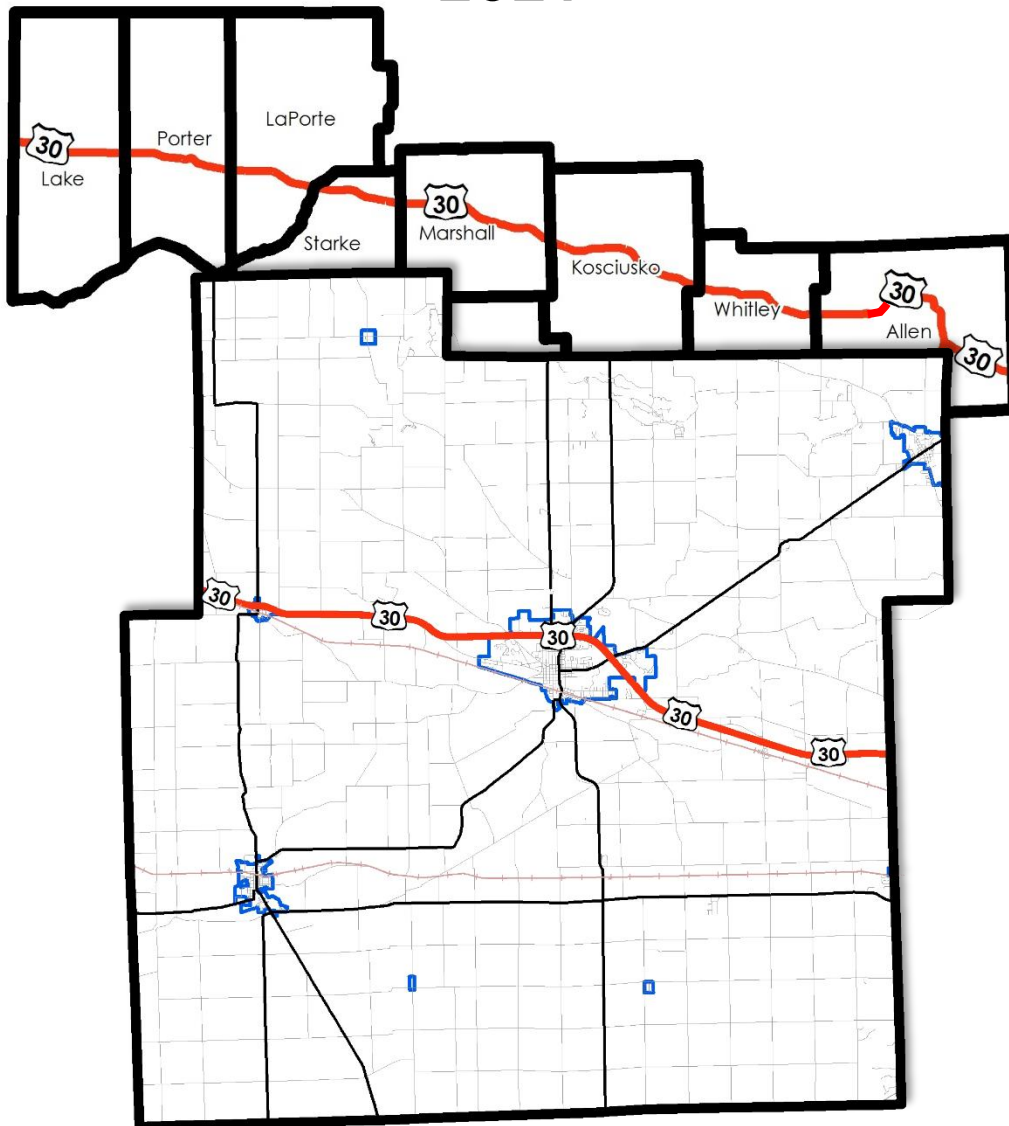


Upgrade US 30 Whitley County 2021



*A Concept for a US 30 Freeway
across Whitley County, Indiana*

Whitley County US 30 Planning Committee
Updated August 2022

TABLE OF CONTENTS

Executive Summary.....	3
Introduction.....	4
Background.....	5
Existing Conditions.....	8
Public Participation.....	11
The Concept for US 30.....	13
Intersection Examples.....	30
Other Design Considerations.....	34
Implementation Strategies.....	35
Appendix A: Vehicle Counts by Location.....	37
Appendix B: Collision Data, 2002-2021.....	38
Appendix C: Comparable Highway Traffic Counts.....	39
Appendix D: Letters of Support.....	40
Appendix E: References.....	43

WHITLEY COUNTY US 30 PLANNING COMMITTEE (AS OF 2022)

Ryan Daniel, Mayor <i>City of Columbia City</i>	Mark Hisey, Vice President of Facilities Design <i>Parkview Health</i>
George Schrumpf, Commissioner <i>Whitley County</i>	Troy Kiefer, Member <i>Larwill Town Council</i>
Nathan Bilger, Planning Director <i>Columbia City/Whitley County</i>	Jennifer Esterline, President <i>Whitley County Chamber of Commerce</i>
Dale Buuck, President <i>Whitley County Economic Development Corp.</i>	Chip Hill, Director of Community Development <i>City of Columbia City</i>
Dane Drew, Surveyor <i>Whitley County</i>	Larry Weiss, Member <i>Columbia City Plan Commission</i>

COMMITTEE ADVISORS

Dennis Faulkenberg and Laurie Maudlin <i>Appian, Inc.</i>	Jason Kaiser, Technical Services Director <i>Indiana Department of Transportation</i>
--	--

Original publication: January 27, 2017

Revised: August 19, 2021

Updated: August 26, 2022

EXECUTIVE SUMMARY

This report outlines the endeavors of the Whitley County US 30 Planning Committee to develop and evaluate conceptual solutions to current and foreseen issues with the aging US 30 highway in Whitley County, Indiana.

The Whitley County US 30 Planning Committee is a group comprised of representatives of local business, government, farms, and economic development which has been meeting since November 2015, to develop a concept for a US 30 freeway in Whitley County. The local planning committee is a subgroup of the statewide US 30 Coalition, a 501(c)6 organization with constituent members from each county from Allen to Porter. Its goal is to prepare, plan, and advocate for an interstate-level US 30 freeway across Indiana.

In 2016-17, the Whitley County US 30 Planning Committee met to develop a working concept for upgrading US 30. The committee strived to minimize property acquisitions, minimize displacement of residents and businesses, maximize traffic capacity and through flow, and create opportunities for economic development in the County. These goals produced an idea for a US 30 freeway using the existing alignment with up to eight interchanges at critical residential and economic areas.

In late 2016, the working concept was presented for comment during three stakeholder meetings and four public input sessions, in which over 200 people participated. Informal meetings, phone calls, letters, emails, and Facebook discussions yielded additional comments. That feedback was used to refine the concept and generate the map diagrams which are presented in this report.

The committee did not attempt to generate any precise cost estimates or construction timeline, which would be calculated by those better experienced to do so, such as the Indiana Department of Transportation. However, the committee did define the next steps necessary to pursue implementation of the US 30 concept, both at the local and state levels.

Since the creation of this planning guide in January 2017, the Whitley County US 30 Planning Committee has met occasionally to keep abreast of developments in this project. Key events over the past two years include:

1. Continued meetings of the Coalition and ongoing advocacy at the state government
2. Revised interchange concepts, notably that of 400E
3. INDOT designed a J-turn at 500E, with construction due to start summer 2021
4. During the 2020 pandemic quarantines, average US 30 traffic decreased only 10%, compared to an average statewide decrease of 18.8%

This is a revised document, updated with more recent figures and reflective of the current status of the US 30 project, both locally and statewide.

In August 2022, collision and traffic data were updated with more recent figures, and intersection design recommendations modified to reflect changing development needs.

INTRODUCTION

Established in 1926, US 30 in Indiana is an east-west arterial thoroughfare stretching some 156 miles from the Ohio state line in Allen County to the Illinois state line in Lake County. For its entire length, the highway is a four-lane route, typically divided with a median, and is second only to the Indiana Toll Road in overall traffic volume traveling across the upper third of the state. This represents the long-standing importance of US 30 as the major transportation connection for all of the communities along its corridor.

In Whitley County, the current US 30 was constructed in the early 1960s and has seen few changes since that time. While substantial revisions to the highway configuration have occasionally been suggested, such as the 1974 proposal to close the State Road 109 intersection, none have been constructed. Traffic volume has continually increased, with significant growth since 2002, and the highway in its current form is beginning to show signs of reaching its capacity.

This report outlines the endeavors of the Whitley County US 30 Planning Committee as they have sought to develop conceptual solutions to the current and foreseen issues with the aging highway.

Included are background information, existing conditions, and forecasts for the highway's growth. The Planning Committee's efforts to solicit early feedback from stakeholders and the public on the conceptual plans are discussed at length.

The report continues with the resulting conceptual designs presented in an intersection-by-intersection format. These represent the bulk of the Planning Committee's work and serve as the foundation for further study and analysis for the future of US 30. A section of example improvements is shown for convenient reference.

Finally, suggested steps for implementation of the conceptual plans are listed, along with commentary of the costs and timing of the overall project.

DID - YOU - KNOW ?
THE STATE HIGHWAY PLANS TO CLOSE ST. ROAD 109 AND 10 INTERSECTION ? ST. ROAD 109 IS COLUMBIA CITY'S BUSIEST INTERSECTION WITH U.S. 30 NOW HANDLING 7% MORE TRAFFIC THAN ST. ROAD 9

CAN NORTH MAIN ST. HANDLE DOUBLE ITS PRESENT TRAFFIC ?
ALL NORTH - SOUTH TRAFFIC IN AND OUT OF COLUMBIA CITY WILL BE FORCED TO USE N. MAIN ST. WHERE TRAFFIC NOW IS BECOMING MORE THAN IT IS SAFE TO HANDLE -

WHAT - CAN - YOU - DO ?
MAKE YOURSELF HEARD BY SIGNING THE PETITION AGAINST THE CLOSING OF ROAD 109 AND 30 INTERSECTION. PETITIONS ARE AVAILABLE IN MANY OF THE AREA STORES AND FROM CONCERNED CITIZENS IN YOUR NEIGHBORHOOD. UNLESS YOU ACT NOW ST. ROAD 109 AND U.S. 30 INTERSECTION WILL BE CLOSED.

Why We Must KEEP INTERSECTION 109 AND 30 OPEN
WE NOW HAVE 2 MAIN HIGHWAYS LEADING INTO COL. CITY FROM THE NORTH. ROAD 109 IS THE MAIN ROAD TO THE HOSPITAL, SCHOOLS, AND BUSINESSES IN COL. CITY. ACCIDENTS AND PROPERTY DAMAGE HAVE BEEN REDUCED SINCE STOP LIGHTS, AND SLOWER SPEED LIMITS, HAVE BEEN INSTALLED ON INTERSECTION 109 AND 30. IN MANY AREA STORES

PETITIONS - ARE - AVAILABLE -
CLOSING 109 AND 30 WOULD ADD 3800 MORE CARS ONTO 9 WHICH ALREADY HAS MORE TRAFFIC THAN IS SAFE. KEEP 109 OPEN
COMMUNITY GROWTH IS DUE MAINLY TO THE ACCESS OF GOOD HIGHWAYS LEADING TO AND FROM THE CITY. KEEP 109 OPEN
TAXES COMING FROM THE NO. LINE ST. BUSINESSES, ALSO THE EMPLOYMENT, ADDS TO THE GROWTH OF COLUMBIA CITY. KEEP 109 OPEN
FARMERS FROM THE NORTH WOULD HAVE TO USE 9 AND 30 INT. BRINGING GRAIN INTO COL. CITY; ANOTHER HAZARDOUS CONDITION. KEEP 109 OPEN

PLEASE - SIGN - IF - IN - FAVOR - OF - NOT -
CLOSING 109 AT 30 INT. (PLEASE PRINT NAME AND ADDRESS)
NAME _____ ADDRESS _____
NAME _____ ADDRESS _____
NAME _____ ADDRESS _____
NAME _____ ADDRESS _____

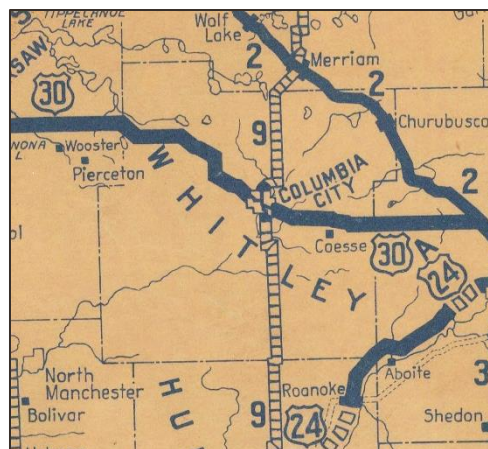
A 1974 newspaper advertisement rallying against a proposed closure of the S.R. 109 intersection.

BACKGROUND

US 30 has been, and continues to be, an important factor in the development of Whitley County. As such, it is vital to recognize current issues with the highway and work to rectify deficiencies and plan for future growth.

