



Tryon Creek Cove Trail Connection Plan: Project Advisory Committee Meeting #2

July 31, 2018

Amin Wahab	. City of Portland, Bureau of Environmental Services
Marc Peters	. City of Portland, Bureau of Environmental Services
Jennifer Coker	. City of Portland, Bureau of Environmental Services
Bruce Powers	. City of Lake Oswego
Seth Brumley	Oregon Department of Transportation
Jeff Gudman	Lake Oswego City Council
Jeff Merrill	Metro, Parks and Nature
Mel Huie	Metro, Parks and Nature
Patty Freeman	The Street Trust
Terri Preeg Riggsby	Tryon Creek Watershed Council
Charles (Skip) Ormsby	Birdshill Neighborhood Association
Craig Stephens	. Old Town Neighborhood Association

Others in attendance

John Cullerton	Parametrix
Jim Rapp	Parametrix
Jeanne Lawson	Jeanne Lawson and Associates
Laura Oppenheimer	Metro, Parks and Nature
Ann Toledo	Metro, Parks and Nature
Paden Prichard	Citizen
Susanna Kuo	Citizen

Committee members not in attendance

Joe Recker	. TriMet/Willamette Shoreline Consortium
Blair Whiteman	. Oregon Parks and Recreation Department
Jamie Snook	. Metro, Planning
Ivan Anderholm	. City of Lake Oswego
Karen Buehrig	. Clackamas County Transportation Planning

WELCOME AND INTRODUCTIONS

The committee and members of the public introduced themselves. Facilitator Jeanne Lawson explained that one of the goals of today's meeting is to identify route alternatives for more detailed analysis. Mel Huie shared historic photographs of the site that were sent to him by Lake Oswego historian Susanna Kuo.

PUBLIC ENGAGEMENT UPDATE

Laura Oppenheimer, Metro, discussed the public engagement activity related to the project. There have been many social media posts from both Metro and the City of Lake Oswego, and the responses from the public have been generally positive. In addition, there has been one article in

the Lake Oswego newsletter (*Hello, LO*), two articles in the Lake Oswego Review, and a postcard mailer to around 8,000 households.

A survey opened on July 19 and will close on August 9, allowing the public to weigh in on the alternatives. As of the meeting date, 257 people have responded and their answers appear to align closely with the responses received at the open house.

Preliminary results of the survey are as follows:

- Tryon Creek Crossing
 - Eighty-five percent of respondents agree that the creek crossing is a great or good solution.
- Alternative Route 1: New traffic signal at Stampher Road and Terwilliger Boulevard.
 - o Split opinion on whether this is a good or poor option, 50/50.
- Alternative Route 2: Highway/railroad undercrossing
 - Eighty percent agree this is a great or good solution. However, many people mention the high price tag.
- Alternative Route 3: Pedestrian-activated at-grade crossing
 - Over 50 percent think this is a poor or very poor solution. Many state traffic concerns similar to Alternative Route 1.
- Alternative Route 4: Existing roads and sidewalks
 - Only 13 percent think this is a good alternative and over 54 percent agree this is a very poor solution.

SUMMARY OF OPEN HOUSE #1

The first open house took place on July 19 at the Adult Community Center in Lake Oswego. There was a good turnout, around 45-50 people. Three stations were set up: project overview, alternative routes, and a trail alignment options interactive activity. Staff and committee members were available at each station to answer questions. The interactive station mimicked the online survey and asked for the public's opinion regarding each of the route alternatives and about the bridge over Tryon Creek. The responses at this station were nearly identical to the preliminary results obtained through the online survey. In addition, there were two presentations given: one at 5:40 p.m. and one at 6:40 p.m. The first presentation was given to a larger audience; whereas the second presentation was given to a smaller group of people giving way to more opportunity for discussion. The next open house is slated for the fall, but a date has not been chosen. *Attachment 1*.

