



US 18/151 Corridor Study

May 11, 2026

Town of Springdale Meeting



Agenda



1 Needs and Elements

3 Frontage Road Concepts

2 Super 4 Concepts

4 Next Steps



Corridor Map



Purpose and Needs



Draft Study Purpose

The purpose of the US 18/151 Corridor Study is to address safety, current and future traffic demand and infrastructure deficiencies throughout the corridor, while striving to maintain local connectivity.

Draft Corridor Needs

Safety Conditions

- Several areas along the corridor have crash rates higher than the statewide average for similar roadways.
- Several intersections have been flagged for safety concerns.

Traffic Demand

- Accommodate existing and future traffic demand due to recent and proposed development along the corridor.

Infrastructure Deficiencies

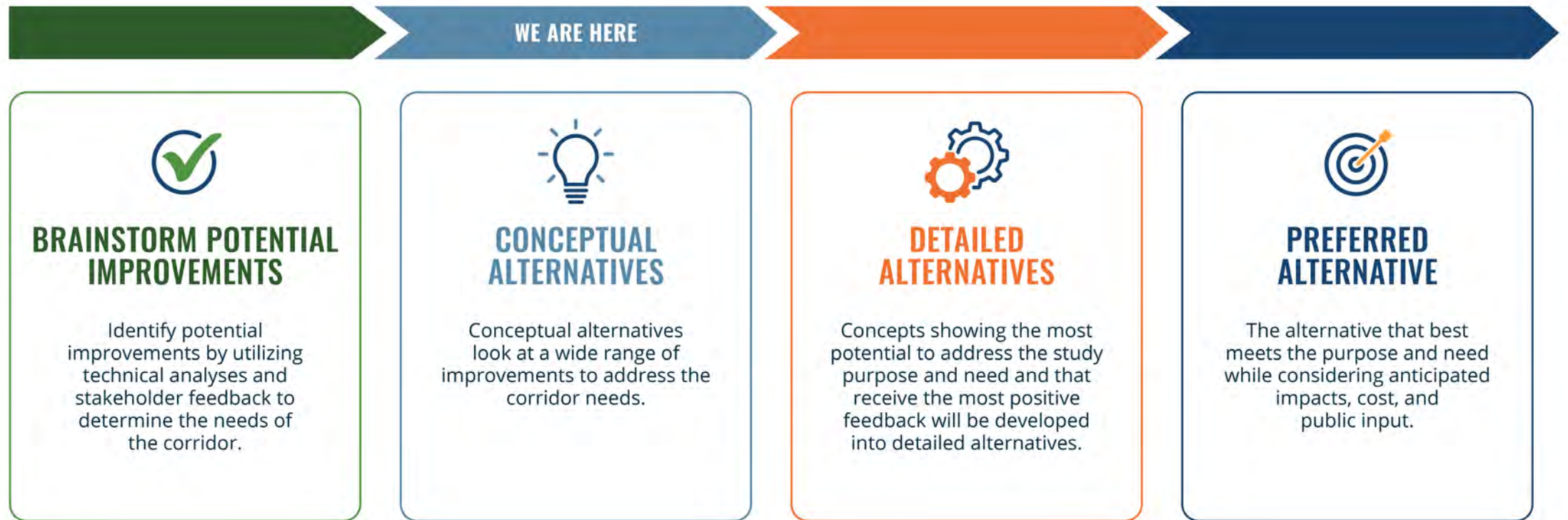
- Several areas along the corridor do not meet current design standards, which has led to safety issues.
- Pavement along the corridor will reach the end of its service life by the study design year (2055).

Maintain Local Connectivity

- Attempt to minimize indirection created by alternatives that would remove or modify access on US 18/151.



Alternatives Development Process



Mainline Needs | West of County G



Mainline Geometric Deficiencies

- 14 horizontal curves are deficient
- 50-foot median is deficient for freeway
- 12 deficient vertical curves
 - 1 too steep
 - 11 too flat
- 20 intersection sight distance deficiencies *
- 40 deficient turn bays *

Safety Needs

- Eastbound:
 - 8.1 miles of LOSS 4
 - 14.7 miles of LOSS 3
- Westbound:
 - 4.9 miles of LOSS 4
 - 4.6 miles of LOSS 3
- Critical Crashes
 - 6 intersections \geq LOSS 3
 - 6 intersections \geq KABC 3

