

# I-89 Exit 16 Diverging Diamond Interchange Renderings



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## I-89 Exit 16 Diverging Diamond Interchange

The Vermont Agency of Transportation's (VTrans) Colchester HES NH 5600(14) involves reconfiguring the I-89 Exit 16 interchange to a Diverging Diamond Interchange (DDI), an innovative solution to address traffic congestion and safety concerns. VTrans reached out to Stantec with an immediate need for realistic renderings for public hearings.



Figure 1. Overall Project Area

## What is a Diverging Diamond Interchange

DDIs are non-traditional in that traffic shifts to the left side of the arterial roadway, it is critical to be able to convey how DDIs work in general, but also to show the public what the DDI at Exit 16 will look like and how it will operate.

The best way to convey this knowledge to the traveling public is through the use of visual still images, videos, and simulators



Figure 2. Renderings of Route 7 and I-89 Exit ramp road and signage

## Renderings and Simulators

This would be the first such interchange in the state and therefore it was important to clearly present to the public how this interchange would operate. Stantec determined that the best way to create the renderings was to develop a realistic 3D model. This model was used to create the needed renderings and create multiple drive-through and flyover videos. Stantec also created a video game-like driving simulator.



Figure 3. Ariel view renderings of interchange

## Public Outreach

This project advanced engineering information by utilizing realistic graphics that allows project stakeholders to easily see how a transportation facility will look, operate, and fit into the existing environment. VTrans has been able to use these simulations and renderings in their public outreach educational program that will provide a level of comfort to the public by allowing them to "see" and "use" the DDI.

"These renderings have been used with great success and tremendous compliment for public hearings. They will continue to be used during the projects' education promotion campaign leading up to construction." Michael LaCroix - State of Vermont