Connect Oregon - Federal Grant Match Application

To ensure you have current program information, sign up for the Connect Oregon electronic mailing list.

The *Draft Grant Agreement* and *Frequently Asked Questions* are available on the Connect Oregon website.

You must complete all required fields and upload required documentation for your application to be eligible to compete.

You can save your progress via the 'Save' button in the lower right corner of the page and revisit this form as you go.

You should have a pre-application consultation with the Oregon Business Development Department for Marine projects, Oregon Department of Aviation for Aviation projects, and Oregon Department of Transportation for Rail projects prior to submitting applications.

Application ID
Region 1 Rail, Class I Railroad

1. Applicant information

Complete this information for the applicant. Provide both a designated contact and an authorized representative (if different than the designated contact) for your entity. The authorized representative is someone who is authorized to make decisions and sign a funding agreement with ODOT should your project be chosen for funding.

Entity/Organization/Company Name
Oregon Department of Transportation

Address
355 Capitol Street MS 11, Salem, Oregon 97301

Website address
http://oregon.gov

Contact person name
Jeff Schultz

Contact person title
Senior Transit and Rail Planner

Email
Jeff.Schultz@deainc.com

Phone
(360) 890-6976

Authorized representative name, if different from the applicant contact
Michael Jenkins

Authorized representative title
Passenger Rail Manager

Phone
(503) 508-8610

Email
michael.l.jenkins@odot.oregon.gov

2. Entity type

Entity type
Public

Business registry number

We recommend saving your application now. Click the save button to do so.

3. Project name and location

The project name should be brief, and clearly describe the project. The name you provide will be used in summary reports and other published materials. The project location should include county and state, and if applicable, the city where the project is physically located. Provide GPS coordinates (latitude and longitude).

Project name
Willbridge Crossovers Project

Check this box if the project address is the same as the address listed above.
No

Project address (same as previously entered)
355 Capitol Street MS 11, Salem, Oregon 97301

Project address, (or nearest street intersection or landmark)
6330- 6346 NW Saint Helens Road (US30) near the intersections of NW 61st and NW Doane in Portland, Oregon, Willbridge Control Point (CP) located at Mile Post (MP) 4.1 on the BNSF Fallbridge Subdivision, Portland, Oregon

Latitude (degrees and decimal)
45°33’50.63”N

Longitude (degrees and decimal)
122°44’45.26”W

To find the latitude and longitude, you can use Google Maps or other mapping service. Within Google

Maps, you can right-click on the location of the project, select "What's here?", to get the address and the coordinates.
For example, the State Capitol Building's coordinates are 44.938422, -123.030740, thus 44.938422 goes into the Latitude box, and -123.030740 goes into the Longitude box.

4. Mode
Rail, Class I Railroad

5. Connect Oregon region
Region 1

6. Brief summary of project
The Oregon Department of Transportation in collaboration with BNSF Railway and Amtrak is submitting this Connect Oregon grant request for the Willbridge Crossovers Project located in Portland, Oregon approximately 4 miles north of Portland Union Station. This Project will reduce delays for 16 daily Amtrak passenger trains (Cascades, Empire Builder, and Coast Starlight) by allowing them to cross over at this location at a higher speed than currently and will reduce freight train congestion.

7. Project purpose and description
The Willbridge Crossovers Project exemplifies a focused effort to improve both passenger and freight operations on a nationally significant rail passenger corridor. First identified in 1994 as an improvement in the Oregon High Speed Rail Capacity Analysis Investment Program, this Project envisions the completion of upgrades at the Willbridge Control Point (CP) located at Mile Post (MP) 4.1 on the BNSF Fallbridge Subdivision in Portland, Oregon. These upgrades will improve system reliability, reduce passenger and freight rail operational conflicts, and improve operational efficiencies for all rail operators. The upgrades will also allow for diverging speeds of at least 35 miles per hour (mph) for the four daily Amtrak Coast Starlight and Empire Builder long-distance trains and potentially higher speeds for the 12 daily Cascades intercity passenger trains rather than the current speed of 10 mph.
The maximum authorized speed through the Willbridge CP is 35 mph for freight and conventional passenger trains. The Talgo passenger equipment speed limit is 50 mph. Trains that do not diverge through the crossovers, assuming there are no other operating limitations, travel at or near those speeds. However, trains that diverge at the Willbridge CP must slow from their respective speeds down to 10 mph to make the movement safely. As a result, some passenger trains must reduce their speed by 40 mph and then must accelerate back up to speed immediately after clearing the CP. The current design proposes using No. 20 crossovers to replace the existing No. 11 crossovers. Trains using the diverging route of a No. 20 turnout are allowed to travel at speeds up to 40 mph, thus non-tilting trains do not have to slow down to below 35 mph to move through the diverging route from a geometric standpoint. Tilting Amtrak Cascades trains will require slowing from 50 mph to 35 mph to make the movement, a smaller time impact than the existing slowing from 50 mph to 10 mph.
Due to space and geometric constraints, the longer crossovers will require the replacement of the existing right-hand and left-hand No. 11 crossovers between MT2 and the running/switching track, along with the signals that protect the crossover to the north of their current location.
Similarly, to accommodate the longer crossovers, the existing No. 11 turnout from MT1 to the junction with the Portland & Western Railroad, Inc. (PNWR) line to Astoria, Oregon (the former Burlington Northern "A" Line Subdivision) will also need to be removed, and a new turnout and wheel crowder derail will need to be installed in a new location north of the current location. The speeds on the former "A" Line Subdivision are restricted to 10 mph because the line enters yard limits. Therefore, the Project proposes replacing the existing No. 11 crossover with a No. 20 crossover.
The No. 9 turnout on the switching lead that leads to industries northwest of the project site will be shifted 0.8 foot to the north in order to accommodate the proposed alignment geometry. This shift of the turnout location requires approximately 111 track feet of additional existing track to be adjusted in order to sufficiently tie into the existing curvature of the switching lead.
Oregon Administrative Rule 741-315-0010 (a) specifies a minimum of 15 feet between main tracks. Within the project area, the existing track centers between MT1 and MT2 are between 13.1 feet and 13.2 feet. The switching lead is generally more than 15 feet on center except near a culvert (described below), where

it is as little as 14.3 feet.
A culvert carries Saltzman Creek under the main track and the switching lead and is between the two existing No. 11 main line crossovers. To minimize the modifications to the culvert, the Project proposes to avoid increasing the track centers between MT1 and MT2. Additionally, the Project will maintain the existing 14.3-foot track centers between MT2 and the switching lead as they cross the culvert. A modification to the north headwall of the culvert and a new walkway to accommodate train switching operations are proposed.
The installation of a maintenance pad (also known as a “berm”) is proposed to the north of the main lines and the switching lead. The Project will construct this maintenance pad in accordance with BNSF standard practice in order to accommodate project construction and ongoing maintenance of the Willbridge CP.

8. Useful life (years)
30

9. Federal Grant Information

Federal Granting Agency
Federal Railroad Administration

Federal grant being applied for
National Railroad Partnership Program/Federal-State Partnership/Corridor ID

Estimated date for Notice of Funding Opportunity
9/22/2025

Estimated deadline for federal grant application submission
1/7/2026

10. Project Schedule

Answer whether milestones above have been met; fill in projected start and completion dates. Funding agreements are anticipated to be executed with construction needing to begin within one year from agreement execution, and be completed within three years of execution. Project schedule should demonstrate how the project will meet this requirement. Milestones 4 and 5 should reflect the dates the plans are ready and a construction contract is awarded for the first construction contract to complete the project.

- Scoping and planning means the development of the project size and scope, determination of operational requirements, and required public comment periods.
- Right-of-way and land acquisition means the process of securing land for the project site, including purchases, leases, eminent domain/condemnation, and the acquisition of required easements.
- Permits means the process of securing any required permits, approvals, or permission from any local, state, or federal agency.
- Final plans/bidding engineering documents means the development of any structural or operational documents required to advertise and build the project.
- Construction contract award means the securing of a contract to build, install, or otherwise prepare the project for operations or use.
- Project completion means construction or installation is complete and the project is ready for operation or use.

Milestone 1: Scoping and planning	**Has the milestone been met?** Yes	**Projected start date of milestone work**	**Projected milestone completion date** 7/1/2015
Milestone 2: Right of	**Has the milestone been**	**Projected start date of**	**Projected milestone**

way and land acquisition	**met?** Yes	**milestone work**	**completion date** 7/1/2015
Milestone 3: Permits	**Has the milestone been met?** Yes	**Projected start date of milestone work**	**Projected milestone completion date** 7/1/2015
Milestone 4: Final plans/bidding engineering documents	**Has the milestone been met?** No	**Projected start date of milestone work** 1/1/2027	**Projected milestone completion date** 7/1/2027
Milestone 5: Construction contract award	**Has the milestone been met?** No	**Projected start date of milestone work** 9/1/2027	**Projected milestone completion date** 12/1/2027
Milestone 6: Project completion	**Has the milestone been met?** No	**Projected start date of milestone work** 1/1/2028	**Projected milestone completion date** 12/31/2028

11. Will the project's construction schedule be constrained by environmental considerations (bird-nesting, fish-spawning seasons, temperature or weather)?
No

If yes, then please explain and provide limitation dates

12. Who was responsible for determining the project schedule and what is their level of expertise? (i.e. city or consulting engineer, construction project manager, city staff, etc.)
Kevin Jeffers, PE, Jeff Schultz, Project Management Professional.

13. Project property control

Property used for a Connect Oregon project must be committed for such use for 20 years following construction. If the property is not yet secured, describe the steps and timeline to complete the transaction(s). Note: All property transactions must be completed 60 days prior to OTC final selection of projects.

Idenfity the method of control for project property
Property not yet purchased or leased

Provide the steps and timeline to complete the acquisition or lease transactions:
BNSF is the current owner of the existing facility and BNSF will continue to own the facility upon project completion. After this grant is awarded, ODOT will follow the Federal Railroad Administration 22905 use agreement to secure rights from BNSF.

14. Describe any project risks or barriers to being ready for construction and your plan to address the risks/barriers
During construction ODOT will implement a risk management plan to create an integrated scheme of risk allocation and management that will support the achievement of safety, cost, schedule, and quality. ODOT’s risk management process includes a continuous identification of risks, planning and organizing of appropriate risk control, risk transfer, and risk financing techniques, and implementation of those techniques internally at all levels of the project, and externally with insurers, loss adjusters, and other risk finance specialists. Projects at ODOT are required to have appropriate governance and controls including

a risk register.

15. Describe your public and stakeholder engagement process efforts
ODOT will perform appropriate public engagement activities for the Project. The engagement activities will be held at appropriate times and may include an online website, virtual meetings, and social media activities. ODOT has communicated with key stakeholder and obtaining letters of support from Washington Department of Transportation, Association of Oregon Rail and Transit Advocates, Oregon Rail Users' League (ORULE), Portland and Western Railroad, Prosper Portland, and Port of Portland for the 2023-2024 Federal-State Partnership (FSP) for Intercity Passenger Rail grant application. ODOT has reported on the project to the state legislature in the Q4 2024 Report to Legislature regarding Amtrak Intercity Passenger Rail, that the agency applied for 2023-2024 Federal-State Partnership (FSP) for Intercity Passenger Rail funding. This project was also included in the ODOT Service Development Plan published in 2021.

16. Public body approvals and permits

Identify all public body approvals and permits needed to complete the project; indicate the status of each approval/permit. Add approvals/permits as needed. Below are descriptions of some possible approvals/permits that projects are subject to. Other potentially required permits may involve wetlands, material sources, fish passage, airport clearance, railroad clearance, waterways and other federal, state and/or local requirements. All permits needed for construction must be secured within nine months following execution of a grant funding agreement.

- The National Environmental Policy Act (NEPA) applies whenever a proposed activity or action:
    - is proposed on federal lands;
    - requires passage across federal lands;
    - is to be funded – either entirely or in part – by the federal government; or
    - affects the air or water quality that is regulated by federal law.

When any one of these four conditions are present, the federal agency with the greatest expertise, regulatory authority, and capacity to manage the NEPA process for the proposed project becomes the lead agency for that project.

These actions are defined at 40 CFR 1508.1. The environmental review under NEPA can involve three different levels of analysis:

1. Categorical Exclusion determination (CATEX)
2. Environmental Assessment/Finding of No Significant Impact (EA/FONSI)
3. Environmental Impact Statement (EIS)

- Identify if in-water work permits are required for the project. More information can be found at the following website: https://www.oregon.gov/dsl/ww/pages/permits.aspx
- Identify if United States Army Corps of Engineers (USACE) permits are required for the project. More information can be found at the following website: https://www.usace.army.mil/Missions/Civil-

Works/Regulatory-Program-and-Permits/Obtain-a-Permit/

- Coordination with Native American tribal representatives is often required prior to construction. Projects located along or crossing borders may require coordination with jurisdictions and/or state agencies in bordering states.

Complete the following:

NEPA Categorical Exclusion (CE)	**Status** Completed	**Expected completion date**
NEPA Environmental Assessment (EA)	**Status** Not applicable	**Expected completion date**
Environmental Impact Statement (EIS)	**Status** Not applicable	**Expected completion date**
In-water work permit	**Status** Not applicable	**Expected completion date**
Army Corps of Engineers permit	**Status** Not applicable	**Expected completion date**
Coordination of project approval with any Native American tribe or another state	**Status** Completed	**Expected completion date**

Any additional specific permits or approvals needed

Specific permit or approval needed	Status	Expected completion date

17. Planning and land use

Demonstrate the project's compliance with land use documents identified below or describe how you will achieve compliance. Add any additional planning/land use efforts that are not listed. A limited land use decision must be complete within six months of the execution of a grant funding agreement. If the use is not permitted outright and/or requires a land use decision to be a legally allowable use on the site, the land use decision must be complete 60 days prior to the OTC's final action to select projects.

- *A Transportation System Plan (TSP) is a plan for one or more transportation facilities planned, developed, operated, and maintained in a coordinated manner to supply continuity of movement among modes, and within and between geographic and jurisdictional areas.*
- *Comprehensive Plan means a generalized, coordinated land use map and policy statement of the governing body of a local government that interrelates all functional and natural systems and activities relating to the use of lands, including but not limited to sewer and water systems, transportation systems, educational facilities, recreational facilities, and natural resources and air and water quality management programs.*

- *A Regional Transportation Plan (RTP) is a 20-year plan prepared by a Metropolitan Planning Organization (MPO) that identifies needed transportation projects and funding sources.*
- *A zoning amendment is a formal changing of the land use, which requires approval and adoption by the pertinent local government.*
- *A Goal Exception is a decision to exclude certain land from the requirements of one or more applicable statewide goals. (See our list of Statewide Planning Goals)*

Identified in adopted transportation system plan (TSP)	**Status** Completed	**Expected completion date**
Identified in adopted local comprehensive plan	**Status** Not applicable	**Expected completion date**
Identified in adopted regional transportation plan (RTP)	**Status** Not applicable	**Expected completion date**
Requires amendment to local zoning to change the use of the property	**Status** Not applicable	**Expected completion date**
Goal exception (if required by state planning goals)	**Status** Not applicable	**Expected completion date**
Identified in public or corporate planning document	**Status** Completed	**Expected completion date**

Any additional planning or land use efforts not specified above

Planing/land use effort	Status	Expected completion date
Oregon State Rail Plan	Completed	

Planning/land use narrative
The project area is within the City of Portland and zoned Heavy Industrial (IH). Railroad yards are an allowed use in IH (Chapter 33.140 Employment and Industrial Zones). It has a Prime Industrial ("k" symbol) overlay designation, the purpose of which is to protect land for multimodal freight access (33.471).
This project was first identified in 1994 as an improvement in the Oregon High Speed Rail Capacity Analysis Investment Program. This project is included in the Oregon State Rail Plan Appendix C — Rail Needs List Part 1 and 2 (Adopt. 9/18/14, Rev. 8/13/20); Oregon State Rail Plan Implementation Plan Appendix A: Rail Needs Inventory (3/23, list updated 11/30/22); and Oregon Passenger Rail Service Development Plan (2/21).

18. Project budget

As the Connect Oregon program is intended to support Oregon’s economy, we would generally encourage

grant recipients to contract out the work to the private sector. While grant recipients may need to perform some specialized work in-house, please confirm your plans with the Connect Oregon program office following grant award. Private sector recipients should review the sample grant agreement clarifying what is not allowed around “related parties.” No additional Connect Oregon funds will be available; grant recipients who are awarded funds will be responsible for any additional project costs and will be held to completing the scope of work in their funding agreement.

The Connect Oregon program is a reimbursement program. Grant recipients will be required to pay its consultants/contractors/vendors prior to seeking reimbursement from the Connect Oregon program.

18a. Budgeted amount: land acquisition
$0.00

18b. Budgeted amount: permits, other public body approvals (application preparation/fees)
$16,542.83

18c. Budgeted amount: design/engineering
$878,880.87

18d. Budgeted amount: design/engineering contract administration
$89,542.37

18e. Budgeted amount: construction
$9,267,635.32

18f. Budgeted amount: construction contract administration
$402,940.67

18g. Budgeted amount: miscellaneous
$22,247.26

Subtotal	**Contingency**	**Total project cost**
$10,677,789.32	$3,203,336.80	$13,881,126.12

19. Who was responsible for determining the project budget and what is their level of expertise?
Kevin Jeffers, DEA Project Engineer, Jeff Schultz, DEA Senior Transit and Rail Planner

20. Grant request/matching funds requirement

Enter the grant request; the total project cost will come from question 18 above. The applicant match and match percentage will calculate automatically. An applicant must provide at least 30% of the project’s funding or 50% for Class I railroads. This statutory requirement should be primarily met through securing the federal funds identified below.

The amount of matching funds an applicant makes available is used in scoring your application. Should an applicant be chosen for funding, the commitment of matching funds shown in the application may not be reduced through the life of the project.

Total project cost	**Federal grant requested amount**	**Connect Oregon Federal Grant Match amount requested**
$13,881,126.12	$11,104,901.00	$954,913.00

Please identify additional sources of matching funds you will use for the project

_21MatchingFunds

Source	Amount
BNSF Railway	$954,612.00
Amtrak	$867,000.00

Additional Matching Funds: $1,821,612.00

Applicant match (dollars)
$12,926,513.00

Applicant match (percent)
93.12%

Federal grant requested amount plus additional funding sources must equal at least 30% of the total project costs (50% for Class I Railroads).

Economic Benefits

21. How does the project reduce transportation costs for Oregon businesses or improve access to jobs and sources of labor?
The Willbridge Crossovers Project achieves train operating cost reductions by decreasing running times for a significant number—one-third, per BNSF data—of the over 10,000 annual trains and about 1.5 million annual train passengers in Oregon. Over a 20 year time horizon, the time savings from this project will save over $8M in pollution expenses, $2.9M in operations expenses, $2.5M in travel time savings experienced by passengers - if traffic levels were to remain static. This project bolsters the reliability of the growing Amtrak Cascades corridor between Eugene, OR and Vancouver, B.C., providing a valuable transportation alternative to I-5 traffic and energy intensive short-haul flights - making travel to and within Oregon ever more convenient and attractive.

22. What are the specific economic benefits to this state that will result from this project?
ODOT has developed an estimate of the sum of the direct, indirect, and induced effects of the Project on total employment and total earnings using specialized estimating tools and methods, such as the Bureau of Economic Analysis's Regional Input-Output Modeling System (RIMS II) employment multipliers. The interpretation of the RIMS II employment multipliers used in the analysis is as follows. The final demand employment multiplier represents the total change in number of jobs that occurs in all industries for each $1 million of output (in 2022 dollars) delivered to final demand by the industry in question. In this case, costs are allocated between Professional Services (for Design) and Construction, based on the capital cost allocation. The employment effects are expressed in job-years, which are defined as one job for one person for one year.

Utilizing the Bureau of Economic Analysis' RIMS II and multiplier data, it is estimated that the development of the Project would have a total economic impact on the regional economy of more than $26.5 million in final demand output and approximately $14.6 million in regional value add and would result in the creation of approximately 117 job years.

23. Describe how the project provides a critical link connecting elements of Oregon's transportation system, and how it will measurably improve utilization and efficiency of the transportation system.
The project facilitates an improvement in operations for both passenger services and freight services in the corridor. Freight improvements are notable, especially as their time savings often translates into improved corridor fluidity. When a train diverges tracks at the Willbridge Crossovers, it blocks both main line tracks brings the corridor to a halt. With time in excess of six minutes saved per freight train divergence, this will have a remarkable effect on cascading delays.

24. How does the project improve Oregon's transportation system efficiency and/or utilization?

Relieves a bottleneck or congestion point
Reduces traffic or use conflicts
Improves geometrics

Explain:

Explain:
Between Portland Union Station and Vancouver, WA - the two stops that bridge the Washington-Oregon border - the railroad operating speed allowed by the infrastructure is at least 35mph if not in excess of 79mph for passenger trains, everywhere save for the antiquated control point at Willbridge - which brings all trains down to 10mph. Trains recovering from a 10mph restriction costs minutes, not seconds, and the hundreds of passengers or thousands of tons of freight taking the divergence pays a price. To tabulate the exact savings per train type, a Train Performance Calculation was performed using Berkeley Simulation Software's Rail Traffic Controller© software on a model presently being utilized by ODOT. The major train types that presently run in this rail corridor were modeled on the present infrastructure and on the proposed design. Overall, the project will save each freight train nearly seven minutes of travel time per use of the proposed infrastructure.

Explain:

Explain:

Explain:
When a train diverges tracks at the Willbridge Crossovers, it blocks both main line tracks - which brings all traffic to a halt. With time in excess of six minutes saved per freight train divergence, this will have a remarkable effect on cascading delays from such moves when passenger trains are waiting to clear the same section of track. The Willbridge Crossovers Project exemplifies a focused effort to improve both passenger and freight operations on a nationally significant rail passenger corridor. First identified in 1994 as an improvement in the Oregon High Speed Rail Capacity Analysis Investment Program, this Project envisions upgrades that will improve system reliability, reduce passenger and freight rail operational conflicts, and improve operational efficiencies for all rail operators. This is a project which facilitates an improvement in operations for both passenger services and freight services in the corridor.

Explain:
The maximum authorized speed through the Willbridge CP is 35 mph for freight and conventional passenger trains. The Talgo passenger equipment speed limit is 50 mph. Trains that diverge at the Willbridge CP must slow from their respective speeds down to 10 mph to make the movement safely. As a result, some passenger trains must reduce their speed by 40 mph and then must accelerate back up to speed immediately after clearing the CP. The current design proposes using No. 20 crossovers to replace the existing No. 11 crossovers. Trains using the diverging route of a No. 20 turnout are allowed to travel at speeds up to 40 mph, thus non-tilting trains do not have to slow down to below 35 mph to move through the diverging route from a geometric standpoint. Tilting Amtrak Cascades trains will require slowing from 50 mph to 35 mph to make the movement, a much smaller time impact than the existing slowing from 50 mph to 10 mph.

Explain:

Explain:

Measures of Success

25. a) How is success measured for this project (include methodology for calculation)?
Replacing existing No. 11 crossovers with No. 20 will allow faster speeds. Time savings for passenger and freight trains (Train Performance Calculation) were calculated using Berkeley Simulation Software's Rail Traffic Controller software on an ODOT model. The project will improve Amtrak On Time Performance and reduce cascading delays from the more than 3,400 trains annually diverging at Willbridge Crossovers that block both main line tracks and indirectly affect all 10,000+ annual trains.

b) What is the existing measurement today?
Crossover btwn the 2 tracks is restricted to 10 mph. Tilting Amtrak trains must slow from 50 and often must cross over more than once. NB travel time here avgs 15-18 mins for Amtrak and 32 for freight

c) What is the anticipated measurement when the project is fully operational?
Non-tilting trains can travel up to 40 mph and tilting Amtrak trains can slow from 50 mph to 35 mph, saving each passenger train more than 1 minute per use and each freight train more than 6 minutes.

26. Does the project improve an existing transportation connection or add a new connection to an industrial oremployment center?
Yes

If yes, check all that apply.
The project improves an existing connection

27. This project improves or creates access to:
Industrial center

Name of the Industrial Center	Name of the employment center	Name of the certified "Project Ready" site
Portland's Northwest Industrial District		

28. Does the project improve safety?
Yes

Explain. Please note the number and type of incidents (fatal accident, injury accident, property-damage accident, crime, orother) within a specified timeframe.
The Project converts an existing set of manually operated turnouts to powered turnouts. This improvement will eliminate movements by freight train crews that currently must step off railroad equipment and manually throw the turnouts. Eliminating this movement will reduce the risk exposure of freight train crews to injuries, especially with the potential for slips, trips, falls, and other injuries.

29. Does the project serve one or more of Oregon's Statewide Business Clusters? Check all that apply.
Tourism

Provide detail on the Business Clusters served.
The four daily long-distance passenger trains and 12 daily Cascades intercity passenger trains that travel through the project area support tourism travel. Amtrak Cascades carried 940,000 passengers in FFY2024. The Coast Starlight (West Coast daily service) carried more than 350,000 passengers in FFY 2024 and Empire Builder (service to eastern states) carried more than 380,000 passengers. The BNSF freight trains in this corridor support the other Statewide Business Clusters.

30. Job Creation

a) Does this project benefit the Oregon economy by generating a net increase in or retention of long-term jobs (beyond short-term construction jobs) and/or increasing private investment in Oregon?
No

b) Number of long-term (non-construction) jobs created or retained as a direct result of the project:

c. Average annual wage of long-term (non-construction) jobs created or retained:

d. List up to 5 businesses that will verify job creation/retention or new private investment:

Business Name	Name of contact person	Contact Person Phone

e. What is the increase by these businesses in Oregon as a result of this project?
ODOT

Commitment Letter Acknowledgement

f) Explain

31. Is the project located within 10 miles of a site for mining or processing aggregate that is allowed under ORS 215.213 (2)(d) or 215.283 (2)(b) on land that is zoned exlusive farm use? This is not common.
No

Please explain

32. Maintenance and Operations

What is the source/are the sources of funds for the continued maintenance and operation of the project for the useful life of the project?
Upon completion of the Willbridge Crossovers Project, the improvements will become part of the BNSF infrastructure. BNSF will maintain the track as part of its overall maintenance program for the Fallbridge Subdivision.

What is the status of these funds?
Budgeted (committed for future)

Describe the steps remaining to commit maintenance and operations funding for the useful life of the project?

Have you had previous Connect Oregon grant awards?
No

Which cycle(s)? **What was the total award?**

33. Documentation

Property Ownership, land lease/control
Screenshot 2025-11-20 093735.png

Letters of support
BNSF LOS - Willbridge Crossover Project 11.11.25.pdf

Secretary of State Business ID

Site Plans, if available
Appendix 1-A-compressed FY24-FSP_BNSF-ODOT_Willbridge_PE.pdf

NPR 49 Goble to Portland (1N 1W NW-SE Sec 13) (Willbridge).jpg

NPR 51 Goble to Portland (1N 1W SE-SE Sec 13).jpg

NP RY WILLBRIDGE STATION MAP.pdf

Planning/Permitting Documents
Appendix 3 FY24 FSP Willbridge Crossovers Project Environmental Documentation.pdf

Commitment Letters
Appendix 5 FY24 FSP Willbridge Crossovers Letters of Support.pdf

Appendix 4 FY24 FSP Willbridge Crossovers Funding Commitments.pdf

Miscellaneous
BNSF-ODOT FY24 FSP Willbridge Crossover Project Grant Narrative.docx

Appendix 2 FY24 FSP BNSF-ODOT Willbridge Crossover BCA Narrative.docx

34. Authorizations and Signatures

Please read and check all boxes
By checking this box, I certify that above-mentioned Applicant Organization supports the proposed project, has the legal authority to pledge matching funds, and has the legal authority to apply for Connect Oregon funds. I understand that all State of Oregon rules for contracting, auditing, underwriting (where applicable), and payment will apply to this project.
By checking this box, I certify that all of the content of this application is true to the best of my knowledge and that I have read the Sample Draft Agreement and will sign the Agreement if selected. I understand that non-compliance with the agreement and program may result in a cancelled project and return of grant funds.
By checking this box, I certify that per Oregon Administrative Rule (OAR) 731-035-0050(2)(b), as a condition of Connect Oregon program eligibility, applicants must be current on all state and local taxes, fees and assessments where applicable. Inasmuch, as an authorized representative, I declare, that MY ORGANIZATION, is to the best of the undersigned(s) knowledge, current on all Oregon state and local taxes, fees and assessments. As a continuing requirement to remain eligible, I understand that MY ORGANIZATION will remain current on all Oregon state and local taxes, fees and assessments and failure to comply with this rule may result in corrective action up to and including a determination of ineligibility for Connect Oregon funding. I further understand that Connect Oregon funds may be withdrawn should it be determined that this certification was signed falsely or in error, or that MY ORGANIZATION has become delinquent in its state and local tax, fee or assessment obligation.
By checking this box, I acknowledge that in accordance with Oregon Administrative Rule (OAR) 731-35-0160(7), if awarded, an Oregon Transportation Commission selection of this project is provisional and conditional upon my securing the named federal grant application. If MY ORGANIZATION is unsuccessful in securing the federal grant, the funds will no longer be allocated for my project, and I will need to reapply for a Federal Grant Match Application through the Connect Oregon program to act as a match for future

federal funding opportunities.

Signature of authorized representative

The Connect Oregon program is a reimbursement program. Grant recipients will be required to pay its consultants/contractors/vendors prior to seeking reimbursement from the Connect Oregon program.

