Alignment Screening Report
K23493 Corvallis to Albany Shared Use Path
(NE Merloy Ave to Rainwater Ln NW)

Prepared for

Oregon Department of Transportation and Benton County

Oregon Department of Transportation

Benton County OREGON

December 2025

Parametrix

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Contents

FIGURES

Contents (continued)

TABLES

APPENDICES

1. Introduction

The Corvallis to Albany Shared Use Path will connect the cities of Corvallis and Albany, creating a low-stress connection for people walking, rolling, and bicycling. This study has identified a preferred alignment that connects NE Merloy Avenue and approximately Rainwater Lane NW. This alignment will connect to the recently completed path between NE Pilkington Avenue and NE Merloy Avenue along the east side of U.S. 20 and may connect to a short segment of existing path (approximately 1,200 feet) along the south side of U.S. 20 at NW Independence Highway. While the focus of this project is the segment between NE Merloy Avenue and approximately Rainwater Lane NW, the study considered alignments east to North Albany Road as well to ensure that the eventual preferred path will have a viable connection into north Albany.

This report evaluates potential path alignments, including both segments and locations that would cross U.S. 20 and/or the railroad. While the intention of this project is to identify routes that provide a consistent all-ages and all-abilities user experience through the provision of a shared use path, it is possible that on-road facilities may be considered in some locations instead of a path or as an interim approach. The screening reviewed fatal flaws, assessed expected feasibility, and considered community support, building on information documented in the baseline conditions report (Parametrix 2025). The findings of this screening will inform the selection of a limited number of alignments that will move forward for more detailed analysis and further evaluation.

Figures included in this report illustrate the study area and alignment alternatives.

2. Alternatives Development

A path that connects Corvallis to Albany along this general corridor was identified in the 2019 Benton County Transportation System Plan and the 2010 City of Albany Transportation System Plan. Using information documented in the Corvallis to Albany Shared Use Path Data Collection and Baseline Report (Parametrix 2025), the project team, in coordination with the Oregon Department of Transportation (ODOT) and Benton County, identified potential alignments along the length of the study corridor. Potential alignments considered factors such as available right-of-way or existing easements; constraints such as the railroad, water bodies, habitat, or wetlands; opportunities to cross U.S. 20, the railroad, and water bodies; and existing transportation infrastructure.

To facilitate alignment screening, the project team partitioned the approximately 5-mile-long study area into three segments based on factors such as the surrounding context and intersecting roadways. As the selection of a preferred alignment will require coordination with improvements east of Rainwater Lane NW, this screening also considered a fourth segment that includes potential routes that would ultimately connect to North Albany Road. This includes an alternative previously designed by ODOT and Benton County that would travel south of the rail (K18850: Corvallis to Albany Trail: Scenic Dr. – Springhill); for this evaluation, the project team considered all possible alignments without special weight given to the previously designed alternative.

Table 1 provides an overview of each alternative by segment. The table is not intended to provide a comprehensive evaluation of potential crossing locations or crossing types; while some segments may have specific implications for crossings, and are noted as such, this table summarizes segment-level alignment considerations. Alternatives and segments are shown in Figure 1. A map

illustrating alignment alternatives and the presence of flood hazards, wetlands, and water bodies is provided in Appendix A.

Table 1. Alignment Alternative Overview by Segment

Alignment	Overview
Segment 1	**NE Merloy Ave to NW Independence Hwy**
Alt A1: North of U.S. 20	Follows the west then north side of U.S. 20 from NE Merloy Ave to where U.S. 20 meets the rail. The path then crosses the rail and continues along its north side to NW Independence Hwy. At NE Granger Ave, the alternative would detour around the Stahlbush warehouse and remain north of the rail to NW Independence Hwy. To provide a connection to the existing path west of NE Merloy Ave, a crossing of U.S 20 and the rail would be required to continue on the north side of U.S. 20. **Opportunities:** Would provide greater separation from U.S. 20 traffic east of Garland Nursery where the path is north of the rail. **Primary Challenges:** Would force a crossing of U.S. 20 in the vicinity of NE Merloy Ave to connect to the existing path and a new crossing of the rail. Potential private property impacts. Significant feasibility constraints due to proximity to rail ROW, including safety concerns, restrictions on rail encroachments, and rail ROW acquisition.
Alt C1: South of Rail and U.S. 20	Follows the east then south side of U.S. 20 from NE Merloy Ave to NW Independence Hwy. **Opportunities:** Would directly connect to the existing path west of NE Merloy Ave without requiring a highway crossing. **Primary Challenges:** Highly constrained between U.S. 20 and the frontage road near Autumn Seed, as well as in the vicinity of homes on the south side of U.S. 20 south of Garland Nursery. Steep slopes adjacent to U.S. 20 in some areas. A portion of the segment is located within a Special Flood Hazard Area.
Alt C1.1: Private Dirt Road	This short deviation from Alternative C1 would avoid the steep slopes directly adjacent to the highway. This alternative would follow a private dirt road for at least a portion of the segment. **Opportunities:** Would provide greater separation from U.S. 20 traffic along a quiet, low-traffic roadway. Would avoid steep slopes adjacent to U.S. 20. **Primary Challenges:** Routing along the private road may have private property impacts and would limit visibility. Environmental and cultural resources are present. Located within a Special Flood Hazard Area.
Segment 2	**NW Independence Hwy to Scenic Dr NW***
Alt A2: North of Rail	Follows the north side of the rail from NW Independence Hwy to Scenic Dr NW. This alternative would require a new structure to cross Bowers Slough. This alternative provides an option to cross the rail at Bowers Slough using an existing crossing to connect with alternatives south of the rail. Alternative A2.1 is a short deviation that would use an existing rail undercrossing and unpaved road near Bowers Slough to connect to other alternatives south of the rail. **Opportunities:** Would provide greater separation from U.S. 20 traffic; provides opportunity to use existing rail undercrossing at Bowers Slough. **Primary Challenges:** Corridor is highly constrained between the parallel Kouns Drive NW and the rail from Kouns Drive NW to Scenic Dr NW; on-road improvements or locating the path on the north side of Kouns Drive NW may provide additional opportunities. Would impact private property. Proximity to rail ROW presents significant feasibility constraints due to restrictions on rail encroachments, rail ROW acquisition, and safety concerns.

Alignment	Overview
Alt B2: South of Rail, North of U.S. 20	Follows the north side of U.S. 20, between the rail and U.S. 20, from NW Independence Hwy to Scenic Dr NW. This alternative would require cantilevering a path off the existing U.S. 20 slough crossing or a new structure to cross Bowers Slough. **Opportunities:** Likely minimizes private property impacts. **Primary Challenges:** The alignment would likely affect rail ROW, rendering it infeasible given UPRR's restrictions on encroachments and ROW acquisition, as well as safety concerns related to public access near active rail. Portion of segment is located within Special Flood Hazard Area.
Alt C2: South of Rail and U.S. 20	Follows the south side of U.S. 20 from NW Independence Hwy to Scenic Dr NW. This alternative would require cantilevering a path off the existing U.S. 20 slough crossing or a new structure to cross Bowers Slough. **Opportunities:** Primarily uses ODOT ROW and minimizes the need for major roadway or rail crossings within this segment. **Primary Challenges:** Alignment may be adjacent to private residences or existing structures, raising the potential for property owner concerns. Formal ROW impacts and encroachments are currently unknown but could present additional challenges, particularly from Kouns Dr NW to Scenic Dr NW. Located within Special Flood Hazard Area.
Alt C2.1: Old U.S. 20	Deviation onto Old U.S. 20 (a private road). **Opportunities:** Would provide greater separation from U.S. 20 traffic along a quiet, low-traffic roadway. Alternative could potentially use the existing crossing of Bowers Slough. **Primary Challenges:** Use of the privately owned Old U.S. 20 for the route or path. Portion of segment is located within Special Flood Hazard Area.
Alt C2.2: BPA Easement	Deviation onto the BPA easement, connecting in the vicinity of either Kouns Dr NW or Scenic Dr NW. **Opportunities:** Uses existing BPA easement. Would provide greater separation from U.S. 20 traffic. Connection point from Alternative C2 could be flexible; for example, a connection from west of Scenic Dr NW may help minimize private property impacts. **Primary Challenges:** Private property impacts. Securing use of BPA easement for the path; however, there is recent precedent with the path design completed by Benton County east of this location. Located within regulatory floodway and Special Flood Hazard Area. Given the likely infeasibility of Alternative C4, would require a new crossing of U.S. 20.
Alt D2: River-Adjacent	Follows the south side of U.S. 20 to Old U.S. 20, before following the north bank of the Willamette River to the west end of the BPA easement. This alternative would provide an option to connect with other alternatives at Hyak Park. This alternative would require a new structure to cross Bowers Slough. **Opportunities:** Would provide a scenic route with significant buffer from U.S. 20 traffic. **Primary Challenges:** Proximity to the Willamette River (Goal 15 Willamette River Greenway permitting issues) and other environmental resources. Private property impacts. New crossing of Bowers Slough is required. Located within Special Flood Hazard Area.
Alt D2.1: River-Adjacent *BPA*	Follows the BPA easement northeast from the river to U.S. 20. **Opportunities:** Uses existing BPA easement. Would provide greater separation from U.S. 20 traffic. **Primary Challenges:** Private property impacts. Located within regulatory floodway and Special Flood Hazard Area. Given the likely infeasibility of Alternative C4, would require a new crossing of U.S. 20.

Alignment	Overview
Segment 3	**Scenic Dr NW to Rainwater Ln NW***
Alt A3: North of Rail	Follows the north side of West Thornton Lake Dr NW from Scenic Dr NW to the vicinity of Rainwater Ln NW. An on-road facility may be considered, especially as an interim approach; however, pedestrian improvements, such as sidewalks, would also be needed, and the posted speed limit would necessitate separation to achieve low-stress bicycle conditions. **Opportunities:** Follows a road with lower traffic volumes and speeds than U.S. 20. **Primary Challenges:** Potentially higher costs due to steep slopes adjacent to West Thornton Lake Dr NW that would require retaining walls. Proximity to rail ROW presents significant feasibility constraints due to restrictions on rail encroachments, rail ROW acquisition, and safety concerns.
Alt B3: South of Rail, North of U.S. 20	Follows the north side of U.S. 20 between the highway and rail. **Opportunities:** Likely minimizes private property impacts. **Primary Challenges:** Alignment would likely affect railroad ROW, rendering it infeasible given UPRR's restrictions on encroachments and ROW acquisition, as well as safety concerns related to public access near active rail. Located within regulatory floodway and Special Flood Hazard Area.
Alt B3.1: BPA Easement	Follows an existing BPA easement. **Opportunities:** Uses existing BPA easement. Would provide greater separation from U.S. 20 traffic. **Primary Challenges:** Securing use of BPA easement for the path; however, there is recent precedent with the path design completed by Benton County east of this location. . Located within regulatory floodway and Special Flood Hazard Area. Given the likely infeasibility of Alternative B3, would require a new, likely grade-separated crossing of U.S. 20.
Alt C3: South of Rail and U.S. 20	Follows the south side of U.S. 20 from Scenic Dr NW to Rainwater Ln NW. May continue north along Rainwater Ln NW as an on-street facility, depending on alternative selected for Segment 4; this routing would likely require a new crossing of U.S. 20. **Opportunities:** Primarily uses ODOT ROW. **Primary Challenges:** Potential private property impacts. Located within regulatory floodway and Special Flood Hazard Area. May require new crossing of U.S. 20.
Alt D3: River-Adjacent	Follows the north bank of the Willamette River from the west end of the BPA easement to Creswell Ln NW. Would likely require a crossing of U.S. 20, depending on the Albany connection alternative east of Rainwater Ln NW. **Opportunities:** Would provide a scenic route with a significant buffer from U.S. 20 traffic. Would provide a direct connection to the previously designed path alignment east of Rainwater Ln NW. **Primary Challenges:** Proximity to the Willamette River (Goal 15 Willamette River Greenway permitting issues), presence of environmental resources. Private property impacts. Located within regulatory floodway and Special Flood Hazard Area. Given the likely infeasibility of Alternative C4, would require a new crossing of U.S. 20.
Segment 4	**Albany Connection: Rainwater Ln NW to North Albany Rd**
Alt A4: North of Rail – West Thornton Lake Drive NW	Follows the north side of West Thornton Lake Dr NW from the vicinity of Rainwater Ln NW to North Albany Rd. An on-road facility may be considered, especially as an interim approach; however, pedestrian improvements, such as sidewalks, would be needed, and the posted speed limit would necessitate separation to achieve low-stress bicycle conditions. **Opportunities:** Follows a road with lower traffic volumes and speeds than U.S. 20. **Primary Challenges:** Potentially higher costs due to steep slopes adjacent to West Thornton Lake Dr NW that would require retaining walls

Alignment	Overview
Alt A4.1: North of Rail - Private Dirt Road	Follows a private dirt road south of West Thornton Lake to Jones Ave NW from Rainwater Ln NW to North Albany Rd. **Opportunities:** Would provide a significant buffer from U.S. 20 traffic. **Primary Challenges:** Securing use of the private road for the path. Located within regulatory floodway and Special Flood Hazard Area.
Alt B4: South of Rail, North of U.S. 20	Follows the north side of U.S. 20 from Rainwater Ln NW to North Albany Rd. **Opportunities:** Primarily uses ODOT ROW. **Primary Challenges:** Grades adjacent to the highway and impacts to screening trees/home frontages. Located within regulatory floodway and Special Flood Hazard Area.
Alt B4.1: BPA Easement	Follows the south side of the rail (north of U.S. 20) from Scenic Dr NW to Rainwater Ln NW. Benton County and ODOT previously completed a design for this alternative. **Opportunities:** Would provide a significant buffer from U.S. 20 traffic. **Primary Challenges:** Connection to Alternative A alignments may not be possible due to rail owner denial of the use of an existing undercrossing at the north end of Rainwater Ln NW. Located within regulatory floodway and Special Flood Hazard Area.
Alt C4: South of Rail and U.S. 20	Follows the south side of U.S. 20 from Rainwater Ln NW to North Albany Rd. **Opportunities:** Primarily uses ODOT ROW. Provides a direct connection into downtown Albany. **Primary Challenges:** Grades and steep slopes adjacent to the highway may require retaining walls; limited width; impacts to the existing mature trees; Goal 15 (Willamette River Greenway) permitting issues. Located within regulatory floodway and Special Flood Hazard Area.

BPA = Bonneville Power Administration; ODOT = Oregon Department of Transportation; ROW = right-of-way; UPRR = Union Pacific Railroad.

* Note: For Alternatives A, B, and C, Segment 2 extends from NW Independence Hwy to Scenic Dr NW. Because Alternative D does not cross Scenic Dr NW, is not adjacent to U.S. 20, and has an alternate route that deviates from the main alignment at the BPA easement, its segment limits differ. Alt D2 extends from NW Independence Hwy to the west end of the BPA easement (near Kouns Dr NW), and Alt D3 extends from the west end of the BPA easement to Creswell Ln NW.

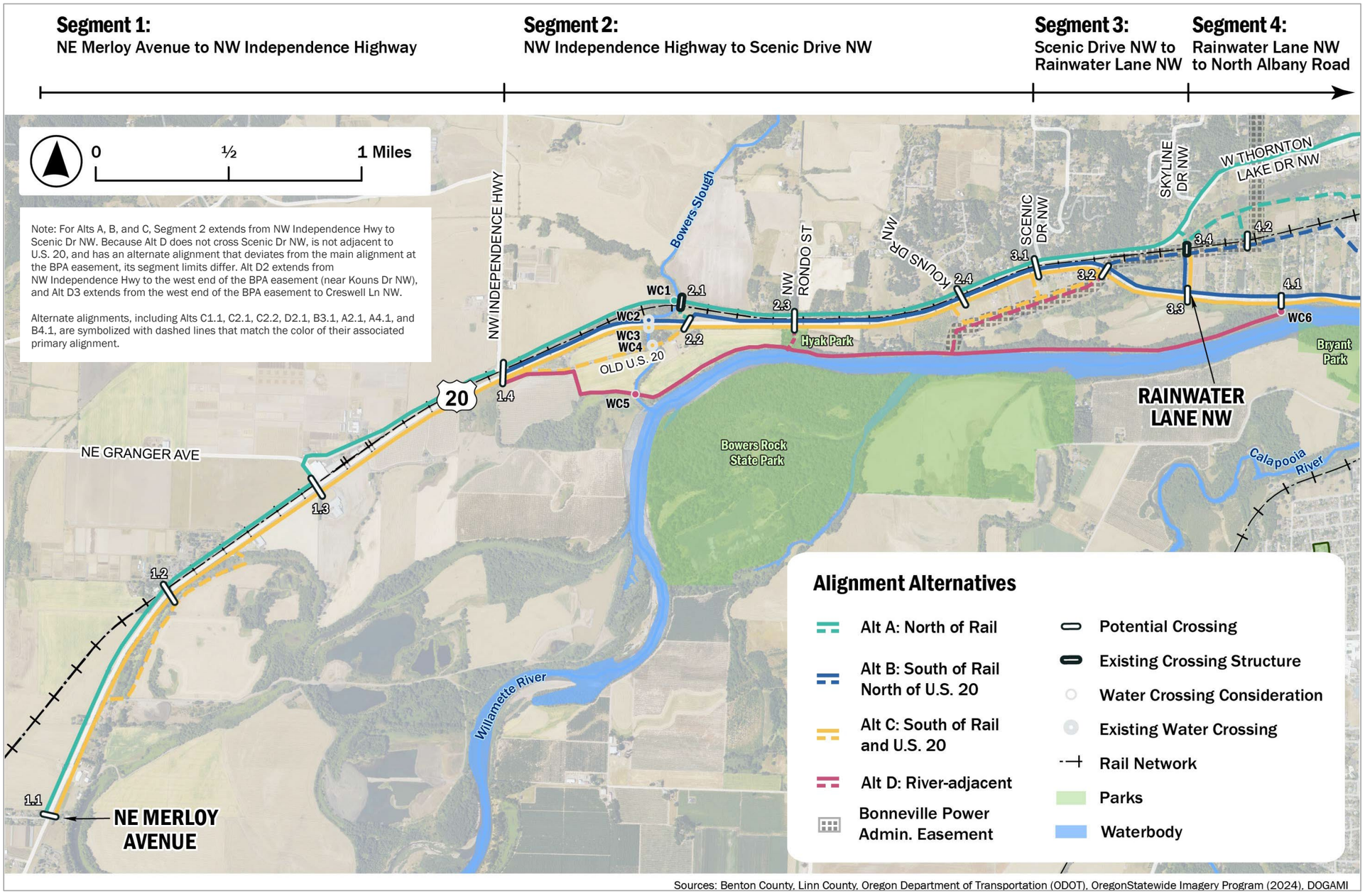


Figure 1. Alignment Alternatives Overview

3. Screening Approach

The approach to screening included a number of assumptions that informed the recommendations included at the end of this document. These assumptions are described below.

