Portal website (<http://dnrmmaps.dnr.in.gov/appsphp/fdms/>) by American Structurepoint, Inc. on December 11, 2019 and the RFI report; this project is located in a regulatory floodplain as determined from approved IDNR floodplain maps (Appendix F, F-103 to F-107). An early coordination letter was sent on October 11, 2019, to the IDNR-DFW and local Floodplain Administrators (Appendix C, C-1 to C-3). The IDNR-DFW responded on November 8, 2019 (Appendix C, C-22 to C-24) indicating that this project may require formal approval pursuant to the Flood Control Act (IC 14-28-1). The City of Lebanon and Boone County Floodplain Administrators did not respond within the 30-day time frame. It was determined that this project meets the requirements for application of a Construction in the Floodway (CIF) permit through the IDNR. Continued coordination will occur with the IDNR and Floodplain Administrators during the project design phase.

The proposed project includes work within the floodplain for the replacement of the I65-142-05571 BNBL and I65-142-05571 BSBL bridges. Impacts include the removal of existing bridge piers and end bents and the setting of new beams. All impacts are traverse. This project qualifies as a Category 4 per the current INDOT CE Manual, which covers projects involving replacement of existing drainage structures on essentially the same alignment.

Category 4: No homes are located within the base floodplain within 1,000 feet upstream and 1,000 feet downstream. The proposed structure will have an effective capacity such that backwater surface elevations are not expected to substantially increase. As a result, there will be no substantial adverse impacts on natural and beneficial floodplain values; there will be no substantial change in flood risks; and there will be no substantial increase in potential for interruption or termination of emergency service or emergency evacuation routes; therefore, it has been determined that this encroachment is not substantial.

Farmland

- Agricultural Lands
- Prime Farmland (per NRCS)

<u>Presence</u>	<u>Impacts</u>	
	<u>Yes</u>	<u>No</u>
X	X	<input type="checkbox"/>
X	X	<input type="checkbox"/>

Total Points (from Section VII of CPA-106/AD-1006* 131

**If 160 or greater, see CE Manual for guidance.*

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See CE Manual for guidance to determine which NRCS form is appropriate for your project.

Remarks: Based on a desktop review, a site visit on July 24th through 26th, 2019 by American Structurepoint, Inc. and the aerial map of the project area (Appendix B, B-4 to B-5) the project will convert 4.5 acres of farmland as defined by the Farmland Protection Policy Act. An early coordination letter was sent on October 11, 2019 and additional information on November 26, 2019, to the Natural Resources Conservation Services (NRCS). Coordination with NRCS resulted in a score of 131 on the AD-1006 Form (Appendix C, C30). NRCS's threshold score for significant impacts to farmland that result in the consideration of alternatives is 160. Since this project score is less than the threshold, no significant loss of prime, unique, statewide, or local important farmland will result from this project. No alternatives other than those previously discussed in this document will be investigated without reevaluating impacts to prime farmland.

SECTION C – CULTURAL RESOURCES

	Category	Type	INDOT Approval Dates	N/A
Minor Projects PA Clearance				X

**Eligible and/or Listed
Resource Present**

Results of Research

Archaeology	
NRHP Buildings/Site(s)	
NRHP District(s)	
NRHP Bridge(s)	

Project Effect

No Historic Properties Affected No Adverse Effect Adverse Effect

**Documentation
Prepared**

Documentation (mark all that apply)

		ES/FHWA Approval Date(s)	SHPO Approval Date(s)
Historic Properties Short Report	X	December 18, 2019	January 22, 2020
Historic Property Report			
Archaeological Records Check/ Review			
Archaeological Phase Ia Survey Report	X	December 18, 2019	January 22, 2020
Archaeological Phase Ic Survey Report			
Archaeological Phase II Investigation Report			
Archaeological Phase III Data Recovery			
APE, Eligibility and Effect Determination	X	December 18, 2019	January 22, 2020
800.11 Documentation	X	December 18, 2019	January 22, 2020

MOA Signature Dates (List all signatories)

Memorandum of Agreement (MOA)

Describe all efforts to document cultural resources, including a detailed summary of the Section 106 process, using the categories outlined in the remarks box. The completion of the Section 106 process requires that a Legal Notice be published in local newspapers. Please indicate the publication date, name of paper(s) and the comment period deadline. Likewise include any further Section 106 work which must be completed at a later date, such as mitigation or deep trenching.

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Remarks:

Area of Potential Effect (APE):

The APE was generally drawn to include properties within 1,000 feet of the project area along I-65 to take into account visual or auditory changes that may occur. Additionally, the APE was extended around the US 52 interchange/Lafayette Avenue interchange to account for possible changes. The APE for archaeology was the project footprint. The Indiana State Historic Preservation Officer (SHPO) concurred with the APE in a letter dated January 22, 2020 (Appendix D, D-56 to D-57). A map of the APE is included in Appendix D, D-7 to D-21.

Coordination with Consulting Parties:

The SHPO is considered an automatic consulting party for all undertakings. On September 25, 2019, the parties identified in the table below were invited to participate as Section 106 consulting parties. In a letter dated October 21, 2019, SHPO suggested two additional parties to be invited to participate in the Section 106 consultation process: the Boone County Engineer and City of Lebanon Street Commissioner. On October 22, 2019, the Boone County Engineer and City of Lebanon Street Commissioner were invited to join Section 106 consultation.

If no response was received to the consulting party invitation after thirty (30) days, it was assumed the invited parties did not wish to act as consulting parties for the undertaking. For reference to the Consulting Party Invitation and responses, see Appendix D, D-42 to D-53.