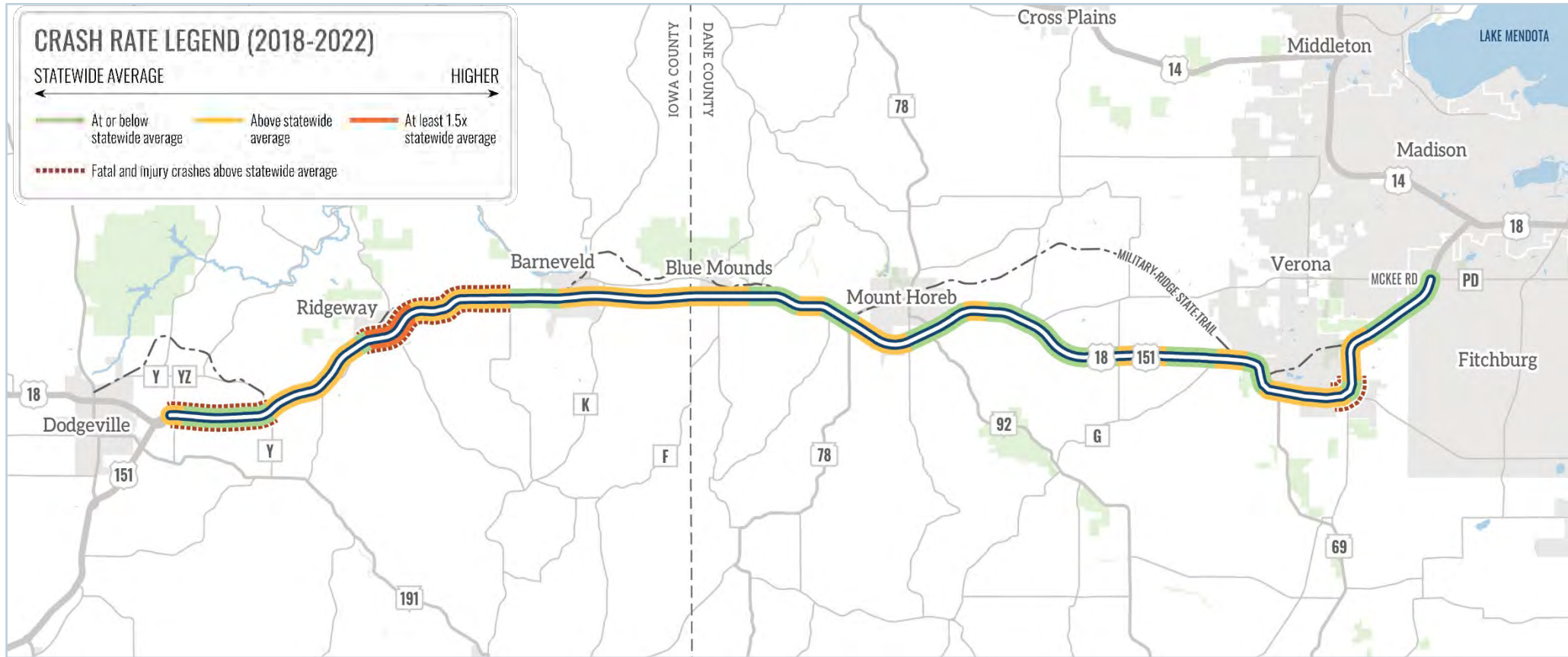
2055 Traffic Needs

- Acceptable Level of Service (LOS) with 2 lanes through 2055

* (after F and Y/YZ RCUT's installed)



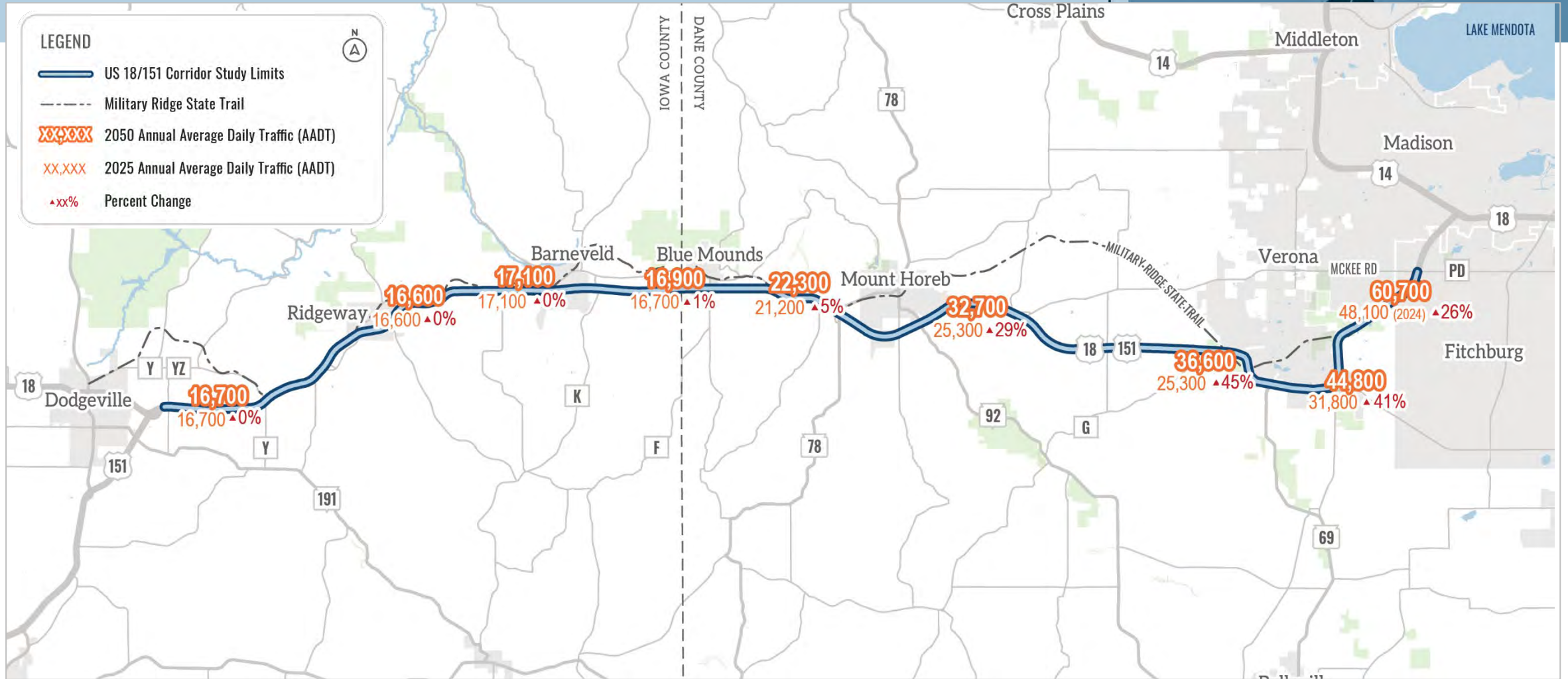
Needs – Safety



49% of the corridor is above the statewide average for total crashes for similar roadways.

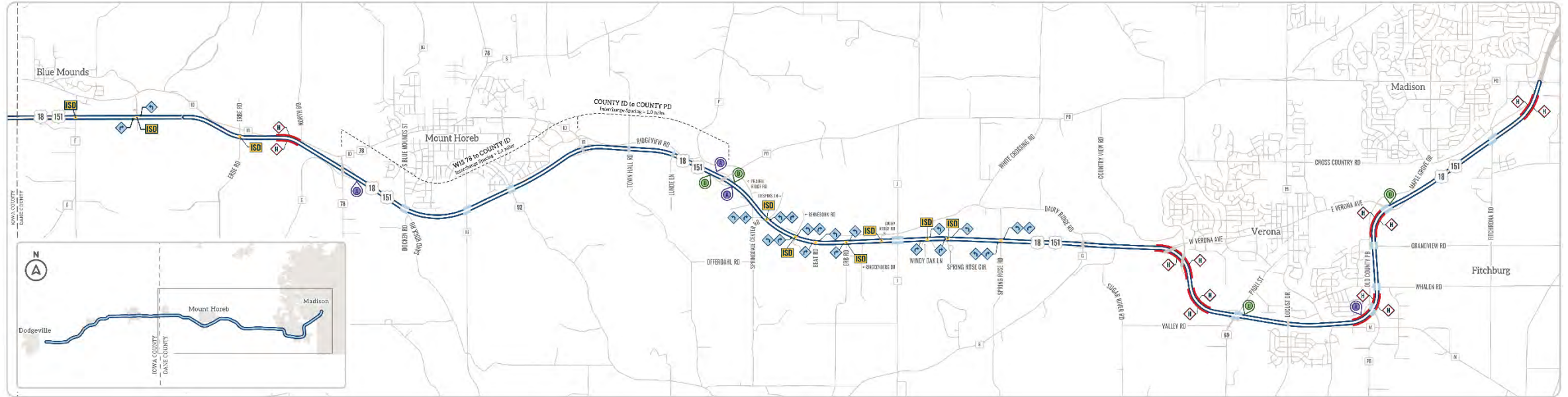


Needs – Traffic Demand



Needs – Infrastructure Deficiencies

DANE COUNTY



LEGEND

- 

HORIZONTAL CURVE DEFICIENT
- 

INTERSECTION SIGHT DISTANCE DEFICIENT
- 

TURN LANE LENGTH, LEFT TURN FROM US 18/151 TO SIDEROAD DEFICIENT
- 

TURN LANE LENGTH, RIGHT TURN FROM US 18/151 TO SIDEROAD DEFICIENT
- 

INTERCHANGE RAMP ACCELERATION LENGTH DEFICIENT
- 

INTERCHANGE RAMP DECELERATION LENGTH DEFICIENT
- 

MEDIAN OPENING
- 

GRADE SEPARATION

Original roadway built in the 1980's and 1990's. Pavement will reach the end of its service life by the study design year (2050).



