

# County F and US 18/151 intersection

#### **Village of Blue Mounds**

Public Involvement Meeting Blue Mounds, WI

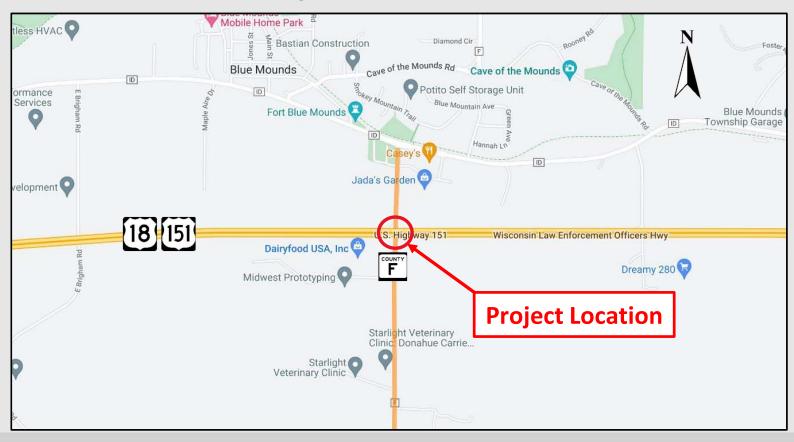
**October 11, 2022** 

# **Presentation agenda**

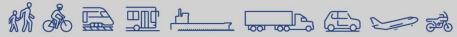
- Project overview
- Highway Safety Improvement Program (HSIP)
- Address Previous PIM Comments
- Preferred Alternative RCUT intersection
- Wisconsin RCUTs
- Traffic during construction
- Preliminary real estate needs
- Project schedule
- Contact information











- US 18/151
  - Rural 4-lane expressway
  - Posted speed = 65 mph
  - Average Annual Daily Traffic (AADT) = 18,100 vehicles
- County F
  - Posted speed = 55 mph
  - AADT < 900 vehicles





- Five-year Crash Analysis (2016 through 2020)
  - 10 total crashes
    - 1 rear end on US 18/151
    - 1 left turn from US 18/151
    - 8 angle crashes ("T-Bone" type crashes)







- 6 of 8 angle crashes (75%) going through intersection
  - 4 of the 8 crashes resulted in injury
- 2 of 8 angle crashes (25%) taking a right onto US 18/151



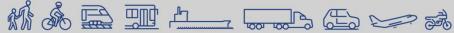




- One fatal crash occurred in 2015
  - Vehicle was traveling through the intersection







# **Highway Safety Improvement Program (HSIP)**

- Program goal achieve significant reduction in traffic fatalities and serious injuries on public roads
- Requires a data-driven, strategic approach to improve the safety of the road while maintaining performance for years to come
- Federal-aid program that funds projects with quick timeframes and smaller budgets





# **Highway Safety Improvement Program (HSIP)**

- Several improvement alternatives studied during the application process.
- 2 alternatives, the Median U-Turn and RCUT, met HSIP criteria and both the options were approved for funding through HSIP.
- Alternatives presented to public in January 2022
- RCUT selected as WisDOT preferred alternative
  - The RCUT does not impact turning movements from US 18/151



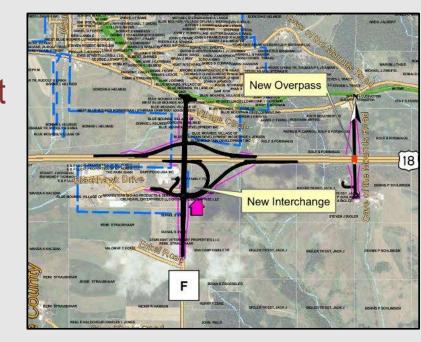


- Comments received following the Virtual PIM in January 2022 was heavily in support of adding an interchange at this intersection.
  - Comments referenced the 2013 Freeway Conversion Study.





- 2013 Freeway Conversion Study
  - Evaluated necessary changes to convert corridor to freeway
  - Conversion studies do not always result in immediate conversion of corridor
  - WisDOT evaluates different factors to determine the correct time for conversion.







- A wholesale conversion of USH 18/151 to a freeway is not in WisDOT's plans for the foreseeable future because safety and congestion issues on the corridor do not warrant such action.
- Improvements can be more appropriately and more costeffectively resolved with localized improvements to address site-specific operational and safety concerns.





- The Department typically considers freeway conversions projects when safety and operational issues cannot be adequately address by less comprehensive solutions.
- This corridor is part of the backbone system which consists of the most critical routes in the state for tourism and industry. This route will continue to be monitored for safety and operations, and the Department will adjust its approach if needs dictate.

