



Council Creek Regional Trail Master Plan



Report No. 2
TRAIL ALIGNMENT ANALYSIS

SUMMARY



Prepared for

City of Banks, Oregon
City of Forest Grove, Oregon
City of Cornelius, Oregon
City of Hillsboro, Oregon
Washington County, Oregon
Oregon Department of Transportation



Prepared by

Parametrix

Date

May 2014

1. Background

This Council Creek Regional Trail (CCRT) Alignment Analysis Report (Plan Report No. 2) will, after stakeholder and public review, identify, map and describe up to three trail alignment alternatives within each of six trail segments (see map below). The original boundaries of these segments were defined at the outset of the project and refined at the Existing Conditions phase completed in February 2014. The master plan’s Existing Conditions Report (Plan Report No. 1) should be used as a background reference in reviewing the trail alignment alternatives mapped and described herein. Plan Report No. 1 can be found online at the official project website.¹

All trail alignment alternatives and features that are illustrated or described in this DRAFT Plan Report No. 2 are “plan level” and subject to detailed permitting, design, and engineering in advance of trail construction. At this DRAFT step, some segments have more than three alternatives described. The results of a stakeholder and public review process between April and June 2014 will guide the project team in narrowing segment alternatives to three or fewer or to identify alternatives not previously considered. In the next phase of this master plan—Implementation Strategy (Plan Report No. 3)—the one to three alignments identified for each segment will undergo additional analysis and stakeholder and public review and a preferred alignment will be selected.



Council Creek Trail Segments

¹ [http://www.oregonmetro.gov/Council Creek](http://www.oregonmetro.gov/Council%20Creek)

2. Goals and Objectives

The goal of the CCRT Master Plan is to identify and plan a preferred trail alignment within a trail corridor study area that is approximately 15 miles long, extending from downtown Banks through unincorporated farmlands in Washington County to the cities of Forest Grove and Cornelius then into downtown Hillsboro.

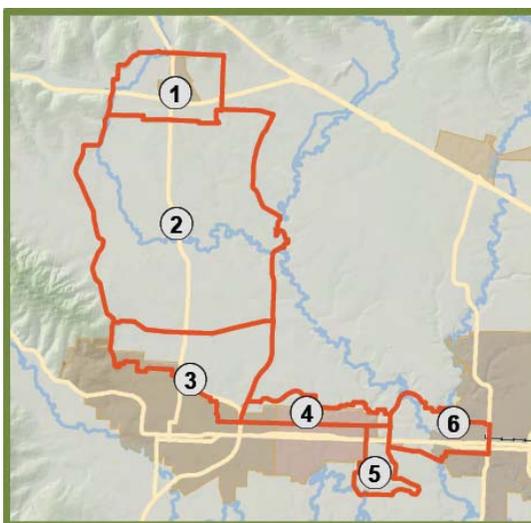
The overarching objective is for the trail to primarily be a multiuse facility (bicyclists and pedestrians) aligned separately from road rights of way. Other master plan objectives include:

- Coordinate the inputs and actions of the various project jurisdictional partners and other stakeholders.
- Engage local jurisdictions, property owners, citizens, businesses, and other stakeholders in the CCRT's development.
- Collect and summarize baseline information on the existing conditions within the CCRT corridor and in immediately abutting areas. This information can be found in CCRT Plan Report No. 1.
- Analyze specific trail segments within the trail corridor addressing opportunities and constraints with respect to roadway and railway crossings, stream and wetland impacts, urban and rural land uses, and other opportunities and limitations, to best assure trail sections and segments can be constructed to regional trail standards. This information can be found in this Plan Report No.2.
- Develop implementation and phasing strategies. This information will be published in Plan Report No. 3 scheduled in November 2014, and will include recommendations on preferred trail alignments, costs, and phasing.
- Produce a draft CCRT Master Plan for jurisdictional, stakeholder, and public review and distribution.
- Produce a final CCRT Master Plan with a preferred alignment to guide local jurisdictions in the development of the trail.

Appendix A: CCRT Master Plan Simplified Map Atlas

This Council Creek Regional Trail (CCRT) Alignment Analysis Simplified Map Atlas is derived from the full DRAFT CCRT Trail Alignment Analysis, Plan Report No. 2 published in April 2014. The full DRAFT Plan Report No. 2 includes background information; the master plan's goals and objectives; links to the master plan's Existing Conditions Report (Plan Report No. 1, February 2014); a full description of the assumptions and limitations applied to the trail alignment analysis; a full description of the trail features and elements used in this analysis, including the preferred trail type, alternative trail types, special structures, and stream crossing alternatives; and the trail alignment alternative rating criteria that will be fully applied in the future Implementation Strategy phase of the master plan process.

The DRAFT Plan Report No. 2 also includes full descriptions and full mapping for each of six trail planning segments (see map below) including multiple trail alignments, detailed variations of the multiuse trail types, and, in some cases, street solutions used, as well as a partial and preliminary application of trail rating criteria. The master plan's Existing Conditions Report (Plan Report No. 1) should be used as a background reference in reviewing trail alignment alternatives. The completed Plan Report No. 1 and the full DRAFT of Plan Report No. 2 are available on the official project website.²



Council Creek Trail Segments

² [http://www.oregonmetro.gov/Council Creek](http://www.oregonmetro.gov/CouncilCreek)

A variety of constraints and opportunities influence CCRT alignment alternatives. Adopted regulations and policies, natural resource features, historic and cultural resources, prior or planned development, existing transportation and utility infrastructure, and the need to make connections to destinations and services factored into the identification of possible trail routes in this Trail Alignment Analysis phase.

This *simplified map atlas* is designed to make the major features of the possible trail alignments accessible to a broader range of stakeholders. Some stakeholders may not necessarily have the time to study the full reports but, nonetheless, have a strong interest in plans for the future trail. This atlas includes eight maps—one for each of the six trail planning segments, one that shows the combined trail options between the City of Banks to the City of Forest Grove, and another from the City of Cornelius to the City of Hillsboro. These maps show the same base map information, trail alignments and localized trail options, and sites for trailheads and road, rail, and stream crossings as are shown on the detailed maps in DRAFT Plan Report No. 2. The difference is that the multiple variations of trail types described and mapped in DRAFT Plan Report No. 2 have been consolidated for the purposes of this simplified map atlas into:

- **Multiuse trail** – 10- to 12-foot-wide trail designed to accommodate two-way pedestrian and bicycle traffic. The multiuse trail may be aligned along its own right-of-way, close to but outside of street right of way, or may use boardwalks, bridges, and flood-resistant design to span streams, wetlands, and other sensitive features.
- **Pedestrian-only trail** – 8-foot-wide or narrower trail designed for pedestrian use only in areas where prior development or environmental features make routing of a wider trail undesirable or impossible and where a nearby alternative for bicyclist can be provided.
- **Street solution** – A variety of solutions may be developed within street right-of-way in areas where prior development or environmental features make routing a multiuse trail challenging or impossible or where an alternative for bicyclists is needed.