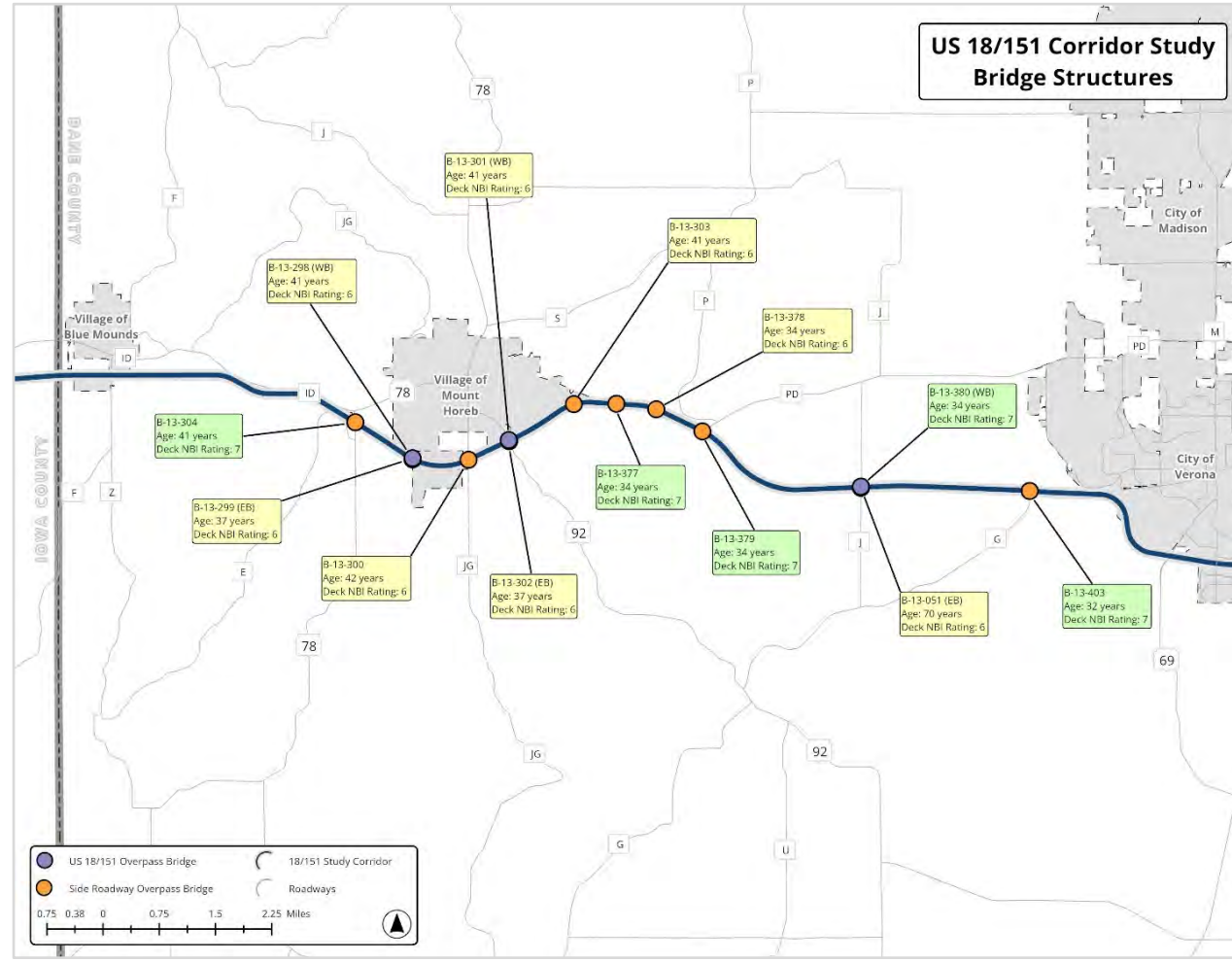
Structures | Western Dane County



Structure Conditions

- Good to Very Good
- Satisfactory

N
A



Needs – Local Connectivity



The study will look to support local connectivity by maintaining reliable movement within the local network. The study team will attempt to minimize indirection created by alternatives that would remove or modify access on US 18/151.

Factors that will be considered



Emergency service access



Public facility access



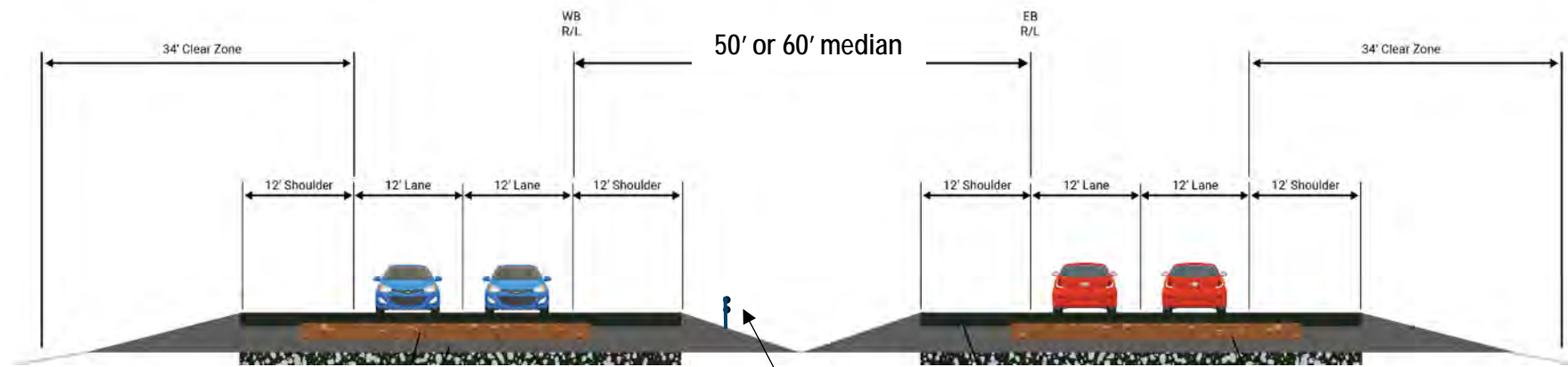
Business access



Travel times



Typical Section – 50' or 60' median | West of County G



50' median requires barrier,
typically offset from center

Number of Lanes

- 2 lanes sufficient

Study Team Recommendation-West of County G



LOW BUILD Roadway elements recommended by Study Team for West of County G include:

2 lanes each direction meets 2055 traffic demands

75 mph rated curves improve safety with spot exceptions

- Improves safety over existing 65 by 8% and 70 mph curves by 5%
- Meets WisDOT standards for freeway with desired +5 mph over posted
- Existing horizontal curves can be modified within ROW to 75 mph (2 exceptions)
- Existing bridges may be salvaged with 75 mph curves

Median treatments vary:

- Maintain 50-foot median per practical design
- Consider 60-foot medians at high crash or full reconstruction locations

6% supers minimize ROW impacts versus flatter curves while within WisDOT standards



Study Team Recommendation-West of County G



MEDIUM-HIGH BUILD Roadway elements recommended by Study Team for West of County G include:

2 lanes each direction meets 2055 traffic demands

75 mph rated curves improve safety with spot exceptions

- Improves safety over existing 65 by 8% and 70 mph curves by 5%
- Meets WisDOT standards for freeway with desired +5 mph over posted
- Existing horizontal curves can be modified within ROW to 75 mph (2 exceptions)
- Existing bridges may be salvaged with 75 mph curves

60-foot grass median provides safer roadway than 50-foot substandard median

- Consider exceptions for reusing existing structures or avoid major utility conflicts

6% supers minimize ROW impacts versus flatter curves while within WisDOT standards



Mainline Elements: Other | West of County G



Functionality

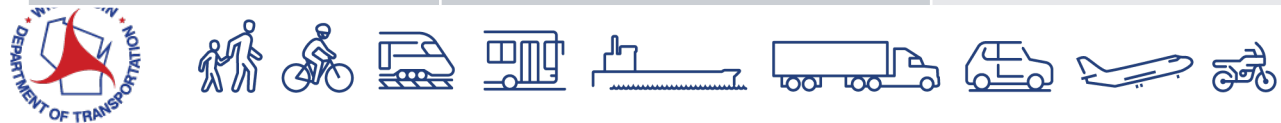
- Maintain current access as Expressway
- Restrict access with Restricted Crossing U-Turn (RCUT), Right-In/Right-Out (RIRO)
- Remove access as Freeway



Intersection Considerations | West of County G



Intersection Considerations		
Intersection Type	Cross-Street AADT Range for 18/151 Study	Additional Considerations
At-Grade Side Street Stop Control	N/A	2055 LOS analysis shows all intersections operate acceptably
Right In, Right Out	<500	Spacing to interchange or RCUT
		Route continuity for County Roads
RCUT (unsignalized)	<2500	Proximity to interchanges or other RCUT
Interchange	>1000	Maintain spacing of interchanges, desired >3 miles
		Use volume on recently built Ridgevue interchange as lower threshold, ~1000.
		Consider locations with high crash history or previously studied as interchange.
		Requested by municipality



Design Concepts | West of County G



Low Build



Use RCUTs as part of 'Super 4' to improve mainline US 18/151 safety.

Medium Build



Convert US 18/151 to freeway with adjacent frontage road system and new overpasses/underpasses.

High Build



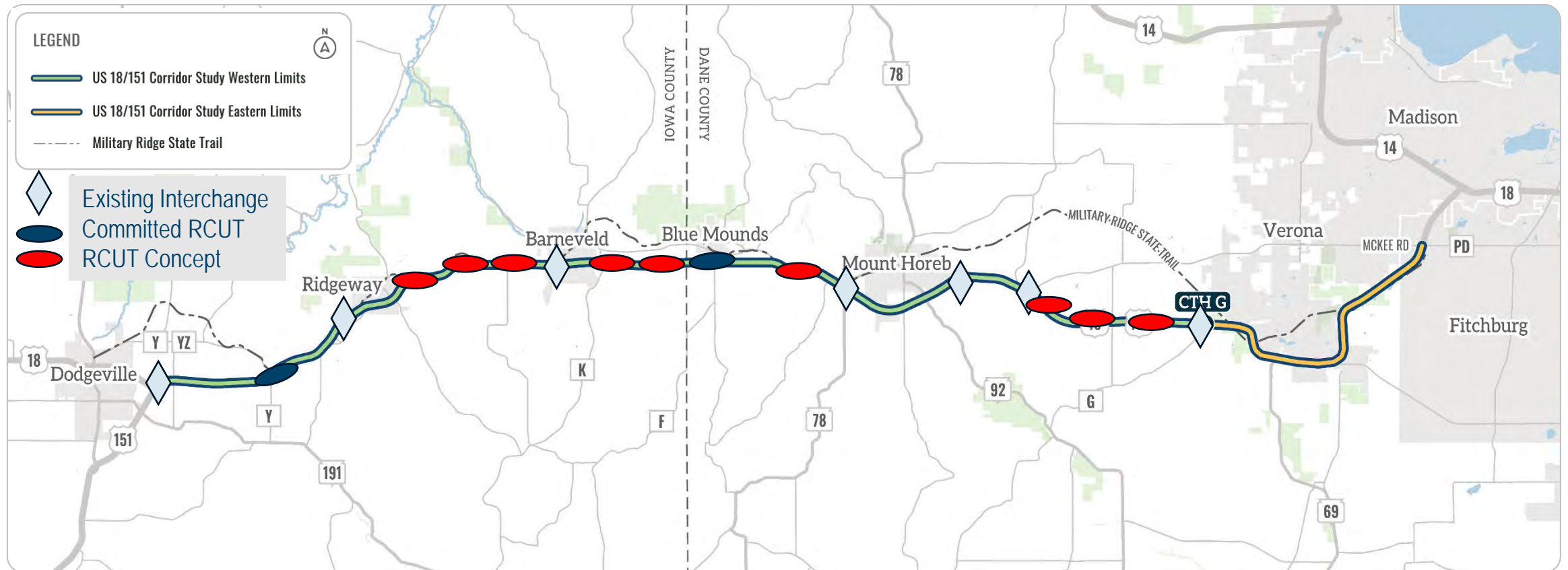
Convert US 18/151 to freeway with adjacent frontage road system and new interchanges, overpasses/underpasses.