Statute:

(c)(A) “Transportation project” means a project or undertaking for rail, marine or aviation capital infrastructure, including bridges, or a project that facilitates the transportation of materials, animals or people.

(B) A transportation project does not include costs associated with operating expenses.

(3) In selecting transportation projects, the commission shall consider:

(a) Whether a proposed transportation project reduces transportation costs for Oregon businesses or improves access to jobs and sources of labor;

(b) Whether a proposed transportation project results in an economic benefit to this state;

(c) Whether a proposed transportation project is a critical link connecting elements of Oregon’s transportation system that will measurably improve utilization and efficiency of the system;

(d) How much of the cost of a proposed transportation project can be borne by the applicant for the grant from any source other than the Connect Oregon Fund;

(e) Whether a proposed transportation project is ready for construction;

(f) Whether a proposed transportation project has a useful life expectancy that offers maximum benefit to the state; and

(g) Whether a proposed transportation project is located near operations conducted for mining aggregate or processing aggregate as described in ORS 215.213 (Uses permitted in exclusive farm use zones in

counties that adopted marginal lands system prior to 1993) (2)(d) or 215.283 (Uses permitted in exclusive farm use zones in nonmarginal lands counties) (2)(b).

Fiscal Year 2024 Federal-State Partnership National Program
Willbridge Crossovers Project Narrative

I Cover Page

Project Title	Willbridge Crossovers Project
Lead Applicant Name	Oregon Department of Transportation
Joint Applicant Name(s)	
Amount of FSP Program Funding Requested under this NOFO	$10,396,657
Amount of Proposed Non-Federal Share	$2,599,164
Sources of Proposed Non-Federal Share	State, Private
Other Sources of Federal funding, if applicable	N/A
Total Project Cost	$12,995,822
Total Cost by Lifecycle Stage(s) for which funding is requested under this NOFO (list each Lifecycle Stage and cost separately)	Final Design and Construction
Was a federal grant application previously submitted for this project?	Yes
If yes, state name of Federal grant program and title of project in previous application	ARRA, Oregon Corridor Investment Plan
City(ies), State(s) where the project is located	Portland, OR
Congressional District(s) Where the Project is Located	OR-1
Geospatial data for project location(s) in decimal degrees (with at least five decimal places of precision). If a track segment or corridor, provide start and end point data.	45°33’50.63”N 122°44’45.26”W
Current Lifecycle Stage of project at time of application	Track 2 Project Development
Anticipated completion date of current Lifecycle Stage	Completed
Application Lifecyle Stage proposed to be funded by this NOFO	Track 3 Final Design/Construction
Existing Intercity Passenger Rail service(s) on routes not more than 750 miles benefiting from the project	Cascades
If applicable, existing Long-Distance service(s) (routes greater than 750 miles) benefiting from the project	Coast Starlight, Empire Builder
If applicable, existing Commuter Rail service(s) benefitting from the project	None
If applicable, what Corridor as identified in FY 2022 CID Selection(s) is benefiting from the project	Cascades
Host Railroad/Infrastructure Owner(s) of Project Assets and property	BNSF Railway

Other impacted Railroads	Amtrak
Tenant Railroad(s), if applicable	Portland & Western,
If applicable, is a 49 U.S.C. 22905-compliant Railroad Agreement executed or pending?	Pending
LOI/PFA requested?	N/A
If LOI requested for Projects in Project Development, provide amount of future request of Final Design/Construction request.	N/A
If PFA requested for Final Design and Construction:	N/A
(a) Provide amount of request under this NOFO for initial obligation.	N/A
(b) Provide amount of request under this NOFO for contingent commitment (equal to the remaining amount of the project cost).	N/A

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Federal Forms:

-SF424
-SF424C
-SF424D
-FRA F30 Certification Form
-FRA F251 Financial Capability Form
-Disclosure of Lobbying Form

II Project Summary

The Oregon Department of Transportation (ODOT), in collaboration with BNSF Railway (BNSF) and Amtrak, is submitting this Federal-State Partnership (FSP) Fiscal Year 2024 Track 3 Project grant request for $10,396,657 for the Willbridge Crossovers Project (the Project) located in Portland, Oregon approximately 4 miles north of Portland Union Station (see Figure 1). This shovel-worthy Project will reduce delays for 16 daily Amtrak passenger trains (Cascades, Empire Builder, and Coast Starlight) by allowing them to cross over at this location at a higher speed than currently and will reduce freight train congestion and improve air quality. The Project proposes to replace the existing low-speed crossovers with larger higher-speed crossovers that would improve intercity passenger rail service reliability by allowing trains to operate faster, substantially reducing operating delays that occur today as a result of these crossover movements.

In addition, the Project will upgrade and power an existing hand-thrown crossover that allows access from Main Track (MT) 2 to the Willbridge Yard north of the main line. This Project component will allow freight trains to enter and leave the main line without stopping to have a crew member manually throw the crossover, thus increasing efficiency; reducing train idling, operating delays, and congestion; and improving air quality. The Project's completed preliminary design (30%) and environmental documentation are included in the appendices.

III Project Funding

Award of Federal Railroad Administration (FRA) Track 3 Final Design/Construction Stage FSP funding of $10,396,657 would enable ODOT to move the Project from the completed Track 2 Project Development Phase quickly into the Track 3 Final Design and Construction phase. Table 1 shows the estimated funding necessary for the Track 3 phase of the proposed Project. ODOT, Amtrak, and BNSF will provide the required 20 percent non-federal matching grant funding for the FSP Track 3 grant. Once the Project is built, it is anticipated that BNSF will maintain the new rail trackage, signals, and other capital improvements located on BNSF property. The estimated cost of the Project is $13.0 million ($11.8 million at a 3.1 percent discount at time of anticipated construction in constant 2023 dollars) for all Project phases, including Final Design and Construction.

The requested grant funding is matched with $2,599,164 in local funds, or 20 percent of the total Project cost of $12,995,822. See Table 1 for a breakdown of Project costs. Appendix 4 contains the documentation of the local match funding.

Table 1: Willbridge Crossovers Project Funding

Task No.	Task Name/Project Component		Cost	Percentage of Total Cost	Source of Funds and Citation, as Applicable
1	Project Administration and Management		$490,415		
2	Survey and Site Investigation		$108,981		
3	Environmental Commitments and Review		$20,134		
4	Final Design		$1,069,676		
5	Environmental Permitting		$20,134		
6	Public Engagement		$6,943		
7	Construction		$11,279,538		
Total Project Cost			**$12,995,822**		
Federal FSP Funding Requested in This Application			$10,396,657	80%	
Non-Federal Funding (State)		Cash:	$866,388	6.67%	ODOT
Non-Federal Funding (Private Sector)		Cash:	$866,388	6.67%	BNSF Railway
Non-Federal Funding (Amtrak)		Cash:	$866,388	6.67%	Amtrak
Other Committed Federal Funding (e.g., Federal Highway Administration, CDS, FRA funds)			$0	0%	
Other non-Federal Funding			$0	0%	

Note: Total project cost may not match due to rounding.

Figure 1: Vicinity Map

IV Applicant Eligibility

The State of Oregon, through ODOT as the applicant, is deemed eligible for submission of this grant application under applicant eligibility criteria outlined under 49 United States Code (U.S.C.) Section 24911(A)(D)(F) and as detailed in the Federal-State Partnership for Intercity Passenger Rail Program Notice of Funding Opportunity (NOFO) as a publicly chartered authority established by the State of Oregon. ODOT was created in 1913 by the Oregon Legislature originally as the Oregon Highway Commission, under Oregon Revised Statute Chapter 184. The FSP Program is authorized in Sections 22106 and 22307 of the Infrastructure Investment and Jobs Act (Pub. L. No. 117-58, November 15, 2020 (IIJA)) (49 U.S.C. Section 24911).

V Project Eligibility Criteria

The Willbridge Crossovers Project will improve safety, service reliability, performance, trip time, and efficiencies of Amtrak passenger service in the Cascades rail corridor as well as freight rail transportation. The Project is eligible under 49 U.S.C. Section 24911 (c) (1) (2) and meets criteria under 49 U.S.C. Section 24911 (a)(2). The proposed infrastructure improvements include the replacement and upgrades of turnouts, crossovers, and signals, and other infrastructure improvements for a new universal crossover with power-operated turnouts along the BNSF main line entrance to the Willbridge Yard in Portland, Oregon. These project components aim to improve the rail line and reduce delays for four daily Amtrak long-distance Coast Starlight and Empire Builder trains as well as the 12 daily Cascades intercity passenger trains. The Project will reduce congestion and address safety challenges, as well as improve local air quality by reducing idling trains along the heavily traveled BNSF Pacific Northwest Rail Corridor. The proposed Project has FRA- and BNSF-approved 30% design documents with a National Environmental Protection Agency (NEPA) Categorical Exclusion, and it meets the Track 3 Final Design and Construction requirements. As such, this project is eligible for FSP funding under the Consolidated Appropriations Act, 2024, Div. F. Tit. I, Pub. L. 118-42 and Division J of the IIJA, 2021.

The Project is eligible for funding under 49 U.S.C. 24911(c)(1)(2), as defined in the NOFO, and meets project eligibility under 49 U.S.C. 22907(c)(2), 49 U.S.C. 22907(c)(3), 49 U.S.C. 22907(c)(4), and 49 U.S.C. 22907(c)(6), and with the planned improvements, the Willbridge Crossovers Project meets the eligibility criteria under the aforementioned clauses of the U.S.C.

The majority of quantified benefits in the related Benefit Cost Analysis (see Appendix 2) of this Project stem from time savings, though the Project is anticipated to affect a wide array of benefits, as summarized in Table 2.

Table 2: Summary of Benefits

Category	Issue (No-Build)	Type of Impact	Economic Benefit	Summary
Economic Competitiveness	Operating Costs	Operating Cost Savings	Monetized value of vehicle operating costs from reduced running time	Decreased operation costs by reducing running time for trains diverging at Willbridge
Environmental Sustainability	Pollutant Emissions	Emissions Reductions	Monetized value of emissions reductions due to reduced running time	Decreased emissions (VOC, NOX, PM) by reducing running time for trains diverging at Willbridge
Quality of Life	Delay Time	Time saved	Monetized value of time for passengers and railroad personnel	Reduced Travel Time by reducing running time for trains diverging at Willbridge
Residual Value	State of Good Repair	Capital Life Expectancy	Long life expectancy of Railroad Capital Assets	Expected life of capital asset well outpaces the two decade time horizon of this analysis

VI Corridor Identification Program Coordination

ODOT has partnered with the Washington State Department of Transportation (WSDOT) for more than 30 years working together to coordinate Cascades intercity passenger rail service along the Pacific Northwest Rail Corridor and provide reliable passenger rail service that connects their respective communities. Together with BNSF, Amtrak, and the British Columbia Ministry of Transport, ODOT and WSDOT have used their three-decade-long collaborative partnership to provide travelers on the Pacific Northwest Rail Corridor with unparalleled regional passenger rail service. The Willbridge Crossovers Project will build upon this partnership by ensuring continued passenger rail service with expected service reliability and by reducing delays for passenger trains operating between Oregon and Washington.

Although FRA has considered WSDOT to be the Corridor Sponsor, the Corridor Identification and Development Program (CID) application was submitted to FRA with ODOT listed as co-applicant. ODOT has an FRA-approved service development plan in place. Both ODOT and WSDOT have been coordinating their service and capital improvement plans for Amtrak Cascades service since the 1990s, and the agencies continue to meet regularly to plan for existing service, and for capital improvements, using the incremental improvement approach. WSDOT has provided a letter supporting this application, which is included in Appendix 5.

The Project will not preclude any outcomes from planning activities that are being explored under CID. The proposed Project will, in fact, address a long-standing operational bottleneck that was originally identified 30 years ago.

As the CID program requirements are evolving, there is a possibility that funding from the CID program could be available for this Project in the near future. If this occurs, ODOT will work with FRA to modify awards as needed.

VII Detailed Project Description

A Project Scope Description

The Willbridge Crossovers Project exemplifies a focused effort to improve both passenger and freight operations on a nationally significant rail passenger corridor. First identified in 1994 as an improvement in the Oregon High Speed Rail Capacity Analysis Investment Program, this Project envisions the completion of upgrades at the Willbridge Control Point (CP) located at Mile Post (MP) 4.1 on the BNSF Fallbridge Subdivision in Portland, Oregon (see Figure 2). These upgrades will improve system reliability, reduce passenger and freight rail operational conflicts, and improve operational efficiencies for all rail operators. The upgrades will also allow for diverging speeds of at least 35 miles per hour (mph) for the four daily Amtrak Coast Starlight and Empire Builder long-distance trains and potentially higher speeds for the 12 daily Cascades intercity passenger trains rather than the current speed of 10 mph.

As shown below in Table 3, the maximum authorized speed through the Willbridge CP is 35 mph for freight and conventional passenger trains. The Talgo passenger equipment speed limit is 50 mph. Trains that do not diverge through the crossovers, assuming there are no other operating limitations, travel at or near those speeds. However, trains that diverge at the Willbridge CP must slow from their respective speeds down to 10 mph to make the movement safely. As a result, some passenger trains must reduce their speed by 40 mph and then must accelerate back up to speed immediately after clearing the CP.

Table 3: Freight and Passenger Speeds

Selected Maximum Authorized Speeds – Fallbridge Subdivision				
Locations	**Mile Post**	**Freight (mph)**	**Passenger (Conventional) (mph)**	**Passenger (Talgo) (mph)**
05 (Portland Union Station)	0.5–0.9	30	35	35
	0.9–1.5	35	35	50
	1.5–3.4	35	50	70
	3.4–4.1	35	35	50
Willbridge CP (Diverging)	4.1	10	10	10
	4.1–5	35	35	50
Willamette Bridge	5–5.5	30	30	30
North Portland Junction	5.5–8.1	50	70	79

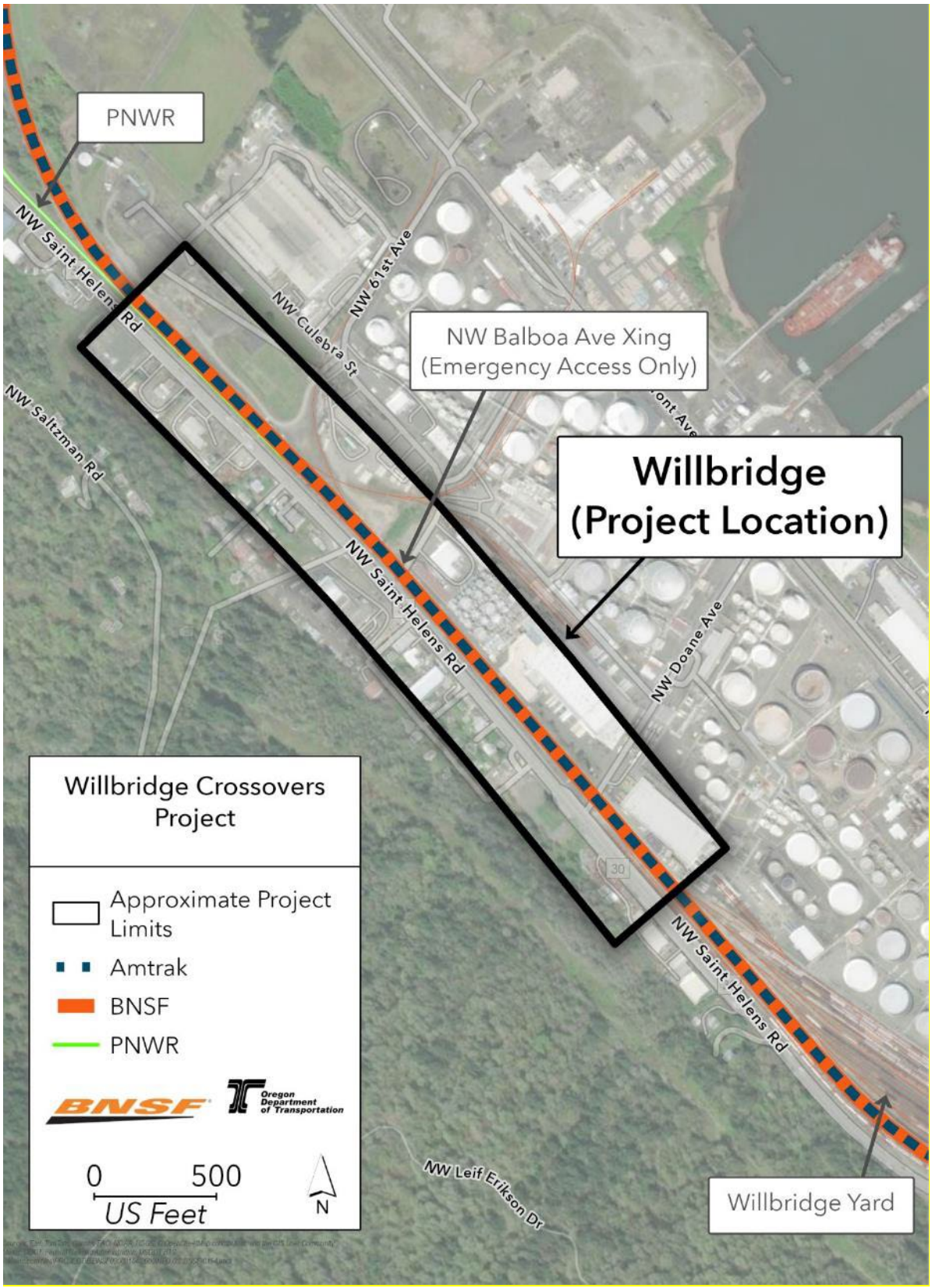


Figure 2: Project Site

The current design proposes using No. 20 crossovers to replace the existing No. 11 crossovers. Trains using the diverging route of a No. 20 turnout are allowed to travel at speeds up to 40 mph, thus non-tilting trains do not have to slow down to below 35 mph to move through the diverging route from a geometric standpoint. Tilting Amtrak Cascades trains will require slowing from 50 mph to 35 mph to make the movement, a smaller time impact than the existing slowing from 50 mph to 10 mph.

Due to space and geometric constraints, the longer crossovers will require the replacement of the existing right-hand and left-hand No. 11 crossovers between MT2 and the running/switching track, along with the signals that protect the crossover to the north of their current location.

Similarly, to accommodate the longer crossovers, the existing No. 11 turnout from MT1 to the junction with the Portland & Western Railroad, Inc. (PNWR) line to Astoria, Oregon (the former Burlington Northern "A" Line Subdivision) will also need to be removed, and a new turnout and wheel crowder derail will need to be installed in a new location north of the current location. The speeds on the former "A" Line Subdivision are restricted to 10 mph because the line enters yard limits. Therefore, the Project proposes a No. 11 crossover.

The No. 9 turnout on the switching lead that leads to industries northwest of the project site will be shifted 0.8 foot to the north in order to accommodate the proposed alignment geometry. This shift of the turnout location requires approximately 111 track feet of additional existing track to be adjusted in order to sufficiently tie into the existing curvature of the switching lead.

Oregon Administrative Rule 741-315-0010 (a) specifies a minimum of 15 feet between main tracks. Within the project area, the existing track centers between MT1 and MT2 are between 13.1 feet and 13.2 feet. The switching lead is generally more than 15 feet on center except near a culvert (described below), where it is as little as 14.3 feet.

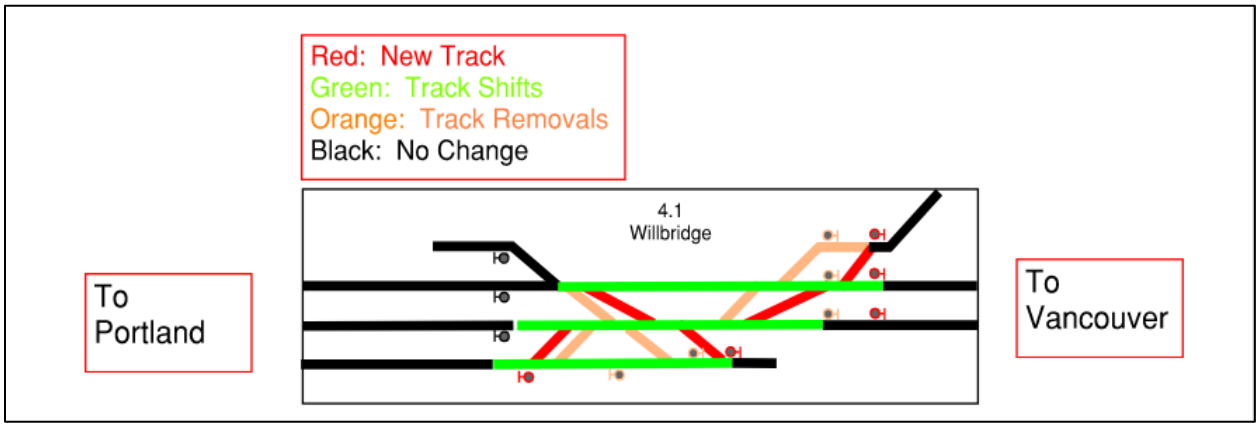
A culvert carries Saltzman Creek under the main track and the switching lead and is between the two existing No. 11 main line crossovers. To minimize the modifications to the culvert, the Project proposes to avoid increasing the track centers between MT1 and MT2. Additionally, the Project will maintain the existing 14.3-foot track centers between MT2 and the switching lead as they cross the culvert. A modification to the north headwall of the culvert and a new walkway to accommodate train switching operations are proposed.

The installation of a maintenance pad (also known as a "berm") is proposed to the north of the main lines and the switching lead. The Project will construct this maintenance pad in accordance with BNSF standard practice in order to accommodate project construction and ongoing maintenance of the Willbridge CP. It is anticipated that the placement and layout of the berm will provide sufficient space for staging within the BNSF right-of-way (ROW). The area is expected to be flat and level, and the final elevation will be set as part of Final Design. The Project will use standard crushed rock for the berm to minimize Project costs.

The signals and the interlocking signal system that controls movement of the trains through the Project area are proposed to be modified to accommodate the track reconfiguration. The southbound signals at MP 2.2 and northbound signals at MP 5.5 will require an additional head and programming. At the Willbridge CP, the southbound signal bridge and heads will not be revised, but the northbound bridge will need to be re-established at the beginning of the curve at the northern end of the Project area, thus allowing it to protect the entire CP. The elevated main track and apparent lack of view-blocking obstructions on the inside of the main line curve appear to allow ample sight distance in advance of the proposed signal bridge.

The Project plans to install new rail at the proposed crossovers and turnout, and at locations of the removal of the existing crossovers and turnouts. Outside of these areas, the existing track will be shifted and/or surfaced, lined, and dressed to match the proposed alignments and profiles (see Figure 3). New precast concrete panels and asphalt/concrete infill will be installed on MT 1, MT 2, and the switching lead tracks at the grade crossings at NW Balboa Avenue and private access adjacent to NW Doane Avenue.

Figure 3: Willbridge Track Change Schematic Diagram



B Project Schedule

The period of performance for all Track 3 Project work will be approximately 24 months, starting from funding obligation and the execution of associated parties' agreements. Table 4 lists the proposed Track 3 Project tasks and shows their durations.

Table 4: Preliminary Track 3 Project Schedule

Preliminary Willbridge Crossovers Project Schedule										
			Year 1				Year 2			
Task	Deliverable Name	Obligation	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1	Project Administration and Management									
2	Survey and Site Investigation									
3	Environmental Commitments/Review									
4	Final Design									
5	Environmental Permits									
6	Public Engagement									
7	Construction									

C Project Background and Challenges

The Project was originally identified approximately 30 years ago, in the *Oregon High Speed Rail Capacity Analysis: Recommended Investment Program FY 1993-1997*. The State of Oregon began with other priority improvements identified in the report, then addressed the Willbridge Crossovers Project during the first round of American Recovery and Reinvestment Act of 2009 (ARRA) funding during the Obama Administration. FRA ARRA funding provided the funds for Project preliminary engineering and design Track 2 work. Notice to proceed was given in September 2012, and this work was completed in 2015.

Since that time, the Project has been unable to obtain funds from the Oregon Legislature to move into Final Design and Construction. The FSP and CID programs now provide a substantial and attractive incentive to leveraging the 80/20 federal funding available for the Project. Therefore, the Oregon Legislature has taken proactive steps to provide matching funds, in order to leverage funding for this shovel-worthy project.

D Willbridge Control Point Railroad Operations Summary

Current railroad operations in this section of the Fallbridge Subdivision are as follows: Amtrak trains operate over this segment 16 times per day, and BNSF has approximately 11 daily freight trains. PNWR operates two trains per day over this segment as well. Amtrak trains predominate the through train movements on this segment of the Fallbridge Subdivision. The existing crossovers in the CP, which are operated by Centralized Traffic Control, are No. 11 crossovers. These No. 11 crossovers restrict the speed of crossover moves between the two main tracks to 10 mph. Further, the Willbridge CP also controls the junction with the PNWR line to Astoria, Oregon (the former Burlington Northern "A" Line Subdivision). Although rail traffic on this PNWR line is limited, it does provide a key connection to interchange freight cars at BNSF's Willbridge and Lake Yards.

The Willbridge CP is the last CP before the northern entrance to BNSF's Lake Yard (MP 2.2) and to a running/switching lead track along the north side of the main lines that serves several industrial customers and the Port of Portland's Terminal 2. It also is the CP that controls traffic to and from the Willbridge Yard, located immediately south of the CP. Both Lake Yard and Willbridge Yard are very busy, with a variety of freight traffic and frequent switching moves within both yards, as well as moves to various customers in Portland's Northwest Industrial District.

In addition, BNSF's key premium Portland Intermodal Facility (see Figure 4) is located adjacent to Lake Yard. As a result of all these movements, this 10-mile segment of the Pacific Northwest Rail Corridor is very congested, and BNSF dispatchers often must route passenger trains to cross over more than once between Vancouver, Washington, and Portland to avoid freight trains working on or holding a main line track.

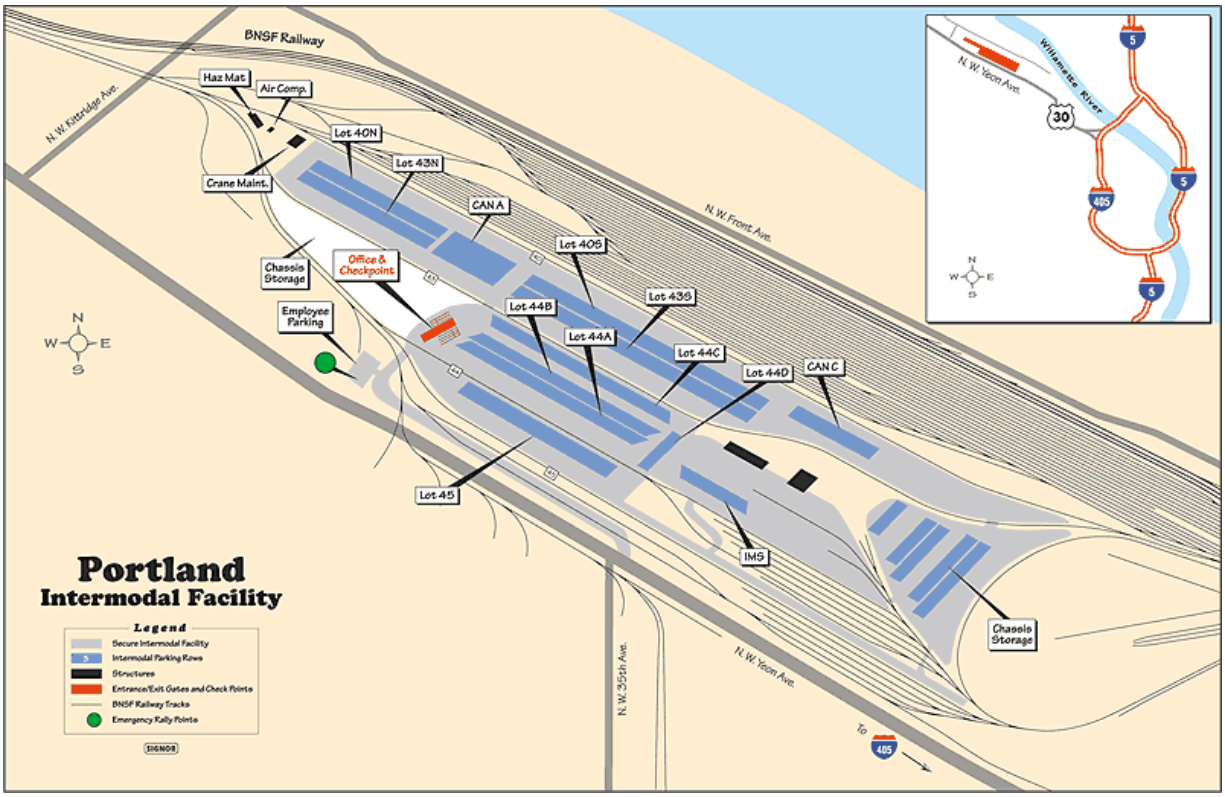


Figure 4: BNSF's Portland Intermodal Facility[1]

The slower speeds of through-freight trains traveling between Portland and Vancouver and freight trains entering and leaving this segment of the main line create main line congestion that delays passenger trains as well as freight trains. In BNSF's Northwest Division Timetable No. 10, all passenger and freight trains that must use the crossover at this location are required slow to as low as 10 mph in an area where they could otherwise travel at 35 mph (or 50 mph if the train is a tilting Amtrak Cascades passenger train).

