## Murray - Plattsmouth

US-34/US-75 \& N-1 Intersection Improvements NH-75-2(128); C.N. 21209

# Public Information Open House Meeting 

## Thursday, October 13, 2022 | 4:00-6:00 p.m.

Murray Christian Church 304 W Young St, Murray, NE 68409

## CONSTRUCTION SCHEDULE (weather permitting)

Construction on the US-34/US-75 \& N-1 intersection would occur as the US-34/US-75 project pavement is completed, with the RCUT intersection in service when all four lanes are open to traffic.

## IMPROVEMENTS

These would include construction of northbound and southbound left-turn lanes with bulb-outs on US-34/US-75 to allow for the U-turn movements as well as construction of right-turn lanes for northbound US-34/US-75 to eastbound Murray Road traffic and southbound US-34/US-75 to westbound N-1 traffic. Medians would be constructed on $\mathrm{N}-1$ and Murray Road. Any existing street lighting would be modified as necessary. Additional work would include grading, signing and new permanent pavement markings.

APPROXIMATE COST
\$7.6M

## PROJECT CONTACTS

Comments will be collected through Friday, October 28, 2022. Please submit comments to:
Sarah Fisher
NDOT Public Involvement
sarah.fisher@nebraska.gov
402-479-3832
For more information, please contact:
Tim Weander
NDOT District 2 Engineer
tim.weander@nebraska.gov
402-595-2534

## Restricted Crossing U-Turn (RCUT) Intersections in Nebraska



RCUTs have been shown to decrease right-angle crashes on four-lane divided highways. An RCUT intersection requires a change in how drivers cross and turn onto the highway from side roads by preventing direct crossing and left-turn movements. Relative to many other improvements, it is a lowcost treatment that can be quickly implemented, requires minimal property acquisition or relocation of homes and businesses, and minimizes environmental impacts.

## HOW DOES IT WORK?

At an RCUT intersection, motorists approaching divided highways from a side road are not allowed to make left turns or cross traffic; instead, they are required to turn right onto the highway and then make a U-turn at a designated median opening. This reduces potential conflict points and enhances safety. Generally, delay caused by waiting to cross both sets of lanes or by a traffic signal is greater than the delay caused by the RCUT movement. Traffic is still able to turn left onto side roads from the divided highway directly

## WHY DOES IT WORK?

A typical four-lane divided highway intersection has 42 possible vehicle conflict points. RCUTs reduce conflict points to 24 . With an RCUT, drivers from the side road only have to be concerned with one direction of traffic on the highway at a time. Drivers do not need to wait for a gap in both directions to cross the highway. Certain four-lane divided highway intersections have an elevated risk of severe right-angle crashes or "T-bone" crashes.

## BENEFITS

RCUT intersections significantly reduce the potential for right-angle crashes by allowing drivers to navigate through one direction of highway traffic at a time. An RCUT intersection reduces vehicle conflict points by over $40 \%$. If vehicles are involved in a crash at an RCUT conflict point, crashes are generally less severe than those at a conventional intersection.

Increased time savings. At conventional intersections, side road drivers must wait for a gap in both directions of highway traffic at the same time in order to safely cross the highway. With RCUTs, drivers only wait for a gap in one direction of highway traffic at a time, making it quicker, easier, and safer for side road drivers to turn left or cross the highway. For drivers on the highway, RCUTs do not delay their trip like the use of a traffic signal on a highway could.

Improved Cost Effectiveness. Instead of constructing a more expensive, grade-separated interchange at highway intersections, RCUTs are an innovative solution that address safety issues for some conventional intersections at a greatly reduced cost.

TRADITIONAL DESIGN CONFLICT POINTS - 42 TOTAL


## RCUT DESIGN CONFLICT POINTS - 24 TOTAL



## Murray-Plattsmouth

Project NH-75-2(128); C.N. 21209

NEBRASKA

Good Life. Great Journey.

## PURPOSE \& NEED

The purpose of these improvements is to reduce the frequency and severity of crashes at the intersection of US-34/US-75 \& N-1, improve the mobility of the traveling public and improve the reliability of the transportation system. The need for the improvements is based on information from the NDOT Safety Committee, Strategic Safety Infrastructure Project Teams, Traffic Engineering Division and District 2.


## PROJECT IMPACTS

The proposed improvements would require the acquisition of additional property rights, which could include new right-of-way (ROW), control of access (CA), permanent easements (PE), and/or temporary easements (TE). If your property is impacted by this project, you will be contacted by a representative once the design footprint has been established. Access to adjacent properties would be maintained during construction but may be limited at times due to phasing requirements. The improvements would be constructed under traffic with lane closures controlled by appropriate traffic control devices and practices.