BUREAU OF ENVIRONMENTAL SERVICES TREATMENT PLANT EXPANSION AND MITIGATION PROPOSAL FOR SITE/IMPACTS ON TRAIL ALIGNMENTS

Jennifer Coker from the Bureau of Environmental Services (BES) discussed the Wastewater Treatment Plant expansion and how it would affect trail alignments in the study area. The project will be at 60 percent completion by November 2018. Early construction will begin in late spring/early summer 2019 and the project should be completed by 2023-24. The Plant was originally constructed in 1964 and needs to be expanded in order to accommodate peak flow. The facility also needs to be removed from the 100-year floodplain that it is currently located in. The floodplain cut mitigation concepts were created with the Tryon Creek Bridge in mind, and the

mitigation wouldn't make the bridge longer or more expensive. BES has meetings planned with Metro and Lake Oswego to get these plans revised even more. The three jurisdictions do not currently have an intergovernmental agreement relating to this project.

Jennifer also presented findings from archeological and environmental studies done in the study area. The archeological study, completed in August 2017, revealed that there is no evidence of prehistoric or early historical resources. Oregon Iron and Steel Pipe Foundry found in site; it was dismantled in 1928. The Phase I environmental site assessment found that the site was used as a dump and/or had a gas station/underground tank. *Attachment 2*.

INITIAL EVALUATION OF TRYON CREEK BRIDGE

The committee unanimously approves the bridge alignment over Tryon Creek.

FOUR ALTERNATIVES FOR CROSSING OR-43

Jim Rapp and John Cullerton presented for the committee's review the four alternative routes for crossing OR-43. For more details on the specificities of the routes, please see *Attachment 3*.

In order to narrow down the alternatives due to consultant budget and time restraints, Jeanne facilitated a group discussion and identification of options to carry forward for detailed evaluation. Each committee member was asked to hold up a green, yellow or red piece of paper in response to each alternative. Below are the results.

- Alternative Route 1: New traffic signal at Stampher Road and Terwilliger Boulevard
 - o Most members chose green, one chose yellow and one chose red.
 - o This option will carried forward for detailed evaluation.
- Alternative Route 2: Highway/railroad undercrossing
 - o This option was popular with the public, but the committee was mixed. There were five greens, three yellows and three reds.
 - o Parametrix reiterated that this option would be very complicated to complete.
 - This option will carried forward for detailed evaluation.
- Alternative Route 3: Pedestrian-activated at-grade crossing
 - o All but two members chose red, one chose yellow and one chose green.
 - This option will not be carried forward for further analysis.
- Alternative Route 4: Existing roads and sidewalks
 - This alternative was unpopular with the public, but fairly popular with the committee as a fallback option. Six greens and three yellows.
 - o Parametrix identified that this option does not include bike lanes, and that there is little opportunity to create them. This would only benefit pedestrians, not cyclists.
 - o This alternative would involve minimal capital improvements and could serve as an interim option while funding or other issues are resolved. The team will not develop this option any further, but will maintain this as a possible interim or fallback option.

- Alternative Route 4.5: Bridge over OR-43
 - O Parametrix developed a conceptual plan spurred from public input to have a bike/pedestrian bridge over OR-43. This bridge isn't a possibility because with the grade issues, the bridge would land in the Willamette River. The conceptual plan was created to show why this wasn't chosen as a possible alternative.
 - o All committee members agreed that this isn't an option, all chose red.
 - o This concept will not be carried forward for detailed evaluation.

Skip Ormsby explained another option for crossing OR-43, and drew a diagram. He will be sending Mel Huie a detailed description of this idea.

Decisions

- Alternative Routes 1 and 2 will be carried forward for detailed evaluation.
- Alternative Route 4 will not include any further analysis, but will be available as an interim or fallback option.
- Building a bridge over OR-43 is not feasible.
- The committee unanimously approved the Tryon Creek bridge alignment.
- The next PAC meeting will precede the second open house.

Actions agreed upon

- Technical team to complete evaluations on Alternative Routes 1 and 2.
 Deadline: Prior to PAC meeting #3
- Skip Ormsby to send Mel Huie a detailed description of his OR-43 crossing idea.
 Deadline: August 31, 2018

