



INDIANA DEPARTMENT OF TRANSPORTATION

Fort Wayne District
5333 Hatfield Rd.
Fort Wayne, IN 46808

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Eric Holcomb, Governor
Joe McGuinness, Commissioner

be taken from the public in spoken and written form, and question and answer sessions will be offered. Based on the feedback INDOT receives from the public, a project can be modified and improved to better serve the public.

So, if you have received a Notice of Survey, remember:

1. You do not need to take any action at this time. It is merely letting you know that people in safety vests or shirts are going to be in your neighborhood.
2. The project is still in its early planning stage.
3. Construction may be a long way off.
4. You will be notified of your opportunity to comment on the project at a later date.

**Notice of Entry Addresses for Des. No. 1800156 –
SR 218 Small Structure Replacement over Rock Creek, Wells County, IN**

Parcel #	Name	Address	City	State	Zip
1	Steven W. & Dawn R. Harvey	7160 S 500 E	Keystone	IN	46759
2	Tony L. Oswalt	5555 W 900 S	Geneva	IN	46740
3	David A. & Jason W. Fiechter	3287 S. State Route 1	Bluffton	IN	46714
4	Ronald T. & Bonnie J. Burns	1353 E. State Route 218	Poneto	IN	46781

Appendix H:

Air Quality

Fiscal Year (FY) 2020-2024 Statewide Transportation Improvement Program (STIP) Amendment 20-36, Approved January 13, 2021

Indiana Department of Transportation (INDOT)

State Preservation and Local Initiated Projects FY 2020 - 2024

SPONSOR	CONTR ACT # / LEAD DES	STIP NAME	ROUTE	WORK TYPE	LOCATION	DISTRICT	MILES	FEDERAL CATEGORY	Estimated Cost left to Complete Project*	PROGRAM	PHASE	FEDERAL	MATCH	2020	2021	2022	2023	2024
Comments:NO MPO for DES 2002213. Adding PE for \$150,000 to FY 2022 and RW for \$40,000 to phase illustrative of FY 2024.																		
Indiana Department of Transportation	43324 / 2002241	A 34	SR 124	Small Structure Pipe Lining	Large Culvert over HALLS CREEK, 6.90 East of SR 3.	Fort Wayne	0	STBG	\$687,812.00	Bridge Consulting	PE	\$120,000.00	\$30,000.00			\$150,000.00		
										Bridge ROW	RW	\$20,000.00	\$5,000.00					\$25,000.00
Comments:NO MPO for DES 2002241. Adding PE for \$150,000 to FY 2022 and RW for \$25,000 for phase illustrative of FY 2024.																		
Indiana Department of Transportation	43329 / 2002076	A 34	SR 218	Bridge Deck Overlay	Bridge over ELM CREEK, 4.15 Miles West of SR 1.	Fort Wayne	0	STBG	\$757,560.00	Bridge Consulting	PE	\$103,680.00	\$25,920.00			\$129,600.00		
Comments:NO MPO for DES 2002076. Adding PE for \$129,600 to FY 2022.																		
Indiana Department of Transportation	43510 / 1800156	A 36	SR 218	Bridge Replacement, Other Construction	Bridge Over Rock Creek, 2.16 Miles West of SR 1.	Fort Wayne	.608	STBG	\$1,027,563.00	Bridge Construction	CN	\$676,450.40	\$169,112.60					\$845,563.00
										Bridge ROW	RW	\$24,000.00	\$6,000.00			\$30,000.00		
Comments:NO MPO for DES 1800156. Adding RW for \$30,000 in FY 2022 and CN for \$845,563 in FY 2023.																		

Wells County Total

Federal: \$52,298,604.05 Match :\$13,043,401.00 2020: \$9,176,429.96 2021: \$11,384,626.62 2022: \$19,234,555.00 2023: \$3,713,935.00 2024: \$21,832,458.50

State Preservation and Local Initiated Projects FY 2018 - 2021

SPONSOR	CONTR ACT # / LEAD DES	STIP NAME	ROUTE	WORK TYPE	LOCATION	DISTRICT	MILES	FEDERAL CATEGORY	Estimated Cost left to Complete Project*	PROGRAM	PHASE	FEDERAL	MATCH	2018	2019	2020	2021
Indiana Department of Transportation	40486 / 1701394	A 02	US 224	Bridge Replacement, Other Construction	Bridge Over Holthouse Ditch, 0.95 Miles West of US 27	Fort Wayne	0	NHPP	\$960,000.00	Bridge ROW	RW	\$8,000.00	\$2,000.00				\$10,000.00
Comments:NO MPO. Adding PE to FY 2018, PE to FY 2019, and RW to FY 2021 into FY 2018 - 2021 STIP.																	
Indiana Department of Transportation	41019 / 1801167	A 17	SR 218	Channel Clearing And Protection	Over Wabash River, 0.73 Miles of East of SR 116	Fort Wayne	0	STP	\$119,825.00	Bridge Construction	CN	\$71,860.00	\$17,965.00			\$89,825.00	
										Bridge Consulting	PE	\$24,000.00	\$6,000.00		\$30,000.00		
Comments:NO MPO. Adding PE to FY 2019 and CN to FY 2020 into FY 2018 - 2021 STIP.																	
Indiana Department of Transportation	41019 / 1801181	A 17	US 224	Channel Clearing And Protection	Over St Mary's River, 0.85 Miles East of US 27	Fort Wayne	0	NHPP	\$109,155.00	Bridge Consulting	PE	\$24,000.00	\$6,000.00		\$30,000.00		
										Bridge Construction	CN	\$63,324.00	\$15,831.00			\$79,155.00	
Comments:NO MPO. Adding PE to FY 2019 and CN to FY 2020 into FY 2018 - 2021 STIP.																	
Indiana Department of Transportation	41075 / 1800609	A 18	SR 218	Bridge Thin Deck Overlay	Bridge Over Smith-Shoemaker Ditch, 2.10 Miles East of US 27.	Fort Wayne	0	STP	\$73,495.00	Bridge Construction	CN	\$38,796.00	\$9,699.00				\$48,495.00
										Bridge Consulting	PE	\$20,000.00	\$5,000.00		\$25,000.00		
Comments:NO MPO. Adding PE to FY 2019 and CN to FY 2021 into FY 2018 - 2021 STIP.																	
Indiana Department of Transportation	41084 / 1800536	A 18	US 33	HMA Overlay, Preventive Maintenance	From 2.96 miles E of US 27 to 8.44 miles E of US 27 (Ohio State Ln)	Fort Wayne	5.494	NHPP	\$1,792,695.00	Road Consulting	PE	\$160,000.00	\$40,000.00		\$200,000.00		
										Road Construction	CN	\$1,274,156.00	\$318,539.00				\$1,592,695.00
Comments:NO MPO. Adding PE to FY 2019 and CN to FY 2021 into FY 2018 - 2021 STIP.																	
Indiana Department of Transportation	41084 / 1800544	A 18	SR 218	HMA Overlay, Preventive Maintenance	From 0.99 Miles East of US 27 to 8.15 Miles East of US 27 (Ohio)	Fort Wayne	7.206	STP	\$2,175,455.00	Road Construction	CN	\$1,540,364.00	\$385,091.00				\$1,925,455.00
										Road Consulting	PE	\$200,000.00	\$50,000.00		\$250,000.00		
Comments:NO MPO. Adding PE to FY 2019 and CN to FY 2021 into FY 2018 - 2021 STIP.																	
Indiana Department of Transportation	41120 / 1800551	A 18	SR 218	HMA Overlay, Preventive Maintenance	From SR 116 to 0.75 Miles West of US 27 (West Limits Berne)	Fort Wayne	4.032	STP	\$1,218,970.00	Road Construction	CN	\$855,176.00	\$213,794.00				\$1,068,970.00
										Road Consulting	PE	\$120,000.00	\$30,000.00		\$150,000.00		
Comments:NO MPO. Adding PE to FY 2019 and CN to FY 2021 into FY 2018 - 2021 STIP.																	
Indiana Department of Transportation	41547 / 1800209	A 30	SR 218	Bridge Replacement, Other Construction	Bridge Over Wabash River, 0.73 Miles East of SR 116.	Fort Wayne	.3	STP	\$5,246,313.00	Bridge Consulting	PE	\$521,600.00	\$130,400.00		\$652,000.00		
Comments:NO MPO. DES 1800156, 1800209 adding PE to FY 2019 into FY 2018 - 2021 STIP.																	

