

# **Alternative Vehicular Route Corridors Through Noblesville**

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Public Information Meeting – December 13, 2016

# Agenda

- Background
  - Overview and Summary of Existing and Past Data
  - Presentation of Additional Information
  - Evaluation of Alternatives
  - Discussion and Questions
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# Objective of Expanding East-West Corridor

- Relieves traffic congestion
  - Eases stress on historic downtown
  - Enables further growth of downtown
  - Requires western connection with Hague Road
  - Requires eastern connection with SR 37
  - Improves trail and downtown connectivity in-between
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# Criteria and Information Used for Preliminary Route Selection Process and Investigation

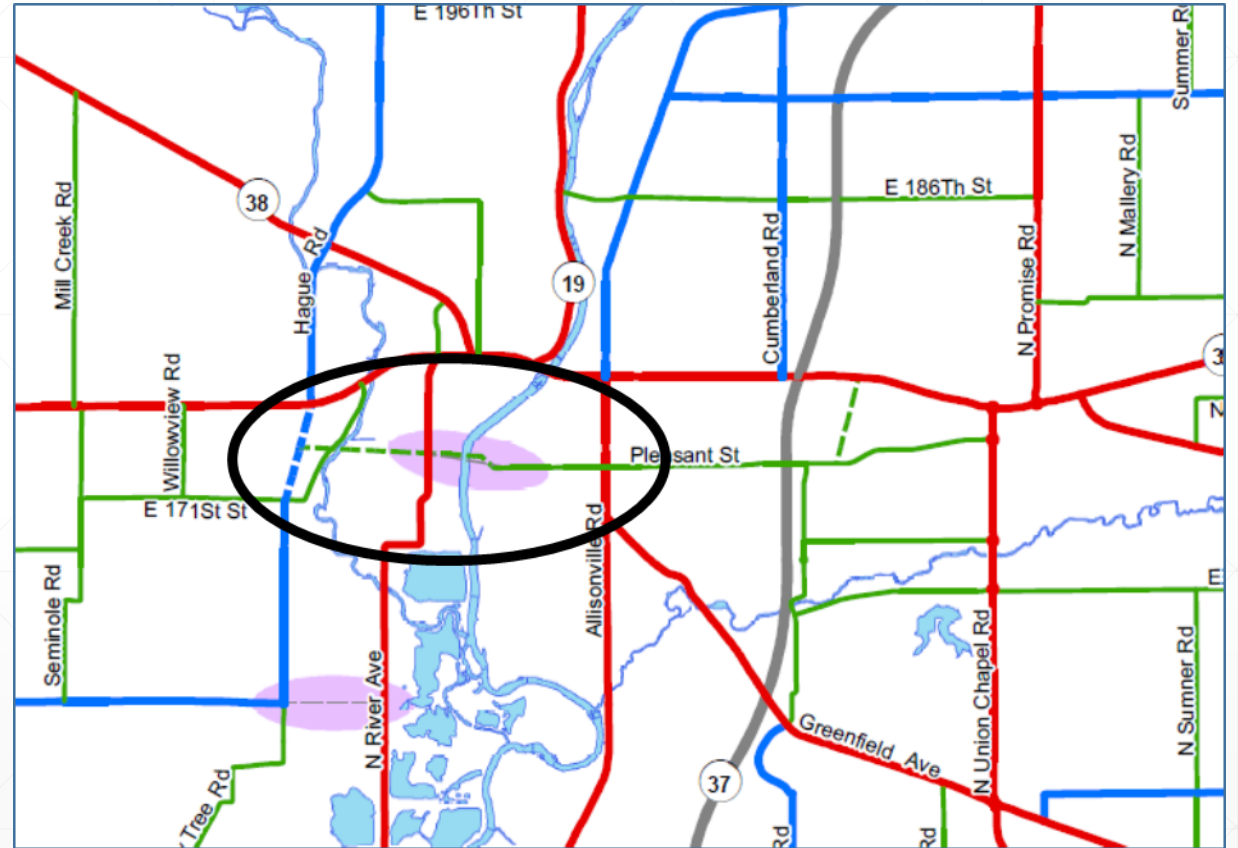
- Primary Factors Affecting Location
    - Past Studies
    - Initial Route Location
    - Environmental Factors
      - Floodway/Floodplain
      - Wetlands
      - Quarry Pits
      - Landfills
    - Facilitation and Access to Connecting Routes
    - Travel Times, Traffic Counts and Capacity
    - Origin and Destination of User
    - Diverted and Induced Demand
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# Previous Studies, Plans, and Analyses

- 1995 Noblesville Comprehensive Plan and Thoroughfare Plan
  - 1999 White River Bridge Study and Technical Memorandum
  - 2008 Pleasant Street Bridge Analysis
  - 2015 Pleasant Street Feasibility Study
  - MPO Travel Demand Model and Traffic Information
  - City's Traffic Impact Studies
  - Historic Traffic Data
  - Work to Date
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# Thoroughfare Plans

