

US 231 at Cline Avenue

Intersection Improvement

Lake County

DES-1700022

Indiana Department of Transportation

Wednesday, March 9, 2022

6:00 p.m.

Suncrest Christian Church

10009 Parrish Ave, St. John, IN 46373




Welcome

- Purpose/explanation of public hearing
- Public hearing format
- Visit our sign-in table
- Informational handouts
- Participate during public comment session
- Submit written public comments
- Project display area



US 231 at Cline Avenue Intersection Improvement

- Introduction of INDOT project team
 - Project management
 - Public involvement
 - LaPorte District – INDOT Regional Office
 - Environmental services
 - Real estate
- Troyer Group
 - Engineering, design, and environmental analysis team
- Recognition of elected and local public officials
- Sign-in at attendance table to be added to project mailing list.
- A public hearing notice was mailed to known property owners in the project area.
- An announcement of this hearing was posted to INDOT's website.
- A copy of the presentation and project documentation is available online via INDOT's website.
- Legal notice publishing:
 - Times in Northwest Indiana  NextLevel INDIANA
 - February 18 and February 25, 2022

Submit Public Comments

- **Submit public comments using the options described in the first page of the information packet:**
 - Public Comment Form
 - Via e-mail (jlandry@troyergroup.com or lshrader@indot.in.gov)
 - Participating during the public comment session via microphone
 - Note that verbal comments will be recorded and transcribed for inclusion into the public hearing transcript.
- **INDOT respectfully requests comments be submitted by 5 p.m. CT March 23, 2022**
- All comments submitted will become part of the public record, and they will be entered into a transcript, reviewed, evaluated, and given full consideration during the decision-making process.

Project Resource Locations

- **St. John & Crown Point Libraries**

9450 Wicker Ave, St. John, 46373

Phone: (219) 365-5379

122 N. Main St, Crown Point, 46307

Phone: (219) 663-0270

INDOT LaPorte District Office: 315 E Boyd Blvd, LaPorte, IN 46350.

Visit the project web page: www.in.gov/indot/about-indot/central-office/welcome-to-the-laporte-district/us-231-at-cline-ave-intersection-improvement/

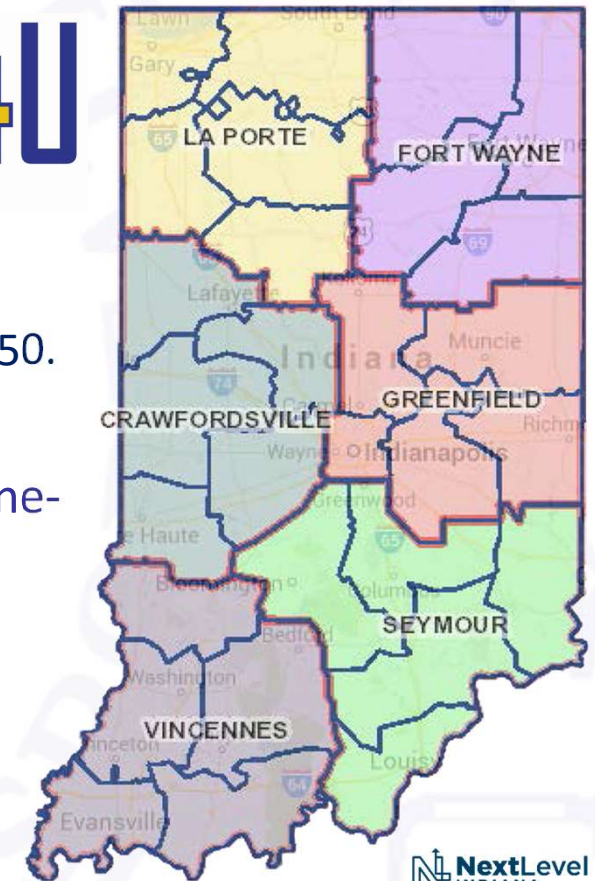
Transportation Services Call Center

Provides citizens and business customers with a single point of contact to request transportation services, obtain information, or provide feedback through multiple channels of communication.

855-463-6848 • INDOT4U.com • INDOT@indot.in.gov



855-463-6848



Project Stakeholders

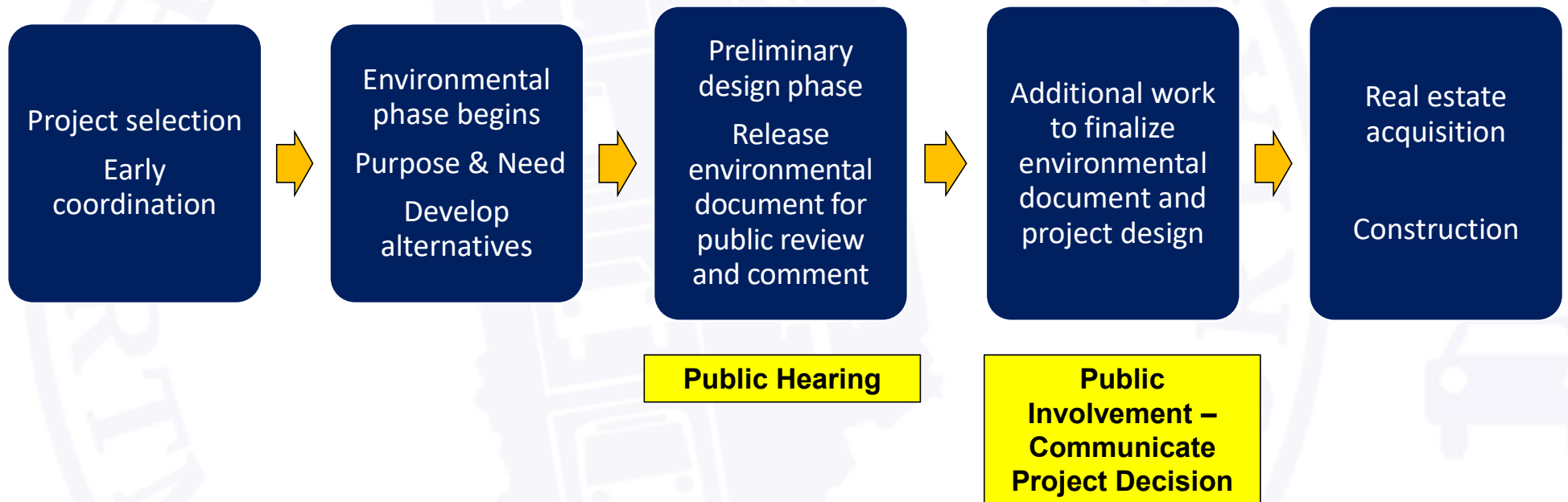
- Indiana Department of Transportation
- Indiana Division Federal Highway Administration
- Lake County
- Elected and Local Officials
- Residents and citizens
- Commuters
- Businesses
- Emergency services
- Schools
- Churches
- Community organizations



Project Schedule

- Public Hearing: March 9, 2022
- Public comments requested by 5:00pm CT, March 23, 2022
- INDOT review and consideration of comments (Winter/Spring 2022)
 - Finalize environmental document
 - Design
 - Project decision
- Real estate acquisition phase: 2022
- Construction: 2024

Project Development



Environmental Document

National Environmental Policy Act (NEPA)

- Requires INDOT to analyze and evaluate the impacts of a proposed project to the natural and socio-economic environments
- NEPA is a decision-making process
 - Purpose and Need
 - Alternatives Screening
 - Preferred Alternative
- NEPA Environmental Documents are divided into categories based on impact level
 - Programmatic Categorical Exclusion (PCE) and CE Level 1 – Least impacts
 - CE Level 2-4 – Average level of impacts
 - Environmental Assessment/Impact Statement – Greatest level of impacts

Environmental Document

- **Impacts are analyzed, evaluated, and described in an environmental document**
 - What are the impacts this project might have on the community?
 - How can impacts be avoided?
 - Can impacts be minimized?
 - Mitigation for impacts?
- **Environmental document released for public involvement**
 - CE Level 3
 - Elevated to level 3 due to wetland impacts; project also has noteworthy impacts to cultural resources and from Right-of-Way acquisition, but not enough to elevate the CE Level any further.
 - January 2022
 - Available for review via public repositories

Environmental Document

• **Environmental Process**

- Establish purpose and need
- Develop possible alternatives
 - The “Do Nothing” alternative is a baseline for comparison
- Evaluate and screen alternatives
- Identify a preferred alternative
- Evaluate impacts of preferred alternative
- Solicit public comment on environmental document and preliminary design plan
- Address and consider public comment as part of decision-making process
- Finalize and approve environmental document

Examples of Items Evaluated

- **Right-of-way**
- **Cultural resources (historic/archaeological)**
- Streams, **wetlands**, and other waters
- Floodplains
- Endangered species
- Farmland
- Parks and recreational lands (trails)
- Air quality
- Noise
- Community impacts
- Environmental justice
- Hazardous materials
- **Permits**
- **Mitigation**
- Public involvement
- Commercial development

Historic Properties – Northeast Quadrant

- One Historic Property, the John Barman Farmstead, is located adjacent to the northeast portion of the project area.
- The property was investigated by a Qualified Historian, and after coordination with Indiana State Historic Preservation Office (SHPO) and Indiana Landmarks, was determined to be eligible for the National Register of Historic Places (NRHP).
- After this determination was made, the project design was altered to avoid any construction within the boundaries of the farm property.
 - Roundabout alignment was shifted westward, eliminating the need for any Right-of-Way acquisition from or construction within the boundaries of the Historic Property.
- As a result of redesign, INDOT determined the project would have “No Adverse Effect” on the historic farm in June 2021.
- Consulting Parties were invited to comment on INDOT’s finding. SHPO Approved INDOT’s “No Adverse Effect” finding in July 2021.