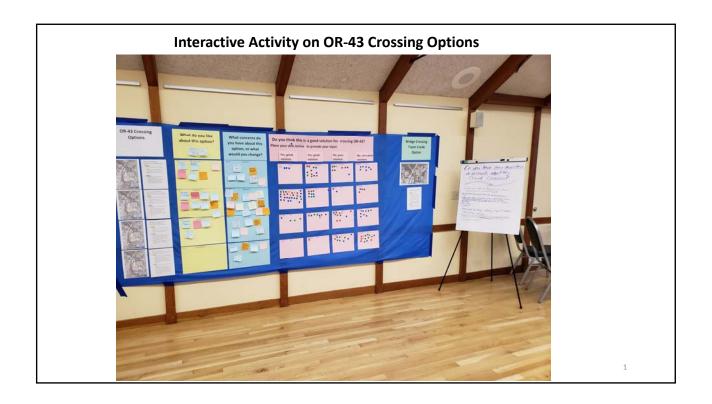
Next meeting

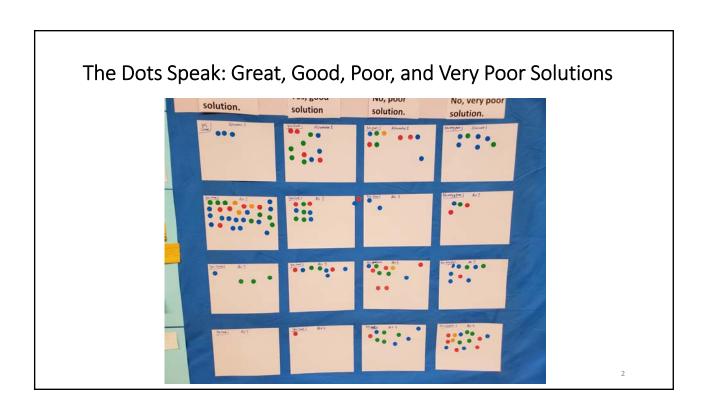
Date to be determined. Terri Preeg Riggsby would like the meeting location moved to Lake Oswego.

The meeting adjourned at 4:00 p.m.

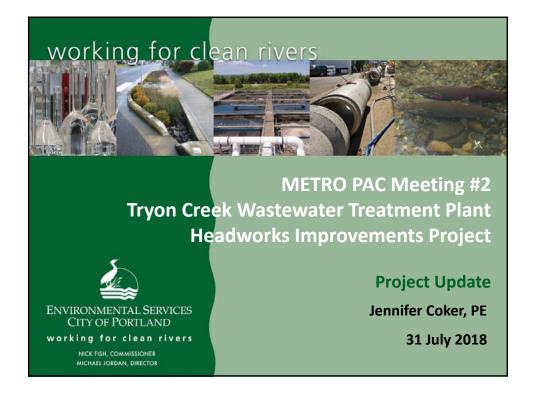
Meeting summary by Ann Toledo, Metro Parks and Nature

Questions or need more information? Contact Mel Huie, Metro Parks and Nature at mel.huie@oregonmetro.gov





What Participants Like about Alternative 1 and 2 Like? Alternative 2 Locate constitute Vehicles Tis Committee Vehic



Agenda

- Facility Overview, Needs, Goals
- TCWTP Headworks Improvement Project Overview, Status, Schedule
- BES Floodplain Mitigation Concepts
- Summary of Future Project Coordination
 - Pedestrian Bridge
 - BES needs for Facility Expansion
- Next Steps



Environmental Services | TCWTP Headworks Improvements Project- 31 July 2018

TCWTP Service Area and Population 2010 Estimate – 49,900 • City of Portland: 15,000 • DunthorpeRiverdale: 2,900 • Lake Oswego: 32,000 Environmental Services & TCMTP Headworks Improvements Project: 31 July 2018

Tryon Creek Wastewater Treatment Plant

• Constructed: 1964

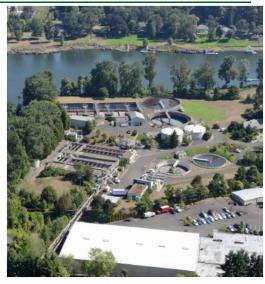
• Expanded: 1976

• Last Construction: 2004

• Adjacent Water Bodies

- Willamette River

- Tryon Creek



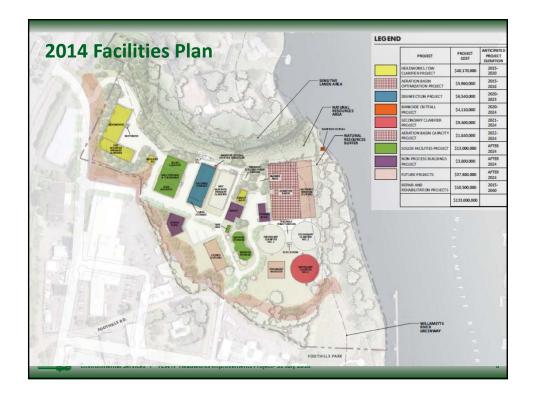


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Facility Plan Project Triggers