- Pleasant Street and Hague Road are on Approved Hamilton County and City of Noblesville Thoroughfare Plans



From Hamilton County Thoroughfare Plan

## Historic Traffic Data and Trends SR 32/38 Traffic Volume Index 1997 to 2013

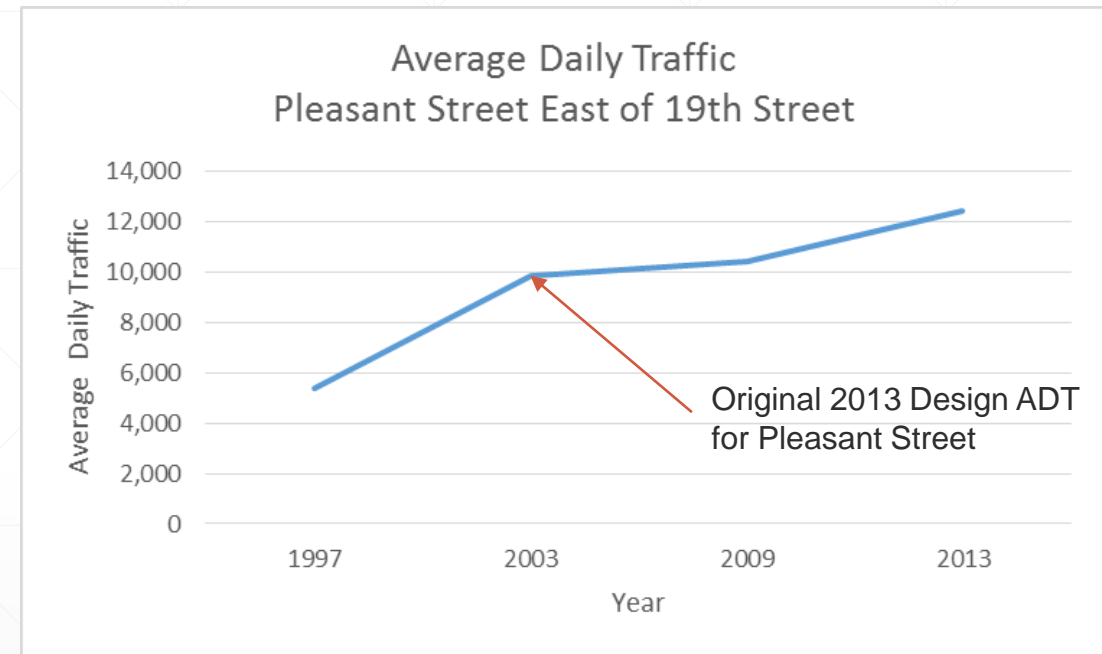
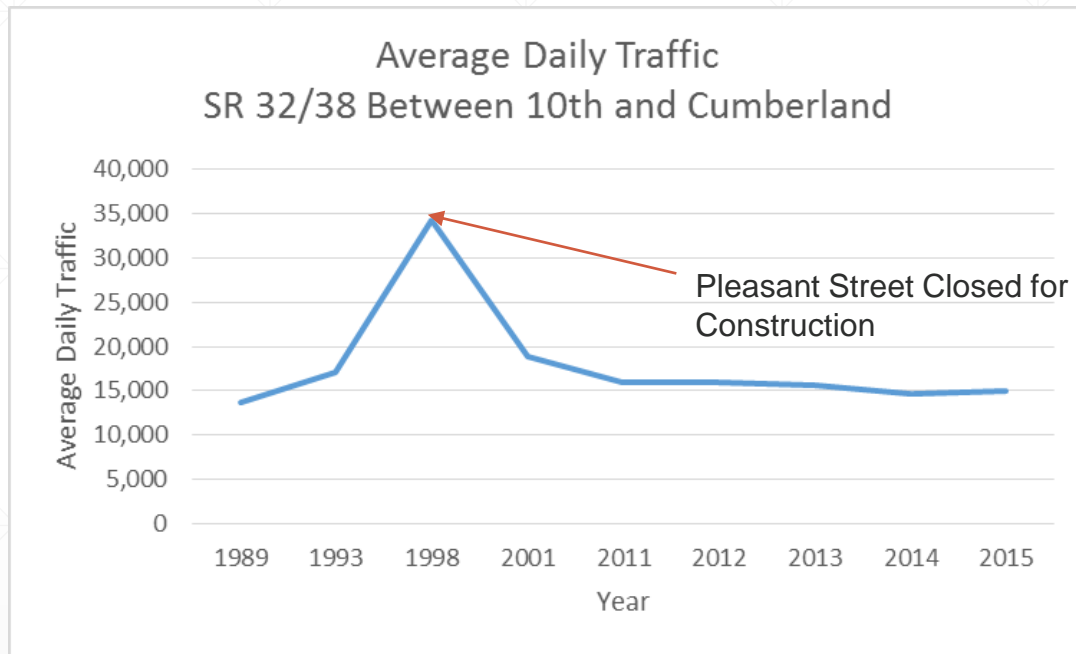


