

# Appendix D

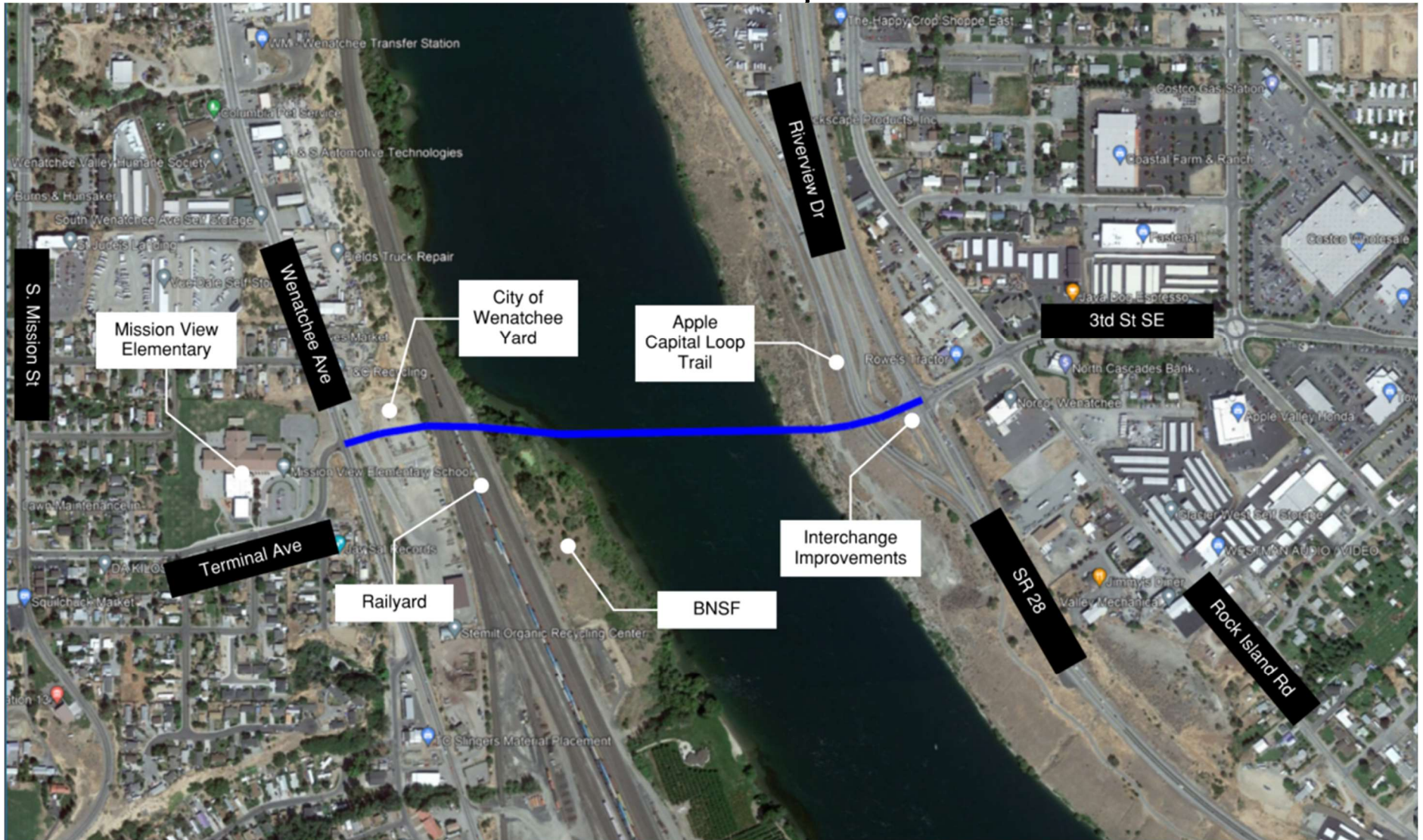
## 4<sup>th</sup> Crossing Location Review Summary

#### **4<sup>th</sup> Crossing Location Analysis Summary**

The analyses provided herein were presented to CDTC and the SAC for consideration when reviewing the crossing locations identified as a possible 4<sup>th</sup> crossing location to study further.