Agency/Organization	Response
Federal Highway Administration	No response
City of Lebanon Mayor's Office	No response
Lebanon City Council	No response
Boone County Commissioners	No response
Indianapolis Metropolitan Planning Organization	September 25, 2019; Did Not Accept
Indiana Landmarks Central Regional Office	No response
Boone County Historian	No response
Boone County Historical Society	No response
Lebanon Historic Preservation Commission, City of Lebanon	No response
Boone County Engineer	No response
City of Lebanon Street Commissioner	No response
Eastern Shawnee Tribe of Oklahoma	No response
Miami Tribe of Oklahoma	No response
Peoria Tribe of Indians of Oklahoma	No response
Pokagon Band of Potawatomi Indians	No response
Forest County Potawatomi Community	No response

Archaeology:

The *Archaeology Records Check and Phase 1a Survey: Interstate 65 Added Travel Lanes Project From SR 32 to SR 47 in Center and Washington Townships, Boone County, Indiana, Des. No.: 1802967* (December 2019) was prepared by Weintraut and Associates, Inc. (W&A) who meet the Secretary of the Interior's Professional Qualification Standards as per 36 CFR Part 61. The archaeological reconnaissance identified six archaeological sites within the project area during the Phase 1a investigation. However all sites were recommended as not eligible for listing in the IRHSS or NRHP and no further work is recommended before the project is allowed to proceed. This report was approved by INDOT CRO on December 18, 2019, and submitted electronically and via a paper copy to the SHPO on December 20, 2019 for review. In a letter dated January 22, 2020, the SHPO concurred with the archaeology report (Appendix D, D-56 to D-57). A summary of the archaeological short report is included in Appendix D, D-26 to D-28.

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Historic Properties:

The *Historical Property Short Report, Interstate 65 Added Travel Lanes (from SR 32 to SR 47) Project, Center and Washington Townships, Boone County, Indiana, Des. No.: 1802967* (December 9, 2019) was prepared by W&A who meet the Secretary of the Interior’s Professional Qualification Standards as per 36 CFR Part 61. The Historic Property Short Report (HPSR) was approved by INDOT CRO on December 18, 2019. In the report, W&A recommended no resources as eligible for listing in the NRHP. In a letter dated January 22, 2020, the SHPO concurred with the HPSR (Appendix D, D-56 to D-57). A summary of the HPSR is included in Appendix D, D-24 to D-25.

Documentation, Findings:

The INDOT, acting on behalf of the FHWA, has determined a finding of “No Historic Properties Affected” is appropriate for the I-65 Added Travel Lanes (from SR 32 to SR 47) Project. Documentation of this finding is included in Appendix D, D-1 to D-55. The SHPO concurred with the “No Historic Properties Affected” finding on January 22, 2020 (Appendix D, D-56 to D-57). No other consulting parties provided comments on the “No Historic Properties Affected” finding or supporting documentation.

Public Involvement:

To meet the public involvement requirements of Section 106, FHWA’s finding of “No Historic Properties Affected”, a notice was advertised in *The Indianapolis Star* on December 21, 2019 and in the *Lebanon Reporter* on December 24, 2019. The public comment period closed 30 days later on January 24, 2020. The text of the public notice and the affidavit of publication appear in Appendix D, D-58 to D-61. No comments were received within the allotted timeframe.

This completes the Section 106 process and the responsibilities of the FHWA under Section 106 have been fulfilled.

SECTION D – SECTION 4(f) RESOURCES/ SECTION 6(f) RESOURCES

Section 4(f) Involvement (mark all that apply)

Parks & Other Recreational Land

- Publicly owned park
- Publicly owned recreation area
- Other (school, state/national forest, bikeway, etc.)

Presence

Use

Yes	No
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>

Evaluations Prepared

- Programmatic Section 4(f)*
- “De minimis” Impact*
- Individual Section 4(f)

<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>

FHWA Approval date

--

Wildlife & Waterfowl Refuges

- National Wildlife Refuge
- National Natural Landmark
- State Wildlife Area
- State Nature Preserve

Presence

Use

Yes	No
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>

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**Evaluations
Prepared**

Programmatic Section 4(f)*
"De minimis" Impact*
Individual Section 4(f)

**FHWA
Approval date**

Historic Properties

Sites eligible and/or listed on the NRHP

Presence

Use

Yes	No
<input style="width: 40px; height: 15px;" type="text"/>	<input style="width: 40px; height: 15px;" type="text"/>

**Evaluations
Prepared**

Programmatic Section 4(f)*
"De minimis" Impact*
Individual Section 4(f)

**FHWA
Approval date**

**FHWA approval of the environmental document also serves as approval of any Section 4f Programmatic and/or De minimis evaluation(s) discussed below.*

Discuss Programmatic Section 4(f) and "de minimis" Section 4(f) impacts in the remarks box below. Individual Section 4(f) documentation must be separate Draft and Final documents. For further discussions on Programmatic, "de minimis" and Individual Section 4(f) evaluations please refer to the "Procedural Manual for the Preparation of Environmental Studies". Discuss proposed alternatives that satisfy the requirements of Section 4(f).

Remarks:

Section 4(f) of the U.S. Department of Transportation Act of 1966 prohibits the use of certain public and historic lands for federally funded transportation facilities unless there is no feasible and prudent alternative. The law applies to significant publicly owned parks, recreation areas, wildlife / waterfowl refuges, and NRHP eligible or listed historic properties regardless of ownership. Lands subject to this law are considered Section 4(f) resources.