3.1 Screening Process

- **Minimize Crossings in the Corridor:** Crossings of both U.S. 20 and the railroad introduce substantial feasibility, cost, permitting, and safety impacts for both the construction and future use of the path. **A core feasibility consideration for this study is the number and type of crossings that would be required for any given complete alignment from NE Merloy Ave to Rainwater Lane NW.** All potential crossing locations are shown in Figure 1. A crossing may be feasible, but also undesirable because of downstream alignment effects such as forcing additional crossings of the rail and/or U.S. 20. The alignment recommendations therefore dictate which crossing locations should be considered further. A narrowed list of crossing alternatives is considered in Section 5, based on the recommended alignments advanced.
- **Identify a Cohesive Path:** The project team evaluated each segment to understand which alignments perform best based on the evaluation criteria, including considerations for both project outcomes and project feasibility. For each segment, the project team recommends alignments to move forward for further analysis. Individual alignment segments may be joined together in multiple ways to create a cohesive path throughout the corridor.
- **Use Readily Available Data:** For this initial screening process, the project team used readily available data, in addition to field survey information collected in November 2025, to inform the screening results. This screening recommends a set of narrowed alternative alignments and crossings that will be advanced for further refinement, including additional field data collection and design that will support selection of a recommended alternative later in the process.

3.2 Design Assumptions

- **Segment Design Assumptions**: Design criteria are documented in the Design and Evaluation Criteria memorandum (Parametrix 2025). Based on the facility selection criteria included in the ODOT 2025 Highway Design Manual, alignments along U.S. 20 and West Thornton Lake Drive NW should follow ODOT design standards for a shared use path. Figure 2 represents a typical cross section for a shared use path, where the path is located at least 5 feet from the edge of the roadway. A physical barrier may be considered in these locations, but it is not required by the established design criteria. In more constrained locations where the path is located less than 5 feet from the edge of the roadway, a physical barrier must be used. This is shown in Figure 3. As noted above, on-street facilities may also be considered in specific instances, such as an interim facility on roadways such as West Thornton Lake Drive NW or for alignments that use private roadways. Specific design assumptions for those facilities will be documented through the design process.

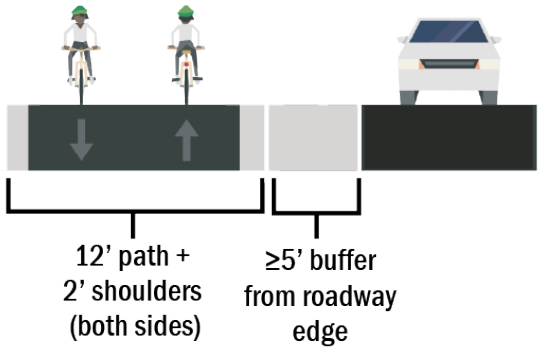


Figure 2. Preferred Cross Section

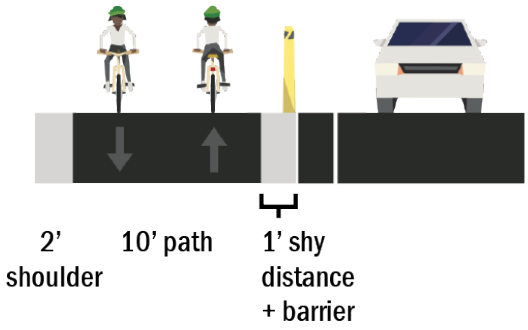


Figure 3. Constrained Cross Section

- **Crossing Assumptions:** For most proposed crossing locations, the project team assumed a grade-separated crossing is required to safely cross U.S. 20 and/or the railroad. Based on the project team's experience and the rail owner's design guidance, it is assumed that new undercrossings of the rail are only to be considered if all other options are determined to be infeasible. The project team anticipates that any new grade-separated rail crossings would most likely be overcrossings. Undercrossings of solely U.S. 20 may be considered.

  The required minimum vertical clearance over the railroad is 23 feet 6 inches, and the required clearance over U.S. 20 is 17 feet 4 inches. To achieve an ADA-compliant path and reach the required clearance, ramps measuring approximately 550 feet in length are expected to meet 5% grade; ramps with landings may need to be used to limit that distance. This increases the footprint of the proposed crossing locations.

  There may be opportunities to consider aligning with existing railroad crossings, which would require coordination with the railroad and may result in additional upgrades to the crossing. The existing undercrossings in the corridor generally also include waterways or drainage, and use of these locations for path purposes is subject to approval from the rail owner. It should be noted that grade-separated crossings are typically preferred for safety, permitting, and long-term cost reasons.

  There may also be limited opportunities to cross U.S. 20 at grade, with appropriate crossing improvements,[1] in the easternmost areas of the study area where posted speed limits are lower. Key considerations, based on design guidance and best practices literature, include the expected volume of pedestrian and cyclist traffic, the need for lighting enhancements, sight distances, and improvements to the crossing itself (e.g., medians with rapid flashing beacons). The project team will evaluate the viability of at-grade crossings further in the next steps of this study.

[1] Crossing improvements would be informed by the ODOT Traffic Manual, Table 310.3-A: Uncontrolled marked crosswalk treatments.

- **Floodplain Assumptions:** The following assumptions are based on the Federal Emergency Management Agency's (FEMA) applicable floodplain regulations, including Special Flood Hazard Area and regulatory floodway requirements:
  - → **SFHA – No Net Fill / No Net Loss:** Development within the Special Flood Hazard Area must demonstrate no net fill and comply with no-net-loss standards. The path design would seek to achieve no net fill for any alignment located within the Special Flood Hazard Area.
  - → **Regulatory Floodway – No-Rise Requirement:** Work within the regulatory floodway is subject to all Special Flood Hazard Area requirements plus additional modeling to demonstrate no rise in the base flood elevation. Any improvements would require engineering analysis showing zero increase in the base flood elevation.
- **Rail Assumptions:** The following assumptions are based on Union Pacific Railroad (UPRR) design standards, policies, and prior coordination:
  - → **Undercrossings:** A new grade-separated undercrossing may only be considered when all other feasible alternatives have been fully evaluated and found infeasible. This means that a new undercrossing is less likely to be permissible at any rail crossing location. However, existing undercrossings may be considered.
  - → **No Path Within Railroad ROW:** Placement of the shared use path within or using any part of UPRR right-of-way (ROW) is considered infeasible and is not supported. Acquisition of any portion of UPRR ROW for a bike or pedestrian facility is considered infeasible under current policies. Any intrusion into railroad ROW beyond a rail crossing—including toes of slopes, drainage infrastructure, retaining systems, or other structural encroachments—is highly unlikely to be permitted.
  - → **Proximity and Safety Concerns ("Attractive Nuisance"):** UPRR has expressed concerns regarding public paths and trails located close to active rail, citing the potential for increased trespass and safety risk. This concern limits the feasibility of alignments proximate to the rail corridor. Alignments proximate to rail will require fencing, at a minimum.
  - → **Rail Safety Zone and Proximity to Rail Crossings:** Any alignment located in close proximity to an existing rail crossing could require improvements and upgrades to the crossing. While this may not render an alignment infeasible, crossing upgrades are likely to have significant cost impacts and should be considered in the evaluation.

3.3 Evaluation Criteria

Table 2 describes evaluation criteria that guided the preliminary screening and evaluation of path alignment alternatives. Criteria include measures related to project outcomes—such as user safety and comfort and community support—and to the feasibility of each alternative.

The project team evaluated alternatives with respect to criteria on the following scale:

● Substantial alignment with the criterion.

◑ Neutral or moderate alignment with criterion.

○ Minor alignment, or negative with respect to the criterion.

N/A Not applicable.

Table 2. Evaluation Criteria

Performance Area	Measures	Notes
Project Outcomes		
User Safety and Comfort	▪ Alternative maximizes user safety and comfort through increased separation from motor vehicles, inclusion of vertical barriers, or other elements that support a low-stress connection. ▪ Alternative maximizes user comfort and safety through routes that limit exposure to highway noise, limit areas with reduced visibility for public safety concerns, and enhance opportunities for scenic elements.	▪ Qualitative assessment of user safety and comfort. Assessment considers factors that influence level of traffic stress rankings. Evaluation compares alternatives with consideration for anticipated use of path based on factors of safety and comfort. ▪ For this screening, data summarizing roadway characteristics was used to inform transportation safety and comfort. User experience was informed by review of aerial and Street View imagery.
Connectivity	▪ Alternative provides seamless connections, or the opportunity for seamless connections, to existing path segments and facilitates connections to/from local active transportation networks and destinations.	▪ Qualitative assessment of connections to existing paths segments and local networks. Assessment may include both existing and planned facilities. Evaluation compares alternatives with consideration for anticipated use of path based on connectivity to other network segments and destinations. ▪ For this screening, the project team used available data about existing and planned active transportation connections and used available GIS data and a review of online mapping to identify proximity and connections to destinations.

Performance Area	Measures	Notes
Community and Project Partner Support	▪ Level of community support for a given alternative. ▪ Level of project partner support for a given alternative.	▪ Qualitative assessment of support level from community members, including local property owners, as determined through outreach findings. Project partner support is informed by project team input and other project meetings. Evaluation compares alternatives with consideration for anticipated use of path based on public preferences communicated through engagement activities. This includes potential impacts to farm uses. ▪ While this document highlights findings to date, community and project partner engagement is ongoing. Feedback will be incorporated in future phases of this screening. For this reason, the level of project partner support is not scored.
Project Feasibility		
Zoning, Land Use, and Permitting	▪ Alternative minimizes potential permitting risks at all levels (local, state, and federal).	▪ Qualitative assessment of alternative location and intersecting zoning, land use, and permitting requirements. This measure includes potential impacts to farm uses. May also include quantitative summary, such as percentage of alternative that is located within an exclusive farm use zone. Exclusive farm use zoning is an important consideration; if the project is located in EFU zoning, project would likely be a conditional use in this zone, subject to discretionary approval. ▪ For this screening, the project team reviewed available zoning data, as documented in the baseline conditions memo.
Impacts to Resources (Built and Natural Environments and Archaeological, Cultural, and Historic)	▪ Alternative minimizes or avoids impacts, or impacts are likely to be mitigated.	▪ Qualitative assessment of impacts for each resource. Each resource is assessed to identify key limitations with respect to each alternative. ▪ For this screening, the project team used information summarized in the baseline conditions memo to identify the presence of resources.
Utility Conflicts	▪ Alternative minimizes or avoids conflicts with utilities.	▪ Qualitative assessment of potential utility conflicts informed by spatial evaluation. ▪ For this screening, the project team reviewed aerial and Street View imagery for presence of obvious aboveground utilities.
Right-of-Way Needs	▪ Alternative minimizes ROW needs and temporary or permanent impacts to private property.	▪ Qualitative assessment informed by spatial evaluation. ▪ For this screening, the project team reviewed tax parcel data.
Interaction with Rail	▪ Alternative minimizes or avoids interaction with the existing rail corridor.	▪ For this screening, the project team considered both the location of the rail and the rail ROW.

Performance Area	Measures	Notes
Planning-Level Cost	▪ Assessment of relative cost of each alternative.	▪ Cost estimates will be developed during subsequent evaluation stages. For the purposes of alternative screening, the project team considered only relative high-level cost, ranging from least expensive ($) to most expensive ($$$$) to guide discussion among alternatives. Highest project costs are assumed for alternatives that have ROW needs, potential utility and private property conflicts, environmental and/or cultural resources present, and require greater coordination with the railroad. The Planning-Level Cost criterion is qualitative; numeric scores are not assigned to this criterion.

EFU = essential farm use; ROW = right-of-way.

4. Alternatives Screening

4.1 Alignment Alternatives Screening

The project team conducted a qualitative assessment of each alignment alternative within the four segments, identifying key challenges and opportunities related to feasibility and overall desirability. The alignments are shown by segment in Figure 4 through Figure 7. The results of this evaluation are presented in Table 3, Table 4, Table 6, and Table 7, which summarize the performance of each alternative by segment. Table 5 reviews potential crossings of Bowers Slough associated with each of the alignment alternatives. The colors used in the tables match the associated maps for reference and are not intended to reflect performance, ranking, or evaluation outcomes.

4.1.1 Segment 1 Evaluation

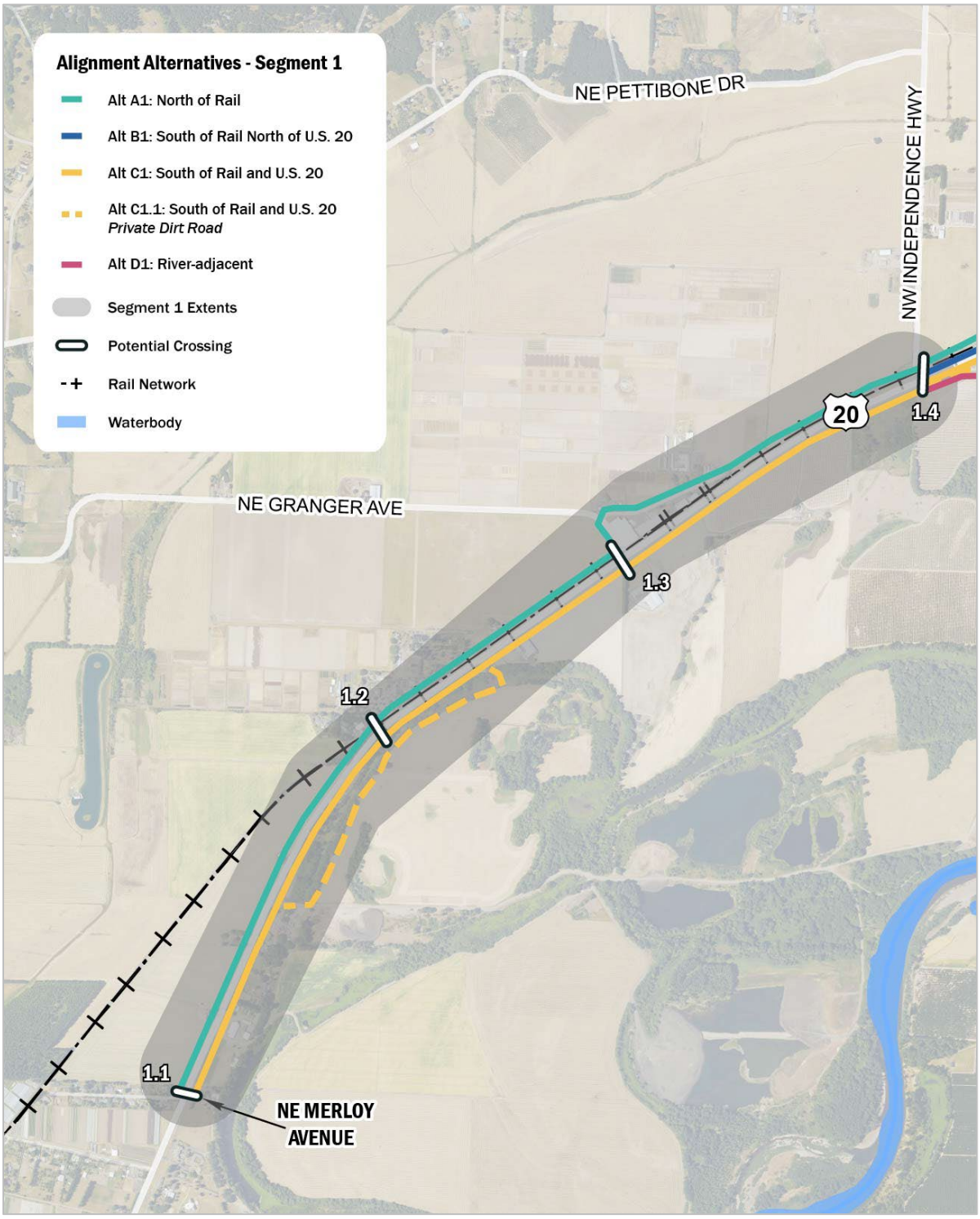


Figure 4. Segment 1: NE Merloy Avenue to NW Independence Highway

Table 3. Segment 1 Alignment Evaluation: NE Merloy Avenue to NW Independence Highway

