



# HIGHWAY 140 EXTENSION ANALYSIS



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**Table Rock Forms the Backdrop for the Highway 140 Extension.**

**T**he growth of White City, both in size and importance, has led to increased interest in extending Highway 140, from its present terminus at Crater Lake Highway west to an interchange with Interstate 5 at Seven Oaks. Growing traffic volumes on Crater Lake Highway (Highway 62) have led many people to question whether providing a better Highway 140 connection to the west would preclude or reduce the need for increased capacity on Highway 62. The purpose of this investigation is to answer two questions:

JRH TRANSPORTATION ENGINEERING  
4765 Village Plaza Loop, Suite 201  
Eugene, Oregon 97401

541.687.1081



- 1) Would the construction of a Highway 140 extension serve to reduce the scope or even eliminate the need for improvements on Highway 62?
- 2) Without regard to the answer to Question 1, would improvements to Highway 140 have sufficient independent utility to warrant its construction?

This report endeavors to answer both questions.

## BACKGROUND<sup>1</sup>

During the 1950s the interstate freeway system was in its early days, and politicians all over the country were able to see the economic benefits of connecting one part of the country to another. During this time, Nevada Governor Grant Sawyer teamed up with Lake County, Oregon, Commissioner C.H. Langslet in an effort to connect rural farming communities in Nevada to the outside

world. Their first idea was to connect the small community of Adel to the Nevada border, but soon they reached the conclusion that the vision needed to be extended. “Winnemucca to the Sea” became the rallying cry. Sections were built using Lake County funds to connect Adel to the Nevada border as the Nevada section was built. With this beginning they were able to convince Oregon Governor Mark Hatfield that their vision was a good one. He, along with the State Legislature, worked to extend the highway between Adel and Denio junction. During the 1950s various sections of the highway were built and connections were made to existing routes. Highway 140 ultimately extended for 253 miles, beginning in Winnemucca and ending at an intersection with Highway 62 in White City. Other sections in the originally envisioned highway have been constructed on what is now known as Highway 199, from the Rogue Valley in Oregon all the way to Crescent City, California. The original

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<sup>1</sup> Much of this background is drawn from “The Winnemucca to the Sea Highway” by Bill Kettler, Medford Mail Tribune, April 17, 2005.

visionaries, not to mention a very large number of Rogue Valley residents, have been interested in connecting this middle section between White City and I-5. As I-5 provides connectivity to Highway 199, this would effectively complete the gap.

## ENVIRONMENTAL ISSUES

Prior to the late 1960s highways were built without concern to their environmental consequences. Highways were looked upon as a positive benefit in every way, and there was not any concern for the long-range consequences of highway building. In the 1970s this changed, and the environmental impacts of roads and highways became an important consideration. When it came time for ODOT to look at the western extension of Highway 140, the environmental consequences of the construction reached a forefront. The existing terminus of Highway 140 points directly into the Denman Wildlife Preserve. This area is one of the last locations in the Rogue Valley which contains undisturbed Agate Desert vernal pools, the endangered species of fairy shrimp, and a

number of other threatened or endangered plant species. This makes it much harder to justify the construction of a new route. Federal law requires that every measure must be taken to avoid the environmental consequences of construction through this area. All alternatives must be pursued before any construction can occur through this area. Unless there is sufficient demand for the route, there is not any legal or feasible way to build the extension through Denman.

This does not mean that the Highway 140 Extension cannot be built, but it does mean it must be constructed in a way to avoid the possible negative environmental consequences.

In the mid 1990s ODOT began a serious investigation into the construction of Highway 140 between White City and the Seven Oaks interchange. The purpose of this study was an attempt to take traffic from Highway 62, thus precluding the need to make a major upgrade to it. This analysis has been undertaken at least three times since then as part of the Highway 62 Corridor Solutions project, the

North Medford Interchange project, and the Highway 62 project currently underway. Each time it was shown that the Highway 140 project would not take enough traffic away from Highway 62 to materially change existing and projected future problems on that corridor.

These studies concluded that most of the traffic coming from White City on Highway 62 is headed to the south. As on most roads, commuters and trips to commercial areas make up the majority of the traffic. Most of the trips to and from White City are directed north and south along Highway 62. Trips heading south on Highway 62 are destined to Medford, Central Point, and other commutes to the south along I-5. Only a small percentage of commuter or shopping trips are directed to the north on I-5. A very small percentage of this traffic is White City to Grants Pass, Gold Hill, or the rural areas in between. There are important freight movements between White City and I-5 to the north, which would receive a reduction in overall travel time and distance, should this connection be made. The level

of traffic projected between White City and I-5 north could easily be accommodated on the existing Kirtland/ Blackwell alignment; however, this alignment is out of direction and requires drivers to traverse a greater distance than might be necessary with a more direct Highway 140 routing.

