

Old Highway 14 and I-90 Exit 10 Improvements

Understanding the Reduced
Conflict Intersection (RCI)



Project Location

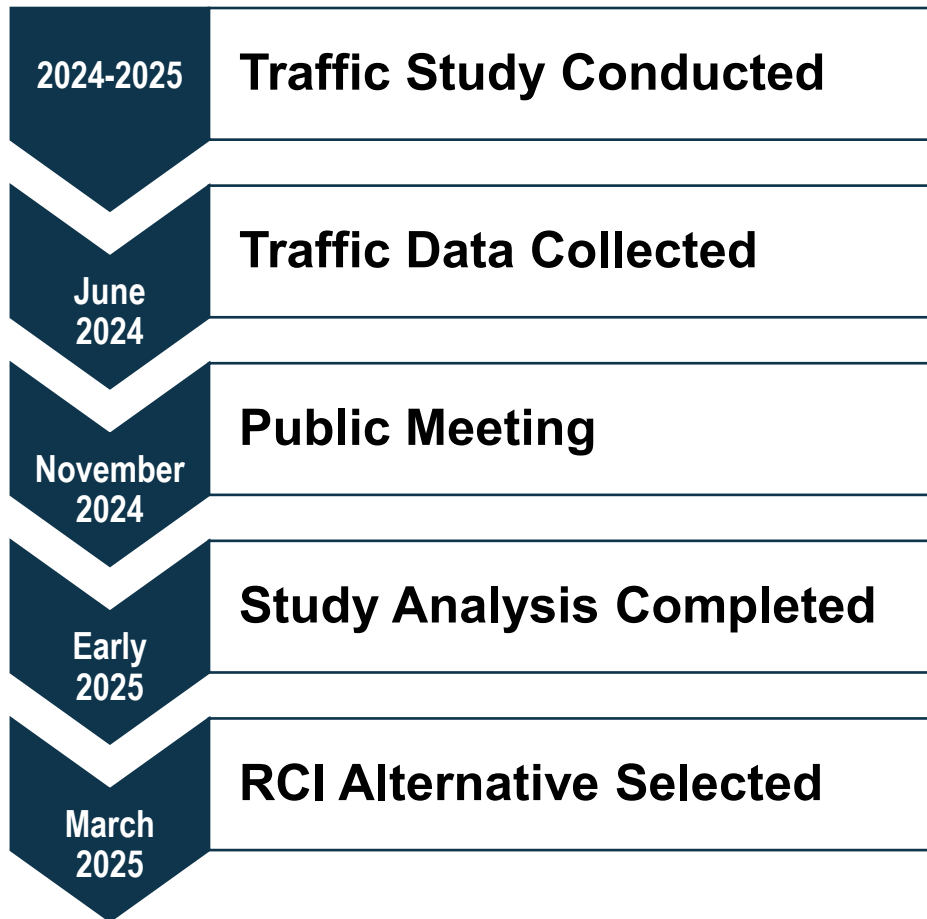


Project History

How This Project Began:

- Safety and traffic operations were reviewed
- Reviewed changes in traffic conditions over time
- Reviewed past improvements
- Identified a need for a longer-term solution