Adams County Total
 Federal: \$17,676,848.53 Match :\$4,912,074.60 2018: \$8,917,050.13 2019: \$4,128,933.00 2020: \$2,532,677.00 2021: \$7,010,263.00

*Estimated Costs left to Complete Project column is for costs that may extend beyond the four years of a STIP. This column is not fiscally constrained and is for information purposes.

Appendix I:

Additional Information

Excerpt from Engineering Assessment Report



INDOT Bridge Replacement

SR 218 over Rock Creek

Str. 218-90-10417

Des. 1800156

Wells County – Fort Wayne District

2.16 Miles West of SR 1

January 2020

Purpose of the Report:

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

Project Location:

This project is located on SR 218, approximately 1.5 miles east of Poneto, Indiana and 2.16 miles west of SR 1 at reference post 70+98 in Wells County. The GPS coordinates are 40°39'16.96" North and 85°11'28" West. The project is in the Indiana Department of Transportation’s Fort Wayne District. The project new structure number will be 218-90-10417. Project location maps are located in Appendix A of this report.

Project Need and Purpose:

The primary need for this project is to address the low condition ratings of the existing bridge. The purpose of this project is to replace the existing bridge structure before operational function and safety of the traveling public are compromised.

Project History:

This bridge has no past rehabilitation work.

Existing Facility:

The existing roadway facility is classified as a Rural Major Collector and is not part of the US National Highway System (NHS). The roadway is not on the National Truck Network. The posted speed limit at the project location is 55 mph.

Roadway & Bridge

The existing roadway is 30'-0" through the project limits with two 12'-0" travel lanes and 2'-0" paved shoulders and 3'-0" useable shoulders. The existing bridge section consists of two 12'-0" travel lanes and 4'-0" shoulders with the original 1933 concrete railing and no approach guardrail. The existing bridge section is wider than the existing roadway section.

Roadway Information			
Geometric Criteria			
Design Speed	55 mph	Functional Class.	Major Collector
Design Criteria	3R (Non Freeway)	Rural/Urban	Rural
Terrain	Level	Access Control	None
Approach Cross Section			

IDM Figure Reference	IDM 55-3B		
Travel Lane Count	2	Travel Lane Width	12'-0" (Existing) 12'-0" (Proposed)
Shoulder Width (Usable)	3'-0" (Existing) 4'-4" (Proposed)	Shoulder Width (Paved)	2'-0" (Existing) 4'-4" (Proposed)
Mainline Pavement	HMA	Shoulder Pavement	Comp. Agg./ HMA (Existing) HMA (Proposed)
Alignment			
Horizontal	Tangent	Vertical	Crest Curve (Existing) Crest Curve (Proposed)

Structure

The existing bridge data is as follows:

Structure Number: (218)118-90-01488

Feature Intersected: Rock Creek

Superstructure Type: Concrete Arch

Substructure Type: Concrete Abutments

Span Length: 36'-0"

Structure Length: 40'-0"

Deck Geometry: 35'-0" Out to Out, 32'-0" Clear Roadway

Deck Railing: Original 1933 Concrete Railing

Skew Angle: 30 degrees

This bridge was originally designed for the H-20 truck loading which does not meet current standards. The current HS-20 Inventory Rating is 46 tons and the HS-20 Operating Rating is 78 tons according to the most current Load Rating. The Load Rating is not driving the need for replacement.

Structure Inspection Observations

The bridge railing is the original concrete railing from 1933 with no approach guardrail. The railing appears to be in fair to poor condition.

The bridge superstructure is in poor condition with a rating of 4. The spandrels have moderate spalling/deterioration to the decorative caps on both walls and several vertical cracks with minor efflorescence. The arch ring has moderate deterioration in the outer sections as well as several areas of cracking along the construction joints. There was observed wetness and evidence of fill loss along the construction joints.

The bridge substructure is in fair condition with a rating of 5. Honeycombing was noted on the thrust blocks and heavy scaling below the weep holes. Heavy deterioration was noted on the northeast corner. The wing walls have large areas of spalling to the decorative caps and moderate deterioration to the thrust block and wing wall northeast corner. There is a large deep spall with wetness on the southwest wingwall.

Drainage

There is an agricultural ditch with well vegetated banks located on the southwest bridge quadrant running along SR 218 for approximately 450 feet ending at Rock Creek. The agricultural ditch is a legal drain and will require coordination with Wells County Surveyor. Speaking with the Wells County Surveying office on October 29, 2019 there are currently no anticipated major projects for this legal drain. The Surveying office indicated that a clean out of the ditch will be required prior to 2023 but this work is not currently scheduled.

Existing drainage through the project is primarily through the existing agricultural ditch and from the roadway into Rock Creek. There does not appear to be any existing drainage problems in the project area.

Field Check:

A field check was held for this project on May 21, 2019. Field observations were in concurrence with the bridge inspection report and noted the bridge was in poor condition. It was recommended that the field entrance located in the southwest corner of the bridge be removed to allow for the installation of guardrail. This entrance currently requires a large pipe to span the roadside ditch and would prevent the installation of guardrail. It was noted that there is another field entrance located further to the west of the structure which is connected to the same farm field. Due to the depth and steepness of the roadside ditch located on the southwest quadrant it may be required to use extended lengths of guardrail. The meeting minutes are attached in appendix F.

Traffic Data and Capacity Analysis:

According to the INDOT Traffic Count Database System (TCDS) the Annual Average Daily Traffic count for SR 218 in 2018 was 1,391, 27% of which were commercial vehicles. The annual growth has been negative or zero for every year since 2010 except for 2014, 2015, and 2016. The 1.0% growth rate that was used for determining the AADT of 1784 for 2043 was based on the traffic forecast for the small structure replacement of SR 218 over Johns Ditch which was completed in 2017 and is approximately 1.5 miles to the east of the subject project over Rock Creek.

Crash Data and Analysis:

The crash data was compiled using the Automated Reporting Information Exchange System Portal (ARIES Portal). Two separate searches were performed with the first being a location range based on Latitudes and Longitudes encompassing the bridge over Rock Creek, and the second having the location of the crash being on SR 218. Both searches also had common filters for the county of Wells and the crash date being between March 2015 and March 2019. Further filtering was done for each search to only encompass the road segment of 1.5 miles before and after SR 218 over Rock Creek. Six total crashes were found on this segment involving six vehicles. Five of these crashes were due to a collision with a deer in the roadway, and one was a Ran off Road crash type due to the Snow/Slush surface condition; the other five crashes were during dry surface conditions. All six crashes occurred during

clear weather conditions. There were no injuries reported within the sample crash years, and none of the crashes had any indication that the presence of the bridge over Rock Creek or approach guardrail contributed to the causes of the crashes.

Table 1: Crash Analysis for Segment 1.5 miles before and after SR 218 over Rock Creek

Year	Summary Data					Crash Type					Weather Conditions			Surface Condition		
	Crashes	Vehicles Involved	Property Damage Only Crashes	Non-Incapacitating Injury Crashes	Fatal and Incapacitating Injury Crashes	Collision with Deer	Ran off Road	Rear End	Right Angle	Same Direction Sideswipe	Clear	Cloudy	Sleet/Hail/Freezing Rain	Dry	Wet	Snow/Slush
2019	1	1	1	0	0	0	1	0	0	0	1	0	0	0	0	1
2018	1	1	1	0	0	1	0	0	0	0	1	0	0	1	0	0
2017	1	1	1	0	0	1	0	0	0	0	1	0	0	1	0	0
2016	2	2	2	0	0	2	0	0	0	0	2	0	0	2	0	0
2015	1	1	1	0	0	1	0	0	0	0	1	0	0	1	0	0
Total	6	6	6	0	0	5	1	0	0	0	6	0	0	5	0	1
% Total			100.0%	0.0%	0.0%	83.3%	16.7%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	83.3%	0.0%	16.7%

In the RoadHat analysis program, the Index of Crash Frequency and the Index of Crash Cost are outputs which assess the safety of the roadway being analyzed. Each index indicates the number of standard deviations higher (positive) or lower (negative) than the state average for that particular type of roadway or intersection. According to the RoadHat analysis for the project area from 2015 to 2019, the Index of Crash Frequency was determined to be -0.60, and the Index of Crash Cost was -0.76. This means that both the frequency and cost of crashes for this intersection are below the state average.

