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Three-Mile Stretch Rapid Turnaround in Three Weeks

UDOT's Joint-Venture Project Approach (Three Engineering Firms) to Gain Public Support



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Introduction

The three mile stretch of highway 5600 West between SR-201 and Interstate 80 is a two-lane corridor that currently experiences unacceptable levels of congestion and delays due to an at-grade railroad crossing, heavy vehicle use, heavy freight truck traffic, and limited turning lanes. Both morning and afternoon peak hour traffic is expected to exceed available road capacity by year 2050 if no improvements are made.



5600W / SR-172



Time is of The Essence

Given the scope and variety of the proposed changes, involvement with the public, business owners, and other stakeholders was an essential component of the study. RDV Systems, Inc., a company that specializes in high-quality 3D project modeling and visualization of infrastructure projects, was engaged by UDOT to provide the means of effectively communicating the proposed upgrades in a way that could be easily understood by the public. The modeling effort required a rapid turnaround due to a public meeting being held in less than three weeks.



Proposed Bridge over the Union Pacific Railroad



Proposed I-80 Diverging Diamond Interchange (DDI)



The Proposed Design Improvements

The Utah Department of Transportation and the consultant team of Michael Baker, H.W. Lochner, and Kimley-Horn are engaged in a planning study to improve mobility, increase roadway capacity, and reduce delay along 5600 West and at the I-80 interchange. Proposed upgrades include widening the road from two to five lanes with shoulders, building a bridge over the Union Pacific railroad tracks, converting the I-80 interchange to a Diverging Diamond configuration, adding a sidewalk and a shared-use path, adding curbs and gutters to improve drainage, and re-configuring all intersections and traffic signal phases.



Proposed



Existing

5600W Intercession at W300 South

The Public Meeting

RDV developed a 3-D virtual model of the project showing the existing conditions and proposed upgrades. Using RDV's patented 123BIM technologies, the design team was able to produce a variety of visualization assets for the public meeting. These included showing details of the project interactively using RDV's 123BIM Navigator "gaming engine" environment, producing an on-line virtual tour of the project on 123BIM.com website that was shared with the public, and creating a virtual reality experience during the public meeting so the public could virtually walk the entire corridor.

Virtual Tour

Scan the QR code with your smartphone or tablet for a 123BIM interactive Virtual Tour.



Or click on this URL:
<https://vtour.123bim.com/RAAPT>

"This was such a great tool to let people see an actual representation of what the end product was going to look like from any view point that they wanted. We also brought it into a VR headset for people to actually experience it at the open house in virtual reality, as well as having the Navigator projected on the screen while playing the animation, and stopping to jump to different views to answer specific questions."

*Nicole Williams, Project Manager
Kimley Horn*



About RDV's Software and Services

RDV Systems has been delivering innovative visualization, BIM software, and Road Safety products since 2005. Our mission is to help engineers, designers, architects and planners communicate proposed projects quickly, effectively and easily at a cost that makes visualization and analysis feasible for projects of any size. Consultants and public agencies around the world rely on RDV software products and services to visualize, analyze and communicate their designs.

Traditional visualization focuses on the development of images and videos – a costly and time consuming process used primarily for marketing purposes. Whether your projects involve roads and highways, rail infrastructure, airports, ports and harbors, land development, municipal infrastructure, urban planning, landscape architecture, mining or plant and power, RDV helps you succeed in your projects, shorten approval time and gain public support when you can't afford to be misunderstood.

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