

Alternatives Evaluation Summary

Agate Loop Road M.P. 0.64 / Uncle John Creek (Lower) Culvert Project – CRP 2023

Mason County Public Works evaluated alternatives for replacing or removing the Agate Loop Road culvert crossing at Uncle John Creek to restore fish passage. Evaluating various options culminated with two most viable alternatives:

Alternative 1: Replace the culvert with a bridge – Alternative is more expensive but maintains existing transportation system.

Alternative 2: Remove the crossing – Alternative is less expensive but eliminates thru-traffic along Agate Loop Road. Road would terminate with turnarounds at the stream.

Social, economic, and environmental impacts were evaluated. Table 1 is a summary of the two alternatives. Public Works recommends Alternative 2 (remove the crossing) as the preferred alternative.

Evaluation Summary

Alternative 2 would achieve the project goal at a significantly lower cost compared to Alternative 1. Alternative 2 will save an estimated \$2.7 million over Alternative 1 in near term project costs and has additional benefits over a longer term. A second bridge (Campbell Creek) is a factor because it is an aging timber pile structure and works in tandem with the Uncle John Creek crossing to make Agate Loop Road a thru-traffic alternate route to Agate Road between Highway 3 and Crestview Drive. Removal of the Uncle John Creek crossing reduces the future replacement and maintenance needs associated with both crossings.

The tradeoff for removing the Uncle John Creek crossing is a negligible effect on traffic patterns and travel times, which would increase by 77 seconds for residents along Sunset Road but remain the same for others. Terminating Agate Loop Road at the stream would exclude use of the road as an alternate route but would retain local access (see Figure 1). Environmental benefits are similar between alternatives but Alternative 2 provides more opportunity for restoration.

Preferred Alternative and Next Steps

Public Works selected Alternative 2 as the preferred alternative due to significant cost savings and de minimis impact to the transportation system. Local access will be maintained. Impacts on traffic patterns and the transportation system overall are negligible mainly because of similar travel times that exist between Agate Road and the alternate, Agate Loop Road.

Next steps will be for Public Works to develop designs for the preferred alternative that will allow engagement of community and stakeholder participation through the State Environmental Policy Act process, and to obtain permits. Public engagement will include announcements, soliciting feedback, opportunities for public comment, and responding to comments in the final design.

Table 1. Summary of Social, Economic, and Environmental Factors Related to Two Alternatives.

Factors Considered	Alternative 1 – Bridge	Alternative 2 – Remove Crossing
Social	<p>No change from existing Transportation system, public access to services, and community cohesion are maintained as existing.</p>	<p>Thru-traffic utilizing Agate Loop Road (<200 ADT) would shift to Crestview Drive and Agate Road. The routes are equal length.</p> <p>Sunset Road traffic (94 ADT) that might typically use Agate Loop Road to the north (red line in Figure 1) would need to use Agate Loop Road to the south and Crestview Drive to connect with Agate Road (green line in Figure 1). The revision adds 0.90 mile (1 minute 17 seconds) for traffic originating or ending at Sunset Road.</p> <p>Emergency service routes would change to accommodate traffic revision.</p> <p>Shoreline public access/use would not change. No formal access is existing or proposed.</p> <p>Traffic revision does not reduce or alter public access to services, commerce, or affect community cohesion.</p>
Economic	<p>Estimated \$2.9 MM (near-term)</p> <p>Possible 80% match from State grant in 2025.</p> <p>Utilizes State grant funds designated for fish barrier corrections.</p> <p>Uncle John Creek bridge will need to be maintained.</p> <p>Campbell Creek bridge will continue to be maintained for thru-traffic including replacement or major rehabilitation in the foreseeable future (estimated \$4 MM).</p> <p>Estimated cost over 15-20 years: \$7 MM (includes projected future Campbell Creek bridge work).</p>	<p>Estimated \$200 K (near-term)</p> <p>Construction with County Road Fund or with possible 80% State match funds in 2023.</p> <p>Conserves State grant funds for other fish barrier correction projects including projects identified in Mason County.</p> <p>No long term bridge maintenance required at Uncle John Creek.</p> <p>The need and cost for replacing/maintaining Campbell Cr. bridge in the foreseeable future would be reduced. Campbell Creek bridge would be maintained for access to one private residence or an alternative access identified to allow removal of the crossing.</p> <p>Estuary restoration could qualify as advance mitigation or mitigation banking for future projects.</p> <p>Estimated cost over 15-20 years: \$300-\$400 K (if Campbell Creek bridge is also eventually removed/replaced by alternative access to residence).</p>
Environmental	<p>Restores fish passage; improves stream and estuary processes</p>	<p>Restores fish passage; improves stream and estuary processes; restores channel and banks in place of bridge and road approaches; potential future benefits related to Campbell Creek structure.</p>