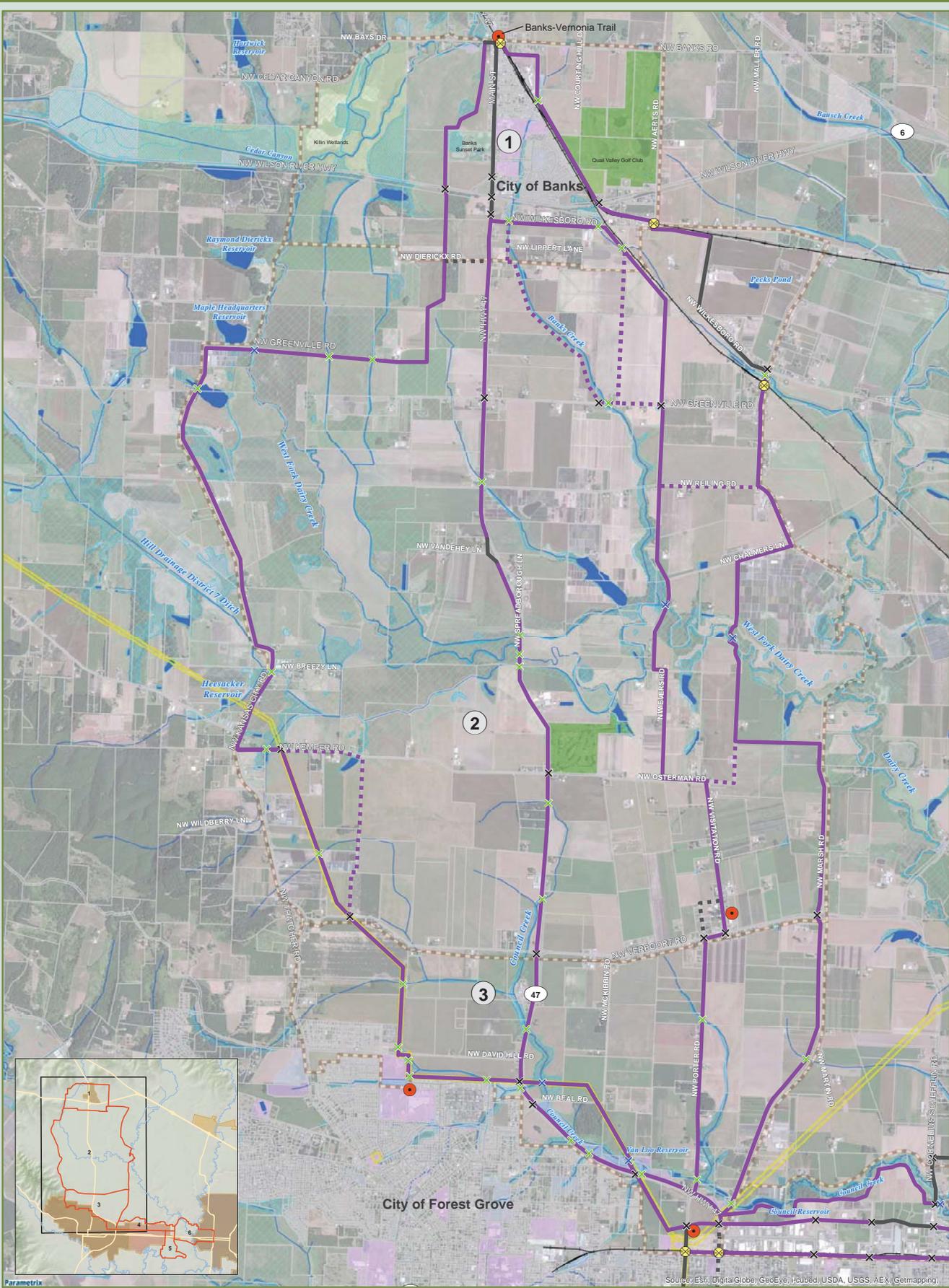
In order to assist in following trail alignment alternatives across the segment maps, the primary alternatives have also been named with the use of icons, for example:  

At this DRAFT step, some segments have more than three alternatives described. The results of jurisdiction and stakeholder review in April and May 2014 and a public open house conducted in early June 2014 will guide the project team in narrowing the segment alternatives to three or fewer or in identifying alternatives not previously considered. In the next phase of this

master plan—Implementation Strategy (Plan Report No. 3)—the three or fewer alignments identified for each segment will undergo additional analysis and stakeholder and public review, and a preferred alignment will be selected. This Implementation Strategy phase is currently scheduled to take place between July and December 2014. A public open house is planned for early November 2014.

All trail alignment alternatives and features that are illustrated in this simplified map atlas are “plan level” and subject to detailed permitting, design, and engineering in advance of trail construction. The reader is encouraged to review the full DRAFT Trail Alignment Analysis Plan Report No. 2 for additional information on which to base their own views and to provide input on the best routes and approaches for the Council Creek Regional Trail.

The project’s jurisdictional partners appreciate your interest in the development of this important transportation and recreation option for pedestrians and bicyclists living and working in the cities of Banks, Forest Grove, Cornelius, and Hillsboro, and in unincorporated Washington County.