## THE EFFECT OF HIGHWAY 140 ON HIGHWAY 62

Rather than rehash the old analysis, we took a fresh look at the questions. To begin this analysis, we requested ODOT's Transportation Planning Analysis Unit (TPAU) to modify the Regional Transportation Model by adding a direct extension from the existing Highway 140 around the Denman Wildlife Preserve, extending directly to the Seven Oaks interchange. We asked them to assume it would be a four-lane high-speed (45 to 55 MPH) roadway, with access control and intersections at Table Rock Road and Upton Road. The Regional Transportation Model is based on observed Rogue Valley traffic patterns and upon the relationship between

projected population and employment within the region and beyond.

TPAU developed two models for year 2030. The first model provides peak hour traffic volumes for the roadway system without the Highway 140 Extension. The second model is the same as the first, with the addition of Highway 140. By subtracting volumes in the first model (without the Highway 140 Extension) from the traffic volumes in the model with the Highway 140 Extension, the **DIFFERENCES** between the transportation system with the Highway 140 Extension and without the Highway 140 Extension can be determined. These differences are shown in **FIGURE 1**. Orange lines represent expected increases in traffic if the extension is built; Green lines represent locations with reduced traffic. Because the Highway 140 Extension does not currently exist, the volumes shown are the total anticipated volumes.

As the Highway 140 Extension approaches Seven Oaks, the increases in traffic on the new extension are fairly matched with the reduction in traffic on the existing Kirtland Road.

The traffic volume changes shown along Highway 62 are very small when compared with the total volumes on it (approximately 5 to 10 percent). This change is so small that it would not affect the need for improvements to Highway 62,

To verify the model analysis, we reviewed original and destination studies taken of movements between White City and I-5. In these studies, license plate numbers are recorded by persons at all highways exiting White City and then compared against traffic as it enters I-5 and other regional destinations. The results of the last origin and destination study, taken in 2000, show that less than eight percent of the total traffic using Highway 62 would find benefit in a Highway 140 extension. This is less than the usual day-to-day variation in traffic counts. The "White City Origin and Destination Study", dated January 26, 2000, is attached for reference.



JRH TRANSPORTATION ENGINEERING  
 4765 Village Plaza Loop, Suite 201  
 Eugene, Oregon 97401 (TEL.) 541.687.1081  
 www.jrhweb.com



## HIGHWAY 140 AS AN INDEPENDENT ROUTE

It is recognized that there is a demand for at least some level of connection between White City and Interstate 5. White City is an industrial area and the home to a number of commercial trucking firms who ship regularly between White City and points north on I-5. This, in itself, may serve to justify making that last critical link between White City and I-5. As a first step in this direction, Jackson County and ODOT are working to improve geometry along the existing road system between I-5 and White City.

In the longer run, it is possible that ODOT may develop a long-range plan for the corridor. In order to do so, there are a number of steps that must be undertaken. These include developing enough local support to place Highway 140 into what is called the DSTIP – the Development State Transportation Improvement Program. Projects in the DSTIP are those that receive funding to at least begin developing concepts and plans for the project. For Highway

140 to be included in the DSTIP, local officials must work with the Rogue Valley Area Commission on Transportation (RVACT). That body has the responsibility to recommend project priorities in the local area. They take this responsibility very seriously and balance projects among the various needs in the Rogue Valley. Highway 140 would compete against other major projects and, based on its ability to meet adopted valuation criteria, would receive funding. Once a development project has been created, if it proves feasible, then the actual construction of the project would be prioritized, also by RVACT and the Oregon Transportation Commission.

There are a number of reasons why Highway 140 might be considered. As stated earlier, a component of traffic from White City does want to head north on I-5. Accommodating these movements more directly would reduce total vehicle miles traveled. It should be remembered that, although this demand is present, it is not significant enough to change the demands on Highway 62. Therefore, the Highway 140 project would not replace or supplant the current projects in the Highway 62 corridor.

## RESPONSE TO QUESTIONS

**QUESTION 1)** WOULD THE CONSTRUCTION OF A HIGHWAY 140 EXTENSION SERVE TO REDUCE THE SCOPE OR EVEN ELIMINATE THE NEED FOR IMPROVEMENTS ON HIGHWAY 62?

### RESPONSE TO QUESTION 1:

Traffic diverted by a better connection between White City and I-5 to the north would not divert enough traffic to materially change the need or extent of needed Highway 62 improvements.

**QUESTION 2)** WITHOUT REGARD TO THE ANSWER TO QUESTION 1, WOULD IMPROVEMENTS TO HIGHWAY 140 HAVE SUFFICIENT INDEPENDENT UTILITY SO AS TO WARRANT ITS CONSTRUCTION?

### RESPONSE TO QUESTION 2:

There are important freight movements between White City and I-5 to the north, which would receive a reduction in overall travel time and distance, should this connection be made. In addition, there is an indication that an east-west alignment south of White City would draw considerable traffic on its own. The level of traffic projected for the facility is such that it could easily be accommodated on the existing Kirtland/ Blackwell alignment; however, this alignment is out of direction and requires drivers to traverse a greater distance than a more direct Highway 140 routing. Consideration should be given to improving the Highway 140 connection between White City and Interstate 5 as part of the RFACT process to amend the DSTIP.