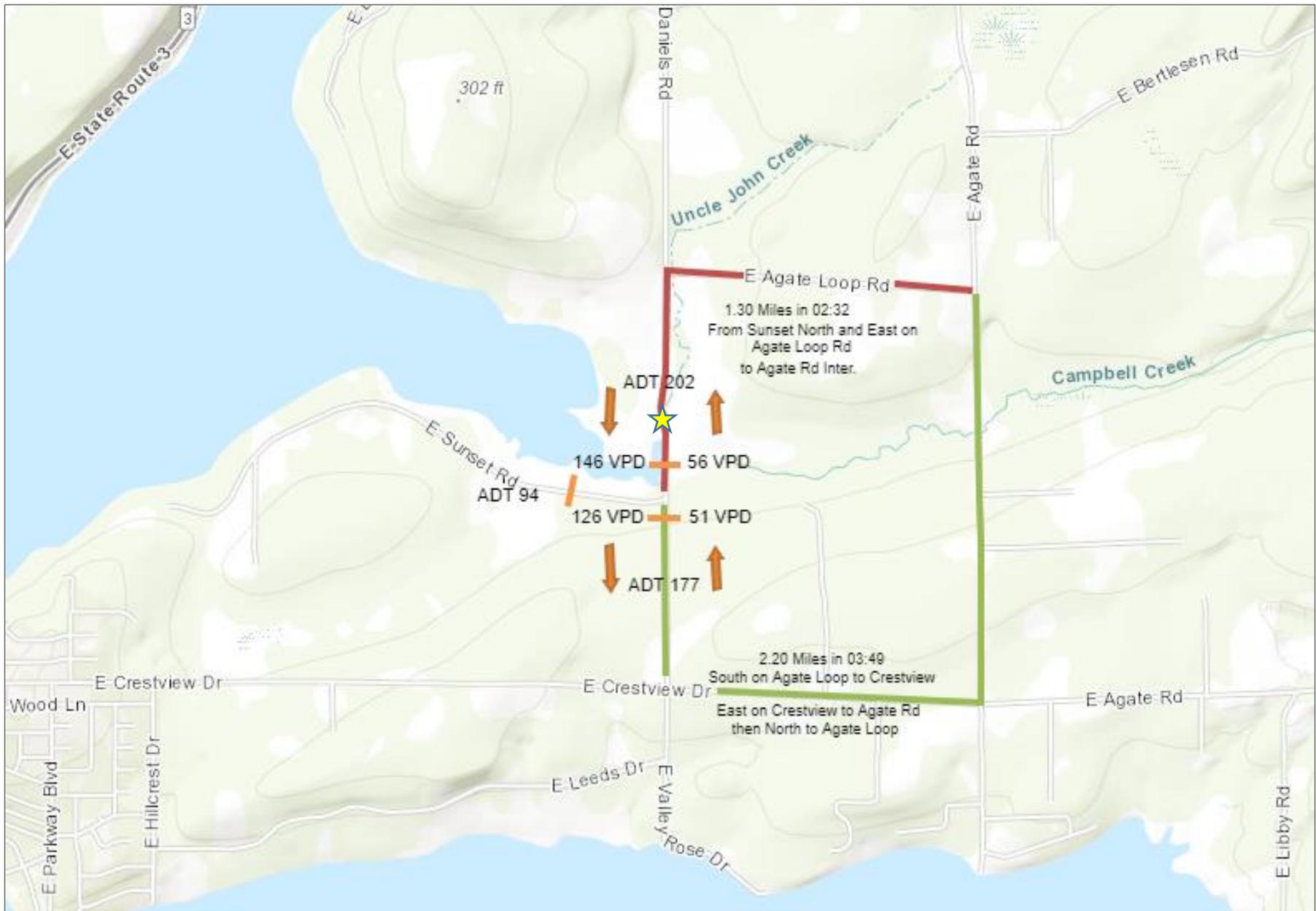


Figure 1. Average Daily Traffic (ADT) and travel statistics along alternate routes between Sunset Road and the intersection of Agate Loop Road / Agate Road; Northern Route (Red Line) and Southern Route (Green Line). With Alternative 2 (Crossing Removal), Agate Loop Road would terminate at Uncle John Creek (Yellow Star).