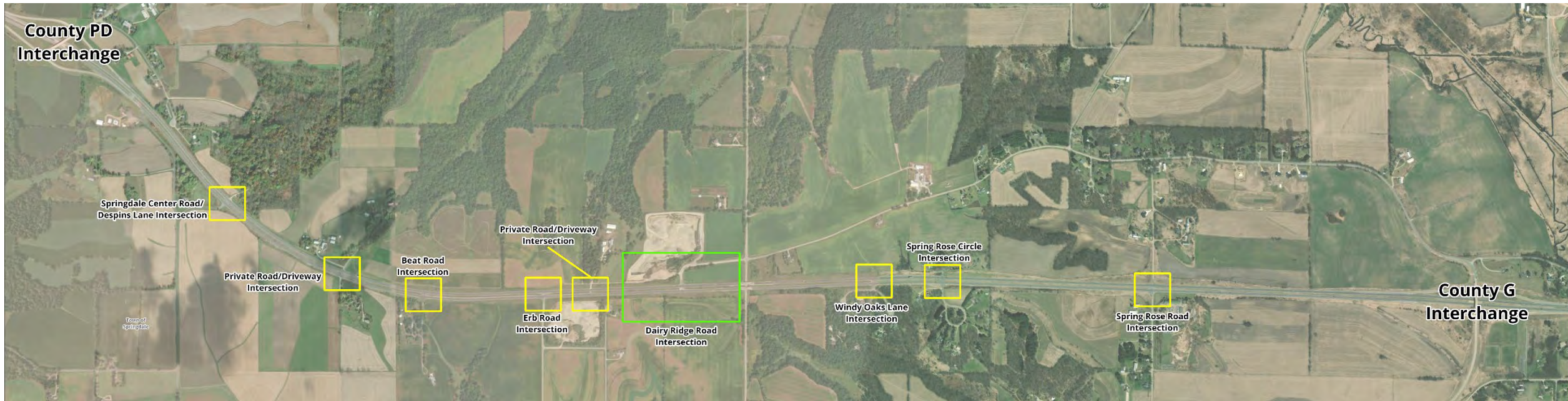
Candidate RCUTs | West of County G



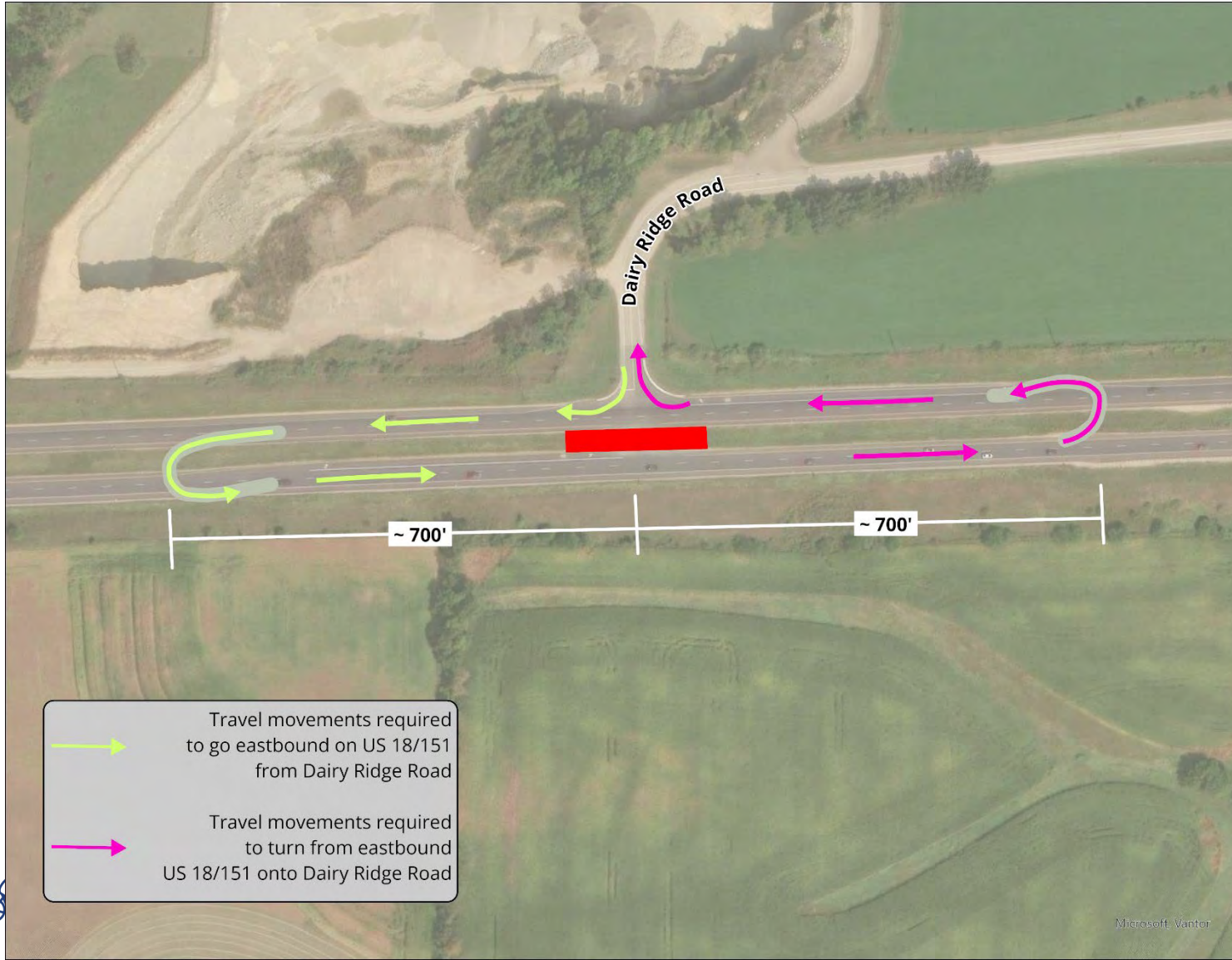
Candidate At-Grade Intersections.