Traffic Study Timeline & Results

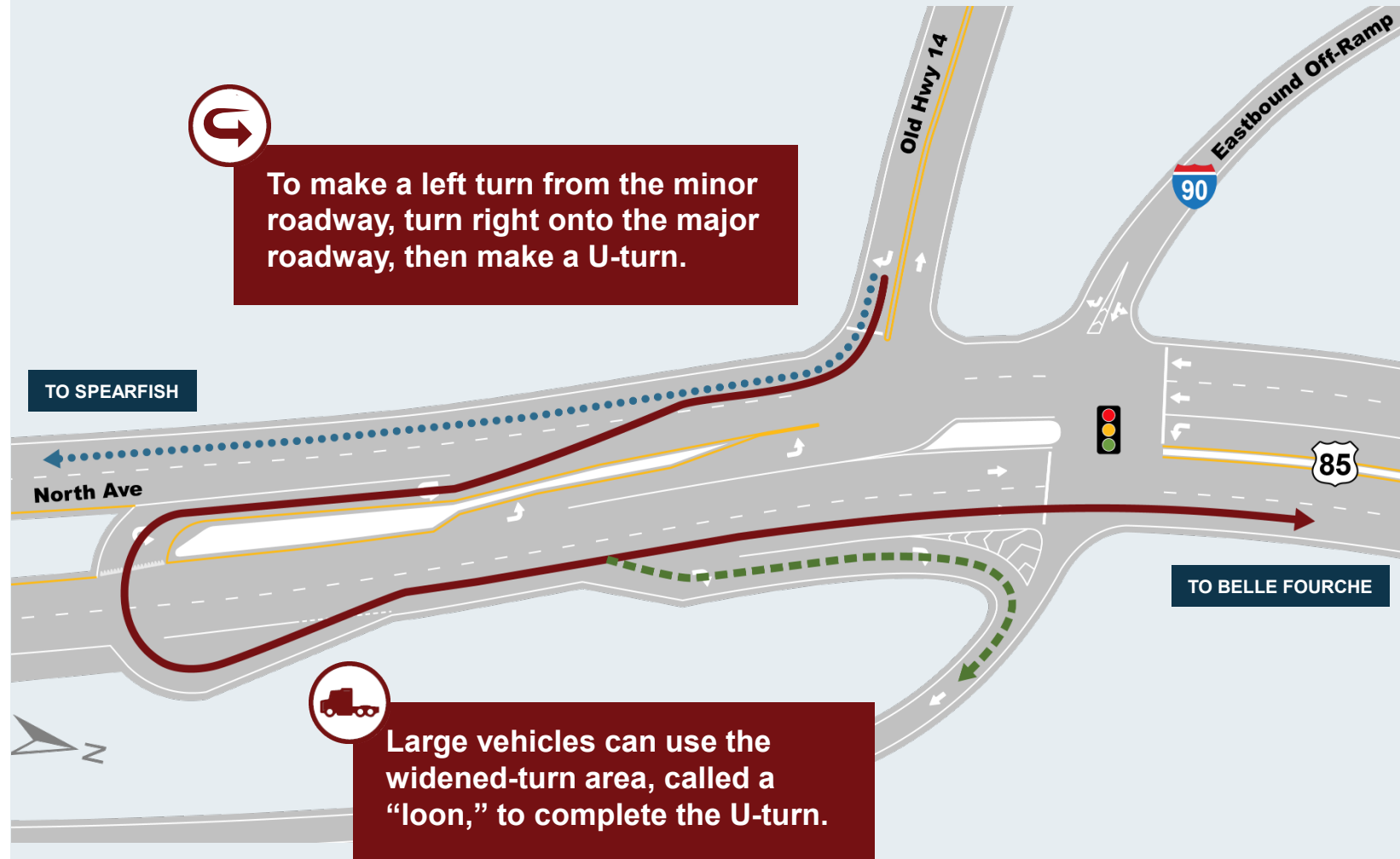


What the Study Found:

- Certain turning movements had higher crash risk
- Close intersection spacing increased conflicts
- Doing nothing would not improve safety
- Several improvement options were evaluated, including signalization
- A Reduced Conflict Intersection was recommended as the most feasible solution because it:
 - » Removes the highest-risk crossing movements
 - » Reduces congestion on the I-90 eastbound off-ramp
 - » Performs better over time as traffic volumes increase

What Is a Reduced Conflict Intersection (RCI)?

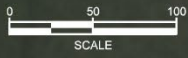
- A design that reduces the most serious crashes by decreasing conflict points
- Limits the need to cross multiple lanes at once
- Left turns are completed in safer steps
- Used successfully across the country



RCI: The Why

Why the change?

- The eastbound ramps need to be signalized
- With a signal installed and the proximity of Old Highway 14, changes are needed to the turning movements
- Allows drivers turning from Old Highway 14 near I-90 Exit 10 to focus on one direction of traffic at a time
- Provides separation between intersections
- Allows traffic on North Avenue to operate as it does today
- Offers a long-term safety solution that also will be efficient for drivers