Council Creek Regional Trail Master Plan - Trail Alternatives Segment 1-3
Banks
 Washington Co. (North)
 Forest Grove

Trail Type

- Multisue Trail
- Multisue Trail - Local Variation
- Street Solution
- Street Solution - Local Variation
- Pedestrian Trail
- Conceptual Trailhead Location

Crossing Type

- Collector/Arterial Road Crossing
- Major Stream Crossing
- Minor Stream Crossing
- Railroad Crossing

Legend

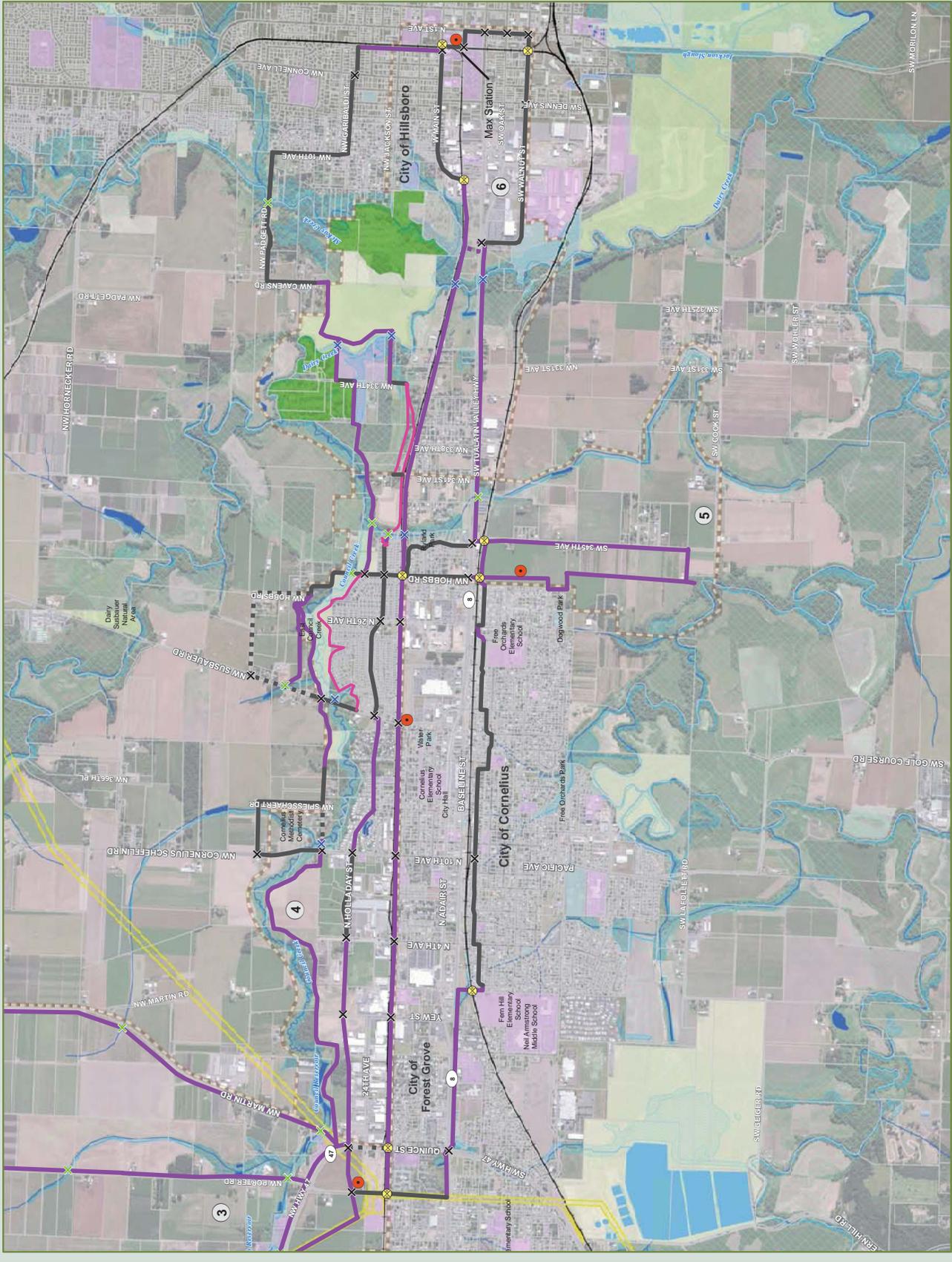
- Trail Segment Boundary
- BPA Corridor
- Streams
- Railroad
- Waterbody
- Wetland Area
- FEMA 100 Yr. Flood Plain
- Taxlot Boundary
- Park
- Natural Area
- Private Recreation Area
- Cemetery
- Public Land

0 0.25 0.5 0.75 1 Miles

Source: Esri, DigitalGlobe, GeoEye, Earthstar, USDA, USGS, AEX, Getmapping

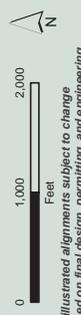
**Council Creek Regional Trail
Master Plan
Trail Alternatives
Segment 4 - 6
Cornelius
Jobes Ditch
Washington Co. (East)**

- Trail Type**
- Multituse Trail
 - Multituse Trail - Local Variation
 - Street Solution
 - Street Solution - Local Variation
 - Pedestrian Trail
 - Conceptual Trailhead Location
- Crossing Type**
- Collector/Arterial Road Crossing
 - Major Stream Crossing
 - Minor Stream Crossing
 - Railroad Crossing
 - BPA Corridor
 - Trail Segment Boundary
 - Railroad
 - Taxlot Boundary
 - Park
 - Natural Area
 - Private Recreation Area
 - Cemetery
 - Public Land
 - Streams
 - Waterbody
 - Wetland Area
 - FEMA 100 Yr. Flood Plain