Alternatives and Recommendations:

Alternate A: Do Nothing

This alternate would allow the existing roadway and structures to remain in place with no improvements and does not address the deficiencies present with the current structure. This alternative does not meet the need nor achieves the purpose of the project and will not be considered further.

Alternate B: Prestressed Concrete Spread Box Beam Bridge

This alternate involves replacing the existing structure with a one span (45'-0") prestressed concrete 21x36 spread box beam bridge. The skew will be 30 degrees to orient the end bents with respect to the alignment of Rock Creek. The width of the structure will be 35'-0" out to out and 32'-0" clear roadway which will meet level one design criteria. Although the preliminary hydraulics analysis and survey data was not available for this structure it is assumed that the bridge will not need to be raised. Reviewing the location of the high water markings and concrete discoloration along the existing structure it does

not appear that flood water overtops this bridge or roadway. Based on this information a preliminary assumption was assumed that the Q100 elevation will not control for this structure. The span length was increased by 25% from 36'-0" to 45'-0" to accommodate any potential span increase for hydraulic area. The existing bridge was built in 1933 and it is assumed that an increase in span length for the hydraulic opening will be required. Spill slopes are anticipated to be graded at 2H:1V.

The proposed bridge cross section will include two 12'-0" travel lanes and 4'-0" shoulders. Type FC bridge railing is proposed for the structure.

The proposed approach cross section at each end of the bridge will include two 12'-0" travel lanes and 4'-4" paved shoulders to the face of guardrail. The existing total shoulder width of 3'-0" is being increased by 1'-4" on each side of the roadway to accommodate the shoulder width and bridge railing offset. A required shy-line offset of 7'-0" is required with the posted 55 mph speed limit and a level two design exception will be required to maintain the proposed Shoulder width.

The proposed guardrail length of need for the project includes 166 feet in the northeast quadrant, 105 feet in the northwest quadrant, 105 feet in the southeast quadrants, and 390 feet in the southwest quadrant. All guardrail end treatments will be required to meet current INDOT design requirements. To accommodate guardrail and shoulder installation the existing roadway embankment will need to be widened 4'-5" on each side of the roadway which will allow the shoulder break to be placed 2'-0" behind the back of the guardrail posts. In order to install guardrail on the southwest quadrant the farm field entrance located immediately adjacent to the end of the bridge railing will need to be removed. There is already a second farm field entrance located further down along SR 218 that can be used to access the field. The farm field entrance located immediately adjacent to the bridge on the southeast quadrant will need to be moved past the proposed guardrail.

The estimated construction cost for this alternate is \$900,000

Alternate C: Slab Bridge (Preferred Alternate)

This alternate involves replacing the existing structure with a one span (45'-0") reinforced concrete slab bridge. The concrete slab will have a total depth of 27" and will have a skew of 30 degrees to orient the end bents with respect to the alignment of Rock Creek. The width of the structure will be 35'-0" out to out and 32'-0" clear roadway which will meet level one design criteria. Although the preliminary hydraulics analysis and survey data was not available for this structure it is assumed that the bridge will not need to be raised. Reviewing the location of the high water markings and concrete discoloration along the existing structure it does not appear that flood water overtops this bridge or roadway. Based on this information a preliminary assumption was assumed that the Q100 elevation will not control for this structure. The span length was increased by 25% from 36'-0" to 45'-0" to accommodate any potential span increase for hydraulic area. The existing bridge was built in 1933 and it is assumed that

an increase in span length for the hydraulic opening will be required. Spill slopes are anticipated to be graded at 2H:1V.

The proposed bridge cross section will include two 12'-0" travel lanes and 4'-0" shoulders. Type FC bridge railing is proposed for the structure.

The proposed approach cross section at each end of the bridge will include two 12'-0" travel lanes and 4'-4" paved shoulders to the face of guardrail. The existing total shoulder width of 3'-0" is being increased by 1'-4" on each side of the roadway to accommodate the shoulder width and bridge railing offset. A required shy-line offset of 7'-0" is required with the posted 55 mph speed limit and a level two design exception will be required to maintain the proposed Shoulder width.

The proposed guardrail length of need for the project includes 166 feet in the northeast quadrant, 105 feet in the northwest quadrant, 105 feet in the southeast quadrants, and 390 feet in the southwest quadrant. All guardrail end treatments will be required to meet current INDOT design requirements. To accommodate guardrail and shoulder installation the existing roadway embankment will need to be widened 4'-5" on each side of the roadway which will allow the shoulder break to be placed 2'-0" behind the back of the guardrail posts. In order to install guardrail on the southwest quadrant the farm field entrance located immediately adjacent to the end of the bridge railing will need to be removed. There is already a second farm field entrance located further down along SR 218 that can be used to access the field. The farm field entrance located immediately adjacent to the bridge on the southeast quadrant will need to be moved past the proposed guardrail.

The estimated construction cost for this alternate is \$920,000.

Details of Preferred Alternate

The bridge replacement using the slab bridge (Alternate C) is the preferred alternate. The slab bridge will address the deficiencies of the existing structure and will have reduced future maintenance costs over the life of the structure compared to the box beam bridge which will offset the estimated \$20,000 cost difference between the two alternates.

Based on the project requirements and estimated guardrail length of need the proposed project limits will be approximately 400 feet and 100 feet of incidental at each end of the structure.

A field survey and hydraulic analysis will need to be completed to verify the proposed design. Due to the age of the existing structure and inaccuracies of the existing plans assumptions made in this report may require revisions based on findings in the survey or hydraulic report.

Maintenance of Traffic during Construction:

The proposed method of maintaining traffic is to close the road and utilize a detour. A closure of SR 218 is acceptable for this project due to the low traffic count and since the existing structure is a concrete arch bridge. It is not recommended to utilize construction phasing with a concrete arch bridge due to the instability created when the structure is partially removed. A proposed detour for this project will likely utilize SR 1, SR 18, and SR 3. The proposed detour matches the detour used for the small structure replacement project SR 218 over Johns Ditch which was completed in 2017. The official detour length will be approximately 38 miles long, but only requires an additional 26 miles. No local detour has been coordinated for this project. The proposed detour was approved by Dana Plattner on 9/23/2019.

A temporary runaround is not practical for this project location and would be cost prohibitive due to impacts to the utility poles located to the north of the structure and the roadside ditch on the southwest quadrant.

Cost Estimate:

The cost of alternate B is as follows:

Construction Cost (CN)	\$920,000
Right-of-Way (RW)	\$30,000
Preliminary Engineering (PE)	\$0
Railroad Coordination (RR)	\$0
Utility Relocation (UT)	\$0
Construction Engineering (CE)	\$0
Total Project Cost	\$950,000

Environmental Issues:

During the field check, the close proximity of the agricultural ditch located on the southwest bridge quadrant was identified as a potential environmental concern. It appears that the ditch was previously realigned with the installation of State Road 218 in 1933. In the early stages of the design process, a waters determination report and environmental investigation will be completed and will be used to determine required permits.

The project waterway may be considered a Waters of the US. A waters determination report will identify any regulatory waterways within the project limits. Any impacts below the OHWM or within a regulatory floodway will require permits from IDEM, USACE and IDNR. Additionally, if more than one acre of land will be disturbed, a Rule 5 permit will be required.

The bridge was determined not eligible for the National Register based on INDOT's Historic Bridge inventory.

Survey Requirements:

The survey limits along SR 218 extend approximately 750 feet on either side of the bridge. The survey will extend past the assumed right-of-way approximately 100 feet from each side of the roadway centerline. Cross-sections of the channel will be required for the hydraulic analysis.

Right-of-Way Impact:

The existing right-of-way for the project location could not be verified since a survey has not yet been completed. The existing 1933 plans indicate that the right-of-way extends 40 feet from the centerline of the roadway on both sides of SR 218 and the existing utility poles are located approximately 38 feet to the north of the roadway centerline. Due to the age of the existing plans and potential documentation concerns it is assumed that the right-of-way will be required to be repurchased through the project limits. This will require an estimated 1.5 acre of permanent right-of-way. There will be the potential need to advertise for a hearing.

Right-of-way Coordination with the adjacent property owners will be required before a decision is finalized. This will allow coordination for the removal of the adjacent field entrances.