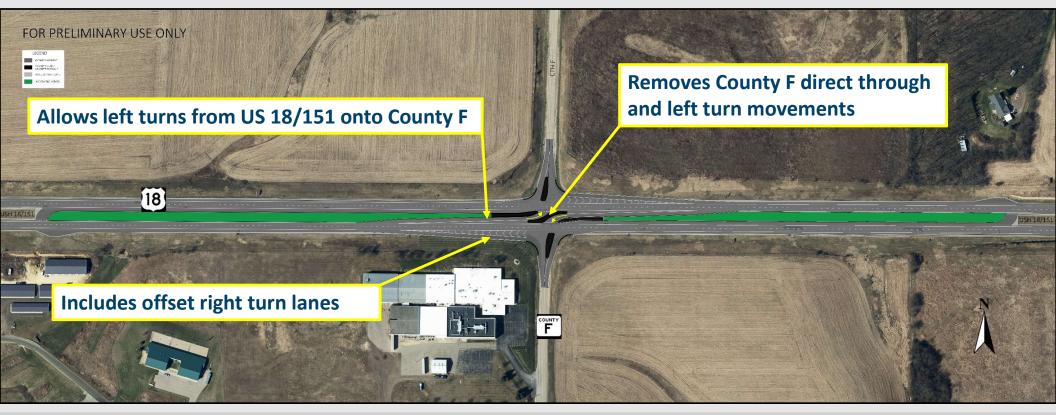




- Stand-Alone Interchange Project at County F
  - AADT on County F is less than 900 vehicles.
  - Interchanges are considered when AADT's reach closer to 2000 vehicles.
  - The needs on this intersection can be appropriately and more costeffectively resolved with the RCUT proposed to remedy this site-specific safety concern.

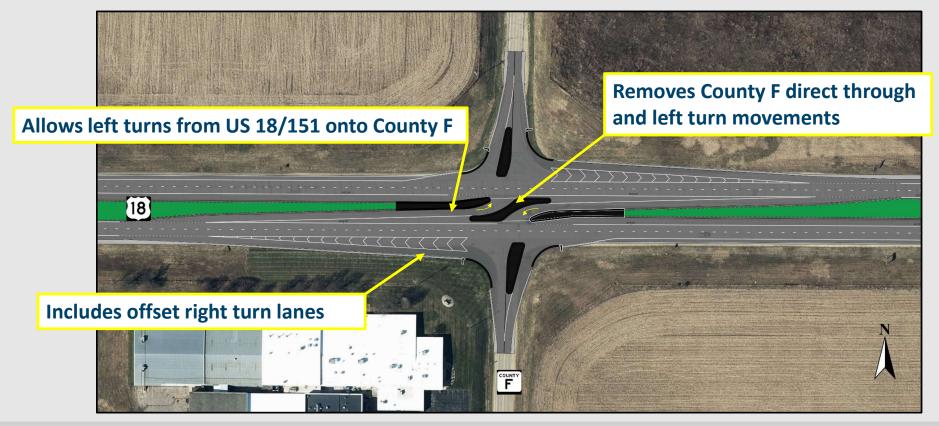
















**Left Turn Movement** 







**Through Movement** 







**Truck Movements** 







#### **Benefits**

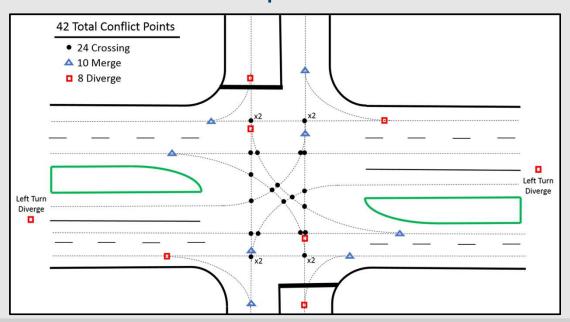
- Provide extra storage for through/left turning vehicles
- Eliminates long vehicles extending into mainline traffic
- Eliminates position confusion when multiple vehicles trying to store in the median





#### Benefits (Cont.)

Reduces the amount of conflict points

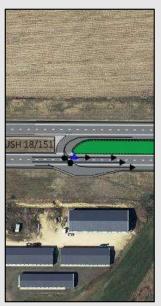






#### Benefits (Cont.)

Reduces the amount of conflict points











#### Benefits (Cont.)

- Reduces total crash frequency by 34% 60% (Edara et al., 2013)
- Reduces injury and fatality crashes by 53% 75% (Bared and Zhang, 2012)
- 2013 Missouri studied 5 intersections (Edara et al., 2013)
  - Disabling injuries reduced 86%
  - Right angle crashes reduced 80%
  - Fatality crashes were eliminated
  - Wait time was reduced in half
- Federal Highway Administration Study found travel time reduced by 17% (Bared and Zhang, 2012)





## **RCUT** in Wisconsin

- WIS 23 and County M (Completed in 2013)
  - Mainline ADT 21,900 (higher than US 18/151)
  - Side Road ADT <1,000 (Similar to County F)
- Before J-Turn
  - 8 Crashes (3 injury crashes)
- After J-Turn
  - 2 Crashes (No injuries)







## **RCUT** in Wisconsin

- WIS 57 and County C/D (Completed in 2015)
  - Mainline ADT 10,900 (Lower than US 18/151)
  - Side Road ADT 920/1400 (Higher than County F)
- Before J-Turn
  - 25 Crashes (19 injury crashes)
- After J-Turn
  - 4 Crashes (1 injury)







# Traffic during construction

- US 18/151
  - Open to one lane of traffic in each direction
- County F
  - Closed to traffic





# Preliminary real estate needs

- Permanent right of way is not anticipated
- Minor amounts of Temporary Limited Easement is anticipated





# **Project schedule**

Public Involvement Meeting #2

Preliminary Plans

Real Estate Starts

Final Plans

Construction

October 11, 2022

Summer 2023

Fall 2023

August 2025

Summer 2026





## **Contact information**

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Project website: wisconsindot.gov/Pages/projects/by-region/sw/us18-bluemounds/default.aspx

QR code to website:





