



Oregon

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Subject: **Transportation Management Plan**
US197 Maupin Curves Phase 2 and 3 (Wasco County)
The Dalles-California Highway #004 (MP 46.2 – 46.9)

US197 (The Dalles-California Highway #004) is a regional highway that connects The Dalles and other cities in the Columbia River Gorge to Central Oregon. The northern portion of US197 is the primary farm to market access for numerous agriculture producers in the Mid-Columbia area in Wasco County. US197 is also the main route for increasing tourism and recreational traffic in Maupin related to activities along the Deschutes River. Keeping the highways in good condition and ensuring they are developed in contributing to a safe and efficient transportation system that supports livability and economic viability are critical goals of the Oregon Department of Transportation. The following Transportation Management Plan for the **US197 Maupin Curves Phase 2 and 3** projects will cover construction related traffic impacts and communication.

Project Purpose and Need, Goals and Objectives

Maupin is located along the Deschutes River within a valley from the surrounding steppe and to traverse the steep grade the highway makes a couple of 180 degree hairpin turns. The purpose of the **US197 Maupin Curves Phase 2 and 3** projects is to increase the safety along the southern side of the Deschutes River Valley. Currently the road is narrow and does not have consistent guardrails along the edge of the road. Previous Phase 1 project cut the slope on the east side of the roadway. The safety work will continue with Phase 2 and Phase 3 projects. Phase 2 work includes remaining excavation for widening the road, culvert decommission, grading, base rock, paving and other traffic safety measures. Phase 3 activities entail removal of existing guardrail and installing new guardrail.

Project Area Characteristics

The project construction area is just south of the City of Maupin on US197 starting from 0.12 miles south of Deschutes River Access Road (MP 46.2) and extending south to MP 46.9. The project limits encompass both the upper and lower portions surrounding the hairpin turn at MP 46.63. A vicinity map indicating the project location has been provided in Figure 1.

According to the *1999 Oregon Highway Plan*, the project section of US197 is classified as a Regional Highway not on the National Highway System. US197 is also classified as a rural minor arterial functioning as an agricultural and recreational route. The Freight Mobility Map identifies US197 as a "Black and Yellow Route," indicating that the route is highly restricted for truck and oversized/overweight loads and is only intended for local access by permit. The route is a 12' Wide Annual Route (allowed to travel during daylight hours) and at night, this route is not authorized for freight travel. Nighttime is defined as ½ hour after sunset until ½ hour before sunrise.