Performance Area	**Alt A1: North of Rail** Path follows the west then north side of U.S. 20 from NE Merloy Ave to where U.S. 20 meets the rail. The path then crosses the rail and continues along its north side to NW Independence Hwy.	**Alt C1: South of Rail and U.S. 20** Alternative C1: Path follows the east then south side of U.S. 20 from NE Merloy Ave to NW Independence Hwy and would directly connect to the existing path west of NE Merloy Ave without requiring a highway crossing. Alternative C1.1: This short deviation from Alternative C1 would avoid the steep slopes directly adjacent to the highway by following a private dirt road for a portion of the segment.
Project Outcomes		
User Safety and Comfort	◑ ▪ **Transportation Safety and Comfort**: From NE Merloy Ave to Garland Nursery, alignment travels along U.S. 20; proximity to U.S. 20 creates greater exposure to high-speed, high-volume traffic and freight traffic. Alignment would require physical separation for safety and comfort. Near Garland Nursery, a railroad crossing would be required to follow the north side of the rail. The alignment would also cross Granger Rd and Hyslop Rd, which would require improvements, such as high-visibility crosswalk markings, lighting improvements, crossing warning signs, and other potential improvements, to maintain low-stress route. ▪ **User Experience:** From NE Merloy Ave to Garland Nursery, the proximity to U.S. 20 both increases exposure to the highway. However, it also provides greater visibility for public safety concerns.	◑ ▪ **Transportation Safety and Comfort:** Alignment travels along U.S. 20 for most of segment; proximity to U.S. 20 creates greater exposure to high-speed, high-volume traffic. Alignment would require physical separation for safety and comfort. Frequent minor road intersections and driveway crossings increase potential for conflicts among modes and decrease comfort for path users. Vehicles enter and exit U.S. 20 at speed, and several curves along the corridor limit sight lines. No crossings of major roadways would be required. → *Alt C1.1: Private Dirt Road:* Alternate along a private roadway provides a lower-stress alternative to U.S. 20. for approximately 3,400 feet; would require improvements to existing dirt road to improve comfort and accessibility. ▪ **User Experience:** Proximity to U.S. 20 both increases exposure to highway noise and limits potential for scenic elements. However, it also provides greater visibility for public safety concerns. Frontage road near Autumn Seed could result in the path located between the highway and the frontage road which is infrequently used by heavy farm equipment (primarily during harvest season). → *Alt C1.1: Private Dirt Road:* Alternate is located away from U.S. 20, resulting in less exposure to highway noise for approximately 3,400 feet. Vegetation/slopes between this portion of the alternative and the highway further reduces exposure to noise and provides access to scenic elements. However, this route may have greater concerns for personal security and unwanted uses due to these same factors. Travel to, from, and along the private dirt road would require some out-of-direction travel up and down steeper slopes, resulting in a somewhat less direct route for travelers.
Connectivity	○ ▪ **Network Connectivity:** Alignment would require a highway crossing to connect to the existing shared use path at NE Merloy Ave, which is located on the east side of U.S. 20. Connections to the existing shared use path are required to connect to NE Conifer Blvd. ▪ **Connections to Destinations:** Alignment would create connections to Garland Nursery, a retail and community event destination.	◑ ▪ **Network Connectivity:** Would directly connect to the existing path on the south side of U.S. 20. This alignment would provide connection to existing and planned shared use paths and neighborhood greenways in Corvallis as well as future bike improvements along NE Conifer Blvd. ▪ **Connections to Destinations:** Would not provide direct connection to community destination in this segment.
Community and Partner Support	▪ **Community Support:** Participant feedback highlights travel adjacent to rail as a way to avoid U.S. 20, opportunities to connect to OSU facilities as students are discouraged from bringing personal vehicles, and creating connections to destinations such as Garland Nursery. Feedback that does not support this alignment highlights the stress associated with traffic merging onto southbound U.S. 20 at NE Granger Ave, concern for conflicts with local roadways and rail, concern about the use of EFU-zoned land for a path, and desire for a more scenic route that supports recreational use.	▪ **Community Support:** Participant feedback highlights connections to the existing path at Merloy Ave, desire for a separated path that extends the existing path, and increased visibility to address personal security concerns. Feedback that does not support this alignment highlights steep slopes adjacent to the highway, limited ROW and space available, concern about the use of EFU-zoned land for a path, and desire for a more scenic route that supports recreational use.
Feasibility		
Zoning, Land Use, and Permitting	◑ ▪ Primarily zoned EFU; project would likely be a conditional use in this zone, subject to discretionary approval. ▪ Passes through Rural Residential 2 zoning at NE Merloy Ave. Permitting review would verify whether a bike/pedestrian transportation facility is an allowable use; a conditional use permit may be required.	◑ ▪ Primarily zoned EFU; project would likely be a conditional use in this zone, subject to discretionary approval. ▪ Passes through Special Use Children's Farm Home Subzone zoning at approximately NE Merloy Ave. Permitting review would verify whether a bike/pedestrian transportation facility is an allowable use; a conditional use permit may be required. Coordination with County and landowner required.

Performance Area	**Alt A1: North of Rail** Path follows the west then north side of U.S. 20 from NE Merloy Ave to where U.S. 20 meets the rail. The path then crosses the rail and continues along its north side to NW Independence Hwy.	**Alt C1: South of Rail and U.S. 20** Alternative C1: Path follows the east then south side of U.S. 20 from NE Merloy Ave to NW Independence Hwy and would directly connect to the existing path west of NE Merloy Ave without requiring a highway crossing. Alternative C1.1: This short deviation from Alternative C1 would avoid the steep slopes directly adjacent to the highway by following a private dirt road for a portion of the segment.
Impacts to Resources	●	◑
	▪ **Natural Resources:** Alignment does not cross known wetlands or water bodies. ▪ **Flood Risk:** Not within regulatory floodway or Special Flood Hazard Area. ▪ **Landslides**: Low risk of landslide for entirety of segment. ▪ **Cultural:** Preliminary review identified the presence of cultural resources at multiple locations along the entirety of Alt A.	▪ **Natural Resources:** NWI wetlands and water bodies are located between U.S. 20 and the dirt road near Garland Nursery. Waterways also present south of NW Independence Hwy. Wetlands and water permitting would be required. FEMA ESA Biological Opinion PICM consistency would need to be demonstrated during local permitting for floodplain areas and riparian habitat. → *Alt C1.1: Private Dirt Road:* Paving existing dirt road increases pervious surface and may require further review. ▪ **Flood Risk:** Portion of segment passes through FEMA-designated 1% Annual Chance Flood Hazard Zone at intersection of U.S. 20 and NW Independence Hwy. Location within Special Flood Hazard Area would require demonstration of no net fill and compliance with no-net-loss standards, which may create mitigation challenges. → *Alt C1.1: Private Dirt Road:* Alternate alignment along dirt road is fully within FEMA-designated 1% Annual Chance Flood Hazard Zone. Location within Special Flood Hazard Area would require demonstration of no net fill and compliance with no-net-loss standards, which may create mitigation challenges. ▪ **Landslides**: High landslide susceptibility near NW Independence Hwy and along the farm access road from approximately 2,600 feet south of Garland Nursery to Garland Nursery. Moderate risk of landslide susceptibility north of the private dirt road. Steep slopes would likely require the use of retaining walls. ▪ **Cultural:** Preliminary review identified the presence of cultural resources at multiple locations along the entirety of Alt C.
Utility Conflicts	◑	◑
	Existing utility poles along the north and west side of U.S. 20 from NE Merloy Ave to Granger Nursery may conflict with the proposed path alignment depending on available ROW, potentially affecting constructability or necessitating pole relocation.	▪ Existing utility poles along the south and east side of U.S. 20 throughout the segment may conflict with the proposed path alignment depending on available ROW, potentially affecting constructability or necessitating pole relocation. There are likely challenges near Autumn Seed, where utility lines are located between the frontage road and U.S. 20, potentially limiting available space for a separated path. → *Alt C1.1: Private Dirt Road:* There are no known utilities along the private dirt road.
ROW Needs	○	◑
	Located within ODOT ROW from NE Merloy Ave to Garland Nursery. Located on private property from Garland Nursery from to NW Independence Hwy; would require coordination with property owners. A crossing of U.S. 20 would likely require additional ROW in the vicinity of Merloy Ave.	▪ Located within ODOT ROW. ▪ Proximity of houses and existing structures to U.S. 20 limits available space and could have impacts on constructability. Likely private property encroachments exist in this segment. This could result in impacts to existing structures such as fences, mailboxes, and other minor structures, as well as requiring modifications to driveways and private property frontages. Proximity of the path to homes may cause property owner concerns. → *Alt C1.1: Private Dirt Road:* The private dirt road would need easements or would need to be acquired.
Interaction with Rail	○	●
	Alignment would be mostly located outside of rail ROW; however at least one rail crossing would be required.	Location south of U.S. 20 avoids interaction with the rail and railroad ROW.
Planning-Level Cost	$$$$	$$$

EFU = Essential Farm Use; ESA = Endangered Species Act; FEMA = Federal Emergency Management Agency; NWI = National Wetland Inventory; ODOT = Oregon Department of Transportation; OSU = Oregon State University; PICM = Pre-Implementation Compliance Measures; ROW = right-of-way; TBD = To be determined.

4.1.1.1 Discussion

Based on the evaluation of alternative alignments within Segment 1, **the project team recommends Alternative C1, including the alternate alignment Alternative C1.1, for further review**. These alignments would provide connections to the existing path at NE Merloy Avenue on the same side of U.S. 20 and would not require new crossings of U.S. 20 or the railroad. Additional information is needed to better understand potential conflicts with private property, utilities, steep slopes, and other environmental and cultural resources. Preliminary review of field survey data shows constraints in this segment that will require further review in the next phase to identify alignment options.

Alternative A1 is not recommended for further evaluation. This alignment is expected to have substantial private property impacts and would not provide a direct connection to the existing path at NE Merloy Avenue. To connect to the existing path at NE Merloy Avenue, it would require a highway and rail crossing within Segment 1, resulting in substantial cost. Crossing the railroad may not be feasible in this segment.

4.1.2 Segment 2 Evaluation

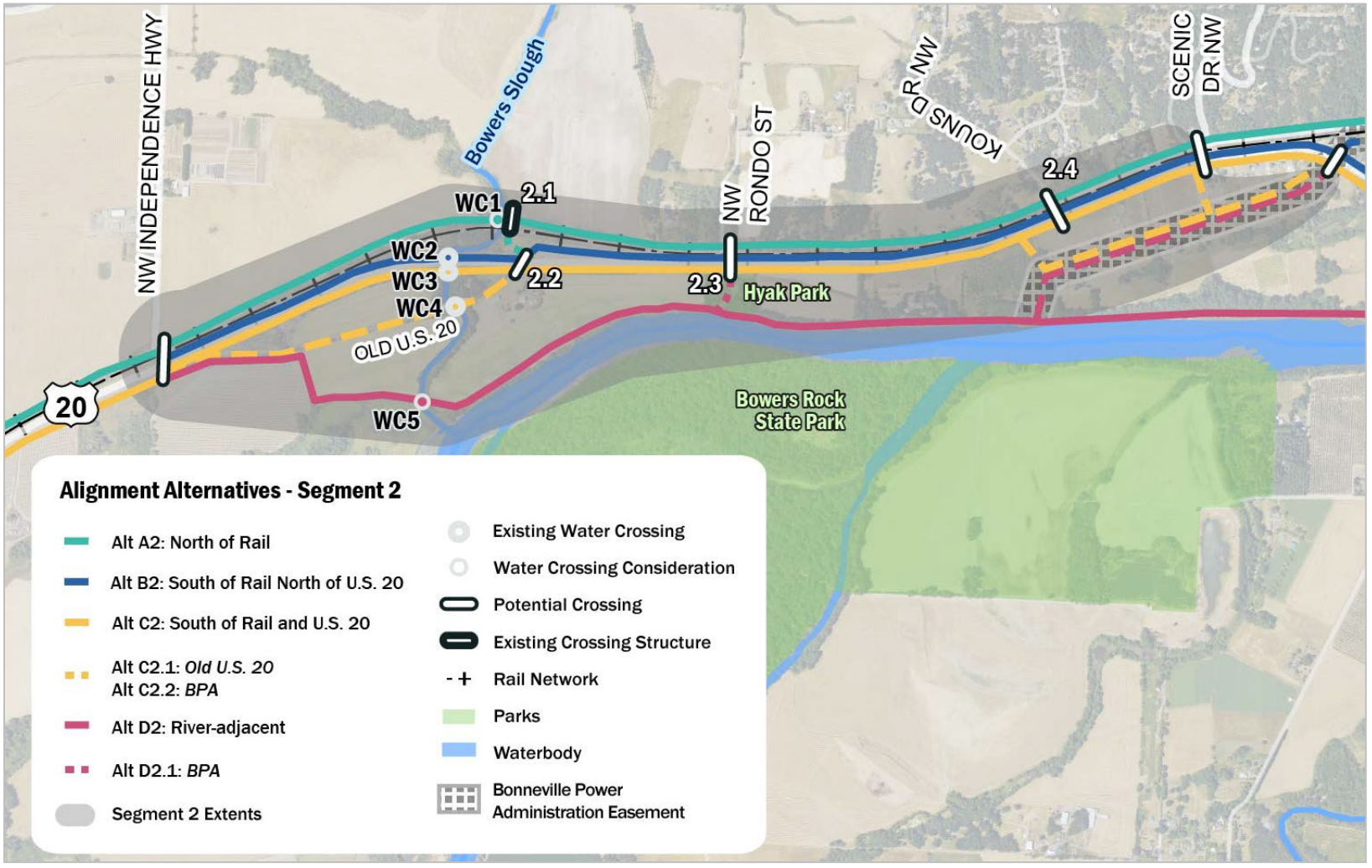


Figure 5. Segment 2: NW Independence Highway to Scenic Drive NW

Table 4. Segment 2 Alignment Evaluation: NW Independence Highway to Scenic Drive NW

Performance Area	**Alt A2: North of Rail** Path immediately north of the rail line. At Kouns Dr NW, a separated path or use of the existing low-volume street can be considered. Alternative A2.1 is a short deviation that would use an existing rail undercrossing and unpaved road near Bowers Slough to connect to other alternatives south of the rail.	**Alt B2: South of Rail North of U.S. 20** Follows the north side of U.S. 20 between the highway and rail.	**Alt C2: South of Rail and U.S. 20** Path along the south side of U.S. 20, within ROW to the extent practical. Alternative C2.1 would follow Old U.S. 20, a private road to the south of existing U.S. 20. The existing road could be used as a shared connection with vehicles (repaving likely required), or a side path could be considered. Alternative C2.2 would connect south from Alt C2 to the BPA easement in the vicinity of either Kouns Dr NW or Scenic Dr NW. This alternative could be used in coordination with Alt C2 within Segment 2 or with Alt D3 within Segment 3.	**Alt D2: River-Adjacent** Follows the south side of U.S. 20 to Old U.S. 20, before following the north bank of the Willamette River to the west end of the BPA easement. Alternative D2.1 would follow the BPA easement northeast from the river to U.S. 20.
Project Outcomes				
User Safety and Comfort	◑ ▪ **Transportation Safety and Comfort:** Would provide substantial separation from the highway. Crossing of NW Rondo St (a low-volume street) would require improvements such as signage and crossing markings to maintain low-stress route. Crossing of NW Independence Hwy would require improvements such as high-visibility crosswalk markings, adequate nighttime lighting levels, crossing warning signs, and other investments to maintain low-stress route. ▪ **User Experience:** From NW Independence Hwy to Kouns Dr NW, alternative is set back from U.S. 20, resulting in reduced exposure to highway noise. With respect to a separated path from Kouns Dr NW to Scenic Dr NW, minimal space between Kouns Dr NW and rail presents feasibility concerns and minimal opportunity for separation from motor vehicles and rail. If the route used Kouns Dr NW as an on-street connection, there would be greater separation from the rail and highway; pedestrian improvements, such as sidewalks, would be required if an on-street connection is advanced. Concerns for both options include potential trespassing onto the rail line, given the proximity. Vegetation provides noise buffering and scenic value but may reduce visibility, resulting in increased concerns about personal security and unwanted uses.	○ ▪ **Transportation Safety and Comfort:** Proximity to U.S. 20 creates greater exposure to high-speed, high-volume traffic and freight traffic. Alignment would require physical separation for safety and comfort. Crossing of NW Rondo St (a low-volume street) would require improvements such as signage and crossing markings to maintain low-stress route. Crossing of NW Independence Hwy would require improvements such as high-visibility crosswalk markings, adequate nighttime lighting levels, crossing warning signs, and other investments to maintain low-stress route. ▪ **User Experience:** Alignment located between the rail and the highway would be exposed to substantial noise levels from trains and highway traffic. Scenic value is minimal. However, it would provide greater visibility for public safety concerns.	◑ ▪ **Transportation Safety and Comfort:** Would provide separation from the highway; however, proximity of existing homes to U.S. 20 (from Kouns Dr NW to Scenic Dr NW) may require the path to be located closer to high-speed traffic, reducing user comfort. Alignment would require physical separation for safety and comfort. Frequent minor road intersections and driveway crossings (including the entrance to Hyak Park) increase the potential for conflicts among modes and decrease comfort for path users. Vehicles enter and exit U.S. 20 at speed. Crossings at the Hyak Park entrance and other private driveways may require improvements such as signage and crossing markings to maintain low-stress route. Several curves along the corridor limit sight lines. ▪ **User Experience:** Path located adjacent to U.S. 20 would be exposed to highway traffic. Provides greater scenic value than Alt B2. Proximity to the highway would provide greater visibility for public safety concerns. → *Alt C2.1: Old U.S. 20:* Path along Old U.S. 20 would limit exposure to highway noise. However, its distance from the highway may increase concerns for personal security and unwanted uses due to reduced visibility. → *Alt C2.2: BPA:* Path along easement would provide greater separation from U.S. 20 traffic and limit highway noise. However, its distance from the highway may increase concerns for personal security and unwanted uses due to reduced visibility.	● ▪ **Transportation Safety and Comfort:** Would provide substantial separation from motor vehicles and offers a comfortable, low-stress experience suitable for all ages and abilities. ▪ **User Experience:** Minimal exposure to vehicle traffic and noise, with scenic views of the river and rural farmland. However, its distance from the highway and the presence of dense vegetation may increase concerns for personal security and the presence of unwanted uses due to reduced visibility.
Connectivity	○ ▪ **Network Connectivity:** Would not provide direct connections to shared use path on south side of U.S. 20 at the NE Independence Hwy intersection. ▪ **Connections to Destinations:** Does not connect to community destinations.	○ ▪ **Network Connectivity:** Alignment does not provide direct access to existing or proposed network improvements. This alignment is not present in Segment 1 and would require a crossing of the rail or highway to connect to Segment 1 alternatives. ▪ **Connections to Destinations:** Does not connect to community destinations.	● ▪ **Network Connectivity:** Would provide direct connection to existing shared use path on south side of U.S. 20 at the NW Independence Hwy intersection. ▪ **Connections to Destinations:** Would provide direct connection to Hyak Park. Parking is available at Hyak Park which could serve as a mid-corridor path access point.	◑ ▪ **Network Connectivity:** Would provide direct connection to existing shared use path on south side of U.S. 20 at the NW Independence Hwy intersection. **Connections to Destinations:** Would provide direct connection to Hyak Park. Parking is available at Hyak Park, which could serve as a mid-corridor path access point. May require some out-of-direction travel for residents of north Albany.