Finding of “No Adverse Effect”



Photo 1. John Barman Farm, corner view, facing northeast (INDOT-1a).

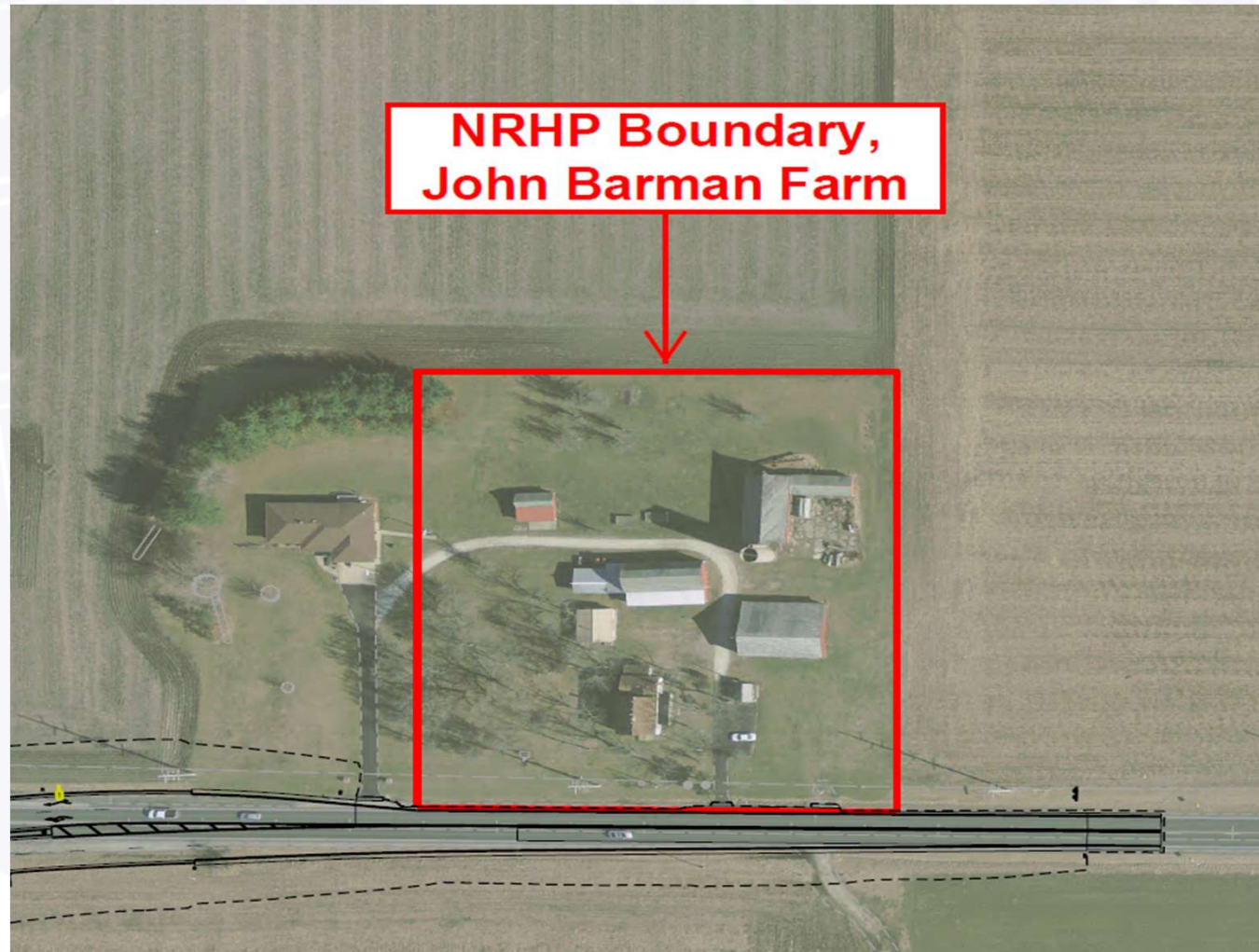


Photo 2. John Barman Farm Outbuildings, facing north (INDOT-1b).

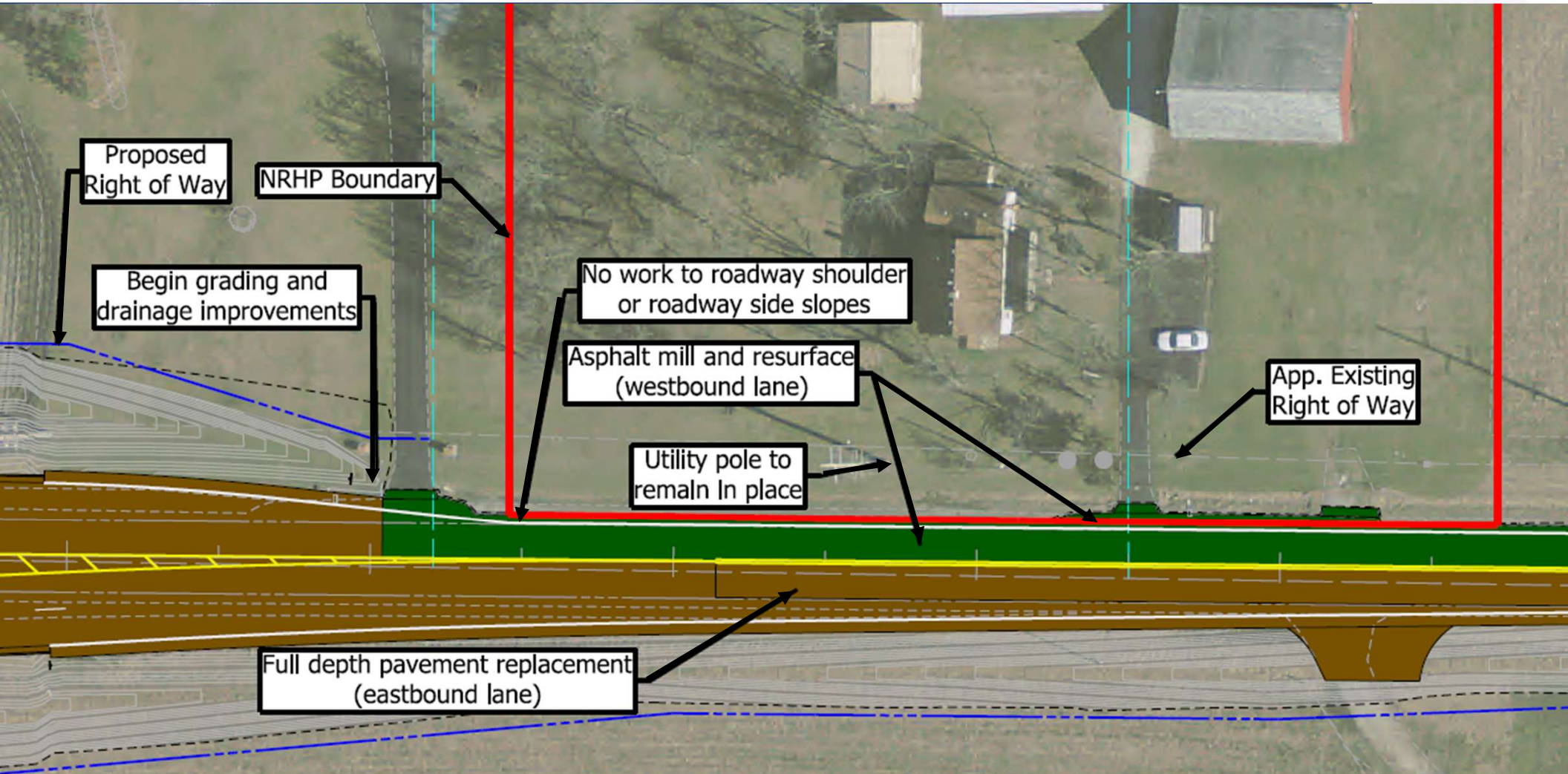
- The John Barman Farmstead property “embodies the broad pattern of agricultural development of the area,” making it eligible for the National Register of Historic Places.
- Common impacts to historic properties from INDOT projects include converting property to a transportation use and altering the visual environment.
- No Right-of-Way will be acquired from the portion of the property that has been designated as historic.
- No new signage or lighting will be placed within 50 ft. of the historic property line. Any new signage or lighting installed will match existing conditions. Therefore, the visual environment will not be impacted.