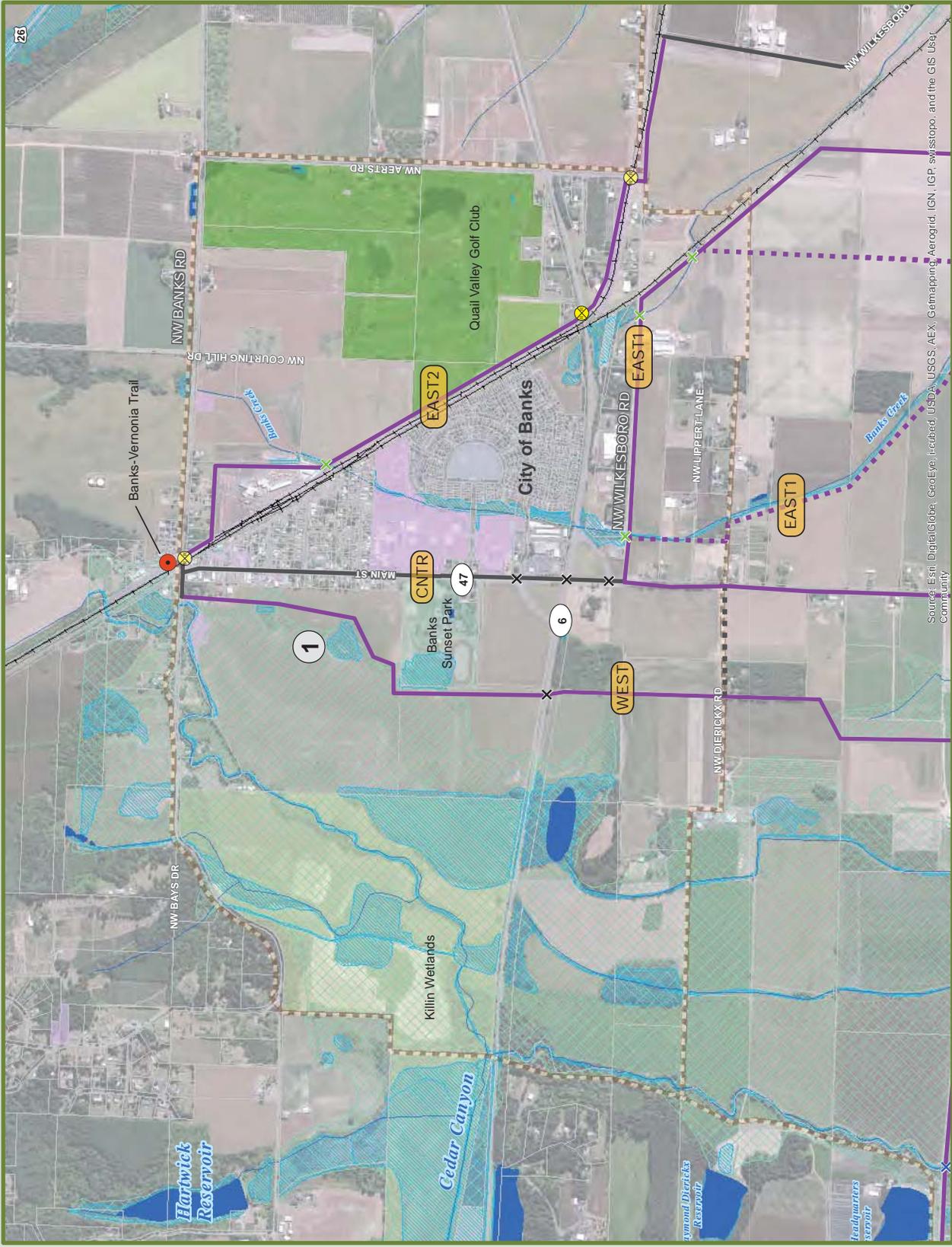
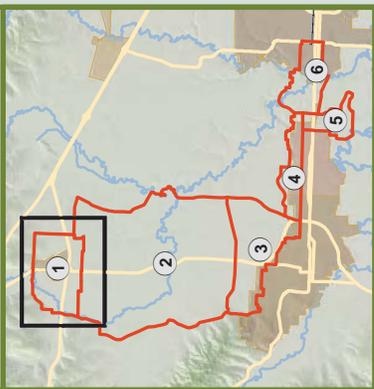


Council Creek Regional Trail Master Plan Trail Alternatives Segment 1 Banks

- Trail Type**
- Multiseuse Trail
 - Multiseuse Trail - Local Variation
 - Street Solution
 - Street Solution - Local Variation
 - Pedestrian Trail
 - Conceptual Trailhead Location
- Crossing Type**
- Collector/Arterial Road Crossing
 - Major Stream Crossing
 - Minor Stream Crossing
 - Railroad Crossing
 - Trail Segment Boundary
 - BPA Corridor
 - Railroad
 - Taxlot Boundary
 - Park
 - Natural Area
 - Private Recreation Area
 - Cemetery
 - Public Land
 - Streams
 - Waterbody
 - Wetland Area
 - FEMA 100 Yr. Flood Plain



All illustrated alignments subject to change based on final design, permitting, and engineering.