Performance Area	Alt A2: North of Rail Path immediately north of the rail line. At Kouns Dr NW, a separated path or use of the existing low-volume street can be considered. Alternative A2.1 is a short deviation that would use an existing rail undercrossing and unpaved road near Bowers Slough to connect to other alternatives south of the rail.	Alt B2: South of Rail North of U.S. 20 Follows the north side of U.S. 20 between the highway and rail.	Alt C2: South of Rail and U.S. 20 Path along the south side of U.S. 20, within ROW to the extent practical. Alternative C2.1 would follow Old U.S. 20, a private road to the south of existing U.S. 20. The existing road could be used as a shared connection with vehicles (repaving likely required), or a side path could be considered. Alternative C2.2 would connect south from Alt C2 to the BPA easement in the vicinity of either Kouns Dr NW or Scenic Dr NW. This alternative could be used in coordination with Alt C2 within Segment 2 or with Alt D3 within Segment 3.	Alt D2: River-Adjacent Follows the south side of U.S. 20 to Old U.S. 20, before following the north bank of the Willamette River to the west end of the BPA easement. Alternative D2.1 would follow the BPA easement northeast from the river to U.S. 20.
Community and Partner Support	▪ **Community Support:** Participant feedback highlights opportunities near Bowers Slough to create more scenic connections that avoid topographical challenges, expansion of mobility options for north Albany residents, desire to increase separation from the highway, and opportunities to create connections to Hyak Park. Feedback that does not support this alignment highlights a desire for a more scenic route that supports recreational use, desire for increased visibility to address personal security concerns, and concern about the use of EFU-zoned land for a path.	▪ **Community Support:** Participant feedback includes support for a route that would create opportunities to connect to Hyak Park and increased visibility to address personal security concerns. Feedback that does not support this alignment highlights the desire for a more scenic route that supports recreational use, concerns about crossing the highway and rail, concern about the use of EFU-zoned land for a path, and the narrow bridge over Bowers Slough.	▪ **Community Support:** Participant feedback highlights connections to Hyak Park, use of Old U.S. 20, reduced need for a crossing of the highway, increased visibility to address personal security concerns, and opportunities to urbanize the highway to improve safe travel into north Albany. Feedback that does not support this alignment highlights the narrow bridge over Bowers Slough, concern about the use of EFU-zoned land for a path, and desire for a more scenic route to support recreational use.	▪ **Community Support:** Participant feedback highlights the more scenic route that supports recreational use and opportunities to connect to Hyak Park. Feedback that does not support this alignment includes concern about the use of EFU-zoned land for a path and desire for increased visibility to address personal security concerns.
Feasibility				
Zoning, Land Use, and Permitting	◑ ▪ Primarily zoned EFU; project would likely be a conditional use in this zone, subject to discretionary approval. ▪ Residential Reserve zoning from Kouns Dr NW to Scenic Dr NW. Permitting review would verify whether a bicycle and pedestrian transportation facility is an allowable use; a conditional use permit and site plan review may be required.	◑ ▪ Primarily zoned EFU; project would likely be a conditional use in this zone, subject to discretionary approval. ▪ Location between the rail and highway would result in minimal impacts to existing land uses.	◑ ▪ Primarily zoned EFU; project would likely be a conditional use in this zone, subject to discretionary approval. ▪ Willamette Greenway Area south/east of Old U.S. 20 introduces additional permitting requirements.	◑ ▪ Primarily zoned EFU; project would likely be a conditional use in this zone, subject to discretionary approval. ▪ Most of segment is also within Willamette Greenway Area, which introduces additional permitting requirements.

Performance Area	**Alt A2: North of Rail** Path immediately north of the rail line. At Kouns Dr NW, a separated path or use of the existing low-volume street can be considered. Alternative A2.1 is a short deviation that would use an existing rail undercrossing and unpaved road near Bowers Slough to connect to other alternatives south of the rail.	**Alt B2: South of Rail North of U.S. 20** Follows the north side of U.S. 20 between the highway and rail.	**Alt C2: South of Rail and U.S. 20** Path along the south side of U.S. 20, within ROW to the extent practical. Alternative C2.1 would follow Old U.S. 20, a private road to the south of existing U.S. 20. The existing road could be used as a shared connection with vehicles (repaving likely required), or a side path could be considered. Alternative C2.2 would connect south from Alt C2 to the BPA easement in the vicinity of either Kouns Dr NW or Scenic Dr NW. This alternative could be used in coordination with Alt C2 within Segment 2 or with Alt D3 within Segment 3.	**Alt D2: River-Adjacent** Follows the south side of U.S. 20 to Old U.S. 20, before following the north bank of the Willamette River to the west end of the BPA easement. Alternative D2.1 would follow the BPA easement northeast from the river to U.S. 20.
Impacts to Resources	◑ ▪ **Natural Resources:** A waterway and a small NWI wetland area are present north of rail at Bowers Slough. A new crossing structure at Bowers Slough would be required. Fish-passage design criteria and NMFS/ODFW permitting would be required for fish-bearing stream crossings. FEMA ESA Biological Opinion PICM consistency would need to be demonstrated during local permitting for floodplain areas and riparian habitat. ▪ **Landslides:** Moderate landslide susceptibility along most of the segment, with high-risk areas near Bowers Slough and from approximately 700 feet west of NW Rondo St to 1,500 feet east. Steep slopes would likely require the use of retaining walls. ▪ **Flood Risk**: Small area near Bowers Slough within 1% Annual Chance Flood Hazard area. Location within Special Flood Hazard Area would require demonstration of no net fill and compliance with no-net-loss standards, which may create mitigation challenges. Remainder of segment not within a flood risk area. ▪ **Cultural:** Preliminary review identified the presence of cultural resources at multiple locations along the entirety of Alt A.	◑ ▪ **Natural Resources:** A waterway and a small NWI wetland area are present south of rail at Bowers Slough. Wetlands and water permitting would be required. A new crossing structure at Bowers Slough would also be required. Fish-passage design criteria and ODFW/NMFS permitting would be required for fish-bearing stream crossings. FEMA ESA Biological Opinion PICM consistency would need to be demonstrated during local permitting for floodplain areas and riparian habitat. Much of the area east of NW Rondo St between the rail track and the highway functions as drainage for both facilities. This drainage function would need to be accounted for in the design of the path. ▪ **Landslides:** Low to moderate landslide susceptibility along most of the segment, with high-risk areas near Bowers Slough. Steep slopes would likely require the use of retaining walls. ▪ **Flood Risk**: Small area near Bowers Slough within FEMA-designated 1% Annual Chance Flood Hazard area. Location within Special Flood Hazard Area would require demonstration of no net fill and compliance with no-net-loss standards, which may create mitigation challenges. ▪ **Cultural:** Preliminary review identified the presence of cultural resources at multiple locations along the entirety of Alt B.	◑ ▪ **Natural Resources:** Presence of sensitive environmental resources, including a small NWI wetland area near Bowers Slough; new Bowers Slough crossing would be required. Wetlands and water permitting would be required. Fish passage design criteria and NMFS/ODFW permitting would be required for fish-bearing stream crossings. FEMA ESA Biological Opinion PICM consistency would need to be demonstrated during local permitting for floodplain areas and riparian habitat. → *Alt C2.1: Old U.S. 20:* Potential to use existing Old U.S. 20 bridge on low-traffic roadway. Paving existing dirt road increases pervious surface and may require further review. → *Alt C2.2*: *BPA:* No specific natural resource impacts. ▪ **Landslides:** Low to moderate landslide susceptibility along most of segment, with high-risk areas near NW Independence Hwy and Bowers Slough. Steep slopes would likely require the use of retaining walls. → *Alt C2.1: Old U.S. 20:* High-risk area at the western end of Old U.S. 20. → *Alt C2.2*: *BPA:* Small area of high risk near Thornton Lakes outlet. ▪ **Flood Risk**: Majority of segment within FEMA-designated 0.2% or 1% Annual Chance Flood Hazard area (varies along alignment). Location within Special Flood Hazard Area would require demonstration of no net fill and compliance with no-net-loss standards, which may create mitigation challenges. → *Alt C2.1: Old U.S. 20:* Similar flood risk as Alt C2. → *Alt C2.2: BPA:* East end of alternative located within regulatory floodway and Special Flood Hazard Area. ▪ **Cultural:** Preliminary review identified the presence of cultural resources at multiple locations along the entirety of Alt C.	○ ▪ **Natural Resources:** Presence of sensitive environmental resources along the riverbank. Passes through NWI wetlands near Bowers Slough. New crossing structure at Bowers Slough would be required. Wetlands and water permitting would be required. Fish-passage design criteria and NMFS/ODFW permitting would be required for fish-bearing stream crossings. FEMA ESA Biological Opinion PICM consistency would need to be demonstrated during local permitting for floodplain areas and riparian habitat. ▪ **Landslides:** Moderate to high landslide susceptibility along most of the segment. Steep slopes would likely require the use of retaining walls and/or boardwalk structures. ▪ **Flood Risk:** Nearly entire alignment within FEMA -designated 1% Annual Chance Flood Hazard Zone. Location within Special Flood Hazard Area would require demonstration of no net fill and compliance with no-net-loss standards, which may create mitigation challenges. ▪ **Cultural:** Preliminary review identified the presence of cultural resources at multiple locations along the entirety of Alt D.
Utility Conflicts	● No known utility conflicts.	○ Utility poles located along the corridor between rail and highway would cause conflicts, particularly between NW Rondo St and Scenic Dr NW. Much of the space between the rail and highway serves as drainage for both facilities.	◑ ▪ Minimal utility conflicts from NW Independence Hwy to NW Rondo St; however, utility poles present from NW Rondo St to Scenic Dr NW may impact alignment. → *Alt C2.1: Old U.S. 20:* Potential for utility conflicts along Old U.S. 20. → *Alt C2.2: BPA:* Would require coordination with BPA utilities within ROW.	● ▪ Minimal utility conflicts; utility poles are not present along the river, but there may be potential conflicts along a short section of Old U.S. 20 where existing utility poles along the roadway may conflict with the proposed path alignment, potentially affecting constructability or necessitating pole relocation. → *Alt D2.1: BPA:* Would require coordination with BPA utilities within ROW.

Performance Area	Alt A2: North of Rail Path immediately north of the rail line. At Kouns Dr NW, a separated path or use of the existing low-volume street can be considered. Alternative A2.1 is a short deviation that would use an existing rail undercrossing and unpaved road near Bowers Slough to connect to other alternatives south of the rail.	Alt B2: South of Rail North of U.S. 20 Follows the north side of U.S. 20 between the highway and rail.	Alt C2: South of Rail and U.S. 20 Path along the south side of U.S. 20, within ROW to the extent practical. Alternative C2.1 would follow Old U.S. 20, a private road to the south of existing U.S. 20. The existing road could be used as a shared connection with vehicles (repaving likely required), or a side path could be considered. Alternative C2.2 would connect south from Alt C2 to the BPA easement in the vicinity of either Kouns Dr NW or Scenic Dr NW. This alternative could be used in coordination with Alt C2 within Segment 2 or with Alt D3 within Segment 3.	Alt D2: River-Adjacent Follows the south side of U.S. 20 to Old U.S. 20, before following the north bank of the Willamette River to the west end of the BPA easement. Alternative D2.1 would follow the BPA easement northeast from the river to U.S. 20.
ROW Needs	○ ▪ Located outside ODOT and rail ROW and primarily on private property; would introduce private property impacts. ▪ Would require a new crossing of Bowers Slough, which would result in additional ROW needs.	○ ▪ Substantial risk that the path, or path elements such as drainage facilities, would encroach on railroad ROW. Any use of railroad ROW for the path or related elements is infeasible. ▪ Would require modification of the existing U.S. 20 bridge over Bowers Slough or a new crossing.	◑ ▪ Generally located within ODOT ROW. ▪ From Kouns Dr NW to Scenic Dr NW, several structures are located close to U.S. 20.This could result in impacts to existing structures such as fences, mailboxes, and other minor structures, as well as requiring modifications to driveways and private property frontages. Proximity of path to homes may cause property owner concerns. . Formal ROW impacts and encroachments are currently unknown, but private property encroachments may exist in this segment. ▪ The existing U.S. 20 bridge over Bowers Slough is too narrow to accommodate the path, requiring a new crossing. → *Alt C2.1: Old U.S. 20:* Acquisition of the roadway or an easement would be required. Potential to use existing Old U.S. 20 Bowers Slough crossing on low-traffic roadway. → *Alt C2.2: BPA*: BPA easement presents an opportunity but would also require coordination with BPA.	○ ▪ Located outside ODOT ROW and primarily on private property; would impact private property and require coordination with property owners. ▪ Would require a new crossing of Bowers Slough. → *Alt D2.1: BPA*: BPA easement presents an opportunity but would also require coordination with BPA.
Interaction with Rail	○ Alignment would be located fully outside of rail ROW. However, travel across roadways including NW Independence Hwy, NW Rondo St, and Kouns Dr NW would require additional upgrades due to proximity to rail and may not meet FRA/AASHTO requirements. Between Kouns Dr NW and Scenic Dr NW, limited space between rail and Kouns Dr NW for a path may make this portion of the segment infeasible due to rail proximity constraints. Proximity to the rail would also present concerns from the rail owner about trespassing on the railroad ROW.	○ Located directly adjacent to the rail with limited space between the rail and highway, it is likely that the path would encroach on the railroad ROW, which is not permissible. Proximity to the rail would also present concerns from the rail owner about trespassing on the railroad ROW. Travel across roadways including NW Independence Hwy and NW Rondo St increases complexity for all modes at these intersections and may require substantial upgrades to existing crossings due to proximity to rail.	● Location south of U.S. 20 avoids interaction with the rail and railroad ROW.	● Location south of U.S. 20 avoids interaction with the rail and railroad ROW.
Planning-Level Cost	$$$$	$$$	$$	$$$

AASHTO = American Association of State Highway and Transportation Officials; BPA = Bonneville Power Administration; EFU = Essential Farm Use; ESA = Endangered Species Act; FEMA = Federal Emergency Management Agency; FRA = Federal Railroad Administration; NWI = National Wetland Inventory; NMFS = National Marine Fisheries Service; ODFW = Oregon Department of Fish and Wildlife; ODOT = Oregon Department of Transportation; PICM = Pre-Implementation Compliance Measures; ROW = right-of-way; TBD = To be determined.

4.1.2.1 Crossings of Bowers Slough

This segment includes a crossing of Bowers Slough. Table 5 reviews potential crossing alternatives associated with each of the alignment alternatives.