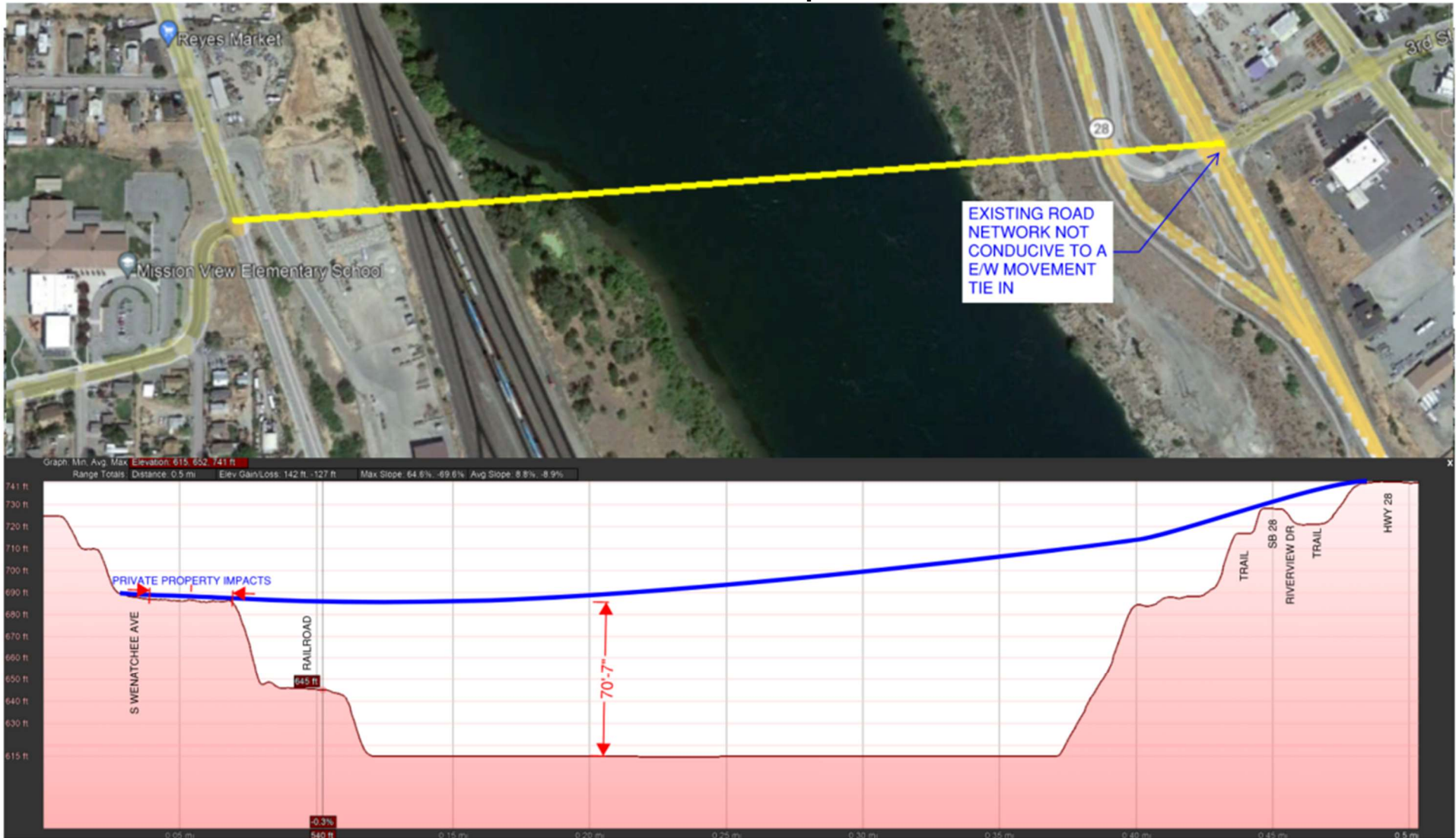
This analysis was presented at the SAC meeting, but the conversation centered on which of the crossing locations offered a unique value proposition/purpose from the other three locations in the study. A mid-valley crossing that provided arterial network linkage between Malaga and East Wenatchee was valued. The SAC favored the Nile Avenue Corridor on the north side of the river, due to the emerging commercial and residential developments and access to Pangborn Airport. The challenge of this corridor is the steep grade from SR 28 to the north, with a very windy existing roadway. Truck traffic restrictions are a hurdle. The SAC recommended a connection at Perry Ave that would include an optional revised roadway connecting Perry Ave to Nile Ave and traversing the hill slope such that the restrictions may be removed. Douglas County had already been contemplating revising the Nile Ave hill climb.