- Condition
- Peak Flows
- Performance/Operability
- Regulatory
 - NPDES Permit Renewal Requirements
 - Class 1 Reliability Standards
 - Willamette Basin Standard &/or blending elimination
 - Nutrient Removal
- Site Enhancements

Environmental Services | TCWTP Headworks Improvements Project- 31 July 201



Treatment Plant Improvements

• Purpose:

- Replace open air headworks
- Improve plant electrical reliability
- Increase treatment peak hydraulic capacity from 37.5 to 50 MGD
- Capture and treat odorous air
- Locate facilities out of/above the 100-year flood plain

• Scope:

- Headworks building
- Two primary clarifiers
- Odor control systems
- New plan electrical feed
- Complete electrical distribution equipment and system replacement
- Modifications to existing plant facilities
- Site improvements and yard piping



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Site Plan, Constraints

Headworks
Screening and Grit
50 MGD Capacity

Wet Weather
Primaries
23 MGD

Dry Weather
Primaries
27 MGD

Disinfection

Disinfection

Disinfection

Disinfection

Disinfection

Disinfection

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CM/GC Schedule

Task	Duration (Months)	Start	Finish
Predesign to 30%	18	Aug 2016	Jan 2018
Predesign Contingency	2	Feb 2018	Mar 2018
Design - 30% to 60% and GMP RFP Documents	8	Apr 2018	Nov 2018
Design GMP RFP Documents to Final Design/Permitting	9	Dec 2018	Aug 2019
Design Completion/Permitting Contingency	3	Sep 2019	Nov 2019
CM/GC GMP/Construction Contract Negotiations	3	Dec 2018	Feb 2019
CM/GC Contracting Process Contingency	2	Mar 2019	Apr 2019
CM/GC Mobilize and Early Construction Work*	7	May 2019	Nov 2019
Construction to Facility Startup	25	Dec 2019	Dec 2021
Construction Phase Contingency	5	Jan 2021	May 2022
Post-Startup Demolition/Site Improvements to Demobilize	5	Jun 2022	Oct 2022
Project and Contract Closeout	6	Nov 2022	Apr 2023
Closeout Task Contingency	2	May 2023	Jun 2023
Total Project Duration	107		
Contingency Total Duration	12		



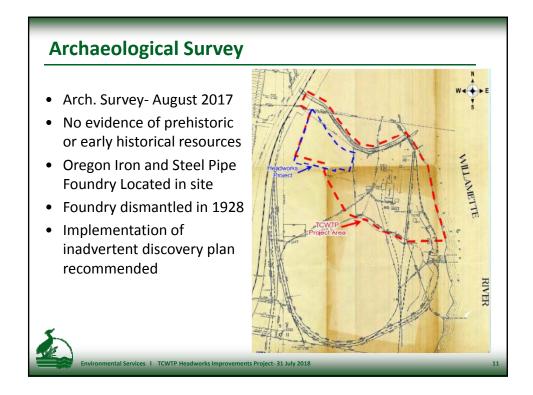
* Early Work packages issued under CM/GC Construction Phase Contract for site access improvements, demolition, and utility relocations prior to permitting completion using a phased building permit approach

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Land Acquisition Findings

- Phase 1 ESA found site used as dump and/or had gas station/underground storage tank
- Phase II ESA recommended







Balanced Cut and Fill

- FEMA map revision process fill within floodplain (CLOMR/LORM-F)
- FEMA Flood Insurance Rate Map Base Flood Elevation 37.4 ft NAVD 88/35.3 COP
- Total Cut/Fill 11,000 CY