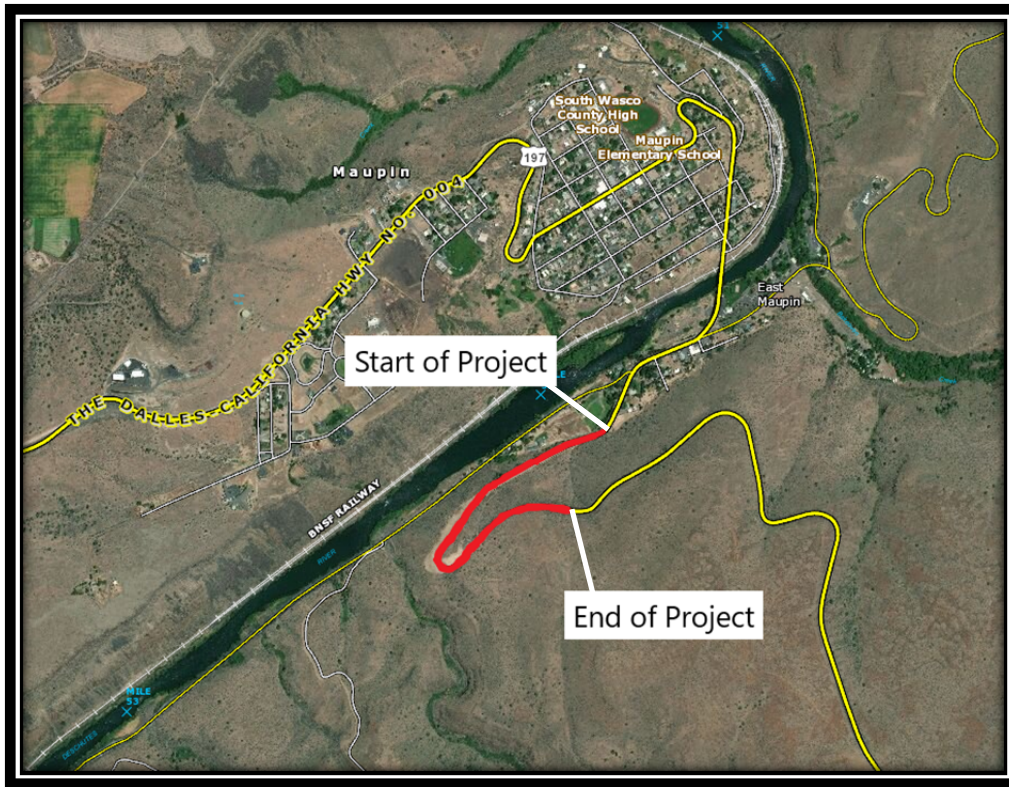


Figure 1: Vicinity Map

Throughout the project area, the highway cross section is primarily composed of two 11' wide travel lanes with little to no shoulders and some guardrail. The 2017 Average Annual Daily Traffic (AADT) along the project section of highway is 550 vehicles per day, with trucks accounting for 27.01% of the AADT (2017 OTMS Traffic Volumes and Vehicle Classification; MP 46.08). The legal speed along this section of road is 65mph; however there is no posted speed after leaving city limits. A speed zone study is being conducted that will potentially change the speed zones along this corridor.

Work Zone Traffic Analysis

The analysis was conducted using traffic volumes from Short Term Count (STC) Site 597 located within the project segment at MP 46.4. The Dufur Automatic Traffic Recorder (ATR 33-005) located at MP 10.3 on US197 was also used to compare both counts from May 22-24, 2017. The comparison showed that the short term counts had much lower traffic volumes and were unrelated to the daily trends from the ATR. However, monthly counts from the ATR were used to apply a seasonal adjustment factor from the count month of May to the peak month within the project scope of June. May was slightly lower than that of June so a seasonal adjustment factor of 1.02 was applied to the STC data. STC volumes were further adjusted to the 2019 construction year assuming an annual growth rate of 5.39% (based on 2013-2016 Dufur ATR 33-005 annual history) and converted to Passenger Car Equivalent (PCE) values assuming a PCE factor of 4.5 for mountainous terrain and an average truck percentage of 27.01% (2017 OTMS Traffic Volumes and Vehicle Classification).

Using ODOT work zone traffic analysis methodologies for flagging, the average delays anticipated during flagging operations of a single lane of two way traffic was estimated in order to identify typical traffic patterns throughout the work week and ultimately determine the appropriate work zone restrictions for the project. Since the short term counts are from Monday – Wednesday, the analysis is not indicative of a typical weekend. Using the higher volume counts from ATR 33-005 and running the same analysis still allows closures anytime, even during the weekend. The results of the analysis indicate, and Region 4 is recommending, that reducing traffic to a single two way lane and controlling directionality with a flagger can be allowed any day of the week at any time. Average delay estimates as a result of the flagger controlled single lane closure range from 1 to 5 minutes.

Construction Staging and Consideration of Mobility and Over-Sized Vehicles

Construction activities are anticipated to begin February 2019 through June 2019 and consist of flagger controlled single lane closures and shoulder closures of two-way, two-lane roadways. Lane closures and temporary traffic control will be implemented according to the *2018 Oregon Standard Specifications for Construction*, sections 00220 and 00225 of the project Special Provisions, and any applicable ODOT TM800 Series Standard Drawings. Region 4 Traffic recommends work zone flagger restrictions be allowed any day of the week at any time.