Table 5. Bowers Slough Crossing Alternatives

Crossing Alternative	Description	Relevant Alternatives	Relative Cost	Feasibility Assessment
WC1 and WC5:New crossings of Bowers Slough	New crossings of Bowers Slough are possible with all alignments. A prefabricated bridge structure is a likely solution for any new crossing.	All	$$$$	A new crossing would require a structure with a full span 1.2 times the size of the active channel width to meet ESA requirements for fish passage. Since the crossing is within the Special Flood Hazard Area and there are wetlands likely present along the slough, compliance with the local jurisdiction's floodplain ordinance, DSL removal fill rules, and USACE Section 404, avoidance, minimization, and mitigation would be needed for direct impacts to wetlands and waters, fill in the floodplain, removal of trees and vegetated habitat, and stormwater management associated with the new crossing.
WC2 and WC3: Cantilever off of existing U.S. 20 bridge or otherwise modify existing structure	Would modify the existing U.S. 20 crossing of Bowers Slough to add a path.	B2, C2	$$$–$$$$	The existing U.S. 20 bridge was built in 1964. Further structural evaluation would be required to determine whether modification of the bridge structure is possible. This alternative may reduce potential environmental resource issues compared to developing an entirely new structure.
WC4: Use Old U.S. 20 bridge, either as is or with modifications	Would use the existing Old U.S. 20 bridge as is and share with vehicles given very low vehicle volumes. Given the age of the bridge, it is unlikely that structural modification to add a separate path is possible.	C2.1	$	The existing bridge, along with the rest of Old U.S. 20, is privately owned. The condition of the bridge is not known at this time. Given the assumed age of the structure (likely early 20th century construction), further evaluation is needed to understand the possibilities at this location. If used as is with minimal modification, few impacts are expected.

DSL = Oregon Department of State Lands; ESA = Endangered Species Act; USACE = U.S. Army Corps of Engineers.

4.1.2.2 Discussion

Based on the evaluation of alternative alignments within Segment 2, **the project team recommends Alternative C2, including C2.1 and C2.2, for further review**. These alternatives would provide a continuous route that builds on the Segment 1 recommendation for Alternatives C1 and C1.1. Alternatives C2 and C2.1 would not require crossings of U.S. 20 or the railroad, would facilitate direct connections to Hyak Park, would connect to the existing path at NW Independence Highway, and would provide a direct path of travel with maximum visibility based on its proximity to U.S. 20. While

it may have greater exposure to the highway and require protective elements to provide for a low-stress path of travel, it would minimize out-of-direction travel in the corridor.

Further exploration of Alternatives C2 and C2.1 must consider the feasibility of crossing alternatives of Bowers Slough. As described in Table 5, Alternative C2 would require a new crossing of Bowers Slough or modifications to the existing structure along U.S. 20. Alternative C2.1 would use the existing bridge along Old U.S. 20; however, modifications may be needed based on the condition of the structure.

Alternative A2 and Alternative A2.1 are also recommended for further consideration east of Bowers Slough. These alternatives will be considered in coordination with evaluation of potential U.S. 20 and railroad crossing locations. Further discussion is included in the Section 5 of this document. Alternative A2.1 may present a crossing opportunity, allowing Alternatives C2 or C2.1 to cross under U.S. 20 and then using an existing undercrossing of the railroad at Bowers Slough to connect to Alternative A2. It should be noted that Alternative A2 would require substantial ROW acquisition or easements for approximately one mile. The crossing of minor streets may not meet Federal Railroad Administration and AASHTO[2] requirements if the alignment is located immediately north of the railroad ROW; however, further review should be conducted if a feasible railroad and/or U.S. 20 crossing opportunity is identified.

The other alignments in this segment are not recommended for the following reasons:

- **Alternative A2, west of Bowers Slough:** This alignment has potential ROW constraints and would require substantial private property acquisition. Further, this alignment does not provide connections to other active transportation facilities or destinations.
- **Alternative B2**: There is likely not enough space available for a path between the highway and the railroad ROW for this alignment. If a path could be constructed fully within the ODOT ROW, it is likely that path shoulders or toe of slopes would encroach on the railroad ROW. Permanent easement or acquisition of railroad ROW for path purposes is very unlikely. Additionally, the crossings of minor roadways could potentially result in additional costly improvements due to their proximity to the rail.
- **Alternative D2 and Alternative D2.1**: While they would provide the greatest separation from traffic, these alternatives would require substantial out-of-direction travel relative to the other alignments and would require acquisition or easements on private property. They also traverse an area with known environmental and cultural resources, where impacts and the associated mitigation requirements are expected to be substantial. These sensitivities are significant enough that they may render the alternatives infeasible, regardless of their performance on other evaluation criteria. Given this alternatives' distance from the highway and other activity areas, there are concerns about potential unwanted uses of the path in this area in addition to personal security concerns for trail users.

The project team also recommends advancing all three possible Bowers Slough crossing alternatives for further evaluation. Additional information and assessment are needed to determine the best crossing solution; this will be carried out in the next phase of work.

[2] American Association of State Highway and Transportation Officials.

4.1.3 Segment 3 Evaluation

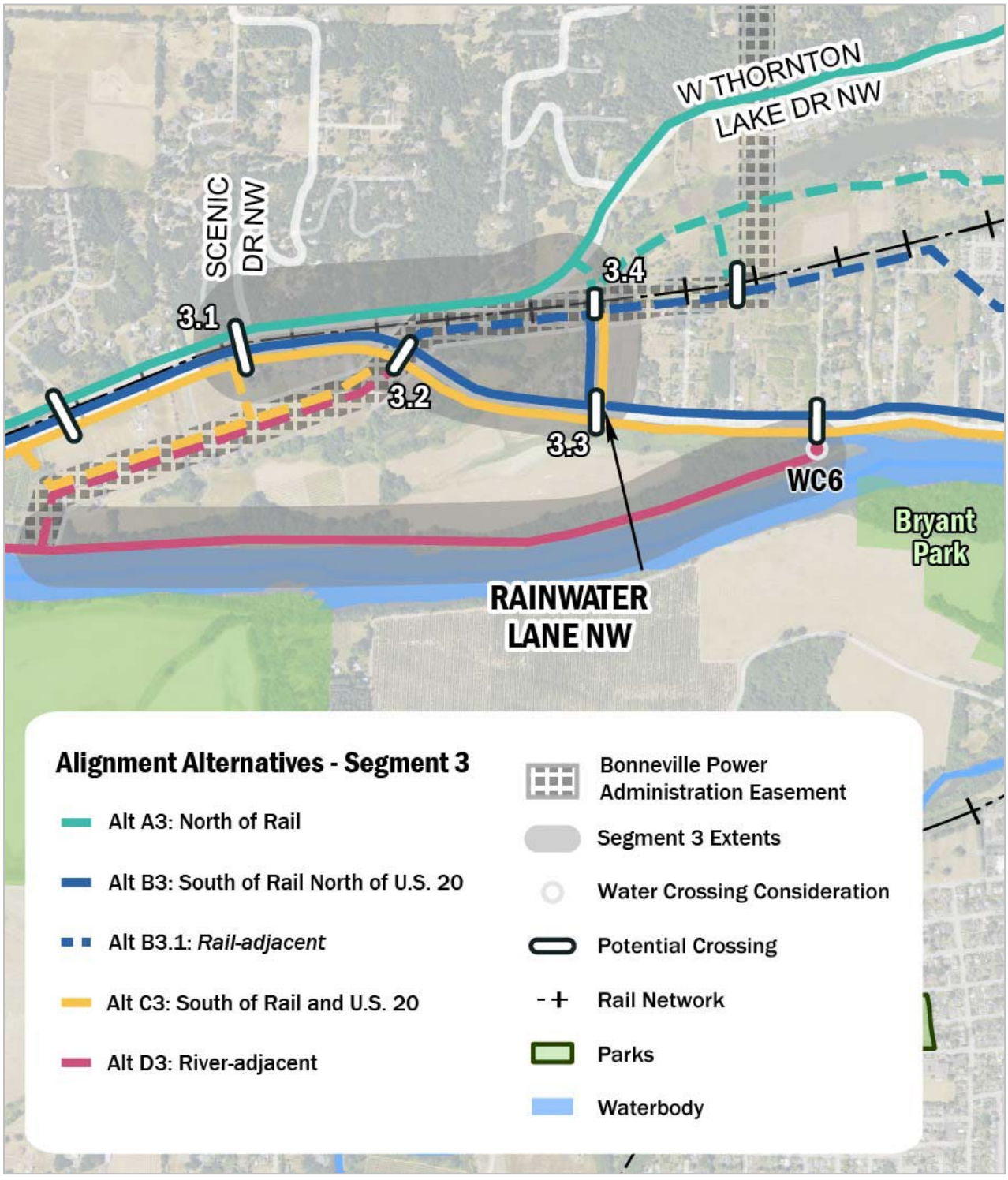


Figure 6. Segment 3: Scenic Drive NW to Rainwater Lane NW

Table 6. Segment 3 Alignment Evaluation: Scenic Drive NW to Rainwater Lane NW

Performance Area	**Alt A3: North of Rail** Follows the north side of West Thornton Lake Dr NW from Scenic Dr NW to the vicinity of Rainwater Ln NW. An on-road facility may be considered, especially as an interim approach.	**Alt B3: South of Rail North of U.S. 20** Follows the north side of U.S. 20 between the highway and rail.	**Alt B3.1: South of Rail North of U.S. 20** Follows an existing BPA easement south of the rail.	**Alt C3: South of Rail and U.S. 20** Follows the south side of U.S. 20 from Scenic Dr NW to Rainwater Ln NW. May continue north along Rainwater Ln NW as an on-street facility, depending on alternative selected for Segment 4.	**Alt D3: River-Adjacent** Follows the north bank of the Willamette River from the west end of the BPA easement to Creswell Ln NW.
Project Outcomes					
User Safety and Comfort	● ▪ **Transportation Safety and Comfort:** Follows a low-volume roadway that offers a lower-stress route. There are no existing sidewalks and a soft shoulder; when considering on-road facilities, the posted speed limit would require separation for low-stress bicycle travel. Crossing Scenic Dr NW would require improvements such as high-visibility crosswalk markings, adequate nighttime lighting levels, and crossing warning signs to maintain as a low-stress route. When considering a separated path, steep slopes along West Thornton Lake Dr NW would require retaining walls to accommodate a fully separated path. ▪ **User Experience:** West Thornton Lake Dr NW has lower traffic volumes and speeds compared to U.S. 20; however, speed limits exceed recommendations for shared roadways. A separated path would provide greater separation from the roadway than on-road facilities such as bike lanes or buffered bike lanes/widened shoulders. A path along the north side of the roadway would provide additional separation from the rail.	◑ ▪ **Transportation Safety and Comfort:** To prevent the path from being too close to homes, the path may need to be located immediately adjacent to the highway, reducing user comfort. Proximity to U.S. 20 would create greater exposure to high-speed, high-volume traffic and freight traffic. Alignment would require physical separation for safety and comfort. Travel across Scenic Dr NW would require crossing improvements such as high-visibility crosswalk markings, adequate nighttime lighting levels, and crossing warning signs to maintain low-stress route. ▪ **User Experience:** Alignment located between the rail and the highway immediately east of Scenic Dr NW would be exposed to highway and train traffic. Exposure to highway traffic would continue for the length of the segment. Proximity to the highway would provide greater visibility for public safety concerns.	● ▪ **Transportation Safety and Comfort:** Would provide substantial separation from the highway. ▪ **User Experience:** Would limit highway noise due to substantial separation from U.S. 20. Proximity to rail would introduce noise and vibration when trains pass, though this occurs relatively infrequently. Trees and open space would provide scenic elements. Lack of adjacent roadways or destinations could reduce visibility resulting in concerns about personal security and unwanted uses.	◑ ▪ **Transportation Safety and Comfort:** Would provide some separation from the highway; however, to prevent the path from being too close to homes, the path may need to be located immediately adjacent to the highway, reducing user comfort. Alignment would require physical separation for safety and comfort. Depending on selected alignments traveling east, this alignment may require crossing U.S. 20; interim improvements could consider an at-grade crossing with necessary improvements, although a grade-separated crossing would provide the greatest comfort and safety. Frequent driveway crossings increase the potential for conflicts among modes and decrease comfort for path users. ▪ **User Experience:** Path located adjacent to U.S. 20 would be exposed to highway traffic. Proximity to the highway would provide greater visibility for public safety concerns.	● ▪ **Transportation Safety and Comfort:** Would provide substantial separation from motor vehicles and offer a comfortable, low-stress experience suitable for all ages and abilities. Depending on selected alignments traveling east, this alignment may require crossing U.S. 20; interim improvements could consider an at-grade crossing with necessary improvements, although a grade-separated crossing would provide the greatest comfort and safety. ▪ **User Experience:** Minimal exposure to vehicle traffic and noise, with scenic views of the river and rural farmland. However, its distance from the highway may increase concerns about personal security and unwanted uses due to reduced visibility.
Connectivity	● ▪ **Network Connectivity:** Alignment would create opportunities to connect to existing bicycle and pedestrian infrastructure in north Albany. Crossings of the rail would depend on the selected alignments to the east. For example, while this alignment could connect to the previously designed segment east of Rainwater Ln NW, it would require crossing the rail. ▪ **Connections to Destinations:** Depending on the selected alignment farther east, this alignment would provide connections to residential areas in north Albany and North Albany Middle School, and it would support connections to the North Albany Park and Ride, commercial destinations, and ultimately downtown Albany.	● ▪ **Network Connectivity:** Alignment would create opportunities to connect to existing bicycle and pedestrian infrastructure in north Albany. Rail crossings would be likely only if connecting to routes north of the rail for travel continuing east. ▪ **Connections to Destinations:** Depending on the selected alignment farther east, this alignment would provide limited direct connections to residential areas in north Albany and would support connections to the North Albany Park and Ride, commercial destinations, and ultimately downtown Albany.	● ▪ **Network Connectivity:** Alignment would create opportunities to connect to existing bicycle and pedestrian infrastructure in north Albany. Rail crossings would be likely only if connecting to routes north of the rail for travel continuing east. Would provide a direct connection to the previously designed path alignment east of Rainwater Ln NW. ▪ **Connections to Destinations:** Depending on the selected alignment farther east, this alignment would provide direct connections to residential areas in north Albany and would support connections to the North Albany Park and Ride, commercial destinations, and ultimately downtown Albany.	● ▪ **Network Connectivity:** Alignment would create opportunities to connect to existing and proposed bicycle and pedestrian infrastructure in north Albany. May require rail crossings depending on selected alignment to the east. ▪ **Connections to Destinations:** Depending on the selected alignment farther east, this alignment would provide a direct connection to Takena Landing Park, as well as connections to commercial destinations, downtown Albany, and the North Albany Park and Ride.	◑ ▪ **Network Connectivity:** Alignment would create opportunities to connect to existing and proposed bicycle and pedestrian infrastructure in north Albany. May require a crossing of U.S. 20 depending on the preferred alignment traveling east. ▪ **Connections to Destinations:** Depending on the selected alignment farther east, this alignment would provide a direct connection to Takena Landing Park, as well as connections to commercial destinations, downtown Albany, and the North Albany Park and Ride.

Performance Area	**Alt A3: North of Rail** Follows the north side of West Thornton Lake Dr NW from Scenic Dr NW to the vicinity of Rainwater Ln NW. An on-road facility may be considered, especially as an interim approach.	**Alt B3: South of Rail North of U.S. 20** Follows the north side of U.S. 20 between the highway and rail.	**Alt B3.1: South of Rail North of U.S. 20** Follows an existing BPA easement south of the rail.	**Alt C3: South of Rail and U.S. 20** Follows the south side of U.S. 20 from Scenic Dr NW to Rainwater Ln NW. May continue north along Rainwater Ln NW as an on-street facility, depending on alternative selected for Segment 4.	**Alt D3: River-Adjacent** Follows the north bank of the Willamette River from the west end of the BPA easement to Creswell Ln NW.
Community and Partner Support	▪ **Community Support:** Participant feedback includes opportunities to use West Thornton Lake Dr NW (with improvements) to increase connections for north Albany residents and be located away from U.S. 20. This route may not address concerns about visibility and personal security due to the low traffic volumes.	▪ **Community Support:** Participant includes opportunities to avoid driveways on the south side of U.S. 20 and increased visibility to address personal security concerns. Feedback that does not support this alignment highlights the high traffic volumes at the intersection of Scenic Dr NW, concern about highway curves, and concern about flood zone and steep slopes.	▪ **Community Support:** Participant feedback highlights opportunities to avoid travel along the curves of U.S. 20. Feedback that does not support this alignment highlights potential flood zones and steep slopes, desire for increased visibility to address personal security concerns, as well as concern about crossing U.S. 20.	▪ **Community Support:** Participant feedback includes increased visibility to address personal security concerns. Feedback that does not support this alignment highlights curves and steep slopes along U.S. 20, riparian and wetland restoration areas, a narrow bridge over Thornton Creek, and concern about the use of EFU-zoned land for a path.	▪ **Community Support:** Participant feedback highlights the more scenic route that is located away from the highway and supports recreational use. Feedback that does not support this alignment highlights concern about the use of EFU-zoned land for a path, flood zones, and desire for increased visibility to address personal security concerns.
Feasibility					
Zoning, Land Use, and Permitting	◑ ▪ Zoned Residential Reserve for the entirety of the segment. Permitting review would verify whether a bike/pedestrian transportation facility is an allowable use; a conditional use permit and site plan review may be required.	◑ ▪ Zoned Residential Reserve, with small portions zoned as Open Space. Permitting review would verify whether a bike/pedestrian transportation facility is an allowable use; a conditional use permit and site plan review could be required.	◑ ▪ Zoned Residential Reserve, with small portions zoned as Open Space. Permitting review would verify whether a bike/pedestrian transportation facility is an allowable use; a conditional use permit and site plan review could be required.	◑ ▪ Primarily zoned EFU; the path would likely be a conditional use in this zone, subject to discretionary approval. ▪ Most of segment is also within Willamette Greenway Area, which would introduce additional permitting requirements.	◑ ▪ Primarily zoned EFU; the path would likely be a conditional use in this zone, subject to discretionary approval. ▪ Entire segment is also within Willamette Greenway Area, which introduces additional permitting requirements.