Figure 50.05.011-D: Flood Management Area Map D

Flood Plain Cut Mitigation-First Concept

SC(TON) 1

SE(TON) 3

SE(TON) 4

SE(TON) 5

SE(TON) 4

SE(TON) 5

SE(TON) 6

SE(TON) 6

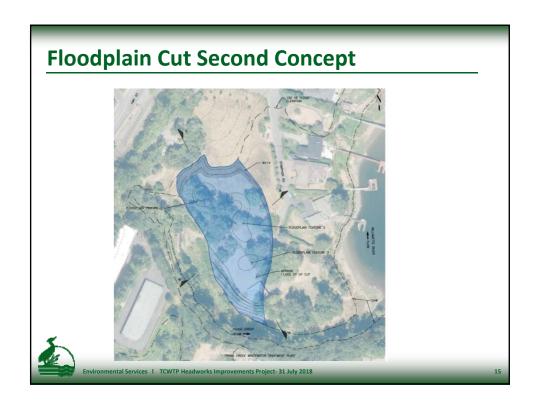
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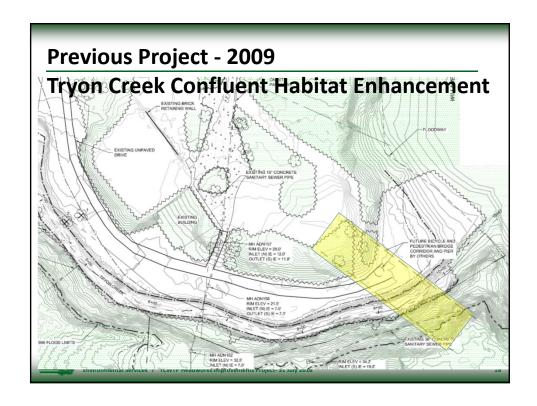
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Existing IGA –Pedestrian Bridge

- IGA between BES and City of Lake Oswego
- February 2010
- Allows BES Habitat Enhancement Project and:
 - Future Pedestrian Bridge, Pier and Abutment constructed by Lake Oswego
 - Future Pathway for canoe/kayak on north beach
 - Pathway Bridge Alignment negotiations
 - Mutually agreeable connection through WWTP to Foothills park



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Next Steps

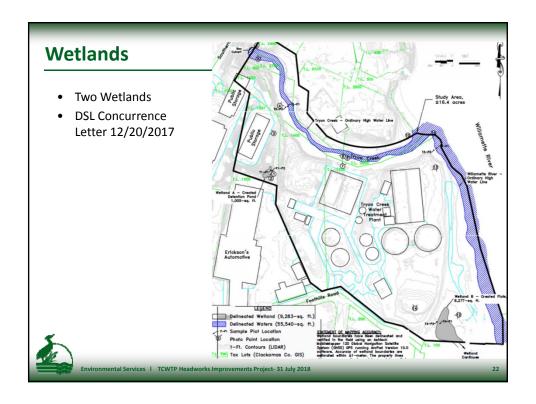
- Coordinate mitigation between City of Portland, METRO, and Lake Oswego, and other stakeholders, hopefully reaching consensus.
- Finalize IGA LO, METRO, Portland for Tryon Cove Floodplain fill mitigation.
- Prepare initial documents for CLOMA
- Finalize Mitigation Design Details.

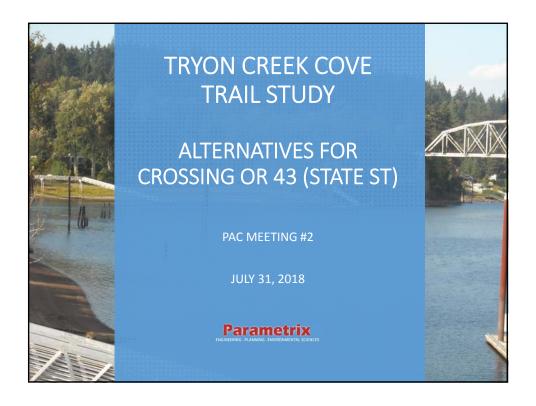


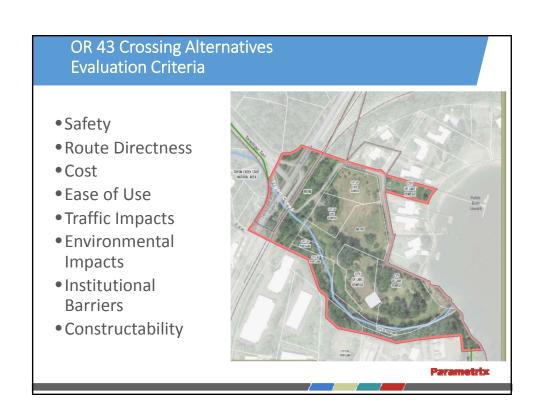
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Four Alternative Routes/Crossings