E Expected Users and Beneficiaries

Transportation Users and Beneficiaries

Amtrak currently operates 16 passenger trains over this segment each day, making it one of the busiest Amtrak routes in the Pacific Northwest. These passenger train services can be described in two categories: corridor services and long-distance services.

Corridor Services: Amtrak Cascades

There are 12 daily Cascades intercity trains operating over this segment, providing regional passenger rail service between Vancouver, Canada; Seattle, Washington; and Eugene, Oregon. The Project is designed to reduce conflicts between freight and passenger trains, increase passenger and freight rail efficiency, improve reliability and reduce delays over this segment of railroad. In Federal Fiscal Year (FFY) 2024, more than 930,000 passengers rode on Amtrak Cascades service.

[1] https://www.bnsf.com/ship-with-bnsf/support-services/facility-listings.page

Figure 5: Southbound Amtrak Cascades Train at Willbridge CP

Long-distance Amtrak Services

The Coast Starlight and Empire Builder are two of Amtrak's premier long-distance routes. The Empire Builder provides vital transportation service between the Portland-Vancouver metropolitan area and Washington, Idaho, Montana, North Dakota, Minnesota, Wisconsin, and Illinois. The Empire Builder provides important connections between urban, rural, and tribal communities along the northern tier of states, that have few alternative transportation options. The Coast Starlight provides daily service between the key West Coast communities of Seattle, Portland, the Bay Area, and Los Angeles. In FFY 2024, the Empire Builder carried more than 380,000 passengers, and the Coast Starlight carried more than 350,000 passengers. A substantial percentage of these Amtrak long-distance riders will benefit from this proposed Project.

BNSF operates approximately 12 daily freight trains over the Fallbridge Subdivision through the Project area. PNWR also operates two freight trains, which interchange with BNSF in Vancouver, Washington. The proposed Project improvements will enable BNSF to continue to move freight by rail efficiently in the future. It will also enable time-sensitive intermodal trains operating to/from the nearby Portland Intermodal Facility to take advantage of the higher crossover speeds.

Community Users and Beneficiaries

The BNSF Willbridge and Lake rail yards are both located in northwest Portland, adjacent to the Willamette River. Although the adjacent Portland Intermodal Facility is primarily industrial, there are neighborhoods to the southwest and across the Willamette River that will benefit from this Project. The upgrades to the crossovers will increase passenger and freight train speeds through this track section, reducing train bunching, idling, and start-stop operations, thereby reducing emissions and improving air quality. The Project upgrades will benefit not only the air quality of the immediate neighborhoods, but also that of the Portland-Vancouver metropolitan area.

Additionally, rail passengers riding Amtrak Coast Starlight, Empire Builder, and Cascades service between Portland, Seattle, and Vancouver, British Columbia, will experience reduced and fewer delays. Thus, the Project will benefit the regional and national rail network. Reducing delays also improves reliability, encouraging more rail passenger service use, and could induce ridership growth. Because rail passenger

service is substantially safer than driving, the Project potentially could result in fewer accidents, injuries, and fatalities from highway-related travel in the future, as ridership on these trains grow.

Anticipated outcomes from the Willbridge Crossovers Project include:

- Reduced delays for intercity passenger and freight train operations and goods movements.
- Enhanced freight railroad operating safety, efficiency, and reliability.
- Reduced excess greenhouse gases and criteria air contaminant emissions from less idling of diesel trains, improved yard movements, and fewer start/stop train events.
- Improved public safety, multimodal mobility, connectivity, and access.

VIII Project Location

The geospatial data for the Project is as follows:

Table 5: Mile Post and Geospatial Locations

Congressional District	Project Type/Address/MP	Latitude	Longitude
OR-1	BNSF Fallbridge Subdivision, MP 4.1	45°33’50.63”N	122°44’45.26”W

Figure 1 and Figure 2 above also show the vicinity and site location of the Project.

IX Evaluation and Selection Criteria

A Evaluation Criteria

1. Project Readiness: NEPA

The Willbridge Crossovers Project has an FRA-approved Categorical Exclusion (CE) under NEPA, which is included in Appendix 3. The CE described the Project and Project area as a railroad use located in an industrial area of Northwest Portland. The CE looked at several areas of potential environmental concern, such as Hazardous Materials. A Phase 1 Hazardous Materials study was conducted in March 2015 and concluded that the Project is in an area of historical soil and groundwater contamination due to past industrial activities. A records search concluded that there were no listed sites in the Project area, but there were 18 sites within 0.5 mile of the Project area. The Phase 1 Hazardous Materials study concluded that the Project would have a low probability of encountering contaminated soils due to the minimal excavation that is being proposed.

The CE concluded that there are no Environmental Justice populations adjacent to the Project area; therefore, the Project would have no disproportionately high or adverse effect on low-income or minority populations. The National Wetlands Inventory does not indicate the presence of wetlands on the site, and no jurisdictional wetlands were observed during field reconnaissance. The CE concluded that there are no waters of special quality or concern, and no drinking water resources are within or directly adjacent to the Project area. The FRA concurred with the findings of the CE and signed the documentation on October 8, 2015.

In addition to the signed CE, the Project also obtained an Endangered Species Act determination of No Effect. FRA conducted Section 106 Consultation with the Oregon State Historic Preservation Office (SHPO) and submitted the Project’s Section 106 Finding of Effect along with its Section 106 consultation package to the SHPO on July 31, 2015. The SHPO concurred with FRA’s findings in September 2015.

ODOT conducted Native American Tribal Coordination for the Project in July 2015 and received no objections or substantive comments.

2. Appropriate Lifecycle Stage: Track 3

ODOT has completed Track 2 Project Development stage for this Project, thus demonstrating that it is ready to move to Track 3 Final Design and Construction implementation stage should the FSP grant funding be awarded. Project work completed to date includes:

- Preliminary Engineering
- Conceptual signal design
- 30 percent design cost estimates
- Evaluation of ROW impacts
- Selection of preferred design alternative
- Approved FRA Categorical Exclusion
- Section 106 Consultation
- Signed Project Design Schematic from all Project partners

The Project is identified in the Oregon Passenger Rail Service Development Plan for Amtrak Cascades[2] and is part of the existing Amtrak Cascades route between Portland, Seattle, and Vancouver, BC. The Project will address chronic congestion in the 10-mile Vancouver, Washington, to Portland, Oregon, terminal area. The Track 3 Final Design and Construction stage will enable the various Project partners to complete this important Project.

3. Partner Coordination and Commitment

ODOT and BNSF have been coordinating on the various phases of the Project for several years. As mentioned in the earlier "Project Background and Challenges" discussion, ODOT and BNSF are aligned with respect to the need for the Project and have committed to its success, as documented in BNSF's letter of funding commitment and support for this application (see Appendix 4 and Appendix 5). Furthermore, numerous stakeholders as well as local, state, and federal-level elected officials have expressed their strong support of this grant application and the benefits of this long-term project (please see Appendix 5). Similarly, Amtrak has committed non-Federal funding to the Project, as also documented in Amtrak's letter of funding commitment (see Appendix 4). ODOT already has committed substantial funding to the Preliminary Engineering phase, as discussed above. In addition, ODOT has made a commitment of matching funding for the Willbridge Crossovers Project, which is in Appendix 4.

4. Agreements Status

ODOT and BNSF have begun negotiations for the agreement required under U.S.C. 22905(c)(1). Both entities will begin discussions about the applicability of this required agreement to the Project. Both parties recognize that Amtrak is an operator over the Project segment of rail line with certain access rights to the BNSF ROW for passenger trains that it operates, and that the infrastructure improvements that would be funded by this grant will continue to support both freight and passenger operations. Both entities also recognize that there are collective bargaining agreements in place between BNSF and railroad employees.

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2 https://www.oregon.gov/odot/RPTD/RPTD%20Document%20Library/Final_Oregon_Passenger_Rail_Service_Development_Plan.pdf.

ODOT and BNSF will develop other agreements, as needed, beginning at the notice of award of the FSP grant.

5. Fiscal Readiness

All funding partners are committed to funding their respective shares of the Willbridge Crossovers Project as outlined in Section I, Section III, and the Statement of Work. ODOT has received confirmation from the Oregon Legislature that it has allocated $866,388 in matching funds if the grant application is approved. See Appendix 4 for BNSF's letter of funding commitment for the Willbridge Crossovers Project of $866,388 and Amtrak's non-Federal funding commitment letter to the Project of $866,388.

Technical Merit:

1) Tasks and subtasks outlined in the SOW are appropriate to achieve outcomes

The tasks that are outlined in the Statement of Work (SOW) (see Appendix 1) are appropriate and will achieve the proposed Project's expected outcomes. The SOW outlines the anticipated outcomes and performance metrics and is summarized as follows:

Task 1, Project Administration and Management: ODOT will follow best project management and administration practices and policies, develop a Project Management Plan (PMP), conduct regular Project check-ins, and conduct regular coordination activities. At completion of the Project, a Final Performance Report will be provided that documents the Project achievements.

Task 2, Survey and Site Investigation: A key first step in the Project effort will be to gather data from the Project site. Although most of the planned work will be on existing railroad ROW, there are areas that need further definition. This task envisions survey and ROW mapping to fully define these data points for the Final Design task. Following the survey and site investigation, geotechnical and subsurface utility engineering activities will identify potential issues and risks.

Task 3, Environmental Commitments/Review: ODOT, in conjunction with FRA, will re-examine the previously completed FRA-approved environmental clearance documentation for the Project. The 2015 CE will be reviewed, in accordance with FRA's Procedures for the Consideration of Environmental Impacts (Environmental Procedures) updated in 2013.[3] ODOT will provide the Project description, appropriate Project maps, and any other relevant background information and submit it as part of this review to assist FRA in confirming the previous determination of the environmental class of action and/or level of documentation.

Task 4, Final Design: The comprehensive work completed under this task will involve the preparation of final designs and project delivery documentation to demonstrate the Project's readiness for construction. Final Design will include preparation of all design development and documentation of delivery for construction of the Project necessary to demonstrate the effectiveness, feasibility, and readiness of the Project for construction.

Task 5, Environmental Permitting: ODOT will complete all environmental permitting necessary to enable the Project to enter the Final Design and Construction lifecycle stage. The Project may require coordination with local, state, tribal, and federal government partners to comply with regulatory permitting.

Task 6, Public Involvement and Outreach: ODOT will perform appropriate public engagement activities for the Project. The engagement activities will be held at appropriate times and may include an online website, virtual meetings, and social media activities.

[3] 2013-00561.pdf (govinfo.gov).

Task 7, Construction: ODOT will cause, through an agreement with BNSF, the construction work required to build the Project as detailed in the Final Design deliverables. ODOT will engage an experienced consultant construction oversight firm to monitor the progress and address issues during construction on ODOT's behalf within the limits of the oversight firm's authority.

2) Technical qualifications and experience

ODOT

ODOT will manage and implement the Track 3 Project Final Design and Construction work. As a responsible lead agency (i.e., as a grantee), ODOT has extensive experience in managing federal grants and complex transportation projects through its Public Transportation Division. ODOT has successfully managed and delivered rail design and construction projects that meet FRA guidelines and standards, including six ARRA projects awarded in 2009. The ODOT Multimodal and Rail Services Unit manager will oversee this contract, supported by the State Rail Planner, both of whom have a long history of working on operations and capital improvement projects on the Oregon rail network.

Cary Goodman will be the ODOT Project Manager for the Project. Cary will facilitate coordination between ODOT, BNSF, Amtrak, and FRA. He will be the main point of contact and work to manage scope, budget, schedule, and deliverables. He has extensive experience working on several FRA-funded grants to ODOT over the last 12 years, most recently as project manager of the just-completed Peninsula Junction construction project in Portland, Oregon.

BNSF Railway

BNSF has long-established processes and procedures in place to oversee the proposed Track 3 Final Design and Construction work for the Project. The BNSF Engineering Services team is composed of numerous technical experts who will oversee the Project's design and construction processes. BNSF has worked on numerous federally funded grant projects all over the United States and has an established track record of successfully completing these projects. BNSF has worked extensively in Washington state, using ARRA funding to design and construct several passenger rail improvements between Seattle and Portland on its rail lines. In coordination with ODOT, BNSF will use a similar proven project management and delivery process for the Project.

3) Business plan considers potential private sector participation in financing, construction or operation of the proposed project.

This application is for a Track 3 Project Final Design and Construction grant. At this stage, one of the key deliverables that will be fully developed and approved is a financial plan, as described in the FRA guidance on development and implementation of railroad capital projects.

The financial plan should reflect the overall Project's cost estimate and funding structure after the Project scope and schedule have been refined as part of development of the Final Design and any environmental reviews.

BNSF is making a significant contribution to the Willbridge Crossovers Project. In addition to contributing a portion of the non-federal matching funds, BNSF also will be involved in the construction of the Project, and will operate and maintain the improvements, once completed.

4) Applicant has legal, financial, and technical capacity to carry out the project, satisfactory continuing control over the use of facilities; and the capability and willingness to maintain the equipment or facilities.

The State of Oregon has the requisite legal, financial, and technical capacity to oversee the work proposed for the Project. The Oregon Legislature has provided ODOT a Biennial budget of $6.3 billion for 2023–25. This budget is composed of various revenues, including gas taxes, fees, and federal funding. ODOT has

technical staff who are experienced and qualified to manage the Project, as discussed below. ODOT also will contract with a consultant team that has the required expertise to support the Final Design and Construction of the Project.

Upon completion of the Willbridge Crossovers Project, the improvements will become part of the BNSF infrastructure. BNSF will maintain the track as part of its overall maintenance program for the Fallbridge Subdivision.

5) The degree to which the applicant and project deploy innovative technology, encourage innovative approaches to project delivery, and incentivize the use of innovative financing.

It is not anticipated that there will be any substantial deployment of innovative technologies or financing for this Project. However, during the Final Design phase, some innovative approaches to construction and delivery of the Project will be explored.

6) Project is consistent with planning guidance and documents set forth by USDOT, or required by law.

The Project is consistent with planning guidance and documents set forth by the U.S. Department of Transportation (USDOT), as follows:

- The Project is included in the 2020 ODOT State Rail Plan Update and the related Rail Needs Inventory.
- The Project is on an FRA-designated High Speed Rail Corridor.
- The Project would improve existing Amtrak Cascades intercity rail passenger service and Amtrak long-distance rail passenger service and eliminate a key freight and passenger bottleneck.
- The Project is listed in the ODOT Amtrak Cascades Service Development Plan.

Project Benefits:

1) Effects on system and service performance

The Project achieves decreasing running times for a significant number — a one-third, per BNSF data— of all trains on this section of the Fallbridge Subdivision, given the number of trains that change tracks using the Willbridge Crossovers. This project will also save time from cascading delays caused by congestion from trains waiting longer for trains diverging at Willbridge that block both main line tracks in the process. This project directly affects over 3,400 trains annually that diverge at Willbridge, and indirectly affects all 10,000+ trains that use the corridor annually.

2) Effects on safety, competitiveness, reliability, trip or transit time, and resilience

Annualized projected time savings from this project are significant. As detailed in the Appendix 2: *Benefit Cost Assessment Narrative*, a Train Performance Calculation (TPC) using Berkeley Simulation Software's Rail Traffic Controller© software on a model presently being utilized by ODOT was performed. The major train types that presently run in this rail corridor were modeled on the present infrastructure and on the proposed design. Overall, the project will save each passenger train in excess of one minute of travel time per use of the proposed infrastructure, and each freight train nearly seven minutes of travel time per use of the proposed infrastructure. The results of the TPC are displayed in Table 6.

Table 6: Projected Time Savings

Portland, Oregon, to Vancouver, Washington, Travel Time Comparison				
Train ID	**Direction**	**No Build (hh:mm:ss)**	**Build (hh:mm:ss)**	**Improvement (hh:mm:ss)**
Cascades	Northbound	00:15:44	00:14:40	00:01:04
Empire Builder	Northbound	00:18:02	00:17:02	00:01:00
Coast Starlight	Northbound	00:18:34	00:17:00	00:01:34
Unit Freight	Northbound	00:32:35	00:25:47	00:06:48

Given that there are thousands of trains that use this corridor, and diverge at Willbridge, at the present level of traffic reported, the ultimate annual time saved by trains is in excess of a week annually, as shown in Table 7.

Table 7: Annual Projected Time Savings

Annual Projected Time Savings	
Train ID	**DD:HH:MM:SS**
Cascades	01:01:41:45
Empire Builder	00:04:01:00
Coast Starlight	00:06:17:34
Unit Freight	06:19:48:43
Total	08:07:49:02

This project will improve On Time Performance of Amtrak services, and the resilience for the corridor as a whole from cascading delays.

It will also eliminate a common spot of slowing to a crawl well before arriving at Portland Union Station and improve passenger perception of the service at a crucial location: the second largest destination by ridership and the gateway to Oregon.

3) Effects on anticipated positive economic and employment impacts, including development in areas near passenger stations, historic districts, or other opportunity zones

This is fundamentally an improvement to the performance of Amtrak Cascades and Amtrak long distance services between Vancouver, Washington, and Portland, Oregon. As such, it serves as an indirect way to protect the ridership growth these services are presently experiencing, which is a foundation of station area planning and development in these cities.

4) Efficiencies from improved integration with other modes

This is a project which facilitates an improvement in operations for both passenger services and freight services in the corridor. Freight improvements are notable, especially that their time savings often translates into improved corridor fluidity. When a train diverges tracks at the Willbridge Crossovers, it blocks both main line tracks. With time in excess of six minutes saved per freight train divergence, this will have a remarkable effect on cascading delays from such moves when passenger trains are waiting to clear the same section of track.

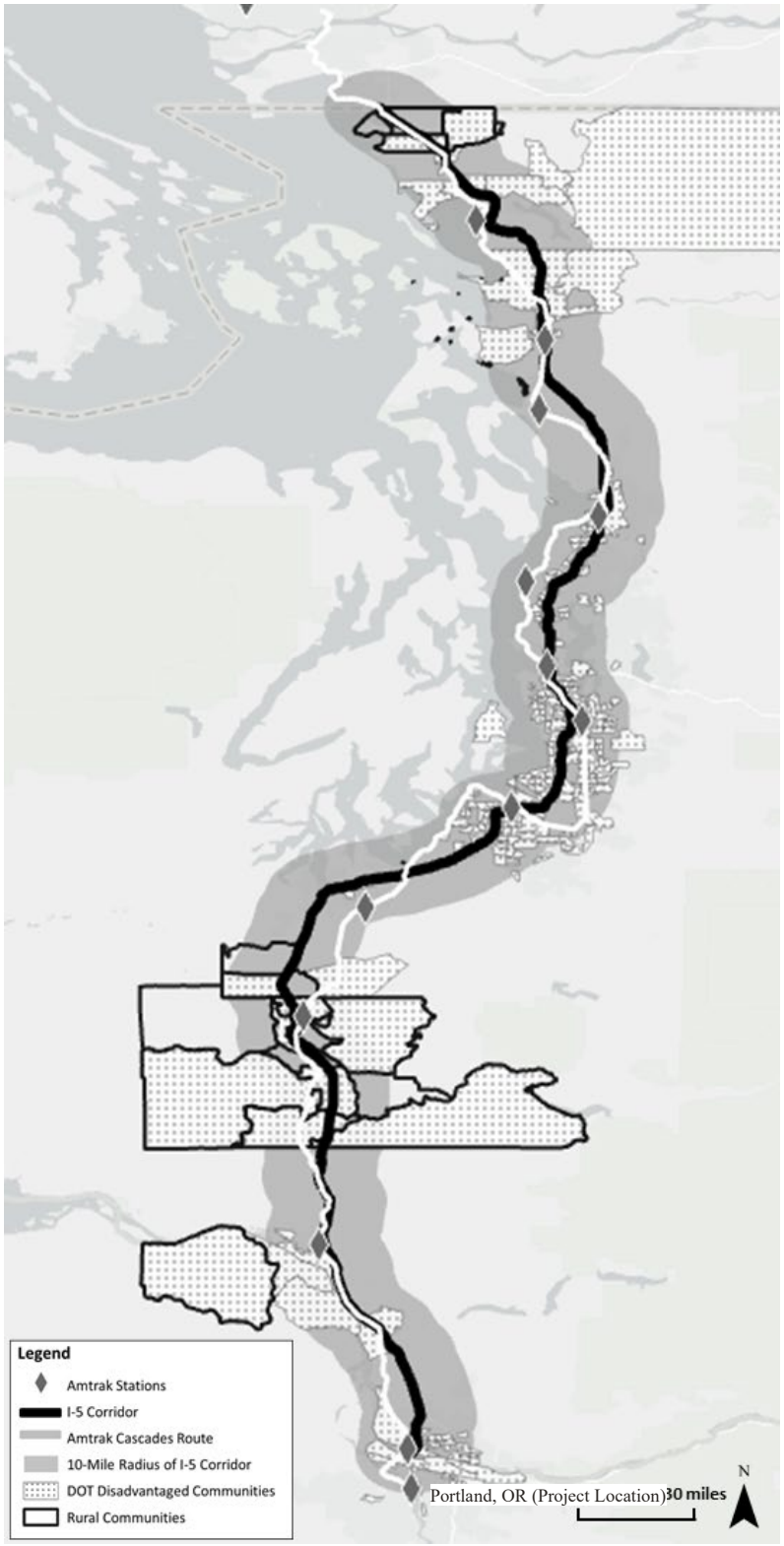

Figure 6: DOT Disadvantaged Communities and Amtrak Cascades Station Stops

5) Ability to meet existing or anticipated demand

The Project will allow BNSF and Amtrak to maintain and enhance the performance of robust current service, which will serve as a foundation for the service improvements presently under development in the Cascades CID program.

6) Whether the proposed project serves historically unconnected or under connected communities

The project concerns a presently operating corridor with established station areas in DOT categorized disadvantaged communities; any improvement in service is an improvement in access to these communities. Figure 6 outlines areas of disadvantaged communities in perspective with the corridor presently served by Amtrak Cascades services.

Selection Criteria

i. FRA Preferences

A) Amtrak is not the sole Applicant

The State of Oregon Department of Transportation is the lead applicant for this FSP grant for the Willbridge Crossovers Project. BNSF Railway and Amtrak are financially supporting the non-federal match.

B) Improve the financial performance, reliability, service frequency, or address the state of good repair of an Amtrak route

The Project, should it receive an FSP grant, will improve the reliability of three key Amtrak routes: the Coast Starlight, the Empire Builder, and Cascades. Its a part of the Pacific Northwest Rail

Corridor, first established in 1993. Also, by improving Amtrak's reliability of service, it will also improve Amtrak's financial performance, especially on Cascades service, given its substantial ridership between Seattle and Portland and because of its competitiveness with highway and air travel.

C) That are identified in, and consistent with a corridor inventory prepared under the Corridor Identification and Development Program pursuant to U.S.C. 49 25101

This rail segment is part of the CID program, with WSDOT and ODOT through the Cascades rail passenger service. The Project has been identified in ODOT's FRA-approved Service Development Plan. It is generally consistent with previous planning documents produced by both ODOT and WSDOT in the past—documents that have identified the Project location as a bottleneck for approximately 30 years.

ii. Administration Priorities

A) Safety

The Project includes converting an existing set of manually operated turnouts to powered turnouts that will be included in the overall Willbridge CP. This improvement will eliminate movements by freight train crews that currently must step off railroad equipment and manually throw the turnouts at the entrance to the Willbridge Yard. Eliminating this movement will reduce the risk exposure of freight train crews to injuries, especially with the potential for slips, trips, falls, and other injuries related to getting on and off railroad equipment.

The existing main line tracks are controlled by a Centralized Traffic Control system along with a Positive Train Control (PTC) safety overlay system. These systems will continue to be used after the Project is completed, and all improvements will be integrated into these systems. All Amtrak passenger trains are equipped with PTC.

B) Climate Change and Sustainability

A significant benefit of the Project would be the reduction in train hours of both intercity passenger trains and freight trains as a result of delay reductions within the Fallbridge Subdivision. A reduction in operating train hours results in fewer emissions by the locomotives that power those trains, thus resulting in a lower amount of greenhouse gases and other pollutants being emitted into the atmosphere. These reductions in emissions mitigate climate change impacts and improve the air quality in the surrounding area, which in turn improve the quality of life and reduce air-pollution-related health impacts, producing an equity benefit for the surrounding communities. Over the first 20 years of operation of the Project, reduced operating hours by Amtrak and BNSF trains resulting from improved efficiency of passenger and freight operations on the Fallbridge Subdivision would lead to nearly $6.3 million in discounted emission reduction benefits as tabulated in the Benefit Cost Analysis contained in Appendix 2.

Amtrak has a long-standing commitment to achieve a 40 percent reduction in its greenhouse gas emissions by 2030 and has implemented measures to achieve that goal. Similarly, BNSF is committed to reducing its emissions by 30 percent by 2030 against a 2018 baseline.

C) Equity and Justice40

Analysis using the USDOT Climate and Economic Justice Screening tool did not identify the location of the proposed Project as disadvantaged. The ODOT Social Equity Index Map indicated that this location has a low disparity[4].

[4] https://www.arcgis.com/apps/View/index.html?appid=bbd3d9861fcd40ffa4085d457e4361a7

The delivery of the Project would act in part as an agent of equity by reducing emissions and improving air quality in the Portland-Vancouver metropolitan area, while also improving the efficiency of infrastructure that is a key contributor and enabler of regional and national employment generation, investment attraction, and economic vitality. The Project area's census tract registers in the 75th percentile for diesel particulate matter exposure. Therefore, the reduction in emissions associated with the implementation of the Project would also contribute to better air quality for the communities surrounding the Project area and all residents of the Portland-Vancouver metropolitan area. Improved air quality through less regional emissions represents an improvement in the quality of life for all residents living in the region.

D) Workforce Development, Job Quality, and Wealth Creation

According to USDOT Guidance, the jobs created through the Project cannot be quantified as benefits; however, total employment and total earnings impacts of the Project are estimated. Total employment and total earnings impacts are the sum of following three categories of impacts:

- **Direct Effect** – Includes the effects on industries that are directly purchased to build a project, including construction.
- **Indirect Effect** – Includes the effects on supporting industries that supply goods and services to the direct effect industries, including workers in industries that supply equipment parts, steel, concrete, wood, and other raw materials that a project needs.
- **Induced Effect** – Includes the effect of direct and indirect workers spending their income on consumer goods and services such as food, shelter, clothing, recreation, and personal services.

Developing an estimate of the sum of the direct, indirect, and induced effects of the Project on total employment and total earnings uses specialized estimating tools and methods, such as the Bureau of Economic Analysis's Regional Input-Output Modeling System (RIMS II) employment multipliers. The interpretation of the RIMS II employment multipliers used in the analysis is as follows. The final demand employment multiplier represents the total change in number of jobs that occurs in all industries for each $1 million of output (in 2022 dollars) delivered to final demand by the industry in question. In this case, costs are allocated between Professional Services (for Design) and Construction, based on the capital cost allocation. The employment effects are expressed in job-years, which are defined as one job for one person for one year. For example, three job-years are equal to three people doing a job for one year, or one person doing a job for three years.

Utilizing the Bureau of Economic Analysis' RIMS II and multiplier data, it is estimated that the development of the Project would have a total economic impact on the regional economy of more than $26.5 million in final demand output and approximately $14.6 million in regional value add and would result in the creation of approximately 117 job years.

X Project Implementation and Management

ODOT will manage and implement the Track 3 Project work. As a lead agency responsible (i.e., as a grantee), ODOT has extensive experience in managing federal grants and complex transportation projects through its Public Transportation Division. ODOT has successfully managed and delivered rail design and construction projects that meet FRA guidelines and standards, including six ARRA projects awarded in 2009. The ODOT Multimodal and Rail Services Unit manager will oversee this contract, supported by the State Rail Planner at ODOT, both of whom have a long history of working on operations and capital improvement projects on the Oregon rail network. ODOT will work with FRA to finalize the FSP grant agreement, SOW, detailed budget, and schedule. In conjunction with FRA, ODOT will develop a PMP to

guide the Project from initiation to completion. The PMP will include five main components specifically tailored to efficiently and effectively implement the Project. These include:

- **Basis of Project**: Purpose, goals, metrics, and overview.
- **Organizational Management**: Organizational chart, responsibilities, and roles.
- **Management Controls:** Procedures to manage the Project effectively.
- **Procurement:** Process for obtaining services.

  Project Execution: Planned approach to complete the work.

A ODOT Key Personnel

At ODOT, every project must have an assigned project manager who is responsible for execution of the project scope within prescribed schedule and budget parameters. ODOT project managers are required to follow industry standards for Project and Program Management, as outlined in the Project Management Body of Knowledge (PMBOK®) latest edition, and they must establish appropriate project management structures with applicable management controls. Projects at ODOT are required to have appropriate governance and controls, and project teams are accountable for work performance. Project documentation used by project managers includes, but is not limited to, a project charter, a project schedule, a risk register, a stakeholder register, a PMP, and regular project status reports.

Cary Goodman will be the ODOT Project Manager for this project. Cary will facilitate coordination between ODOT, BNSF, Amtrak, and FRA. He will be the main point of contact and work to manage scope, budget, schedule, and deliverables. He has extensive experience working on several FRA-funded grants to ODOT over the last 12 years, most recently as project manager of the just-completed Peninsula Junction construction project. His duties will include:

- Ensure that the Project remains on schedule, and within budget and scope.
- Delegate task assignments across multiple resource groups.
- Manage consultants.
- Work with Project stakeholders.
- Identify Project challenges.
- Fill out and submit quarterly reports for FRA.
- Guide the team through the Project's permitting needs.