Performance Area	**Alt A3: North of Rail** Follows the north side of West Thornton Lake Dr NW from Scenic Dr NW to the vicinity of Rainwater Ln NW. An on-road facility may be considered, especially as an interim approach.	**Alt B3: South of Rail North of U.S. 20** Follows the north side of U.S. 20 between the highway and rail.	**Alt B3.1: South of Rail North of U.S. 20** Follows an existing BPA easement south of the rail.	**Alt C3: South of Rail and U.S. 20** Follows the south side of U.S. 20 from Scenic Dr NW to Rainwater Ln NW. May continue north along Rainwater Ln NW as an on-street facility, depending on alternative selected for Segment 4.	**Alt D3: River-Adjacent** Follows the north bank of the Willamette River from the west end of the BPA easement to Creswell Ln NW.
Impacts to Resources	◑ ▪ **Natural Resources:** No presence of sensitive environmental resources identified during baseline conditions review. ▪ **Flood Risk:** Not within regulatory floodway or Special Flood Hazard Area. ▪ **Landslides:** Moderate to high landslide susceptibility along most of the segment. Slopes in excess of 25% are present north of West Thornton Lake Dr NW, east of Scenic Dr NW. Steep slopes would likely require the use of retaining walls. ▪ **Cultural:** Preliminary review identified the presence of cultural resources at multiple locations along the entirety of Alt A.	◑ ▪ **Natural Resources:** NWI wetlands are present near the intermittent stream (runoff from West Thornton Lake). Wetlands and water permitting would be required. Fish-passage design criteria and NMFS/ODFW permitting would be required for fish-bearing stream crossings. FEMA ESA Biological Opinion PICM consistency would need to be demonstrated during local permitting for floodplain areas and riparian habitat. ▪ **Flood Risk:** Portions of segment are within regulatory floodway, with portions in the FEMA-designated 1% Annual Chance Flood Hazard area. Location within Special Flood Hazard Area would require demonstration of no net fill and compliance with no -net -loss standards, which may create mitigation challenges. Areas within the regulatory floodway would trigger additional hydraulic modeling to demonstrate no-rise conditions and require engineering analysis to show no increase in base flood elevation during permitting. ▪ **Landslides:** Landslide susceptibility is generally low to moderate along most of the segment, with a small high-risk area near the stream. Steep slopes in this area would likely require the use of retaining walls. ▪ **Cultural:** Preliminary review identified the presence of cultural resources at multiple locations along the entirety of Alternative B. → *Alt B3.1: Rail-adjacent:* No known cultural resources are currently identified.	◑ ▪ **Natural Resources:** NWI wetlands are present near the intermittent stream (runoff from West Thornton Lake). Wetlands and water permitting would be required. Fish-passage design criteria and NMFS and ODFW permitting would be required for fish-bearing stream crossings. FEMA ESA Biological Opinion PICM consistency would need to be demonstrated during local permitting for floodplain areas and riparian habitat. ▪ **Flood Risk:** Entirely located within the regulatory floodway, with portions in the FEMA-designated 1% Annual Chance Flood Hazard area and others in the 0.2% Chance Flood Hazard area. Location within Special Flood Hazard Area would require demonstration of no net fill and compliance with no-net-loss standards, which may create mitigation challenges. Areas within the regulatory floodway would trigger additional hydraulic modeling to demonstrate no-rise conditions and require engineering analysis to show no increase in base flood elevation during permitting. ▪ **Landslides:** Landslide susceptibility is generally low to moderate along most of the segment. ▪ **Cultural:** No known cultural resources are currently identified.	○ ▪ **Natural Resources:** NWI wetlands are present near the intermittent stream (runoff from West Thornton Lake). Wetlands and water permitting would be required. Fish-passage design criteria and NMFS/ODFW permitting would be required for fish-bearing stream crossings. FEMA ESA Biological Opinion PICM consistency would need to be demonstrated during local permitting for floodplain areas and riparian habitat. ▪ **Flood Risk:** Located within the regulatory floodway, with portions in the FEMA-designated 1% Annual Chance Flood Hazard area. Location within Special Flood Hazard Area would require demonstration of no net fill and compliance with no-net-loss standards, which may create mitigation challenges. Areas within the regulatory floodway would trigger additional hydraulic modeling to demonstrate no-rise conditions and require engineering analysis to show no increase in base flood elevation during permitting. ▪ **Landslides:** Landslide susceptibility is generally low to moderate from Scenic Dr NW to the intermittent stream, increasing to high risk between the stream and Rainwater Ln NW. Steep slopes in this area would likely require the use of retaining walls. ▪ **Cultural:** Preliminary review identified the presence of cultural resources at multiple locations along the entirety of Alt C.	○ ▪ **Natural Resources:** Presence of sensitive environmental resources along the riverbank. The alignment passes through a large area of NWI wetlands between Scenic Dr NW and Creswell Ln NW. Passes through NWI wetlands near Bowers Slough. New crossing structure at Bowers Slough would be required. Wetlands and water permitting would be required. Fish-passage design criteria and NMFS/ODFW permitting would be required for fish-bearing stream crossings. FEMA ESA Biological Opinion PICM consistency would need to be demonstrated during local permitting for floodplain areas and riparian habitat. ▪ **Flood Risk:** Segment fully within regulatory floodway, within FEMA-designated 1% Annual Chance Flood Hazard. Location within Special Flood Hazard Area would require demonstration of no net fill and compliance with no-net-loss standards, which may create mitigation challenges. Areas within the regulatory floodway would trigger additional hydraulic modeling to demonstrate no-rise conditions and require engineering analysis to show no increase in base flood elevation during permitting. ▪ **Landslides:** Moderate/high landslide susceptibility along most of the segment. Steep slopes would likely require the use of retaining walls. ▪ **Cultural:** Preliminary review identified the presence of cultural resources at multiple locations along the entirety of Alt D.
Utility Conflicts	● ▪ Minimal known utility conflicts.	○ ▪ Location of utility poles likely to cause conflicts, particularly between rail and highway where physical space for a path is limited. Much of the space between the rail and highway serves as drainage for both facilities.	◑ ▪ Follows BPA easement and would require coordination with BPA utilities.	◑ ▪ Potential conflicts with utilities on south/east side of U.S. 20. Existing utility poles may conflict with the proposed path alignment depending on available ROW, potentially affecting constructability or necessitating pole relocation.	● ▪ Minimal utility conflicts; utilities are not present along the river, but there are potential conflicts with existing utility poles along a short section of Old U.S. 20; may conflict with the proposed path alignment.

Performance Area	**Alt A3: North of Rail** Follows the north side of West Thornton Lake Dr NW from Scenic Dr NW to the vicinity of Rainwater Ln NW. An on-road facility may be considered, especially as an interim approach.	**Alt B3: South of Rail North of U.S. 20** Follows the north side of U.S. 20 between the highway and rail.	**Alt B3.1: South of Rail North of U.S. 20** Follows an existing BPA easement south of the rail.	**Alt C3: South of Rail and U.S. 20** Follows the south side of U.S. 20 from Scenic Dr NW to Rainwater Ln NW. May continue north along Rainwater Ln NW as an on-street facility, depending on alternative selected for Segment 4.	**Alt D3: River-Adjacent** Follows the north bank of the Willamette River from the west end of the BPA easement to Creswell Ln NW.
ROW Needs	◑ ▪ Located within Benton County ROW. ▪ At the eastern end of this segment, proximity of homes to the roadway may limit path space. Providing a separated path on the north side would most likely result in property impacts as there is only approximately 11 to 12 feet of space. Placement of the alignment could potentially raise property owner concerns. Extent of ROW impacts and encroachments are currently unknown but could present challenges.	○ ▪ Located partially within ODOT ROW. Very likely to encroach on rail ROW, making this alternative infeasible. ▪ The path would be located close to driveways, existing structures, and/or homes. This could result in impacts to existing structures such as fences, mailboxes, and other minor structures, as well as requiring modifications to driveways and private property frontages. Proximity of the path to homes may cause property owner concerns. Formal ROW impacts and encroachments are currently unknown but could present challenges. ▪ Substantial risk that the path, or path elements such as drainage facilities, would encroach on railroad ROW. Any use of railroad ROW for the path or related elements is infeasible. ▪ Physical space between the rail and highway is very limited; this may render this alternative infeasible.	◑ ▪ Located outside ODOT ROW and primarily on private property along a BPA easement; potential for private property impacts.	◑ ▪ Located within ODOT ROW. ▪ Proximity of houses and existing structures to U.S. 20 may require the path to be immediately adjacent to the highway. Likely private property encroachments exist in this segment. This could result in impacts to existing structures such as fences, mailboxes, and other minor structures, as well as requiring modifications to driveways and private property frontages. Proximity of the path to homes may cause property owner concerns.	○ ▪ Located outside ODOT ROW and primarily on private property, would require coordination with landowners.
Interaction with Rail	◑ ▪ Located fully outside railroad ROW, assuming an alignment on the north side of West Thornton Lake Dr NW. However, coordination with the railroad would be required if a crossing is pursued to connect with other alignment alternatives. ▪ Travel across Scenic Dr NW would increase complexity of the intersection for all modes. Although not crossing the rail, the proximity to the existing rail crossing at Scenic Dr NW may require substantial upgrades to the existing rail crossing.	○ ▪ Substantial risk that the path, or path elements such as drainage facilities, would encroach on railroad ROW. Any use of railroad ROW for the path or related elements is infeasible. Additionally, travel across Scenic Dr NW would increase complexity for all modes at these intersections and may require substantial upgrades to the existing crossing at Scenic Dr NW due to proximity to the rail.	● ▪ Would generally avoid direct interaction with the rail, though the route would run parallel to it. Coordination with the railroad would be required if a crossing is pursued to connect with other alignment alternatives.	● ▪ Would generally avoid interaction with the rail, depending on the preferred alignment to the east.	● ▪ Location south of U.S. 20 would avoid interaction with the rail and railroad ROW.
Planning-Level Cost	$$$$	$$$$	$$$$	$$$	$$$$

BPA = Bonneville Power Administration; ESA = Endangered Species Act; FEMA = Federal Emergency Management Agency; NMFS = National Marine Fisheries Service; NWI = National Wetland Inventory; ODFW = Oregon Department of Fish and Wildlife; ODOT = Oregon Department of Transportation; PICM = Pre-Implementation Compliance Measures; ROW = right-of-way; TBD = To be determined.

4.1.3.1 Discussion

The project team recommends advancing Alternatives A3, B3.1, and C3 for further consideration. Further consideration of Alternative A will depend on the feasibility of a highway and rail crossing at Scenic Drive NW (crossing 3.1). Alternatives B and C will depend on the feasibility of a U.S. 20 crossing at the Bonneville Power Administration (BPA) alignment (crossing 3.2). Alternative C is only recommended for further review between Scenic Drive NW and in the vicinity of the BPA alignment. Alternative C3 is not recommend continuing east due to steep slopes, proximity to existing structures, and the likely elimination of mature trees that provide screening for residential properties.

The BPA easement offers an opportunity for the path alignment because it already functions as a utility corridor and has a relatively clear, linear footprint. However, the easement is still privately owned, and use of the corridor would require coordination and negotiations with both BPA and the underlying property owners. If agreements can be reached, the partnership could create a mutually beneficial outcome, with the path potentially serving as an access route for BPA maintenance activities. There is precedent for this approach; farther east in the corridor, Benton County successfully negotiated use of the BPA easement for an existing trail, demonstrating that similar arrangements are feasible in this area. The BPA easement also presents a potential alternate alignment for Alternative C3, with an opportunity to connect to C3 south of Kouns Drive NW.

The following alignment is not recommended for further consideration:

- **Alternative D3:** This alignment would require substantial out-of-direction travel relative to the other alignments, would have potential private property impacts, and would be located in an area with environmental and cultural resources. Additionally, the connecting segments that would facilitate travel along Alternative D were not recommended to advance in Segment 2, resulting in the entirety of Alternative D being removed from consideration.

4.1.4 Segment 4 Evaluation

It is important to consider the potential opportunities to connect from the eastern end of the study area (approximately Rainwater Lane NW) to North Albany Road. This following evaluates potential connections to the east; this screening helps inform alignment decisions by identifying feasible connection points and potential constraints. It is important to note that this evaluation is based on a high-level assessment of available data only.