Historic Properties (cont.)

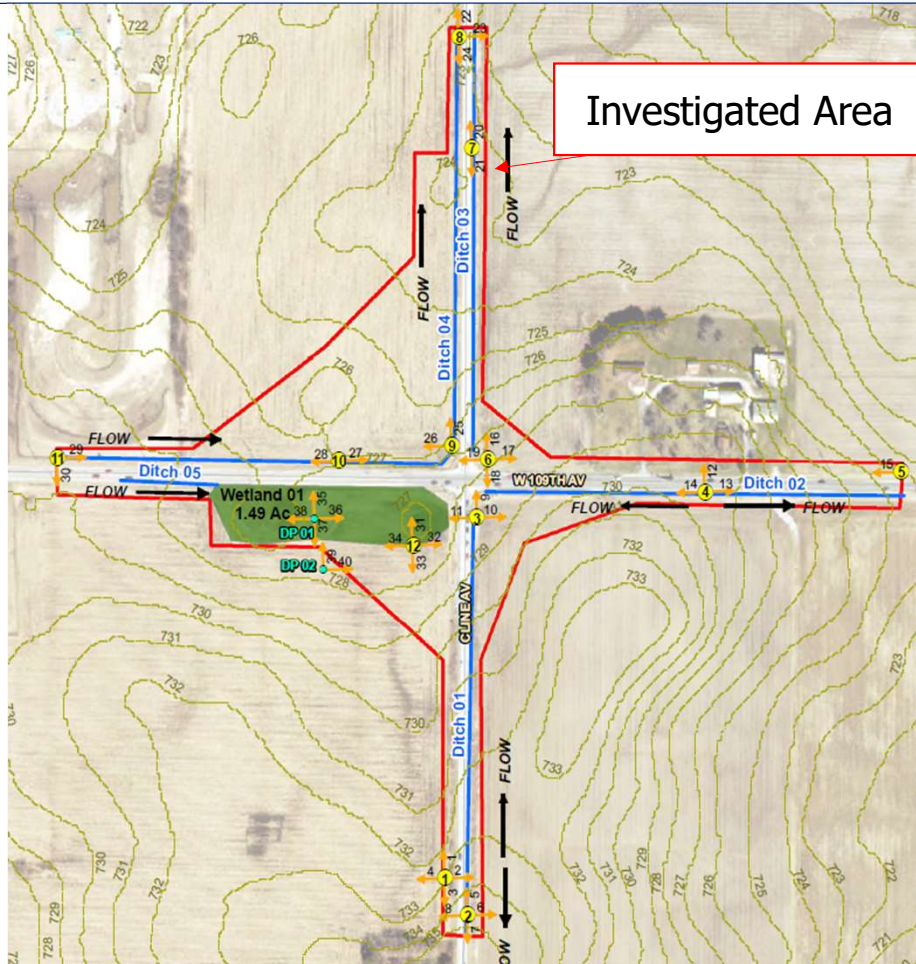
- NRHP southern boundary runs along existing roadway; western boundary extends along east side of the drive and house, but does not include the house; northern and eastern boundaries follow lines of un-tilled land




Historic Properties (cont.)



Wetland Impacts



- 1.49 acre wetland located in southwest quadrant of project area.
- Exists in depressed area at the edge of the farm-field, and receives runoff from both the field and adjacent roadways.
- Due to placement of proposed roundabout, 0.97 acre will be impacted.
- Permits will be acquired from USACE & IDEM, and impacts will be mitigated by purchasing credits from IDNR.
- Credit purchase will provide funding for IDNR to create higher-quality wetlands to make up for wetland acreage lost  as part of this project.

US 231 at Cline Ave. – Project Purpose and Need

Purpose

- Increase operational safety at the intersection by reducing the frequency of crashes
- Eliminate turning movements that lead to right-angle crashes.
- Improve the overall efficiency of the intersection.



US 231 at Cline Ave. – Project Purpose and Need

Need

- According to a study from January 2016 to December 2020, 107 crashes occurred at this intersection.
 - This equates to an Intersection Crash Rate of 2.7 crashes per million vehicles entering intersection.
 - 18.7% resulted in injury, with a total of 37 injuries.
 - 74 incidents were rear-end crashes, 10 were left-turn crashes.
- The Level of Service for northbound traffic turning left onto US 231 has fallen below minimum INDOT standards. Other approaches are expected to fall below minimum standards in upcoming years.

Other Alternatives Considered

- **No Build (Signalized Intersection)**
 - Baseline for comparison of build alternatives.
 - Does not meet purpose and need, does not enhance safety at the intersection, which is likely to decline with traffic growth.
- **Roadway Widening with Traffic Signal & Designated Turn Lanes**
 - **Would reduce number of accidents.**
 - Would require second through lane on US 231 to reduce vehicle queue distance as much as roundabout, resulting in higher cost and greater impacts.
 - **Would not eliminate the possibility for dangerous turning movements.**
 - Drivers will still be able to make dangerous left turns and disregard traffic signals.
 - **Would not improve intersection efficiency as much as roundabout.**
 - **Therefore, while this alternative meets the purpose of increasing safety, it does not offer the same degree of improvement as the preferred alternative.**

Preferred Alternative – Roundabout Intersection

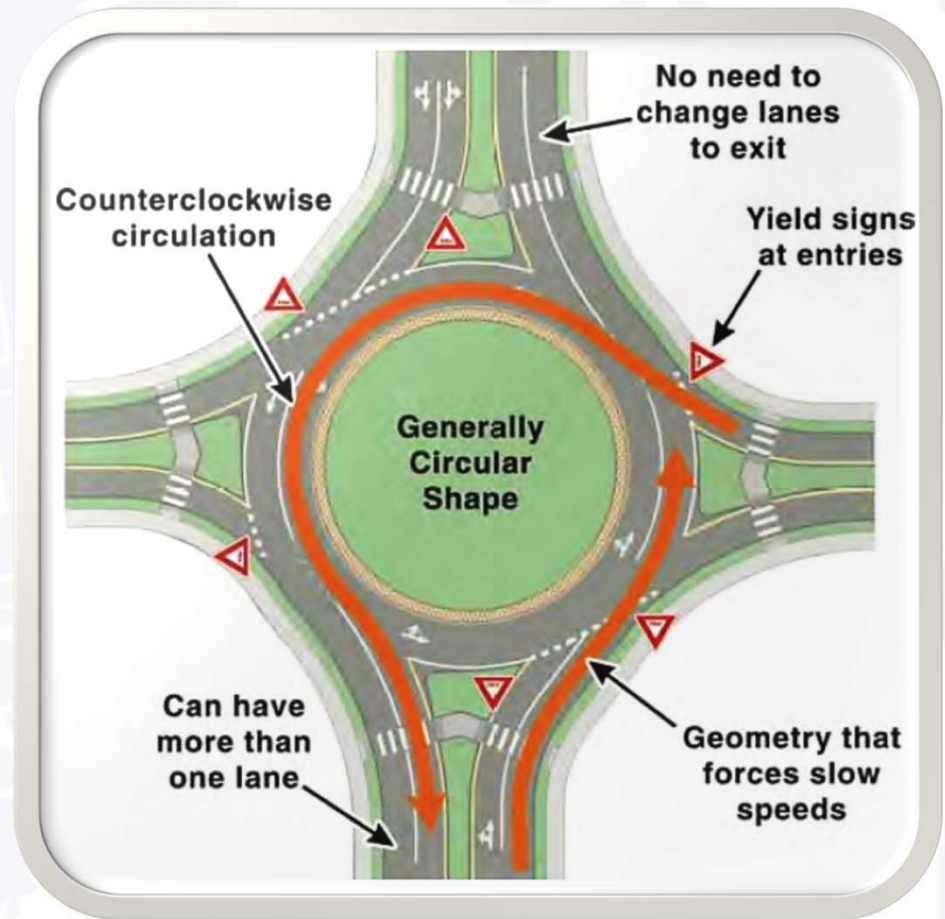
- Meets purpose and need of project
- Enhances safety by:
 - Reducing the number of potential vehicle conflict points
 - Eliminating potential for red-light running
 - Reducing the Vehicle Queue Length at the intersection
 - Significantly reducing the severity of traffic accidents
- Will promote free-flowing traffic, giving the intersection the highest level of efficiency possible.
- Estimated Project Cost: \$2,702,321