Based on a desktop review, a site visit on July 24th through 26th 2019 by American Structurepoint, Inc., the aerial map of the project area (Appendix B, B-4 to B-5), and the RFI report (Appendix E, E-1 to E-21) there are three 4(f) resources located within the 0.5 mile search radius. One 4(f) resource, Big Four Trail, was identified within the RFI as being within the project area. Big Four Trail is a public recreation trail. Based upon updated project limits, Big Four Trail is located outside of the project area. Access to Big Four Trail is located along Sam Ralston Road, and will therefore be unaffected by this project. Therefore, no use is expected. The two remaining 4(f) resources identified within the RFI report, Rolling meadow Park and an additional segment of Big Four Trail, are located outside of the project area and will not have access affected by the MOT. Therefore, no use is expected.

Section 6(f) Involvement

Presence

Use

Yes	No
<input style="width: 40px; height: 15px;" type="text"/>	<input style="width: 40px; height: 15px;" type="text"/>

Section 6(f) Property

Discuss proposed alternatives that satisfy the requirements of Section 6(f). Discuss any Section 6(f) involvement.

Remarks:

The U.S. Land and Water Conservation Fund Act of 1965 established the Land and Water Conservation Fund (LWCF), which was created to preserve, develop, and assure accessibility to outdoor recreation resources. Section 6(f) of this Act prohibits conversion of lands purchased with LWCF monies to a non-recreation use.

A review of 6(f) properties on the Land and Water Conservation Fund (LWCF) website at <https://www.lwcfcoalition.com/tools> revealed a total of five properties in Boone County (Appendix J, J-10). None of these properties are located within or adjacent to the project area. Therefore, there will be no impacts

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to 6(f) resources as a result of this project.

SECTION E – Air Quality

Air Quality

Conformity Status of the Project

Is the project in an air quality non-attainment or maintenance area?

Yes	No
<input checked="" type="checkbox"/>	<input type="checkbox"/>

If YES, then:

Is the project in the most current MPO TIP?

<input type="checkbox"/>	<input checked="" type="checkbox"/>
--------------------------	-------------------------------------

Is the project exempt from conformity?

<input type="checkbox"/>	<input checked="" type="checkbox"/>
--------------------------	-------------------------------------

If the project is NOT exempt from conformity, then:

Is the project in the Transportation Plan (TP)?

<input checked="" type="checkbox"/>	<input type="checkbox"/>
-------------------------------------	--------------------------

Is a hot spot analysis required (CO/PM)?

<input type="checkbox"/>	<input checked="" type="checkbox"/>
--------------------------	-------------------------------------

Level of MSAT Analysis required?

Level 1a Level 1b Level 2 Level 3 Level 4 Level 5

Remarks:

This project is included in the Fiscal Year (FY) 2018-2021 Statewide Transportation Improvement Program (STIP) and the FY 2020-2024 STIP (Appendix H, H-1 to H-2).

This project is located in Boone County, which is currently a maintenance area for Ozone, under the 1997 Ozone 8-hour standard which was revoked in 2015 but is being evaluated for conformity due to the February 16, 2018, South Coast Air Quality Management District V. Environmental Protection Agency, Et. Al. decision. The project is located outside of a MPO. The project’s design concept and scope are accurately reflected in both the STIP and the INDOT 2045 Long Range Transportation Plan. Therefore, the conformity requirements of 40 CFR 93 have been met.

Mobile Source Air Toxics (MSAT):

The proposed project will add capacity along I-65 through the addition of travel lanes. The daily vehicle miles traveled (VMT) and volume of traffic were estimated for the preferred alternative and no-build alternatives in 2022 and 2042 (Appendix J, J-23 to J-26). These values are anticipated to be proportional to the mobile source air toxics (MSAT) emitted. No difference in VMT or volume of traffic are anticipated between the preferred alternative and no-build alternative in 2042.

Based upon the VMT and volume of traffic no appreciable difference in overall MSAT emissions between the preferred alternative and no-build scenario is anticipated. MSAT emissions are virtually certain to be lower than the present levels in the design year as a result of the Environmental Protection Agency’s (EPA) national control programs that are projected to reduce annual MSAT emissions by over 90 percent from 2010 to 2050 (Updated Interim Guidance on Mobile Source Air Toxic Analysis in NEPA Documents, Federal Highway Administration, October 12, 2016). Local conditions may differ from these nation projections in terms of fleet mix and turnover, VMT growth rates, and local control measures. However, the magnitude of the EPA projected reductions is so great that MSAT emissions in the project area are anticipated to be lower in the future than they are today with the preferred alternative and no-build alternative.

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SECTION F - NOISE

Noise	Yes	No
Is a noise analysis required in accordance with FHWA regulations and INDOT's traffic noise policy?	<input checked="" type="checkbox"/>	<input type="checkbox"/>

	No	Yes/ Date
ES Review of Noise Analysis		January 29, 2020

Remarks:

This project is a Type I project due to the addition of travel lanes along I-65 and modification of the I-65 to Lafayette Avenue exit ramp. In accordance with 23 CFR 772 and the current *Indiana Department of Transportation Traffic Noise Analysis Procedure*, this action requires a formal noise analysis. A Noise Analysis Report was completed by American Structurepoint, Inc. on January 13, 2020 and determined technically sufficient by the INDOT on January 29, 2020 (Appendix I).

A total of 308 receptors were identified within the January 13, 2020 Noise Analysis Report, representing two different noise abatement criteria (NAC) land use activity categories, Activity Categories B and C. Of the 308 receptors analyzed, 304 are classified as single family residential units (Activity Category B), two receptors are associated with the recreational amenities of Kise Estate Apartments (Activity Category C), and two receptors are associated with Trophy Club Golf Course (Activity Category C). Existing (2020) noise levels range from 43.1 to 73.7 dB(A) and future (2043) noise levels with the proposed project range from 42.3 to 74.5 dB(A) for the identified receptors.