Railroad Impact:

There are no railroads located within the project area.

Utility Impact:

There are utility poles and buried utilities located on the north side of the roadway approximately 38 feet from the roadway centerline. Utilities do not appear to require relocation however the contractor will require coordination to perform construction.

Related Projects:

The bridge replacement project SR 218 over Wabash River has the same letting date as the proposed project and is located approximately 9 miles to the east of the project location. It is not anticipated that the detour will be affected by this project.

The small structure replacement project SR 218 over Johns Ditch which is located approximately 1.5 miles to the east of the project location was completed in 2017.

Concurrence:

This document was prepared by:

Mark Swiderski

Mark Swiderski, P.E.
Bridge Design Engineer
Indiana Department of Transportation

Date: 1/3/2020

Reviewed By:
Project Manager Review

Matthew P Witt

Matthew Witt
Senior Project Manager

Date: 1/10/2020

Reviewed By:
Scope Manager Review

Susan J. Doell

Susan Doell
Technical Services Scoping Manager

Date: 1/6/2020

Reviewed By:
SAM Review

Randall Post

Randall Post
Systems Asset Manager, Fort Wayne

2020.01.14 11:20:07 -05'00'

Date: _____

Date: _____

Excerpt from
Bridge Inspection Report

(218)118-90-01488
SR 218
over
ROCK CREEK



Inspection Date: 04/02/2020

Inspected By: Kirk Smith

Inspection Type(s): Routine

Inspector: Kirk Smith
Inspection Date: 04/02/2020

Asset Name: (218)118-90-01488
Facility Carried: SR 218

Bridge Inspection Report

SR 218 over Rock Creek (RP 70+88)

Single-span, reinforced-concrete arch bridge built in 1933. No rehab work to date.

Roadway: HMA; Chip and seal with rutting and surface spalls; few cracks some sealed; Some settlement at each corner of Parapets walls; Fair-to-Poor Condition;

Guardrail: none;

Parapets (Barrier Walls): original to bridge; South parapet wall has heavy deterioration with exposed rebar on wall ends.

Bridge Inspection Report

IDENTIFICATION

(1) STATE CODE:	185 - Indiana	(12) BASE HIGHWAY NETWORK:	0
(8) STRUCTURE:	028990	(13A) INVENTORY ROUTE:	
(5 A-B-C-D-E) INV. ROUTE:	1 - 3 - 1 - 00218 - 0	(13B) SUBROUTE NUMBER:	
(2) HIGHWAY AGENCY DISTRICT:	02 - Fort Wayne	(16) LATITUDE:	40.65470
(3) COUNTY CODE:	090 - WELLS	(17) LONGITUDE:	-85.19118
(4) PLACE CODE:	00000 - N/A	(98) BORDER	
(6) FEATURES INTERSECTED:	ROCK CREEK	A) STATE NAME:	
(7) FACILITY CARRIED:	SR 218	B) PERCENT	%
(9) LOCATION:	02.16 W SR 1	(99) BORDER BRIDGE STRUCT. NO:	
(11) MILEPOINT:	0007.450		

STRUCTURE TYPE AND MATERIAL

(43) STRUCTURE TYPE, MAIN:		(45) NUMBER OF SPANS IN MAIN 001 UNIT:	
A) KIND OF MATERIAL/DESIGN:	1 - Concrete	(46) NUMBER OF APPROACH SPANS:	0000
B) TYPE OF DESIGN/CONSTR:	11 - Arch - Deck	(107) DECK STRUCTURE TYPE:	N - Not Applicable
(44) STRUCTURE TYPE, APPROACH SPANS:		(108) WEARING SURFACE/PROT SYS:	
A) KIND OF MATERIAL/DESIGN:	0 - Other	A) WEARING SURFACE:	N - NA
B) TYPE OF DESIGN/CONSTR:	00 - Other	B) DECK MEMBRANE:	N - NA
		C) DECK PROTECTION:	N - NA

AGE OF SERVICE

(27) YEAR BUILT:	1933	(28) LANES:	
(106) YEAR RECONSTRUCTED:	0000	A) ON BRIDGE:	02
(42) TYPE OF SERVICE:		B) UNDER BRIDGE:	00
A) ON BRIDGE:	1 - Highway	(29) AVERAGE DAILY TRAFFIC:	001465
B) UNDER BRIDGE:	5 - Water way	(30) YEAR OF AVERAGE DAILY TRAFFIC:	2019
		(109) AVERAGE DAILY TRUCK TRAFFIC:	22 %
		(19) BYPASS DETOUR LENGTH:	003 MI

Bridge Inspection Report

GEOMETRIC DATA

(48) LENGTH OF MAX SPAN: 00036.0 FT	(35) STRUCTURE FLARED: 0 - No flare
(49) STRUCTURE LENGTH: 00040.0 FT	(10) INV RTE, MIN VERT CLEARANCE: 99.99 FT
(50) CURB/SIDEWALK WIDTHS:	(47) TOT HORIZ CLEARANCE: 032.5 FT
A) LEFT 00.0 FT	(53) VERT CLEAR OVER BR RDWY: 99.99 FT
B) RIGHT: 00.0 FT	(54) MIN VERTICAL UNDERCLEARANCE:
(51) BRDG RDWY WIDTH CURB-TO-CURB: 032.5 FT	A) REFERENCE FEATURE: N
(52) DECK WIDTH, OUT-TO-OUT: 035.0 FT	B) MIN VERT UNDERCLEAR: 00.00 FT
(32) APPROACH ROADWAY 032.0 FT	(55) LATERAL UNDERCLEARANCE RIGHT:
(33) BRIDGE MEDIAN: 0 - No median	A) REFERENCE FEATURE: N
(34) SKEW: 30 DEG	B) MIN LATERAL UNDERCLEAR: 000.0 FT
	(56) MIN LATERAL UNDERCLEAR ON LEFT: 000.0 FT

INSPECTIONS

(90) INSPECTION DATE: 04/02/2020	(91) DESIGNATED INSPECTION FREQUENCY: 12 MONTHS
(92) CRITICAL FEATURE INSPECTION:	(93) CRITICAL FEATURE INSPECTION DATE:
A) FRACTURE CRITICAL REQUIRED/FREQUENCY: N	A) FRACTURE CRITICAL DATE:
B) UNDERWATER INSPECTION REQUIRED/FREQUENCY: N	B) UNDERWATER INSP DATE:
C) OTHER SPECIAL INSPECTION REQUIRED/FREQUENCY: N	C) OTHER SPECIAL INSP DATE:

CONDITION

(58) DECK: N - Not Applicable	(60) SUBSTRUCTURE: 5 - Fair Condition (minor section loss)
(58.01) WEARING SURFACE: N - Not Applicable	(61) CHANNEL/CHANNEL PROTECTION: 5 - Bank eroded.. major damage
(59) SUPERSTRUCTURE: 4 - Poor Condition (advanced deterioration)	(62) CULVERTS: N - Not Applicable

CONDITION COMMENTS

(58) DECK: N - Not Applicable
 Comments:

(58.01) WEARING SURFACE: N - Not Applicable
 Comments:

(59) SUPERSTRUCTURE: 4 - Poor Condition (advanced deterioration)
 Comments:
 Spandrel: Moderate spalling/deterioration to decorative caps on both walls; a closely spaced map cracks with minor efflorescence;
 Arch Ring: outer sections edges have heavy deterioration (spalling, exposed rebar, likely alkali-silica reaction {ASR} and wetness at construction joints); Closely spaced map cracking along construction joints; wetness, rust, efflorescence, ASR, and evidence of fill loss around both longitudinal construction joints (parallel to traffic); middle section has irregular longitudinal and some transverse cracks with evidence of wetness and fill loss; some moderate efflorescence at transverse construction joints;

Bridge Inspection Report

(60) SUBSTRUCTURE: 5 - Fair Condition (minor section loss)

Comments:

Thrust Blocks: honeycomb and cold joints in monolithic pours of both blocks; minor scaling on both, with heavy scaling below weep holes; heavy deterioration to NE corner and cracks with efflorescence in NW corner (both likely ASR); a couple vertical cracks with light efflorescence;

Wing Walls: large areas of surface spalling to decorative caps; Moderate deterioration (surface spalling, some exposed rebar) to thrust block and wing wall in NE corner; NW, NE, and SE walls have areas of map cracking with efflorescence; corners of wingwalls have silt and water leaking at all corners. SW wingwall at joint has large deep spall with wetness.