Existing Intersection



Roundabout – INDOT Preferred Alternative

- One-way circular intersection
- Traffic flows counterclockwise around a center island
- Yield at entrance
- No parking



Roundabout Traffic Comparison



Both intersections utilize the same traffic data

-  Left Turning Vehicle
-  Right Turning Vehicle



Roundabouts Enhance Safety

U.S. DOT Federal Highway Administration Statistics

Traditional intersections account for:

- 45% of all crashes - *FHWA*
- 33% of all traffic fatalities - *FHWA*

Compared to traditional intersections, roundabouts:

- **Reduce fatalities and injuries by 82% - *FHWA***
- Reduce total crashes by 44% - *FHWA*
- **Require vehicles to travel at lower speeds**

For more information:

<http://safety.fhwa.dot.gov/intersection/innovative/roundabouts/>

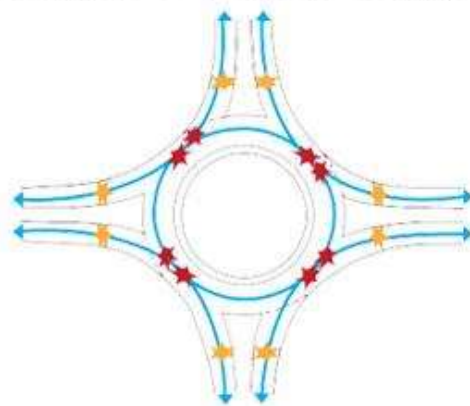
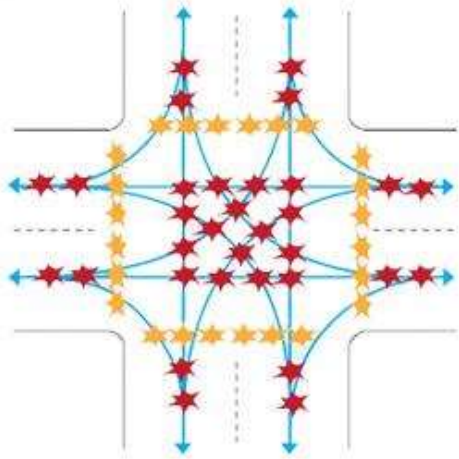
- Collisions at traditional intersections are severe because of:
 - High speed
 - Angle of impact



Benefits of Roundabouts

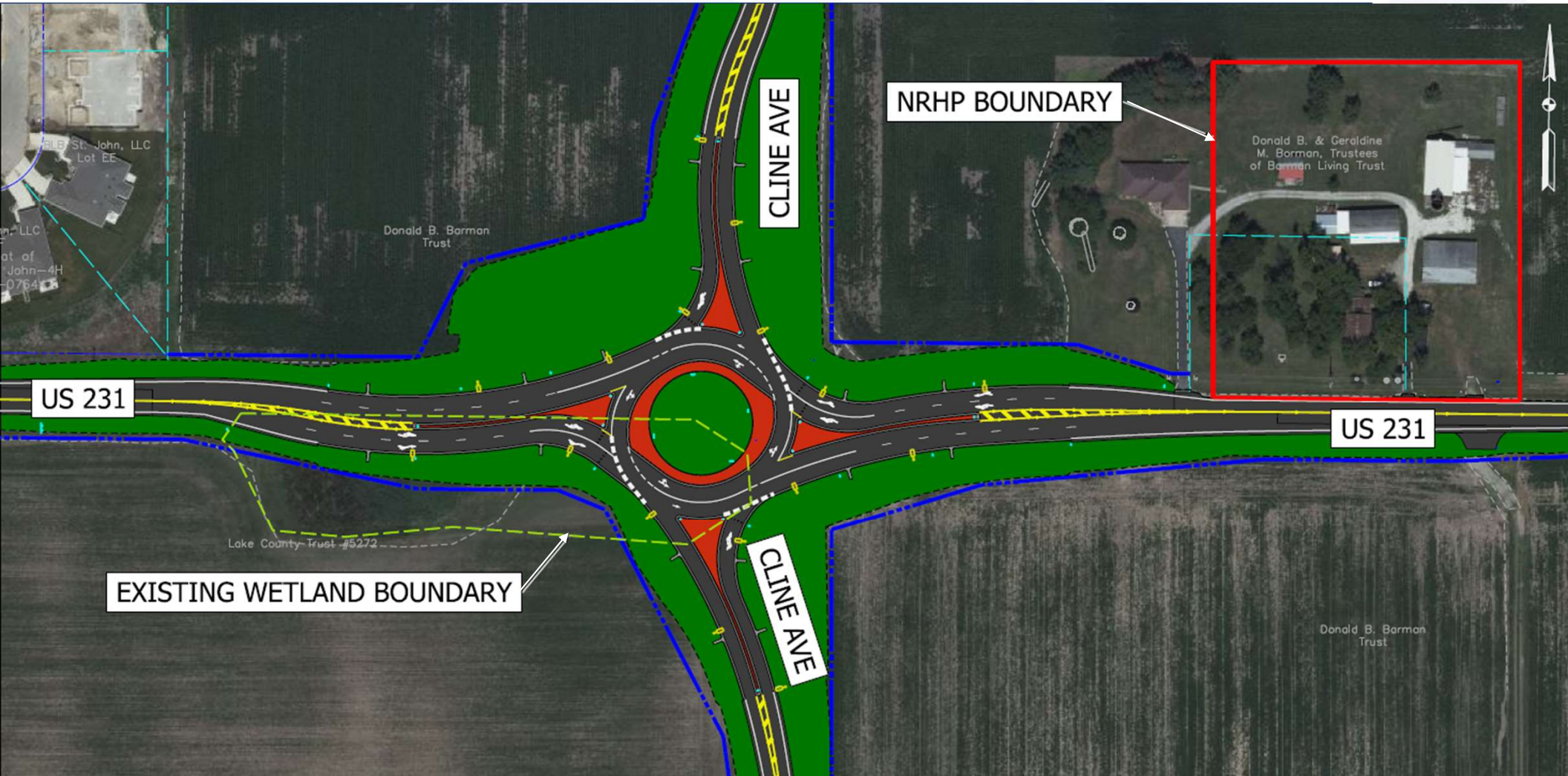
- Conflict points are dramatically reduced because all vehicles travel in the same direction.

REGULAR INTERSECTION 32 Vehicle to Vehicle Conflicts
MODERN ROUNDABOUT 8 Vehicle to Vehicle Conflicts



- **Enhances Safety**
 - Roundabouts reduce the number of potential accident points within an intersection.
 - 75% fewer conflict points than four-way intersections.
- **Slower vehicle speeds**
 - Reduces the severity of crashes
- **Efficient traffic flow**
 - Reduces need for turn lanes
 - Improves traffic flow
- **Community benefits**
 - Reduces congestion
 - Aesthetically pleasing landscaping

Proposed Roundabout Layout



Example Roundabout – East Chicago



- Located at intersection of US 12, Cline Ave, and Airport Rd. in East Chicago.
- Double-lane Roundabout with two approaches at north, east, and west approaches.
- Single-lane heading north onto Cline or south onto US 12.

Example Roundabout – Crown Point



- Located at intersection of E. 109th Ave and Mississippi St. in Crown Point.
- Double-lane Roundabout with two approach lanes at the east, and west entrances
- Single-lane for north and south along Mississippi St.