B BNSF Railway Key Personnel

The BNSF Engineering Services team comprises many technical experts who will oversee the Final Design and Construction work. They are experienced in project management and project implementation. BNSF has worked on numerous federally funded grant projects all over the United States and has an established track record of successfully completing a diverse array of infrastructure projects. Specifically, BNSF's Pacific Northwest Division engineering staff have extensive experience using ARRA funding to design and construct several passenger rail improvements between the U.S./Canadian border, Seattle, and Vancouver, Washington. Working in coordination with ODOT, BNSF will use a similar proven project management and delivery process for the Project. BNSF has long-established project management processes and procedures in place to oversee the proposed Track 3 work for the Project.

Stephen Semenick, Engineering Services Project Manager, will lead the project for BNSF. He is a licensed Civil Engineer in Washington state and has a bachelor's degree in civil engineering from the University of Delaware and a master's degree in construction management from the University of Washington. During his tenure at BNSF, Mr. Semenick has led dozens of railroad infrastructure projects through the design and construction phases, many of which were federally funded. He has assisted with the delivery of multiple ARRA-funded rail expansion projects, landslide mitigation projects funded through the Consolidated Rail Infrastructure and Safety Improvements (CRISI) grant program, and at-grade crossing modification projects funded through Section 130. He has 11 years of experience in managing and designing transportation capital projects in both the public and private sectors.

Kyle Leatham, Public Projects Manager, will assist in coordinating preliminary Project activities for BNSF. He has a bachelor's degree in civil engineering from Brigham Young University and has his Engineer-in-Training (EIT) certification. Mr. Leatham oversees all public partnership projects for BNSF in Oregon, Washington, and British Columbia. He is the driving force behind building and maintaining strong connections with community partners and plays a pivotal role in the progression of federally funded projects—providing information, resources, and guidance for how to work alongside BNSF.

C Contracting Arrangements, Contract Oversight, and Control

After Project grant obligation, ODOT and BNSF would enter into a series of Project-specific engineering agreements in which the BNSF Engineering Services team would complete the final signal engineering/design work. ODOT will lead the Final Design work and will hire an experienced and qualified civil engineering consultant firm to perform the remaining Final Design work for the Project. BNSF will review ODOT's civil engineering using internal and external qualified consultants/contractors to perform the required Project work.

For Project construction, ODOT and BNSF will enter into another set of agreements. BNSF has extensive experience managing large and complex grant-funded construction projects. BNSF therefore has the capacity to manage a federal project with the necessary processes and controls and comply with audit requirements pursuant to the applicable federal regulations and requirements. ODOT and BNSF will have regular progress meetings during the Project design and construction phases.

D Sourcing and Compliance with Build America, Buy America

ODOT understands that funding under the Build American, Buy America (BABA) Act. Depending on the funding sources involved, Amtrak has also been subject to additional, agency-specific Buy America (or Buy American) requirements, including those applicable to funds provided through the FRA.

Upon the passage of the BABA Act of November 2021, which was enacted as part of the IIJA, ODOT has reviewed and updated its internal processes and, through concerted efforts by Amtrak Procurement and Legal departments, is ensuring compliance. Relevant protocols are already in place, such as BABA Act requirements being included in the BNSF general provisions that are referenced or included in all purchase orders and contracts, and the Standard Operating Procedures for obtaining waivers from the FRA, when applicable. Bidders for formal solicitations above the $1 million threshold are required to sign a Domestic Preference/Buy America Act Certification to confirm their understanding and compliance as well.

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OILTON
WILLBRIDGE
WATSON
SALTZMAN ROAD
MIRIAM AVE.
LAWRENCE AVE.
62nd AVE.
63rd AVE.
ADDISON AVE.
JAMES AVE.
LOWER COLUMBIA RIVER HIGHWAY
BALBOA ST.
N.W. CULEBRA AVE.
SHELL OIL COMPANY
Bethlehem Steel Co.
WILLAMETTE MERIDIAN
TIN-RIW. WM.
TIN-RIE. WM.
N.W. 61 ST. AVE.
MULTNOMAH COUNTY
OREGON
N.W. FRONT ST.
WILLAMETTE
RIVER
STATION MAP
NORTHERN PACIFIC RY.
OPERATED BY
SPOKANE PORTLAND & SEATTLE RY.
WILLBRIDGE
STA. 150+00 TO STA. 320+00
SCALE 1" = 100'
OCT. 29, 1953
OFFICE CHIEF ENGINEER
PORTLAND OREGON
SHEET 2 OF 3 SHEETS
G-5-12

Form 2085

N. P. R.

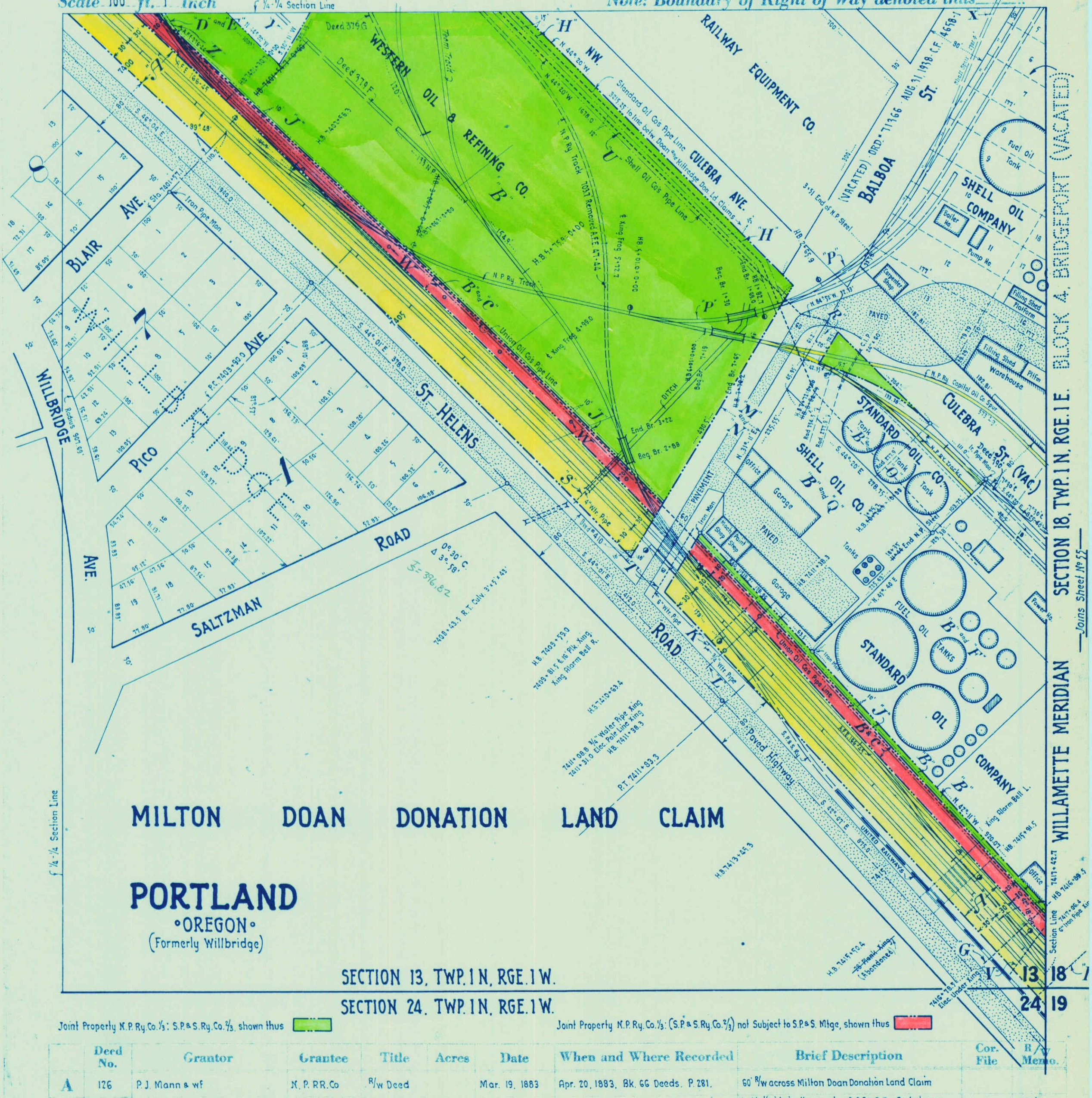
Goble Branch (Kalama to Portland) **Right of Way Plat**

State of Oregon **County of** Multnomah

SE¼ of SE¼ of Section 13 **Township** 1 North **Range** 1 West **of** Willamette **Meridian**

—Joins Sheet No 53—

Scale 100 ft. 1 Inch ℄ ¼-¼ Section Line **Note: Boundary of Right of Way denoted thus**



Joint Property N.P. Ry. Co. ⅓: S.P.&S. Ry. Co. ⅔, shown thus ▬▬

Joint Property N.P. Ry. Co. ⅓: (S.P.&S. Ry. Co. ⅔) not Subject to S.P.&S. Mtge, shown thus ▬▬

	Deed No.		Grantor	Grantee	Title	Acres	Date	When and Where Recorded	Brief Description	Cor. File	R/W Memo.
	A	126	P. J. Mann & wf	N. P. RR. Co	R/w Deed		Mar. 19, 1883	Apr. 20, 1883, Bk. GG Deeds. P. 281.	60' R/w across Milton Doan Donation Land Claim		
W. 4286	B	Vanc. to Port. 1.	S. P. & S. Ry. Co.	N. P. Ry. Co.	B. & S. Deed		Apr. 28, 1908		Undiv. ⅓ int. in all property of S.P.& S. Ry. Co. between Vancouver, Wash. and Portland, Ore.	3455	100/10
W. 4936	C	Vanc. to Port 8	do.	do.	B. & S. Deed.		Feb. 27, 1911	Feb. 28, 1911. Bk. 529 Deeds. P. 127	Undiv. ⅓ int. in S.P.& S. Ry. Co's R/w between Vancouver, Wash. and Portland, Ore. same not subject to S.P.& S. Mtge	5076	576/11
W. 4432	D	222	do.	do.	Easement		Jan. 30, 1911.		Right to construct spur tracks serving Railway Equipment Co.	8095	156/11
	E	222 A	N. P. Ry. Co.	Railway Equipment Co.	Agreement		Oct. 23, 1911		Regarding construction and operation of Spur Tracks serving Railway Equipment Co.	8095	
W. 4982	F	237	S.P.& S. Ry. Co. and N. P. Ry. Co.	Standard Oil Co. of California	War. Deed	6.925 ac.	June. 28, 1912		Portion of Joint R/w lying N'Ely of a line drawn parallel and 60' distant from ℄ of N.P.Ry. Main Track.	9225	452/12
W. 5724	G	240	N. P. Ry. Co.	Pacific Telep. & Teleg. Co.	Permit	No 25,757	Oct. 1, 1912	Transferred to Lease File 25757	Electric Conduit under Xing at Sta. 7416+78.5	9507	
	H	246	S. P. & S. Ry. Co. and N.P. Ry. Co.	Standard Oil Co. of California	do.	No 26,855	Oct. 1. 1912	Cancelled by contract dated 10/10/40	Right to use 15' strip across Joint Property for a Pipe Line. Term 50 years	9989	
W. 5846	I	244	N. P. Ry. Co.	Home Telep. & Teleg. Co.	do.	No 26,616	June 10, 1913	Cancelled March. 1. 1920	Electric under Xing at Section Corner between Sections 13 & 24, Twp 1 N. Rge. 1 W and Sections 18 & 19, Twp. 1 N. Rge. 1 E.	9970	
	J	245	S.P.& S. Ry. Co. and N.P. Ry. Co.	Union Oil Co. of California	do.	No 26,603	Jan. 11, 1913	Cancelled Apr. 30, 1936.	Right to use 10' strip across Joint Property for a Pipe Line. Term 50 years	9904	
W. 5850	K	250	N. P. Ry. Co.	Capitol Refining Co.	do.	No 26,988	Oct. 1, 1913	Assigned to Shell Oil Co. Oct. 16. 1914 Transferred to Lease File 26988	¾" Water Pipe crossing under R/w at Sta. 7411+08.8	10,161	926/13
W. 5851	L	255	do.	do.	do.	No 27,366	Feb. 13. 1914	do. do 27366 Assigned to Shell Oil Co. Oct. 16. 1914	Pole Line crossing R/w at Sta. 7411+31	10,345	
W. 7243	M	260	Railroad Commission of Oregon	S.P.& S. Ry. Co. and N.P. Ry. Co.	Order		Apr. 27. 1915		Grants Town of Linnton right to open and extend Balboa St. across R/w at grade.	8359	375/15

•NOTE• For Continuation of Deed Record, See Sheet No 54 A.

Form 2085

52

N. P. R.

Goble Branch (Kalama to Portland) **Right of Way Plat**

State of Oregon **County of** Multnomah

NW¼ of SE¼ of Section 13 **Township** 1 North **Range** 1 West **of** Willamette **Meridian**

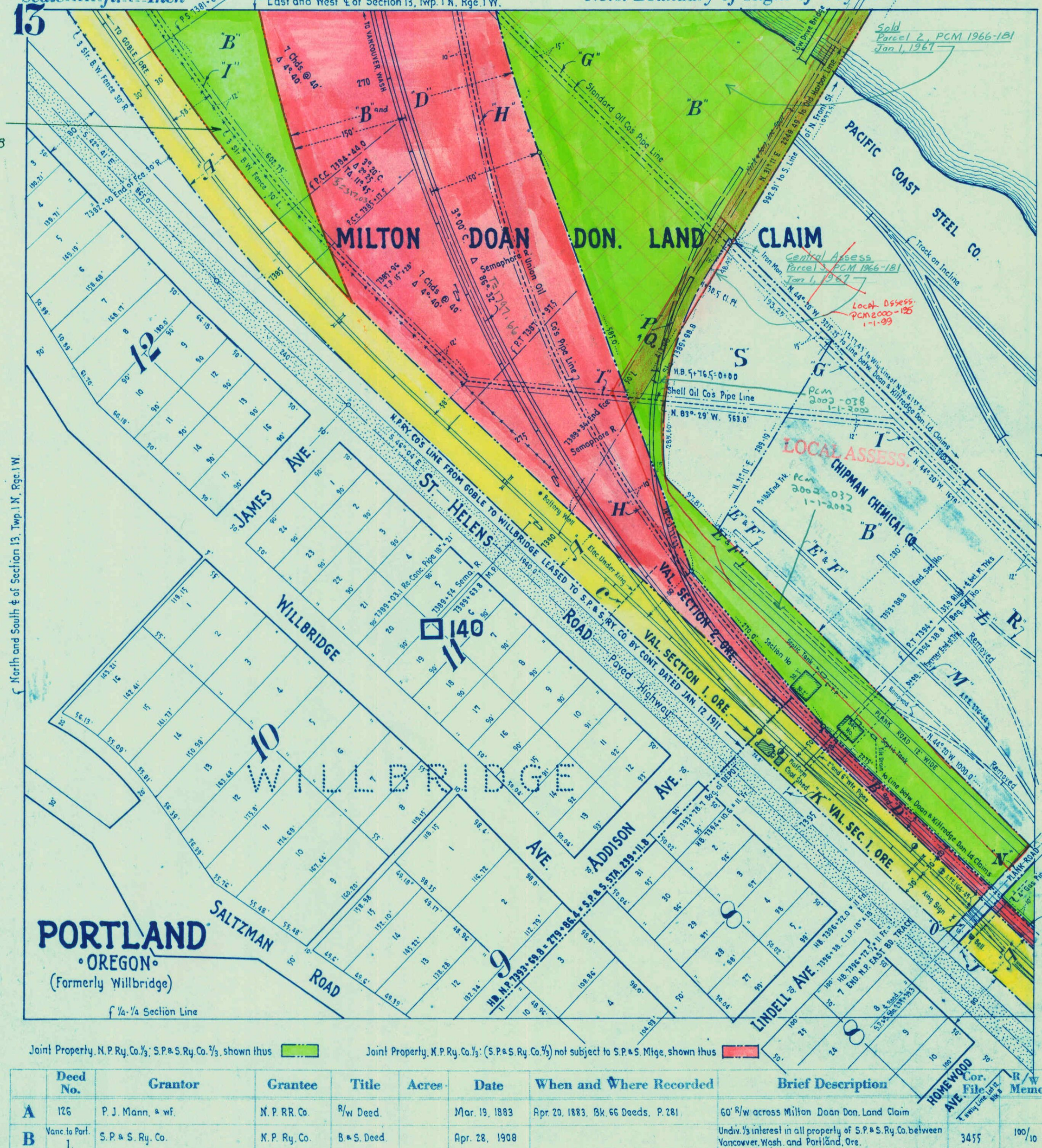
7+02.6 = 12,197.1 End

NOV 1 1960

Joins Sheet No 50

Scale 100 ft. 1 Inch

Note: Boundary of Right of Way denoted thus



Joint Property, N.P. Ry. Co. ⅓; S.P.&S. Ry. Co. ⅔, shown thus ▭

Joint Property, N.P. Ry. Co. ⅓; (S.P.&S. Ry. Co. ⅔) not subject to S.P.&S. Mtge, shown thus ▭

		Deed No.	Grantor	Grantee	Title	Acres	Date	When and Where Recorded	Brief Description	Cor. File	R/W Memo.
	A	126	P. J. Mann, & wf.	N. P. RR. Co.	R/w Deed.		Mar. 19. 1883	Apr. 20. 1883. Bk. 66 Deeds. P. 281	60' R/w across Milton Doan Don. Land Claim		
W. 4286	B	Vanc. to Port. 1.	S. P. & S. Ry. Co.	N. P. Ry. Co.	B. & S. Deed		Apr. 28. 1908		Undiv. ⅓ interest in all property of S.P.&S. Ry. Co. between Vancouver, Wash. and Portland, Ore.	3455	100/10
W. 3938	C	205	N. P. Ry. Co.	Pacific Telep. & Teleg. Co.	Permit	No 22675	Mar. 23. 1910	Transferred to Lease File 22675	Electric under Xing. 160', SEly from M.P. 140	7513	
W 4936	D	Vanc. to Port. 8	S. P. & S. Ry. Co.	N. P. Ry. Co.	B. & S. Deed		Feb. 27. 1911	Feb. 28. 1911. Book 529 Deeds. P. 127	Undiv. ⅓ int. in S.P.&S. Ry. Cos. R/w between Vancouver, Wash. and Portland, Ore. same not subject to S.P.&S. Mtge.	5076	576/11
W. 4432	E	222	do.	do.	Easement		Jan. 30. 1911		Right to construct spur tracks serving Railway Equipment Co.	8095	156/11
	F	222 A.	N. P. Ry. Co.	Railway Equipment Co.	Agreement		Oct. 23, 1911	Track removed in 1932 by S.P.&S.	Regarding construction and operation of Spur Tracks serving Railway Equipment Co.	8095	
	G	246	S. P. & S. Ry. Co. and N. P. Ry. Co.	Standard Oil Co of California.	Permit	No 26.855	Oct. 1, 1912	Cancelled by contract dated 10/10/40	Right to use 15' strip across Joint Property for a Pipe Line. Term 50 yrs.	9989	
	H	245	do	Union Oil Co. of California	do.	No 26.603	Jan. 11. 1913	Cancelled Apr. 30, 1936.	Right to use 10' strip across Joint Property for a Pipe Line. Term 50 yrs.	9904	
	I	280	do	Shell Oil Co. of California	Easement		Aug. 23. 1915		Right to use 12' strip across Joint Property for a Pipe Line. Term 50 yrs.	11.392	
	J	318	N. P. Ry. Co.	Portland Gas & Coke Co.	Permit	No 43.678	June 25. 1926	Transferred to Lease File 43678	4" Gas Pipe crossing under R/w. 357 Ft. SEly from SEly. end of Depot	17.928	
	K	286	do.	Pacific Coast Steel. Co.	do.	No 34.171	Jan. 25. 1919	Transferred to Lease File 34171	2" and 6" Water Pipes crossing under R/w, 47' SEly from SE'ly End of Depot building.	14.246	
W. 11893	L	379	S. P. & S. Ry Co. and N. P. Ry. Co	Chipman Chemical Co	Contract	6.43 ac.	July 1 1944	War. Deed dated Mar. 14, 1945.	Tract 280' x 1000' in Milton Doan Don. Ld. Claim	11.435	102/44
C-1069	M	379 A	N. P. Ry. Co.	do	Agreement		May 10. 1944	A.F.E. 276-44.	Covering track to serve Chipman Chemical Co.	11.435	

French Thompson
General Director
Public Infrastructure & Investments

BNSF Railway Company
P. O. Box 961502
Fort Worth, TX 76161-0052

2600 Lou Menk Drive
Fort Worth, Texas 76131-2830
(817) 352-1549

French.Thompson@BNSF.com

November 11, 2025

Kris Strickler, Director
355 Capitol Street, NE MS 11
Salem, OR 97301

Subject: Letter of Support – Willbridge Crossover Project

Dear Director Strickler,

BNSF Railway supports efforts by the Oregon Department of Transportation (ODOT) to secure state discretionary funding under the 2025 Connect Oregon Funding Program grant for the Willbridge Crossover Project. If awarded, the project will fund the upgrade from the current track No. 11 crossover turnouts in the control point, to the modern No. 20 turnouts. The No. 11 turnouts currently restrict diverging train speeds to 10 mph. This modernization will allow for speeds of up to 35 mph for (1) freight trains; (2) the four daily Amtrak Coast Starlight and Empire Builder long distance trains; and (3) a potentially higher speed for the 12 daily Cascades intercity passenger trains that use the new AIRO trainsets as part of the Pacific Northwest Rail Corridor.

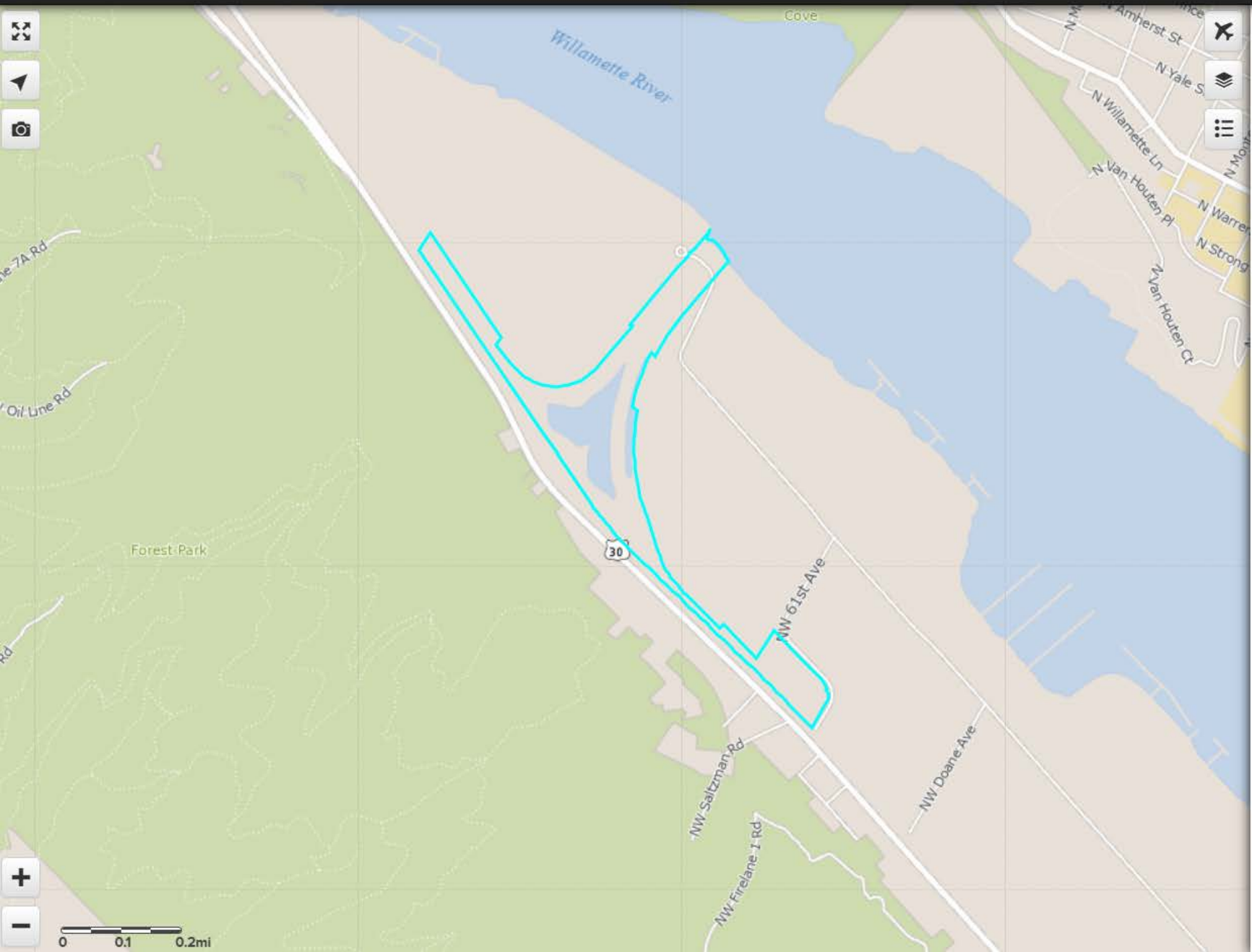
Willbridge Crossover project will eliminate a key regional rail freight and passenger chokepoint. It will benefit both freight and passenger rail services in the region, increasing capacity, improving safety, reducing congestion, and enhancing reliability of all rail services on this important rail corridor.

BNSF values our working relationship with the Oregon Department of Transportation and is prepared to work with all involved public agencies on further development of this project, subject to satisfactory review of funding requirements, final engineering, and entering into definitive agreements as may be required by BNSF or other project stakeholders.

BNSF appreciates your thorough review of this application and looks forward to continuing its relationship with ODOT through this important project.

Sincerely,

French Thompson
General Director – Public Infrastructure & Investments



6330-6346 NW ST HELENS RD

PORTLAND, OR 97210

PROPERTY

Year Built	
Neighborhood	LINNTON
Jurisdiction	Portland / Multnomah
City Council District	4
Zoning	IH - Heavy Industrial
Elevation	18 ft (approximate)
Owner	BNSF RAILWAY COMPANY
Owner Address	PO BOX 961089 FORT WORTH TX 76161-0089

For more information about data updates or discrepancies, please contact Multnomah County Assessment, Recording & Taxation at (503) 988-2225 or propertytax@multco.us.

- Assessor
- Permits & Zoning
- Parks
- Schools
- Public Safety
- Transportation
- Utilities

BNSF-ODOT Willbridge Crossovers Project
Appendix 1-A: Preliminary Engineering

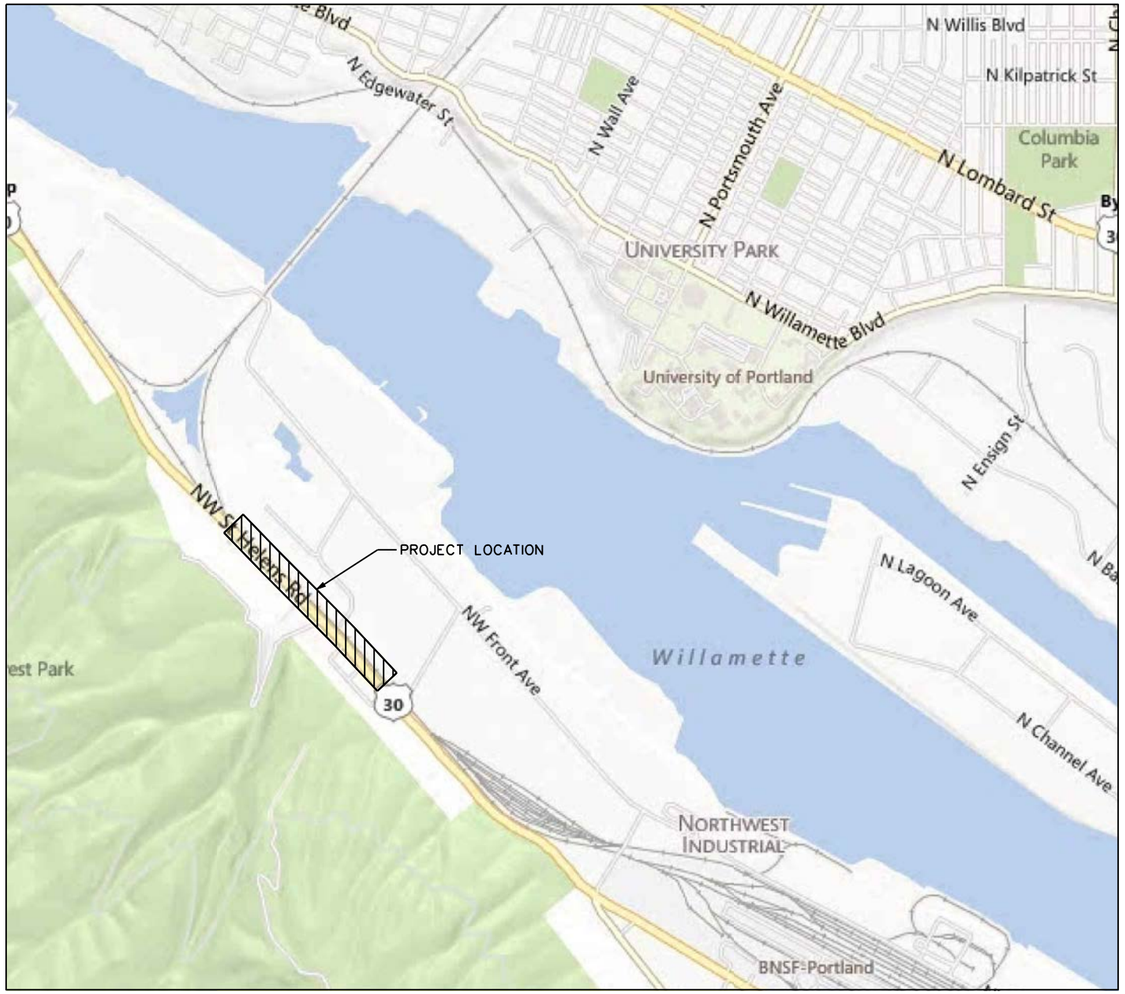
2024

Oregon Department of Transportation

BNSF

DAVID EVANS AND ASSOCIATES INC.