### Key Notes

Growth Rate Peaked in mid-1990's

Source: INDOT Interactive Traffic Data Web Page

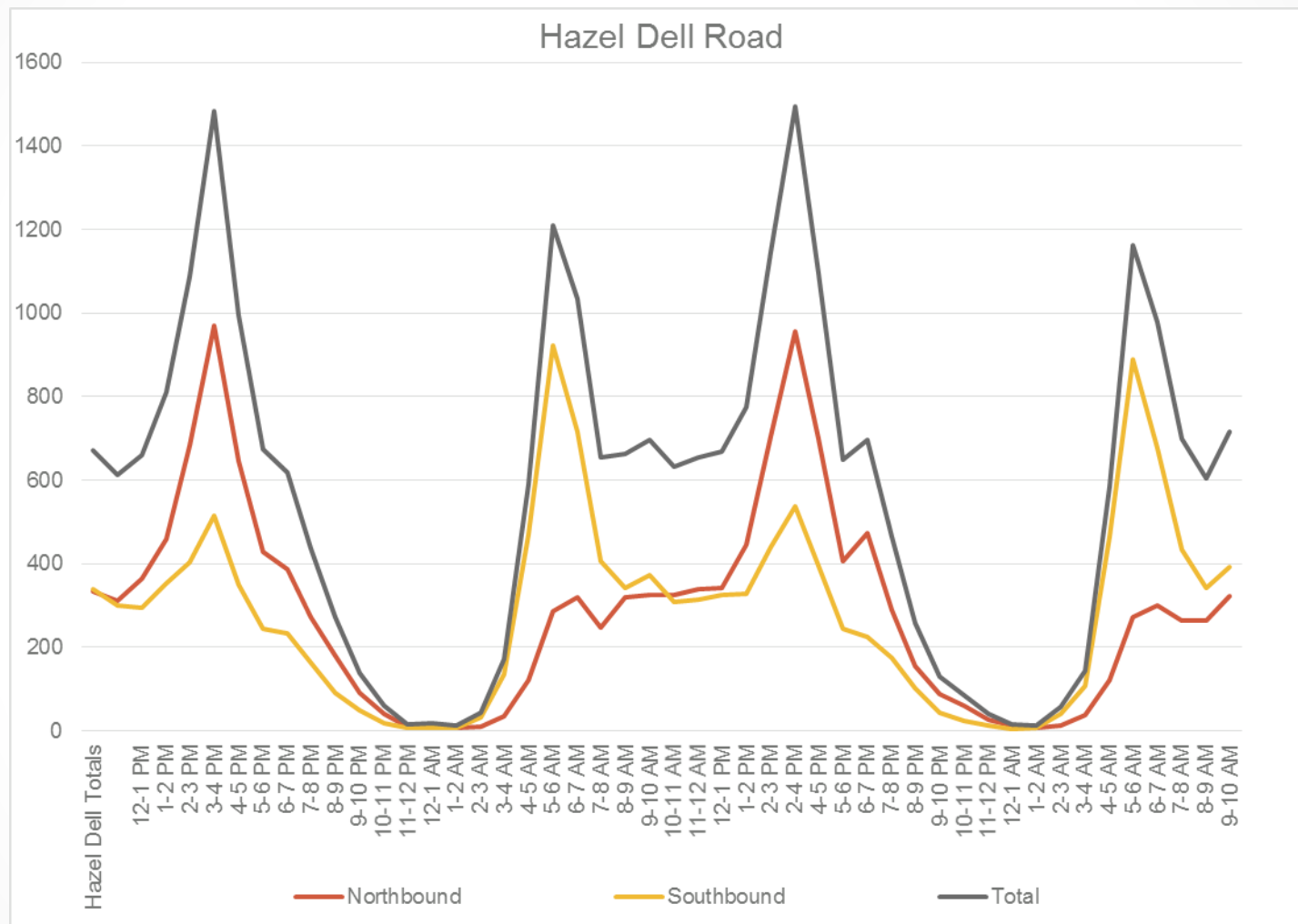
# Historic Traffic Data and Trends on Existing Corridors



From Preliminary Design Study Report for Pleasant Street circa 1994

<b><u>Traffic Data:</u></b>	1993 ADT - 4,800 v.p.d.	%Trucks - 3%
	2013 ADT - 7,872 v.p.d.	DHV - 787 v.p.h.