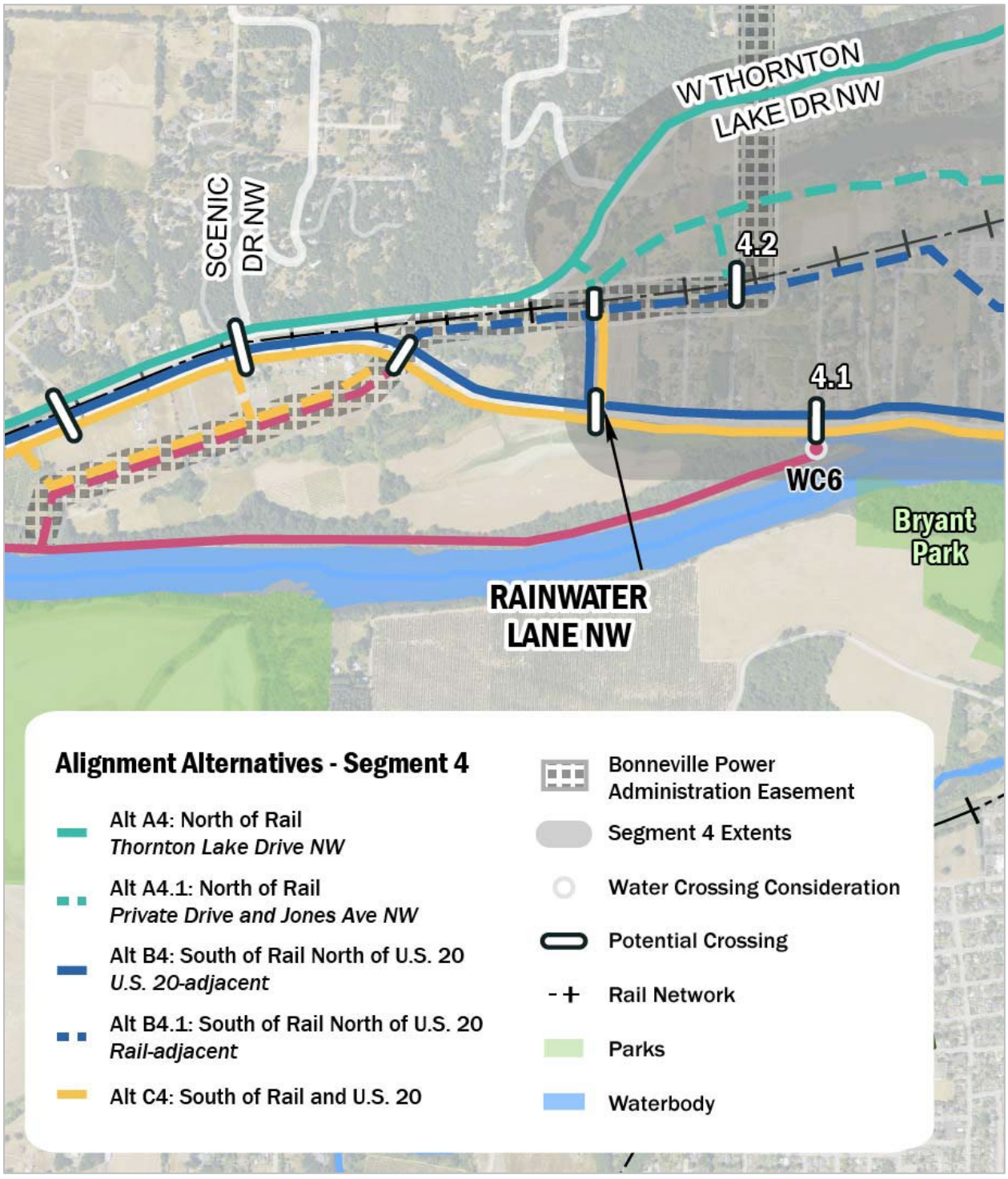


Figure 7. Segment 4: Rainwater Lane NW to North Albany Road

Table 7. Segment 4 Alignment Evaluation: Rainwater Lane NW to North Albany Road

Performance Area	**Alt A4: North of Rail** Follows the north side of West Thornton Lake Dr NW from the vicinity of Rainwater Ln NW to North Albany Rd. An on-road facility may be considered, especially as an interim approach	**Alt A4.1: North of Rail** Follows a private dirt road south of West Thornton Lake Dr NW to Jones Ave NW from Rainwater Ln NW to North Albany Rd.	**Alt B4: South of Rail, North of U.S. 20** Follows the north side of U.S. 20 from Rainwater Ln NW to North Albany Rd.	**Alt B4.1: South of Rail, North of U.S. 20** Follows the south side of the rail (north of U.S. 20) from Scenic Dr NW to Rainwater Ln NW. Benton County and ODOT previously completed a design for this alternative	**Alt C4: South of Rail and U.S. 20** Follows the south side of U.S. 20 from Rainwater Ln NW to North Albany Rd.
Project Outcomes					
User Safety and Comfort	◑ ▪ **Transportation Safety and Comfort:** Follows a lower-volume roadway. When considering on-road facilities, there are no existing sidewalks and limited soft shoulders. Additionally, the posted speed limit would require separation for low-stress bicycle travel. When considering a separated path, steep slopes along West Thornton Lake Dr NW would require retaining walls to accommodate a fully separated path. ▪ **User Experience:** West Thornton Lake Dr NW has lower traffic volumes and speeds compared to U.S. 20; however, speed limits exceed recommendations for shared roadways. A separated path would result in less exposure to the highway and increased user comfort. A separated path would provide greater separation from the roadway than on-road facilities such as bike lanes or buffered bike lanes/widened shoulders.	● ▪ **Transportation Safety and Comfort:** Route follows an existing low-volume private roadway south of the lake, with limited exposure to motor vehicle traffic. This corridor presents opportunities for low-stress facilities. This route would require a connection from either West Thornton Lake Dr NW via a new path or across one of two potential crossings. ▪ **User Experience:** Minimal exposure to vehicle traffic and noise, with scenic views of the lake and rural farmland. However, its distance from the highway and the presence of dense vegetation may increase concerns about personal security and unwanted uses in limited locations due to reduced visibility. Connections that travel over the rail would also increase exposure to train noise and safety concerns.	○ ▪ **Transportation Safety and Comfort:** From Rainwater Ln NW to Walker Ln NW, existing structures close to U.S. 20 would likely limit opportunities for path separation from the roadway. Crossings at minor roadways may require improvements such as signage and crossing markings to maintain low-stress facility. Frequent minor road intersections and driveway crossings increase the potential for conflicts among modes and decrease comfort for path users. ▪ **User Experience:** Path located adjacent to U.S. 20 would be exposed to moderate noise levels from highway traffic. Proximity to the highway would provide greater visibility for public safety concerns.	◑ ▪ **Transportation Safety and Comfort:** Existing path design is already completed by ODOT and Benton County for this alternative. It would provide substantial separation from motor vehicles and offers a comfortable, low-stress experience suitable for all ages and abilities. Proximity to the rail presents a safety consideration. ▪ **User Experience:** Minimal exposure to vehicle traffic and noise, though train noise and vibration may affect user experience. Route would provide scenic views of rural farmland. However, its distance from the highway and the presence of dense vegetation may increase concerns about personal security and unwanted uses due to reduced visibility.	○ ▪ **Transportation Safety and Comfort:** Waterways and wetlands close to U.S. 20 would likely limit opportunities for path separation from the roadway. Existing early design for this section of U.S. 20 includes a path along the north side of the roadway. More information is needed to determine if it is feasible to shift it to the south side. Connections to connecting facilities can be made at a signalized intersection (North Albany Rd), which increases safety of crossing U.S. 20. ▪ **User Experience:** Path located adjacent to U.S. 20 would be exposed to moderate noise levels from highway traffic. Proximity to the highway would provide greater visibility for public safety concerns.
Connectivity	● ▪ **Network Connectivity:** Would provide connections to bike lanes and pedestrian facilities on North Albany Rd. ▪ **Connections to Destinations:** Would connect to North Albany Elementary and Middle Schools, North Albany Community Church, and residential areas in north Albany. Would support connections to the North Albany Park and Ride, North Albany Village, and downtown Albany.	● ▪ **Network Connectivity:** Would provide a direct connection to bike lanes and pedestrian facilities on North Albany Rd. ▪ **Connections to Destinations:** Route would offer limited direct connection to residential areas; however, would support connections to the North Albany Park and Ride, North Albany Village, and downtown Albany.	● ▪ **Network Connectivity:** Would provide a direct connection to existing and proposed bicycle and pedestrian facilities on North Albany Rd. ▪ **Connections to Destinations:** Would connect to commercial areas and limited residential areas. Would support connections to the North Albany Park and Ride and downtown Albany.	● ▪ **Network Connectivity:** Would provide a direct connection to existing and proposed bicycle and pedestrian facilities on North Albany Rd. ▪ **Connections to Destinations:** Would connect to residential areas. Would support connections to the North Albany Park and Ride, North Albany Village, and downtown Albany.	◑ ▪ **Network Connectivity:** Alternative would connect directly to North Albany Rd, including existing bike lane and proposed connections into downtown Albany. Would require a crossing of U.S. 20 to provide connections for north Albany residents. ▪ **Connections to Destinations:** Would support connections to the North Albany Park and Ride, North Albany Village, and downtown Albany.
Community and Partner Support	▪ **Community Support:** Participant feedback that aligns with this route highlight opportunities to use West Thornton Lake Dr NW (with improvements) to increase connections for north Albany residents and be located away from U.S. 20. This route may not address concerns about visibility and personal security due to the low traffic volumes.	▪ **Community Support:** Participant feedback that aligns with this route highlights opportunities to locate the path north of U.S. 20 and the rail and increasing connections for north Albany residents. Feedback that does not support this alignment includes desire for increased visibility to address personal security concerns.	▪ **Community Support:** Participant feedback that aligns with this alternative includes desire for greater visibility on the path to address personal security concerns. Participant feedback that does not support this alignment highlights high travel speeds along U.S. 20, unclear connections into downtown Albany, concerns about crossing U.S. 20, and frequent driveways and roadway crossings.	▪ **Community Support:** Participant feedback that aligns with this alternative includes desire for clear connections to north Albany and downtown Albany and location away from the highway. Participant feedback that does not support this alignment highlights limited visibility of the path and personal security concerns.	▪ **Community Support:** Participant feedback that aligns with this alternative includes desire for greater visibility on the path to address personal security concerns. Participant feedback that does not support this alignment highlights high travel speeds along U.S. 20, unclear connections into downtown Albany, and concern about the use of EFU-zoned land for a path.

Performance Area	Alt A4: North of Rail Follows the north side of West Thornton Lake Dr NW from the vicinity of Rainwater Ln NW to North Albany Rd. An on-road facility may be considered, especially as an interim approach	Alt A4.1: North of Rail Follows a private dirt road south of West Thornton Lake Dr NW to Jones Ave NW from Rainwater Ln NW to North Albany Rd.	Alt B4: South of Rail, North of U.S. 20 Follows the north side of U.S. 20 from Rainwater Ln NW to North Albany Rd.	Alt B4.1: South of Rail, North of U.S. 20 Follows the south side of the rail (north of U.S. 20) from Scenic Dr NW to Rainwater Ln NW. Benton County and ODOT previously completed a design for this alternative	Alt C4: South of Rail and U.S. 20 Follows the south side of U.S. 20 from Rainwater Ln NW to North Albany Rd.
Project Feasibility					
Zoning, Land Use, and Permitting	◑ ▪ Zoned Residential Reserve from Rainwater Ln NW to Marshall Blvd, R-10 from Marshall Blvd to North Albany Rd. Permitting review would verify whether a bike/pedestrian transportation facility is an allowable use; a conditional use permit and site plan review may be required.	◑ ▪ Zoned Residential Reserve from Rainwater Ln NW to Walker Ln NW, R-10 from Walker Ln NW to North Albany Rd. Permitting review would verify whether a bike/pedestrian transportation facility is an allowable use; a conditional use permit and site plan review may be required.	◑ ▪ Zoned Residential Reserve from Rainwater Ln NW to Walker Ln NW, Residential Medium Density from Walker Ln NW to Blossom Ln NW, Mixed Use Commercial from Blossom Ln NW to North Albany Rd. Permitting review would verify whether a bike/pedestrian transportation facility is an allowable use; a conditional use permit and site plan review may be required.	◑ ▪ Zoned Residential Reserve from Rainwater Ln NW to Walker Ln NW, Residential Medium Density from Walker Ln NW to North Albany Rd. Permitting review would verify whether a bike/pedestrian transportation facility is an allowable use; a conditional use permit and site plan review may be required.	◑ ▪ Primarily zoned EFU; project would likely be a conditional use in this zone, subject to discretionary approval.
Impacts to Resources	◑ ▪ **Natural Resources:** No presence of sensitive environmental resources identified during baseline conditions review. ▪ **Flood Risk:** East end of segment within 0.2% Annual Chance Flood Hazard. Minimal regulatory impacts. ▪ **Landslides:** Moderate to high landslide susceptibility along most of the segment. Steep slopes would likely require the use of retaining walls. ▪ **Cultural:** No known cultural resources currently identified along alignment within this segment.	◑ ▪ **Natural Resources:** Passes near NWI wetland area near west end of West Thornton Lake and along Jones Ave NW. Wetlands and water permitting would be required. FEMA ESA Biological Opinion PICM consistency would need to be demonstrated during local permitting for floodplain areas and riparian habitat. ▪ **Flood Risk:** Portions of segment within regulatory floodway; entire segment within FEMA-designated Flood Hazard Zone (Percentage Chance Zone varies along segment between 0.2% and 1% Chance). Location within Special Flood Hazard Area would require demonstration of no net fill and compliance with no-net-loss standards, which may create mitigation challenges. Areas within the regulatory floodway would trigger additional hydraulic modeling to demonstrate no-rise conditions and require engineering analysis to show no increase in base flood elevation during permitting. ▪ **Landslides:** Low to moderate landslide susceptibility along most of the segment. ▪ **Cultural:** No known cultural resources currently identified along alignment alternative within this segment.	◑ ▪ **Natural Resources:** No presence of sensitive environmental resources, aside from riparian floodplain habitat, identified during baseline conditions review. FEMA ESA Biological Opinion PICM consistency would need to be demonstrated during local permitting for floodplain areas and riparian habitat. ▪ **Flood Risk:** Portions of segment within FEMA-designated Flood Hazard Zone: 1% Chance Zone from Creswell Ln NW to North Albany Rd. Location within Special Flood Hazard Area would require demonstration of no net fill and compliance with no-net-loss standards, which may create mitigation challenges. ▪ **Landslides:** Low to moderate landslide susceptibility along most of the segment. ▪ **Cultural:** Preliminary review identified the presence of cultural resources on the eastern half of Alt B4.	◑ ▪ **Natural Resources:** No presence of sensitive environmental resources, aside from riparian floodplain habitat, identified during baseline conditions review. FEMA ESA Biological Opinion PICM consistency would need to be demonstrated during local permitting for floodplain areas and riparian habitat. ▪ **Flood Risk:** Portions of segment within regulatory floodway; entire segment within FEMA-designated Flood Hazard Zone: 1% Chance Zone from Rainwater Ln NW to Marshall Blvd. Location within Special Flood Hazard Area would require demonstration of no net fill and compliance with no-net-loss standards, which may create mitigation challenges. Areas within the regulatory floodway would trigger additional hydraulic modeling to demonstrate no-rise conditions and require engineering analysis to show no increase in base flood elevation during permitting. ▪ **Landslides:** Low to moderate landslide susceptibility along most of the segment. ▪ **Cultural:** No known cultural resources currently identified along alignment within this segment.	○ ▪ **Natural Resources:** Presence of sensitive environmental resources along the riverbank. The alternative passes through a large area of NWI wetlands and water bodies and would likely require crossing a water body at the far east end. Wetlands and water permitting would be required. Fish-passage design criteria and NMFS/ODFW permitting would be required for fish-bearing stream crossings. FEMA ESA Biological Opinion PICM consistency would need to be demonstrated during local permitting for floodplain areas and riparian habitat. ▪ **Flood Risk:** Segment fully within regulatory floodway, with FEMA-designated 1% Annual Chance Flood Hazard. Location within Special Flood Hazard Area would require demonstration of no net fill and compliance with no-net-loss standards, which may create mitigation challenges. Areas within the regulatory floodway would trigger additional hydraulic modeling to demonstrate no-rise conditions and require engineering analysis to show no increase in base flood elevation during permitting. ▪ **Landslides:** Moderate to high landslide susceptibility along most of the segment. Steep slopes would likely require the use of retaining walls. ▪ **Cultural:** No known cultural resources currently identified along alignment alternative within this segment.
Utility Conflicts	◑ ▪ Existing utility poles on north side of West Thornton Lake Dr NW may conflict with the proposed alignment depending on available ROW, potentially affecting constructability or necessitating pole relocation.	● ▪ No utility poles observed along alternative alignment.	◑ ▪ Existing utility poles along the north side of U.S. 20 may conflict with the proposed path alignment depending on available ROW, potentially affecting constructability or necessitating pole relocation.	◑ ▪ Follows BPA ROW from Rainwater Ln NW to Marshall Blvd; Benton County previously secured necessary clearances with BPA as part of the path design on this segment. Minimal interaction with utilities east of Marshall Blvd.	◑ ▪ Existing utility poles along the south side of U.S. 20 may conflict with the proposed path alignment depending on available ROW, potentially affecting constructability or necessitating pole relocation.

Performance Area	**Alt A4: North of Rail** Follows the north side of West Thornton Lake Dr NW from the vicinity of Rainwater Ln NW to North Albany Rd. An on-road facility may be considered, especially as an interim approach	**Alt A4.1: North of Rail** Follows a private dirt road south of West Thornton Lake Dr NW to Jones Ave NW from Rainwater Ln NW to North Albany Rd.	**Alt B4: South of Rail, North of U.S. 20** Follows the north side of U.S. 20 from Rainwater Ln NW to North Albany Rd.	**Alt B4.1: South of Rail, North of U.S. 20** Follows the south side of the rail (north of U.S. 20) from Scenic Dr NW to Rainwater Ln NW. Benton County and ODOT previously completed a design for this alternative	**Alt C4: South of Rail and U.S. 20** Follows the south side of U.S. 20 from Rainwater Ln NW to North Albany Rd.
ROW Needs	◑ ▪ Located within Benton County ROW. ▪ At many locations along this segment, houses and existing structures are in close proximity to the roadway and may limit path space. The alignment may pass near these structures, potentially raising property owner concerns. Formal ROW impacts and encroachments are currently unknown but could present challenges.	○ ▪ Located outside ODOT ROW and primarily on private property; potential for significant private property impacts.	○ ▪ Located within ODOT ROW. ▪ Proximity of houses and existing structures to U.S. 20 substantially limits path space. The path would be located close to driveways, existing structures, and/or homes. This could result in impacts to existing structures such as fences, mailboxes, and other minor structures, as well as requiring modifications to driveways and private property frontages. Proximity of the path to homes may cause property owner concerns. Formal ROW impacts and encroachments are currently unknown but could present challenges.	● ▪ Located outside ODOT ROW and primarily on private property.	● ▪ Located within ODOT ROW.
Interaction with Rail	● ▪ Would generally avoid interaction with the rail, except in cases where a crossing is pursued to connect with other alignment alternatives.	◑ ▪ Would generally avoid interaction with the rail, except in cases where a crossing is pursued to connect with other alignment alternatives. However, proximity to existing rail crossing and rail ROW near Rainwater Ln NW may require improvements to existing crossings.	● ▪ Would generally avoid interaction with the rail.	● ▪ Would generally avoid interaction with the rail, except in cases where a crossing is pursued to connect with other alternatives. Proximity to existing private crossing near Rainwater Ln NW may require improvements to existing crossing. Benton County previously pursued use of the existing rail undercrossing/drainage near Rainwater Ln NW and use of this crossing was denied.	● ▪ Would generally avoid interaction with the rail, except in cases where a crossing is pursued to connect with other alternatives.
Planning-Level Cost	$$$	$$$$	$$$	$$$	$$$

BPA = Bonneville Power Administration; EFU = Essential Farm Use; ESA = Endangered Species Act; FEMA = Federal Emergency Management Agency; NMFS = National Marine Fisheries Service; NWI = National Wetland Inventory; ODFW = Oregon Department of Fish and Wildlife; ODOT = Oregon Department of Transportation; PICM = Pre-Implementation Compliance Measures; ROW = right-of-way; TBD = To be determined.

4.1.4.1 Discussion

Based on the evaluation of alternatives within Segment 4, **the project team recommends advancing Alternatives A4 and B4.1 for further consideration**. Each of these alternatives would provide connections to North Albany Road and community destinations. While Alternative A4 would best serve residential areas and direct access to locations, all alternatives offer opportunities to connect to transit, downtown, commercial destinations, and parks. Each of these alternatives also offers opportunities to avoid interaction with the rail and offers varied benefits in terms of user experience and transportation safety and comfort.

Alternative A4.1, Alternative B4, and Alternative C4 are not recommended for further consideration.