NORTHWEST DIVISION
WILLBRIDGE CROSSOVERS



VICINITY MAP
NOT TO SCALE

N

BNSF RAILWAY
FALLBRIDGE SUBDIVISION
LINE SEGMENT 47
MP 3.6 TO MP 4.5

APPROVED:

OREGON DEPARTMENT OF TRANSPORTATION	DATE
BNSF RAILWAY COMPANY	DATE
NATIONAL RAILROAD PASSENGER CORPORATION	DATE
PORTLAND & WESTERN RAILWAY	DATE
FEDERAL RAILROAD ADMINISTRATION	DATE

DISCLAIMER:
ALL PARTIES SIGNING THIS SHEET HAVE REVIEWED THESE PLANS AND NO EXCEPTIONS ARE TAKEN WITH REGARD TO THEIR ABILITY TO USE THE PROJECT AS INTENDED. INDIVIDUAL PARTIES HAVE NOT REVIEWED THE DESIGN DETAILS OR CALCULATIONS FOR STRUCTURAL INTEGRITY OR ENGINEERING ACCURACY. THE PARTIES ACCEPT NO RESPONSIBILITY FOR ERRORS OR OMISSIONS IN THE DESIGN OF THE PROJECT.

30% SUBMITTAL

DATE: MAY 6, 2015

DAVID EVANS AND ASSOCIATES INC.
3700 Pacific Hwy. East, Suite 311
Tacoma Washington 98424
Phone: 253.922.9780

OREGON DEPARTMENT OF TRANSPORTATION

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PROJECT NUMBER	COST ELEMENT	LINE ITEM	CONTRACT DESIGNATOR	PHYSICAL ENTITY	WORK ELEMENT

DRAWING NO.	GENERAL	SHEET NO.
CK-01	COVER SHEET	1
CK-02	INDEX OF DRAWINGS	2
CK-03	ABBREVIATIONS AND SYMBOLS	3
	EXISTING	
EX-01	EXISTING TRACK PLAN	4
EX-02	EXISTING TRACK PLAN	5
EX-03	EXISTING TRACK PLAN	6
EX-04	EXISTING TRACK PLAN	7
	TRACKWORK	
RC-01	TYPICAL TRACK SECTIONS	8
RC-02	ROAD CROSSING SECTIONS AND EXISTING CULVERT MP 4.24	9
RP-01	TRACK PLAN MT1 STA 7392+00 - STA 7406+50	10
RP-02	TRACK PLAN MT1 STA 7406+50 - STA 7421+50	11
RP-03	TRACK PLAN MT1 7421+50 - STA 7436+50	12
RP-04	TRACK PROFILE MT1 STA 7394+76.00 - STA 7418+03.84	13
RP-05	TRACK PROFILE MT2 STA 7397+48.40 - STA 7424+40.06	14
RP-06	TRACK PROFILE TRK3 STA 13+13.41 - STA 33+34.74	15
RP-07	TRACK PROFILE TRK4 AND TRK5	16
RT-01	TRACK GEOMETRY DATA	17
RT-02	TRACK GEOMETRY DATA	18
	EARTHWORK	
RX-01	MT1 STA 7395+00 TO STA 7397+00	19
RX-02	MT1 STA 7398+00 TO STA 7400+00	20
RX-03	MT1 STA 7401+00 TO STA 7403+00	21
RX-04	MT1 STA 7404+00 TO STA 7406+00	22
RX-05	MT1 STA 7407+00 TO STA 7409+00	23
RX-06	MT1 STA 7410+00 TO STA 7412+00	24
RX-07	MT1 STA 7413+00 TO STA 7415+00	25
RX-08	MT1 STA 7416+00 TO STA 7418+00	26
RX-09	MT1 STA 7419+00 TO STA 7420+00	27
RX-10	MT1 STA 7422+00 TO STA 7424+00	28
RX-11	MT1 STA 7425+00	29

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WORK ELEMENT	PHYSICAL ENTITY	CONTRACT DESIGNATOR	LINE ITEM	COST ELEMENT	PROJECT NUMBER

30% DESIGN 05-06-2015

REV	DATE	DESCRIPTION	BY	SUB	APP

DESIGNED BY KMJE
DRAWN BY CDB
CHECKED BY JMDR
APPROVED BY
DATE MAY 6, 2015

DAVID EVANS AND ASSOCIATES INC.
3700 Pacific Hwy. East, Suite 311
Tacoma, Washington 98424
Phone: 253.922.9780

OREGON DEPARTMENT OF TRANSPORTATION

BNSF RAILWAY
FALLBRIDGE SUBDIVISION
WILLBRIDGE CROSSOVERS

INDEX OF DRAWINGS

CONTRACT NO.	
DRAWING NO.	CK-02
REVISION	SHEET NO. 2
SCALE	NTS

ABBREVIATIONS

&	AND	MH	MANHOLE
@	AT	MIN	MINIMUM
°	DEGREE(S)	MP	MILEPOST or MEDIUM PRESSURE
'	FOOT or FEET or MINUTE(S)	MSST	MAIN STREET SPUR TRACK
"	INCH or INCHES or SECOND(S)	MT	MAIN TRACK
%	PERCENT	MTD	MULTIPLE TILE DUCT
#	POUND or NUMBER	N	NORTH or NORTHERLY or NORTHING
△	CENTRAL ANGLE OF CIRCULAR CURVE	NMT1	NEW MAIN TRACK 1
2500	TRACK 2500	NMT2	NEW MAIN TRACK 2
AC	ASPHALT CONCRETE	NMT3	NEW MAIN TRACK 3
AP	ANGLE POINT	NO	NUMBER or NORTHERN
APE	AREA OF POTENTIAL EFFECT	NTS	NOT TO SCALE
APPROX	APPROXIMATELY	NW	NORTHWEST
APWA	AMERICAN PUBLIC WORKS ASSOCIATION	OD	OUTSIDE DIAMETER
AVE	AVENUE	OH	OVERHEAD
BC	BEGINNING OF CURVE	OP	OVERPASS
BLVD	BOULEVARD	OPP	OPPOSITE
BNSF	BURLINGTON NORTHERN SANTA FE RAILWAY	OTM	OTHER TRACK MATERIAL
		O. TO O.	OUT TO OUT
BM	BENCHMARK	P or PSGR	PASSENGER
BR	BRIDGE	PB	PULLBOX
CB	CATCH BASIN	PC	POINT OF CURVE
CC	CENTER OF CURVE	PCC	POINT OF COMPOUND CURVATURE or PORTLAND CEMENT CONCRETE
CIP	CAST IRON PIPE OR CAST IN PLACE		
C/L OR ℄	CENTERLINE	PI	POINT OF INTERSECTION
CLR	CLEAR	PIP	PROTECT IN PLACE
CONC	CONCRETE	PITO	POINT OF INTERSECTION OF TURNOUT
CMP	CORRUGATED METAL PIPE	POB	POINT OF BEGINNING
CP	CONTROL POINT	POE	POINT OF ENDING
CORR	CORRUGATED	POT	POINT ON TANGENT
CS	CURVE TO SPIRAL	PRC	POINT OF REVERSE CURVATURE
CT	CONCRETE TIES	PROP	PROPOSED
CTLVR	CANTILEVER	PS	POINT OF SWITCH
DC	DEGREE OF CURVE	PT	POINT OF TANGENT
DESC	DESCRIPTION	PVC	POINT OF VERTICAL CURVE or POLYVINYL CHLORIDE (PIPE)
DI	DUCTILE IRON		
DIP	DUCTILE IRON PIPE	PVI	POINT OF VERTICAL INTERSECTION
DOT	DEPARTMENT OF TRANSPORTATION	PVT	POINT OF VERTICAL TANGENT
DR	DRIVE	R	RADIUS or RATE OF CHANGE
DU	DUCT	RCB	REINFORCED CONCRETE BOX
DWG	DRAWING	R/W	RIGHT-OF-WAY
Ea	SUPERELEVATION, ACTUAL	RCP	REINFORCED CONCRETE PIPE
E	EAST or EASTERLY or EASTING	RD	ROAD
EC	END OF CURVE	RH	RIGHT HAND
EF	EACH FACE	RPM	RAISED PAVEMENT MARKER
EGL	ENERGY GRADE LINE	RR	RAILROAD
EL or ELEV	ELEVATION	RT	RIGHT
EQ	EQUAL or EQUATION	S	SOUTH or SOUTHERLY or SLOPE
EQNAHD	EQUATION AHEAD	SC	SPIRAL TO CURVE
EQNBK	EQUATION BACK	SDMH	STORM DRAIN MANHOLE
EW	EACH WAY	SDNG	SIDING TRACK
Eu	SUPERELEVATION, UNBALANCED	SF	SQUARE FOOT or SQUARE FEET
EX or EXIST	EXISTING	SO	SOUTHERN
EXMT OR EMT	EXISTING MAIN TRACK	SMH or SSMH	SANITARY SEWER MANHOLE
EMT1	EXISTING MAIN TRACK 1	STA	STATION
EMT2	EXISTING MAIN TRACK 2	STD	STANDARD
F	FREIGHT	ST	STREET or SPIRAL TO TANGENT
FH	FIRE HYDRANT	SUB	SUBDIVISION
FL	FLOWLINE	SW	SOUTHWEST
FS	FINISHED SURFACE	T	TANGENT or TALGO
FT	FOOT or FEET	TC	TRACK CENTER(S) or TOP OF CURB
G	GRADE	TG	TOP OF GRATE
G1	GRADE ENTERING VERTICAL CURVE	TGC	THE GAS COMPANY
G2	GRADE EXITING VERTICAL CURVE	T.O. or TO	TURNOUT
ga	GAGE	T/R or TOR	TOP OF RAIL
GB	GRADE BREAK	TF	TRACK FOOT or TRACK FEET
GM	GAS MATER	TRK	TRACK
GRD	GROUND	TS	TANGENT TO SPIRAL
GV	GAS VALVE	TT	TIMBER TRANSITION TIES
HGL	HYDRAULIC GRADE LINE	TYP	TYPICAL
HORIZ	HORIZONTAL	UD	UNDERDRAIN
HP	HIGH POINT or HIGH PRESSURE	UNO	UNLESS NOTED OTHERWISE
HWY	HIGHWAY	UP	UNDERPASS
I	TOTAL INTERSECTION ANGLE	UPRR	UNION PACIFIC RAILROAD
INV	INVERT	V	VELOCITY
L	LENGTH	VAR	VARIES
Lc	LENGTH OF CURVE (CIRCULAR)	VCP	VITRIFIED CLAY PIPE
LF	LINEAR FOOT or LINEAR FEET	VERT	VERTICAL
LH	LEFT HAND	W	WEST or WESTERLY
LP	LOW POINT	WM	WATER METER
Ls or LS	LENGTH OF SPIRAL	WUTC	WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION
LT	LEFT	WV	WATER VALVE
MAIN	MAIN TRACK	XING	CROSSING
MAX	MAXIMUM	XO	CROSSOVER

CURVE DATA

CURVE C-20
Dc = 1° 12'
V = 80(P) , 70(F)
Ea = 2½"
Eu = 1.25" (P), 0.15" (F)
Ls = 240'

- CURVE NUMBER
- DEGREE OF CURVE
- DESIGN SPEED (TIMETABLE SPEED)
- ACTUAL SUPERELEVATION
- UNBALANCED SUPERELEVATION
- LENGTH OF SPIRAL(S)

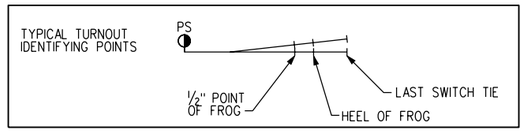
30% DESIGN 05-06-2015

	EXISTING	PROPOSED
ASPHALT		
BALLAST		
CANTILEVER WITH DUAL SIGNALS		
CANTILEVER WITH SIGNALS		
CITY OR COUNTY BOUNDARY		
CONCRETE		
CONCRETE PANELS		
CROSSING GATE & FLASHING LIGHTS		
CROSSING GATE		
FLASHING LIGHTS		
RAILROAD CROSSING SYMBOL		
RAILROAD SIGNAL (SINGLE UNIT)		
RAILROAD SIGNAL (DOUBLE UNIT)		
SIGNAL SHELTER		
WHITE STOP LINE		
SIGNPOST		
℄ DITCH FLOWLINE		
FENCE		
HEADWALL		
MEDIAN ISLAND BARRIER		
BORE HOLE		
CONTROL HUB & TACK		
IRON ROD		
CAP		
PROBE		

SYMBOLS

	EXISTING	PROPOSED
MILEPOST	MP 6	
RIGHT-OF-WAY		
GRADING LIMIT FILL		FILL — FILL
GRADING LIMIT CUT		CUT — CUT
POINT OF VERTICAL INTERSECTION		
STATION EQUATION SYMBOL		
SUBGRADE EARTH		
TIMBER		
TRACK		
TRACK TO BE REMOVED		
TRACK TO BE UPGRADED		
LINEOVER TRACK		
SURFACE LINE AND DRESS TRACK		
WETLAND DELINEATION FLAG		
WETLANDS		
POINT OF SWITCH (MANUAL)		
POINT OF SWITCH (POWER)		
CROSSOVER MANUAL		
CROSSOVER POWER		
TURNOUT MANUAL		
TURNOUT POWER		

TYPICAL TURNOUT IDENTIFYING POINTS



UTILITIES

		EXISTING	PROPOSED
X	UTILITY ABBREVIATION OVERHEAD LINE (TYP E,T OR TV)	XX(OH)	XX(OH)
C&S	COMMUNICATION & SIGNALLING	C&S	C&S
E	ELECTRIC	Elec	Elec
TV	CABLE TELEVISION	CTV	CTV
SS	SANITARY SEWER	SS	SS
W	WATER	W	W
G	GAS	GL	G
T	TELEPHONE	T	T
FO	FIBER OPTIC	FO	FO
C	CASING		
IRR	IRRIGATION	IRR	IRR

		EXISTING	PROPOSED
O	OIL	Oil	Oil
PVC	PVC (DRAIN)	PVC	PVC
UNK	UNKNOWN UTILITY	UNK	UNK
UD	PERFORATED UNDERDRAIN (PVC)	UD	UD
ABAN	ABANDONED UTILITY	Aban	Aban
AIRX	COMPRESSED AIR	Air	Air
P	PETROLEUM	P	P
STM	STEAM	Stm	Stm
RW	RECLAIMED WATER	RW	RW
GL	GASOLINE	GL	GL
SL	STREET LIGHT	SL	SL
TS	TRAFFIC SIGNAL	TS	TS

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REV	DATE	DESCRIPTION	BY	SUB	APP

WORK ELEMENT | PHYSICAL ENTITY | CONTRACT DESIGNATOR | LINE ITEM | COST ELEMENT | PROJECT NUMBER

DESIGNED BY	KMJE
DRAWN BY	CDB
CHECKED BY	JMDR
APPROVED BY	
DATE	MAY 6, 2015

DAVID EVANS AND ASSOCIATES INC.
3700 Pacific Hwy. East, Suite 311
Tacoma Washington 98424
Phone: 253.922.9780

OREGON DEPARTMENT OF TRANSPORTATION

BNSF RAILWAY
FALLBRIDGE SUBDIVISION
WILLBRIDGE CROSSOVERS

ABBREVIATIONS AND SYMBOLS

CONTRACT NO.	
DRAWING NO.	CK-03
REVISION	SHEET NO. 3
SCALE	NTS

TO VANCOUVER, WA

TO PORTLAND, OR

TO VANCOUVER, WA

TO ASTORIA, OR

R/W LINE (TYP)

MAIN TRACK 2

MAIN TRACK 1

SWITCHING LEAD

R/W LINE (TYP)

OLD "A" LINE TRACK

EX SIGNAL BRIDGE

EX WHEEL CROUDER DERAIL

US 30

EX TRACK

EX TRACK

MATCHLINE - SEE SHEET EX-02

30% DESIGN 05-06-2015

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OREGON DEPARTMENT OF TRANSPORTATION

BNSF RAILWAY
FALLBRIDGE SUBDIVISION
WILLBRIDGE CROSSOVERS

EXISTING TRACK PLAN

CONTRACT NO.	
DRAWING NO.	EX-01
REVISION	SHEET NO. 4
SCALE	1" = 50'

PROJECT NUMBER | COST ELEMENT | LINE ITEM | CONTRACT DESIGNATOR | PHYSICAL ENTITY | WORK ELEMENT

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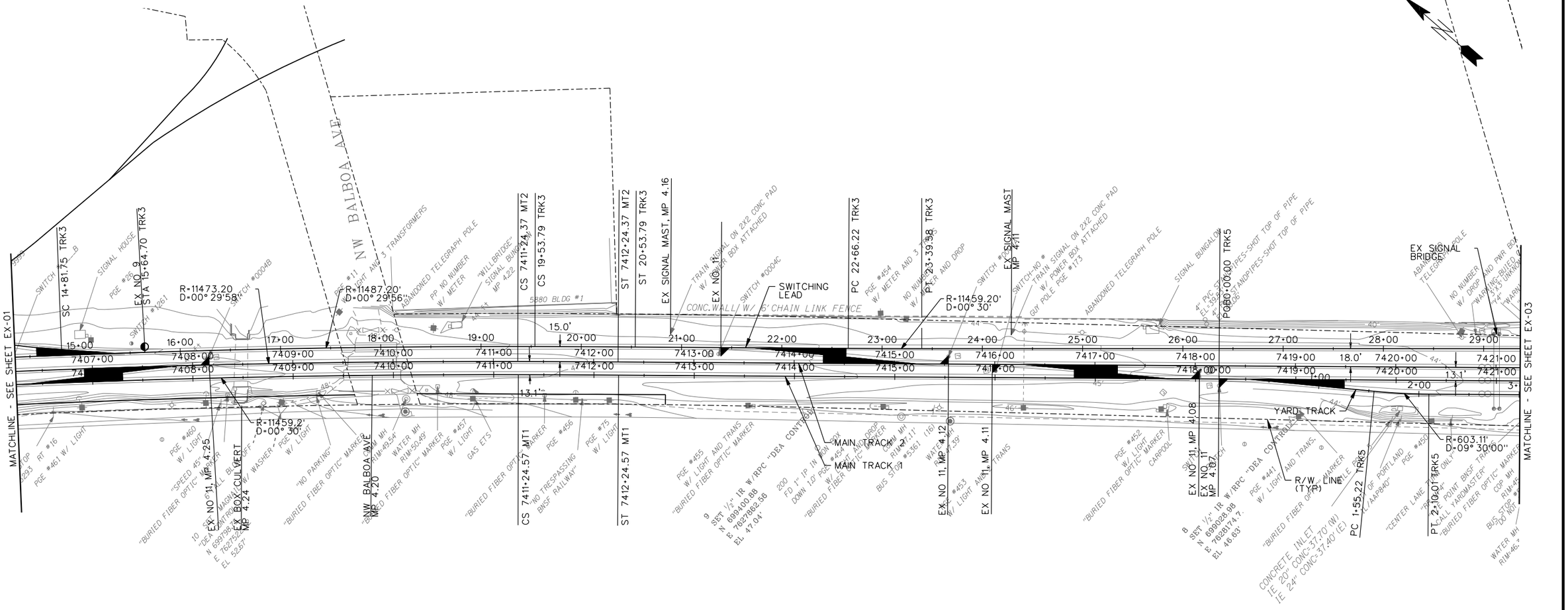
TO VANCOUVER, WA

TO PORTLAND, OR



30% DESIGN 05-06-2015

REV	DATE	DESCRIPTION	BY / SUB	APP

DESIGNED BY	KMJE
DRAWN BY	CDB
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APPROVED BY	
DATE	MAY 6, 2015

DAVID EVANS AND ASSOCIATES INC.
3700 Pacific Hwy. East, Suite 311
Tacoma Washington 98424
Phone: 253.922.9780

OREGON DEPARTMENT OF TRANSPORTATION

BNSF RAILWAY
FALLBRIDGE SUBDIVISION
WILLBRIDGE CROSSOVERS

EXISTING TRACK PLAN

CONTRACT NO.	
DRAWING NO.	EX-02
REVISION	SHEET NO. 5
SCALE	1" = 50'

PROJECT NUMBER | COST ELEMENT | LINE ITEM | CONTRACT DESIGNATOR | PHYSICAL ENTITY | WORK ELEMENT

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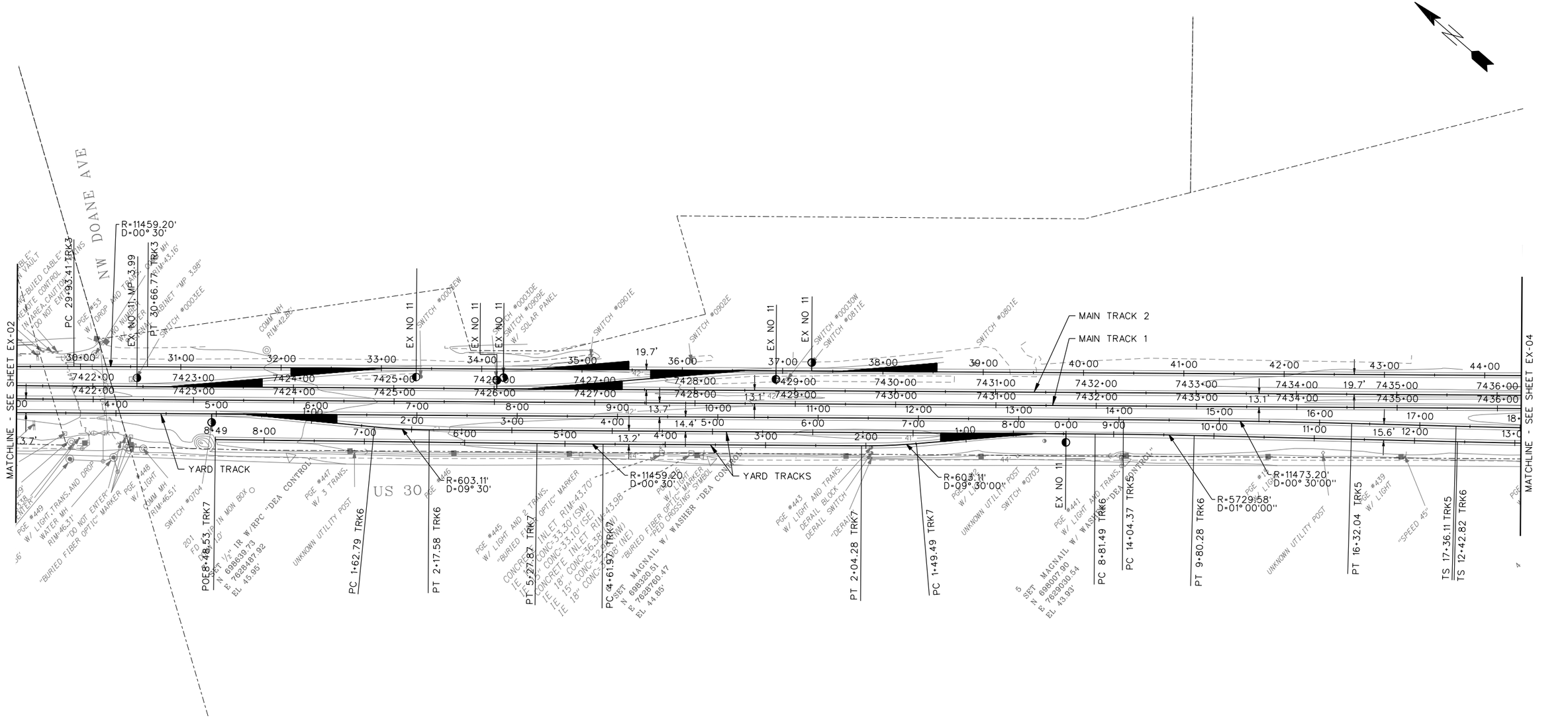
TO VANCOUVER, WA

TO PORTLAND, OR



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DESIGNED BY	KMJE
DRAWN BY	CDB
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APPROVED BY	
DATE	MAY 6, 2015

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OREGON DEPARTMENT OF TRANSPORTATION

BNSF RAILWAY
FALLBRIDGE SUBDIVISION
WILLBRIDGE CROSSOVERS

EXISTING TRACK PLAN

CONTRACT NO.	
DRAWING NO.	EX-03
REVISION	SHEET NO. 6
SCALE	1" = 50'

PROJECT NUMBER | COST ELEMENT | LINE ITEM | CONTRACT DESIGNATOR | PHYSICAL ENTITY | WORK ELEMENT

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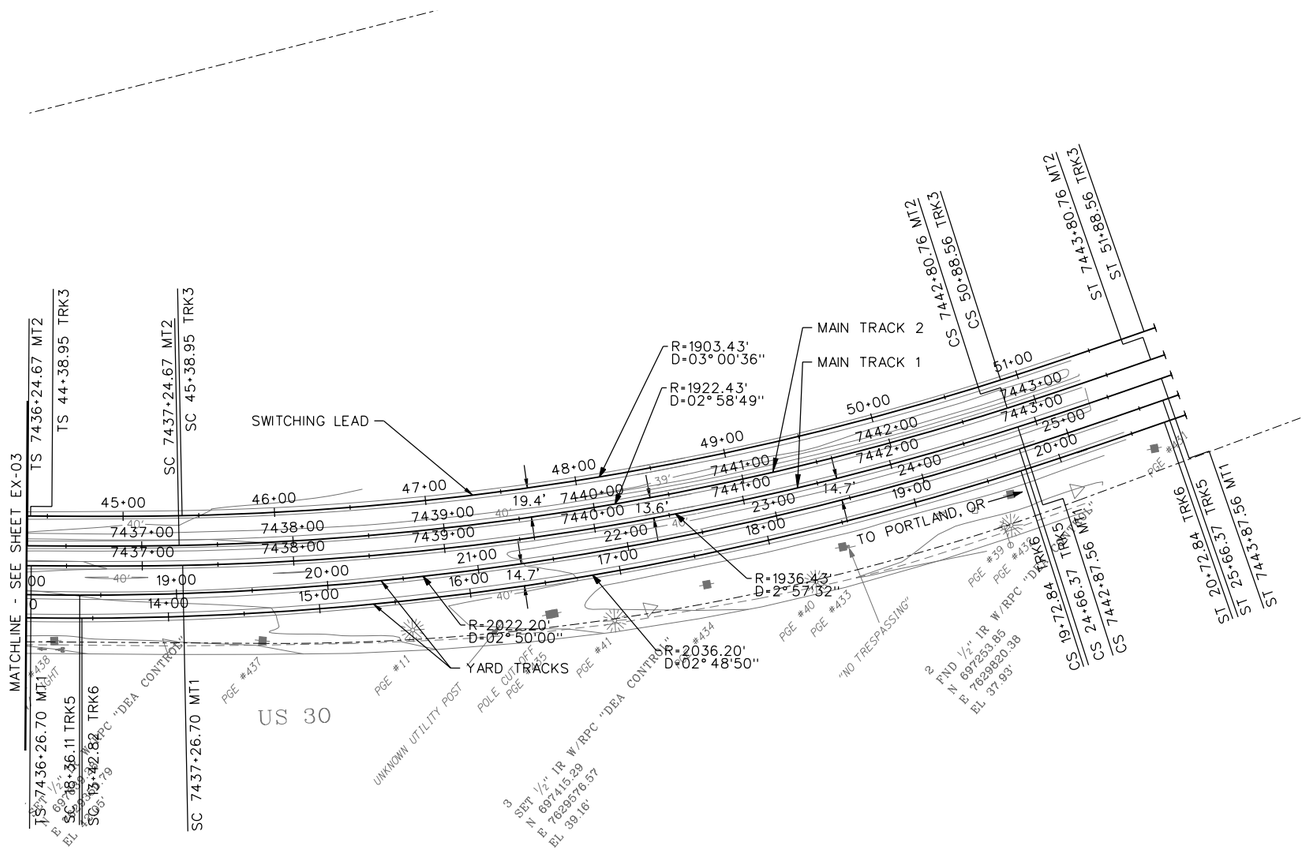
← TO VANCOUVER, WA

TO PORTLAND, OR →



30% DESIGN 05-06-2015

REV	DATE	DESCRIPTION	BY	SUB	APP

DESIGNED BY	KMJE
DRAWN BY	CDB
CHECKED BY	JMDR
APPROVED BY	
DATE	MAY 6, 2015

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OREGON DEPARTMENT OF TRANSPORTATION