History of US 30 in Whitley County

In the early 1920s, two transcontinental roads, the Lincoln Highway and the Yellowstone Trail, crossed Whitley County. The Yellowstone Trail route would later become known as Old Trail Road, a county-maintained road. The Lincoln Highway, better organized and funded, traversed the county by way of Coesse Corners and Lorane, using the route that is now known as Lincolnway. In 1926, US 30 was designated over the Lincoln Highway route.



Excerpt from the 1926 State Highway System of Indiana.

By 1950, the curvy and hilly alignment northwest of Columbia City via Lorane was replaced with a straighter and flatter route to Larwill. While the new alignment maintained existing driveways onto the predecessor county roads as a benefit for adjacent landowners, the route was designed with the capability to be expanded to a 4-lane highway in the future. The growth of traffic on US 30 throughout the '50s warranted converting the road to a 4-lane limited access highway. A new alignment was constructed east of Columbia City, with a bypass to the north of the city, and the new highway opened by 1963. Because of the differences in the designs of each segment, the eastern half of US 30 had only two direct road cuts, while the western half had more than 20.

Over the past 50-plus years, Whitley County has seen new development along US 30, especially industry in the eastern half of the county, and several traffic signals have been added to facilitate the growth. Through traffic has also increased steadily, with a spike following the 2007 lease of the Indiana Toll Road. As an attempt to address the increasing traffic levels, in 2015 the Indiana Department of Transportation (INDOT) proposed a system of “J-turns” and an interchange to replace intersections across the county. That proposal was withdrawn after significant local opposition, but it was the impetus for generating new interest in planning for the future of the highway.

US 30 Coalition

After the “J-turn” proposal from INDOT, the counties and cities along the US 30 corridor came together in 2015 to create a unified grassroots effort to “prepare, plan, and advocate for a US 30 freeway.” This became the US 30 Coalition, a 501(c)6 nonprofit group with representatives from each county along the highway from Allen to Porter. On a broader scale, it is a part of a larger regional effort to make improvements to segments of US 30 from Iowa to Ohio to encourage economic development and more expedient travel along the corridor.

The Coalition currently meets regularly to further their goal of developing US 30 into an interstate-level freeway from the Ohio state line to SR 49 near Valparaiso. This would make US 30 similar in design to the new US 31 between Indianapolis and South Bend.

Importantly, the US 30 Coalition engaged the highway funding firm Appian, Inc. to research and develop the conceptual plans for the proposed freeway and to aid in facilitating its design and

construction. Appian has a long history of developing Indiana highway projects and has been an important resource in developing the conceptual maps for Whitley County.

Events since 2017

State government

The Coalition engaged Long Legal, LLC in 2020 to assist in promoting the US 30 project as a legislative matter. This has resulted in US 30 gaining more prominence with state government officials, especially as the construction on I-69 in the southern Indiana is coming to its final stages. To a degree and with positive effect, the proposed transformation of US 30 to freeway-level is being seen now as a sister project to US 31, which is also entering what may be its latter half of design.

500E intersection redesign

In the fall of 2019, INDOT held a public hearing at Coesse Elementary School to discuss a proposed Median U-turn (“MUT”), also known as a J-turn, design at 500E. This event was attended by members of the Committee, school leaders, the Union Township Fire Chief, and other interested parties.



Rickie Clark of INDOT discusses the proposed MUT at 500E.

The points brought up in this hearing are in the records of INDOT (see References for the link), but generally the public was apprehensive of the design. Members of the Committee presented that a J-turn would be an unnecessary piecemeal project that would not further the overall plan of improvements for US 30 to create an interstate-level highway.

Specific comments were made by the public regarding potential impacts on the movement of fire trucks, farm vehicles, and semi-trucks to and through the U-turn, as well as the potential for diverting traffic to other intersections. Additionally, the lack of facilities for non-motorized vehicles and pedestrians was noted, especially as INDOT has a mandate to account for them.

In its responses to these comments in the environmental documentation, INDOT stated:

- That the proposal was “designed to accommodate both school buses and [tractor trailer] design vehicle.”
- That “acceleration times onto US 30 are the same whether they are at the existing intersection location, or the proposed MUT locations.”
- That the “proposed intersection will eliminate conflict points that have to be crossed and will result in an overall safer, free flowing facility.”
- That “traffic studies completed to date do not show that significant numbers of vehicles will divert to adjacent intersections.”
- That “there are no plans to introduce pedestrian access facilities to his intersection” and bicycle facilities “will be evaluated as the design progresses.”

In the end, the final design that went for bid was virtually unchanged from the initial proposal. The MUT is scheduled to be constructed in the summer of 2021.

New development

In the spring of 2021, Amazon announced the construction of a 630,000 square-foot facility along US 30 in western Allen County that will generate 1,000 new jobs. While being in Allen County in close proximity to I-69, the facility will undoubtedly have a major impact on the traffic in Whitley County.



Artist's conceptual rendering of the Amazon fulfillment center along US 30 in Allen County (Amazon, Inc.).

Within Whitley County, proposed business and industrial development is being considered for new business park sites in Union Township and near Larwill. New home starts in Columbia City have also been increasing since 2016, although at a gradual pace.

2020 pandemic

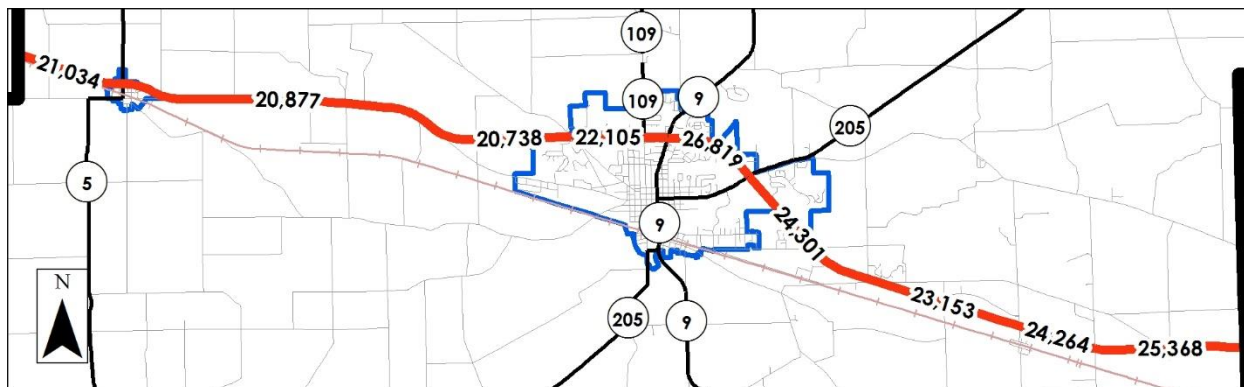
As mentioned later in this document and seen in the tables in Appendix A, the traffic counts for US 30 in Whitley County fell during the spring of 2020 as the world locked down in quarantine. The average traffic decrease for US 30 in the county was roughly 10%; this was significantly less than the average decrease statewide of 18.8% in March 2020 (FHWA). In fact, when comparing the county's 2020 traffic volumes to the 2015 numbers, there was only a 2.6% decrease.

The causes for this resiliency are likely numerous and could warrant their own study, but at an overall level, it shows that the traffic volume concerns identified by the Planning Committee were still prevalent even during the lockdown.

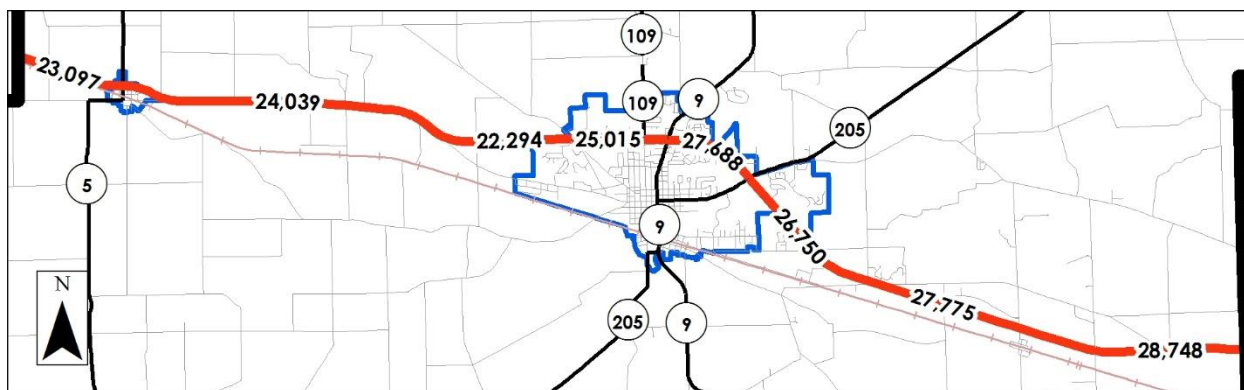
EXISTING CONDITIONS

Traffic volume

In 1994, the highest volume of traffic on any particular segment of US 30 in Whitley County was 22,250 vehicles per day, while the lowest was 17,160. As of 2018¹, the high and low numbers increased to 28,748 and 21,483, respectively—an almost 30% increase. Looking at only 2014-18, the Annual Average Daily Traffic (AADT) has gone up around 10% for most of the highway.



Traffic counts along US 30 in Whitley County, 2014



Traffic counts along US 30 in Whitley County, 2018

As seen on the above maps, the eastern half of the county has higher traffic volumes than the western part. This difference is likely comprised of local traffic between SR 205 and SR 109, commuting patterns skewed toward Fort Wayne, and the businesses and industrial parks located between 400E and 800E.

Considering only commercial vehicles, US 30 sees an average of just over 6,500 commercial vehicles per day across the county. The consistent amount of commercial traffic at all points across the county, and the relative fluctuation of passenger vehicles per segment, may indicate that most commercial traffic is through rather than local traffic.

Better accommodating this existing traffic volume is a primary motivation for this planning effort.

¹ Actual traffic counts are available for 2020, see Appendix A, but they were performed February to April at the height of quarantine lockdowns. So, 2018 traffic volumes (the next most recent actual counts) are used for comparisons.

Existing impediments

A survey conducted in 2016 by Appian, Inc. of the eight-county US 30 corridor across Indiana found that a total of 72 “impediments” to the free flow of vehicles exist along the highway in Whitley County.

Type of impediment	Statewide	Whitley County
Stoplight	33	9 (27.3%)
Intersection	68	7 (10.3%)
Driveway cuts	198	49 (24.7%)
T-intersections	33	7 (21.2%)
Interchange	10	0 (n/a)
Rail crossing	4	0 (n/a)
Total	344	72 (20.9%)

The total numbers of impediments in the county and across the state are shown in the table to the left.

Of the types of impediments studied, the number of stoplights in the county is of particular significance, being that the county has over a quarter of the state’s total number of stoplights on US 30. Together, these nine stoplights constitute a substantial disturbance to the flow

of vehicles, creating potential delays at each intersection, as well as creating vehicle platoons that impede cross traffic at the unsignalized intersections. Vehicular safety is also adversely affected, as stopped traffic poses increased crash risks, particularly high-speed rear-end collisions.

Also noteworthy are the number of driveway cuts directly accessing the highway. That includes both active driveways and former driveways and field access points that could be reinstated for use in the future. As mentioned in an earlier section, most of these access points are located in the western half of the county and stem from the historic design of the highway. Anecdotally, residents in that area have stated that entering onto the highway is a growing problem and that they must frequently adjust their schedules to match the peak hours of the highway².

Safety

A review of ARIES crash data for 2018³ found that a total of 176 reported incidents occurred on US 30 in Whitley County. Of those, 128 (72%) were multi-vehicle incidents, of which 34 involved tractor-



A semi-truck struck and mounted an automobile carrier at the stop light at West Lincolnway in early 2016. The driver was rescued from the burning truck by bystanders. Restoration of travel took seven hours. (Journal-Gazette)

trailers. Unlike previous years, 2018 saw no fatalities, but 44 collisions did have reported injuries of varying severity. Data for 2019 and 20 show lower total numbers, but the proportions remain the same.

The majority of the multi-vehicle incidents occurred at intersections where vehicles were crossing travel lanes or were accelerating or decelerating for stopped traffic. Approximately 50% of the total crashes were rear end collisions, most of which occurred at signalized intersections. At least another 13% of the incidents involved turning or crossing movements at intersections.

Looking at crash data since 2002, the earliest year available, the total number of collisions in 2018 increased by 70.9%. 2017 was the year with the highest number of crashes so far, with 219 incidents—a 112.6% increase over 2002. Considering just the years of 2014-2018, the number of crashes increased by 14%.

² Comments made by residents at stakeholder input session #2 and public input session #1.

³ Data is available for 2020, see Appendix B. Due to the pandemic 2018 data is used for comparisons

Comparisons

The accompanying table shows comparisons for several similar highways around the state. For example, prior to its conversion to a freeway, US 31 saw 32,804 vehicles per day near Westfield, decreasing to 18,527 near Peru, and a relatively low percentage of commercial vehicles.