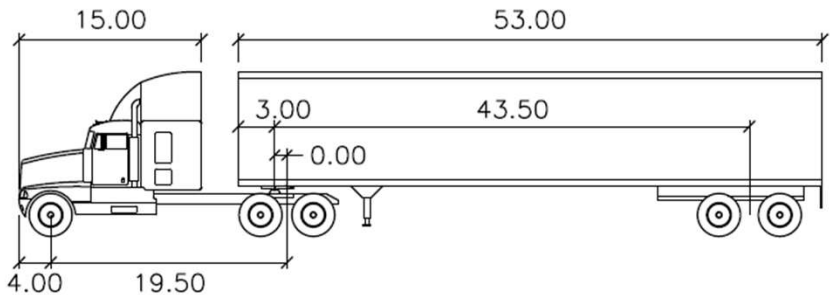
Turning Movement – Semitruck



Turning Movement – Semitruck

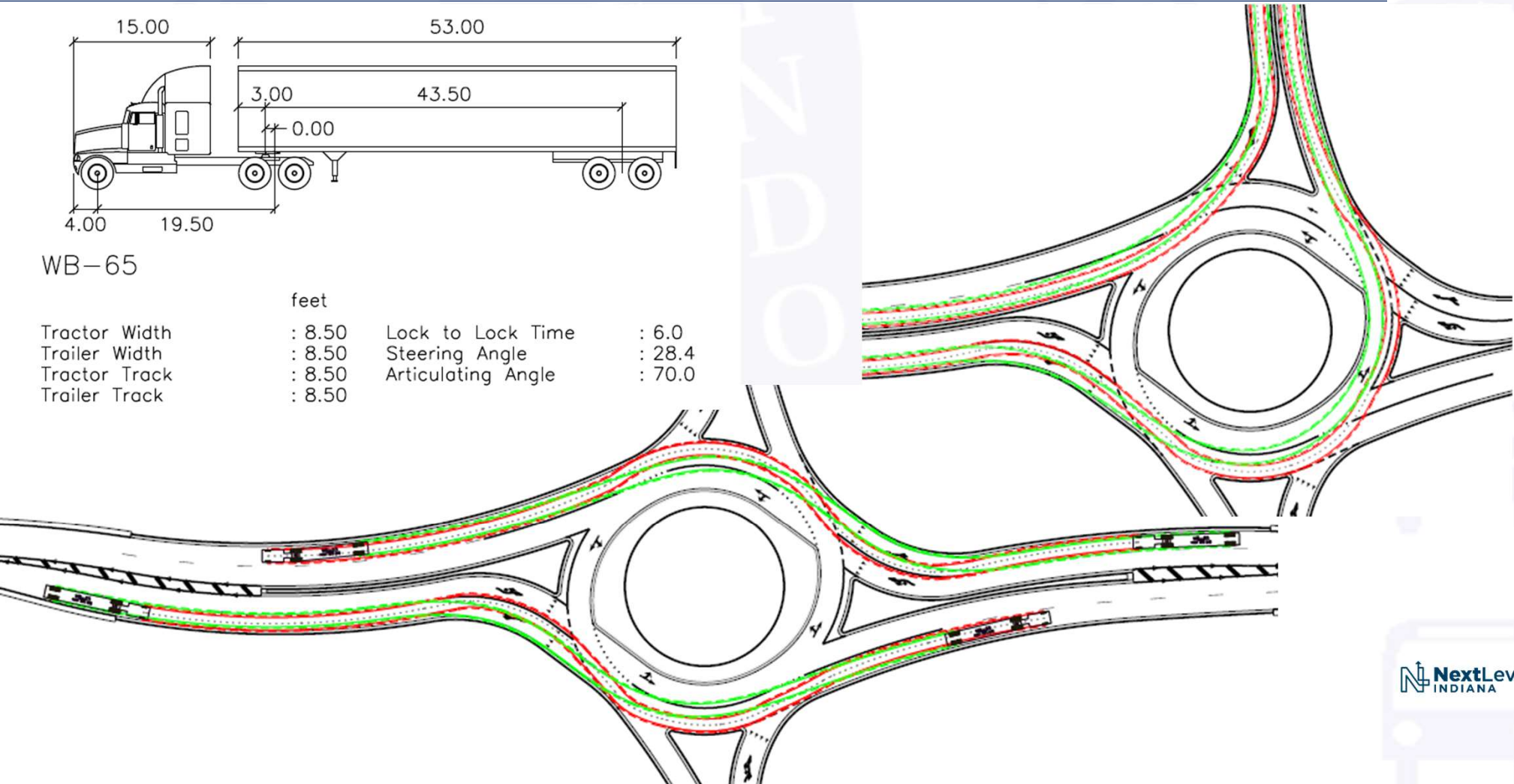


Turning Movement – Semitruck



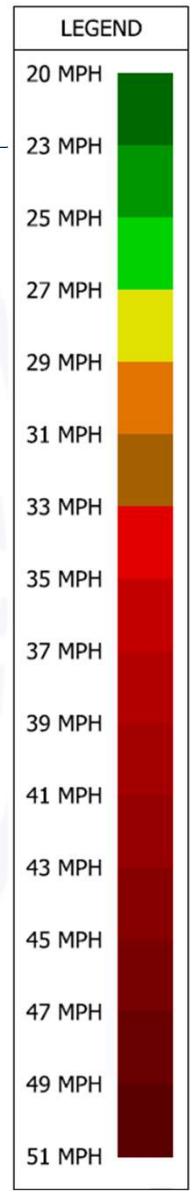
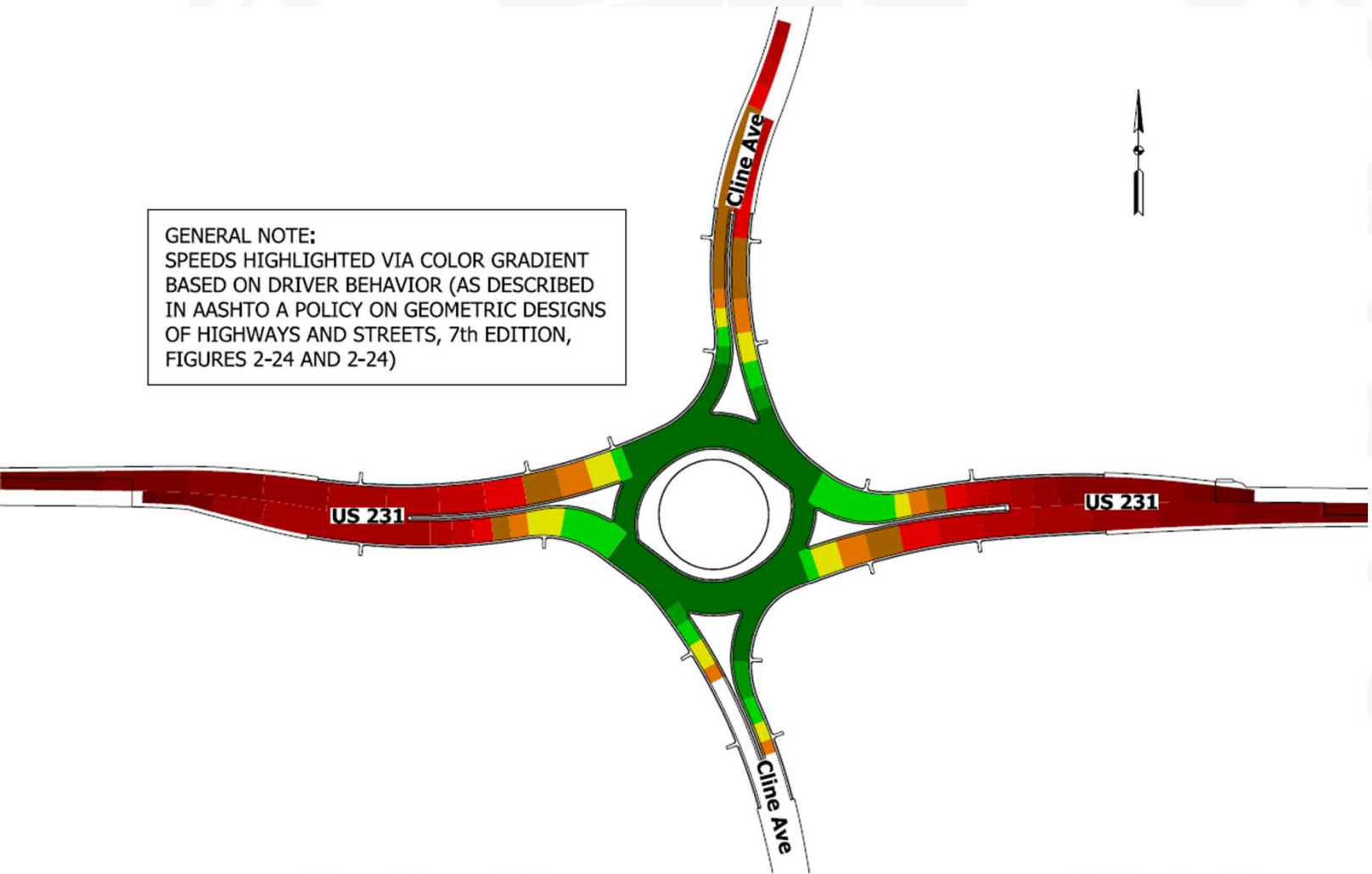
WB-65

	feet		
Tractor Width	: 8.50	Lock to Lock Time	: 6.0
Trailer Width	: 8.50	Steering Angle	: 28.4
Tractor Track	: 8.50	Articulating Angle	: 70.0
Trailer Track	: 8.50		