Proposed Plan



North Ave

Old Hwy 14

Eastbound Off-Ramp



Eastbound



Westbound

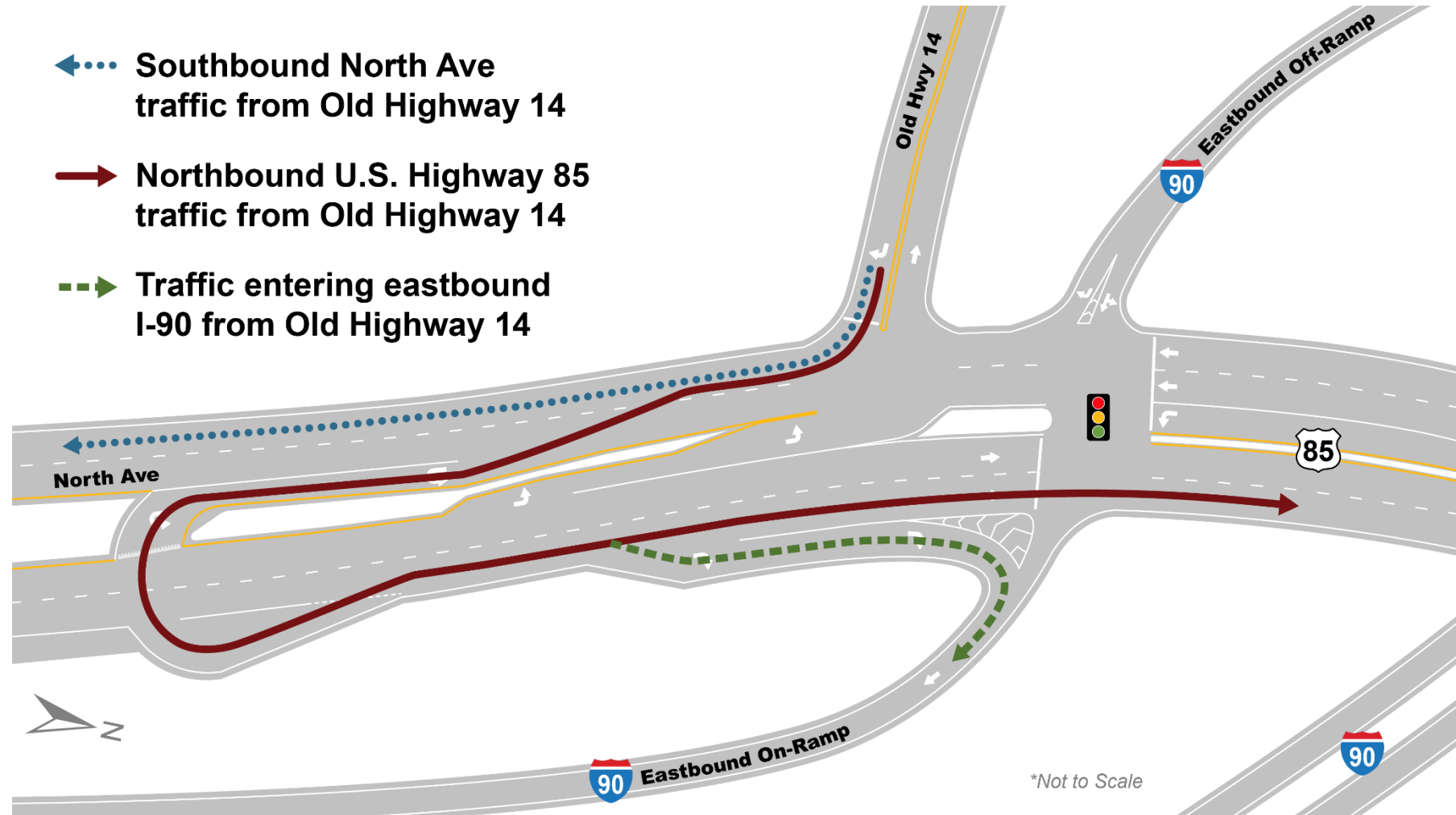


Eastbound On-Ramp



How You Will Drive Through the Intersection

- Left turns from Old Highway 14 are removed
- Drivers turn right, then use a designated U-turn
- Through traffic on North Avenue continues as usual
- Signs and markings guide drivers through each step





Benefits of the Change

-  Fewer places where serious crashes can happen
 -  Safer, clearer turning movements
 -  Easier for drivers to know where to look
 -  Smoother, more predictable traffic flow
 -  Simplify decision-making
 -  Helps manage congestion during peak travel times
 -  Performs better over time as traffic volumes increase
- 