BNSF RAILWAY
FALLBRIDGE SUBDIVISION
WILLBRIDGE CROSSOVERS

EXISTING TRACK PLAN

CONTRACT NO.	
DRAWING NO.	EX-04
REVISION	SHEET NO. 7
SCALE	1" = 50'

PROJECT NUMBER	COST ELEMENT	LINE ITEM	CONTRACT DESIGNATOR	PHYSICAL ENTITY	WORK ELEMENT

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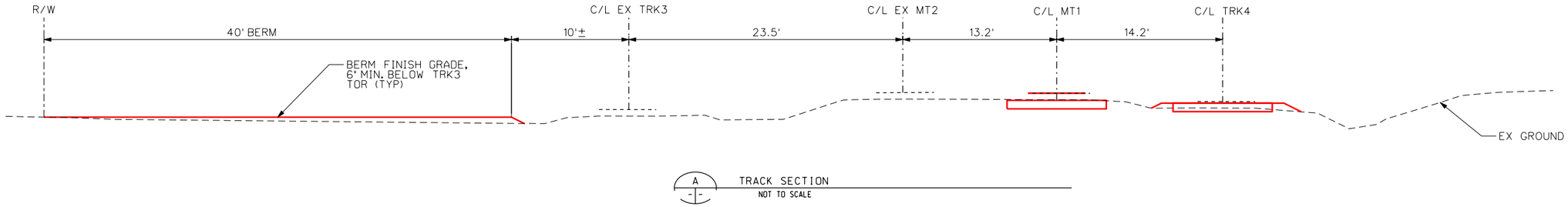
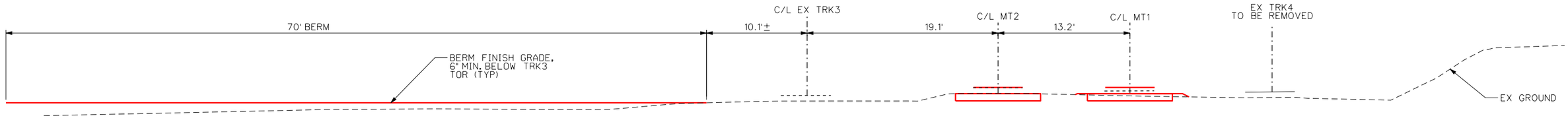
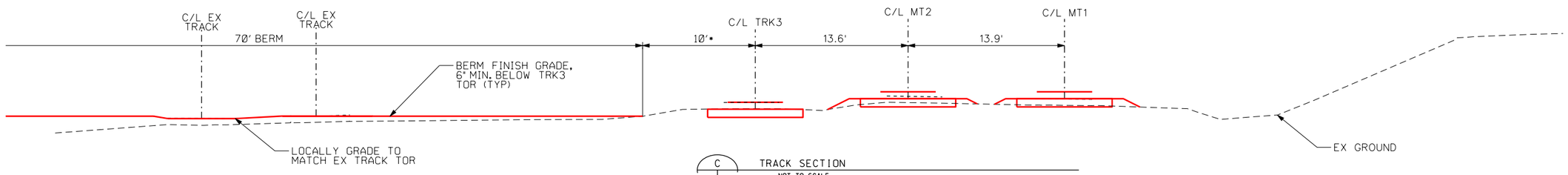


A TRACK SECTION
NOT TO SCALE



B TRACK SECTION
NOT TO SCALE



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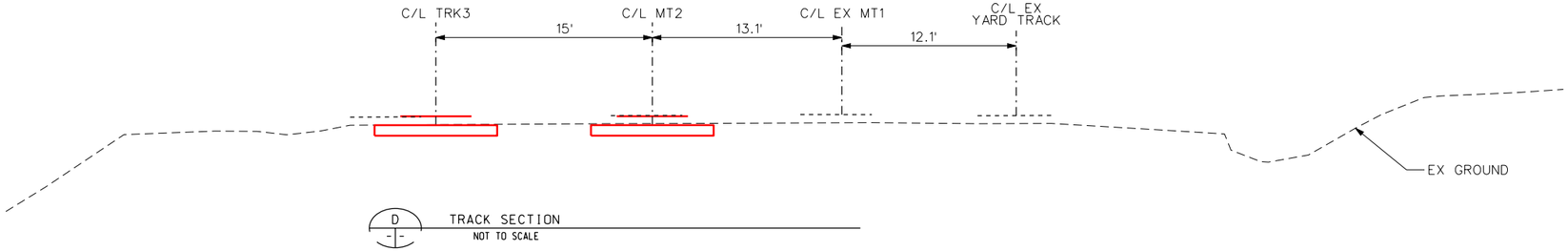
NOT TO SCALE



D TRACK SECTION
NOT TO SCALE

30% DESIGN 05-06-2015

REV	DATE	DESCRIPTION	BY	SUB	APP

DESIGNED BY	KMJE
DRAWN BY	CDB
CHECKED BY	JMDR
APPROVED BY	
DATE	MAY 6, 2015

DAVID EVANS AND ASSOCIATES INC.
3700 Pacific Hwy. East, Suite 311
Tacoma Washington 98424
Phone: 253.922.9780

OREGON DEPARTMENT OF TRANSPORTATION

BNSF RAILWAY
FALLBRIDGE SUBDIVISION
WILLBRIDGE CROSSOVERS

TYPICAL TRACK SECTIONS

CONTRACT NO.	
DRAWING NO.	RC-01
REVISION	SHEET NO. 8
SCALE	NTS

WORK ELEMENT	
PHYSICAL ENTITY	
CONTRACT DESIGNATOR	
LINE ITEM	
COST ELEMENT	
PROJECT NUMBER	

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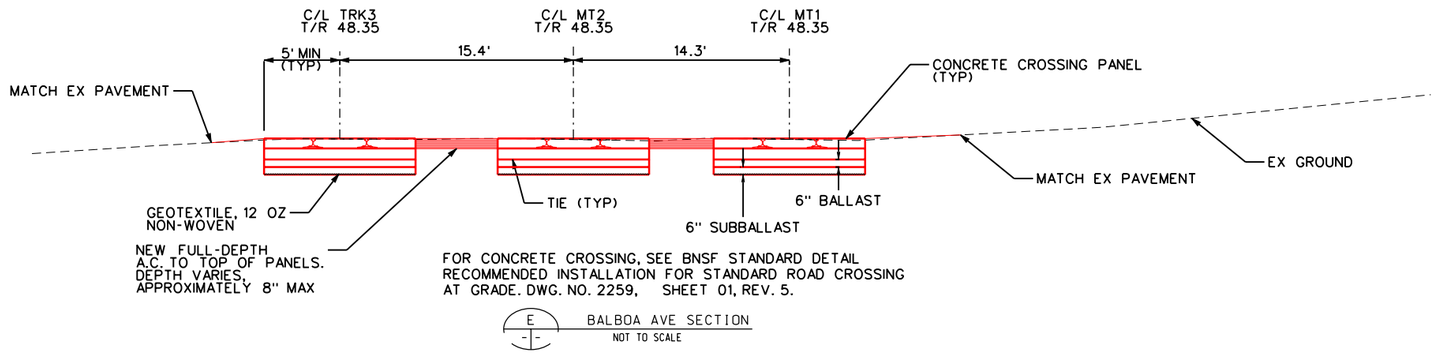
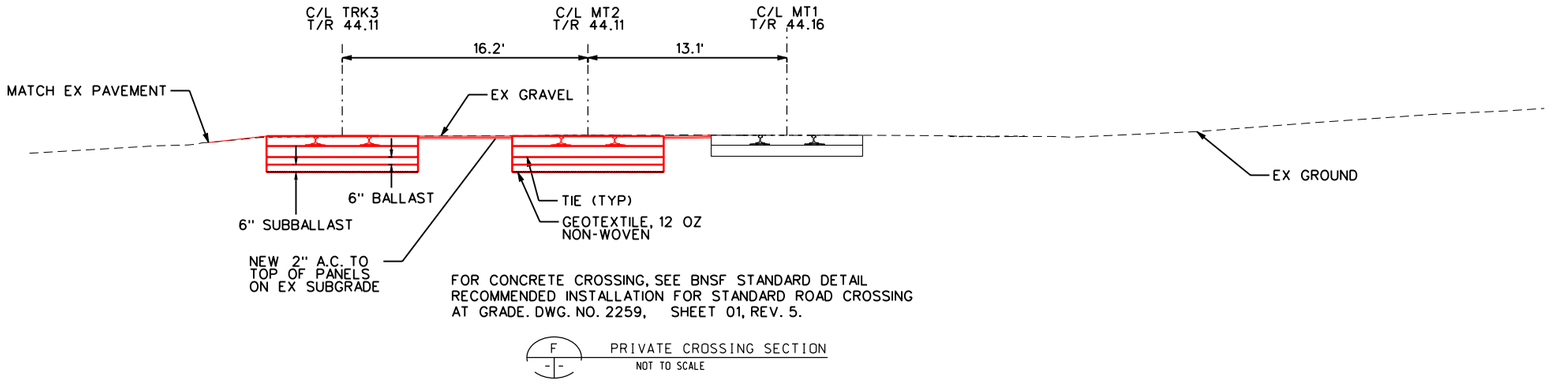
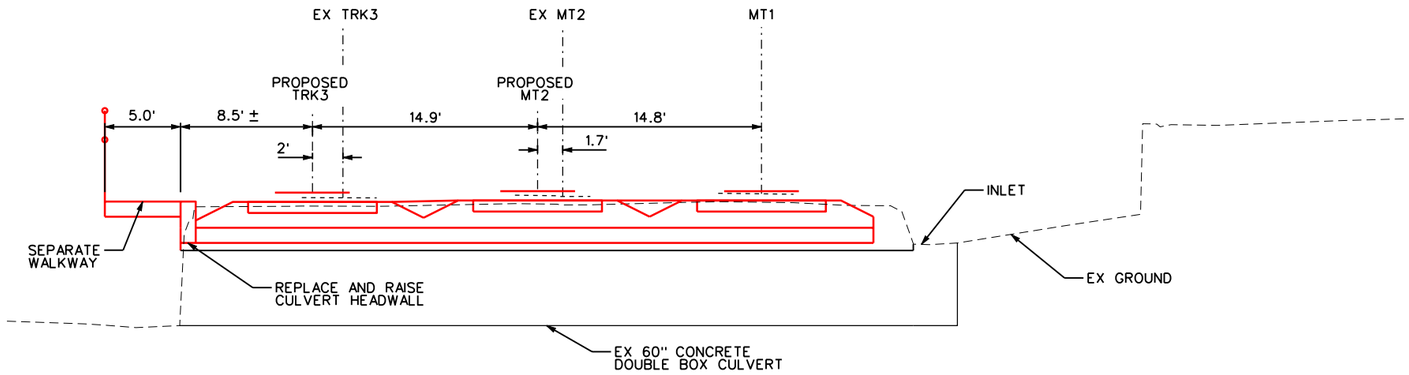


E — BALBOA AVE SECTION
NOT TO SCALE



F — PRIVATE CROSSING SECTION
NOT TO SCALE



G — EXISTING CULVERT 7408+48.70 MP 4.24
NOT TO SCALE

30% DESIGN 07-14-2015

REV	DATE	DESCRIPTION	BY	SUB	APP

DESIGNED BY KMJE
DRAWN BY CDB
CHECKED BY JMDR
APPROVED BY
DATE JULY 14, 2015

DAVID EVANS AND ASSOCIATES INC.
3700 Pacific Hwy. East, Suite 311
Tacoma Washington 98424
Phone: 253.922.9780

OREGON DEPARTMENT OF TRANSPORTATION

BNSF RAILWAY
FALLBRIDGE SUBDIVISION
WILLBRIDGE CROSSOVERS

ROAD CROSSING SECTIONS AND EXISTING CULVERT MP 4.24

CONTRACT NO.
DRAWING NO. RC-02
REVISION
SHEET NO. 9
SCALE NTS

PROJECT NUMBER | COST ELEMENT | LINE ITEM | CONTRACT DESIGNATOR | PHYSICAL ENTITY | WORK ELEMENT

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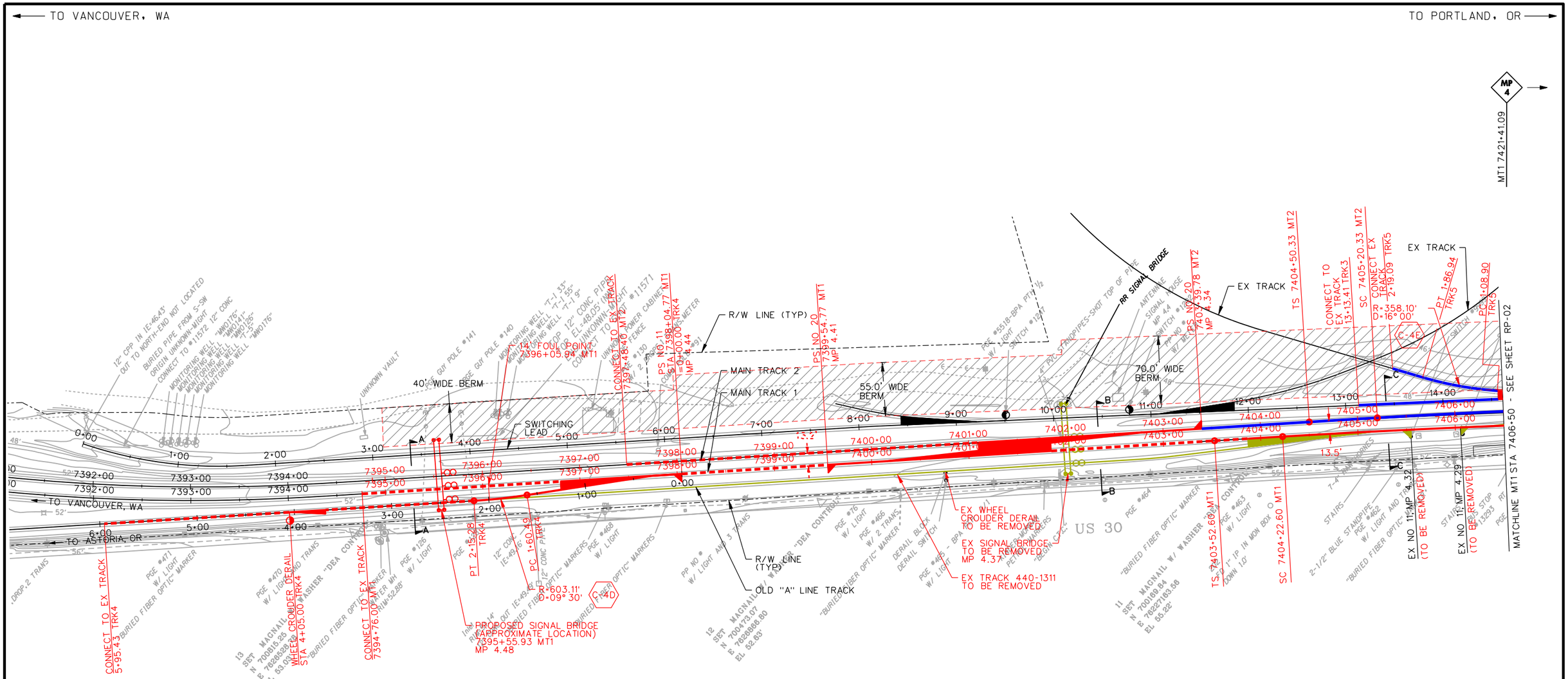

LEGEND:

- PROPOSED TRACK (353 TF)
- LINEOVER TRACK (565 TF)
- SURFACE, LINE AND DRESS TRACK (1261 TF)
- EX TRACK
- TRACK REMOVAL (797 TF)
- BNSF #11 POWER TURNOUT
- BNSF #20 POWER TURNOUT

30% DESIGN 07-14-2015

NOTES:

1. ALL TURNOUTS ARE AS NOTED
2. ALL NEW RAIL WILL BE 141#RE
3. EX RAIL VARIES 132#RE TO 141#RE
4. MILE POSTS BASED ON 12/29/2010 TRACK CHARTS
5. MAIN TRACK STATIONING BASED ON R/W MAP LOCATION OF CULVERT AT 7408+60

(X) SEE SHEET RP-08 FOR CURVE DATA

REV	DATE	DESCRIPTION	BY	SUB	APP

DESIGNED BY	KMJE
DRAWN BY	CDB
CHECKED BY	JMDR
APPROVED BY	
DATE	JULY 14, 2015

DAVID EVANS AND ASSOCIATES INC.
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OREGON DEPARTMENT OF TRANSPORTATION

BNSF RAILWAY
FALLBRIDGE SUBDIVISION
WILLBRIDGE CROSSOVERS

MT1 STA 7392+00 - STA 7406+50

CONTRACT NO.	
DRAWING NO.	RP-01
REVISION	SHEET NO. 10
SCALE	1" = 50'

PROJECT NUMBER | COST ELEMENT | LINE ITEM | CONTRACT DESIGNATOR | PHYSICAL ENTITY | WORK ELEMENT

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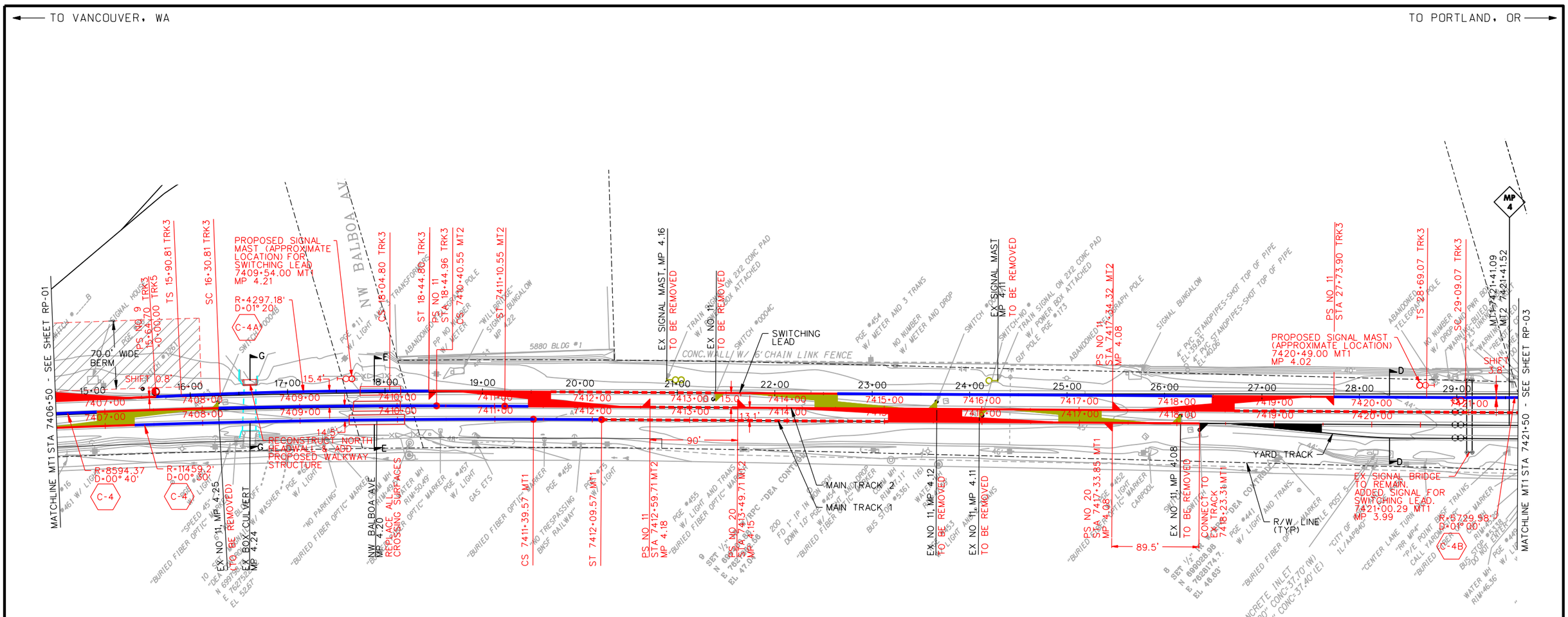

LEGEND:

- *PROPOSED TRACK (575 TF)*
- *LINEOVER TRACK (1695 TF)*
- *SURFACE, LINE AND DRESS TRACK (845 TF)*
- *EX TRACK*
- *TRACK REMOVAL*
- *CULVERT*
- *BNSF #11 POWER TURNOUT*
- *BNSF #20 POWER TURNOUT*

NOTES:

1. *ALL TURNOUTS ARE AS NOTED*
2. *ALL NEW RAIL WILL BE 141#RE*
3. *EX RAIL VARIES 132#RE TO 141#RE*
4. *MILE POSTS BASED ON 12/29/2010 TRACK CHARTS*
5. *MAIN TRACK STATIONING BASED ON R/W MAP LOCATION OF CULVERT AT 7408+60*

30% DESIGN 05-06-2015

REV	DATE	DESCRIPTION	BY / SUB	APP

DESIGNED BY	KMJE
DRAWN BY	CDB
CHECKED BY	JMDR
APPROVED BY	
DATE	MAY 6, 2015

DAVID EVANS AND ASSOCIATES INC.
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OREGON DEPARTMENT OF TRANSPORTATION

BNSF RAILWAY
FALLBRIDGE SUBDIVISION
WILLBRIDGE CROSSOVERS

MT1 STA 7406+50 - STA 7421+50

CONTRACT NO.	
DRAWING NO.	RP-02
REVISION	SHEET NO. 11
SCALE	1" = 50'

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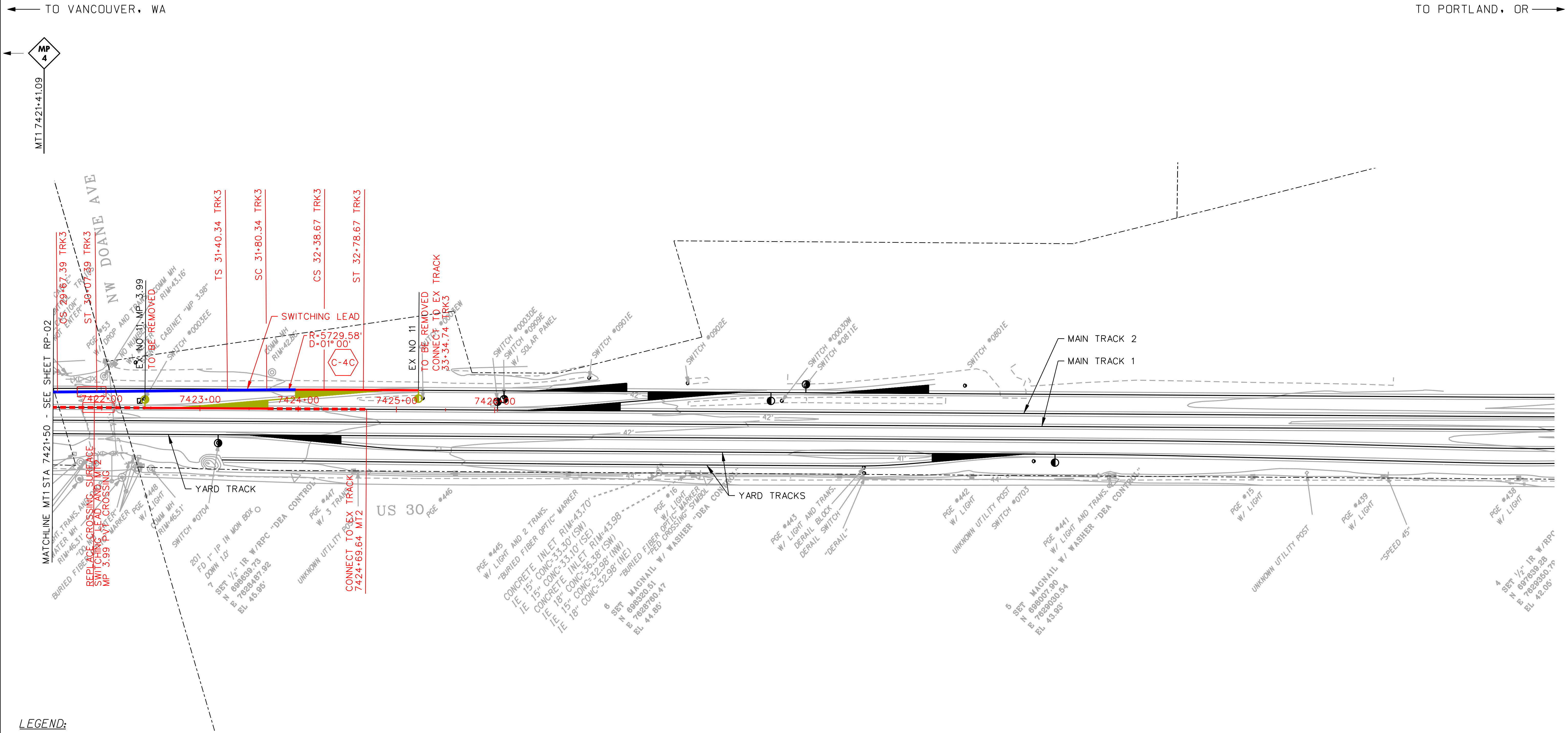
PROJECT NUMBER	COST ELEMENT	LINE ITEM	CONTRACT DESIGNATOR	PHYSICAL ENTITY	WORK ELEMENT



LEGEND:

PROPOSED TRACK (250 TF)	
LINEOVER TRACK (247 TF)	
SURFACE, LINE AND DRESS TRACK (195 TF)	
EX TRACK	
TRACK REMOVAL	
BNSF #11 POWER TURNOUT	
BNSF #20 POWER TURNOUT	

NOTES:

1. *ALL TURNOUTS ARE AS NOTED*
2. *ALL NEW RAIL WILL BE 141#RE*
3. *EX RAIL VARIES 132#RE TO 141#RE*
4. *MILE POSTS BASED ON 12/29/2010 TRACK CHARTS*
5. *MAIN TRACK STATIONING BASED ON R/W MAP LOCATION OF CULVERT AT 7408+60*

SCALE (ft.) 100 50 0 25 50 75 100

(X) SEE SHEET RP-08 FOR CURVE DATA

30% DESIGN 05-06-2015

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5/8/2015

REV	DATE	DESCRIPTION	BY / SUB	APP

DESIGNED BY	KMJE
DRAWN BY	CDB
CHECKED BY	JMDR
APPROVED BY	
DATE	MAY 6, 2015

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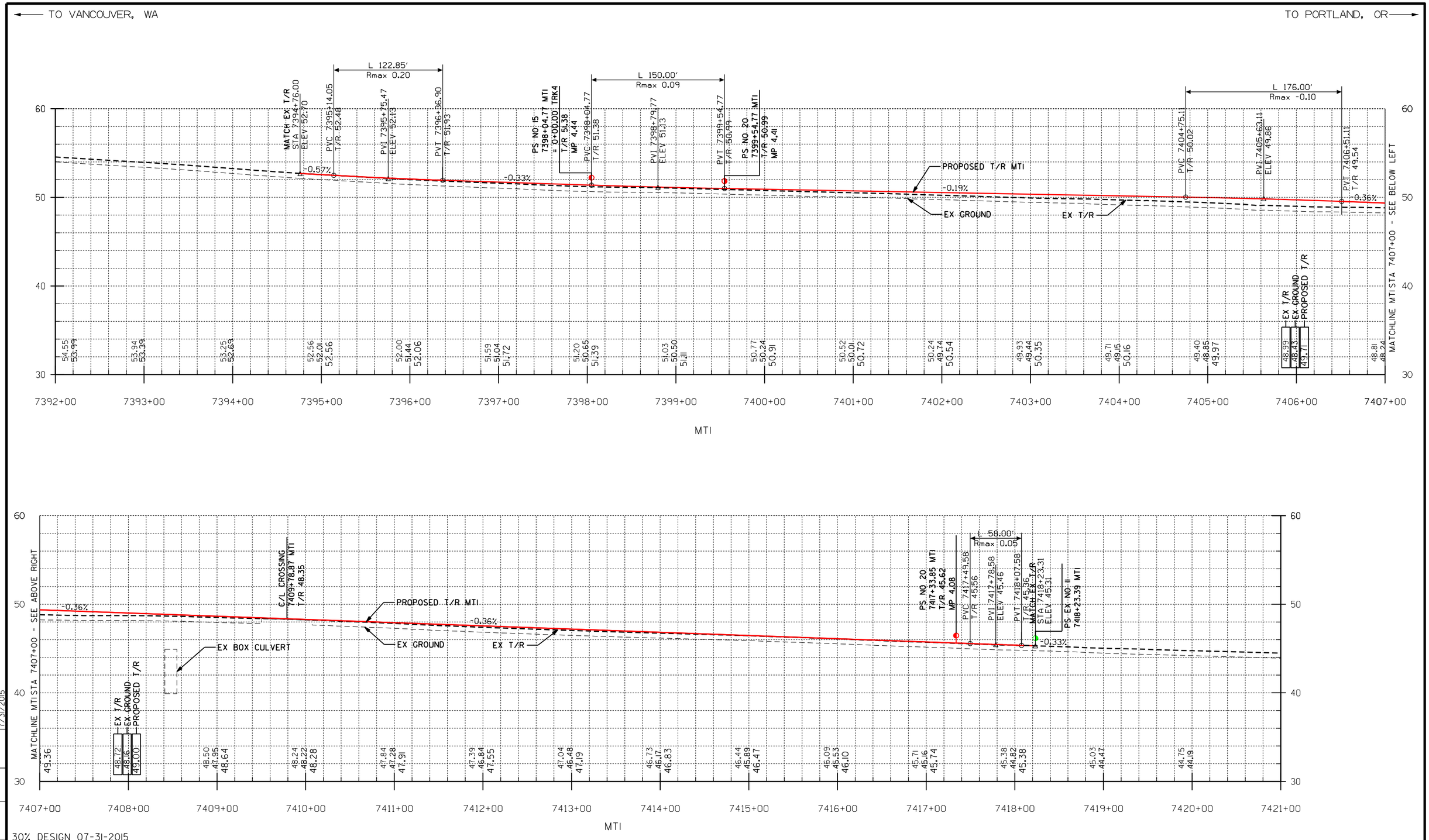
OREGON DEPARTMENT OF TRANSPORTATION

