



# Gilead Road Improvements at I-77 Interchange & U.S. 21 Intersection STIP Nos. I-5714 & U-5114



## Joint Public Meeting

September 1, 2016

**Welcome** to the Public Meeting for the Gilead Road Improvements Projects, State Transportation Improvement Program (STIP) Project Nos. I-5714 and U-5114. Project team members are available to provide information on the projects or answer any questions or receive any comments you may have.

**Our goal** tonight is to introduce the proposed I-5714 project, provide updates on the U-5114 project, and explain the project development process. This meeting is one of many opportunities you will have to interact and work with the project team.

**Your Input** is important to us. Your input helps guide our planners and engineers to develop transportation solutions that complement the community's goals and visions. A comment form is included with this handout. You may leave the comment form here with us tonight or e-mail or mail it to us later.

Want to learn more about non-traditional intersections, specifically the Diverging Diamond Interchange (DDI)?

Check out these informational videos:

**DDI Visualization (NCDOT)**

<https://www.youtube.com/watch?v=HD-0QnUILOQ>

**Alternative Intersections: DDI (FHWA)**

<https://www.youtube.com/watch?v=eLAwwl3EtN4>

### PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION

#### DESIGN DATA

Functional Class = Collector  
Design Speed = 30mph  
Max. Superelev. = 0.06



(ENGLISH)



# Project Information

## Overview of Projects

To increase traffic capacity, NCDOT and the Town of Huntersville are proposing interchange and intersection improvements on Gilead Road (S.R. 2136). Drivers on Gilead Road regularly experience congestion and delay when passing through the I-77 interchange and the U.S. 21 (Statesville Road) intersection. The proposed improvements will be accomplished under two projects, STIP No. I-5714 (administered by NCDOT) and STIP No. U-5114 (administered by the Town). Both projects involve installing non-traditional intersection treatments, namely a Diverging Diamond Interchange and a median U-turn intersection concept. While these projects are in different stages of development, they are closely related, and the success of the system as a whole relies on the success of each project.

## Why do we need non-traditional intersections?

Non-traditional intersections have greater capacity than conventional designs, relieving congestion and reducing travel delays. Operations are improved by altering traffic flow patterns without greatly increasing the overall size of the intersection. A key component of many non-traditional intersections is the elimination of left-turning movements, which reduces movements made in front of opposing vehicles and also decreases the overall delay and improves overall intersection safety.

### What is a DDI?

A Diverging Diamond Interchange (DDI) changes the flow of traffic on a road which crosses a major highway. On the segment of the road between the interstate entrance and exit ramps, the lanes of traffic swap sides of the road (see next page for diagram). Because of where the lanes shift sides, there is no longer a need for left-turning vehicles to turn in front of opposing traffic. This in turn reduces the length of traffic signal cycles, reduces delay times, lowers the risk of vehicular accidents, and improves the safety of pedestrian crossings.

### What is a median U-turn?

The median U-turn concept prevents motorists from making left turns at an intersection. Instead, drivers who wish to turn left are directed straight through the intersection and then make a U-turn at a break in the median located a short distance beyond the main intersection. They may then make a right turn onto the cross street (see next page for diagram). Median U-turns simplify and shorten signal cycles, reduce delays for through traffic, and lower the risk of accidents for vehicles and for pedestrians.

## INFORMATION AND COMMENTS

For more information about these projects or to express any comments or concerns, contact any of the project managers below. Please refer to the appropriate project number if you know it (I-5714 or U-5114) or to I-5714/U-5114 if you are not sure when writing about the proposed project. All comments and questions will be addressed as soon as possible.