Traffic on the Indiana Toll Road east of SR 49 in 2016 (the most recent data available) ranged from 20,860 to 28,300, roughly the same as US 30 in Whitley County. There are other interstate segments around the state with similar or lower traffic volumes as US 30. However, it should be noted that

Highway	Location	Year	AADT (total)	Commercial vehicles	
US 30	Between SR 9 and SR 109	2018	25,992	6,687	26%
US 30	Between CR 700E and 800E	2018	28,748	6,772	24%
US 30	Whitley-Kosciusko County line	2018	21,483	5,565	26%
US 31	At 161 st Street (Westfield)	2011	32,804	2,565	8%
US 31	At SR 28 (Tipton)	2011	22,039	2,426	11%
US 31	At Old US 31 (Peru)	2012	18,527	2,763	22%
US 24	East of Peru	2018	10,455	2,431	23%
SR 37	North of Martinsville	2018	27,533	2,460	9%
Indiana Toll Road	Ohio state line	2016	20,860	9,320	45%
Indiana Toll Road	East of SR 49 (Valparaiso)	2016	28,300	10,060	36%
I-69	South of US 6 (Waterloo)	2018	31,584	7,529	24%
I-69	North of SR 26 (Gas City)	2018	30,107	11,148	37%
I-74	Between Brownsburg and Lizton	2018	25,571	7,129	28%
I-70	East of SR 46 (Terre Haute)	2019	31,130	15,654	50%
I-64	West of I-69 (Evansville)	2018	17,121	6,545	38%

many interstates reviewed for comparison did have higher percentages of commercial vehicles than US 30.

Based on these existing conditions, it is apparent that US 30 is already carrying traffic equivalent to many interstate highways elsewhere in Indiana, while its safety is increasingly impaired by the number of intersections and stoplights.

One could make additional comparisons to any number of urban arterials that exceed the traffic volumes found on US 30. For example, in 2018, SR 930 (Coliseum Blvd.) had daily traffic counts that generally exceeded 25,000 vehicles, with some segments over 40,000. Such arterials serve the local area and have slow speeds and/or congestion problems. To similarly urbanize the US 30 corridor in Whitley County is an option, and without planning that may be the default outcome, but doing so would be contrary to the goals of the Committee and Coalition to create a statewide thoroughfare.

Projected traffic volume

In the sixteen years between 2002 and 2018, there was a 31% increase in the average traffic volume across Whitley County; there was a 12.1% increase in county-wide traffic just from 2014 to 2018. Simple arithmetic extrapolation of the 2002-18 period projects average traffic county-wide in the year 2038 of 32,869 vehicles.

INDOT also examined corridor-wide projected traffic growth as part of their work for the Blue Ribbon Panel, a group convened by then-Governor Pence to examine the most important transportation needs in the state. INDOT found that traffic volume is expected to increase by almost 30% by 2035, with no improvements (the increase was far more if road improvements were made). Some areas of the corridor are expected to see 31% truck traffic in this time frame. For example, between 2022 and 2023, SDI expects a 18% increase in truck traffic.

Air Pollution

Generally, vehicles operate most efficiently, and generate less greenhouse gases, when moving at a relatively constant speed of 40-60mph. Congestion and delay caused by intersections reduce this efficiency and increase production of localized greenhouse gases by as much as 300% (Barth & Boriboonsomsin, 2009). While the specific amounts of delay at each intersection are not readily available, it is apparent that the County's intersections do create air pollution that otherwise could be reduced by their elimination.

PUBLIC PARTICIPATION

US 30 Planning Committee

The Whitley County US 30 Planning Committee began meeting in November 2015 to develop an initial conceptual framework to address many of the existing and forecasted problems identified by INDOT, the US 30 Coalition, and local leadership. This committee was made of representatives of government, business, economic development, and agricultural sectors. An INDOT representative also attended some meetings and provided general guidelines for complying with INDOT highway specifications. The members of the committee are listed at the beginning of this document.

The US 30 Planning Committee set forth the following as its key purposes in developing a concept plan to address the needs of the highway:

- To identify a feasible and acceptable route for US 30 from Allen County to Kosciusko County
- To identify concerns and opinions of affected parties
- To identify options for treatment of intersections
- To consider traffic flow for ease of businesses
- To consider the safety of county residents and travelers
- To consider economic opportunities and challenges
- To create an idea for a new US 30 using Interstate standards
- To consider public opinion of the idea
- To consider and discuss connections to adjacent counties
- To propose the idea to the US 30 Coalition
- To propose the idea to the Indiana Department of Transportation

Working through each segment of the highway across the county, the committee set up goals and evaluated various alternatives for addressing the issues facing the highway. By September 2016, an initial conceptual map was refined to a point adequate enough to present for public comment.

Input on the concept

2016 feedback

As described in depth in the original plan document, stakeholder and public input meetings were arranged to solicit comments from those who could be affected by changes to US 30. More than 200 people attended the seven meetings held throughout the county.

The US 30 Planning Committee presented a draft version of the conceptual map to then-State Senate President Pro Tempore David Long in the fall of 2016, and he provided valuable guidance to the group for how to proceed with the efforts. The Senator was unique in his ability to provide feedback at a statewide level.



Mayor Daniel speaks with an attendee during a public meeting in 2016.

The result of this feedback-gathering effort was a large number of comments and criticisms of the presented concept maps and shows the importance of this project to Whitley County.

The most frequently expressed comments included:

- Shifting the locations of some proposed interchanges
- Impacts on specific properties

- Increased or shifted traffic patterns on local roads
- Installation of additional service roads
- Preserving county road access for certain businesses, residences, and the Richland Township and Union Township fire departments

The US 30 Planning Committee then evaluated the input received for application in the conceptual maps. While not all changes were incorporated and not all comments were able to be shown on the map, the conceptual maps were revised to best reflect the suggestions received.

Feedback since 2017

In the four years since the original publication of this proposed document, comments on the proposed concept have been generally positive. The most common comment being, “When will all of this happen?”

However, some comments received have suggested to revise the concept slightly. Most significantly, the businesses and landowners around 400E have suggested to push the proposed interchange westward, away from the 400E alignment as shown in 2017. This would place the interchange in the current agricultural field between 350E and 400E, lessening impacts on adjacent developed properties.

Additionally, comments have been made about the 700E intersection, the improvements necessary for 100S/300E, and the options shown in the Wilson Lake Road/400W/450W area. These comments were less exact, but they are noted in the discussions of each proposed intersection.

Finally, as mentioned above, during the public hearing held by INDOT on the 500E J-turn in October 2019, several public comments were made that supported the concept for US 30 to become interstate-level in lieu of the proposed J-turn. At least one even suggested that an overpass (as proposed in this plan) would be preferable, despite it reducing access to US 30.

THE CONCEPT FOR US 30

This section is a presentation of the purposes, working assumptions, and conceptual maps developed by the US 30 Planning Committee with the input of stakeholders and the public, as described in the previous sections.

Purpose

The purpose in generating the conceptual map is to create an idea for improving US 30 that is acceptable at the local level while being within the broad requirements of the Indiana Department of Transportation for freeway construction. By generating ideas at the local level, the concept already has local “buy-in” from many stakeholders, residents, and business owners, which should reduce the difficulty of the required public hearings held by INDOT as part of the design process. Ideally, if following the concepts developed by the committee, the design process for upgrades to US 30 should be relatively streamlined, more efficient, and less costly.

It should be noted that the US 30 Planning Committee did not attempt to address any funding sources, as US highway funding is derived from the federal and state levels. However, it was recognized that certain projects may be most feasible if costs are shared between government levels or as public-private partnerships. The potential for these may be fully discussed in future stages of the US 30 project.

Working assumptions

The US 30 Planning Committee developed a framework of working assumptions prior to commencing work on the conceptual mapping. These guided the committee’s decisions throughout the process.

1. ***The highway would be an Interstate-level freeway to the greatest extent possible.***

This is consistent with the goals of the broader US 30 Coalition, and it appeared to be the best solution to address the complex problems of traffic volume, safety, and local necessities. As such, the INDOT guidelines for interchange spacing and other requirements were followed as best as possible, while still recognizing that as a retrofit, some concessions might be needed. Also because of this reason, ***J-turn and similar intersections were not considered***, even though they can permit effective free-flow traffic when properly designed.

2. ***US 30 would remain on the current alignment.***

By avoiding major acquisition of rights-of-way for a new road alignment, monetary costs could be reduced, environmental impacts could be close to negligible, and the effects on existing businesses could be lessened. In particular, the committee determined that a new bypass of the Columbia City area would not be in the interest of the county and would be detrimental to the existing businesses as well as the community’s quality of life.

3. ***Potential acquisition of businesses and homes would be avoided.***

Wherever possible, the committee strived to maintain current locations of businesses and homes. This could result in lower land acquisition costs for interchanges, but possibly higher construction costs.

4. ***Construction costs and environmental impacts would not be major considerations.***

In order to prioritize consideration of the effects on local residents and businesses, the estimated costs of construction and specific environmental impacts were deprioritized. Cost of construction will determine the feasibility of many improvements, but estimation of the feasibility of individual projects was disregarded in favor of more general cost minimization approaches. Environmental impacts are largely undetermined and would require study beyond the capability of the committee.

5. ***Improvements shown would be only those related to US 30 construction.***

While local road improvements are anticipated as an outcome of improvements performed on US 30, the Planning Committee only developed an improvement concept for the highway itself and directly related local road improvements (as examples, service roads and changes to adjacent intersections). Most improvements to local roads would be planned for in a later local thoroughfare planning study; such a study would be best performed after the formulation of the US 30 concept.

6. ***Improvements would be interrelated.***

The improvements were contemplated as being a comprehensive and cohesive project. Eliminating or significantly changing any one component would have effects on the remaining components, the surrounding area, and local roads, which could change the preferred design. While implementation will take time, with projects likely being done individually, projects should not be discarded without sufficient consideration of the consequential interconnected impacts.

7. ***The US 30 Committee would not substitute for INDOT.***

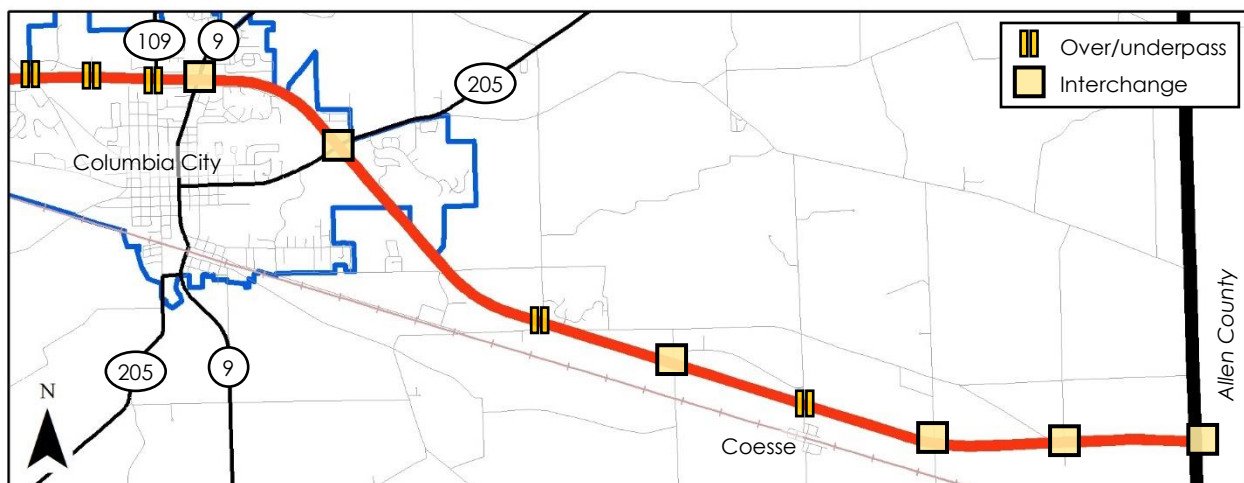
With this planning effort, the Committee set out to streamline some aspects of the design process for the Indiana Department of Transportation, as well as provide guidance for local planning actions. INDOT must still follow state and federal rules for design, public participation, and expenditures, which cannot be curtailed. In the end, the Committee hopes that this plan will be a starting point for INDOT and serve to complement their required processes.

Conceptual maps

The following pages contain the conceptual maps for ideas of improvements for US 30 in Whitley County. They are presented only as refined ideas for consideration in later stages of design. Exact engineering, or even precise scaling, of individual improvements was not the purpose of these maps. Listed below each map is the rationale of each proposed idea, along with any identified advantages, constraints, or unresolved issues. For reference, examples of each type of design used are detailed beginning on page 30.