Due to the rural location of the work, pedestrian and bicycle volumes are anticipated to be low and are currently using the existing unimproved shoulder or the lane of traffic. The *Temporary Pedestrian Accessible Route Plan* (TPAR) will consist of instructing flaggers to cross any pedestrians to the non-work side of the road in order to pass through the work area. Bicyclists can share the lane with vehicles or be accommodated similar to pedestrians. If the existing shoulder cannot accommodate pedestrians during construction, Standard Specification 00220.02(b) requires the Contractor to provide a temporary means of allowing pedestrians access through or around the work area (i.e. move equipment and allow pedestrian through).

Due to the existing roadway widths, the horizontal clearance during construction at the project location will be limited to 14 feet between the edge of pavement and the temporary traffic control device (anticipated as a soft barrier). For horizontal width, Motor Carrier Transportation Division (MCTD) requires notification when reducing the horizontal clearance on a highway route to less than 28 feet for two lanes of one-way traffic (single lane in each direction) or less than 22 feet for one lane of one-way traffic (bidirectional alternating traffic). Horizontal clearance is measured across the road from any fixed object to the face of a guardrail, barrier or other fixed object. Given the project's restriction to the horizontal clearance, a written notification using the on-line electronic restriction notice [Form 734-2357](#) must be submitted to the MCTD Freight Mobility Coordinator at least 35 days prior to work beginning.

Existing Restrictions

The proposed impacts to traffic flow at each project location include a reduction of the available travel lanes with subsequent delays. Corridor-Level Traffic Management Plans (TMPs) are established for routes in Oregon where delays and access issues may result in significant negative mobility and economic impacts to motorists, the freight industry, individual businesses, and communities. The highway at the project location has not been identified in a Corridor-Level TMP. Therefore, the ODOT standard maximum delay threshold of 20 minutes will be used.

Holidays and seasonal events may impact traffic in the project area. The major holidays are included as standard restrictions in the *2018 Oregon Standard Specifications for Construction*, section 00220.40(e-2a), which includes applicable provisions for lane restrictions. Local and seasonal events requiring unique lane restrictions will be identified (if applicable) in the project special provisions section 0020.40(e-2b).

The following special events have been identified and should be listed as additional items in the special provision section:

- Deschutes River Time Trials (Bike Race) – Maupin, Oregon – Either April 20-21 or April 27-28, 2019
- NW 420 Event – Tygh Valley, Oregon – April 19-21, 2019
- Cherry Festival and Parade – The Dalles, Oregon – April 26-28, 2019
- Maupin Daze Parade – Maupin, Oregon – May 18, 2019
- SOAK Festival – Tygh Valley, Oregon – May 24-26, 2019
- Oregon Trail Rally – Dufur, Oregon – May 31-June 2, 2019
- What The Festival – Dufur Oregon – Has occurred in Mid-Late June in the past

Public Information and Outreach

Public information and outreach is beneficial for maintaining public support for projects, as well as encouraging changes in travel behaviors during project construction. Keeping the public aware of delays as they occur may encourage local motorists to use alternate routes, which may help manage congestion throughout the project locations. The ODOT Region 4 community liaison representative and District Manager will be responsible for communicating the project’s goals and impacts to citizens, elected officials, the freight community, businesses, and to the traveling public. The following table represents typical communications that should occur between stakeholders throughout the project:

Responsible Party	Groups to Contact
Contractor	Oregon Department of Transportation Region 4
ODOT Region 4	ODOT MCTD ODOT Region 4 Traffic Management and Operations (TMOC) ODOT District 11 Wasco County City of Maupin Media General public and road users Emergency responders (police, fire, medical) Schools Business owners Other stakeholders
ODOT Motor Carrier Transportation Division (MCTD)	Freight Industry

Table 1: Typical Communication Plan