Based on the January 13, 2020 Noise Analysis Report, American Structurepoint, Inc. has identified 72 impacted receptors and has determined that noise abatement is likely, but not guaranteed, at one location. Noise abatement at this location is based upon preliminary design costs and design criteria. Noise abatement in this location at this time has been estimated to cost \$879,363 and will meet feasible and reasonable criteria as defined in the current *Indiana Department of Transportation Traffic Noise Analysis Procedure*. Feasible criteria includes both Acoustic and Engineering Feasibility, which requires a 5 dB(A) noise level reduction for a majority of impacted receptors and consideration of drainage, utilities, access, and other potential engineering conflicts. Reasonable criteria includes the Design Goal, Cost Effectiveness, and Views of Benefitted Receptors, which requires a 7 dB(A) noise level reduction for a majority of impacted first row receptors, a cost of less than \$30,000 per benefitted receptor, and the consideration of benefitted resident and property owner input.

A reevaluation of the noise analysis will occur during final design. If during final design it has been determined that conditions have changed such that noise abatement is not feasible and reasonable, the abatement measures might not be provided. The final decision on the installation of any abatement measure(s) will be made upon the completion of the project's final design and the public involvement processes.

The viewpoints of the benefitted residents and property owners are being sought and will be considered in determining the reasonableness of highway traffic noise abatement measures for the proposed highway construction project. The INDOT will incorporate highway traffic noise consideration in on-going activities for public involvement in the highway program.

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SECTION G – COMMUNITY IMPACTS

Regional, Community & Neighborhood Factors

- Will the proposed action comply with the local/regional development patterns for the area?
- Will the proposed action result in substantial impacts to community cohesion?
- Will the proposed action result in substantial impacts to local tax base or property values?
- Will construction activities impact community events (festivals, fairs, etc.)?
- Does the community have an approved transition plan?
If No, are steps being made to advance the community's transition plan?
- Does the project comply with the transition plan? (explain in the remarks box)

Yes	No
<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>

Remarks:

Social Effects:
 The proposed project will add an additional travel lane along I-65 northbound and southbound between SR 32 and SR 47. The proposed project will also include the reconfiguration of the I-65/Lafayette Avenue partial interchange. The project will address LOS and connectivity issues identified within the corridor. Therefore, it is considered a net benefit for the community as the project will address future travel demands and reduce travel time. Temporary negative socioeconomic impacts the project will have on the community include temporary inconveniences commonly associated with construction such as noise, fugitive dust, increased travel delay, and utility disruptions. However, these impacts are temporary and will cease upon completion of the project.

Permanent socioeconomic effects are not expected. The proposed project will not result in the relocation of residences, businesses, or farms. The proposed project is not anticipated to negatively affect community cohesion. Minimal impacts are anticipated to the local tax base, property value, and community events.

The Boone County website (<https://boonecounty.in.gov/Upper-Right-Menu/Calendar>) and City of Lebanon website (<https://www.lebanon.in.gov/index.php/events/month/>) were reviewed for events and festivals planned in upcoming years. No events were currently indicated on the events calendar. Based upon the planned MOT, no impacts to future events or festivals are anticipated.

The temporary impacts discussed here do not outweigh the benefits the project will bring to the community by addressing the future travel demands and reducing travel time.

Transition Plans:
 In order for a municipality to be eligible to receive federal funds they must have in place, or at least under development, an American With Disability Act (ADA) Transition Plan. The Transition Plan inventories the municipality's infrastructure identifying those areas with features (i.e., sidewalks, crosswalks, curb ramps, building access, etc.) that are not in compliance with the ADA and establishes a plan to program funding for improvement intended to bring the facilities into compliance.

The proposed project takes place along roadways managed by the INDOT. The proposed project is a federal-aid project, meaning all improvements to the infrastructure must conform to the ADA. Therefore, the project will comply with the June 1, 2018 INDOT ADA Transition Plan (<https://www.in.gov/indot/files/2018%20Transition%20Plan%20Draft.pdf>).

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Indirect and Cumulative Impacts

Will the proposed action result in substantial indirect or cumulative impacts?

Yes	No
<input type="checkbox"/>	<input checked="" type="checkbox"/>

Remarks:

Indirect impacts are effects which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density, or growth rate. Cumulative impacts affect the environment which result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such actions.

This project involves the addition of travel lanes along an already established interstate system and modification of an existing exit ramp. Because this project is located along an established, access controlled interstate system, no indirect or cumulative impacts are anticipated as a result of this project.

Public Facilities & Services

Will the proposed action result in substantial impacts on health and educational facilities, public and private utilities, emergency services, religious institutions, airports, public transportation or pedestrian and bicycle facilities? *Discuss how the maintenance of traffic will affect public facilities and services.*

Yes	No
<input type="checkbox"/>	<input checked="" type="checkbox"/>

Remarks:

Based on a desktop review, site visits from July 24th thru 26th, 2019 by American Structurepoint, Inc., the aerial map of the project area (Appendix B, B-4 to B-5), and the RFI report (Appendix E, E-1 to E-21), there are four public facilities located within 0.5 mile of the project. One hospital, Koala Hospital and Counseling Center, is identified as being located within the project area. This facility has been identified as closed, and no longer operational at this location, therefore no impacts are anticipated. One trail, Big Four Trail, was identified within the project area within the RFI. Based upon updated construction limits, the Big Four Trail is not located within the project area and therefore no impact is anticipated. The two remaining public facilities, Rolling Meadow Park and an additional segment of Big Four Trail, are located outside of the project area and therefore no impact is anticipated. Access to all properties and two lanes of traffic in each direction along I-65 will be maintained during construction. Therefore, no impacts are anticipated to resources outside of the project area.