### Wenatchee Ave / 3rd St SE Option





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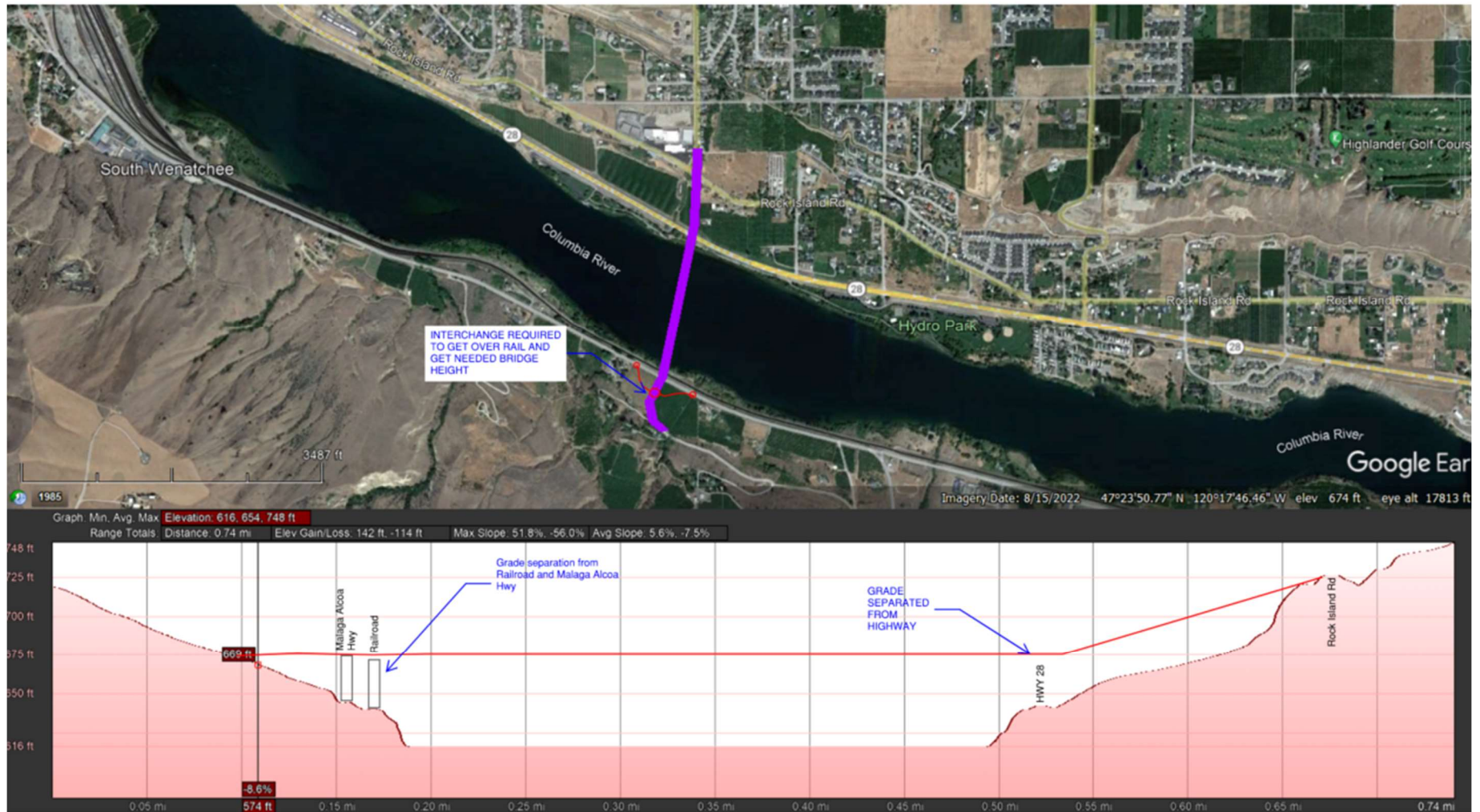
### Wenatchee Ave / 3rd St SE Option