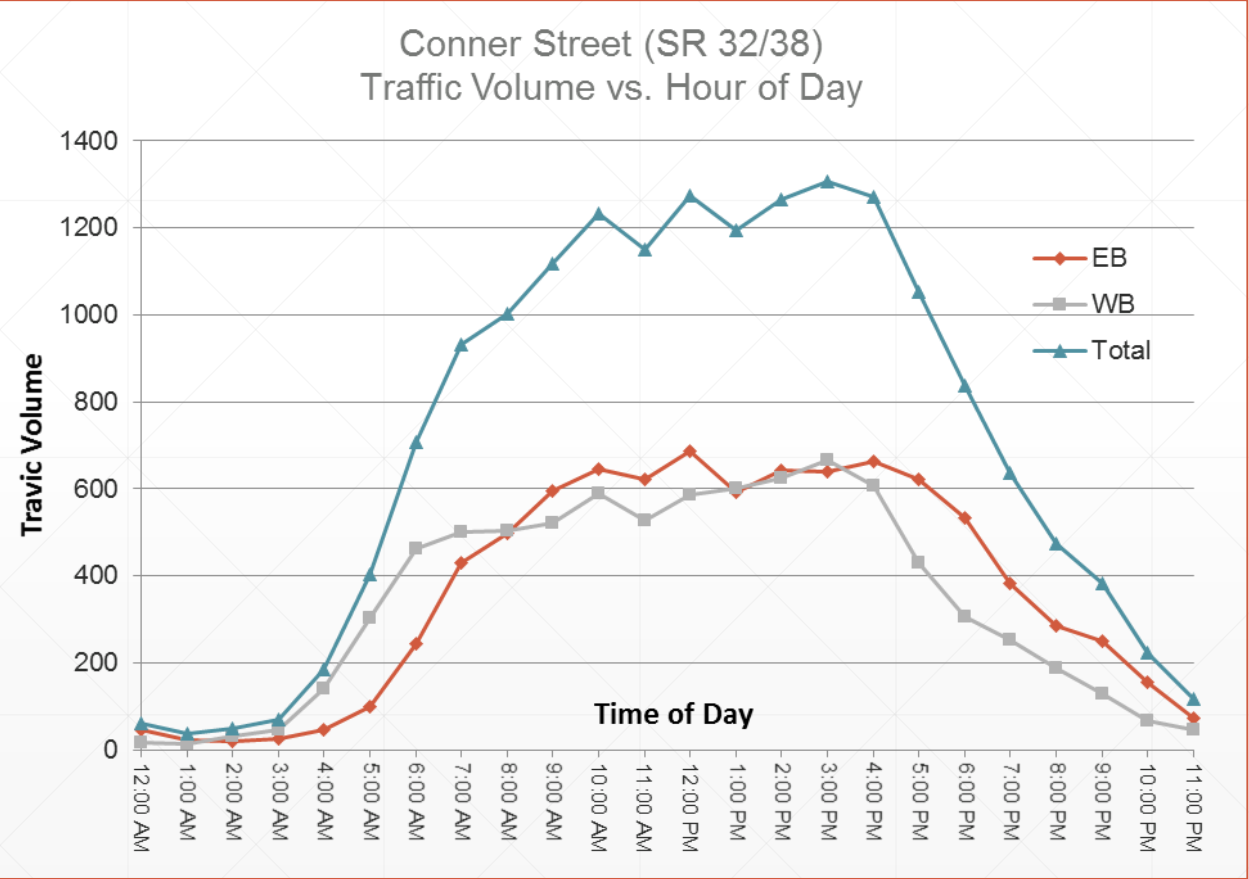
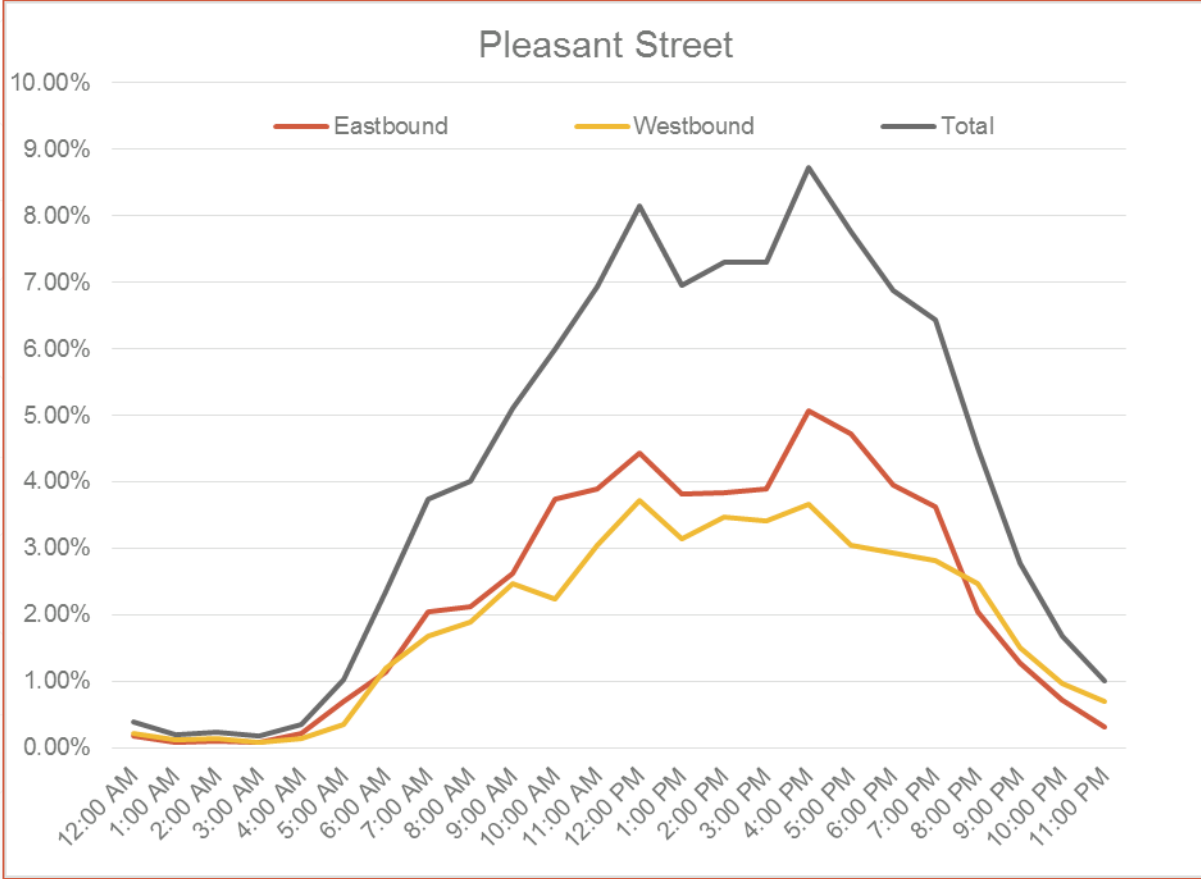