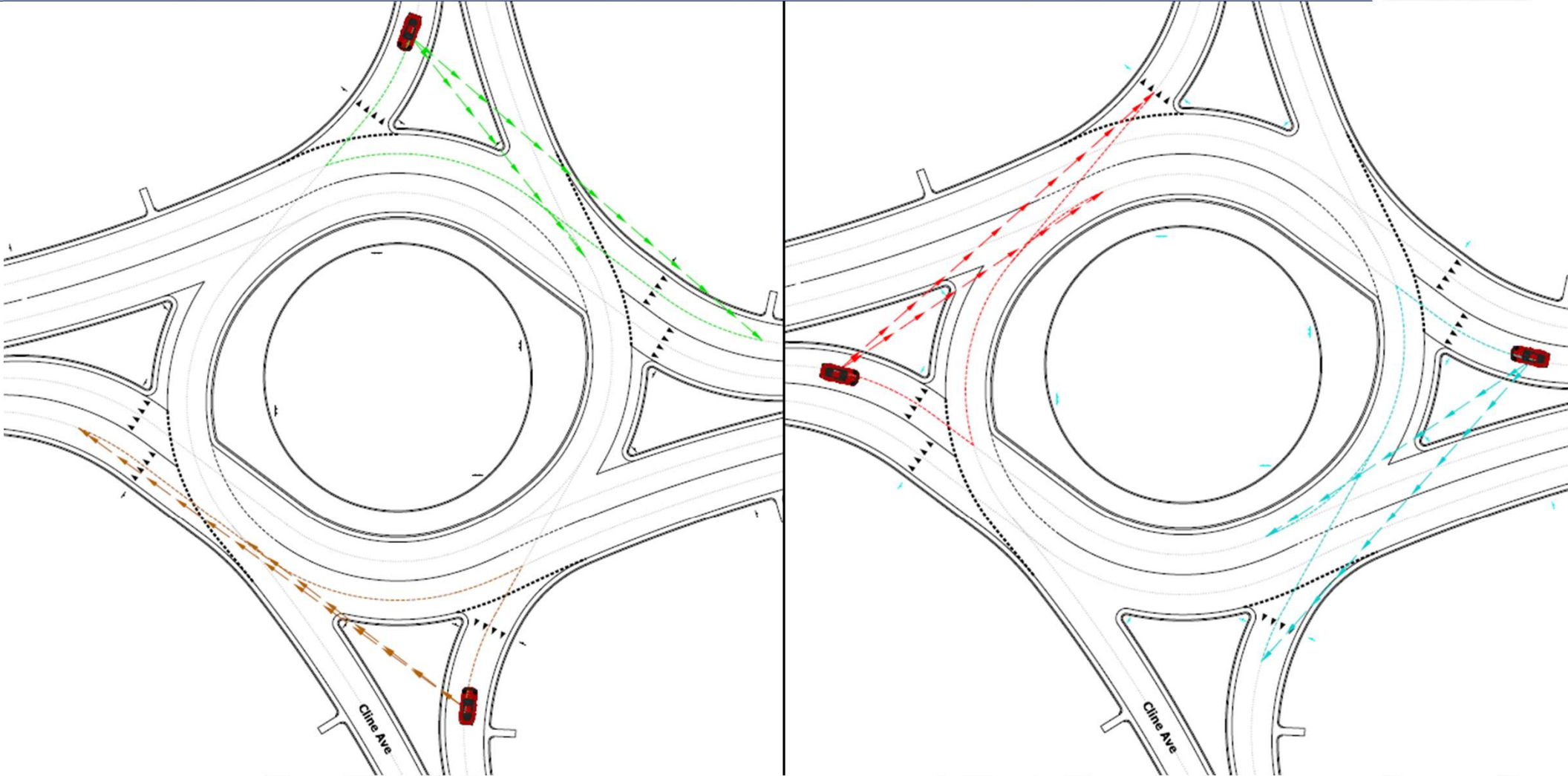


Speed Profile

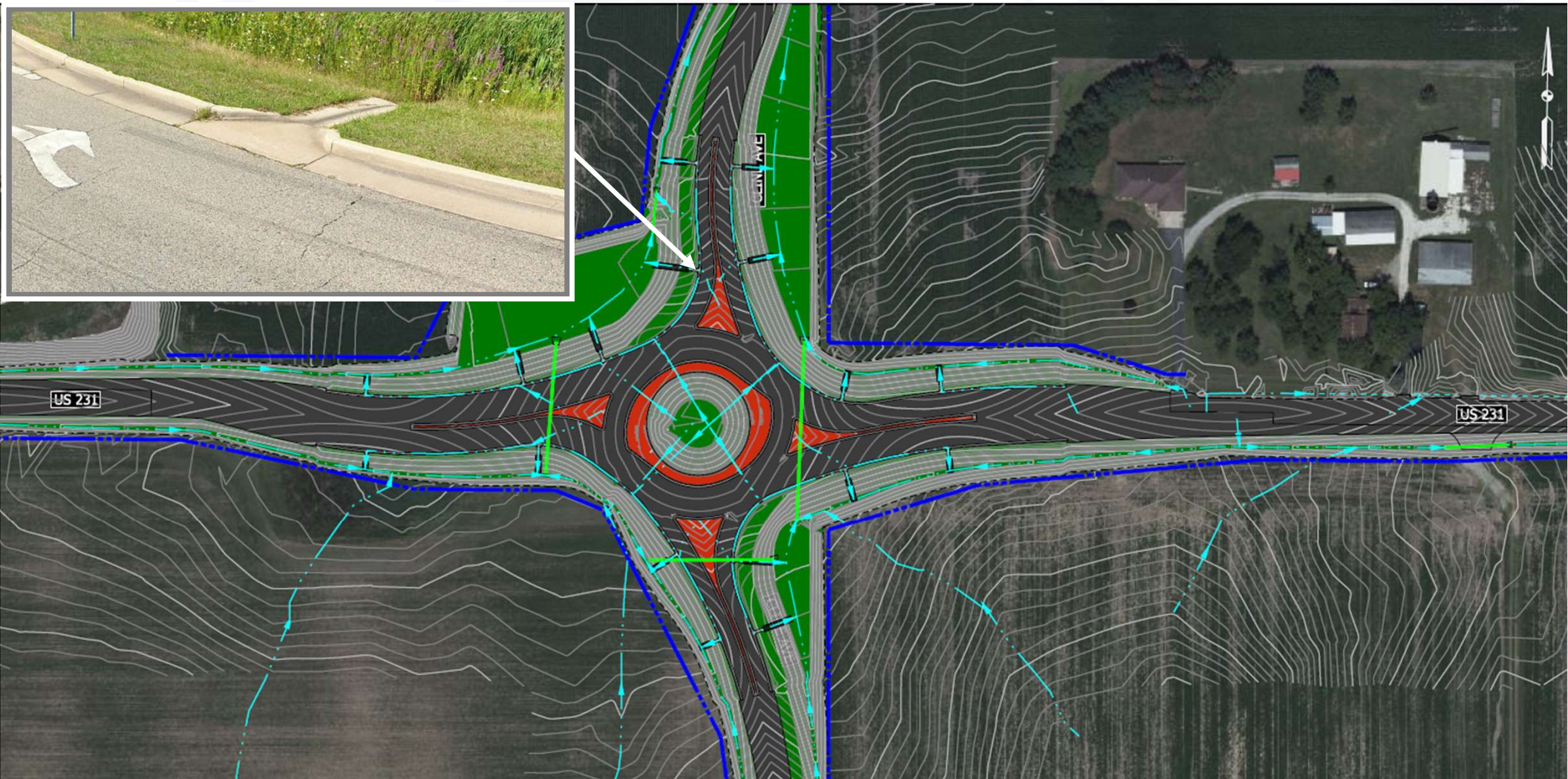
GENERAL NOTE:
SPEEDS HIGHLIGHTED VIA COLOR GRADIENT
BASED ON DRIVER BEHAVIOR (AS DESCRIBED
IN AASHTO A POLICY ON GEOMETRIC DESIGNS
OF HIGHWAYS AND STREETS, 7th EDITION,
FIGURES 2-24 AND 2-24)