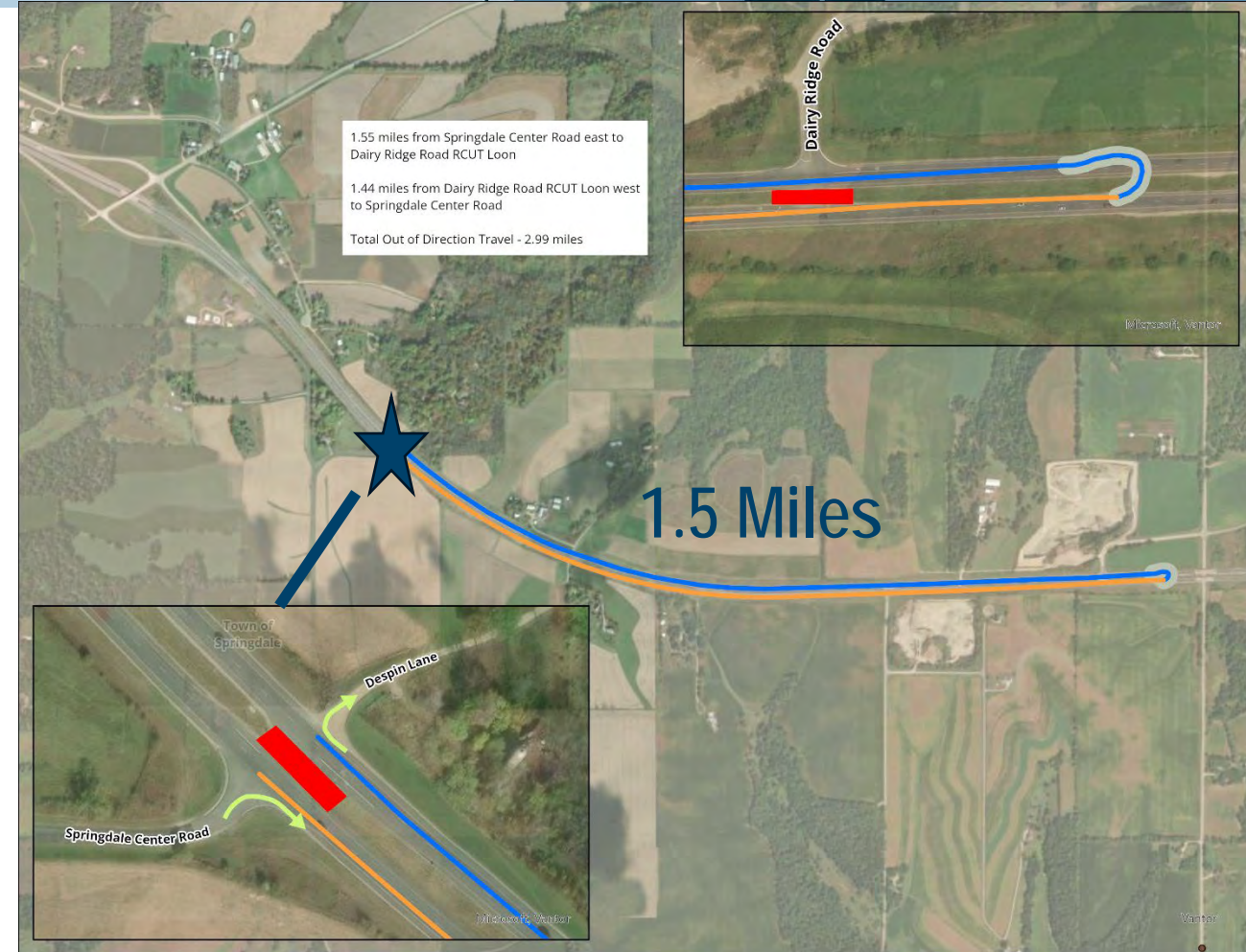
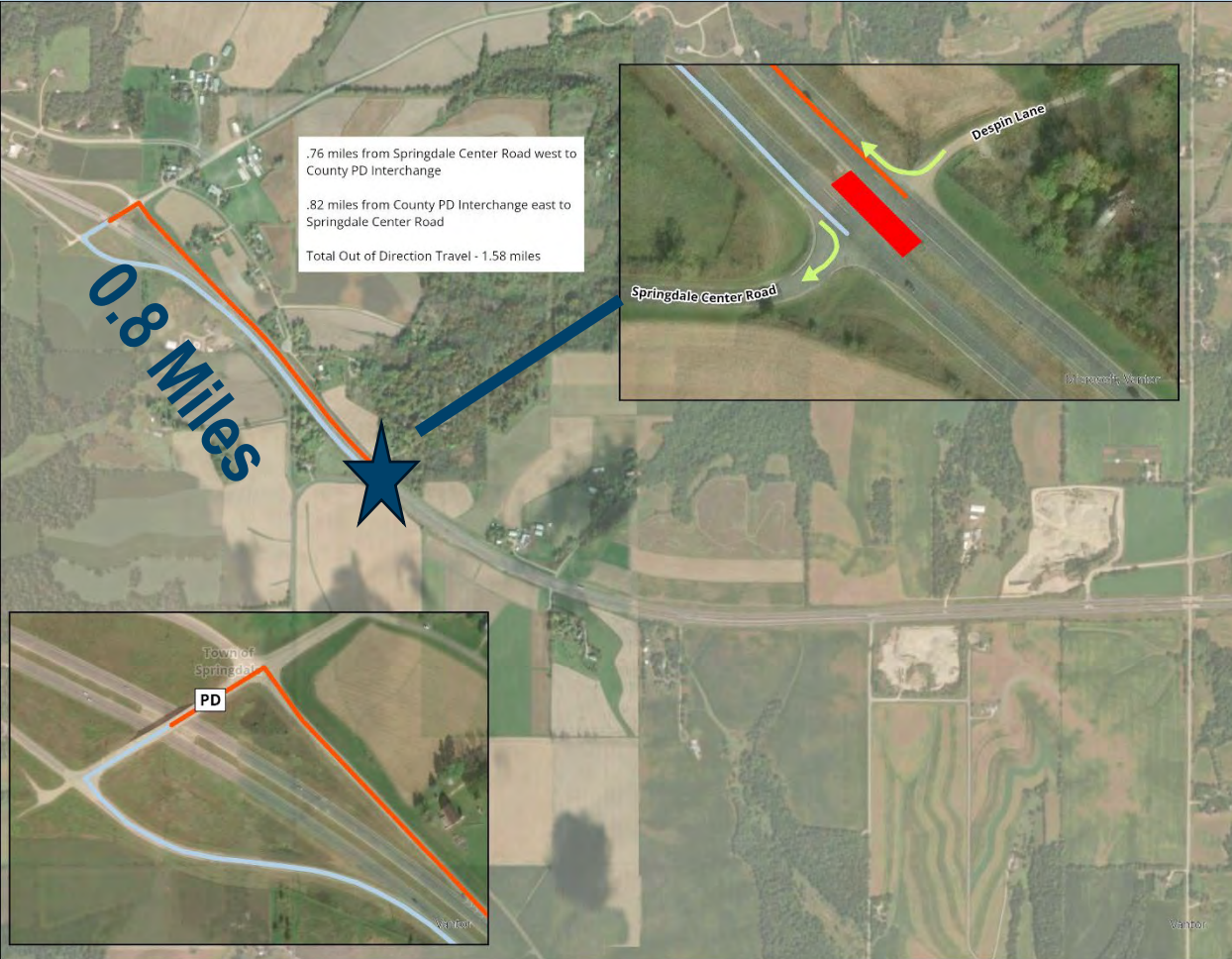
Super4 Intersection Treatments