Overall concept index maps

East side of Whitley County



<u>Intersection</u>	<u>Page</u>	<u>Intersection</u>	<u>Page</u>
CR 800E/County Line Road	16	CR 100S	20
CR 700E	16	SR 205	21
CR 600E	17	SR 9	22
CR 500E	18	SR 109	22
CR 350E/400E	19	Armstrong Drive	23
CR 300E/East Lincolnway	20	West Lincolnway	23

West side of Whitley County



<u>Intersection</u>	<u>Page</u>	<u>Intersection</u>	<u>Page</u>
SR 9	22	CR 300W	25
SR 109	22	Wilson Lake Rd/CR 400W	26
Armstrong Drive	23	CR 450W	26
West Lincolnway	23	CR 550W	27
New interchange	24	CR 650W	28
Wolf Road	24	SR 5	28
West Business 30	25	Binkley Road	29

County Road 800 E (County Line Road), County Road 700E

Conceptual design

County Road 800E would be closed and an interchange and new road would be constructed east of the county line. County Road 700E would be a second interchange, possibly connected with 600E.



Rationale

In the Whitley County Comprehensive Plan, 800E is planned to be a minor arterial, connecting US 30 to US 24; as such it would be the only direct connection between those two highways between I-69 and SR 9. Additionally, Steel Dynamics' (SDI) steel mill is located at the southwest corner of the intersection and requires highway access. So, ensuring 800E has access to US 30 is critical, but site constraints at the current intersection location suggest using an alternate routing.

The volume of traffic originating at SDI necessitates a second access onto US 30 at 700E. However, alternative interchange design that would disperse vehicles using a local traffic lane between 700E and 600E may be effective in preserving the free flow of traffic along the through lanes of US 30.

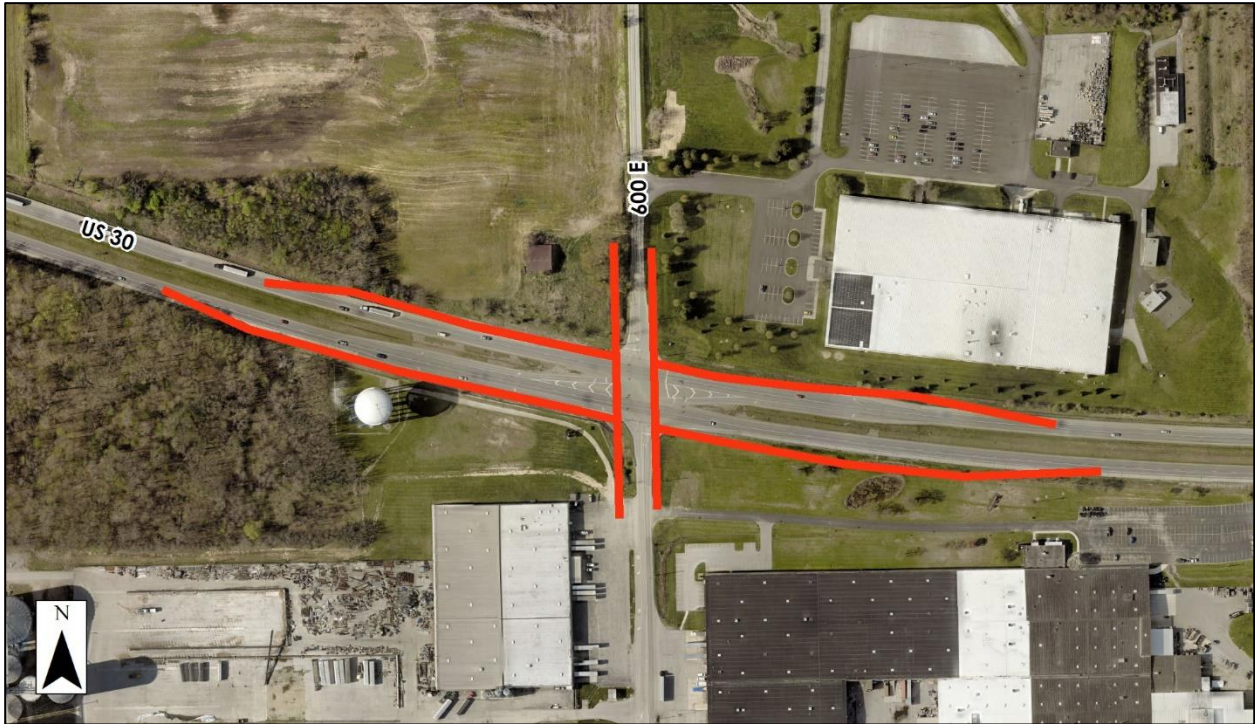
Identified issues

- A truck stop exists at the southeast quadrant of the 800E intersection.
- SDI has a small facility close to the 800E intersection.
- Poor soils are known to exist in the vicinity of the northeast quadrant.
- As of 2022, SDI has approximately 1,800 vehicles per day entering its facility (3,600 trips per day); of which, 1,100 are heavy trucks. That is expected to grow to 1,300 heavy vehicles by the end of 2023.
- SDI currently uses the 700E intersection as a major entrance, so cutting it off would require extensive, and likely infeasible, internal rerouting.
- 700E has a sizable gas pressure facility on the northeast corner of the intersection.

County Road 600E

Conceptual design

A compact diamond interchange would be constructed at County Road 600E.



Rationale

600E is at the center of the County's large industrial area, which requires highway access. Rail Connect Business Park is accessed directly from 600E, south of US 30. Rerouting the traffic from the businesses and industries in the vicinity of 600E would require significant improvements to numerous parallel local roads.

Identified issues

- Industrial buildings and a water tower on three sides of the intersection create a very tight right-of-way for construction of a standard diamond.
- Sanitary sewer mains cross US 30 immediately east of 600E.
- Closely located driveways likely require 600E to be maintained at grade with US 30 on the overpass.
- Combining this interchange with 700E or 800E by using a slip road or local traffic lane may reduce disruptions to the free flow of through traffic on US 30 generated by the proximity of the interchanges.

County Road 500E

Conceptual design

An overpass would be constructed at County Road 500E.



Rationale

Access from the north of US 30 to Coesse School, Union Township Fire Department, and the town of Coesse would be maintained by continuing 500E across US 30. An interchange would not be compatible here as it would not be possible to adequately upgrade the streets within Coesse to accommodate the concentrated interchange traffic.

Identified issues

- Access from Union Township Fire Department onto US 30 would be eliminated, increasing response times for incidents that may occur on US 30. However, response times to the north of US 30 could decrease because of the eliminated intersection delay.

County Road 350E/400E

Conceptual design

A diamond interchange would be constructed in the vicinity of County Roads 350E and 400E that connects into Park 30 Drive and a new service road between CR 400E and East Business 30.



Rationale

Because 500E would not have access to US 30, and an interchange at the 300E/Lincolnway/East Business 30 intersection would not be feasible, an interchange located between 350E and 400E would serve the businesses and residents of the vicinity. A parallel service road would offer an alternate route from East Business 30, as well as increasing land development opportunities.

Identified issues

- Houses exist near the interchange along Lincolnway.
- The grading between Park 30 Drive and the ramps will necessitate placement of the interchange west of 400E.
- The railroad may require an overpass as part of an interchange design.
- Soil quality on the south side of US 30 may warrant additional stabilization.

County Road 300E/East Lincolnway, County Road 100S

Conceptual design

The intersection of County Road 300E/Lincolnway/East Business 30 would be replaced with an overpass. A service road would continue East Business 30 to the new 350E/400E interchange. County Road 100S would be cut off, with the west side being tied into Williams Drive.



Rationale

Because of the proximity of development near the intersection and the configuration of the three local roads, an interchange would not be feasible at this intersection. Instead, an overpass would allow the continuation of existing traffic patterns while a parallel service road would permit direct access east to the 350E/400E interchange. County Road 100S has low traffic volumes that may be redirected via Williams Drive and 300E.

Identified issues

- The intersections of 300E with East Business 30 and Lincolnway may continue to be a complicated traffic pattern due to their close proximity.
- County Road 100S east to 300E and their intersection will need to be improved to accommodate the heavy truck traffic from the industries located along it.

State Road 205

Conceptual design

A compact diamond interchange would be constructed at the State Road 205 intersection.



Rationale

The proximity of Parkview Hospital on the southern quadrant of the intersection warrants direct access onto US 30 in order to provide for the best emergency services. Additionally, SR 205 conveys significant traffic from the northeast quarter of Whitley County to US 30; elimination of access here would divert traffic onto eastern county roads or through downtown Columbia City.

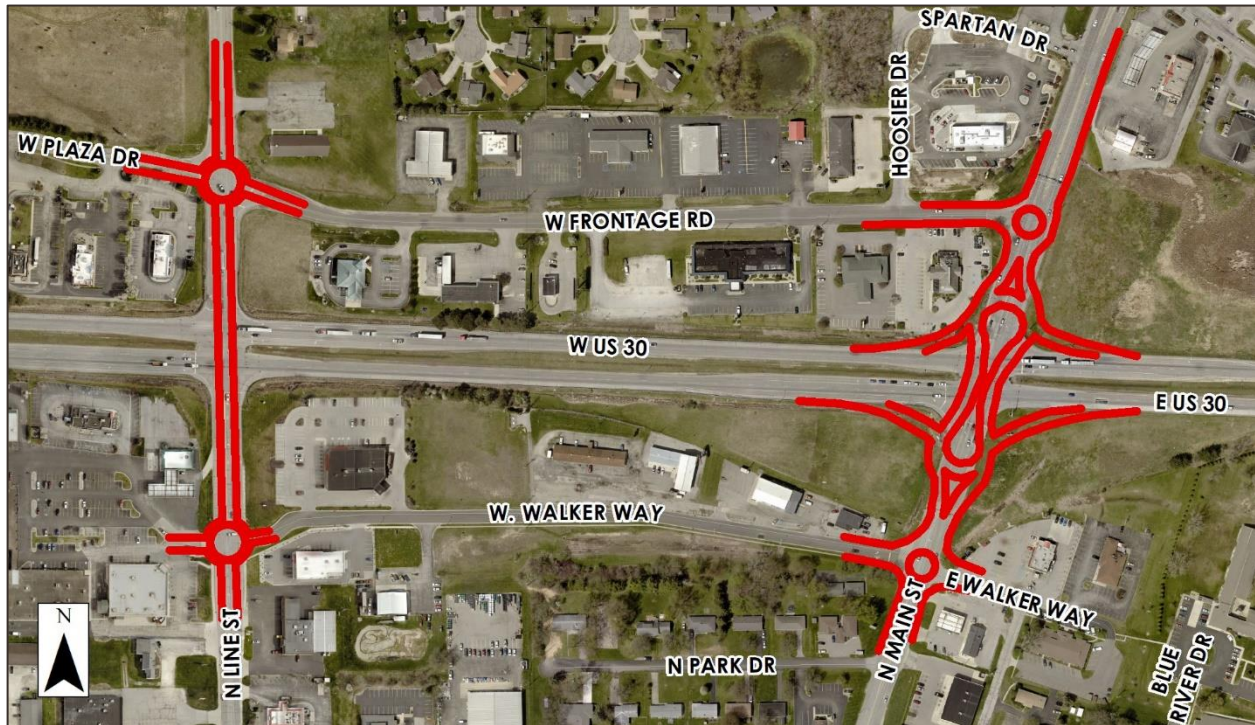
Identified issues

- Ponds exist in the northern and eastern quadrants. The highway right-of-way may need to be shifted westward to allow construction of ramps on the east side without impacting the pond(s).
- A used car dealership exists at western side of the intersection.
- Expansion sites for the hospital may be partially affected by any ramps constructed.

State Road 9, State Road 109

Conceptual design

A dogbone interchange and a series of roundabouts would be constructed along State Road 9. The SR 109 intersection would be converted to an overpass, and the highway would be rerouted via a roundabout to Frontage Road and terminate at SR 9. A fourth roundabout would be placed at Line Street and Walker Way to ensure fluid traffic movement.



Rationale

Several alternatives were discussed by the Planning Committee for these intersections; these specific concepts were chosen because they are compact and promote constant flow of vehicles through the numerous close intersections.

Identified issues

- Right-of-way has already been acquired for a modified diamond interchange at SR 9, so that type of interchange may be used in lieu of the depicted dogbone type.
- The Spartan Drive intersection could be closed to eliminate a point of conflict on SR 9, but doing so would create additional traffic at the Hoosier Drive/Frontage Road intersection.
- Takeover of Frontage Road by INDOT may not be feasible.
- Significantly imbalanced traffic flow may negate the effectiveness of the roundabouts. Especially detailed and comprehensive traffic modeling would need to be done in the final engineering.
- These intersections are both heavily used by pedestrians to cross US 30. It is imperative that any interchange and overpass designs for these streets include adequate pedestrian facilities, even if they are not immediately connected to facilities along SR 9 or 109.

Armstrong Drive, West Lincolnway

Conceptual design

An underpass at Armstrong Drive would connect current and future commercial areas. The West Lincolnway intersection would be replaced with an overpass.



Rationale

A connection across US 30 between SR 109 and West Lincolnway would be beneficial for connectivity of local streets and to maintain viability of the existing commercial area. The proximity of Connexion Way and Depoy Drives to the West Lincolnway intersection, along with the goal of maintaining a one-mile separation between interchanges, prevents construction of an adequate interchange there. Instead, traffic would be routed to a new interchange to the west.

