Yelm – Tenino Trail Extension Feasibility Study
Study Prepared for Bucoda and Tenino

Funded/Led by Thurston Regional Planning Council
- $64,875 Federal Transportation Alternatives Program Grant

SCJ Alliance – Performed the analysis and prepared the report

Stakeholders
- Bucoda
- Tenino
- Thurston County Public Works
- WSDOT, Olympic Region
- TRPC
Study Objectives

To identify preferred alignments for extending the trail to inform community decision-making processes for future trail development

• Map and evaluate potential alternative routes
• Recommendations for
  • Trail design
  • Traffic safety
  • Environmental constraints, mitigation, and permitting requirements
  • Archaeological/Cultural resources survey
  • Planning level cost estimates
  • Follow-up studies
  • Funding/Implementation Strategy
1. South from Tenino City Park to Bucoda

2. West from City Park to West Tenino City Limits
Planning and Decision Process

Workshop 1 Alternatives
- Discuss alignment alternatives
- Select alternatives
- Create criteria
- Discuss scoring methodology
- Summarize workshop

Criteria, Weighting & Scoring
- Assign weights to criteria

Develop Alternatives
- Finalize scoring methodology
- Develop preliminary design
- Estimate construction costs
- Score alternatives

Workshop 2 Alternative Analysis Results
- Review scoring
- Review criteria weighting
- Review draft ranking of alternatives
- Discuss results and review sensitivity
- Summarize workshop results

Prepare Feasibility Report
- Submit for stakeholder review
- Finalize Report

Present to communities
Evaluation Criteria

- Perceived Safety
- Trail Ambiance
- Water Resource Conflicts
- Directness of Route
- Closure due to flooding
Tenino to Bucoda Extension

Tenino Depot Museum to Bucoda Town Limits

Known Issues

- SR 507
- Ditches
- BNSF Railway Mainline Railroad
- Steep Slopes
- Flood plains
- Wetlands, creeks, and culverts
- Habitat
- Private Property
- Bucoda emergency access/egress during flooding/train blocks
Tenino to Bucoda
Preferred Alignment

GR-1 Tenino Depot Museum to 184th St SE, 2.5 miles
Tenino to Bucoda
Preferred Alignment

**GR-1 Tenino Depot Museum to 184th St SE, 2.5 miles**

**GR-2B 184th St SE to Bucoda east of BNSF Railroad, 1.1 miles**

**Cost Estimate:** $4.2 million
(includes design, environmental, ROW, construction)

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**GR-2A Emergency Route**

**Cost Estimate:** $29.4 million
(includes design, environmental; ROW, construction)
Tenino to Bucoda
Alternative Alignment

GR-2B 184th St SE to Bucoda, along SR 507 1.5 miles

Cost Estimate: $3.1 million
(includes design, environmental, ROW, construction)
Tenino to Bucoda
Preferred Alignment
GR-1 Trail Design

Crowder Road SE

5 feet
10 feet
Tenino to Bucoda
Alternative Alignment
GR-2B Trail Design

10 feet
2-foot Jersey Barrier
SR 507
West Tenino Extension
Tenino Depot Museum to Tenino Western City Limits

Known Issues
- Old Highway 99
- Railroad trestle (SR507/Old Hwy 99)
- Scatter Creek Bridge
- Mazama Pocket Gopher soils/habitat
West Tenino
Preferred Alignment

GR-4 Parallels Old Hwy 99 from Scatter Creek Bridge to west City Limits 1.6 miles
West Tenino
Preferred Alignment

GR-3 From Depot Museum, across Park Ave, follows 6th Ave to SR507

GR-4 Parallels Old Hwy 99 from SR507 to west City Limits 1.6 miles

Cost Estimate: $2.23 million*
(includes design, environmental, ROW, construction)
*Does not include cost of new/replacement bridge for Scatter Creek
West Tenino
Alternative Alignments*
### Criteria

