



## Alum Rock Alternative Concept Qualitative Evaluation

	<b>Baseline Alignment: East Portal near Mabury, Tunnel Under US-101 and into Station</b>	<b>Alternative: Re-work UPRR bridge over US-101 and trench under Julian to Station</b>
<b>Environmental Schedule Impacts</b>	<ul style="list-style-type: none"> <li>No impacts to the current schedule</li> </ul>	<ul style="list-style-type: none"> <li>Additional 6 months required to clear the alternative alignment</li> </ul>
<b>BART Operations</b>	<ul style="list-style-type: none"> <li>Smooth transition from at-grade to tunnel Guideway</li> <li>Operations and Maintenance (O&amp;M) same as rest of tunnel</li> </ul>	<ul style="list-style-type: none"> <li>Short-radius curves reduce speeds and consequently increase travel times</li> <li>Adds O&amp;M activities for two bridges</li> </ul>
<b>Safety/Security</b>	<ul style="list-style-type: none"> <li>Tunnel Guideway is secured at the East Portal</li> <li>No risk of intrusions between portal and Alum Rock Station</li> </ul>	<ul style="list-style-type: none"> <li>At-grade Guideway and bridges over US101 and Silver Creek would require intrusion detection and prevention</li> </ul>
<b>Right-of-Way/Real Estate</b>	<ul style="list-style-type: none"> <li>Baseline real-estate requirements already identified</li> </ul>	<ul style="list-style-type: none"> <li>Additional real-estate requirements needed for the at-grade alternative</li> </ul>
<b>Community Impacts from Construction</b>	<ul style="list-style-type: none"> <li>Low impacts due to predominantly subsurface construction</li> <li>Cut-and-cover work at East Portal and Alum Rock Station causes traffic impacts, noise, and dust</li> </ul>	<ul style="list-style-type: none"> <li>Impacts from predominantly surface-level Guideway construction</li> <li>Bridge reconstruction over US101 will impact freeway traffic</li> <li>New bridge at creek, trench work, and cut-and-cover tunnel under Julian and into the station will impact traffic, and cause greater noise and dust</li> </ul>
<b>Community Impacts from Operations</b>	<ul style="list-style-type: none"> <li>With the tunnel alignment, the community will not see the train movement</li> </ul>	<ul style="list-style-type: none"> <li>With an open-trench alignment, train operations will be visible</li> <li>Noise and vibration impacts will be mitigated</li> </ul>
<b>Third-Party</b>	<ul style="list-style-type: none"> <li>Third parties with whom working agreements are needed have already been identified, and in many cases are already involved with the program</li> </ul>	<ul style="list-style-type: none"> <li>Will require a new, key 3<sup>rd</sup>-party agreement with Caltrans for bridge work over US101</li> <li>Will require ongoing coordination with Caltrans</li> </ul>
<b>Cost Estimate</b>	<ul style="list-style-type: none"> <li>No change from the baseline estimate</li> </ul>	<ul style="list-style-type: none"> <li>Reduces direct construction cost, as at-grade Guideway construction is less expensive than tunneling</li> <li>Increases real-estate acquisition costs</li> <li>Increases 3<sup>rd</sup>-party coordination costs</li> <li>May increase operations costs</li> </ul>