Travel Time Today and in the Future

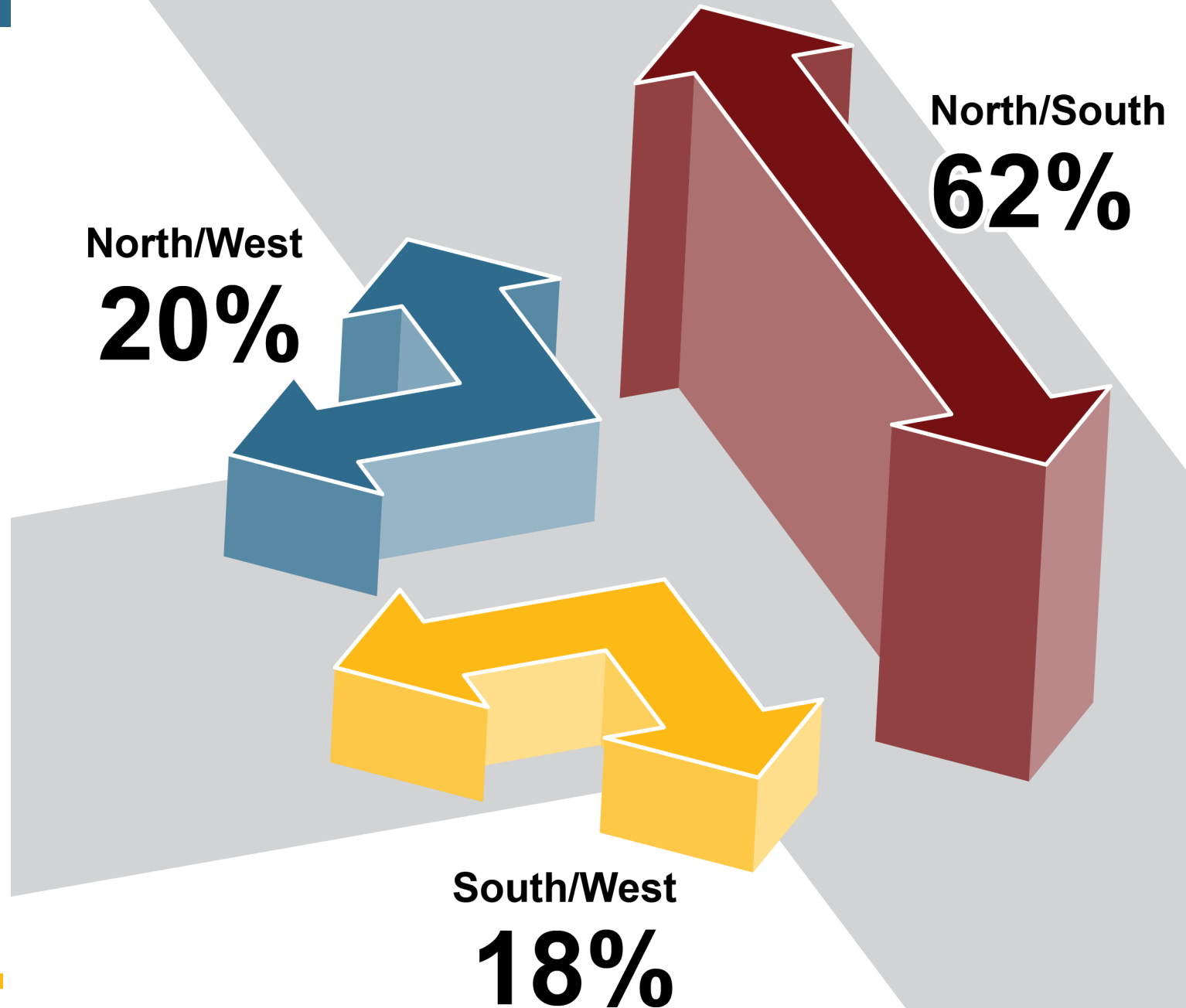
Eastbound Left-Turn Travel Time from Old Highway 14

- Traffic growth is expected to increase and with that driver delay will increase
- Without improvements, eastbound left-turn travel time is expected to increase by **about 143 seconds by 2038**
- With the RCI, however, travel time is expected to only increase by **about 38 seconds by 2038**
- Overall, the RCI reduces future travel time by **approximately 105 seconds**

**Travel time includes both time to complete the movement and time waiting in the eastbound queue on Old Highway 14.*

Traffic Movement

Current traffic movement through the North Avenue & Old Highway 14 intersection





What Will *NOT* Change



Access to local roads



Connections to I-90

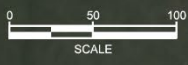


**Ability to travel
through the area**






Construction Phasing & Traffic Impacts

- Construction will occur in phases
- Drivers should expect changing traffic patterns and temporary lane closures
- Advance notice will be provided before major changes
- Traffic will be shifted between lanes as work progresses
- Left turns from Old Highway 14 will be restricted during construction
- All I-90 eastbound ramp movements will remain available