Identified issues

- The Armstrong Drive crossing could be either an overpass or underpass.
- Lincolnway may need to be widened from the Park Street intersection westward in order to accommodate the concentrated traffic to and from the new interchange. The Lincolnway/Park/Armstrong intersection may be best served with a roundabout.
- Depoy Drive is the only access point for more than 170 homes, a large church, and several businesses, so maintaining access will be critical.

New interchange, Wolf Road

Conceptual design

A new interchange would be constructed between West Lincolnway and Wolf Road, with local road connections to West Business 30 and West Lincolnway. The interchange right-of-way would be sized for future expansion. Wolf Road would be replaced with an overpass.



Rationale

Because of the goal of keeping a one-mile spacing between interchanges in the urban area, a new western interchange is proposed. This also avoids conflicts with existing development at West Lincolnway and opens an additional north-south route on the west side of Columbia City. If a SR 9 bypass of downtown is ever to be constructed, this interchange could be used as part of that realignment. Wolf Road is a minor collector road, so maintaining its through connectivity was important.

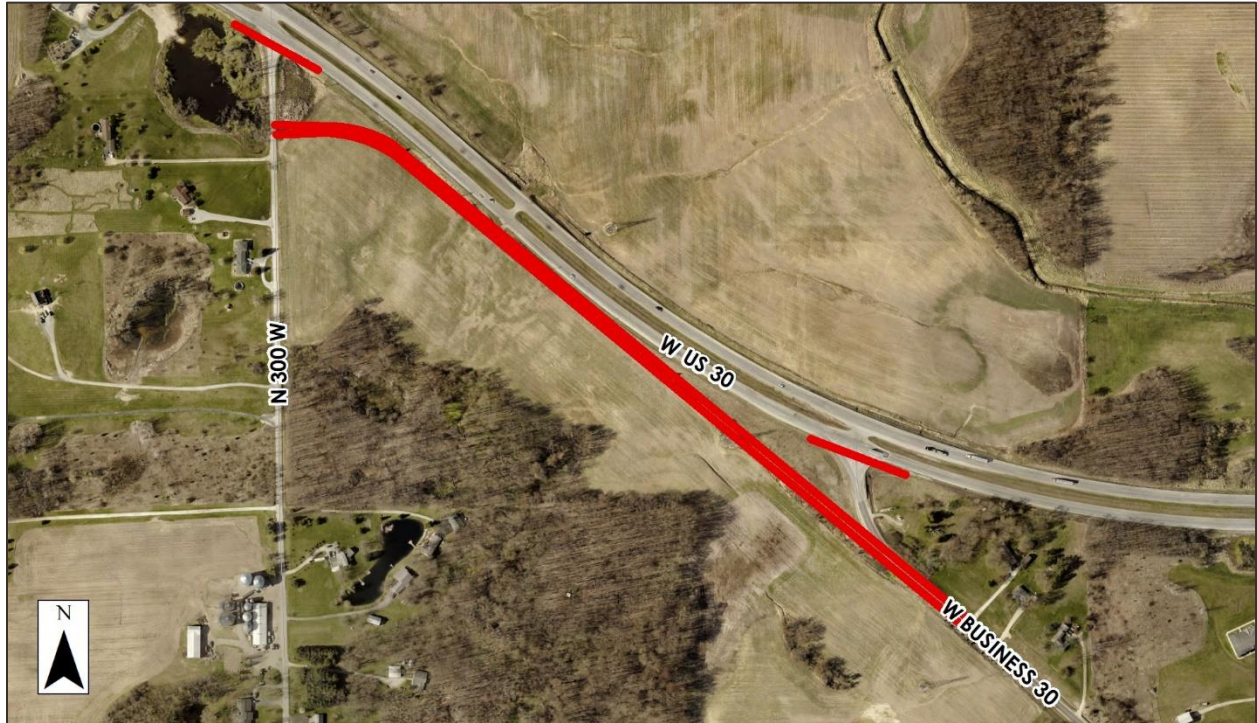
Identified issues

- Mucky soils are prevalent on the south side of US 30 near the interchange location.
- Reserving right-of-way for a hypothetical SR 9 bypass route would require additional engineering costs outside of the US 30 design.

West Business 30, County Road 300W

Conceptual design

West Business 30 would be extended to County Road 300W, and access from both roads would be eliminated.



Rationale

By creating a new interchange east of this location, direct access to US 30 from these two roads would no longer be needed. However, Business 30 must be connected to 300W to avoid making 300W a long dead-end road, which would create delays and a decrease public safety for the road's residents and businesses.

Identified issues

- A cemetery exists near the current Business 30 intersection.
- The length of 300W from US 30 to the next intersection is about 8,900' and includes a railroad grade crossing.
- A service road from 300W westward might be found necessary to preserve access and reduce travel times for those properties near the new dead-end roads.

Wilson Lake Road, County Road 400W, County Road 450W

Conceptual design

Two options could be considered for these two roads. The primary option, shown, would be a modified diamond at County Road 400W and a service road to connect with Wilson Lake Road. A second option would be a compact diamond at 450W and a 2000' long extension to existing 450W at Plattner Road.



Rationale

Because of the number of the existing homes and businesses located near 400W, access to US 30 at that road is desirable; a modified diamond could be used to minimize the impact on those properties. By shifting the point of access a half mile west to 450W, a simpler diamond interchange with less property impacts could be used. Connections between the roads would need to be made to preserve adequate access routes. In the end, either option would be sufficient for access.

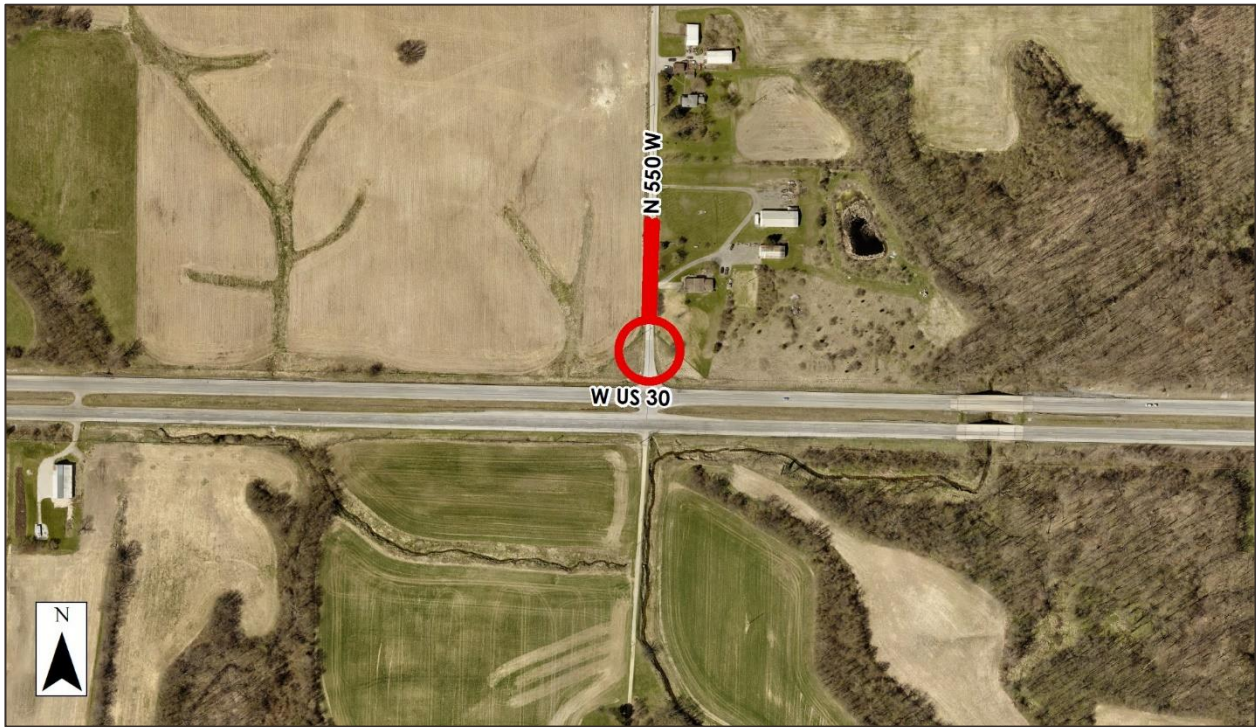
Identified issues

- Wilson Lake Road should not be considered for use as a main thoroughfare as it would require substantial reconstruction of the pond dam.
- New Hope Wesleyan Church is a large traffic generator located at 400W.

County Road 550W

Conceptual design

County Road 550W would be cut off at US 30.



Rationale

County Road 550W would not warrant direct access to US 30. Access would be rerouted to the north.

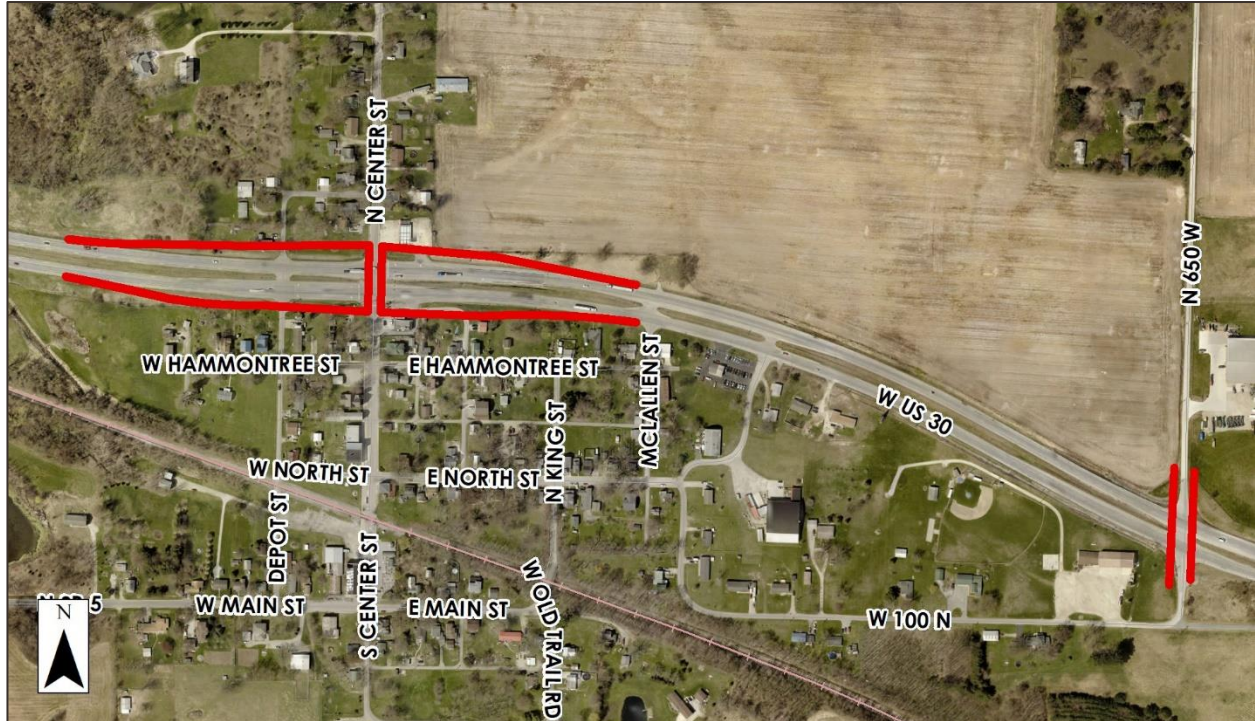
Identified issues

- The “road” south of US 30 at County Road 550W is a private driveway.
- If service roads are constructed parallel to US 30, access to adjacent property owners could be preserved while reducing the impact on travel times.

County Road 650W, State Road 5

Conceptual design

County Road 650W would be an overpass. A compact diamond would be used as the interchange with State Road 5.



Rationale

Maintaining access for SR 5 is important, but the proximity of development in Larwill would necessitate a tight interchange to avoid impacting many properties. 650W would be an overpass in order to preserve direct access for the Richland Township Fire Department to serve its territory to the north.