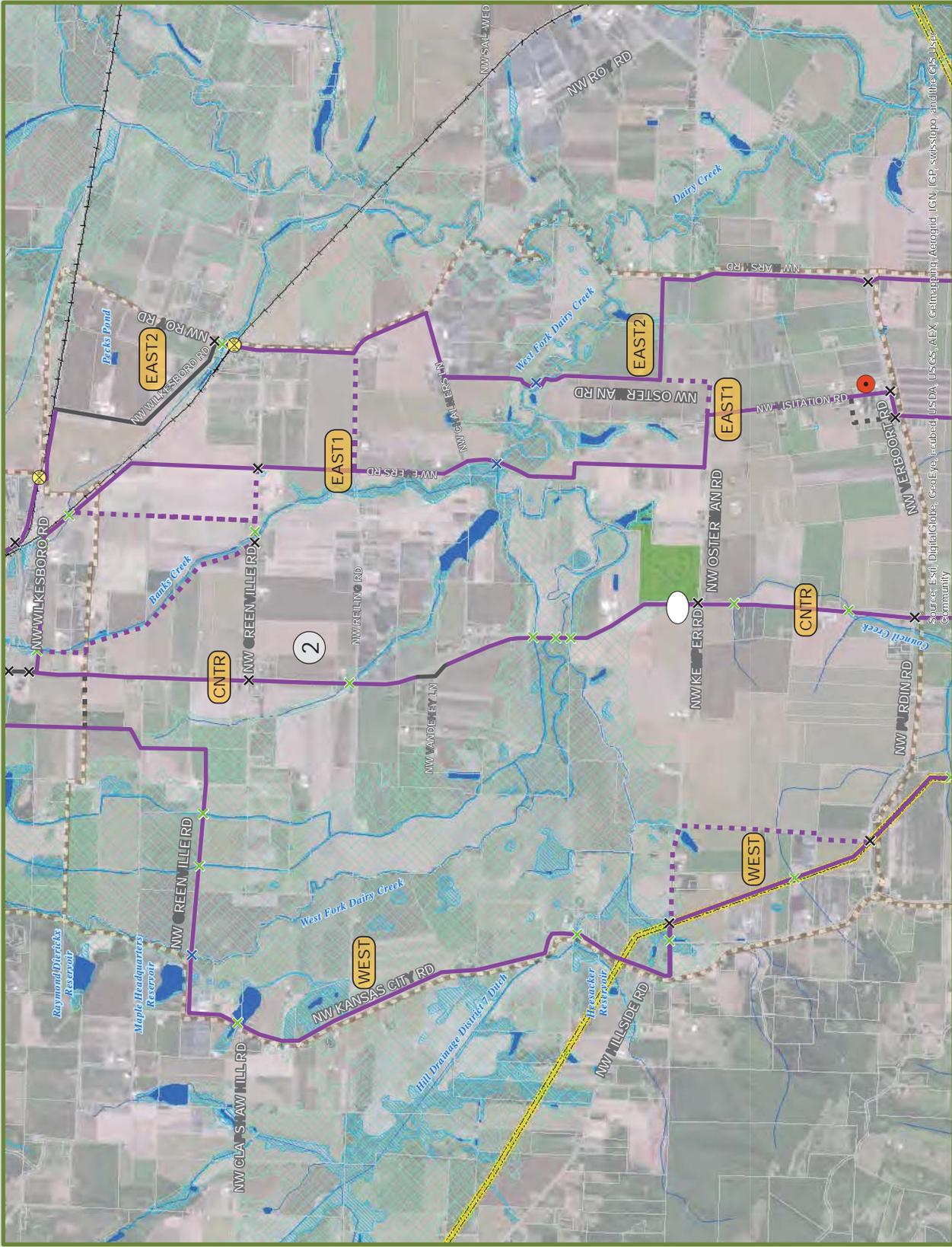
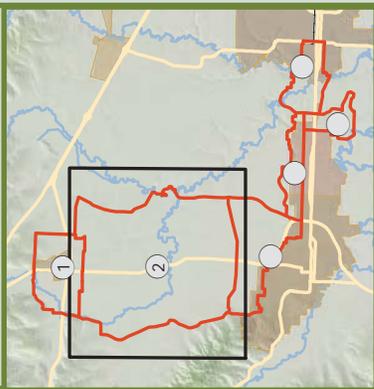
Source: Esri, DigitalGlobe, GeoEye, USDA, AEX, Geomapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Trail Alternatives Segment 2 Washington County (North)

- | | |
|---|-----------------------------------|
| T | Multise Trail |
| T | Multise Trail - Local Variation |
| T | Street Solution |
| T | Street Solution - Local Variation |
| T | Pedestrian Trail |
| C | Conceptual Trailhead Location |
| X | Collector/Arterial Road Crossing |
| X | Major Stream Crossing |
| X | Minor Stream Crossing |
| X | Railroad Crossing |
| X | Trail Segment Boundary |
| X | BPA Corridor |
| X | Railroad |
| X | Taxlot Boundary |
| X | Park |
| X | Natural Area |
| X | Private Recreation Area |
| X | Cemetery |
| X | Public Land |
| X | Streams |
| X | Waterbody |
| X | Wetland Area |
| X | FEMA 100 Yr. Flood Plain |



All illustrated alignments subject to change based on final design, permitting, and engineering.



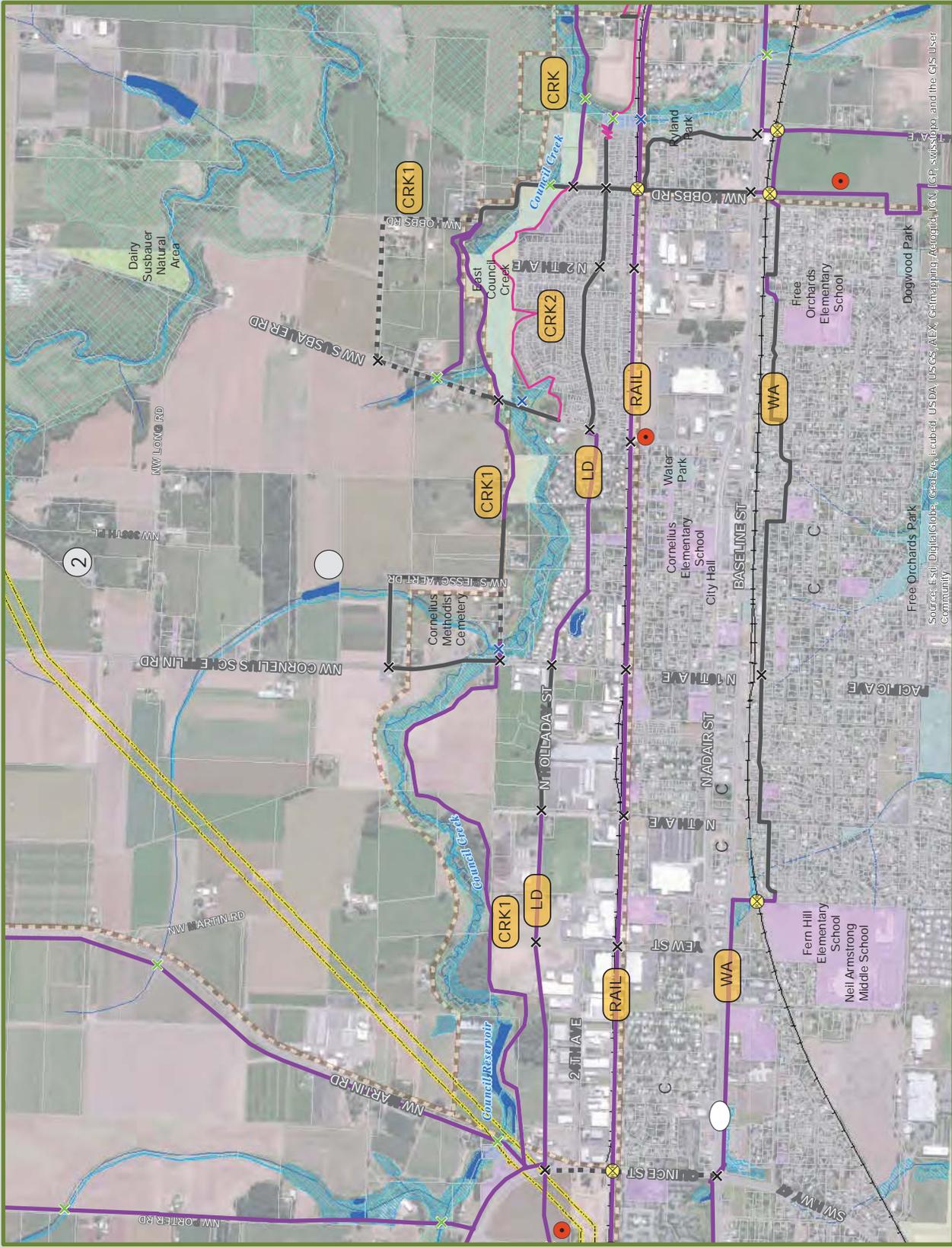
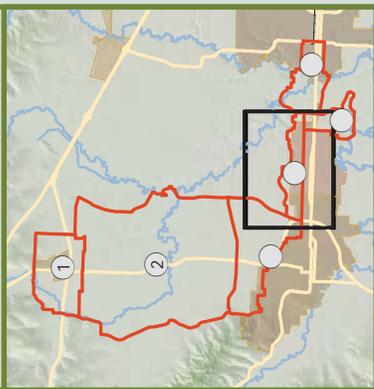
CORNELL