## General Traffic Patterns

Residential Traffic – Pronounced Peaks in AM and PM Drives

Very Typical of Commuting Traffic

# Existing Traffic Patterns

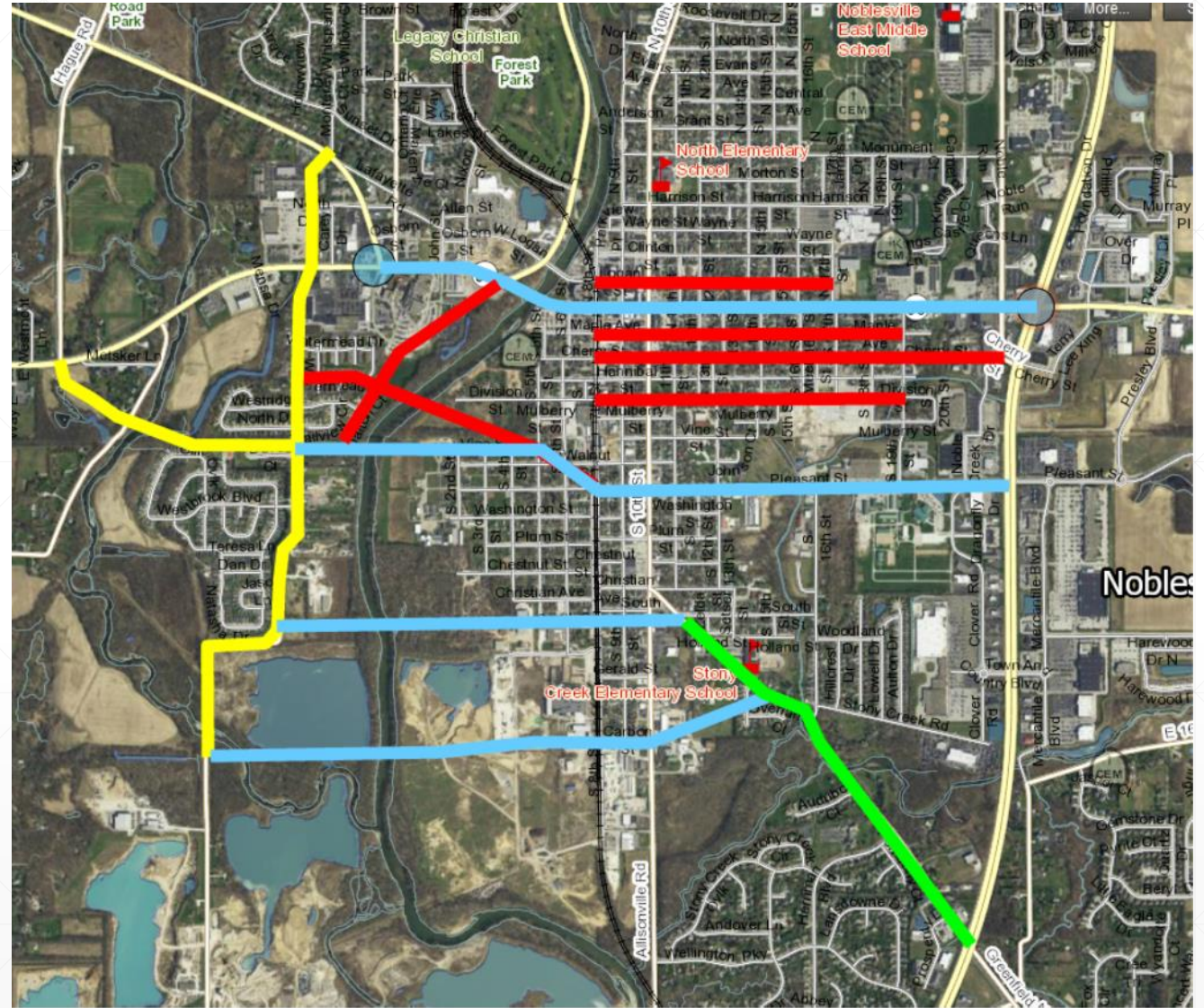


# Conclusions on Historic Traffic Data

- Pleasant Street carries more traffic than originally intended.
  - Both existing Conner and Pleasant Street act as arterials and function differently than other local streets.
  - Cherry Street, east of 19<sup>th</sup> Street, and Pleasant Street act as alternate routes for Conner Street
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# Initial Route Options