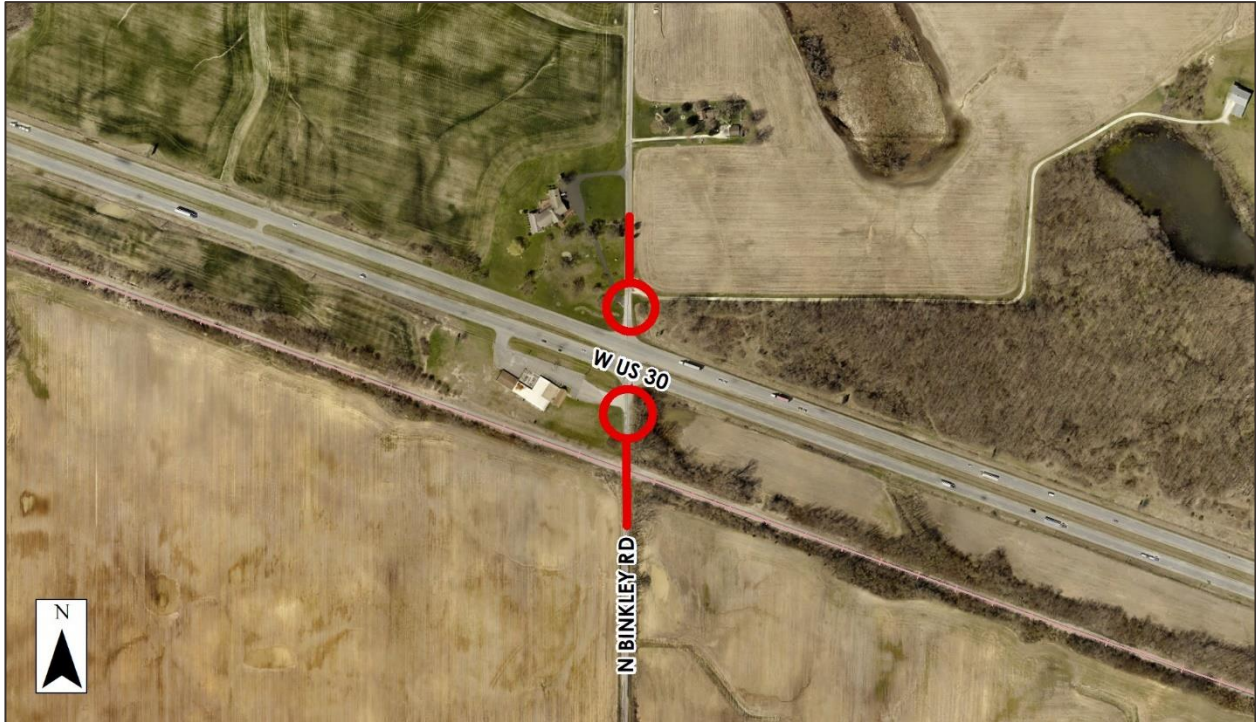
Identified issues

- Wetlands, lakes, and the adjacent railroad seem to preclude location of a new interchange west of town. If those obstacles are surmountable, a new interchange site may be preferred.
- The incline for a County Road 650W overpass may be steep. Alternatively, improvements to the Larwill town streets between the fire station and State Road 5 may provide an adequate service route.
- Development should be expected in the current field north of US 30 between SR 5 and 650W. This would provide connection between the roads, but it could also constrain any grading needed for interchanges or overpasses.

Binkley Road

Conceptual design

Binkley Road would be cut off at US 30.



Rationale

While cutting the road off does eliminate nearly all access to the business at the southwest corner of the intersection, the traffic counts on Binkley Road do not seem to justify maintaining a through route.

Identified issues

- The nearness of the railroad would increase the difficulty of constructing an overpass if one were desired.

INTERSECTION EXAMPLES

For convenient reference, this section provides illustration of some of the ideas and concepts discussed in this document. Of course, this is only a limited selection; final designs for US 30 will vary according to the constraints of the site, traffic levels, and other considerations.

Diamond interchanges



Standard diamond interchange, SR 9 and US 24, Huntington, IN. (Google Earth)

Diamond interchanges are the most common limited access interchange type. The intersection of the interchange ramps and the minor road may be controlled by stop signs or traffic signals, depending on the level of traffic present or expected. Due to the amount of grading necessary for the ramps, diamond interchanges typically require a large amount of land to be acquired.

Compact diamond interchange



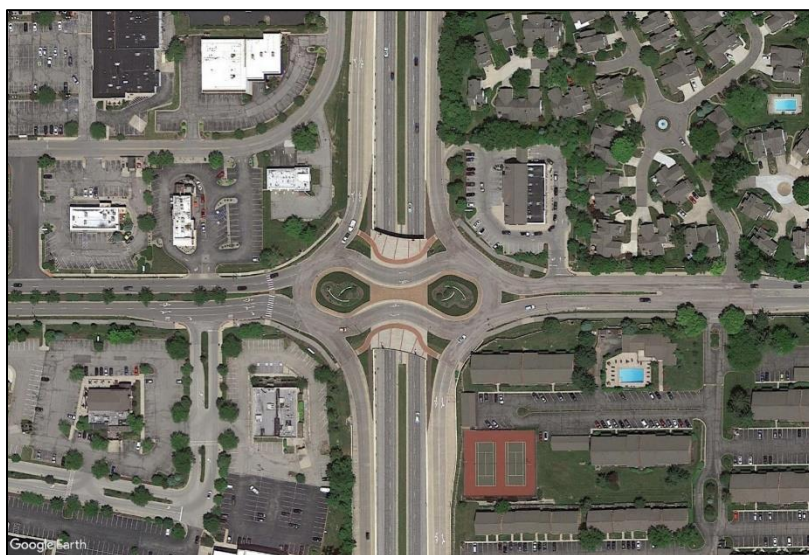
Single-point interchange, SR 32 and US 31, Westfield, IN. (Google Earth)

Compact diamonds (or tight diamonds) are designed for locations with limited amounts of space by compacting the area used for the on- and off-ramps. They are typically found in developed urban areas where real estate for larger standard diamond interchanges is not readily available. For US 30, as a retrofit project where existing high-value development is near proposed interchange sites, a compact diamond may be an optimal choice to conserve land acreage and minimize impacts to

adjacent property.

Single point interchanges are closely related, but they differ in that left turning ramp traffic is conveyed through one intersection rather than two as in diamonds. The reference photo shows a single point interchange along US 31 in the Indianapolis metro area.

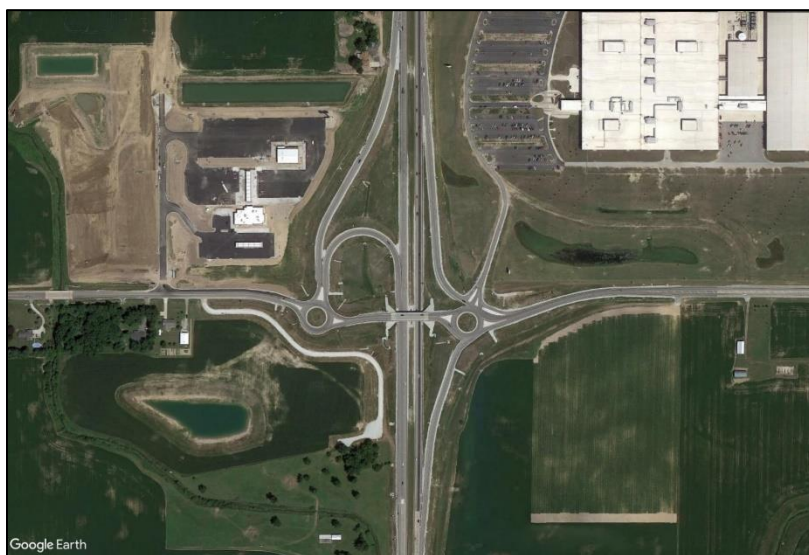
Dogbone (“bow tie”) interchange



Dogbone interchange, Keystone and 116th Street, Carmel, IN. (Google Earth)

Dogbone interchanges (also called “bow tie” interchanges) are a type of diamond interchange in which the two ramp intersections have been replaced with an extended roundabout. This promotes continuous traffic flow through the interchange. A related interchange is the “dumbbell” in which two separate roundabouts replace the ramp intersections in a diamond interchange.

Partial cloverleaf/modified diamond interchange



Modified diamond, SR 28 and US 31, Tipton, IN. (Google Earth)

Diamond interchanges can be partially modified with cloverleaf ramps in order to avoid using one or more corners of the intersection due to topography, existing development, or other site constraints. These result in a trumpet shape.

As seen in the example photo, roundabouts can add additional options in interchange configuration. In that scenario, access to a nearby industry was incorporated into the eastern roundabout. Similar creative

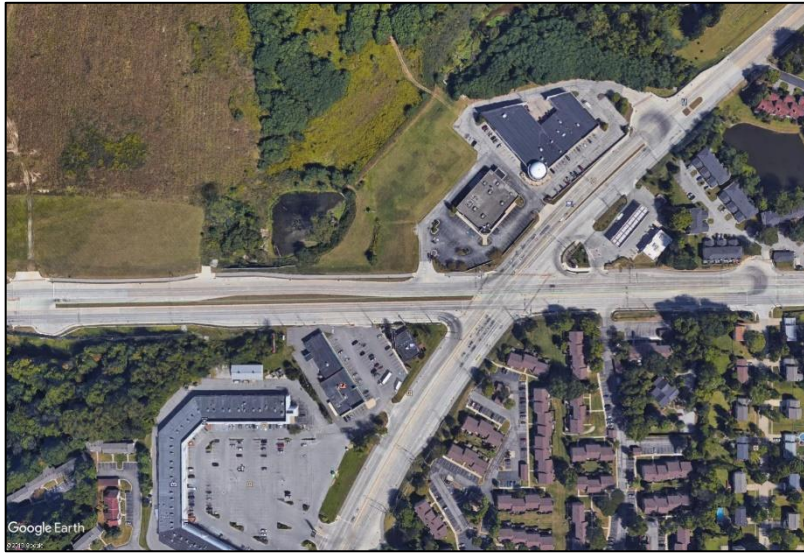
solutions should be anticipated to be necessary when designing interchanges for US 30.

Median U-Turns, Restricted Crossing U-Turns, J-Turns

While not advocated by the US 30 Committee, these three intersection designs have been proposed for use on the highway. The designs reduce the total number of points of conflict and can reduce crash severity. Because they are relatively easy to retrofit within existing right-of-way, they are relatively inexpensive. However, to the extent that these designs detract funding and emphasis from the preferred designs, the Committee does not recommend their use for US 30.

Note that there is not a complete consensus on the terminology, and the definitions on INDOT’s website have evolved since 2017. To the best extent possible, the definitions used here align with the Federal Highway Administration (FHWA) usage, which may not reflect current INDOT nomenclature.

Median U-Turn

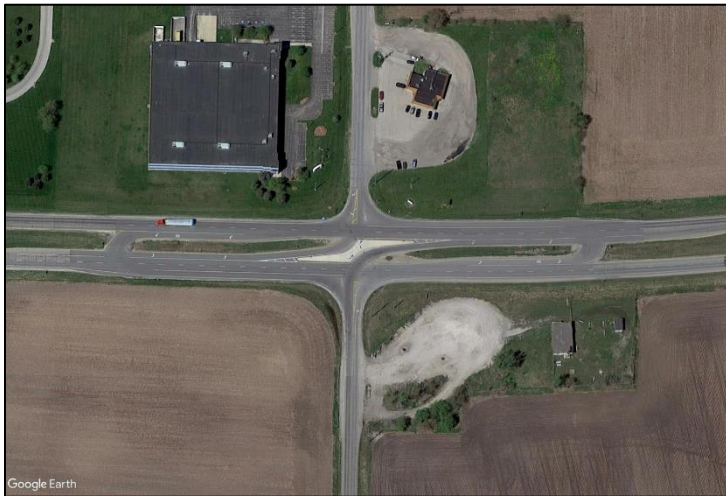


MUT at Allisonville Road and 96th Street, Fishers, IN. (Google Earth)

In a Median U-Turn (“MUT”), only straight and right turns are permitted movements across the intersection for both the primary and minor roads, and there are two or four U-turn locations. Traffic intending to turn left instead travels to a U-turn point, then turns 180° to merge with the opposite direction of travel, then turns right to complete the desired left turn movement. The “Michigan Left” is an established version of this design, typically used with a signalized intersection.

In the example shown above, the intersecting roads are relatively equal in classification and traffic is equally dispersed among all four directions of travel, so the MUT design was modified with four signalized U-turn points on all directions. This intersection also is the only example here that was designed to include pedestrian crosswalks.

Restricted Crossing U-Turn



RCUT at US 41 and S.R. 114, Morocco, IN. (Google Earth)

Restricted Crossing intersections (“RCUTs”), also called Reduced Conflict Intersections (“RCIs”) by INDOT, permit all traffic movements for the primary road at the intersection, but straight and left movements for the intersecting minor road are directed to a median U-turn.

This design is particularly applicable to situations in which traffic movements are more frequently from the primary road to the minor road. In the example figure, there is heavy truck traffic from US 41 turning left onto SR 114 to serve

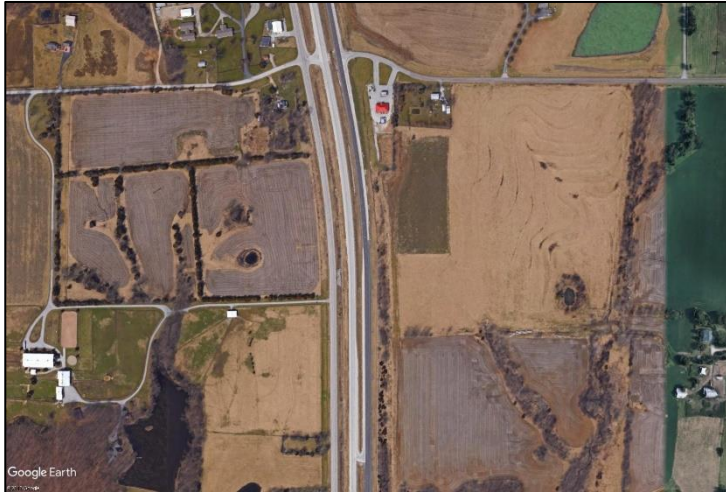
a nearby landfill, while through traffic on SR 114 is comparatively far less frequent.