BNSF RAILWAY
FALLBRIDGE SUBDIVISION
WILLBRIDGE CROSSOVERS

MT1 STA 7421+50 - STA 7436+50

CONTRACT NO.	
DRAWING NO.	RP-03
REVISION	SHEET NO. 12
SCALE	1" = 50'

WORK ELEMENT | PHYSICAL ENTITY | CONTRACT DESIGNATOR | LINE ITEM | COST ELEMENT | PROJECT NUMBER



30% DESIGN 07-31-2015

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REV	DATE	DESCRIPTION	BY	SUB	APP

DESIGNED BY	KMJE
DRAWN BY	CDB
CHECKED BY	JMDR
APPROVED BY	
DATE	JULY 31, 2015

DAVID EVANS AND ASSOCIATES INC.
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Tacoma Washington 98424
Phone: 253.922.9780

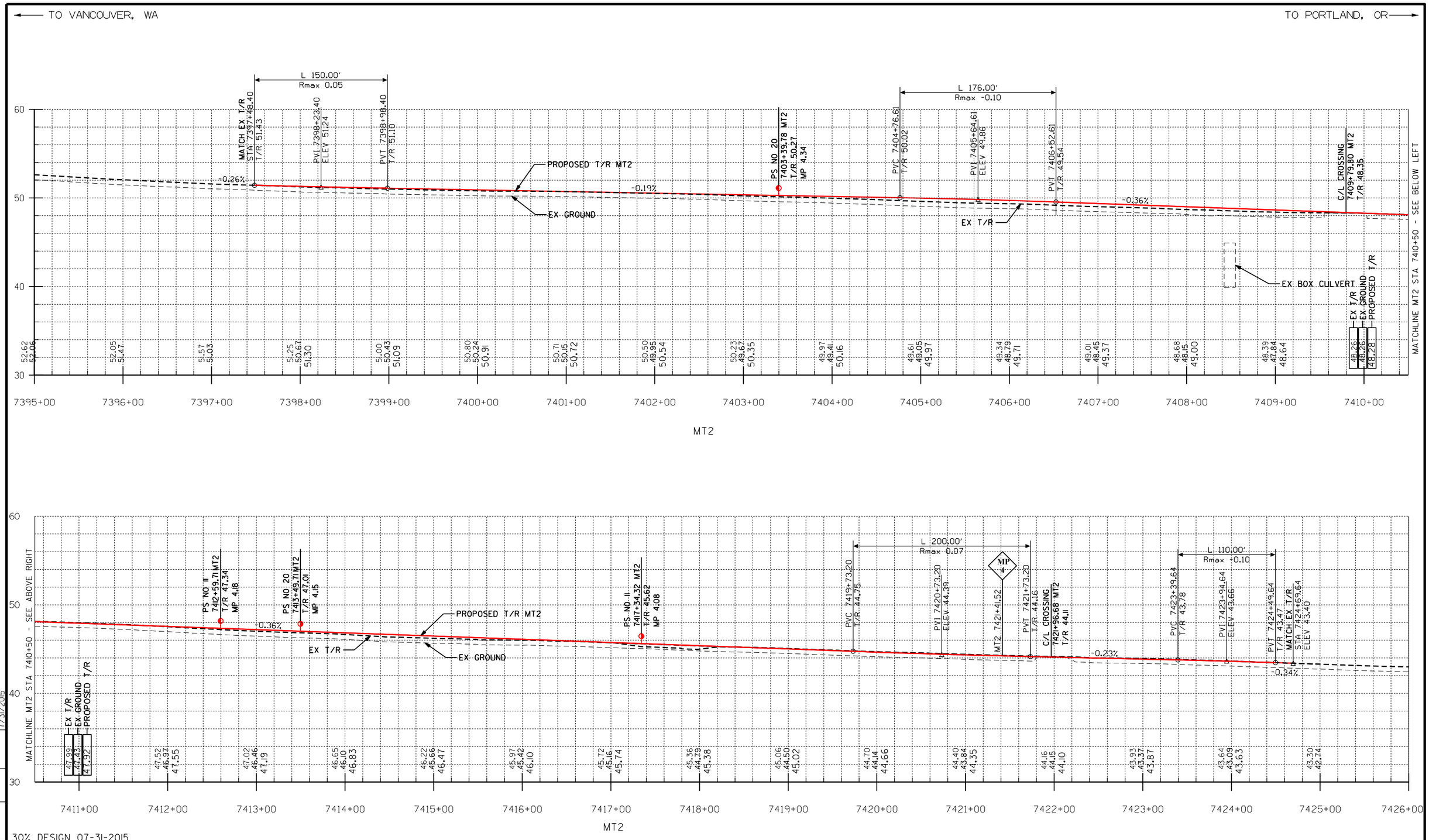
OREGON DEPARTMENT OF TRANSPORTATION

BNSF RAILWAY
FALLBRIDGE SUBDIVISION
WILLBRIDGE CROSSOVERS

TRACK PROFILE
MTI STA 7394+76.00 TO STA 7418+03.84

CONTRACT NO.	
DRAWING NO.	RP-04
REVISION	SHEET NO. 13
SCALE	1" = 50'

WORK ELEMENT | PHYSICAL ENTITY | CONTRACT DESIGNATOR | LINE ITEM | COST ELEMENT | PROJECT NUMBER



30% DESIGN 07-31-2015

REV	DATE	DESCRIPTION	BY	SUB	APP

DESIGNED BY	KMJE
DRAWN BY	CDB
CHECKED BY	JMDR
APPROVED BY	
DATE	JULY 31, 2015

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OREGON DEPARTMENT OF TRANSPORTATION

BNSF RAILWAY
FALLBRIDGE SUBDIVISION
WILLBRIDGE CROSSOVERS

TRACK PROFILE
MT2 STA 7397+48.40 TO STA 7424+40.06

CONTRACT NO.	
DRAWING NO.	RP-05
REVISION	SHEET NO. 14
SCALE	1" = 50'

WORK ELEMENT	
PHYSICAL ENTITY	
CONTRACT DESIGNATOR	
LINE ITEM	
COST ELEMENT	
PROJECT NUMBER	

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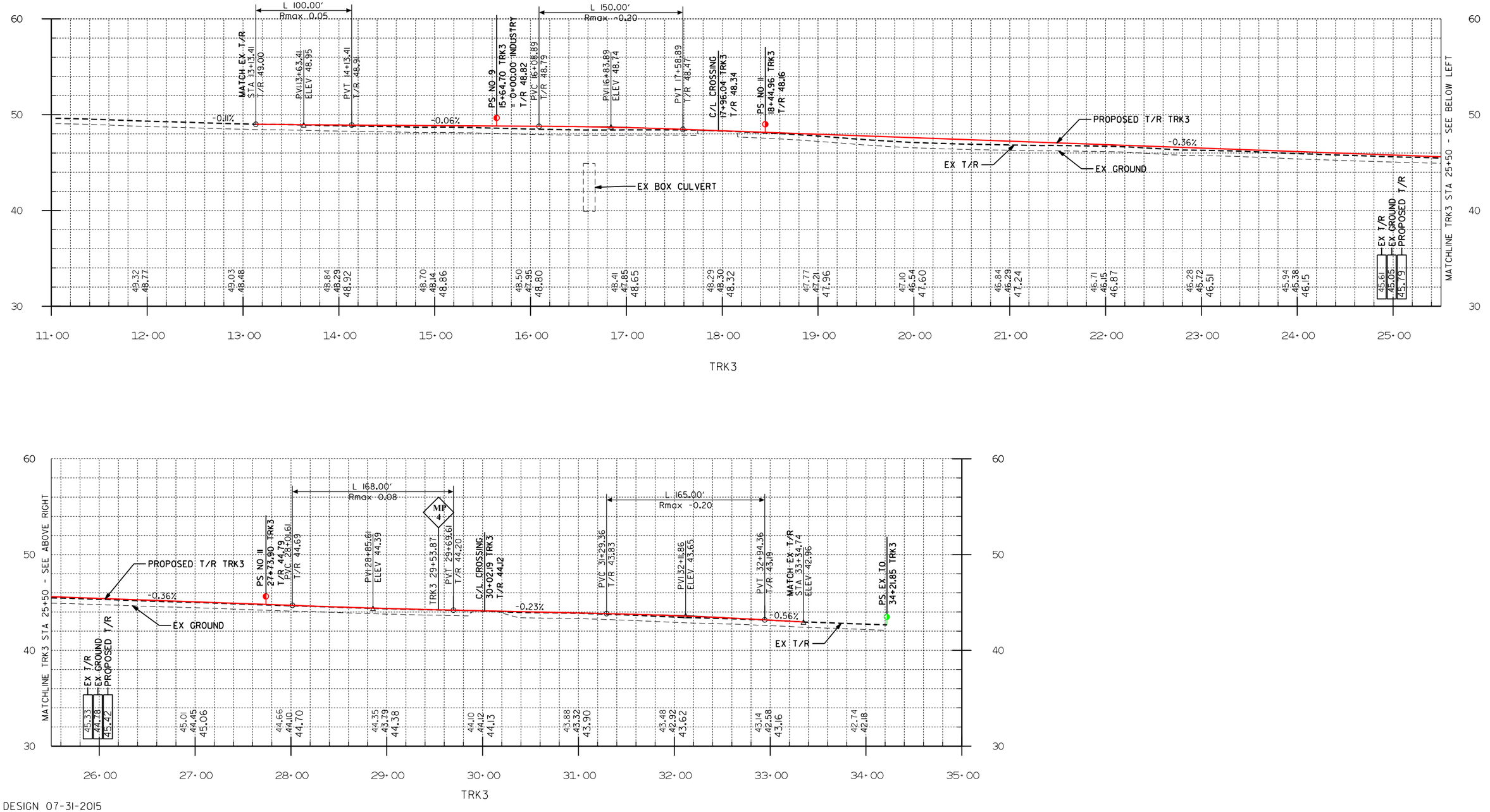

30% DESIGN 07-31-2015

REV	DATE	DESCRIPTION	BY	SUB	APP

DESIGNED BY	KMJE
DRAWN BY	CDB
CHECKED BY	JMDR
APPROVED BY	
DATE	JULY 31, 2015

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OREGON DEPARTMENT OF TRANSPORTATION

BNSF RAILWAY
FALLBRIDGE SUBDIVISION
WILLBRIDGE CROSSOVERS

TRACK PROFILE
TRK3 STA 13+13.41 TO STA 33+34.74

CONTRACT NO.	
DRAWING NO.	RP-06
REVISION	SHEET NO. 15
SCALE	1" = 50'

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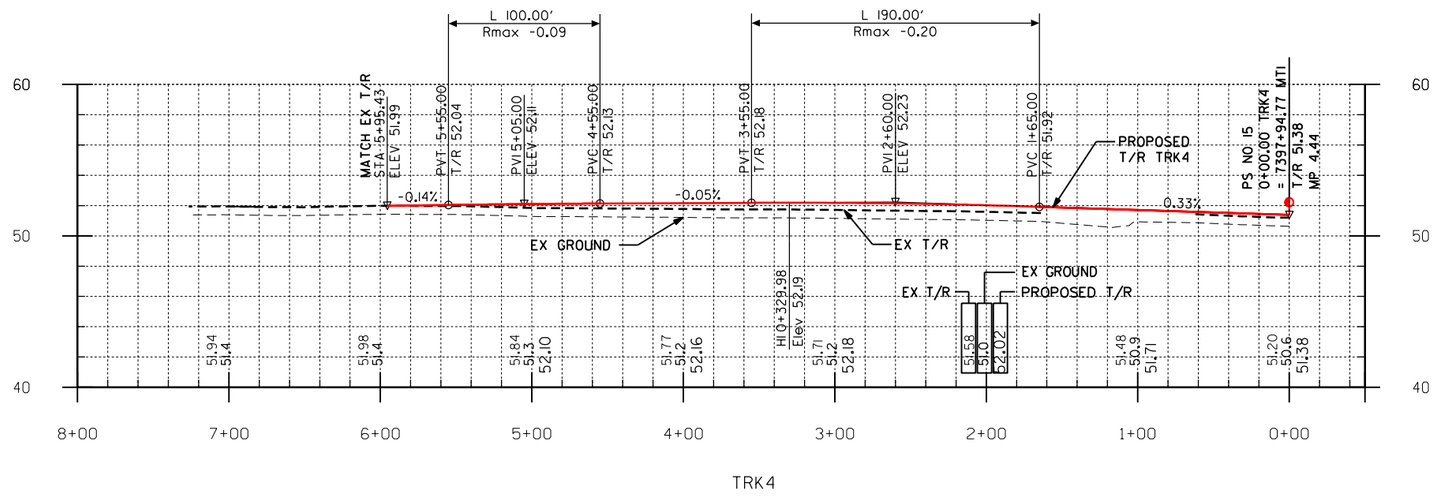
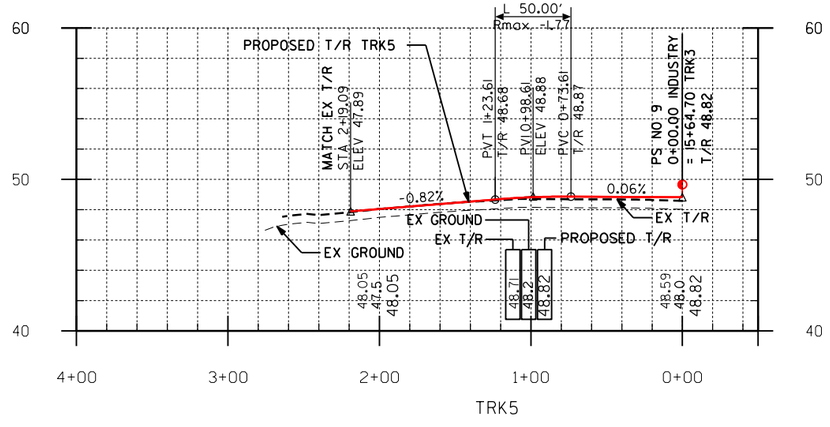
PROJECT NUMBER | COST ELEMENT | LINE ITEM | CONTRACT DESIGNATOR | PHYSICAL ENTITY | WORK ELEMENT

← TO VANCOUVER, WA

TO PORTLAND, OR →



TRK4



TRK5

30% DESIGN 07-31-2015

REV	DATE	DESCRIPTION	BY	SUB	APP

DESIGNED BY	KMJE
DRAWN BY	CDB
CHECKED BY	JMDR
APPROVED BY	
DATE	JULY 31, 2015

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Tacoma Washington 98424
Phone: 253.922.9780

OREGON DEPARTMENT OF TRANSPORTATION

BNSF RAILWAY
FALLBRIDGE SUBDIVISION
WILLBRIDGE CROSSOVERS

TRACK PROFILE TRK4 AND TRK5

CONTRACT NO.	
DRAWING NO.	RP-07
REVISION	SHEET NO. 16
SCALE	1" = 50'

PROJECT NUMBER | COST ELEMENT | LINE ITEM | CONTRACT DESIGNATOR | PHYSICAL ENTITY | WORK ELEMENT

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ID NO.	DESC	STATION	NORTHING	EASTING	BEARING	DISTANCE	R	Dc	L	I	DELTA	THETA	Ts	Ls	X	Y	Ea Vp/Vf (MPH)	Eu
	POB	7394+76.00	700834.41	7626564.25	S 44°30'48" E	876.60												
	TS	7403+52.60	700209.32	7627178.81	S 44°30'48" E													
													428.64					
	SC	7404+22.60	700159.35	7627227.84								0°10'30"		70	70	0.07	0.75"	
C-4 MT1							11459.20	0°30'00"	716.97	3°56'05"	3°35'05"						35/35	-0.32"
	CS	7411+39.57	699631.22	7627712.56								0°10'30"		70	70	0.07		
													428.64					
	ST	7412+09.57	699578.1	7627758.15	S 40°34'43" E													
	POE	7418+23.31	699111.96	7628157.38	S 40°34'43" E	613.74												

	POB	7397+48.40	700649.05	7626764.96	S 44°30'48" E	701.93												
	TS	7404+50.33	700148.51	7627257.07	S 44°30'48" E													
													330.23					
	SC	7405+20.33	700098.53	7627306.08								0°14'00"		70	70	0.10	0.75"	
C-4 MT2							8594.37	0°40'00"	520.22	3°56'05"	3°28'05"						35/35	-0.18"
	CS	7410+40.55	699715.32	7627657.79								0°14'00"		70	70	0.10		
													330.23					
	ST	7411+10.55	699662.22	7627703.39	S 40°34'43" E													
	POE	7424+69.64	698629.97	7628587.47	S 40°34'43" E	1359.09												

	POB	13+13.41	700121.51	7627303.28	S 43°25'54" E	277.40												
	TS	15+90.81	699920.06	7627493.99	S 43°25'54" E													
													127.02					
	SC	16+30.81	699890.97	7627521.44								0°16'00"		40	40	0.06	0.0"	
C-4A TRK3							4297.18	1°20'00"	173.99	2°51'11"	2°19'11"						10/10	0.09"
	CS	18+04.80	699761.69	7627637.87								0°16'00"		40	40	0.06		
													127.02					
	ST	18+44.80	699731.35	7627663.93	S 40°34'43" E	1024.27												

	TS	28+69.07	698953.41	7628330.21	S 40°34'43" E													
													69.17					
	SC	29+09.07	698923.06	7628356.27								0°12'00"		40	40	0.05	0.0"	
C-4B TRK3							5729.58	1°00'00"	58.33	0°59'00"	0°35'00"						10/10	0.07"
	CS	29+67.39	698879.08	7628394.59								0°12'00"		40	40	0.05		
													69.17					
	ST	30+07.39	698849.12	7628421.09	S 41°33'43" W	132.94												

	TS	31+40.34	698749.65	7628509.29	S 41°33'43" W													
													69.17					
	SC	31+80.34	698719.69	7628535.79								0°12'00"		40	40	0.05	0.0"	
C-4C TRK3							5729.58	1°00'00"	58.33	0°59'00"	0°35'00"						10/10	0.07"
	CS	32+38.67	698675.71	7628574.11								0°12'00"		40	40	0.05		
													69.17					
	ST	32+78.67	698645.36	7628600.17	S 40°34'43" E													
	POE	33+34.74	698602.77	7628636.64	S 40°34'43" E	56.07												

30% DESIGN 07-14-2015

REV	DATE	DESCRIPTION	BY	SUB	APP

DESIGNED BY KMJE
DRAWN BY CDB
CHECKED BY JMDR
APPROVED BY
DATE JULY 14, 2015

DAVID EVANS AND ASSOCIATES INC.
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Tacoma Washington 98424
Phone: 253.922.9780

OREGON DEPARTMENT OF TRANSPORTATION

BNSF RAILWAY
FALLBRIDGE SUBDIVISION
WILLBRIDGE CROSSOVERS
TRACK GEOMETRY DATA

CONTRACT NO.
DRAWING NO. RT-01
REVISION
SHEET NO. 17
SCALE NTS

WORK ELEMENT | PHYSICAL ENTITY | CONTRACT DESIGNATOR | LINE ITEM | COST ELEMENT | PROJECT NUMBER

ID NO.	DESC	STATION	NORTHING	EASTING	BEARING	DISTANCE	R	Dc	L	I	DELTA	THETA	Ts	Ls	X	Y	Ea Vp/Vf (MPH)	Eu
C-4D TRK4	POB	0+00.00	700599.97	7626794.74	N 44°30'48" W	31.25											0.0" 10/10	0.67"
	PI	0+31.25	700622.25	7626772.83	N 49°43'06" W	129.24												
	PC	1+60.49	700705.81	7626674.24														
							603.11	9°30'00"	54.79	5°12'18"	5°12'18"							
	PT	2+15.28	700743.08	7626634.11														
	POE	5+95.43	701014.16	7626367.59	N 44°30'48" W	380.15												
C-4E TRK5	POB	0+00.00	699939.02	7627476.04	N 43°25'54" W	30.17											0.0" 10/10	1.12"
	PI	0+30.17	699960.93	7627455.30	N 37°04'19" W	78.73												
	PC	1+08.90	700023.75	7627407.84														
							358.10	16°00'00"	78.04	12°29'11"	12°29'11"							
	PT	1+86.94	700090.63	7627367.92														
	POE	2+19.09	700119.86	7627354.55	N 24°35'08" W	32.15												

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PROJECT NUMBER	COST ELEMENT	LINE ITEM	CONTRACT DESIGNATOR	PHYSICAL ENTITY	WORK ELEMENT

30% DESIGN 07-14-2015

REV	DATE	DESCRIPTION	BY	SUB	APP

DESIGNED BY KMJE
DRAWN BY CDB
CHECKED BY JMDR
APPROVED BY
DATE JULY 14, 2015

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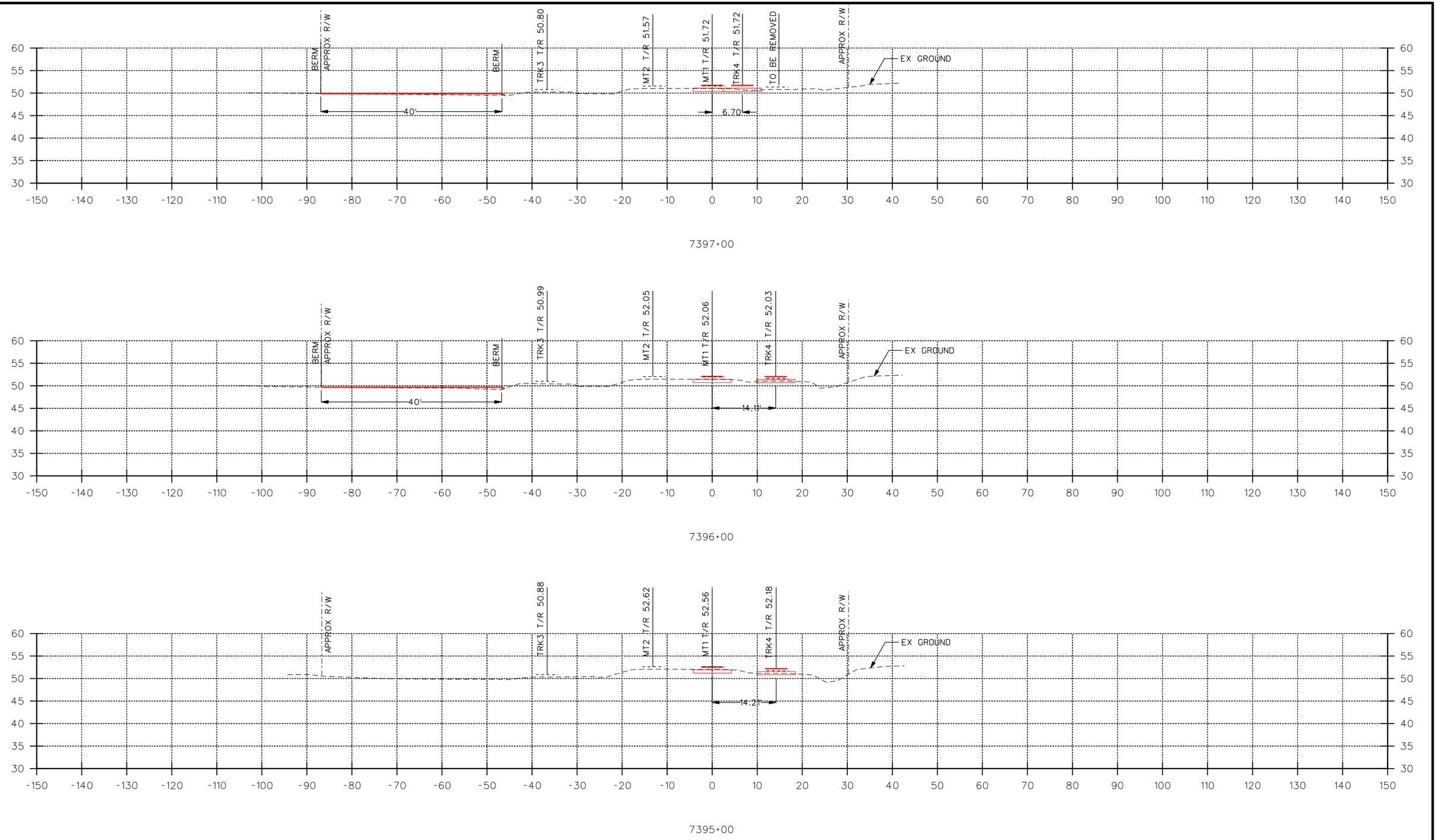
OREGON DEPARTMENT OF TRANSPORTATION

BNSF RAILWAY
FALLBRIDGE SUBDIVISION
WILLBRIDGE CROSSOVERS

TRACK GEOMETRY DATA

CONTRACT NO.
DRAWING NO. RT-02
REVISION
SHEET NO. 18
SCALE NTS



30% DESIGN 05-06-2015

REV	DATE	DESCRIPTION	BY	SUB	APP

DESIGNED BY	KMJE
DRAWN BY	CDB
CHECKED BY	JMDR
APPROVED BY	
DATE	MAY 6, 2015

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Phone: 253.922.9780

OREGON DEPARTMENT OF TRANSPORTATION

BNSF RAILWAY
XX SUBDIVISION
WILLBRIDGE CROSSOVERS

MT1 STA 7395+00 TO STA 7397+00

CONTRACT NO.	
DRAWING NO.	RX-01
REVISION	SHEET NO. 19
SCALE	1" = 10'

WORK ELEMENT	
PHYSICAL ENTITY	
CONTRACT DESIGNATOR	
LINE ITEM	
COST ELEMENT	
PROJECT NUMBER	

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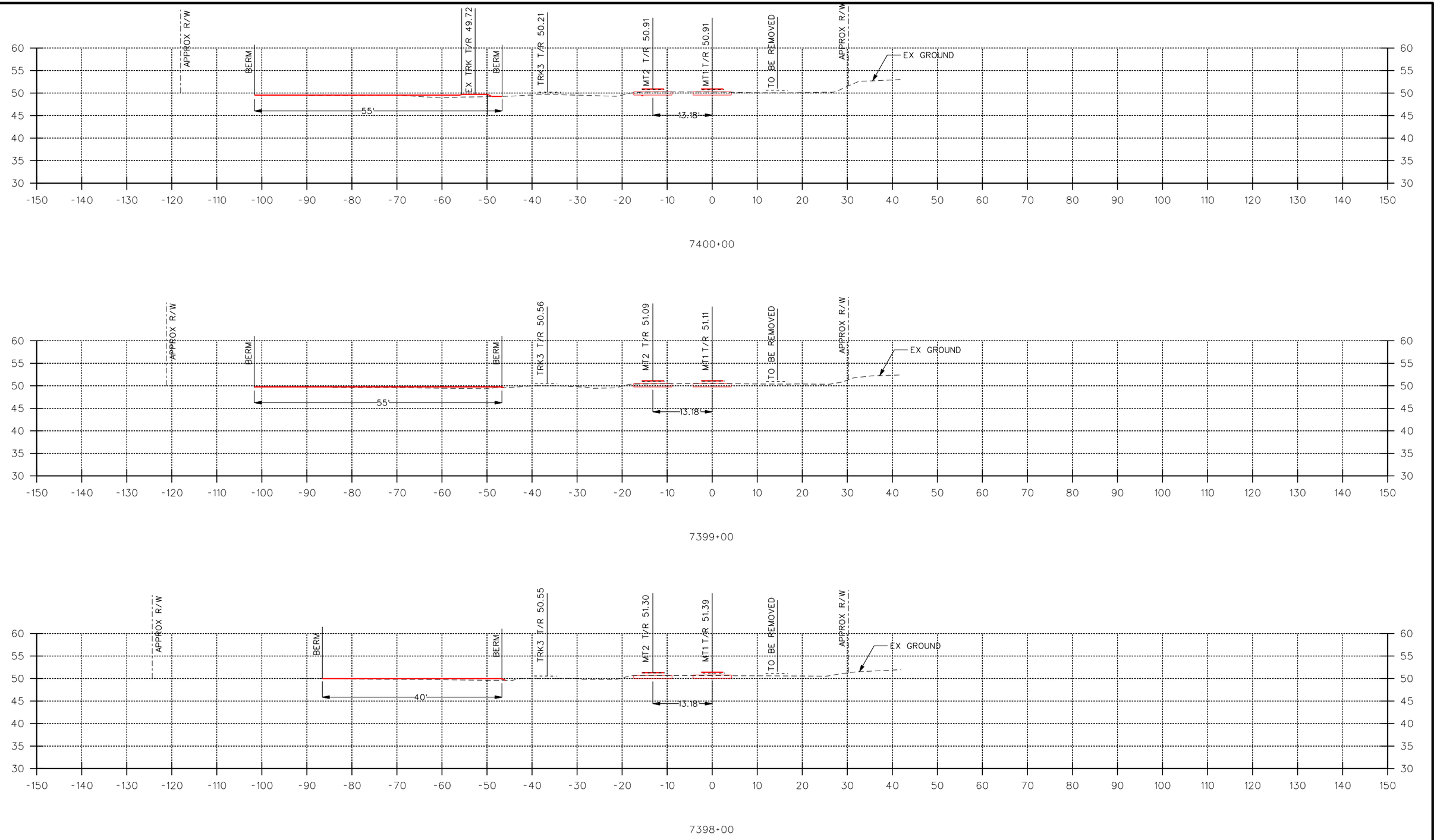