### Ms. Beverly Robinson I-5714 and U-5114

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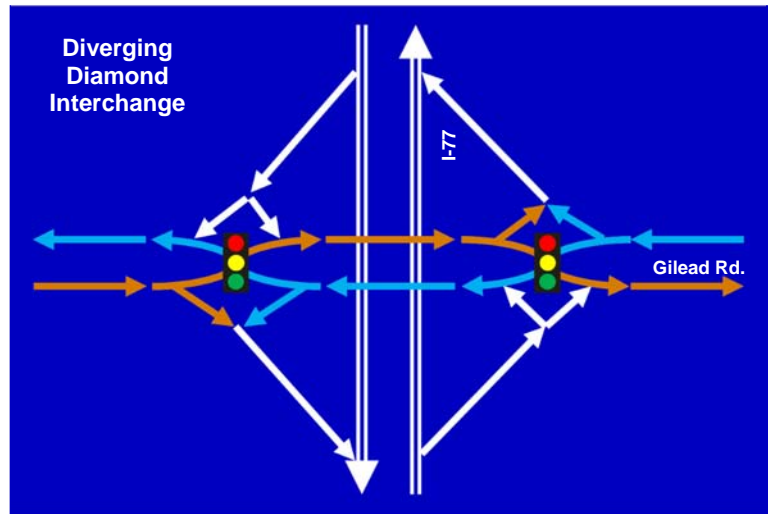
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### Ms. Nikki Honeycutt U-5114

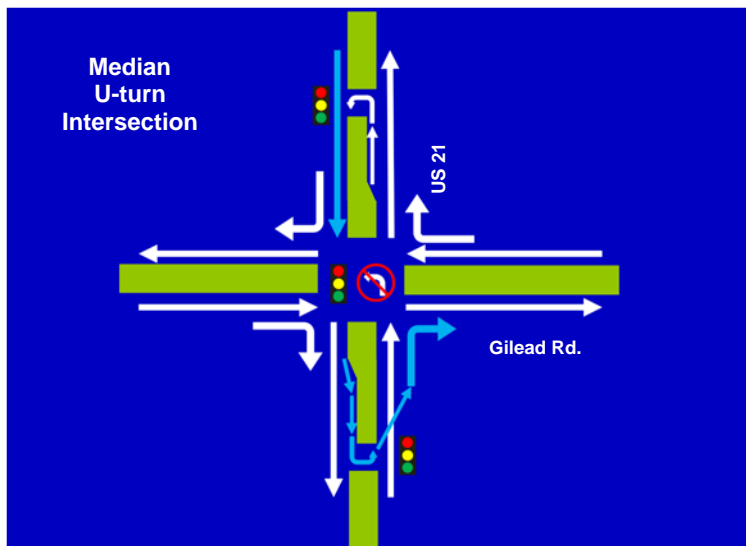
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## STIP No. I-5714 (Gilead Road/I-77 Interchange)

NCDOT is proposing to upgrade the existing I-77/Gilead Road interchange to a Diverging Diamond Interchange (DDI). Improvements will be made from Reese Boulevard to U.S. 21. The current interchange operates as a conventional diamond interchange but experiences congestion and delay. The purpose of this project is to reduce delay and congestion at the interchange by constructing a DDI. The proposed improvements will include bicycle and pedestrian accommodations.



## STIP No. U-5114 (Gilead Road/U.S. 21 Intersection)



The Town of Huntersville and NCDOT are proposing to make improvements to the intersection of U.S. 21 (Statesville Road) and Gilead Road. These improvements will include a median U-turn design as well as bicycle and pedestrian accommodations. Additional right of way will be needed as a part of this project.

**BENEFITS OF NON-TRADITIONAL INTERSECTIONS**  
*Safety • Reduced delay • Greater intersection capacity*

## PROJECT SCHEDULES

	Public Meetings	Public Involvement	Environmental Documents	Right of Way Acquisition*	Estimated Construction*
I-5714	August 2016	Continual throughout project process	Final - Fall 2016	2017	2018
U-5114			Final - November 2015	2016	2018

*\*As shown in current 2016-2025 State Transportation Improvement Program, subject to change based on funding.*

## THANK YOU!

Thank you for visiting the Public Meeting for STIP Nos. I-5714 and U-5114. Your feedback is important—please complete and return the attached comment form.