Early coordination letters were sent to the Boone County Commissioners, Boone County Highway Department, Boone County Surveyor, Boone County Sheriff's Office, Boone County EMA, Western Boone Community Schools, City of Lebanon Mayor's Office, Lebanon City Council, Lebanon Community School Corporation, City of Lebanon Engineer, City of Lebanon Fire Department, City of Lebanon Police Department, INDOT Crawfordsville District, INDOT ESD, Indianapolis Metropolitan Planning Organization, and IDEM Groundwater Section on October 11, 2019 and the INDOT Office of Aviation on December 10, 2019. The following agencies responded to the early coordination letter.

The Indianapolis Metropolitan Planning Organization responded on October 11, 2019 indicating that the project is located outside of their geographical boundary (Appendix C, C-14).

The INDOT Crawfordsville District responded on October 15, 2019 indicating that they had no comments on the project (Appendix C, C-15).

The INDOT ESD responded on October 31, 2019 providing a list of projects being completed within the vicinity of the project area (Appendix C, C-17 to C-19).

The Boone County Surveyor responded on November 8, 2019 indicating drainage comments to be incorporated into the design phase of the project (Appendix C, C-21). The Boone County Surveyor comments are included in the Environmental Commitments section of this CE document.

The INDOT Office of Aviation responded on December 10, 2019 indicating that there were no issues found

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with the surrounding airspace or airports (Appendix C, C-27).

Currently, two electric companies (Boone County REMC and Lebanon Utilities), one gas company (Vectren-Distribution), one communications company (AT&T), one cable company (Comcast), one sanitary company (Lebanon Utilities), five fiber optics companies (Frontier, MCI/Verizon, Metronet, Purdue Light Fiber/Zayo, and Windstream), and one water company (Lebanon Utilities) provide services to residents and businesses within the project area. One pipeline, owned by Indiana Gas Company, was identified within the project area in the RFI report. Coordination with these utility companies to identify potential conflicts and relocation of the appropriate facilities, if needed, has been initiated. This coordination will continue through the duration of the engineering phase of the project.

Environmental Justice (EJ) (Presidential EO 12898)

During the development of the project were EJ issues identified?	Yes	No
	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Does the project require an EJ analysis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
If YES, then:		
Are any EJ populations located within the project area?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Will the project result in adversely high or disproportionate impacts to EJ populations?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Remarks: Under FHWA Order 6640.23A, FHWA and the project sponsor, as a recipient of funding from FHWA, are responsible to ensure that their programs, policies, and activities do not have a disproportionately high and adverse effect on minority or low-income populations. Per the current INDOT Categorical Exclusion Manual, an Environmental Justice (EJ) Analysis is required for any project that has two or more relocations or 0.5 acre of additional permanent ROW. The project will require approximately 4.5 acre of permanent ROW. Therefore, an EJ Analysis is required.

Potential EJ impacts are detected by locating minority and low-income populations relative to a reference population to determine if populations of EJ concern exists and whether there could be disproportionately high and adverse impacts to them. The reference population may be a county, city or town and is called the community of comparison (COC). In this project, the COC is Boone County. The community that overlaps the project area is called the affected community (AC). In this project, the AC is Census Tracts 8101, 8103, and 8104. An AC has a population of concern for EJ if the population is more than 50% minority or low-income or if the low-income or minority population is 125% of the COC. Data from the *2017 American Community Survey 5-Year Estimates* (2013-2017) was obtained from the US Census Bureau Website <https://factfinder.census.gov/> on December 9, 2019 by American Structurepoint, Inc.(Appendix J, J-2 to J-9). The data collected for minority and low-income populations within the AC are summarized in the below table.

	COC	AC 1	AC 2	AC 3
	Boone County	Census Tract 8101	Census Tract 8103	Census Tract 8104
LOW-INCOME POPULATION				
Total Population for Whom Poverty Status is Determined	62,293	3,625	5,745	5,511
Total Population Below Poverty Level	3,820	265	574	458
Percent Low-Income	6.13%	7.31%	9.99%	8.31%
125 Percent of COC	7.67%			
AC Percent Low-Income Greater Than 125 Percent of COC?		No	Yes	Yes
AC Percent Low-Income Greater Than 50 Percent?		No	No	No
Population of EJ Concern?		No	Yes	Yes

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	COC	AC 1	AC 2	AC 3
	Boone County	Census Tract 8101	Census Tract 8103	Census Tract 8104
MINORITY POPULATION				
Total Population	63,013	3,682	6,050	5,638
Minority Population	5,274	64	236	406
Percent Minority	8.37%	1.74%	3.90%	7.20%
125 Percent of COC	10.46%			
AC Percent Minority Greater Than 125 Percent of COC?		No	No	No
AC Percent Minority Greater Than 50 Percent?		No	No	No
Population of EJ Concern?		No	No	No

AC-1, Census Tract 8101 has a percent low-income of 7.31% which is below 50% and is below the 125% COC threshold. AC-2, Census Tract 8103 has a percent low-income of 9.99% which is below 50% but is above the 125% COC. Therefore, AC-2 is a low-income population of EJ concern. AC-3, Census Tract 8104 has a percent low-income of 8.31% which is below 50% but is above the 125% COC. Therefore, AC-3 is a low-income population of EJ concern.

AC-1, Census Tract 8101 has a percent minority of 1.74% which is below 50% and is below the 125% COC threshold. AC-2, Census Tract 8103 has a percent minority of 3.90% which is below 50% and is below the 125% COC. AC-3, Census Tract 8104 has a percent minority of 7.20% which is below 50% and is below the 125% COC.

Based upon the scope of the proposed project, the identified populations will not experience a disproportionately high and adverse impact from the project. The purpose of this project is to maintain an appropriate LOS within the project area and improve connectivity to metropolitan areas. Therefore this project is anticipated to enhance the mobility of the identified communities to good, services, and employment opportunities. While the identified populations may experience some slight delays along I-65 during construction, these impacts will be temporary and as a result of this project they will have enhanced mobility. As this project takes place along existing highways, no impacts to community cohesion are anticipated. This project will require approximately 4.5 acres of permanent ROW from agricultural parcels. No residential ROW or relocations are anticipated.