**CONSTRUCTION
PHASE 1**

-  **Work Area**
-  **Lane Closure**
-  **Traffic Flow**

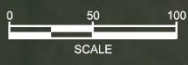




**CONSTRUCTION
PHASE 2A**

- Work Area
- Lane Closure
- Traffic Flow





CONSTRUCTION PHASE 2B

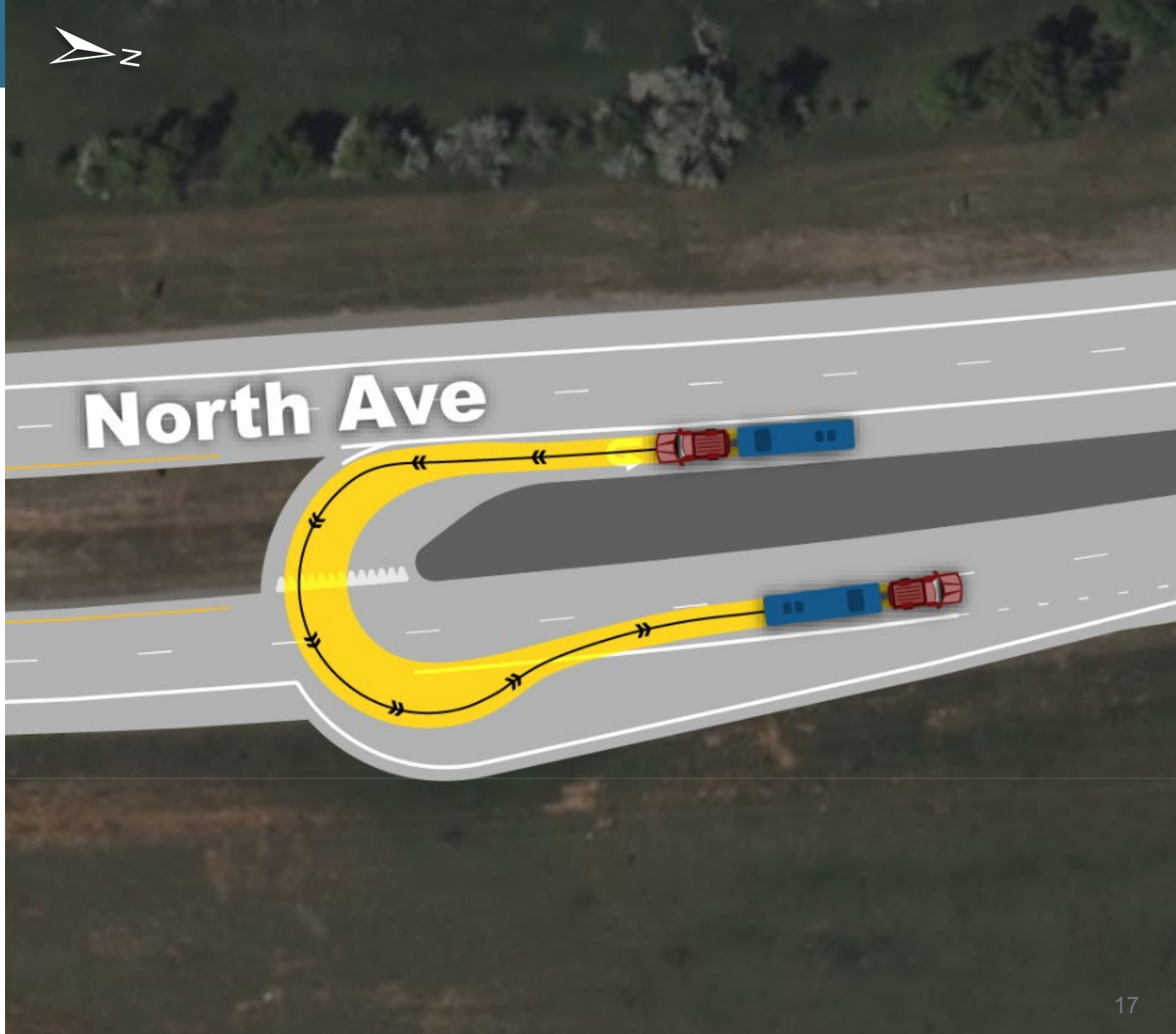
-  Work Area
-  Lane Closure
-  Traffic Flow





Turning Radius

Pick-up Truck
Pulling Camper



Turning Radius

Semi Truck
& Trailers



Frequently Asked Questions



Why can't I turn left directly from Old Highway 14 onto North Avenue?



Will driving through the North Avenue and Old Highway 14 intersection feel different?



Will this affect travel through the I-90 Exit 10 area?



How will access be handled during construction near North Avenue and Old Highway 14?



Is this design safe for trucks and emergency vehicles using North Avenue and I-90?



Will the RCI increase travel time?



What's Next?

- Final preparation before construction
- **Continued public information and updates!**
- Construction and opening
- Adjustment period as drivers become familiar

Thank You

For more information, please visit <https://dot.sd.gov/i-90exit10>

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