Opportunity (Pro)	Issue (Con)	Notes
<p><b>Traffic Operations:</b> Grid connectivity is good. Mission Ave/Terminal Ave in Wenatchee, connecting to 3<sup>rd</sup> St and SR 28 in E. Wenatchee.</p>	<p><b>Land Use:</b> Impacts to BNSF Property.</p>	
<p><b>Land Use: Infrastructure</b> impacts largely to public properties, including City of Wenatchee, WSDOT.</p>	<p><b>Land Use:</b> Additional traffic along Terminal Avenue with impacts to private properties and an Elementary School.</p>	
	<p><b>Infrastructure/Cost:</b> Railyard will require grade separation on the west side.</p>	
	<p><b>Infrastructure/Costs:</b> Geometric complications on both sides. Complicated interchange reconstruction required on east side would be high cost and construction impacts. Impacts to Apple Capital Loop trail.</p>	
	<p><b>Environmental:</b> Sensitive PUD properties along waterfront - Apple Capital Loop Trail.</p>	
	<p><b>Traffic Operations:</b> Likely to increase traffic adjacent to Mission View Elementary and potentially degrade walkability to school (safety).</p>	





### Kentucky/Rock Island Road/8<sup>th</sup> St / Malaga Option



### Kentucky/Rock Island Road/8<sup>th</sup> St / Malaga Option

Opportunity (Pro)	Issue (Con)	Notes
<b>Traffic Operations:</b> Intersection/Interchange with 8 <sup>th</sup> St / Rock Island Road (Suboption A)	<b>Infrastructure/Cost:</b> Relatively wide reach of river will challenge bridge infrastructure costs.	
<b>Traffic Operations:</b> Intersection/Interchange with Kentucky Ave (Suboption B)	<b>Infrastructure/Cost:</b> Rail Line requires additional grade separation (S side of river)	
<b>Traffic Operations:</b> Grid connectivity is good. Malaga/Alcoa Hwy on S. Side, and 8 <sup>th</sup> St and Kentucky Ave on N. Side	<b>Environmental:</b> Sensitive PUD properties along waterfront, Hydro Park/Apple Capital Trail. Suboption A runs through existing parking lot turn around and what looks like new plantings along the shoreline installed by the PUD. Suboption B appears to avoid the developed portion of the PUD property with exception of the trail.	
<b>Multimodal Connectivity:</b> Provides connection of Wenatchee Valley Bicycle Master Plan, extending on Kentucky to Rock Island and to Hyrdo Park.	<b>Environmental:</b> Potential impacts to farmland in use as orchards.	
	<b>Hydro Park Impacts:</b> Suboption A may impact parking and turnaround area at west end of Park.	
	<b>Infrastructure/Cost:</b> Elevated structure cost to bypass 28 and make connection to 8 <sup>th</sup> St Accessible by grade.	
	<b>Infrastructure/Cost:</b> Suboption B requiring an interchange on the west side for grade separation with Rail and tie in to Malaga Alcoa Hwy	
	<b>Traffic Operations:</b> Rock Island Road may not accommodate the added traffic. Roadway is narrow and no plans to improve.	