Trail Alternatives Segment 4 Cornelius

- | | |
|---|-----------------------------------|
| T | Multituse Trail |
| T | Multituse Trail - Local Variation |
| T | Street Solution |
| T | Street Solution - Local Variation |
| T | Pedestrian Trail |
| T | Conceptual Trailhead Location |
| C | Collector/Arterial Road Crossing |
| C | Major Stream Crossing |
| C | Minor Stream Crossing |
| C | Railroad Crossing |
| C | Trail Segment Boundary |
| C | BPA Corridor |
| C | Railroad |
| C | Taxlot Boundary |
| C | Park |
| C | Natural Area |
| C | Private Recreation Area |
| C | Cemetery |
| C | Public Land |
| C | Streams |
| C | Waterbody |
| C | Wetland Area |
| C | FEMA 100 Yr. Flood Plain |



All illustrated alignments subject to change based on final design, permitting, and engineering.



Source: Esri, DigitalGlobe, GeoEye, Earthstar, CNES, Airbus, GeoEye, IGN, Swisstopo, and the GIS User Community

Trail Alternatives Segment 5 Jobs Ditch

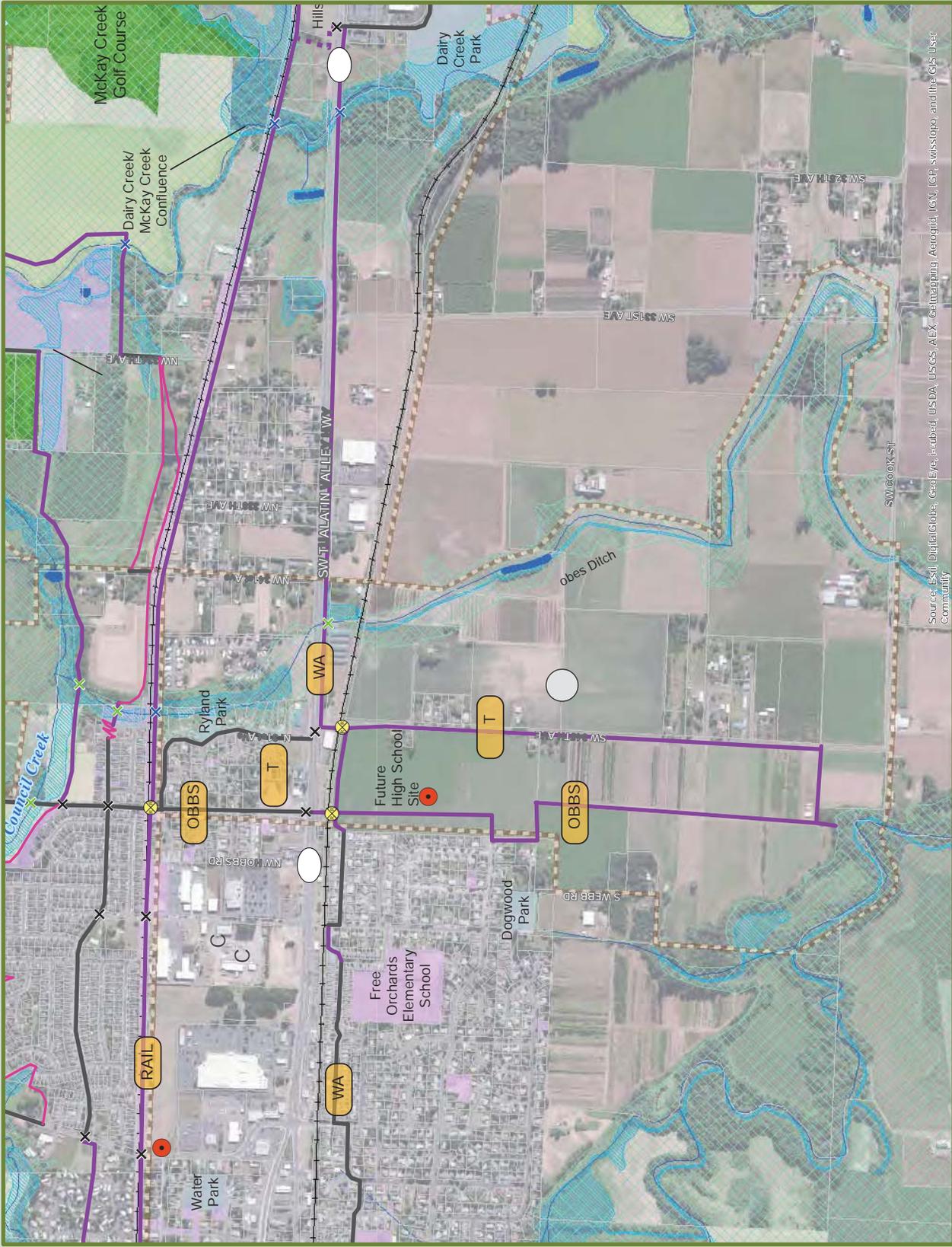
T Multiuse Trail
T Multiuse Trail - Local Variation
S Street Solution
S Street Solution - Local Variation
P Pedestrian Trail
C Conceptual Trailhead Location

X Collector/Arterial Road Crossing
X Major Stream Crossing
X Minor Stream Crossing
X Railroad Crossing
X Trail Segment Boundary
X BPA Corridor
X Railroad
X Taxlot Boundary
X Park
X Natural Area
X Private Recreation Area
X Cemetery
X Public Land
X Streams
X Waterbody
X Wetland Area
X FEMA 100 Yr. Flood Plain

0 1,000 2,000
Feet

N

All illustrated alignments subject to change based on final design, permitting, and engineering.