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Closure Due to Flooding</td>
<td>Building a trail in a location where flooding could occur, causing it to be closed.</td>
</tr>
<tr>
<td>Directness of Route</td>
<td>Length of route as well as the number of roadway crossings</td>
</tr>
<tr>
<td>Water Resources Conflicts</td>
<td>Limiting the negative impact to the environment when constructing in the wetlands and floodplains.</td>
</tr>
<tr>
<td>Trail Ambience</td>
<td>The surroundings, views as well as traffic noise.</td>
</tr>
<tr>
<td>Perceived Safety</td>
<td>The trail user's experience. This includes the effects of crossings, barriers along the roadway, and overall feel.</td>
</tr>
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</table>

### Weighted Criteria

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Priority</th>
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<tr>
<td>Closure Due to Flooding</td>
<td>8.3%</td>
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<tr>
<td>Directness of Route</td>
<td>19.2%</td>
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<tr>
<td>Water Resources Conflicts</td>
<td>13.3%</td>
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<tr>
<td>Trail Ambience</td>
<td>27.5%</td>
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<tr>
<td>Perceived Safety</td>
<td>31.7%</td>
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</tbody>
</table>
Cost Estimates

- Includes trailwork, environmental permitting, engineering, right-of-way where needed, and 30% contingency.
- Reaches 2-A, 2-A(EV), and 4 all include bridges. Sargent Engineers was subcontracted to provide bridge concepts and costs which are included.
- Estimated right-of-way costs are based on the assessed value of the properties located near the project vicinity.
Value of Alternatives

Value = Performance / Cost

Tenino to Bucoda Extension

- Geographical Reach 2-B
- Geographical Reach 2-A (EV)
- Geographical Reach 2-A

Performance Value

Geographical Reach 3-D
Geographical Reach 3-C
Geographical Reach 3-B
Geographical Reach 3-A

Performance Value

West Tenino Extension
Next Steps

City of Tenino
- City Council consideration to include Feasibility Study in the City’s Park Master Plan and Comprehensive Plan.
- Look for funding opportunities.

Town of Bucoda
- Adopt Study during a Town Council Meeting.
- Look for funding opportunities.

Thurston County
- Include the trail extensions in the Parks, Recreation, Trails, and Natural Resource Preserve Plan and in Parks Impact Fee Program.
- Look for funding opportunities.
- Evaluate a strategy to acquire right-of-way
A signature project of Rails-to-Trails Conservancy (RTC), the Great American Rail-Trail™—or the "Great American"—is the organization’s most ambitious trail project to date and will prove to be a national treasure as it unites millions of people over thousands of miles of trails. As the nation’s first cross-country multiuse trail, the Great American Rail-Trail will be entirely bikeable and walkable, connecting travelers of all ages and abilities with America’s diverse landscapes and communities. The preferred route stretches over 3,700 miles between Washington State and Washington, D.C. RTC is the nation’s largest trails organization—with a grassroots community more than 1 million strong—dedicated to connecting people and communities through a nationwide network of public trails, many from former rail lines. The Great American is the most ambitious project in RTC’s TrailNation™ portfolio—an initiative to encourage the rapid replication of regional trail networks across the country.
Great American Rail-Trail
Washington State Routing Options

NOTE: This map was prepared for the Washington State Routing Meeting on July 29 and 30, 2019. The goal of the meeting is to discuss the route of the Great American Rail-Trail across Washington – specifically connecting the trail from the western end of the Palouse to Cascades State Park Trail to the Pacific Ocean. The Northern and Southern Routes are shown as routing options to accomplish that goal. Planned and Unplanned Segments, as shown on this map, are approximate.

Northern Route
Palouse to Cascades State Park Trail
Southern Route

STATUS
- Existing Trail
- Trail Gap - Planned Segment
- Trail Gap - Unplanned Segment
- Ferry Option
- Tribal Lands

Sources: ESRI, HERE, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community.