(61) CHANNEL/CHANNEL PROTECTION 5 - Bank eroded.. major damage

Comments:

Channel flows south to north; agricultural ditch with well-vegetated banks; sand bar in front of the SW wing wall pushes channel against east abutment; sand bar needs dipped out for better flow under the arch.

(62) CULVERTS: N - Not Applicable

Comments:

LOAD RATING AND POSTING

(31) DESIGN LOAD:	4 - H 20	(66) INVENTORY RATING:	46
(70) BRIDGE POSTING	5 - Equal to or above legal loads	(65) INVENTORY RATING METHOD:	1 - Load Factor (LF)
(41) STRUCTURE OPEN/POSTED/CLOSED:	A - Open	(66B) INVENTORY RATING (H):	26
(64) OPERATING RATING:	78	(66C) TONS POSTED :	
(63) OPERATING RATING METHOD:	1 - Load Factor (LF)	(66D) DATE POSTED/CLOSED:	

APPRAISAL

SUFFICIENCY RATING:	68.5	(36) TRAFFIC SAFETY FEATURE:	
STATUS:	1	36A) BRIDGE RAILINGS:	0
(67) STRUCTURAL EVALUATION:	4	36B) TRANSITIONS:	0
(68) DECK GEOMETRY:	5	36C) APPROACH GUARDRAIL:	0
(69) UNDERCLEARANCES, VERTICAL & HORIZONTAL:	N	36D) APPROACH GUARDRAIL ENDS:	0
(71) WATERWAY ADEQUACY:	8 - Bridge Above Approaches		
Comments:			
(72) APPROACH ROADWAY ALIGNMENT:	8 - Equal to present desirable criteria		
Comments:			
(113) SCOUR CRITICAL BRIDGES:	5 - Scour within limits of footing or piles		
Comments:			

Inspector: Kirk Smith
 Inspection Date: 04/02/2020

Asset Name: (218)118-90-01488
 Facility Carried: SR 218

Bridge Inspection Report

CLASSIFICATION

(20) TOLL:	3 - On Free Road	(21) MAINT. RESPONSIBILITY:	01 - State Highway Agency
(22) OWNER:	01 - State Highway Agency	(26) FUNCTIONAL CLASS OF INVENTORY RTE:	07 - Rural - Major Collector
(37) HISTORICAL SIGNIFICANCE:	5 - Not eligible	(100) STRAHNET HIGHWAY:	Not a STRAHNET route
(101) PARALLEL STRUCTURE:	N - No parallel structure	(102) DIRECTION OF TRAFFIC:	2-way traffic
(103) TEMPORARY STRUCTURE:		(104) HIGHWAY SYSTEM OF INVENTORY ROUTE:	0 - Structure/Route is NOT on NHS
(105) FEDERAL LANDS HIGHWAYS:	0-Not Applicable	(110) DESIGNATED NATIONAL NETWORK:	Inventory route not on network
(112) NBIS BRIDGE LENGTH:	Yes		

NAVIGATION DATA

(38) NAVIGATION CONTROL:	0 - No navigation control on waterway (bridge permit not required)	(39) NAVIGATION VERTICAL CLEAR:	000.0 FT
(111) PIER OR ABUTMENT PROTECTION:		(116) MINIMUM NAVIGATION VERT. CLEARANCE, VERT. LIFT BRIDGE:	FT
		(40) NAV HORIZONTAL CLEARANCE:	0000.0 FT

PROPOSED IMPROVEMENTS

(75A) TYPE OF WORK:		(95) ROADWAY IMPROVEMENT COST:	\$ 000000
(75B) WORK DONE BY:		(96) TOTAL PROJECT COST:	\$ 000000
(76) LENGTH OF IMPROVEMENT:	00000.0 FT	(97) YR OF IMPROVEMENT COST EST:	
(94) BRIDGE IMPROVEMENT COST:	\$ 000000	(114) FUTURE AVG DAILY TRAFFIC:	002815
		(115) YR OF FUTURE ADT:	2032

Paint: * Indicate if paint present , year painted & condition rating.

N - No Paint

Not Rated

Comments:

Scour Analysis: 5

Scour Critical:

Scour POA?

N

NBI 113 Scour Comment:

Endangered Species: * If yes, add one photo to the dropdown field

Bats: seen or heard under structure? *

N

Birds/swallows/nests seen? Empty nests present? *

N

BRIDGE Culvert Geometry:

Barrel Length:

Height:

Width:

Land and Water Conservation Fund (LWCF) County Property List for Indiana (Last Updated July 2020)

ProjectNumber	SubProjectCode	County	Property
1800008	1800008	Wells	Ouabache State Park
1800095	1800095	Wells	Wells County Community Swimming Pool
1800159	1800159	Wells	Roush Park
1800164	1800164	Wells	Ouabache State Park
1800171	1800171I	Wells	Oubache State Park
1800182	1800182	Wells	Ouabache State Park
1800300	1800300	Wells	Ouabache State Park
1800312	1800312J	Wells	Ouabache State Park
1800363	1800363U	Wells	Ouabache State Park
1800579	1800579	Wells	Archbold Wilson Memorial Park
1800588	1800588	Wells	Roush Park
1800594	1800594C	Wells	Ouabache State Park

*Park names may have changed. If acquisition of publically owned land or impacts to publically owned land is anticipated, coordination with IDNR, Division of Outdoor Recreation, should occur.

Environmental Justice Summary

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 EJ Analysis is required for any project that has two or more relocations or 0.5 acre of additional permanent right-of-way. The project will require no relocations and 0.66 acre of additional permanent right-of-way. 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 Wells County, Indiana. The community that overlaps the project area is called the affected community (AC). In this project, the AC is Census Tracts 403 and 407 within Wells County, Indiana. 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 American Community Survey (ACS) 2019 5-Year Estimates was obtained from the US Census Bureau Website (<https://data.census.gov/cedsci/>) on December 28, 2020 by INDOT-Fort Wayne District. The data collected for minority and low-income populations within the AC are summarized in the below table.

Table 1: Minority and Low-Income Data (Source: 2019 ACS 5-Year Estimates)			
	COC - (Wells County, Indiana)	AC-1 - (Census Tract 403, Wells County, Indiana)	AC-2 - (Census Tract 407, Wells County, Indiana)
Percent Minority	5.6%	3.2%	4.9%
125% of COC	7%	AC < 125% COC	AC < 125% COC
EJ Population of Concern		No	No
Percent Low-Income	8.4%	3.5%	3.3%
125% of COC	10.5%	AC < 125% COC	AC < 125% COC
EJ Population of Concern		No	No

AC-1, Census Tract 403 has a percent minority of 3.2% which is below 50% and is below the 125% COC threshold. AC-2, Census Tract 407 has a percent minority of 4.9% which is below 50% and is below the 125% COC threshold. Therefore, both AC’s do not contain minority populations of EJ concern.

AC-1, Census Tract 403 has a percent low-income of 3.5% which is below 50% and is below the 125% COC threshold. AC-2, Census Tract 407 has a percent low-income of 3.3% which is below 50% and is below the 125% COC threshold. Therefore, both AC’s do not contain low-income populations of EJ concern.

Conclusion: The census data sheets, map, and calculations can be found attached. No further environmental justice analysis is warranted.