- New Traffic Signal @ Stampher Rd and @ Terwilliger Blvd.
- 2. Highway/Rail Undercrossing between Stampher Road & Tryon Creek
- **3. Pedestrian Activated At-Grade Crossing** just south of E Avenue
- **4. Foothills Park Connection** following OR 43 and Foothills Road

Parametrix

Alternative #1: New Full Traffic Signal



- Full traffic signal
 - Bikes/Peds push button
 - Vehicles on Stampher Road controlled by loop detector
- Eliminate existing ramps to/from Terwilliger Blvd.
- Bike/ped crossing likely on north leg of intersection.
- Tryon Cove bike/ped access via shared-use of Stampher Road.

Parametrix

Alternative #1: New Full Traffic Signal Initial Evaluation

Safety

- Signalized crossing
- Concern with bike/peds sharing Stampher Rd. with vehicles
- Poor sight distance at rail undercrossing, but roadway is low speed
- Improves vehicle safety for eastbound to northbound left turns

Route Directness

- Bike/peds crossing likely on north side of Terwilliger
- Potential to connect to trail near existing pull out on Stampher Rd. east of rail undercrossing

Cost

- May need to add a southbound lane ~ 200 ft. north of the intersection
- Removal of Terwilliger ramps
- Signing, striping, signal and supports

Ease of Use

- · Signalized crossing familiar to users
- Easy wayfinding

Parametrix

Alternative #1: New Full Traffic Signal Initial Evaluation

Traffic Impacts

- · Additional signal in congested area
- Full signal likely meets ODOT signal warrants
- Located in transition area from 35 mph to 25 mph
- Will increase shared-use of the narrow Stampher Rd

Environmental Impacts

- Minimal impacts on creek and parks
- Removal of landscaping between Terwilliger ramps and intersection

Institutional Barriers

- ODOT: Likely meets warrants, but several hoops to get through
- UPRR/Willamette Shore Line: Use of existing Stampher Rd. undercrossing should minimize concern

Constructability

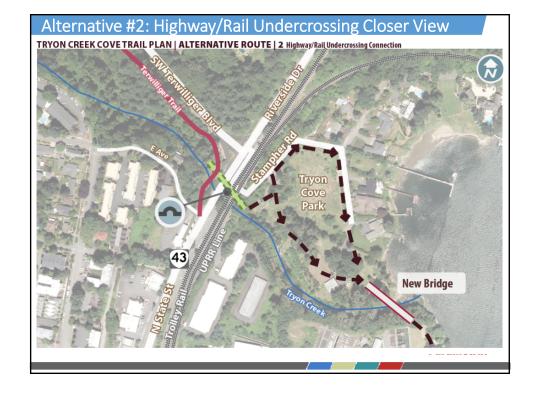
- Easily built
- Traffic impacts during construction

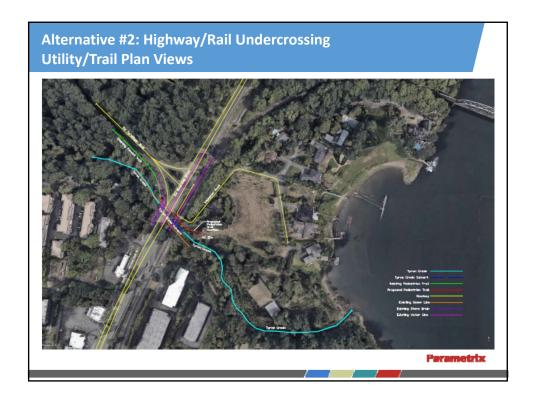
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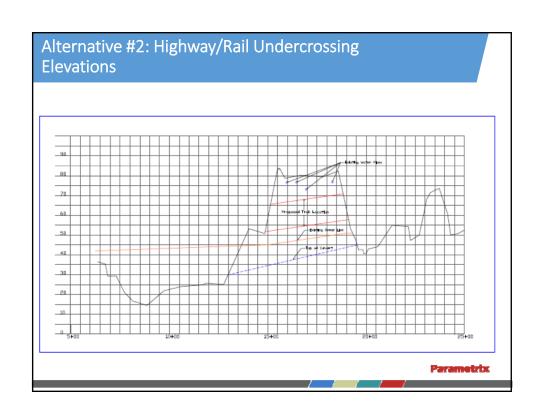
Alternative #2: Highway/Rail Undercrossing