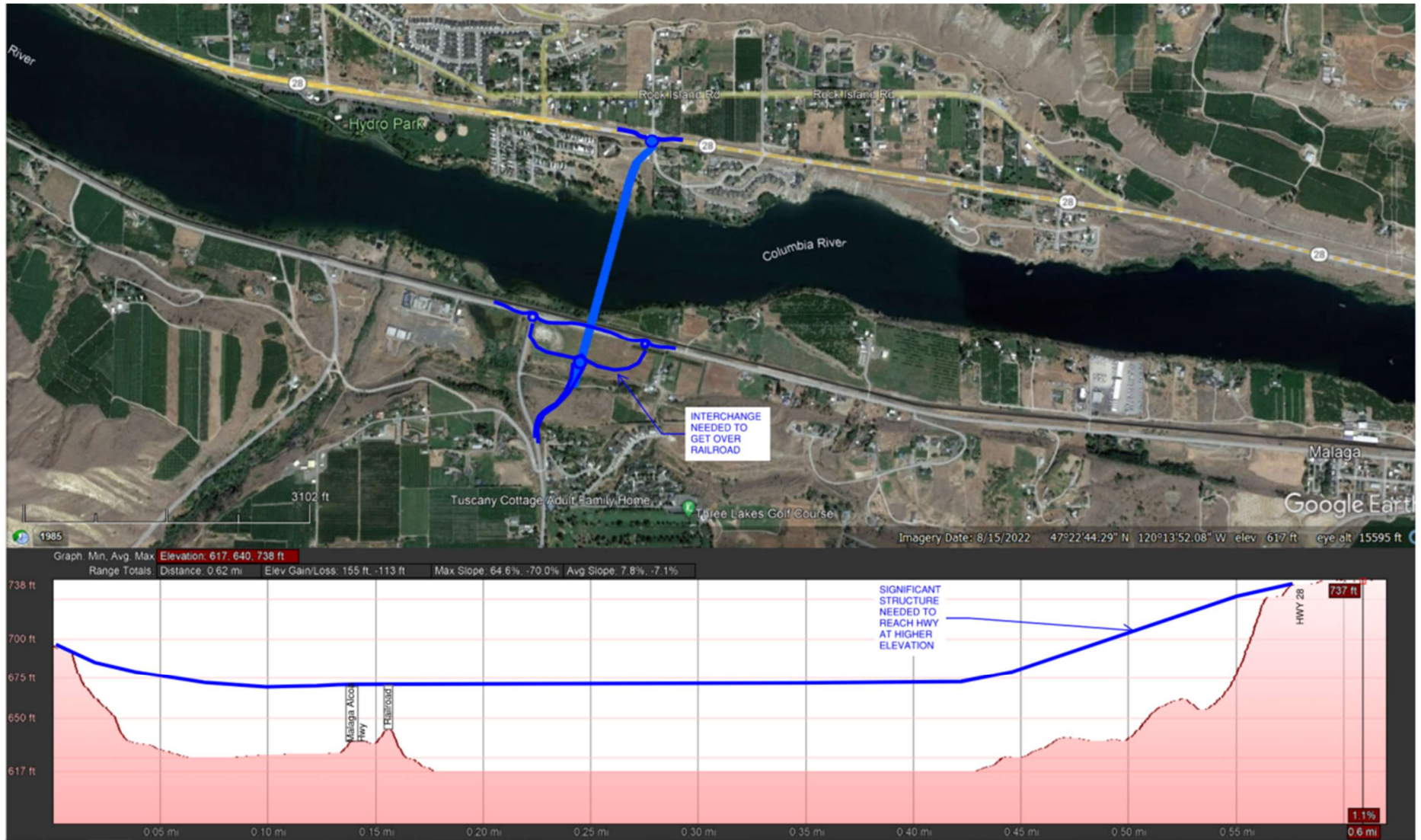


### Nile/Perry Avenue / Malaga Option





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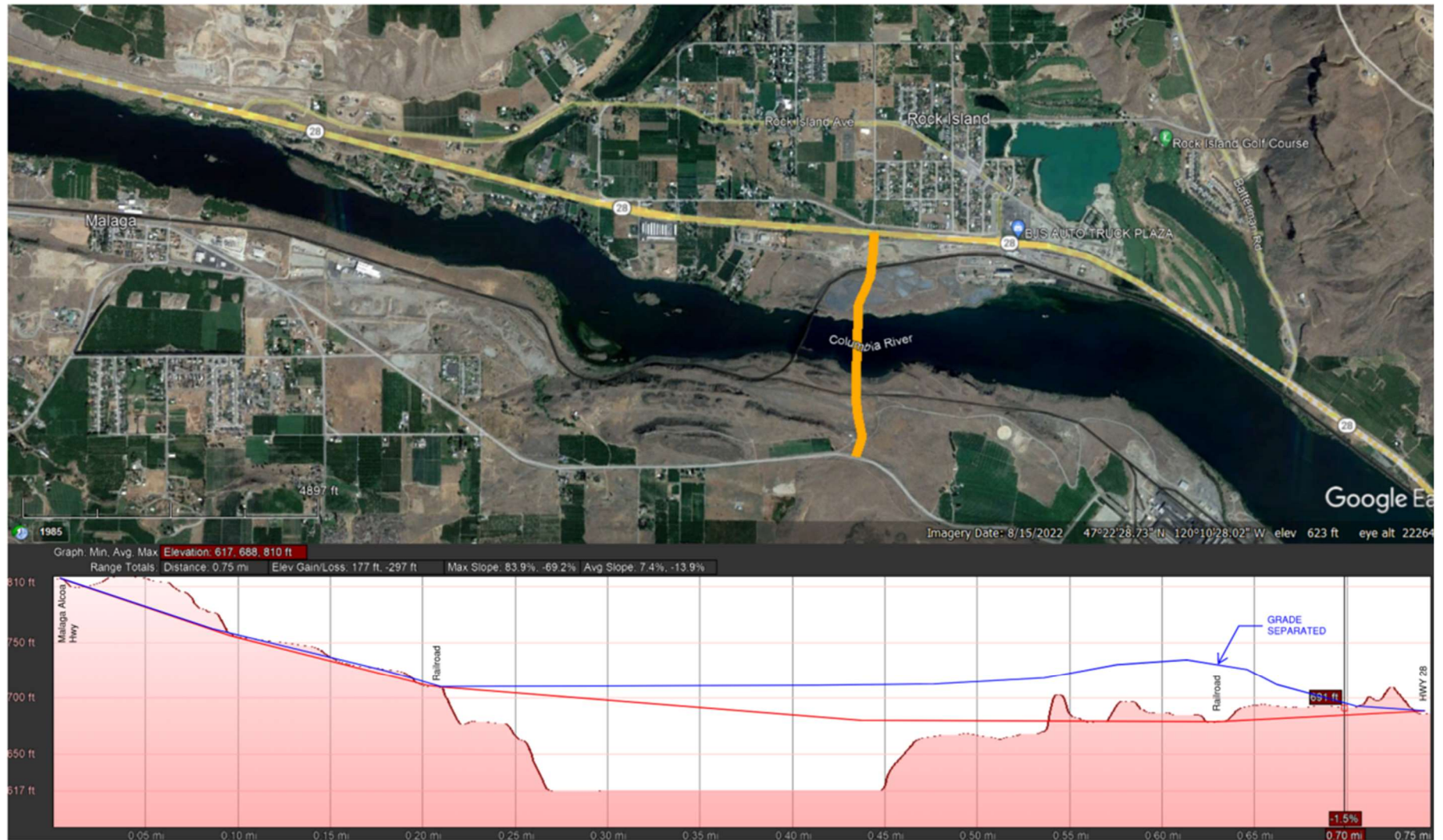
Opportunity (Pro)	Issue (Con)	Notes
<b>Traffic Operations:</b> Grid connectivity is good. Malaga/Alcoa Hwy near W. Malaga Road on S. Side, and Nile Avenue and SR-28 on N. Side	<b>Traffic Operations:</b> Tight curvature of portions of Nile Ave precludes truck traffic	
<b>Traffic Operations:</b> Nile Avenue is an arterial with good access to E. Wenatchee and Pangborn Airport	<b>Infrastructure/Cost:</b> Railroad corridor will require additional structure on south side (or fill), likely interchange with Malaga Hwy	
<b>Environmental:</b> Suboption C is best of three (furthest away from parks and environmental justice potential)	<b>Infrastructure/Cost:</b> Relatively wide reach of the river will add to structural costs	
	<b>Infrastructure/Cost:</b> Navigational requirements may require additional structure height, which makes landings, interchanges more costly	Upstream/downstream low points may drive minimum clearance
	<b>Environmental:</b> Sensitive PUD properties along waterfront, including Hydro Park.	PUD properties likely purchased federally, and would be a Section 4(f) issue
	<b>Environmental:</b> New sensitive property - Malaga waterfront park in development.	
	<b>Environmental:</b> Residential conflicts on north side with Suboptions A, B	Mobile home park may be an environmental justice issue.
	<b>Environmental:</b> Potential wetlands impacts for Suboption A	
	<b>Environmental:</b> Displacement of farms/industrial uses on south side for Suboption C	
	<b>Infrastructure/Cost:</b> Structure cost to make up significant grade on the east side to reach Hwy 28	