Relocation of People, Businesses or Farms

Will the proposed action result in the relocation of people, businesses or farms?
 Is a Business Information Survey (BIS) required?
 Is a Conceptual Stage Relocation Study (CSRS) required?
 Has utility relocation coordination been initiated for this project?

Yes	No
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>

Number of relocations: Residences: _____ Businesses: _____ Farms: _____ Other: _____

If a BIS or CSRS is required, discuss the results in the remarks box.

Remarks: No relocations of people, businesses, or farms will take place as a result of this project. Coordination with utility companies to identify potential conflicts and relocation of the appropriate facilities, if needed, has been initiated. This coordination will continue through the duration of the engineering phase of the project.

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SECTION H – HAZARDOUS MATERIALS & REGULATED SUBSTANCES

Hazardous Materials & Regulated Substances (Mark all that apply)

Red Flag Investigation

Phase I Environmental Site Assessment (Phase I ESA)

Phase II Environmental Site Assessment (Phase II ESA)

Design/Specifications for Remediation required?

Documentation

X

No Yes/ Date

ES Review of Investigations	February 1, 2020
------------------------------------	------------------

Include a summary of findings for each investigation.

Remarks:

Based on a review of GIS and available public records, a RFI was completed on January 30, 2020 by American Structurepoint, Inc. (Appendix E, E-1 to E-21). One (1) Resource Conservation and Recovery Act (RCRA) Generator / Treatment, Storage, and Disposal (TSD) facility, one (1) state cleanup site, ten (10) underground storage tank (UST) sites, one (1) voluntary remediation program, nine (9) leaking underground storage (LUST) sites, one (1) brownfield, two (2) institutional controls, seven (7) national pollutant discharge elimination system (NPDES) facilities, and two (2) NPDES pipe locations are located within 0.5 mile of the project area. Of these resources one (1) RCRA Generator/TSD site, one (1) state cleanup site, one (1) UST, one (1) LUST, one (1) brownfield, and one (1) NPDES Facility are located within or adjacent to the project area.

The RCRA Generator/TSD site, Bos Diesel Repair (now Zores Towing), AI ID# 982, 2115 Frontage Road, is located adjacent to the project area. On June 9 and August 16, 2005, a representative of the IDEM conducted an inspection due to a complaint, and violations were observed. The complaint investigation revealed that the facility is an out of business auto salvage yard, and numerous vehicles and semi-trailers were located on the site. One 55-gallon container was noted outside near the south side of the property, and one semi-trailer contained numerous 5-gallon and 55-gallon containers with unknown material stored inside them. The IDEM adopted an Agreed Order on May 21, 2007 with stipulations to properly remove all waste from the site. According to a Hazardous Waste Handler Identification Form submitted to the IDEM on March 24, 2015, the site no longer generates hazardous waste. No further information was found regarding this site. If excavation occurs in this area, proper handling, removal, and disposal of soil and/or groundwater may be necessary. Analysis for RCRA metals will be necessary if waste disposal occurs.

The State Cleanup, UST, and LUST site, McClure Oil Corp, AI ID # 5621, 530 Friend Way, is located adjacent to the project area. Two LUST incidents at this site were reported to IDEM on January 16, 1992 and December 14, 1990. On October 9, 2003, the IDEM reiterated a request for site characterization. Instead, McClure Oil Corp requested site closure with no further action for two active LUST incident numbers in 2004, and the IDEM responded that this request could not be granted until soil and groundwater sampling was performed to assess current site conditions. On April 22, 2008, the IDEM issued a Commissioner's Order than requested an Initial Site Characterization be completed. No further information was found regarding the LUST incidents. This site is currently an active gas station. If excavation occurs in this area, proper handling, removal, and disposal of soil and/or groundwater may be necessary.

The Brownfield site, County Rock Pile 4070450, AI ID # 7821, Indianapolis Avenue and Interstate-65, is mapped within the project area. No documentation was found on the IDEM Virtual File Cabinet (VFC) regarding this site. Coordination will be conducted with IDEM before further site activities occur.

The NPDES Facility, Prairie Heights Lift Station Relocation, is located within the project area at I-65 and Prairie Creek. Coordination will be conducted with Lebanon Waste Water Treatment Plant before further site activities occur.

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SECTION I – PERMITS CHECKLIST

Permits (mark all that apply)

Likely Required

Army Corps of Engineers (404/Section10 Permit)

Individual Permit (IP)	<input type="checkbox"/>
Nationwide Permit (NWP)	<input type="checkbox"/>
Regional General Permit (RGP)	<input checked="" type="checkbox"/>
Pre-Construction Notification (PCN)	<input type="checkbox"/>
Other	<input type="checkbox"/>
Wetland Mitigation required	<input checked="" type="checkbox"/>
Stream Mitigation required	<input checked="" type="checkbox"/>

IDEM

Section 401 WQC	<input checked="" type="checkbox"/>
Isolated Wetlands determination	<input type="checkbox"/>
Rule 5	<input checked="" type="checkbox"/>
Other	<input type="checkbox"/>
Wetland Mitigation required	<input checked="" type="checkbox"/>
Stream Mitigation required	<input checked="" type="checkbox"/>

IDNR

Construction in a Floodway	<input checked="" type="checkbox"/>
Navigable Waterway Permit	<input type="checkbox"/>
Lake Preservation Permit	<input type="checkbox"/>
Other	<input type="checkbox"/>
Mitigation Required	<input type="checkbox"/>

US Coast Guard Section 9 Bridge Permit

Others (Please discuss in the remarks box below)

<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>

Remarks:

Due to the impacts to wetlands and streams, an individual Section 401 from IDEM and a Section 404 RGP from the USACE are anticipated for impacts to waters of the U.S. Due to total permanent impacts compensatory mitigation is likely required for stream and wetland impacts. If mitigation will be required, the INDOT is proposing to purchase credits through the IDNR In-Lieu Fee program.