- 9 East-West Routes
  - One-Way and Two Way Options
- 4 North South Connectors
- 4 Connection Points to S.R. 37



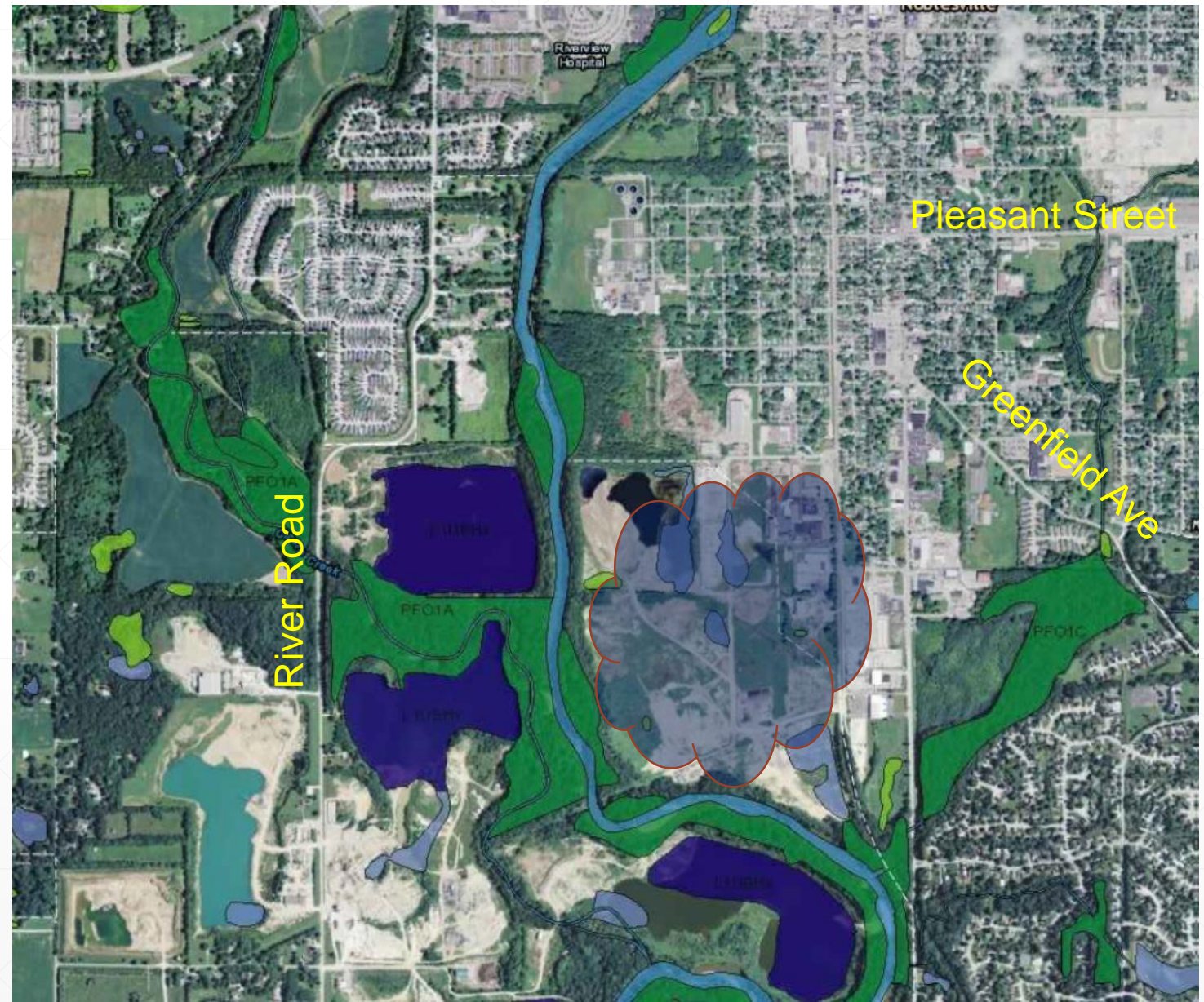


# Preliminary Routes Identified and Eliminated From Consideration

- Logan, Maple, Cherry, Division, 19<sup>th</sup>, and Hannibal Streets
    - Impacts to and Limitations of Each Corridor
    - No Sufficient Outlet to S.R. 37 and Limited Connection to West (Cemetery)
  - S.R. 19 Option – Eliminated by County (Wetlands and Floodway)
  - Division Street Corridor Crossing to River Road
    - Eliminated from Consideration by County
    - Location is not on Thoroughfare Plan and doesn't align for westward extension.
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# Environmental Considerations