Des. No. 1800156: SR 218 over Rock Creek – Environmental Justice (EJ) Analysis
Prepared by: Ashley Taylor
Date: December 29, 2020

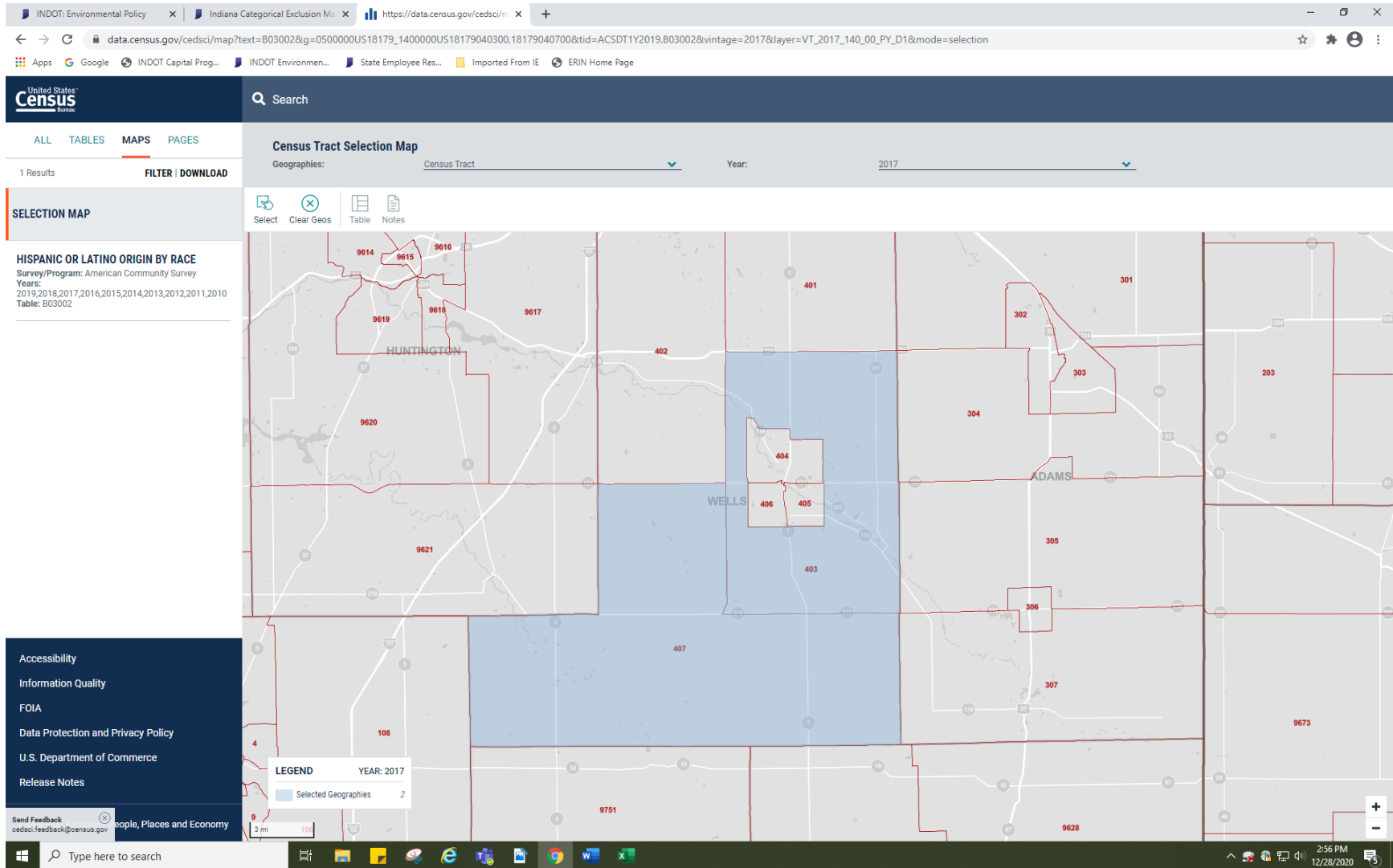


Figure 1: AC of Census Tracts 403 and 407 within Wells County, Indiana utilizing data from B03002: Hispanic or Latino Origin by Race.

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Prepared by: Ashley Taylor
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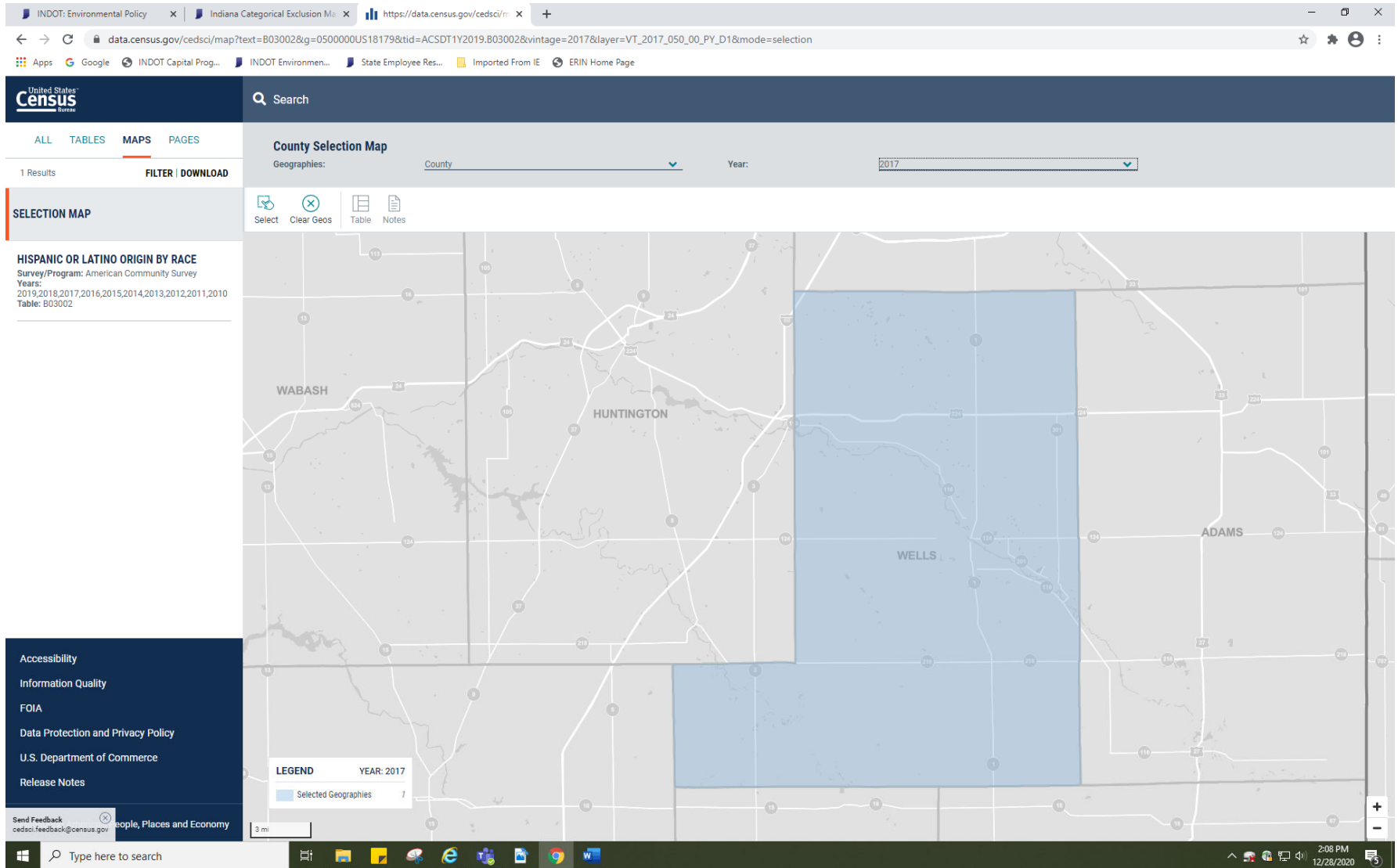


Figure 2: COC of Wells County, Indiana utilizing data from B03002: Hispanic or Latino Origin by Race.