- Bike/ped tunnel under OR 43
- Terwilliger Trail connection on west side of highway – potential switchbacks/retaining walls
- Tryon Cove connection on east side – potential retaining walls
- Safety features: lighting & emergency communication
- Avoids impact to planned new creek culvert

Parametrix 1 4 1







Alternative #2: Highway/Rail Undercrossing Initial Evaluation

Safety

- Avoids at-grade crossing
- Lack of visibility from State Street (OR 43) and Stampher Road

Route Directness

- Direct connection from Terwilliger Trail
- Good connection on east side into Tryon Cove

Cost

Highest cost

Ease of Use

- Most direct connection
- Easy wayfinding for trail users

Peremetrix

Alternative #2: Highway/Rail Undercrossing Initial Evaluation

Traffic Impacts

- No long-term traffic impacts
- Minor traffic impacts during construction

Environmental Impacts

 Construction of access trail on west side with retaining walls and switchbacks

Institutional Barriers

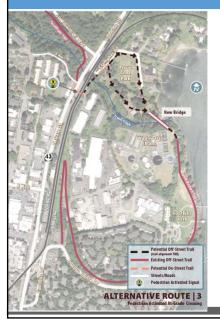
- ODOT: Some disruption to OR 43 during construction; need approval for undercrossing
- UPRR/Willamette Shore Line: May need approval for undercrossing

Constructability

Site access for boring may be limited

Parametris

Alternative #3: Pedestrian Activated Beacon/At-Grade Crossing



- Flashing bike/ped signal with crosswalk between D and E Avenues
- Push button activated
- ½ block from existing Terwilliger Trail terminus
- Crosses railroad at existing public storage access
- Location identified in Foothills Plan for access/egress road

Parametrix 1 4 1

Alternative #3: Pedestrian Activated Beacon Initial Evaluation

Safety

- Bike/Ped at-grade crossing of railroad tracks at storage unit crossing
- Pedestrian/Bike activated signal options
 - Rectangular Rapid Flashing Beacon
 - High-Intensity Activated CrossWalk Beacon
- Studies show reduced pedestrian crashes

Route Directness

- Near existing terminus of Terwilliger Trail
- Travels south then back north to access Tryon Cove

Cost

- Moderate cost
- Costs include retaining walls for trail connection from storage unit access to Tryon Cove

Ease of Use

- Direct connection
- Easy wayfinding for trail users





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Alternative #3: Pedestrian Activated Beacon Initial Evaluation

- Traffic Impacts
 - Heavy use could disrupt traffic flow
 - Not timed with other signals
 - Transition to 25 mph
- Environmental Impacts
 - Construct connecting trail on east side above Tryon Creek
- Institutional Barriers
 - ODOT: Likely to meet pedestrian activated signal warrant, additional ODOT approvals required
 - UP/Willamette Shore Line: Use of existing storage unit access rail crossing may not be permitted, connecting trail to Tryon cove likely in UP ROW
- Constructability
 - Easy construction of signal
 - Connecting trail on east side more complex retaining walls, ramps

Peremetrix

Alternative #4: Foothills Park Connection



Uses existing sidewalks on State St. (OR 43)

- West side from E to B avenues
- East side from B Avenue to Foothills Rd.