- Wetlands
- Floodway and Floodplain
- Quarry Pits
- Landfills



# Consideration of Alternatives

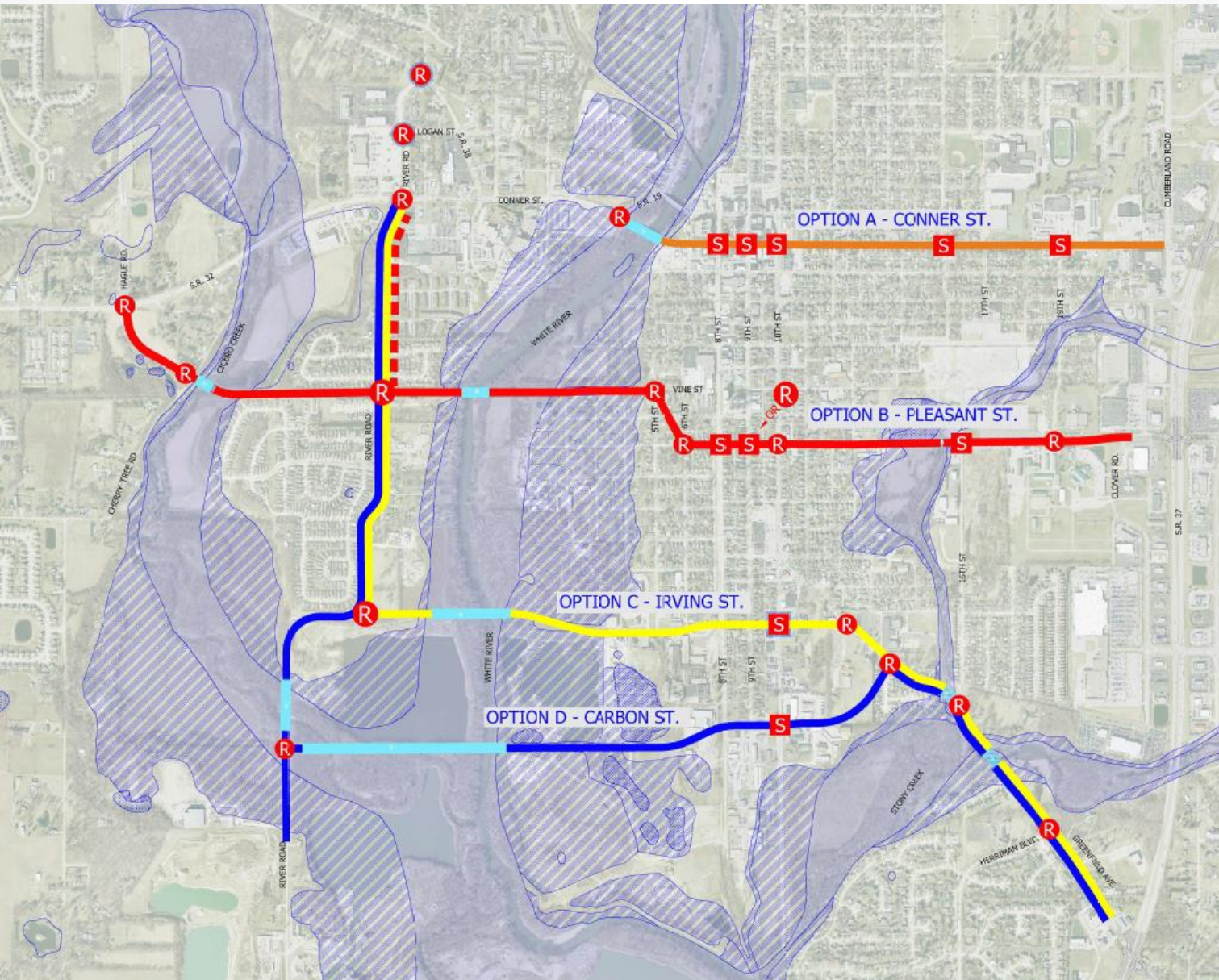
## East-West Routes (River Crossings)

- Options
  - A- Improve Conner Street
  - B- Pleasant Street Crossing
  - C- South/Irving Street Crossing
  - D- Carbon Street Crossing
  - No Build

## North-South Connecting Route (Improvements to Connect Route to SR 32)

- Options
    - Extend Pleasant Street from River Road to Hague Road
    - Upgrade River Road from Pleasant Street Extended North to S.R. 38
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# East/West Corridor Improvement Options

- A. Conner Street (SR 32/38)
- B. Pleasant Street
- C. South/Irving Street
- D. Carbon Street
- E. No Build