HISPANIC OR LATINO ORIGIN BY RACE

TABLE ID: B03002
 SURVEY/PROGRAM: American Community Survey
 PRODUCT: ACS 5-Year Estimates Detailed Tables

	COC	AC-1	AC-2
	Wells County, Indiana	Census Tract 403, Wells County, Indiana	Census Tract 407, Wells County, Indiana
Label	Estimate	Estimate	Estimate
Total:	28,011	4,228	3,826
Not Hispanic or Latino:	27,150	4,173	3,772
White alone	26,429	4,093	3,638
Black or African American alone	224	42	0
American Indian and Alaska Native alone	63	0	4
Asian alone	115	38	37
Native Hawaiian and Other Pacific Islander alone	0	0	0
Some other race alone	0	0	0
Two or more races:	319	0	93
Two races including Some other race	1	0	0
Two races excluding Some other race, and three or more races	318	0	93
Hispanic or Latino:	861	55	54
White alone	389	53	54
Black or African American alone	0	0	0
American Indian and Alaska Native alone	0	0	0
Asian alone	0	0	0
Native Hawaiian and Other Pacific Islander alone	0	0	0
Some other race alone	309	2	0
Two or more races:	163	0	0
Two races including Some other race	147	0	0
Two races excluding Some other race, and three or more races	16	0	0

DATA NOTES

TABLE ID: B03002
 SURVEY/PROGRAM: American Community Survey
 VINTAGE: 2019
 DATASET: ACSDT5Y2019
 PRODUCT: ACS 5-Year Estimates Detailed Tables
 FTP URL: None
 API URL: Download the entire table at <https://api.census.gov/data/2019/acs/acs5>

USER SELECTIONS

GEOS: Wells County, Indiana; 403; 407

WEB ADDRESS

https://data.census.gov/cedsci/table?text=B03002&g=0500000US18179_1400000US18179040300,18179040700&tid=ACSDT5Y2019.B03002&hidePreview=true

TABLE NOTES:

Although the American Community Survey (ACS) produces population, demographic and housing unit estimates, it is the Census Bureau's Population Estimates Program that produces and disseminates the official estimates of the population for the nation, states, counties, cities, and towns and estimates of housing units for states and counties.

Supporting documentation on code lists, subject definitions, data accuracy, and statistical testing can be found on the American Community Survey website in the Technical Documentation section. Sample size and data quality measures (including coverage rates, allocation rates, and response rates) can be found on the American Community Survey website in the Methodology section.

Source: U.S. Census Bureau, 2015-2019 American Community Survey 5-Year Estimates

Data are based on a sample and are subject to sampling variability. The degree of uncertainty for an estimate arising from sampling variability is represented through the use of a margin of error. The value shown here is the 90 percent margin of error. The margin of error can be interpreted roughly as providing a 90 percent probability that the interval defined by the estimate minus the margin of error and the estimate plus the margin of error (the lower and upper confidence bounds) contains the true value. In addition to sampling variability, the ACS estimates are subject to nonsampling error (for a discussion of nonsampling variability, see ACS Technical Documentation). The effect of nonsampling error is not represented in these tables.

The 2015-2019 American Community Survey (ACS) data generally reflect the September 2018 Office of Management and Budget (OMB) delineations of metropolitan and micropolitan statistical areas. In certain instances, the names, codes, and boundaries of the principal cities shown in ACS tables may differ from the OMB delineation lists due to differences in the effective dates of the geographic entities.

Estimates of urban and rural populations, housing units, and characteristics reflect boundaries of urban areas defined based on Census 2010 data. As a result, data for urban and rural areas from the ACS do not necessarily reflect the results of ongoing urbanization.

Explanation of Symbols: An "***" entry in the margin of error column indicates that either no sample observations or too few sample observations were available to compute a standard error and thus the margin of error. A statistical test is not appropriate. An "-" entry in the estimate column indicates that either no sample observations or too few sample observations were available to compute an estimate, or a ratio of medians cannot be calculated because one or both of the median estimates falls in the lowest interval or upper interval of an open-ended distribution, or the margin of error associated with a median was larger than the median itself. An "-" following a median estimate means the median falls in the lowest interval of an open-ended distribution. An "+" following a median estimate means the median falls in the upper interval of an open-ended distribution. An "***" entry in the margin of error column indicates that the median falls in the lowest interval or upper interval of an open-ended distribution. A statistical test is not appropriate. An "*****" entry in the margin of error column indicates that the estimate is controlled. A statistical test for sampling variability is not appropriate. An "N" entry in the estimate and margin of error columns indicates that data for this geographic area cannot be displayed because the number of sample cases is too small. An "(X)" means that the estimate is not applicable or not available.

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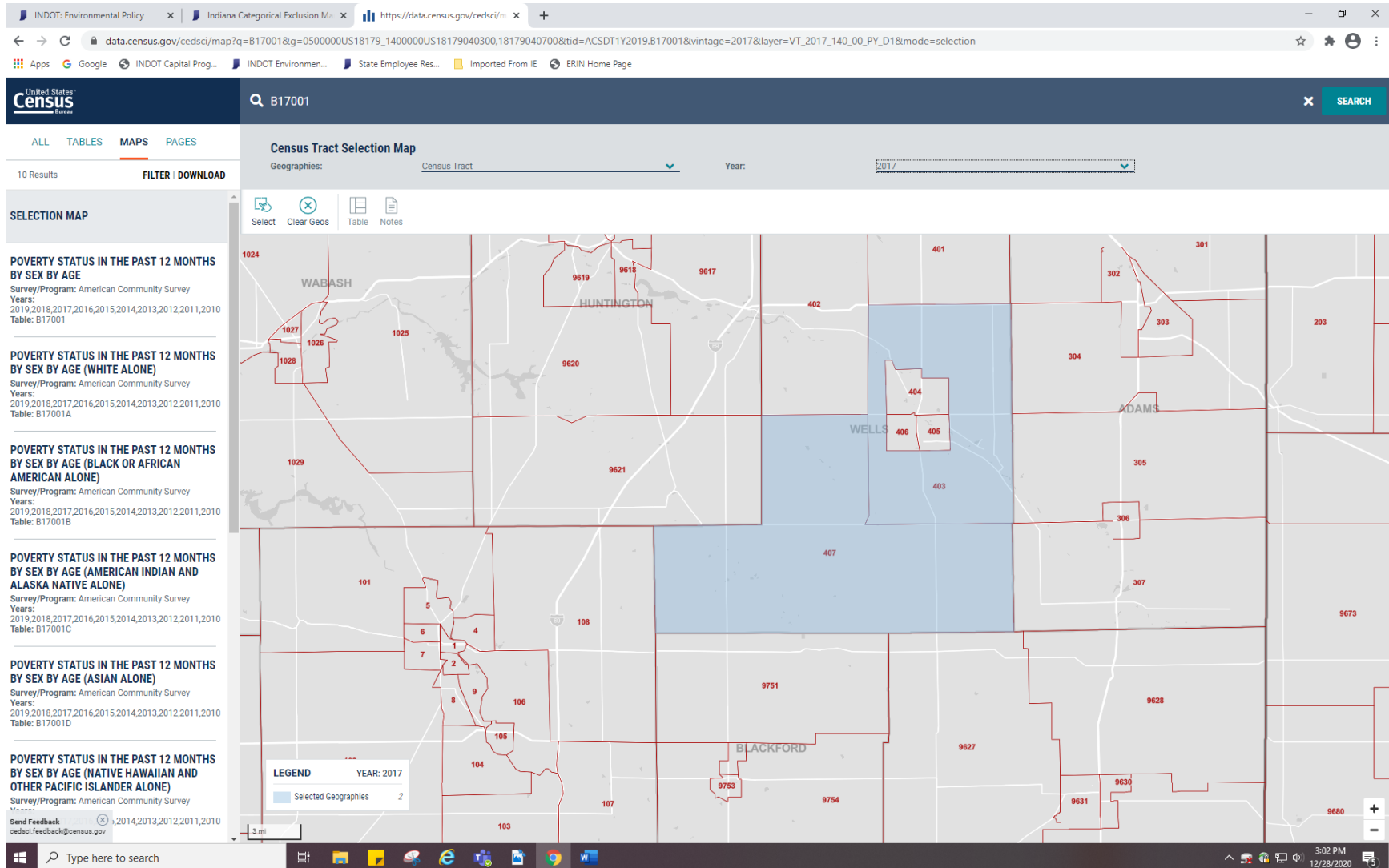


Figure 3: AC of Census Tracts 403 and 407 within Wells County, Indiana utilizing data from B17001: Poverty Status in the Past 12 Months by Sex by Age.