Two possible connections to Foothills Park:

- Bike/peds share Oswego Pointe Drive to Foothills Park Trail
- Curlicue Trail provides mostly separated pathway

Parametrix

Alternative #4: Foothills Park Connection Initial Evaluation

Safety

- Narrow sidewalk on the west side of State St.
- B Avenue crossing has high auto volumes
- Would cross several active driveways (car wash, gas station, etc.)
- Shared use of Foothills Road and Oswego Pointe Drive could pose safety issues

Route Directness

- Least direct
- Curlicue trail route adds to out of direction

Cost

• Low cost (mostly uses existing infrastructure)

Ease of Use

- Circuitous connection
- Complicated wayfinding for trail users





Alternative #4: Foothills Park Connection Initial Evaluation

Traffic Impacts

 Heavy bike/ped use could require more crossing time at B Avenue

Environmental Impacts

None

Institutional Barriers

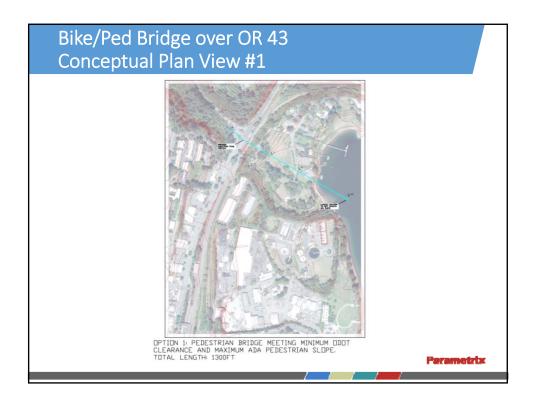
- ODOT: No new approvals required
- UPRR/Willamette Shore Line: Cross UP tracks at existing sidewalk crossing

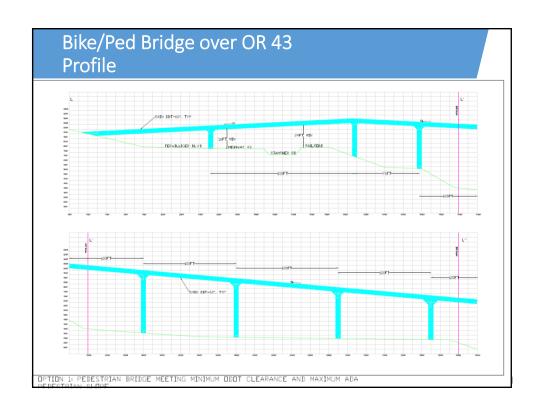
Constructability

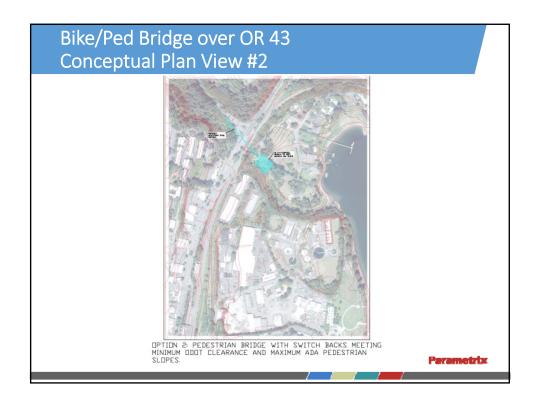
• Minimal – wayfinding signs

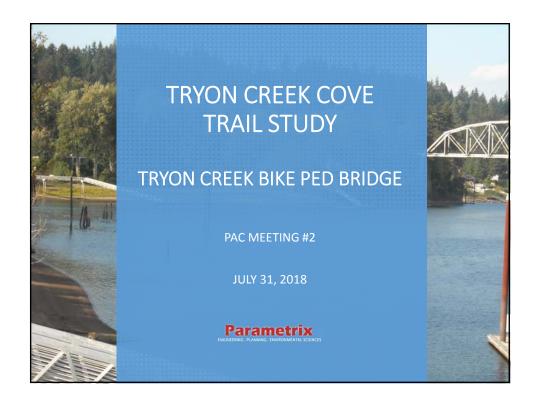














Tryon Creek Bike/Ped Bridge Tryon Creek Cove Park to Foothills Park

Crossing at mouth of Tryon Creek selected by PAC as preferred location

- Rationale:
 - Direct connection to Foothills Park Trail
 - Limits construction on steep slopes
 - Avoids Tryon Creek Wastewater Treatment Plant
 - Avoids railroad right of way
 - Construction access from Willamette River
 - Likely to be lower cost

Parametris