# Preliminary Cost Matrix and Summary of Corridor Options

**Cost Matrix for East-West Corridor Crossing of White River**

Corridor/Option	Land Acquisition	Construction	Utilities (15% Construction)	Design and Constuction Engineering (20% Const. and Utilities)	Total Cost for Alternative
A- Conner Street	\$ 12,200,000	\$ 11,100,000	\$ 1,665,000	\$ 2,553,000	\$ 27,518,000
B - Pleasant Street	\$ 11,755,000	\$ 21,120,000	\$ 3,168,000	\$ 4,857,600	\$ 40,900,600
C - South/Irving	\$ 12,795,000	\$ 25,600,000	\$ 3,840,000	\$ 5,888,000	\$ 48,123,000
D - Carbon Street	\$ 12,253,350	\$ 41,500,000	\$ 6,225,000	\$ 9,545,000	\$ 69,523,350

## Origin-Destination Study and Travel Demand Model 2016

		Approximate Percentage Reduction in Traffic Volumes on Conner Street	
Option	Name	Between River Road and 10th Street	Between 10th Street and S.R. 37
A	Connor Street	0%	0%
B	Pleasant Street	29%	18%
C	South/Irving Street	13%	7%
D	Carbon Street	8%	6%

- Existing traffic data was obtained and using Bluetooth Technology
- Each option, with its corresponding capacity improvements, were entered into a standard travel demand model to simulate and determine their effects on existing travel patterns and volumes.
- The travel demand model and forecasting software package is a standard tool used in regional transportation planning.

Corridor/Option	Cost per Vehicle Removed from Conner Street over Lifecycle of Project
A- Conner Street	-
B - Pleasant Street	\$ 2.71
C - South/Irving	\$ 8.21
D - Carbon Street	\$ 13.82

## Cost per Vehicle for Each Corridor

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- Cost per Vehicle Diverted from Conner Street over a 20-Year Life Cycle

# Option A - Conner Street

## Pros

- Lowest Cost Option
- Does not disrupt other areas
- Existing route

## Cons

- Removes Parking Downtown
  - Limitations and effects on corner locations to accommodate truck turning.
  - Does Not Alleviate Existing Congestion on 8<sup>th</sup> and Pleasant Streets
  - Impacts to Area Between 8<sup>th</sup> Street and S.R. 37
  - Fallback to No Build Option
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# Option B - Pleasant Street

## Pros

- Improves Already Existing Capacity Problems
  - Already used as an alternate route to Conner Street
  - On Thoroughfare Plan
  - Lower cost than Options C and D
  - Highest impact in Travel Demand Model
  - Most efficient alternate travel route
  - Closest proximity to Downtown Area
  - **Provides Primary Route for Midland Trace Through Town.**
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## Cons

- Highest Impact to Residential Uses
- Number of Relocations

# Option C – South/Irving Street

## Pros

- Lower Impact to Residential Areas than Option B
- Lower cost than Option D

## Cons

- Wetlands, Floodplain, and Landfill Constraints
  - Affects Industrial Location
  - Environmental Concerns
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# Option D – Carbon Street

## Pros

- Furthest Away from Downtown Area

## Cons

- Highest Impact to Commercial Areas
  - Lowest return on diverted traffic
  - Most expensive option
  - Environmental Concerns
  - Highest level of impacts to wetlands, floodway/floodplain
  - Proximity to gravel pits.
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# Conclusions on Current and Historical Traffic Data

- Improvements to River Road, 146<sup>th</sup> Street, Field Drive, and Logan Street have reduced local traffic demand on Conner Street, while roadways such as Logan Street, S.R. 38, west of Logan, and Pleasant Street have seen more steady and significant increases.
  - The growth of shopping and retail on the east side of town has already induced demand onto Pleasant and Cherry Streets and reduced traffic on Conner Street east of 8<sup>th</sup> Street.
  - The intersections of 8<sup>th</sup>, 10<sup>th</sup>, 11<sup>th</sup>, 16<sup>th</sup>, 19<sup>th</sup>, and SR 37 along Pleasant Street all have delay or capacity issues associated with increased traffic volumes.
  - 8<sup>th</sup> Street experiences heavy traffic and delays in peak hours due to the induced demand on Pleasant Street. Insufficient gaps to enter or cross 8<sup>th</sup> Street is a common concern.
  - The future project along the SR 37 Corridor will eliminate access onto S.R. 37 from Cherry Street.
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# Summary, Notes and Conclusions

- No Build Option essentially reverts to either 8<sup>th</sup> Street/Pleasant Street OR Conner Street corridors because of present demand and current levels of service.
  - Based on current performance and traffic levels on Pleasant Street, work is already needed on the corridor.
  - ANY new route option has impacts.
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# Questions or Comments

- Thank you for coming.
  - Email for Project Questions: [makingmoves@noblesville.in.us](mailto:makingmoves@noblesville.in.us)
  - Sign up to receive **future e-newsletter** for updates on Pleasant Street and other projects
  - Presentation Available Online Through Search on City's Website at:  
[www.cityofnoblesville.org](http://www.cityofnoblesville.org)
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