The project occurs within a 100-year floodplain, and therefore a formal application for a CIF Permit from the IDNR is required pursuant to the Flood Control Act (IC-14-28-1).

The proposed project will require a Rule 5 Construction Sediment and Erosion Control Permit from IDEM as land disturbance will be greater than one acre.

Applicable recommendations provided by IDEM and IDNR are included in the Environmental Commitments section of this document. If permits are found to be necessary, the conditions of the permit will be requirements of the project and will supersede these recommendations.

It is the responsibility of the project sponsor to identify and obtain all required permits.

SECTION J- ENVIRONMENTAL COMMITMENTS

The following information should be provided below: List all commitments, name of agency/organization requesting the commitment(s), and indicating which are firm and which are for further consideration. The commitments should be numbered.

Remarks:

Firm:

- If the scope of work or permanent or temporary ROW amounts change, INDOT ESD and the INDOT District Environmental Section will be contacted immediately. (INDOT ESD and INDOT

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- District)
2. It is the responsibility of the project sponsor to notify school corporations and emergency services at least two weeks prior to any construction activity that would block or limit access. (INDOT ESD)
 3. One (1) 303d listed impaired stream, Spring Creek, is located within the project area. Workers who are working in or near water with E. coli should take care to wear appropriate PPE, observe proper hygiene procedures, including regular hand washing, and limit personal exposure. (INDOT ESD)
 4. If excavation occurs in this area [Zores Towing, 2115 Frontage Road], proper handling, removal, and disposal of soil and/or groundwater may be necessary. Analysis for RCRA metals will be necessary if waste disposal occurs. (INDOT SAM)
 5. If excavation occurs in this area [McClure Oil Corp, 530 Friend Way], proper handling, removal, and disposal of soil and/or groundwater may be necessary. (INDOT SAM)
 6. Coordination will be conducted with IDEM before further site activities occur [at County Rock Pile 4070450, Indianapolis Avenue and Interstate-65]. (INDOT SAM)
 7. Coordination will be conducted with Lebanon Waste Water Treatment Plant before further site activities occur [at the Prairie Heights Lift Station Relocation]. (INDOT SAM)
 8. Appropriate contacts identified within the [WHPA] protection plan will be contacted in the event of a spill. (Lebanon Utilities)
 9. GENERAL AMM 1- Ensure all operators, employees, and contractors working in areas of known or presumed bat habitat are aware of all FHWA/FRA/FTA (Transportation Agencies) environmental commitments, including all applicable AMMs. (USFWS)
 10. LIGHTING AMM 1- Direct temporary lighting away from suitable habitat during the active season. (USFWS)
 11. LIGHTING AMM 2- When installing new or replacing existing permanent lights, use downward-facing, full cut-off lens lights (with same intensity or less for replacement lighting); or for those transportation agencies using the BUG system developed by the Illuminating Engineering Society, be as close to 0 for all three ratings with a priority of "uplight" of 0 and "backlight" as low as practicable. (USFWS)
 12. TREE REMOVAL AMM 1- Modify all phases/aspects of the project (e.g., temporary work areas, alignments) to avoid tree removal. (USFWS)
 13. TREE REMOVAL AMM 2- Apply time of year restrictions [April 1st to September 30th] for tree removal when bats are not likely to be present, or limit tree removal to 10 or fewer trees per project at any time of year within 100 feet of existing road/rail surface and outside of documented roosting/foraging habitat or travel corridors; visual emergence survey must be conducted with no bats observed. (USFWS)
 14. TREE REMOVAL AMM 3- Ensure tree removal is limited to that specified in project plans and ensure that contractors understand clearing limits and how they are marked in the field (e.g., install bright colored flagging/fencing prior to any tree clearing to ensure contractors stay within clearing limits). (USFWS)
 15. TREE REMOVAL AMM 4- Do not remove documented Indiana bat or NLEB roosts that are still suitable for roosting, or trees within 0.25 miles of roosts, or documented foraging habitat at any time of year. (USFWS)
 16. Within this project limits you will be crossing the Ashley, Pavey, Prairie Creek (3 locations), and Spring Creek regulated legal open drains. Any construction within these ditches will need to be approved by the Boone County Drainage Board/Boone County Surveyors Office. (Boone County Surveyor's Office)
 17. No trees are allowed to be planted within the 75' right of way of regulated drains per IC. 36-9-27-33(d). (Boone County Surveyor's Office)
 18. Boone County Drainage Ordinance and Standards will be required to be met for this project. (Boone County Surveyor's Office)
 19. Additional impervious areas will need to be detained and released per drainage ordinance requirements. (Boone County Surveyor's Office)
 20. Any fill within the floodplain will need to be compensated at a rate of 1:1. (Boone County Surveyor's Office)

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For Further Consideration:

21. Do not construct any temporary runarounds, access bridges, causeways, cofferdams, diversions, or pumparounds. (IDNR-DFW)
22. Impacts to non-wetland forest of one (1) acre or more should be mitigated at a minimum 2:1 ratio. If less than one acre of non-wetland forest is removed in a rural setting, replacement should be at a 1:1 ratio based on area. Impacts to nonwetland forest under one (1) acre in an urban setting should be mitigated by planting five trees, at least 2 inches in diameter-at-breast height (dbh), for each tree which is removed that is 10 inches dbh or greater (5:1 mitigation based on the number of large trees). (IDNR-DFW)
23. Use minimum average 6 inch graded riprap stone extended below the normal water level to provide habitat for aquatic organisms in the voids. (IDNR-DFW)
24. Do not cut any trees suitable for Indiana bat or Northern Long-eared bat roosting (greater than 5 inches dbh, living or dead, with loose hanging bark, or with cracks, crevices, or cavities) from April 1 through September 30. (IDNR-DFW)
25. Riprap may be used only at the toe of the sideslopes up to the ordinary high water mark (OHWM). The banks above the OHWM must be restored, stabilized, and revegetated using geotextiles and a mixture of grasses, sedges, wildflowers, shrubs, and trees native to Central Indiana and specifically for stream bank/floodway stabilization purposes as soon as possible upon completion. (IDNR-DFW)
26. The new, replacement, or rehabbed structure should not create conditions that are less favorable for wildlife passage under the structure compared to the current conditions. (IDNR-DFW)
27. Avoid all work within the inundated part of the stream channel (in perennial streams and larger intermittent streams) during the fish spawning season (April 1 through June 30), except for work within sealed structures such as caissons or cofferdams that were installed prior to the spawning season. No equipment should be operated below Ordinary High Water Mark during this time unless the machinery is within the caissons or on the cofferdams. (USFWS)
28. Restrict below low-water work to placement of piers, pilings and/or footings, shaping of the spill slopes around the bridge abutments, and placement of riprap. (USFWS)
29. Construct new structures with a widened span and benches on one or both sides to provide for wildlife crossing, if practical. The crossing should be above normal high water, relatively flat and with natural substrate suitable for use by a wide variety of wildlife. (USFWS)
30. If riprap is utilized for bank stabilization, extend it below low-water elevation to provide aquatic habitat. (USFWS)
31. Re-vegetate all disturbed soil areas immediately upon project completion, using native trees and shrubs in the riparian zone wherever feasible. (USFWS)
32. Post DO NOT DISTURB signs at the construction zone boundaries and do not clear trees or understory vegetation outside the boundaries. (USFWS)

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SECTION K- EARLY COORDINATION

Please list the date coordination was sent and all agencies that were contacted as a part of the development of this Environmental Study. Also, include the date of their response or indicate that no response was received. INDOT and FHWA are automatically considered early coordination participants and should only be listed if a response is received.

Remarks: Early coordination was initiated on October 11, 2019 and December 10, 2019 with applicable federal, state, and local agencies. Review comments from those agencies that returned a reply (Appendix C, C-5 to C-32) have been incorporated into this study, as appropriate. The agencies contacted and the date on which they replied is identified below.

Agency	Response Received	Appendix
US Fish and Wildlife Service	November 5, 2019	C-31 to C-32
US Natural Resources Conservation Service	October 30, 2019 and January 10, 2020	C-28 to C-30
US Department of Housing and Urban Development	---	---
National Park Service, Midwest Regional Office	---	---
Indiana Geological Survey	October 11, 2019	C-11 to C-13
Indiana Dept. of Natural Resources, Division of Fish and Wildlife	November 8, 2019	C-22 to C-26
Indiana Department of Environmental Management	October 11, 2019	C-4 to C-10
Indiana Department of Environmental Management, Groundwater Section	November 7, 2019	C-20
Indiana Department of Transportation, Office of Public Involvement	October 21, 2019	C-16
Indiana Department of Transportation, Crawfordsville District Office	October 15, 2019	C-15
Indiana Department of Transportation, Environmental Services	October 31, 2019	C-17 to C-19
Indiana Department of Transportation, Office of Aviation	December 10, 2019	C-27
Department of the Army, Louisville District	---	---
Eighth Coast Guard District	---	---
Indianapolis Metropolitan Planning Organization	October 11, 2019	C-14
Boone County Highway Department	---	---
Boone County Commissioners	---	---
Boone County Sheriff's Office	---	---
Boone County Surveyor's Office	November 8, 2019	C-21
Western Boone Community Schools	---	---
Boone County Floodplain Administrator	---	---
Boone County EMA	---	---
City of Lebanon Mayor's Office	---	---
Lebanon Community School Corporation	---	---
City of Lebanon Floodplain Administrator	---	---
City of Lebanon Engineer	---	---
Lebanon City Council	---	---
City of Lebanon Fire Department	---	---
City of Lebanon Police Department	---	---
City of Lebanon MS4 Coordinator	---	---

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<ul style="list-style-type: none"> • Section 106 Findings and Supporting 800.11(d) Documentation 	D-1 to D-55
<ul style="list-style-type: none"> • Consulting Party Correspondence Regarding Issued Effect Finding 	D-56 to D-57
<ul style="list-style-type: none"> • Public Notice of “No Historic Properties Affected” Finding 	D-58 to D-61

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<ul style="list-style-type: none"> • Red Flag Investigation – February 1, 2020 	E-1 to E-21
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<ul style="list-style-type: none"> • Excerpts from Alternative Evaluation Report <i>Interstate Access Request at I-65 & US 52/Lafayette Ave, I-65 Added Travel Lanes From SR 32 to SR 47, Boone County, Indiana, Contract R-41847, Des# 1802967 (December 10, 2019)</i> 	J-15 to J-17
<ul style="list-style-type: none"> • Excerpts from the City of Lebanon <i>Wellhead Protection Plan Phase II 5 Year Update –April 2017</i> 	J-18 to J-22
<ul style="list-style-type: none"> • Excerpts from the INDOT <i>North Central Indiana Expansion Project I-65 Added Travel Lanes Build 2018 Grant Application – July 2018</i> 	J-23 to J-26