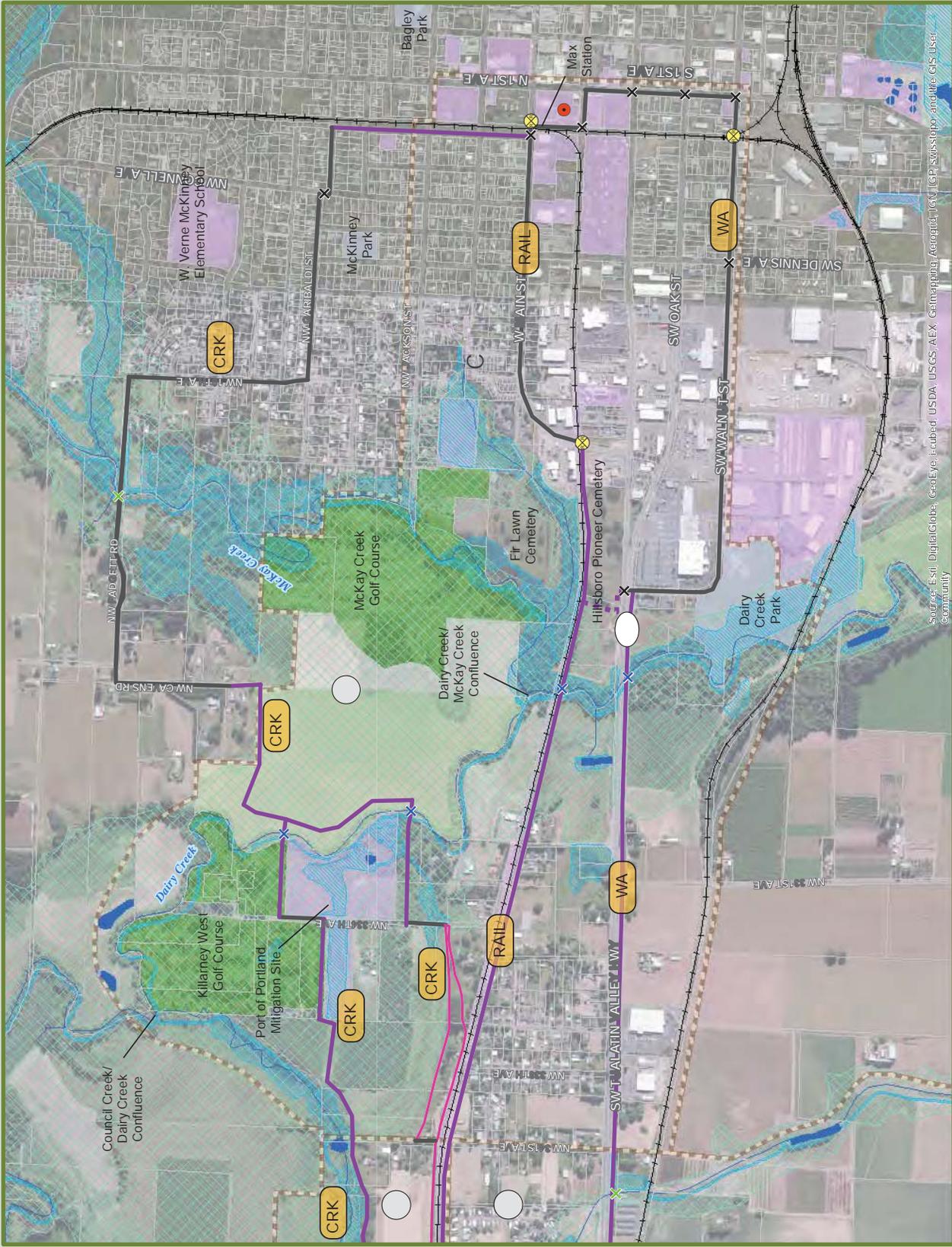
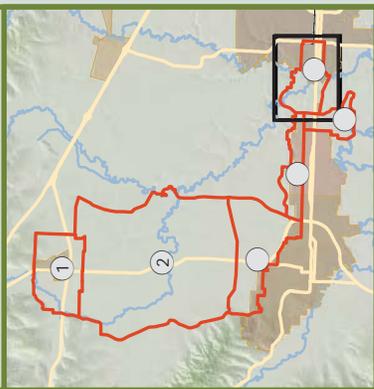


Trail Alternatives Segment 6 - Hillsboro Washington County (East)

- T T Multiluse Trail
- T T Multiluse Trail - Local Variation
- T T Street Solution
- T T Street Solution - Local Variation
- T T Pedestrian Trail
- T T Conceptual Trailhead Location
- C X Collector/Arterial Road Crossing
- C X Major Stream Crossing
- C X Minor Stream Crossing
- C X Railroad Crossing
- C X Trail Segment Boundary
- C X BPA Corridor
- C X Railroad
- C X Taxlot Boundary
- C X Park
- C X Natural Area
- C X Private Recreation Area
- C X Cemetery
- C X Public Land
- C X Streams
- C X Waterbody
- C X Wetland Area
- C X FEMA 100 Yr. Flood Plain

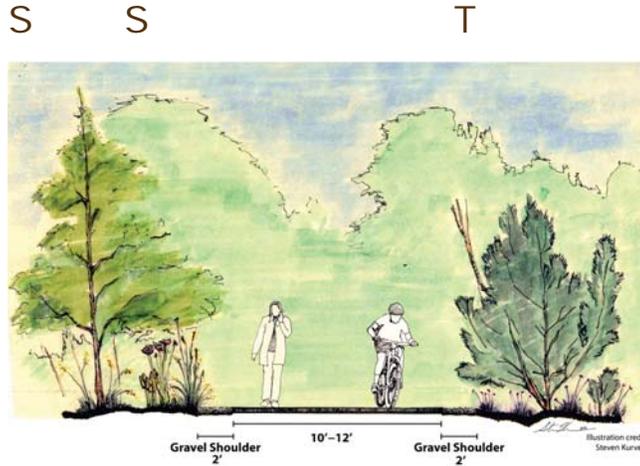


All illustrated alignments subject to change based on final design, permitting, and engineering.