Sight Distance

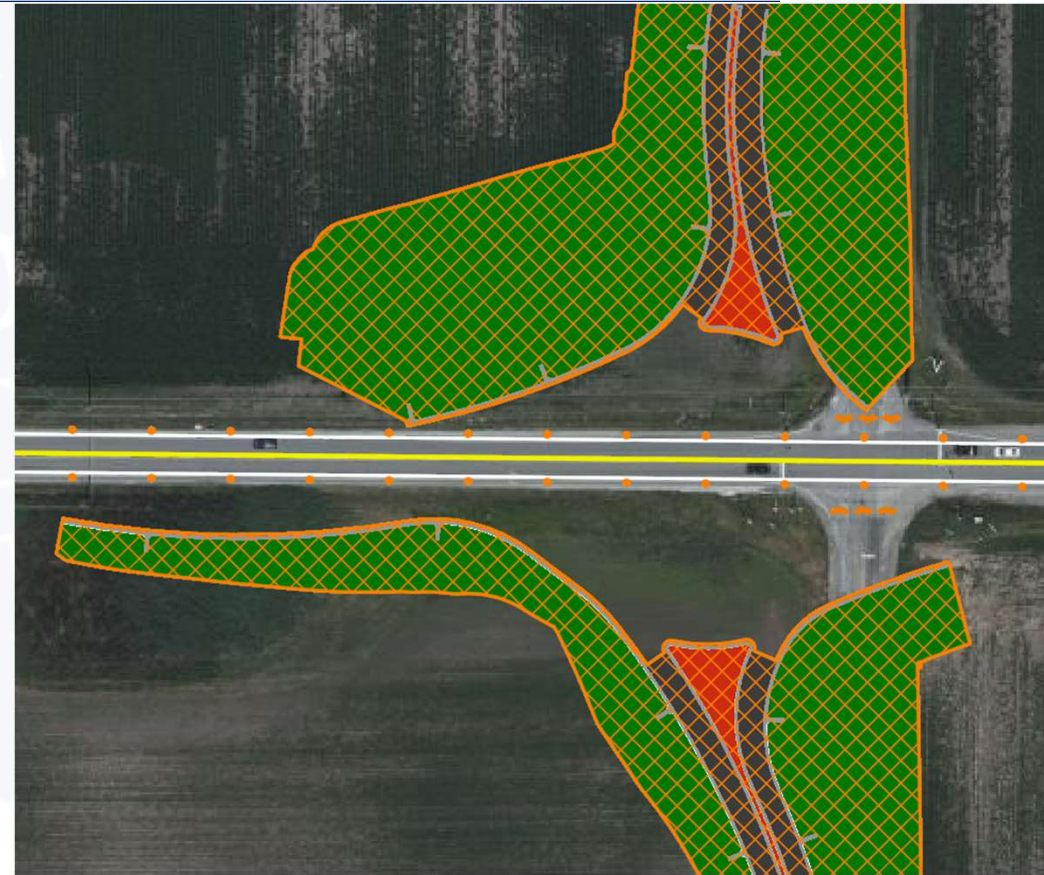


Proposed Roundabout Drainage



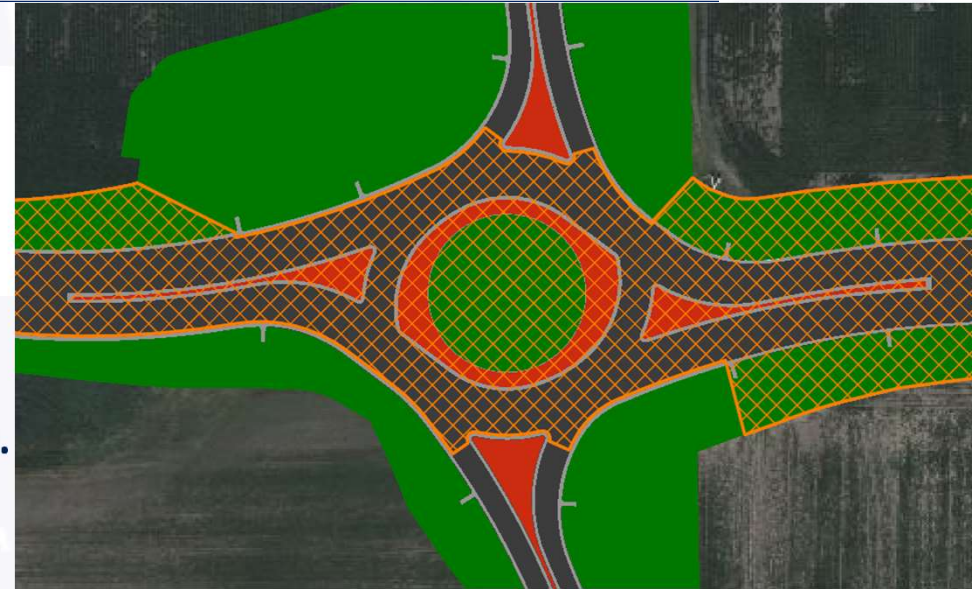
Maintenance of Traffic

- Phased MOT: will decrease the time required for a full intersection closure.
 - Phase 1:
 - East-west traffic on US 231 will remain open, while Cline Ave is closed to north-south traffic.
 - A 16-mile detour using US 231, US 41, US 30, and SR 55 will be implemented.
 - Expected to last roughly 4-5 months.

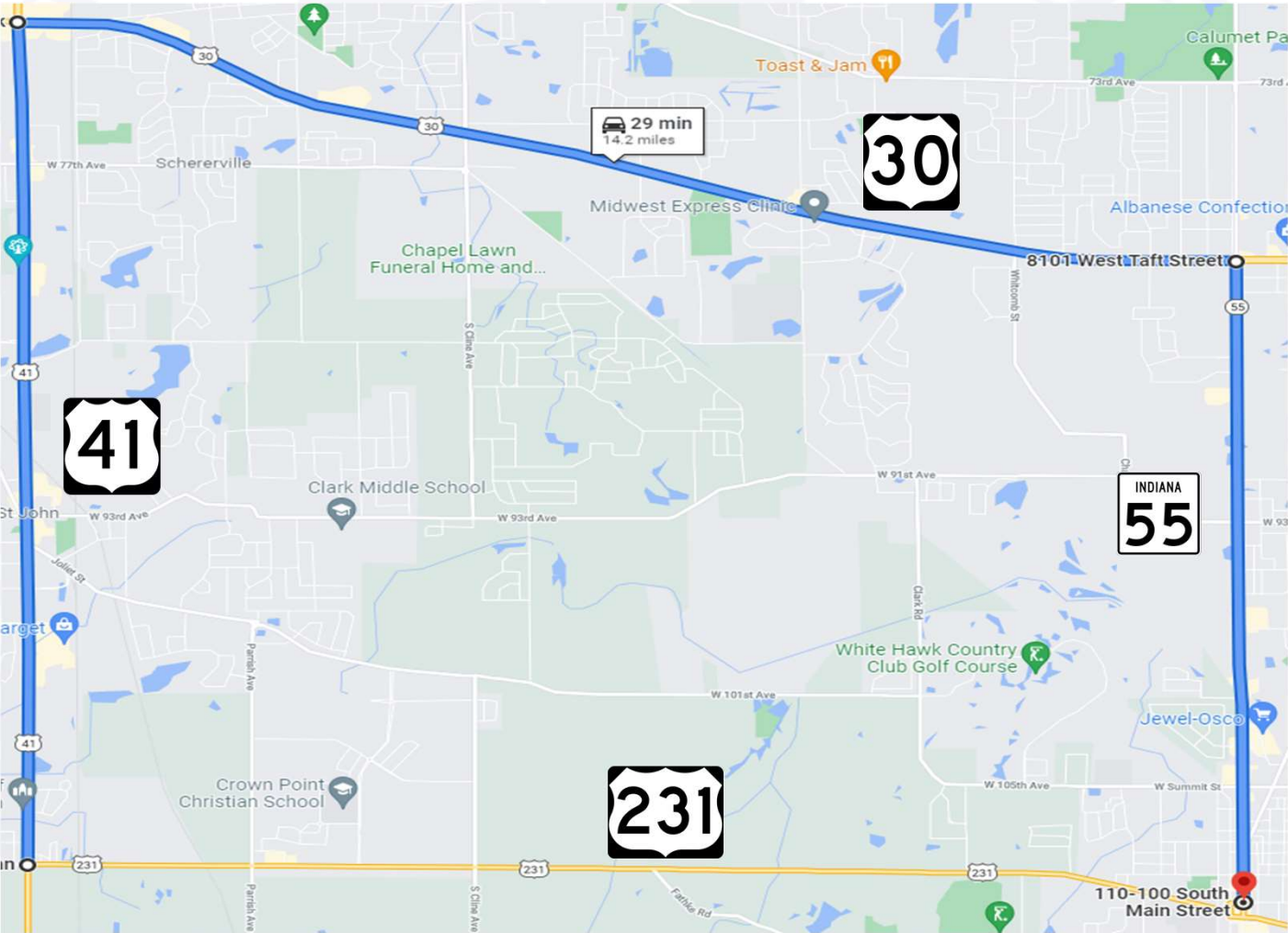


Maintenance of Traffic

- Phased MOT: will decrease the time required for a full intersection closure.
 - Phase 2:
 - The intersection will be fully closed.
 - Detour from Phase 1 will be maintained.
 - Provisions for a local detour/alternate routes may be coordinated with Lake County/Town of St. John.
 - Expected to last roughly 4-5 months.