In some RCUTs, the center channelization island can be designed as a crossing refuge for pedestrians and non-motorized vehicles (e.g. bicycles). In the example shown above though, bicycles crossing must legally use the U-turns, and pedestrians use what space is available on the island.

J-Turn

In J-turn intersections, also called a variation of a Reduced Conflict Intersection by INDOT, left turn movements on both the primary road and minor road utilize the median U-turn point. Thus, this

design eliminates all right-angle crashes and has the least impact on the free flow of traffic along the primary road. With the usage of acceleration and deceleration lanes for merging, this design can be more compatible with higher traffic volumes and speeds on the primary road than the two varieties discussed above.



J-turn intersection on US 63, Columbia, MO. Note that the northern U-turn is not shown here due to its distance from the intersection. (Google Earth)

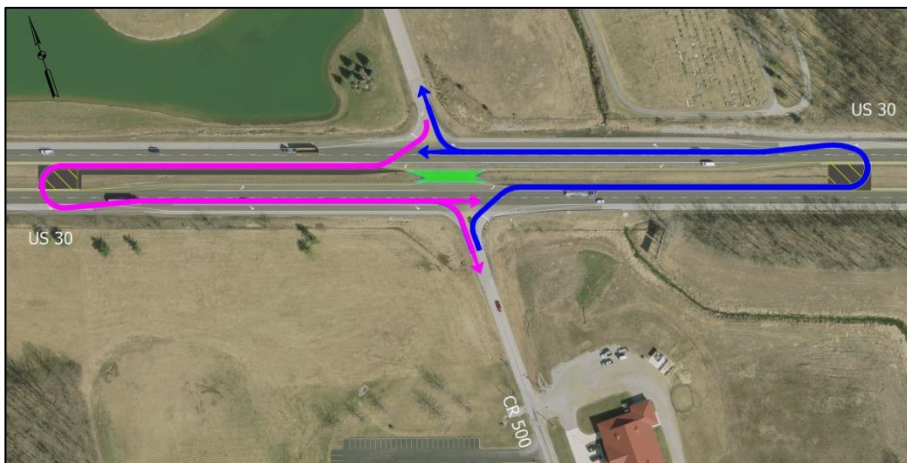
J-turns can include provision for pedestrian and non-motorized vehicle crossings by creating a median island at the intersection. However, pedestrian movements across high speed, free flow highways that best utilize J-turns may not be desirable. Prudent design choices must be made to balance need with increased risk.

In all of these designs, traffic volume, speed, turning movements, as well as other factors determine the distance between the intersection and the U-turn.

For roadways comparable in volume and design speed to US 30 in Whitley

County, roughly 2,000' to 2,500' seems to be an adequate distance used to permit crossing traffic to merge over to the U-turn point and merge back over. Distances between the intersection and U-turn may be as short as 400-600', but those shorter separations are common for lower volume and/or slower speed situations. Use of shorter distances between the intersection and U-turn on higher volume/speed highways could diminish the crossing safety benefits.

500 East intersection



Traffic movements using the median U-turn at 500E (from INDOT public presentation)

The J-turn designed for 500E, scheduled to be completed during the summer of 2021, has a distance between the intersection and U-turns of about 700', about half the distance suggested by reviewed literature for the traffic volume and speed on US 30.

INDOT's design intent, as depicted in the diagram, is that 500E

traffic will cross directly to the U-turn lane, rather than merging onto the highway and over. As such, this design removes the points of conflict at the intersection itself, but it does not reduce the number of points of conflict created by crossing the highway travel lanes.

OTHER DESIGN CONSIDERATIONS

In the discussions that occurred about upgrading US 30, some innovative concepts were brought up by the public, the Committee, and others. Some of these ideas are worth noting here for perspective as the highway is redesigned.

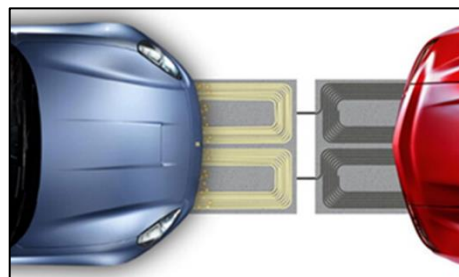
Self-driving and electric vehicles

The developing technologies of electric vehicles and self-driving cars were frequently mentioned in public input sessions. These technologies will change the nature of driving, and they could make roadways more efficient and a higher capacity. Self-driving vehicles could also improve safety by removing human driver errors.

Even so, neither technology is expected to reduce the volume of vehicles on the highway that is a major driving force in this plan, as they do not reduce the demand for independent travel. So the benefits of conversion of US 30 to a freeway-level highway would still serve self-driving and electric cars just as they would current vehicles.

Electric wireless charging

Electric vehicles may have a separate impact on highway design though, since the vehicles require recharging. At the beginning of July, 2021, INDOT announced a partnership with Purdue University to develop contactless, wireless charging concrete pavement (Indiana Department of Transportation, 2021). The effects of this technology would not change demand or traffic volumes, but they could change highway funding mechanisms and design principles.



Wireless charging concept (Magment)

On-demand vehicles

The growth of Uber and similar on-demand transportation services over the past decade shows that it can be possible to eliminate personal ownership of an automobile in favor of calling a vehicle only when it is needed. This service can have significant impacts on land usage by reducing the amount of parking required to serve a given number of employees or customers at a location. However, for transportation corridors like US 30, each on-demand call still requires a vehicle travelling on the roadway. So, unless multiple users share each ride, traffic volumes are still not reduced.

Solar panels, solar roadways

The incorporation of solar generation facilities in roadways is another emerging trend. There has been some experimentation with placement of large solar panel arrays over and along road rights-of-way in some states and countries. In many cases, these could be retrofitted to highways without significant costs. Additionally, there is experimental technology to embed photovoltaic solar panels in pavement. That would dramatically change the dynamics of highway construction.

High-speed rail

High-speed rail service (“HSR”) could have an impact on traffic on US 30 as the road is paralleled by a potential HSR route¹. In preparing this plan, the Committee felt that HSR, if implemented, would complement an upgraded US 30 highway by slowing traffic growth, but HSR by itself would not resolve the issues identified with the highway.

¹ Per the vision of the Indiana Passenger Rail Alliance, one of the two existing Chicago-Fort Wayne rail routes would be upgraded as HSR.

IMPLEMENTATION STRATEGIES

This report serves as documentation of the concepts for upgrading US 30 to freeway standards developed by the US 30 Planning Committee with the input of numerous stakeholders and the general public. There are many actions that may need to be taken in order to implement the projects outlined herein. Depending on many factors, fully implementing the concept could take as few as five years if all projects are funded and constructed at once, or many more years beyond that. Realistically, certain projects may occur relatively soon, with others much later, so predicting a timeline with any precision is quite difficult.

As a general reference, the following are expected, or recommended, steps that would expedite the implementation of the US 30 concept.

Presentation to Indiana Department of Transportation

This concept was developed with the advice of INDOT representatives, but as discussed above, many technical aspects of highway design were intentionally left vague. Presentation of this concept to INDOT would set the foundation for their further study and development of working plans for the US 30 project. By giving INDOT guidance on what has been already discussed and generally accepted at the local level, their design and required public input process may be shortened, leading to a faster and cheaper implementation.

Presentation to legislative representatives

Funding is a key component of all infrastructure projects, and this concept plan should be presented to those in charge of allocating funds at an early stage. While the US 30 Planning Committee intentionally avoided consideration of costs or funding sources, it was generally estimated that construction could exceed \$200 million if fully built as shown. The final figure of course would be highly dependent on land acquisition costs—which should be minimized since the present route is to be maintained—and the volatility of material costs. The justifications of this expenditure, such as safety, economic development, and travel time, are discussed in this report.

It is also important to note that because of the effort to engage the public and key stakeholders in the creation of this concept, the importance of this project to business growth and residents' quality of life has been emphasized by constituents throughout the county.

Local thoroughfare planning

Converting US 30 to a freeway will result in changes to traffic patterns on local roads that will need to be planned for. Integration of this US 30 concept into a thoroughfare plan would give direction to planning future local road improvements that will become necessary as these traffic patterns are shifted.



Excerpt from the Transportation Map in the Whitley County Comprehensive Plan (2011).

Such a thoroughfare plan could be developed prior to any US 30 work, and so could be used to reserve rights-of-way needed for future interchanges, road widening, planned streets, or other

improvements. That would further reduce right-of-way acquisition costs and ease the implementation of the US 30 upgrade.

Local land use planning

In conjunction with a thoroughfare plan, analysis of the current and future land uses around the US 30 corridor should be undertaken, and planning and zoning documents adjusted accordingly. Doing so would prevent incompatible land uses from being developed in locations crucial to US 30 development and would encourage the siting of businesses and industries to best take advantage of the interchanges and other improvements.

This effort could include updating the Whitley County and Columbia City Comprehensive Plans, by creating a corridor land use plan, or simply updating the zoning maps with the appropriate zoning districts. Like the thoroughfare plan, the land use study could be done prior to any work on US 30 to set forth the expectations for development in the vicinity of the highway.

Construction of interim projects

The concept presented in this report assumes a complete conversion of US 30 to freeway level, and the ideas reflect that “full build out” scenario. However, the Planning Committee determined that certain projects may be constructed sooner than others, particularly those which are warranted now (such as the State Road 9 interchange) versus those with longer-term impacts. As such, the concept could be developed in an incremental fashion, with individual projects being completed within the planned design intent to become a US 30 freeway.

APPENDIX A: VEHICLE COUNTS BY LOCATION

Annual Average Daily Traffic (AADT) figures for locations along US 30 in Whitley County. Not all data is available for all years.

Table 1. Total traffic (AADT) for locations along US 30, 1989-2021.

	430070	920040	920050	920051	920052	920053	920060	920070	920080	920100	920101	920102	920110	20520
2021	20,842	23,117	22,074	26,280	24,534	26,124	22,576	29,264	26,910	24,960	26,348	28,268	33,451	25,382
2020	20,487	20,530	19,604	23,339	21,789	23,201	19,908	25,806	23,730	22,011	23,235	25,105	29,708	24,614
2019	23,467	26,483	23,698	23,756	24,424	22,651	25,040	26,018	27,716	26,777	27,013	28,757	26,708	28,195
2018	21,483	26,066	23,325	23,382	24,039	22,294	25,015	25,992	27,688	26,750	26,986	27,775	28,748	27,751
2017	21,505	26,092	23,348	23,405	24,063	22,316	24,670	25,633	27,306	26,381	26,613	27,803	28,777	20,663
2016	21,678	22,181	21,563	21,229	22,016	21,869	23,169	25,349	28,110	25,365	26,828	28,027	29,009	20,830
2015	21,400	21,896	21,286	20,957	21,733	21,588	23,100	25,273	28,026	25,289	25,395	24,102	26,408	20,563
2014	20,557	21,034	20,448	20,132	20,877	20,738	22,105	24,185	26,819	24,200	24,301	23,153	25,368	21,095
2013	20,313	20,785	20,206	19,893	20,629	20,492	21,629	23,664	26,242	23,679	23,778	22,878	25,067	20,845
2012	19,412	22,717	18,657	18,414	18,854	18,145	21,344	22,797	24,780	22,832	23,718	23,608	24,639	21,021
2011	19,031	22,272	18,291	18,053	18,484	17,789	21,154	22,594	24,559	22,628	23,506	23,145	24,156	
2010	18,993	22,228	18,254	18,017	18,447	17,753	20,841				23,159			19,753
2002	17,690		17,750		18,170	17,410	19,030	20,730	20,080		19,300		23,780	
1999	19,050		23,610		18,260	18,680	22,050	25,350	24,880		23,740		24,230	
1994	18,640		20,230		17,160	18,390	19,090	20,530	20,520		22,250		22,130	
1989	16,500		14,860		15,890	22,140	11,510	20,820	17,540		18,850		19,730	

Table 2. Business/commercial traffic only (AADT) for locations along US 30, 2010-2021.

	430070	920040	920050	920051	920052	920053	920060	920070	920080	920100	920101	920102	920110	20520
2021	5,640		6,203	7,226	7,651	7,118	5,470	6,486	5,630	5,459	5,965	6,765	8,165	6,709
2020	5,534		5,509	6,417	6,795	6,322	4,824	5,720	4,965	4,814	5,260	6,008	7,251	5,814
2019	6,339		6,660	6,567	6,678	6,649	8,606			5,939	6,086	6,882	6,188	6,660
2018	5,565		6,555	6,464	6,573	6,544	8,597	6,687	5,873	5,933	6,080	6,516	6,772	6,555
2017	5,571		6,561	6,470	6,580	6,550	8,478	6,595	5,792	5,851	5,996	6,523	6,779	
2016	5,616		5,839	5,795	5,567	5,712	5,764	5,915	5,727	5,725	6,044	6,576	6,834	
2015	5,544		5,764	5,721	5,495	5,639	5,747	5,897	5,710	5,708	5,527	5,474	5,983	4,601
2014	5,326		5,537	5,496	5,279	5,417	5,499	5,643	5,464	5,462	5,289	5,258	5,747	
2013	5,263		5,471	5,431	5,216	5,353	5,381	5,521	5,346	5,344	5,175	5,196	5,679	
2012	4,974		4,925	4,876	4,812	4,776	4,758	4,771	4,660	5,034	4,790	4,974	5,582	4,792
2010	4,868		4,820	4,772	4,709	4,674	4,647				4,678			6,227

Table 3. Locations of IDs shown in above tables.