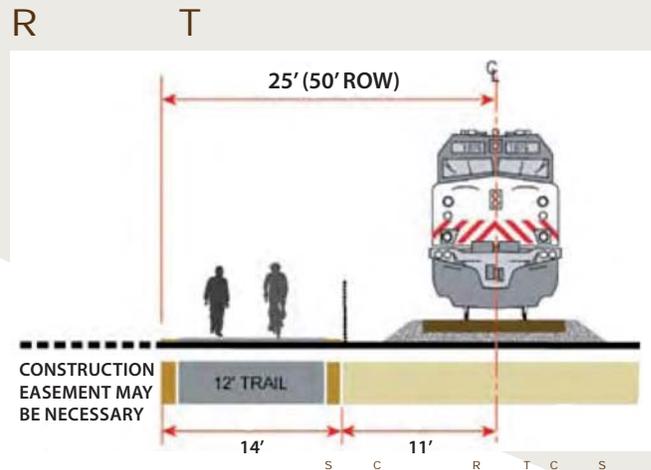
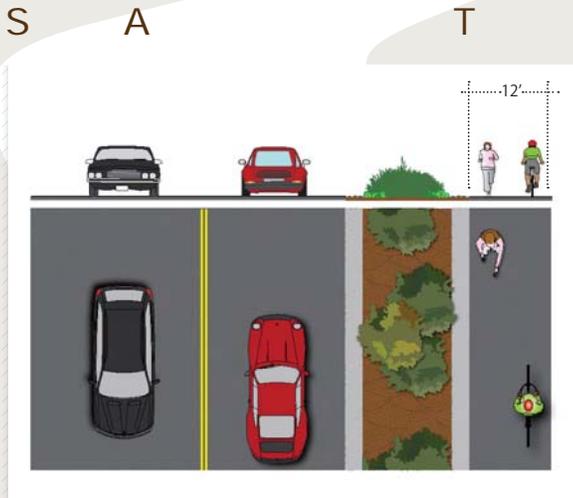
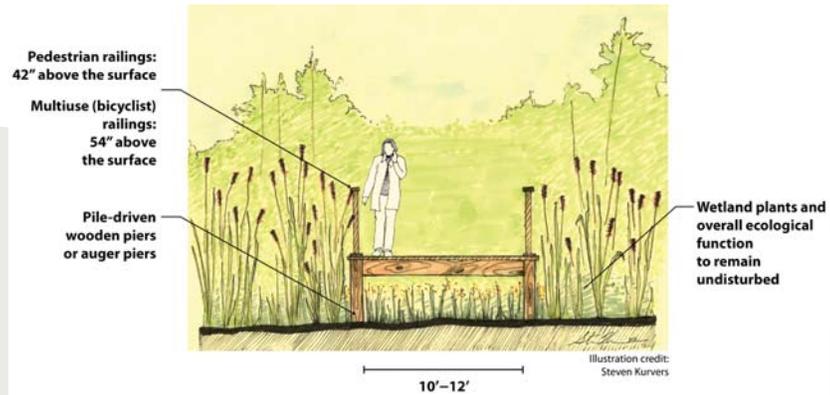


Source: Esri, DigitalGlobe, GeoEye, USDA, USGS, AEX, Geomapping, AeroGRID, IGN, IGP, swisstopo, and the GIS User Community

Multiuise Trail Solutions



B

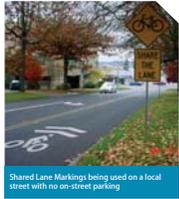


S W C B D T

Street Solutions

S

SUBURBAN ROADWAY WITH SLMs



Shared Lane Markings being used on a local street with no on-street parking

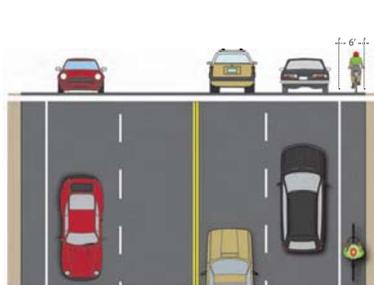


S W C B D T

S

W

ROADWAY WITH PAVED SHOULDER



A paved shoulder on a rural arterial appeals most to recreational bicyclists traveling long distances

S W C B D T

C

B L

RURAL ROADWAY WITH BIKE LANES



Bike lanes on rural roadways help to separate bicyclists from large vehicles such as transit, freight, and emergency vehicles

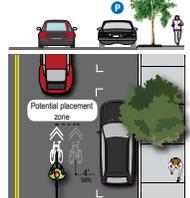


S W C B D T

URBAN ROADWAY WITH SLMs



Shared Lane Markings adjacent to parking encourage bicyclists to ride outside the 'door zone'



URBAN ROADWAY WITH BIKE LANES



On-street parking was removed on this suburban street to accommodate bike lanes

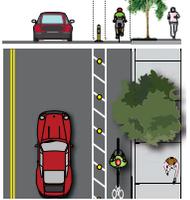


C T

SUBURBAN ROADWAY WITH CYCLE TRACK



A cycle track in Tucson, AZ uses a textured buffer and bollards to provide a separated bikeway facility



S W C B D T

C T

RURAL ROADWAY WITH BUFFERED BIKE LANES



Buffered bike lanes increase the shy distance between passing motorists and bicyclists



S W C B D T

C T

ROADWAY WITH RAISED CYCLE TRACK



This raised and colored cycle track in Bend, Oregon vertically separates bicyclists and motorists



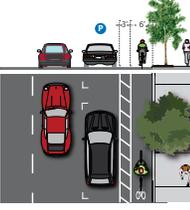
A raised cycle track in Corvallis, Oregon allows bicyclists to transition seamlessly into the travel lane when necessary

S W C B D T

URBAN ROADWAY WITH CYCLE TRACK AND PARKING LANE



The 9th Street cycle track in NYC is on the left side of the street to avoid conflict with transit stops



URBAN ROADWAY WITH BUFFERED BIKE LANES



A bike commuter in an urban setting rides comfortably in the buffered bike lane