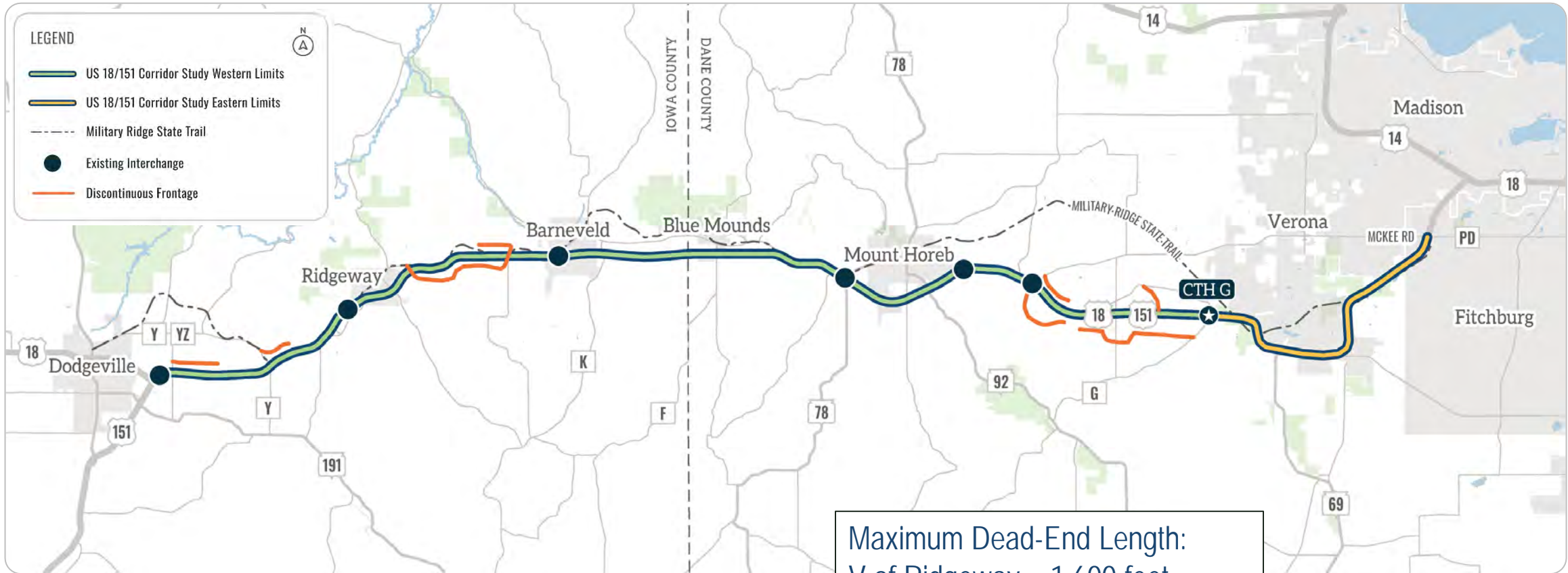
Dairy Ridge RCUT



Travel Time Impacts of Super4



Discontinuous Frontage | West of County G



Maximum Dead-End Length:
V of Ridgeway – 1,600 feet
T of Blue Mounds – 1,200 feet
T of Springdale – 1,000 feet
V of Verona – 1,000 feet



Continuous Frontage | West of County G



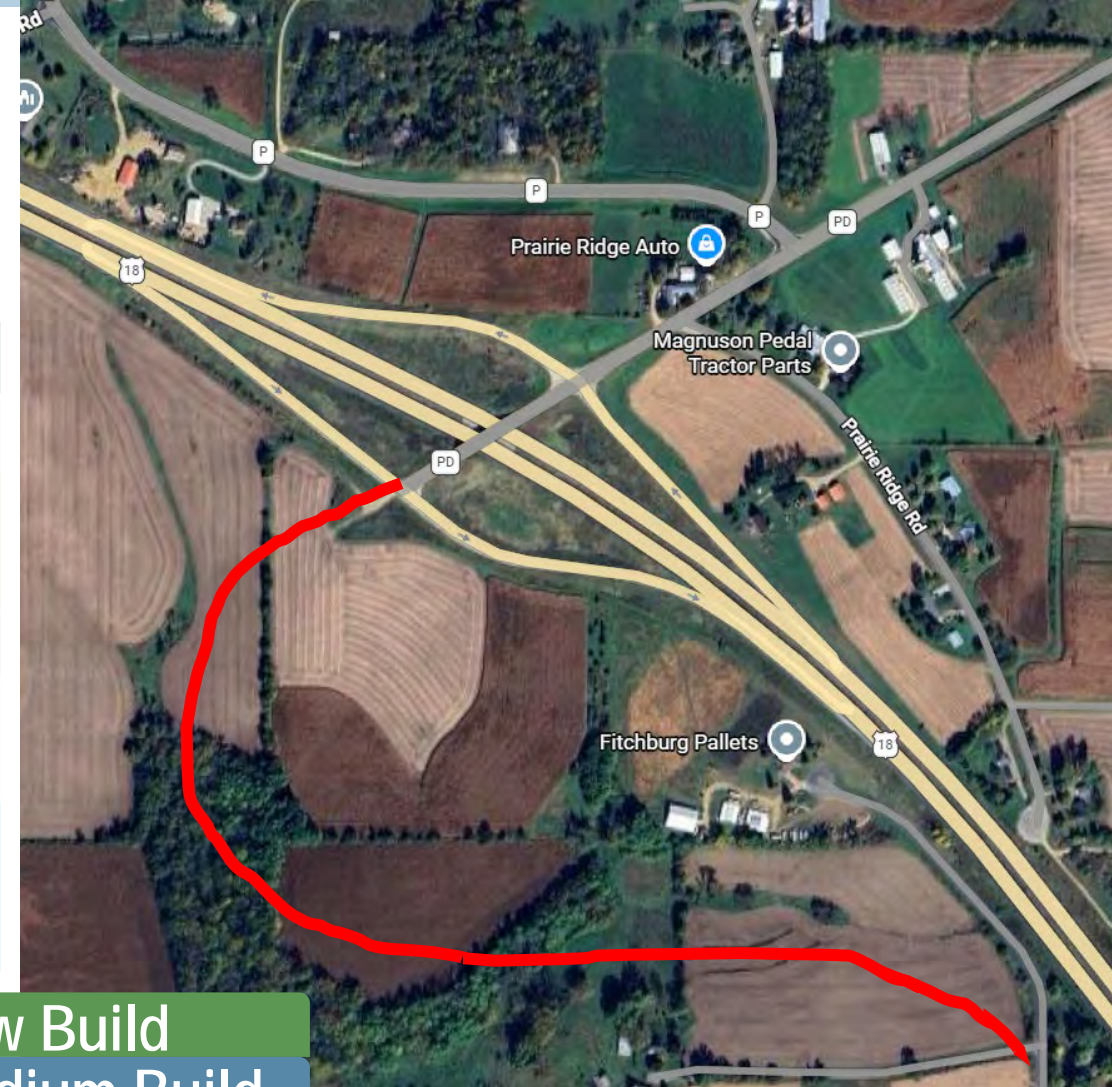
Springdale Area Frontage Road Concept



County PD (west)

- 2055 AADT: 6,000 north, dead-end south
- No crashes in 5 years
- 4 ramp acceleration/deceleration length deficiencies
- 2 ramp super-elevations too steep

Configuration	Access Concept	Considerations
Remove interchange	All concepts	High volume exists
Address geometric deficiencies	Super4	Does not address access control and bridge clearance
	Freeway	
Extend PD to south to connect with frontage	Super4	Not applicable
	Discon. Frontage	Limited volume; no detour from mainline; long dead ends
	Cont. Frontage	Provides detour route for mainline; accessibility for responders.