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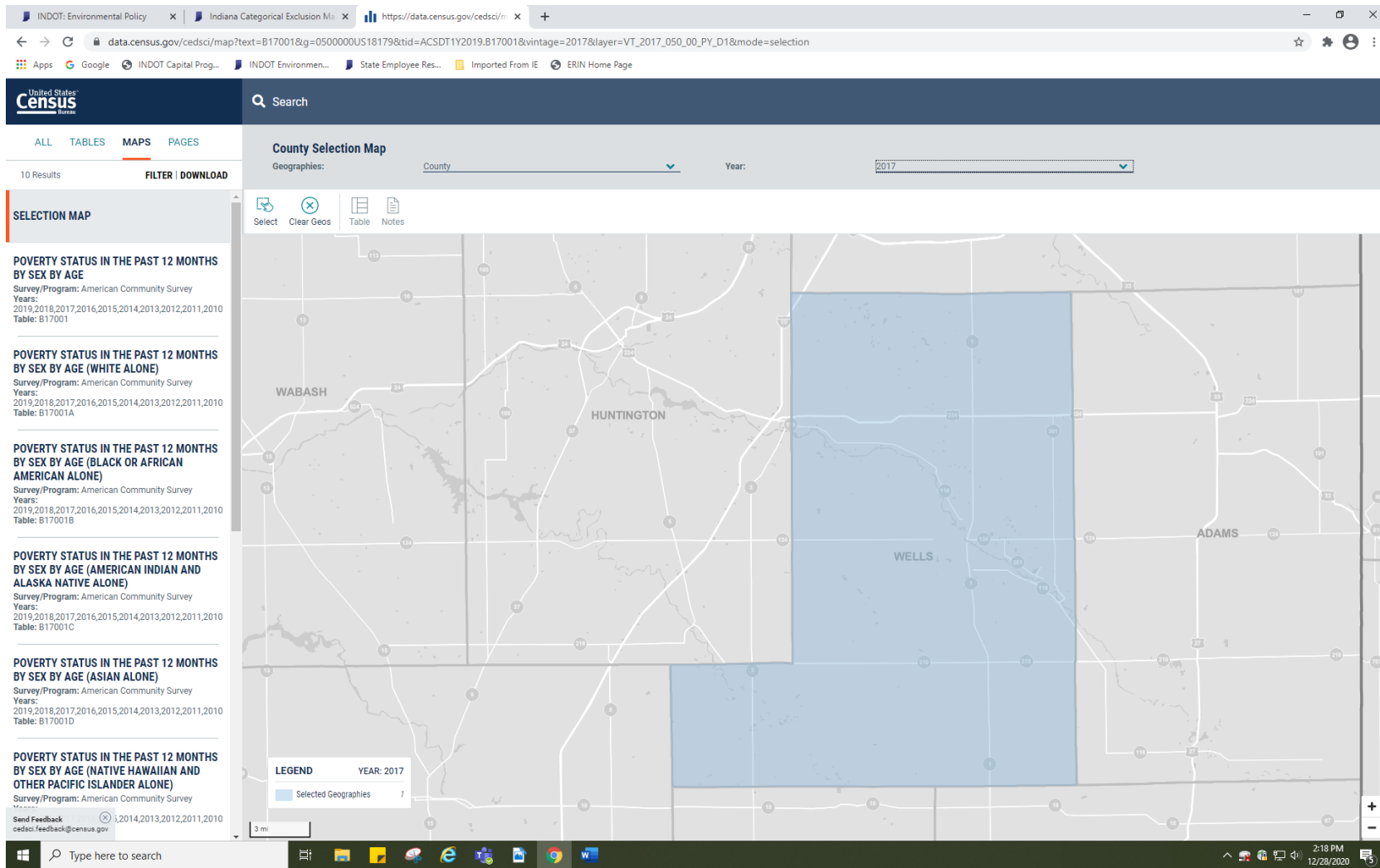


Figure 4: COC of Wells County, Indiana utilizing data from B17001: Poverty Status in the Past 12 Months by Sex by Age.

POVERTY STATUS IN THE PAST 12 MONTHS BY SEX BY AGE

TABLE ID:

B17001

SURVEY/PROGRAM

American Community Survey

PRODUCT:

ACS 5-Year Estimates Detailed Tables

Label	COC	AC-1	AC-2
	Wells County, Indiana	Census Tract 403, Wells County, Indiana	Census Tract 407, Wells County, Indiana
Estimate	Estimate	Estimate	Estimate
Total:	27,346	4,228	3,801
Income in the past 12 months below poverty level:	2,302	149	125
Male:	937	78	27
Under 5 years	114	0	0
5 years	0	0	0
6 to 11 years	183	12	0
12 to 14 years	102	8	0
15 years	8	0	0
16 and 17 years	9	5	0
18 to 24 years	94	0	0
25 to 34 years	143	8	12
35 to 44 years	77	2	0
45 to 54 years	42	15	0
55 to 64 years	48	8	4
65 to 74 years	60	20	11
75 years and over	57	0	0
Female:	1,365	71	98
Under 5 years	78	8	13
5 years	30	0	0
6 to 11 years	170	7	0
12 to 14 years	8	0	0
15 years	4	0	0
16 and 17 years	12	0	0
18 to 24 years	162	0	10
25 to 34 years	303	7	37
35 to 44 years	100	13	0
45 to 54 years	77	5	0
55 to 64 years	181	15	24
65 to 74 years	91	9	0
75 years and over	149	7	14
Income in the past 12 months at or above poverty level:	25,044	4,079	3,676
Male:	12,520	2,148	1,862
Under 5 years	736	178	74
5 years	148	12	29
6 to 11 years	1,066	168	205
12 to 14 years	539	92	75
15 years	147	37	37
16 and 17 years	436	99	59
18 to 24 years	1,050	189	173
25 to 34 years	1,448	201	143
35 to 44 years	1,491	275	252
45 to 54 years	1,633	275	242
55 to 64 years	1,921	316	346
65 to 74 years	1,221	264	120
75 years and over	684	42	107
Female:	12,524	1,931	1,814
Under 5 years	743	143	92
5 years	85	13	12
6 to 11 years	949	162	142
12 to 14 years	624	101	85
15 years	240	32	53
16 and 17 years	362	41	40
18 to 24 years	803	151	94
25 to 34 years	1,294	228	159
35 to 44 years	1,549	250	202
45 to 54 years	1,673	208	269
55 to 64 years	1,862	296	384
65 to 74 years	1,344	206	163
75 years and over	996	100	119

DATA NOTES

TABLE ID	B17001
SURVEY/PROGRAM	American Community Survey
VINTAGE	2019
DATASET	ACSDT5Y2019
PRODUCT:	ACS 5-Year Estimates Detailed Tables
FTP URL:	None
API URL:	Download the entire table at https://api.census.gov/data/2019/acs/acs5

USER SELECTIONS

GEOS	Wells County, Indiana; Census Tract 403, Wells County, Indiana; Census Tract 407, Wells County, Indiana
------	--

WEB ADDRESS

https://data.census.gov/cedsci/table?q=B17001&g=0500000US18179_1400000US18179040300,18179040700&tid=ACSDT5Y2019.B17001&hidePreview=true

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Source: U.S. Census Bureau, 2015-2019 American Community Survey 5-Year Estimates

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Estimates of urban and rural populations, housing units, and characteristics reflect boundaries of urban areas defined based on Census 2010 data. As a result, data for urban and rural areas from the ACS do not necessarily reflect the results of ongoing urbanization.

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Calculations:

Percent minority equation using data from B03002:

$$\text{Percent Minority} = \frac{\text{Total Population} - \text{Not Hispanic or Latino: White Alone}}{\text{Total Population}} \times 100$$

Table 2: Summary of B03002 Data Used and Calculations (Source: 2019 ACS 5-Year Estimates)

	COC: Wells County, Indiana	AC-1: Census Tract 403, Wells County, Indiana	AC-2: Census Tract 407, Wells County, Indiana
Total Population	28,011	4,228	3,826
Not Hispanic or Latino: White Alone	26,429	4,093	3,638
Percent Minority	5.6%	3.2%	4.9%

$$125\% \text{ of COC} = \text{Percent Minority of COC: Wells County} \times 1.25 = 5.6\% \times 1.25 = 7\%$$

Percent low income equation using data from B17001:

$$\text{Percent Low Incomes} = \frac{\text{Income in the Past 12 Months Below Poverty Level}}{\text{Total Population}} \times 100$$

Table 3: Summary of B17001 Data Used and Calculations (Source: 2019 ACS 5-Year Estimates)

	COC: Wells County, Indiana	AC-1: Census Tract 403, Wells County, Indiana	AC-2: Census Tract 407, Wells County, Indiana
Total Population	27,346	4,228	3,801
Income in the Past 12 Months Below Poverty Level	2,302	149	125
Percent Low Income	8.4%	3.5%	3.3%

$$125\% \text{ of COC} = \text{Percent Minority of COC: Wells County} \times 1.25 = 8.4\% \times 1.25 = 10.5\%$$