ID	Location description
430070	At Kosciusko/Whitley Co. line (replaced 920030)
920030	Between Kosciusko line and Binkley Road (deactivated 2019)
920040	150' west of SR 5
920050	500' east of SR 5
920051	Between McLallen St and 650W
920052	Between Wilson Lake Rd and 300W
920053	Between Wolf Rd and Lincolnway
920060	Between Armstrong Dr and SR 109
920070	Between SR 109 and SR 9
920080	Between SR 9 and SR 205
920100	Between SR 205 and CR 100S
920101	Between 100S and 300E
920102	Between 400E and 500E
920110	Between 700E and 800E
20520	½ mile east of 800E

APPENDIX B: COLLISION DATA, 2002-2021

Collision data for the Whitley County US 30 corridor from 2002 to 2021, inclusive. Data is subject to reporting discrepancies and is not available prior to 2002.

Table 1. Various collision data for US 30, 2002-2021

Year	Total collisions reported	Δ since 2002	Fatal incidents	%	Injury incidents	%	Multi-vehicle incidents	%	Multi-vehicle incidents involving trailers	%	Deer incidents	%
2021	176	70.9%	0	0.00%	39	22.16%	120	68.18%	16	9.09%	35	19.89%
2020	121	17.5%	1	0.83%	18	14.88%	80	66.12%	21	17.36%	21	17.36%
2019	169	64.1%	0	0.00%	33	19.53%	110	65.09%	25	14.79%	31	18.34%
2018	176	70.9%	0	0.00%	44	25.00%	128	72.73%	34	19.32%	22	12.50%
2017	219	112.6%	3	1.37%	40	18.26%	152	69.41%	28	12.79%	32	14.61%
2016	206	100.0%	1	0.49%	37	17.96%	140	67.96%	37	17.96%	31	15.05%
2015	161	56.3%	1	0.62%	26	16.15%	105	65.22%	26	16.15%	28	17.39%
2014	154	49.5%	0	0.00%	29	18.83%	99	64.29%	32	20.78%	19	12.34%
2013	134	30.1%	0	0.00%	17	12.69%	88	65.67%	15	11.19%	18	13.43%
2012	123	19.4%	2	1.63%	29	23.58%	79	64.23%	18	14.63%	22	17.89%
2011	132	28.2%	0	0.00%	27	20.45%	83	62.88%	22	16.67%	21	15.91%
2010	145	40.8%	2	1.38%	21	14.48%	83	57.24%	19	13.10%	26	17.93%
2009	120	16.5%	2	1.67%	15	12.50%	59	49.17%	12	10.00%	32	26.67%
2008	127	23.3%	2	1.57%	20	15.75%	66	51.97%	21	16.54%	14	11.02%
2007	140	35.9%	1	0.71%	15	10.71%	88	62.86%	16	11.43%	20	14.29%
2006	127	23.3%	1	0.79%	28	22.05%	88	69.29%	33	25.98%	22	17.32%
2005	101	-1.9%	0	0.00%	22	21.78%	64	63.37%	24	23.76%	19	18.81%
2004	100	-2.9%	3	3.00%	14	14.00%	57	57.00%	24	24.00%	14	14.00%
2003	98	-4.9%	3	3.06%	28	28.57%	59	60.20%	25	25.51%	NA	-
2002	103	NA	1	0.97%	20	19.42%	75	72.82%	17	16.50%	NA	-

Table 2. Lead responding agencies by year, 2002-2021

Year	Whitley County Sheriff	Columbia City Police	Indiana State Police	Other Agency
2021	46.0%	50.6%	3.4%	0.0%
2020	48.8%	47.9%	3.3%	0.0%
2019	53.3%	41.4%	4.7%	0.6%
2018	38.6%	55.1%	6.3%	0.0%
2017	42.5%	47.0%	10.5%	0.0%
2016	50.5%	44.7%	4.9%	0.0%
2015	43.5%	47.2%	9.3%	0.0%
2014	44.2%	49.4%	6.5%	0.0%
2013	43.3%	41.0%	15.7%	0.0%
2012	48.0%	44.7%	7.3%	0.0%
2011	49.2%	40.2%	10.6%	0.0%
2010	49.0%	36.6%	13.8%	0.7%
2009	49.2%	34.2%	15.8%	0.8%
2008	56.7%	27.6%	14.2%	1.6%
2007	53.6%	32.1%	13.6%	0.7%
2006	64.6%	25.2%	9.4%	0.8%
2005	44.6%	35.6%	17.8%	2.0%
2004	45.0%	40.0%	15.0%	0.0%
2003	41.8%	42.9%	14.3%	1.0%
2002	35.0%	42.7%	19.4%	2.9%

APPENDIX C: COMPARABLE HIGHWAY TRAFFIC COUNTS

This table shows selected comparisons for highways in Indiana.

Highway	Location	Year	AADT (total)	Commercial vehicles	
US 30	Between CR 700E and 800E	2018	28,748	6,772	24%
US 30	Between SR 9 and SR 109	2018	25,992	6,687	26%
US 30	Whitley-Kosciusko County line	2018	21,483	5,565	26%
<i>Locations on US 31, prior to reconstruction to freeway standards</i>					
US 31	At 161 st Street (Westfield)	2011	32,804	2,565	8%
US 31	At SR 28 (Tipton)	2011	22,039	2,426	11%
US 31	At Old US 31 (Peru)	2012	18,527	2,763	22%
<i>Median U-Turn locations in Indiana (constructed or proposed)</i>					
US 30	At 500E	2018	27,775	6,516	23%
US 31	At 800S (Miami Co.)	2019	21,650	3,938	18%
US 30	At SR 101	2018	16,483	7,066	43%
US 24	At SR 19	2017	12,300	2,517	20%
US 24	At Lagro Rd (Wabash Co.)	2018	9,403	2,145	23%
US 231	At SR 62	2017	7,690	2,945	38%
US 231	At SR 70	2017	6,542	2,413	37%
US 41	At SR 114	2018	6,063	1,766	29%
<i>Other highways around Indiana</i>					
SR 930	East of Parnell (Ft. Wayne)	2018	47,425	1,430	3%
I-69	South of US 6 (Waterloo)	2018	31,584	7,529	24%
I-70	East of SR 46 (Terre Haute)	2019	31,130	15,654	50%
I-69	North of SR 26 (Gas City)	2018	30,107	11,148	37%
Indiana Toll Road	East of SR 49 (Valparaiso)	2016	28,300	10,060	36%
SR 37	North of Martinsville	2018	27,533	2,460	9%
I-74	Between Brownsburg and Lizton	2018	25,571	7,129	28%
Indiana Toll Road	Ohio state line	2016	20,860	9,320	45%
SR 14	East of Scott Rd (Ft. Wayne)	2018	19,492	NA	NA
I-64	West of I-69 (Evansville)	2018	17,121	6,545	38%
US 24	East of Peru	2018	10,455	2,431	23%
SR 9	At Eel River	2019	6,371	732	11%

APPENDIX D: LETTERS OF SUPPORT



112 S. Chauncey St.
Columbia City, Indiana 46725
260-248-5121 * 260-248-5126

Safety on US 30

Mayor Daniel,

6/23/2021

Here are some safety issues I have noticed over the past few years. US 30 has become a major thoroughfare as traffic has increased tremendously. I only see it getting busier as more and more businesses build along US 30 between Fort Wayne and Warsaw.

At times, I have seen traffic backed up between St. Rd 9 and St. Rd. 109 almost to the point that it is bumper to bumper traffic between the two intersections on US 30. I know our officers have worked several accidents specifically between the two intersections. It is my opinion these accidents are caused by backed up traffic and as people start accelerating, after the light turns green, they then realize the traffic is stopped, due to traffic control devices (Lights) at the other intersection.

The US 30 intersections in our city, along US 30, have become very busy in all directions, especially at peak hours of the day. These intersections stay congested for an extended length of time. We receive many complaints on a regular basis regarding vehicles running red lights and semi drivers driving in the left lane, which causes more congestion and traffic backups in our city. We have increased our manpower and visibility on US 30, however the issues stated above continue to be an ongoing problem. I certainly believe that improving US 30 to an Freeway would improve the safety of our residents and visitors.

Sincerely,

A handwritten signature in black ink, appearing to read "G. Parrett".

Gary Parrett
Chief
Columbia City Police Department
112 South Chauncey Street
Columbia City, IN 46725
(260) 248-5120
gparrett@columbiacity.net

Date: 7/16/21
To: Mayor Daniel
From: Thomas E. LaRue, Columbia City Fire Chief
Reference: US 30 Concerns

Mayor,

I am sure by now that you are aware of the hazards our public safety departments and our community face with US 30. The increase in traffic has been astronomical over the past years and we are facing a huge problem. The local LEPC completed a study that I have forwarded to you that makes this issue very clear. I would really like to point out that US30 has as much commercial semi traffic as 465 in Hamilton County! I'm sure you know, US30 was NOT designed to handle this many vehicles and that is why we see the huge backups every evening through our community.

US 30 has backups every evening between the traffic lights and vehicles are often lined up for miles trying to navigate the traffic signals. This causes issues such as wrecks and broken-down vehicles, which further add to the problem. If you know anybody at the state level that can potentially help us to create a safer and more commerce friendly highway, it would be appreciated.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Tom LaRue', with a stylized flourish at the end.

Chief Tom LaRue
Columbia City Fire Department



PO Box 508 • 950 North Liberty Drive
Columbia City, IN 46725
(260) 244-7606 • (800) 451-2709
Fax (260) 244-4431

July 28, 2021

Whitley County US 30 Planning Committee
c/o Mayor Ryan Daniel
112 S. Chauncey Street
Columbia City, IN 46725

Dear Whitley County US 30 Planning Committee:

I am writing this letter in hope of a clear plan for "Upgrade US 30", Whitley County. As a landowner and developer in the community, I have seen how impactful US 30 has been for our community's growth and opportunity. I also have a keen awareness of how the ambiguity of US 30's future has hampered economic growth.

In 2016, I first approached the City on a potential development on the Northwest side of the community. When meeting with the Mayor, we were notified that there wasn't a clear roadmap on how US 30 would be developed in the future. Without a clear path forward, and our land being so close to the highway, our investment would be too large of a risk to take. This is likely just one instance of many, in and around the US 30 Corridor, where the lack of a plan for the highway has impacted future development and economic opportunity for the residents and businesses.

I urge the Indiana Department of Transportation to define the path forward for our community soon. Indiana has a great economic environment to start and grow a business. Yet, without a clear and defined roadmap for the future of US 30, development and opportunity will continue to be stifled.

Sincerely,

R. D. Schrader
Owner, Schrader Real Estate & Auction Company, Inc.

APPENDIX E: REFERENCES

- Barth, M., & Boriboonsomsin, K. (2009). Traffic Congestion and Greenhouse Gases. *Access*, 2-9.
- Committee for Keeping 109 Open. (1974, August 9). Advertisement. *Columbia City Post*, p. 5.
- Federal Highway Administration. (2014, October). *The ABCs of Designing RCUTs*. Retrieved from <https://www.fhwa.dot.gov/publications/publicroads/14sepoct/02.cfm>
- Federal Highway Administration. (2020, March). *Changes on All Estimated Roads by Region and State*. Retrieved from https://www.fhwa.dot.gov/policyinformation/travel_monitoring/20martvt/page6.cfm
- Indiana Department of Transportation. (2020). *Traffic County Database System (TCDS)*. Retrieved from indot.ms2soft.com/tcds
- Indiana Department of Transportation. (2020). *US 30 at CR 500 East Intersection Improvement Project in Whitley County*. Retrieved from <https://www.in.gov/indot/3977.htm>
- Indiana Department of Transportation. (2021, July 1). INDOT, Purdue to Develop Wireless Electric Vehicle Charging Solution for Highway Infrastructure. Retrieved from <https://content.govdelivery.com/accounts/INDOT/bulletins/2e63ee8>
- Indiana Passenger Rail Alliance. (2021). Retrieved from <https://www.indianahighspeedrail.org/>
- Indiana State Highway Commission. (1926). State Highway System of Indiana [map]. Retrieved 2016, from cdm16066.contentdm.oclc.org/cdm/search/collection/p15078coll8
- State of Indiana. (2021). *ARIES Collision Data Repository*. Retrieved from www.ariesportal.com