Low Build
Medium Build
High Build



Springdale Center/Despins



- 2055 AADT: 300 north, 440 south
- 2 LOS E and 1 LOS D movement
- 4 turn lane length and 2 sight distance deficiencies
- 0 crashes in 5 years



Configuration	Access Concept	Considerations
At-Grade	No Action	
RIRO	Super4	Fits concept
RCUT	Super4	Too close to County PD interchange
Close Access	Discon. Frontage	Too long of dead-end road north of mainline
	Cont. Frontage	Add overpass at 'Unnamed Road' to east.
Overpass/ Underpass	Super4	Severs access to 18/151
	Discon. Frontage	Uses County PD for travel to/from east
	Cont. Frontage	Maintains E-W movements
Interchange	All Concepts	Volume too low; too close to PD



Low Build
Medium Build
High Build



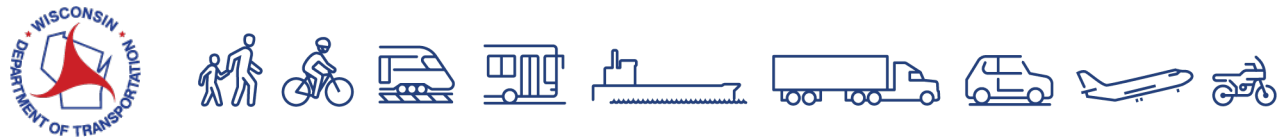
Unnamed Road

- 2055 AADT: <100 north
- 4 turn lane length and 2 sight distance deficiencies

Configuration	Access Concept	Considerations
At-Grade	No Action	
RIRO	Super4	Fits concept
RCUT	Super4	Volume too low
Close Access	Discon. Frontage	Too long of dead-end road
	Cont. Frontage	Does not align with continuous frontage.
Overpass/ Underpass	Super4	Severs access to 18/151
	Discon. Frontage	Uses County PD for travel to/from east
	Cont. Frontage	Maintains E-W movements
Interchange	All Concepts	Volume too low; too close to PD



Low Build
Medium Build
High Build



Dairy Ridge Road



- 2055 AADT*: 2,200 north
- 1 LOS E movement
- 1 sight distance deficiency
- 0 crashes in 5 years
- 1.5 miles west of proposed relocated County G



Configuration	Access Concept	Considerations
At-Grade	No Action	
RIRO	Super4	Volume too high
RCUT	Super4	Fits concept
Close Access	Super4	Severs access to 18/151
	Disc. Frontage	Exceeds maximum dead-end length
	Cont. Frontage	Alignment through quarry, additional structure; needs further assessment
Over/Underpass	All Concepts	Redundant with County J underpass
Interchange	All Concepts	Interchange better served with County J underpass; both within 1.5 miles of relocated County G interchange

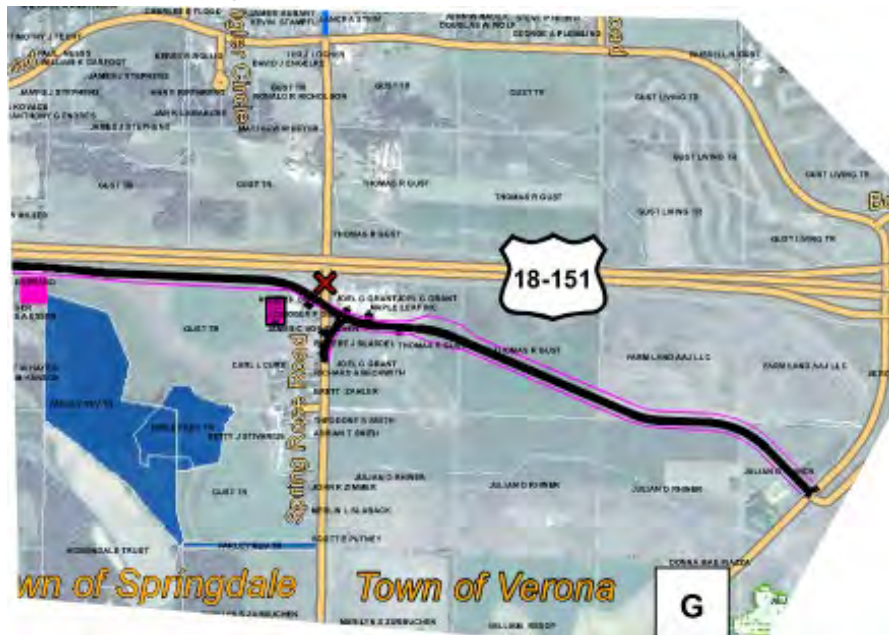
*AADT = Annual Average Daily Traffic

Low Build
Medium Build
High Build



Spring Rose Road

- 2055 AADT: 550 north, 2,000 south
- 4 LOS F movements, 2 approaches have queue spillback
- 1 crash (0 critical) in 5 years
- 4 turn lane length deficiencies
- <1 mile west of existing County G; influenced by proposed relocation of County G



Config.	Access Concept	Considerations
At-Grade	No Action	
RIRO	Super4	Volumes exceed threshold
RCUT	Super4	May be too close to County G interchange
Close access	Super4	Severs access to 18/151
	Disc. Frontage	Provides E-W movements via Dairy Ridge or County G
	Cont. Frontage	Provides E-W movement via Dairy Ridge or new frontage road
Overpass/Underpass	Super4	Severs access to 18/151
	Disc. Frontage	Redundant N/S crossing to County G
	Cont. Frontage	
Interchange	All Concepts	Too close to County G



Next Steps



- Review the information provided in this presentation and provide feedback
- Advisory Committee meetings anticipated this summer
- PIM #2 anticipated in late summer



Study Contact



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For more information on the study, scan QR code or visit the study website at tinyurl.com/18151study