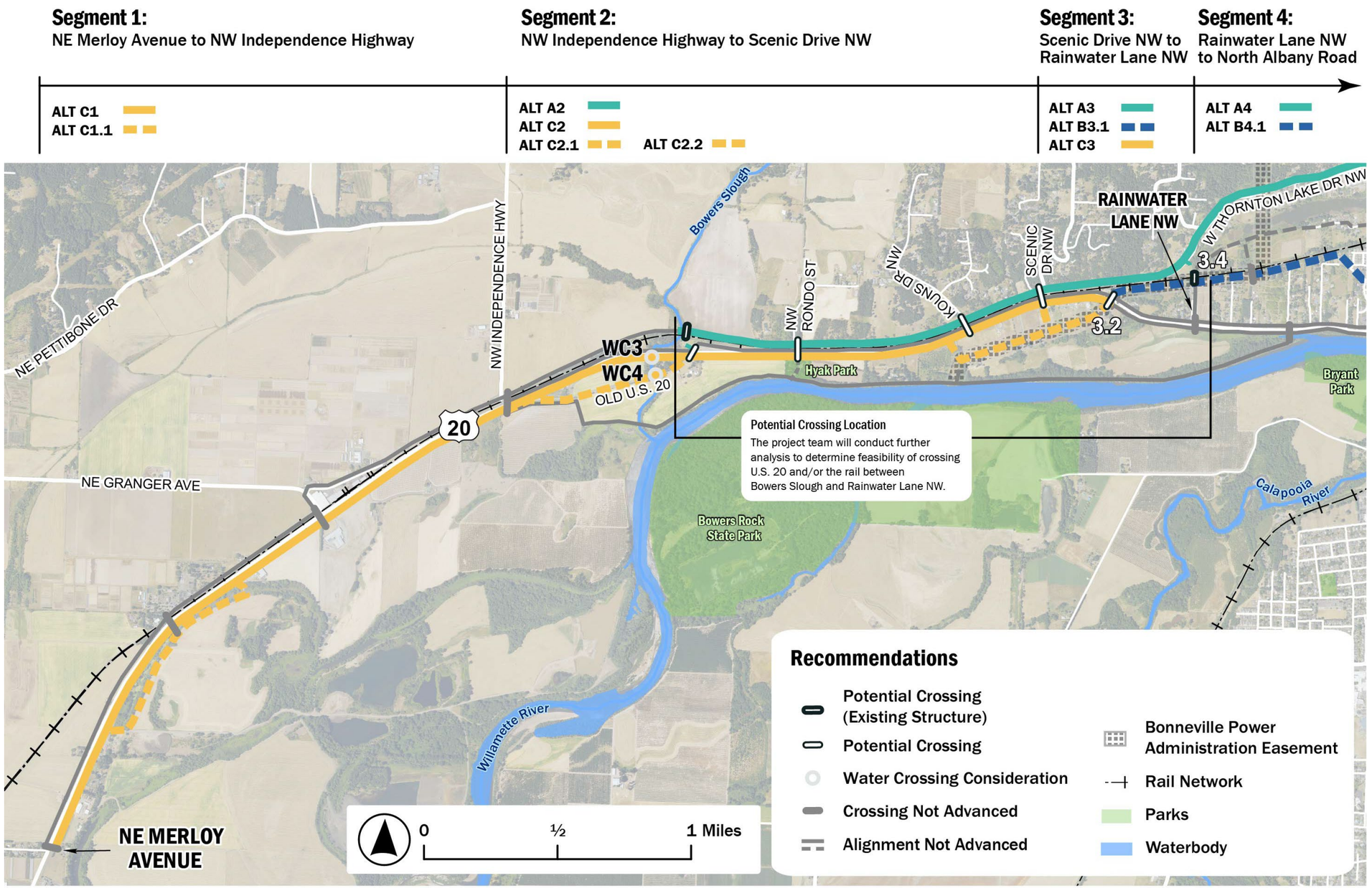
- **Alternative A4.1** includes travel along a private roadway with limited visibility, increasing the potential for concerns regarding personal security and unwanted uses. It would also require new connections either from West Thornton Lake Drive NW or across the rail. As a result, the use of this segment would require at least one rail crossing along the path.
- **Alternative B4** is expected to have private property impacts, including potentially requiring the removal of screening trees that separate U.S. 20 and the adjacent homes. Frequent driveway crossings from adjacent homes and minor street crossings would increase the potential for conflicts among modes, reducing comfort along the corridor.
- **Alternative C4** is constrained by environmental and geotechnical limitations, including nearby waterways and National Wetland Inventory wetlands that limit opportunities to separate the path from U.S. 20, its location within the regulatory floodway, and areas of moderate to high landslide susceptibility. Steep slopes located immediately adjacent to U.S. 20 are expected to limit available space for a path.

5. Recommendations

Based on the findings of the alternatives screening, the project team has identified alternatives for further review. Summarized in Table 8 and shown in Figure 8, these include alternatives in each of the four study segments, three potential crossings of Bowers Slough, as well as three potential crossings of the railroad and/or U.S. 20. Recommended alternatives for Segments 3 and 4 are described together, in combination with recommended crossing locations of U.S. 20 and/or the railroad.

A core feasibility consideration for this study is the location and number of crossings that would be required of U.S. 20 and/or the railroad as a result of certain alignment choices. Crossings are assumed to be grade separated in most cases and will have substantial costs and impacts, in addition to unknowns and risks associated with any crossing of the railroad. **The project team, in its recommendations, seeks to minimize the total number of new crossings that would be required for these reasons**.

While the table and map also include recommended alternatives for Segment 4, the scope of this study does not include additional review for Segment 4 alternatives beyond this review. Feedback from ODOT, Benton County, the City of Albany, or other project partners for Segment 4 may inform the selection of a preferred alternative within the study area.



Sources: Benton County, Linn County, Oregon Department of Transportation (ODOT), OregonStatewide Imagery Program (2024), DOGAMI

Figure 8. Recommended Alignment Alternatives for Further Review

Table 8. Recommended Alignment Alternatives for Further Review

Performance Area	Segment 1	Segment 2		Segment 3 and 4 Options	
Path Alignment	Alts C1 and C1.1.	Alt C2 to A2, with potential deviation: ▪ A2.1 (between U.S. 20 and railroad).	Alt C2, with potential deviations: ▪ C2.1 (Old U.S. 20). ▪ C2.2 (BPA easement).	Alt A3 to Alt A4.	Alt C3 to Alt B3.1 to Alt B4.1.
Potential Crossing(s) for Consideration	No highway or rail crossing is required in this segment.	▪ U.S. 20 and railroad crossing within the range of Bowers Slough to Scenic Dr NW. ▪ Bowers Slough: WC3 or WC4.	▪ No highway or rail crossing is required in this segment. ▪ Bowers Slough: WC3 or WC4.	▪ No highway or rail crossing is required in this segment. ▪ Requires crossing of U.S. 20 and railroad west of Scenic Dr NW.	▪ U.S. 20: Crossing 3.2 (at, above, or below grade).
Description	Would follow the east and then south side of U.S. 20 from the existing path at NE Merloy Ave to NW Independence Hwy. Could include a short deviation (Alt C1.1) along a private dirt road to avoid steep slopes directly adjacent to the highway.	Would follow the south side of U.S. 20 from NW Independence Hwy to the vicinity of Bowers Slough, crosses U.S. 20 and the rail at a crossing within the range of Bowers Slough to Scenic Dr NW, then continues on the north side of the rail to Scenic Dr NW. Could include a deviation (C2.1) onto Old U.S. 20 (a private road). Could include deviation (A2.1, between U.S. 20 and railroad) to connect to existing rail crossing near Bowers Slough.	Would follow the south side of U.S. 20 from NW Independence Hwy to Scenic Dr NW. Could include a deviation onto Old U.S. 20 (a private road). Could include a deviation onto the BPA easement for the full length of the easement or at the midpoint to lessen property impacts but avoid houses and driveways close to U.S. 20. This alignment would require a crossing of Bowers Slough; the feasibility of this crossing may inform if Alt C2 or C2.1 is preferred.	Would continue along Alt A3 and Alt A4 on the north side of West Thornton Lake Dr NW between Scenic Dr NW and North Albany Rd. Alternative could include an interim on-street facility along West Thornton Lake Dr NW.	Follows the south side of U.S. 20 from Scenic Dr NW to the BPA easement, crosses U.S. 20 at Crossing 3.2 (at, above, or below grade) and follows the BPA easement south of the rail. Path would continue along the previously designed path east of Rainwater Ln NW (Alt B4.1).
Rationale	▪ Would provide connections to the existing path at NE Merloy Ave. ▪ Would not require crossings of U.S. 20 or the railroad within this segment. ▪ Would connect to existing path at NW Independence Hwy. ▪ Uses existing ODOT ROW to the extent feasible, limiting potential private property impacts associated with Alt A.	▪ Alt A2 would create connections to residential areas in north Albany as well as existing and planned active transportation infrastructure. ▪ Located away from the highway, this alternative may create lower-stress travel opportunities as compared to U.S. 20. ▪ This alternative would avoid routing the path adjacent to houses and driveways close to U.S. 20. ▪ Opportunity to construct a U.S. 20 undercrossing near Bowers Slough and leverage the existing rail undercrossing. ▪ This alternative would require crossing Bowers Slough; three options for this crossing are advanced for further review: → Modify existing U.S. 20 structure. → New crossing of Bowers Slough. → Use existing Old U.S. 20 crossing, with or without modifications.	▪ Would not require crossing of U.S. 20 or the railroad within this segment, would facilitate direct connections to Hyak Park, would connect to the existing path at NW Independence Hwy, and would provide a direct path of travel with maximum visibility. ▪ While it may have greater exposure to the highway and require protective elements to provide for a low-stress path of travel, it would minimize out-of-direction travel. ▪ This alternative would require crossing Bowers Slough; three options for this crossing are advanced for further review: → Modify existing U.S. 20 Structure. → New crossing of Bowers Slough. → Use existing Old U.S. 20 crossing, with or without modifications.	▪ Alt A3 and Alt A4 would create connections to residential areas in north Albany as well as existing and planned active transportation infrastructure. ▪ Located away from the highway, this alternative may create lower-stress travel opportunities as compared to U.S. 20. ▪ This route may provide an opportunity for an interim improvement using on-street facilities for bicycle travel.	▪ This combination of path alignment and crossing option would require only one new crossing of U.S. 20 and does not require any new rail crossings. ▪ North of U.S. 20, the path would use the existing BPA easement, providing a direct connection to the already designed path segment east of Rainwater Ln NW. There is recent precedent for use of the BPA easement based on the previously design path along Alt B4.1. ▪ A grade-separated crossing of U.S. 20 is recommended for Crossing 3.2; above or below grade may be considered. ▪ An at-grade crossing could be evaluated further based on the posted speed limit; however, there are significant barriers, such as sight distance and horizontal curves, which may render this infeasible.
Major Infrastructure Needs	May require retaining walls in areas with steep slopes.	▪ May require new crossing of Bowers Slough. ▪ Requires a grade-separated crossing of U.S. 20 and railroad. ▪ May require retaining walls in areas with steep slopes.	▪ May require new crossing of Bowers Slough. ▪ May require retaining walls in areas with steep slopes.	▪ Retaining walls will likely be required.	▪ Requires a crossing of U.S. 20. ▪ May require retaining walls in areas with steep slopes.

Performance Area	Segment 1	Segment 2		Segment 3 and 4 Options	
Further Considerations	▪ More information is needed to determine feasibility of remaining along U.S. 20 or using the alternate routing along Alt C1.1. ▪ Further information is needed about potential utility and private property conflicts and opportunities to minimize impacts.	▪ This alternative depends on the feasibility of crossing U.S. 20 and the railroad between Bowers Slough and Scenic Dr NW. ▪ More information is needed to determine the feasibility of alignment with consideration for private property, utility, and rail impacts.	▪ More information is needed to determine feasibility of remaining along U.S. 20 or using the alternate (C2.1) routing, including potential for utility and private property conflicts as well as the crossing of Bowers Slough. ▪ Further structural evaluation is needed to determine the feasibility of modifying the existing structure along U.S. 20 or using the existing structure along Old U.S. 20.	▪ Steep slopes may limit the feasibility of a long-term path improvement along the West Thornton Lake Dr NW corridor. ▪ This alternative depends on the feasibility of Crossing 3.1 to the west of Scenic Dr NW. More information is needed to determine the feasibility of a crossing with consideration for private property, utility, and rail impacts.	▪ The north landing of the crossing location may be located within the regulatory floodway. ▪ This alternative depends on the feasibility of Crossing 3.3 in the vicinity of the BPA alignment. The presence of utility poles in the vicinity of the easement may limit above-grade crossing locations. ▪ A grade-separated crossing could include an above- or below-grade crossing.

BPA = Bonneville Power Administration.

6. Next Steps

The alignment alternatives and recommendations presented in this report will be reviewed in coordination with ODOT and community partners. Ongoing public engagement will be incorporated into the screening as part of the Community Support evaluation criterion to reflect local priorities.

In the next phase, the project team will further assess the feasibility of the proposed alignments and crossings. This may include detailed technical studies for the selected alternatives, including biological baseline reports, floodplain analysis, ROW surveys, wetland impact assessments, cultural and historic resource surveys, hazardous materials studies, geotechnical baseline reports, and other analyses as needed to support project development.

7. References

Benton County. 2019. Transportation System Plan. https://pw.bentoncountyor.gov/benton-county-transportation-systems-plan/.

City of Albany. 2010. Transportation System Plan. https://albanyoregon.gov/pw/transportation.

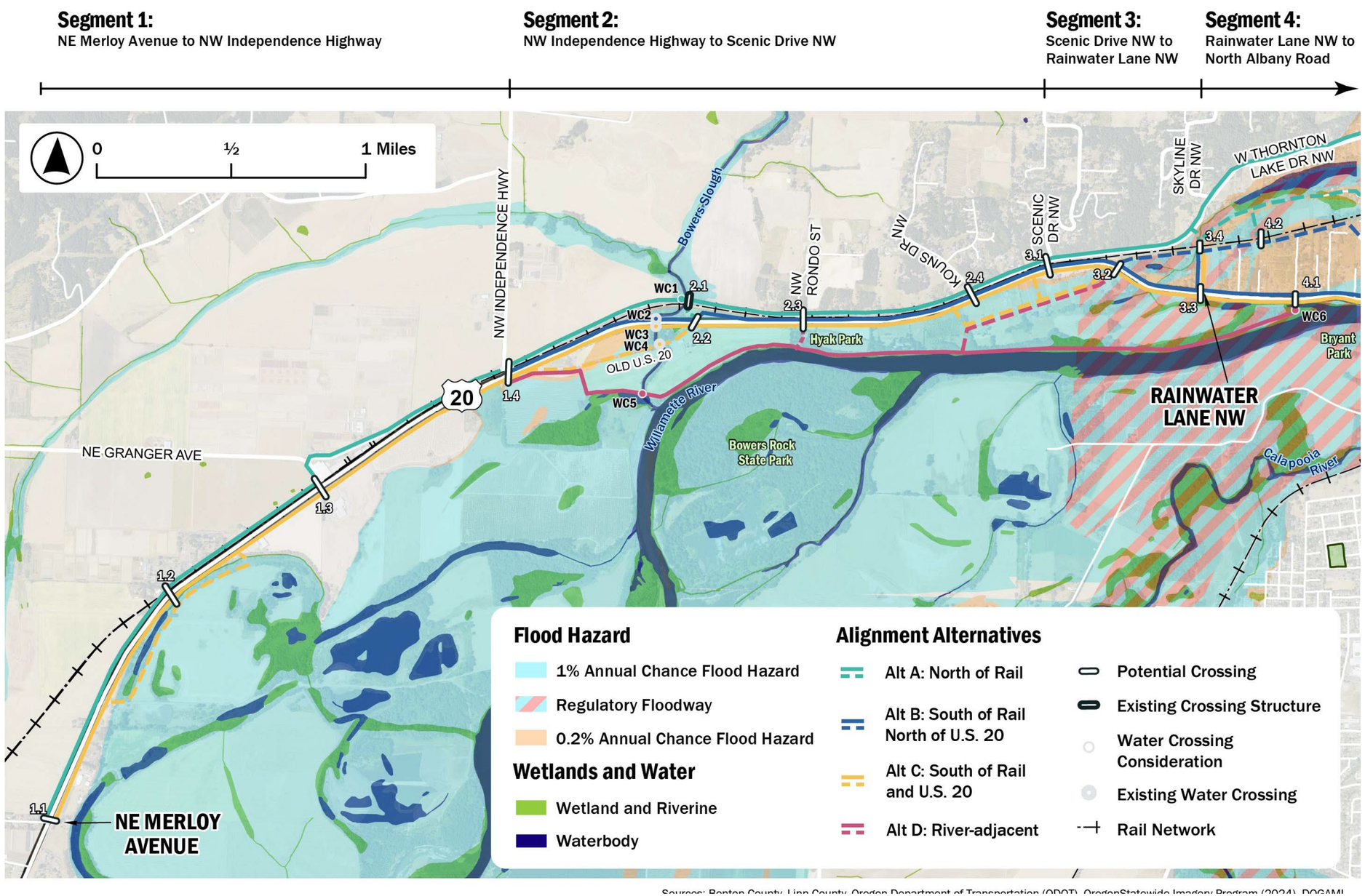
ODOT (Oregon Department of Transportation). 2025. Highway Design Manual. https://www.oregon.gov/odot/engineering/pages/hwy-design-manual.aspx.

Parametrix. 2025. Corvallis to Albany Shared Use Path (NE Merloy Ave to NW Rainwater Ln) Data Collection and Baseline Report. Prepared by Parametrix for Benton County and the Oregon Department of Transportation.

Stanton, K., E. David, and R. Farncomb. 2025. Design and Evaluation Criteria. Memorandum by Parametrix to the Oregon Department of Transportation and Benton County.

Appendix A

Wetlands and Flood Hazard Map



Sources: Benton County, Linn County, Oregon Department of Transportation (ODOT), OregonStatewide Imagery Program (2024), DOGAMI

Figure A-1. Wetlands and Flood Hazards