Detour Route



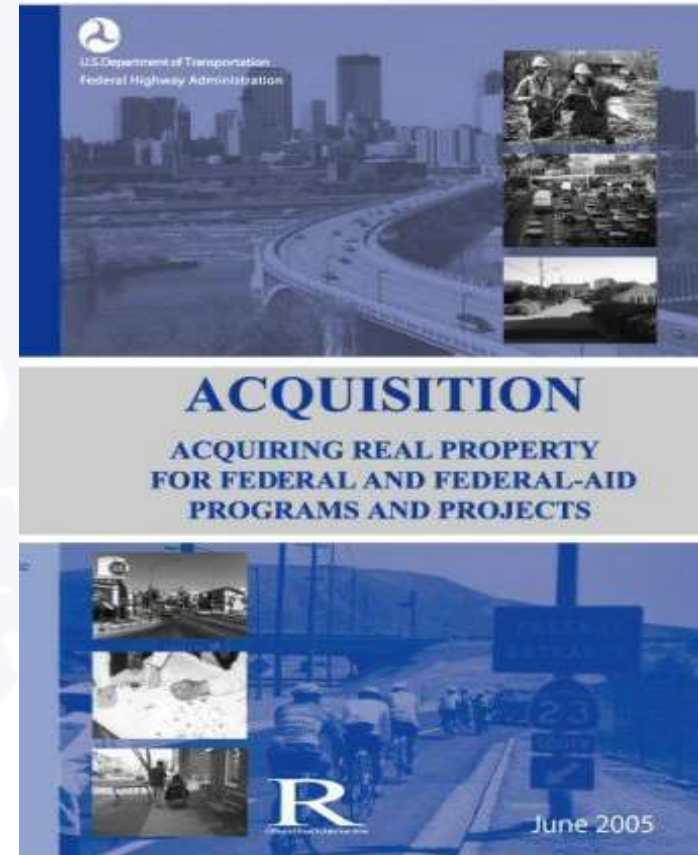
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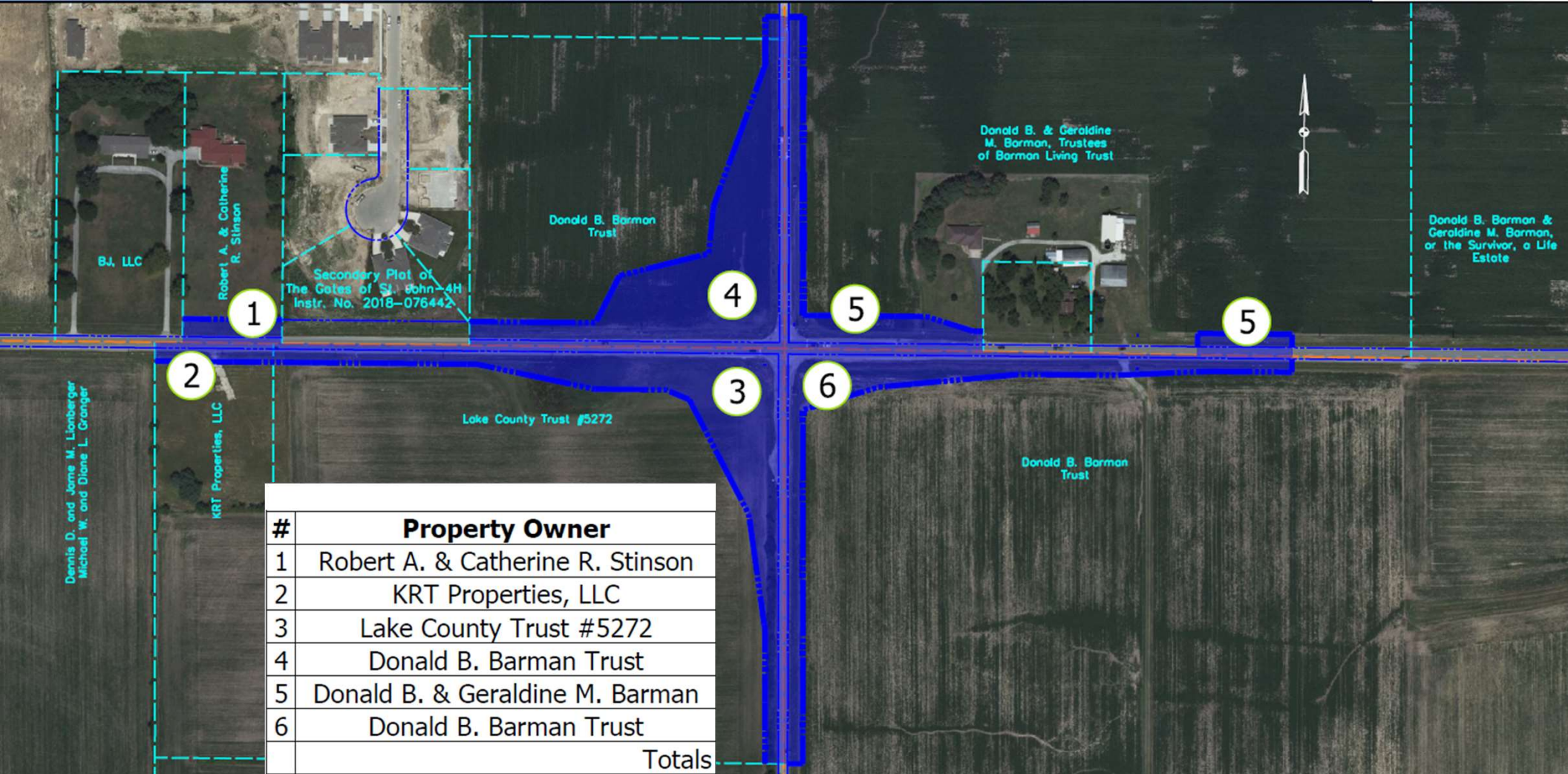


Real Estate Acquisition Process

- **"Uniform Act of 1970"**
 - All federal, state, and local governments must comply.
 - Requires an offer for just compensation.
 - Project proposal affects 6 parcels requiring approximately 8.367 acres of new permanent right-of-way and 1.748 acres of re-acquisition.



Proposed Project Right-of-Way



Submit Public Comments

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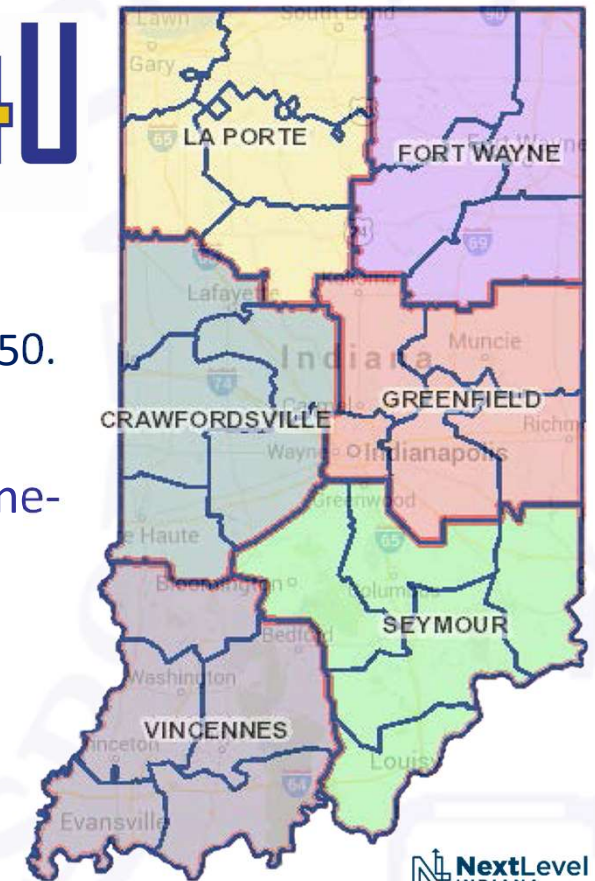
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855-463-6848



Next Steps

- **Public and project stakeholder input**
 - Submit comments via options described in the project handout.
- **INDOT review and evaluation**
 - All comments are given full consideration during the decision-making process.
 - Address comments, finalize and approve the environmental document, and complete the project design.
- **Communicate a decision**
 - INDOT will notify project stakeholders of the decision.
 - Work through local media, social media outlets; paid legal notice.
 - Make project documents accessible via repositories.
- **Questions? Contact the Public Involvement Team.**

Public Comment Session

- **Please direct specific questions about the project to members of the project team following the Public Comment Session.**
- **Project Open House**
 - Project maps, displays, real estate acquisition table, INDOT project team, and informal Q & A
 - INDOT LaPorte District page: <http://www.in.gov/indot/4090.htm>
 - INDOT LaPorte District Facebook page: <https://www.facebook.com/INDOTNorthwest/>
 - LaPorteDistrictCommunications@indot.in.gov

Public Comment Session