### Rock Island / Malaga Option



### Rock Island / Malaga Option

Opportunity (Pro)	Issue (Con)	Notes
<p><b>Traffic Operations:</b>                      Intersection/Interchange with Douglas St / SR 28 in Rock Island (Suboption A)</p>	<p><b>Infrastructure/Cost:</b> Distribution Power Lines Overhead (parallel and perpendicular, both sides and spanning the river). Need to be avoided.</p>	
<p><b>Traffic Operations:</b>                      Intersection/Interchange with Garden Ave / SR 28 in Rock Island (Suboption B)</p>	<p><b>Infrastructure/Cost:</b> Rail Lines require additional grade separations (both sides of river)</p>	<p>Could also evaluate at grade crossings.</p>
<p><b>Infrastructure/Cost:</b> Relatively narrow reach of river will help with bridge infrastructure costs.</p>	<p><b>Infrastructure/Cost:</b> Steep slopes and terrain will require additional length of roadway improvements to manage grades, significant earthwork/rock excavation, and potentially lower speed roadway curvature</p>	
<p><b>Economic:</b> Re-zoning may occur if this location is developed. May be potential from a development standpoint.</p>	<p><b>Infrastructure/Cost:</b> Steep and varied terrain may cause elevated bridge structure on both sides of river</p>	
	<p><b>Traffic Operations:</b> Least opportunistic. Would handle mostly local traffic, not a bypass. Won't help existing crossings. New intersection with 28 would impact mainline through traffic on 28.</p>	
	<p><b>Environmental:</b> Tailing mounds on North side – May require remediation or capping.</p>	
	<p><b>Environmental:</b> Potential shrubsteppe habitat impacts.</p>	
	<p><b>Environmental:</b> Impacts to industrial parcels. Possible operations impacts on north side of river.</p>	