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30% DESIGN 05-06-2015

REV	DATE	DESCRIPTION	BY	SUB	APP

DESIGNED BY	KMJE
DRAWN BY	CDB
CHECKED BY	JMDR
APPROVED BY	
DATE	MAY 6, 2015

DAVID EVANS AND ASSOCIATES INC.
3700 Pacific Hwy. East, Suite 311
Tacoma Washington 98424
Phone: 253.922.9780

OREGON DEPARTMENT OF TRANSPORTATION

BNSF RAILWAY
XX SUBDIVISION
WILLBRIDGE CROSSOVERS

MT1 STA 7398+00 TO STA 7400+00

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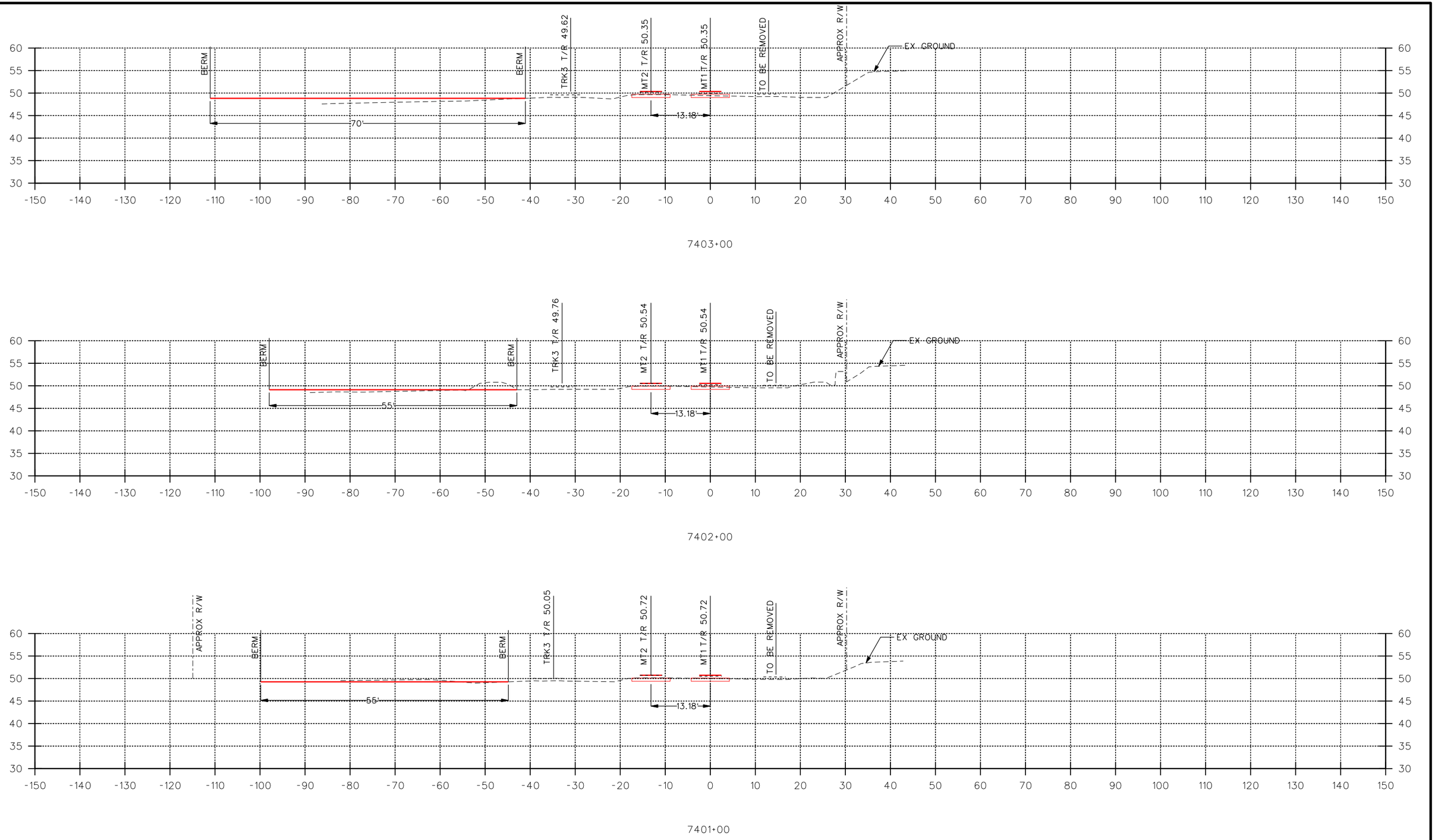

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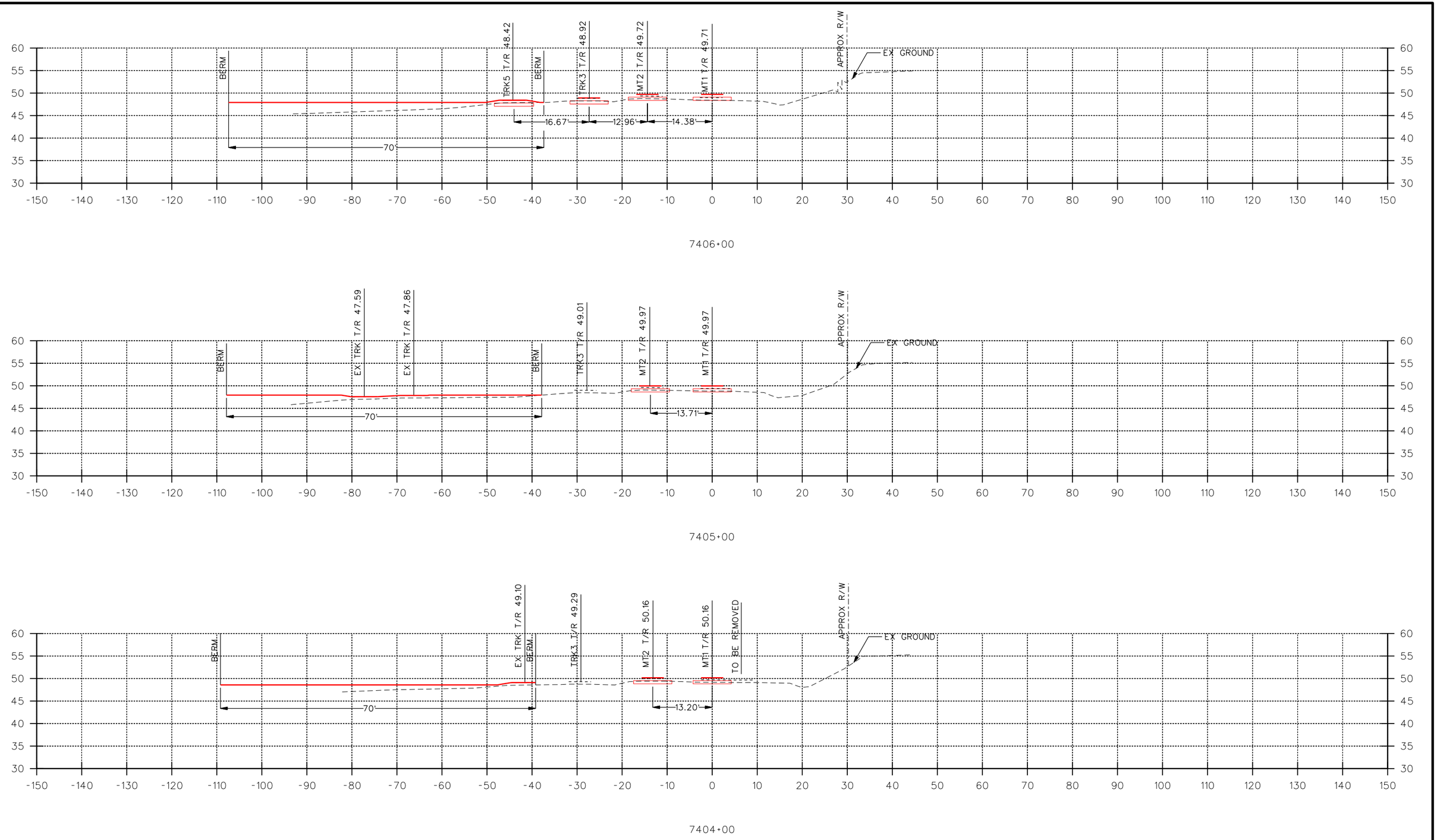

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3700 Pacific Hwy. East, Suite 311
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Phone: 253.922.9780

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MT1 STA 7404+00 TO STA 7406+00

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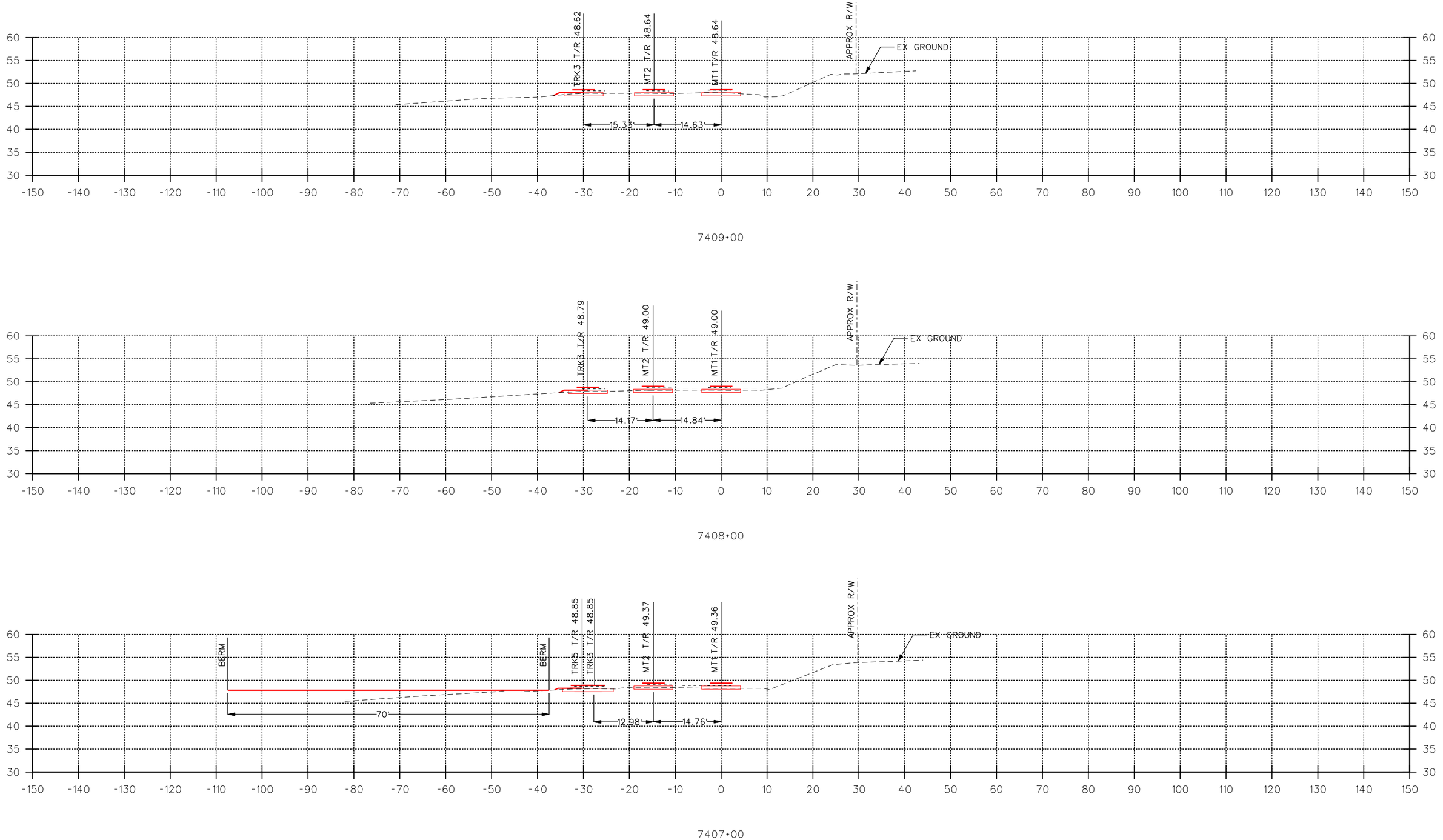

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MT1 STA 7407+00 TO STA 7409+00

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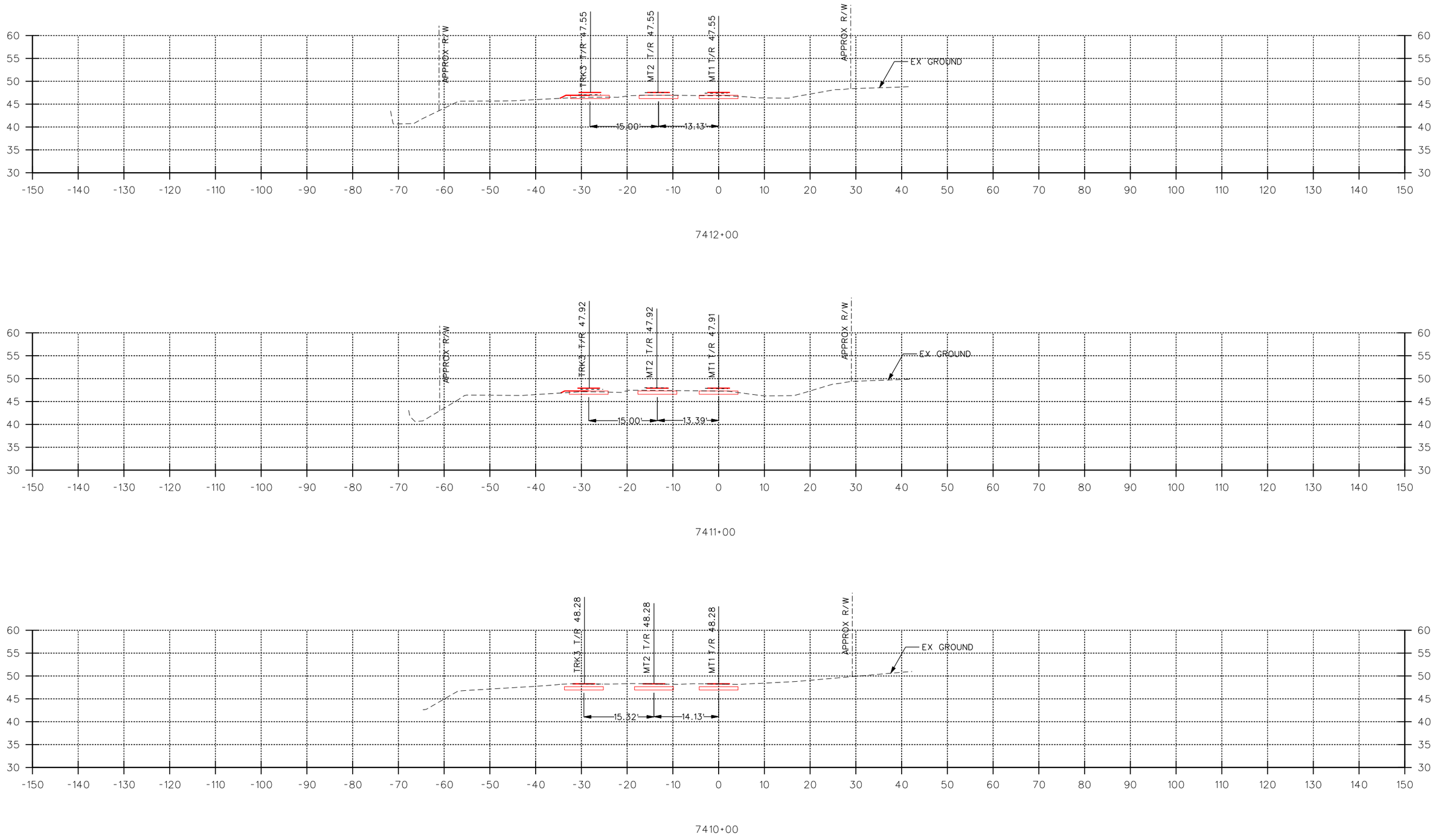

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MT1 STA 7410+00 TO STA 7412+00

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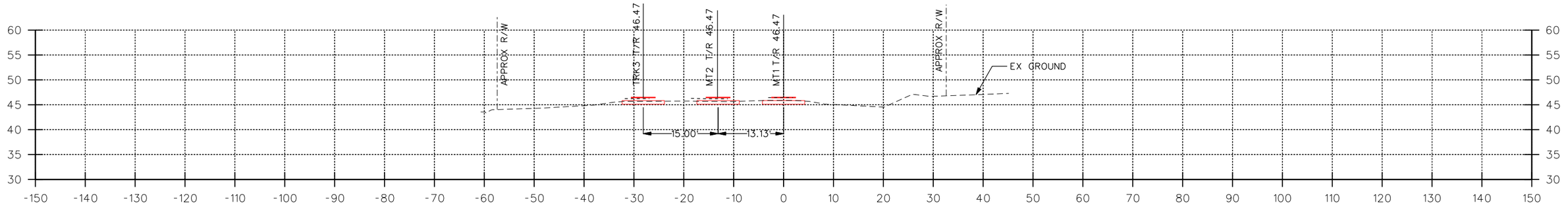

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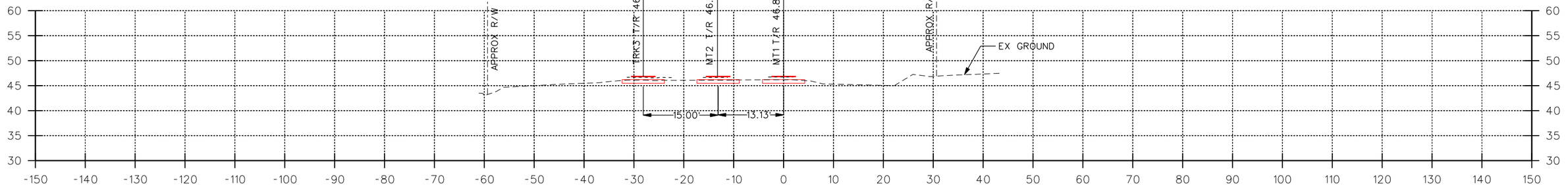

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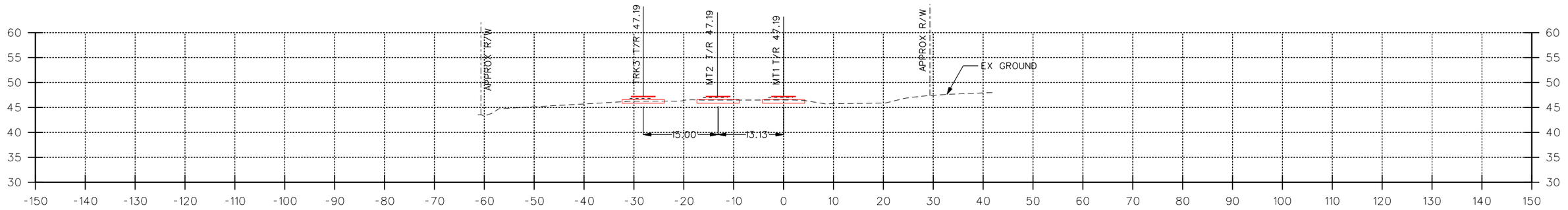

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WILLBRIDGE CROSSOVERS

MT1 STA 7413+00 TO STA 7415+00

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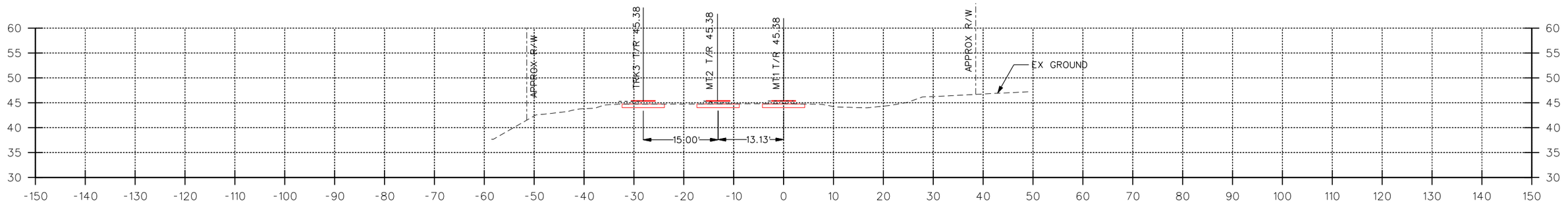
LINE ITEM
COST ELEMENT
PROJECT NUMBER



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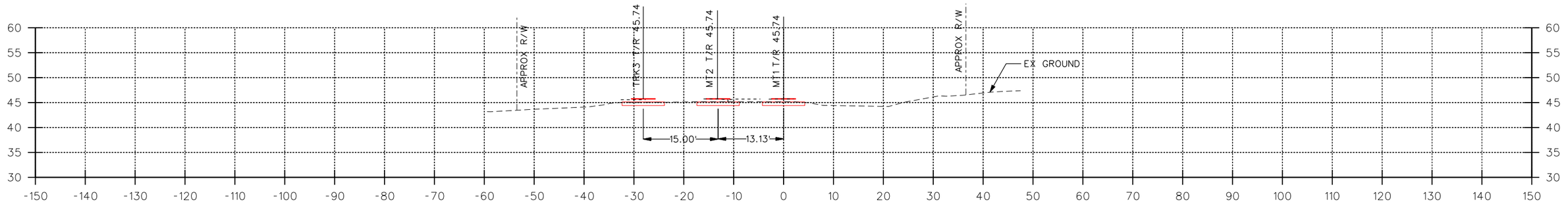

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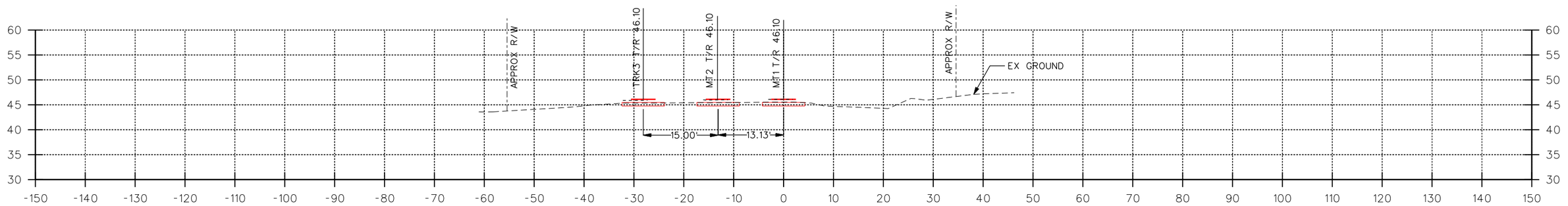

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XX SUBDIVISION
WILLBRIDGE CROSSOVERS

MT1 STA 7416+00 TO STA 7418+00

CONTRACT NO.	
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PROJECT NUMBER	

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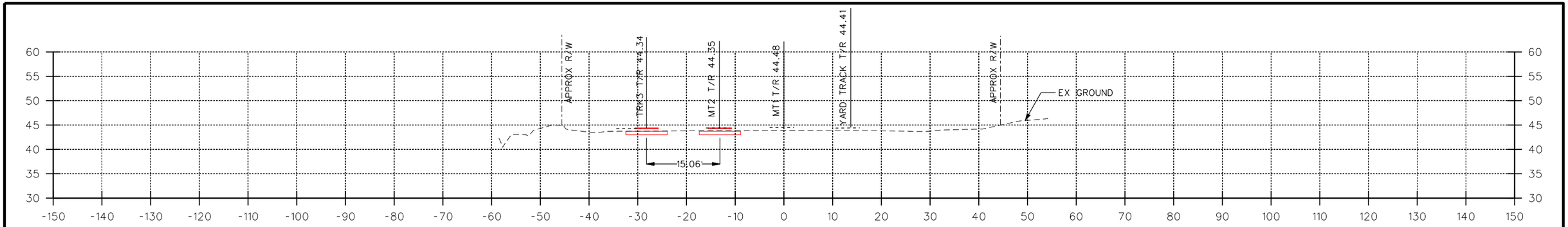

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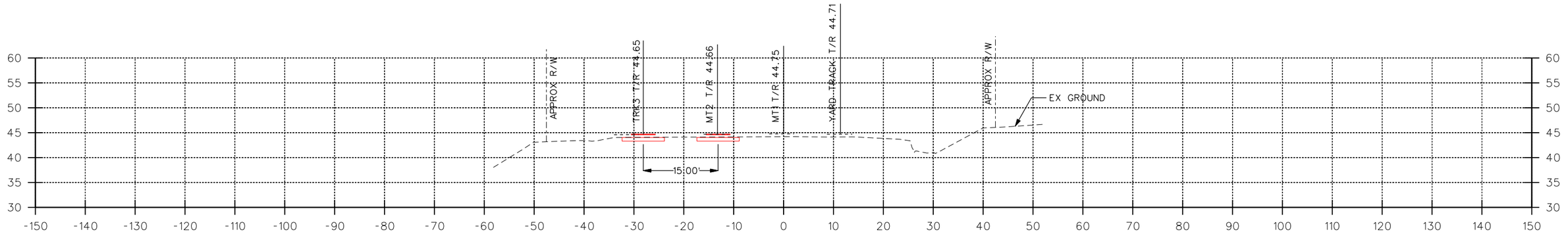

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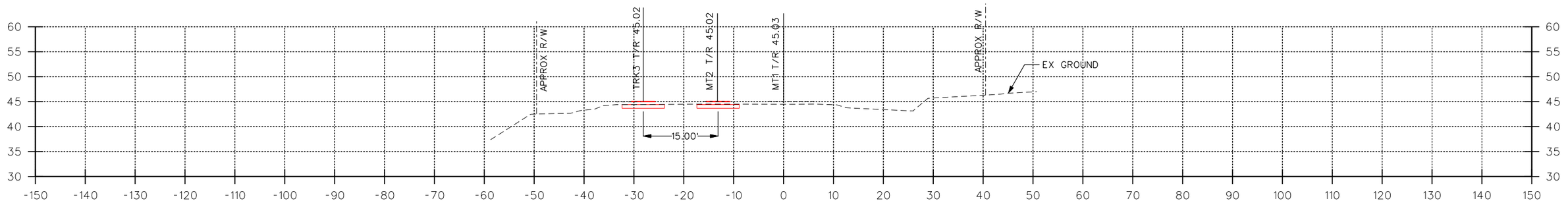

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30% DESIGN 05-06-2015

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CHECKED BY JMDR
APPROVED BY
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Phone: 253.922.9780

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XX SUBDIVISION
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MT1 STA 7419+00 TO STA 7421+00

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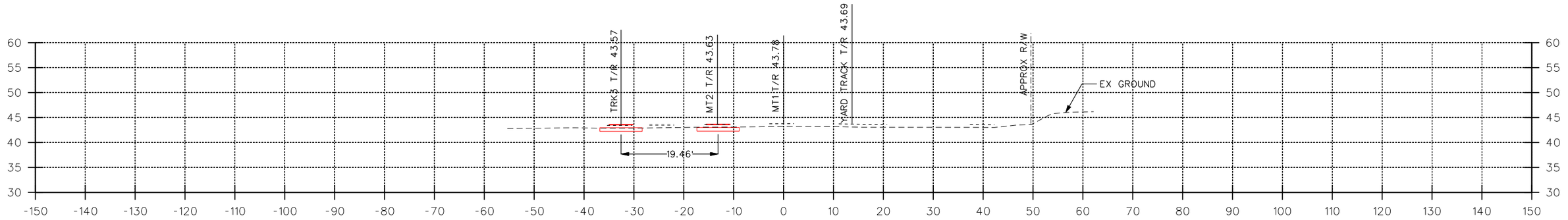

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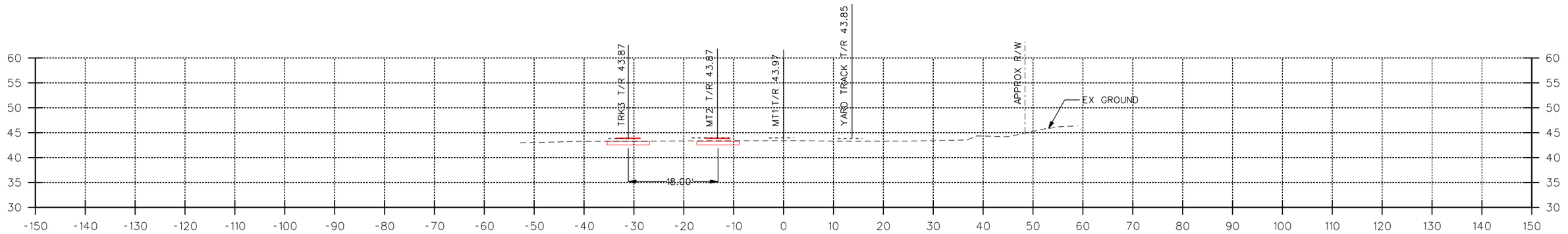

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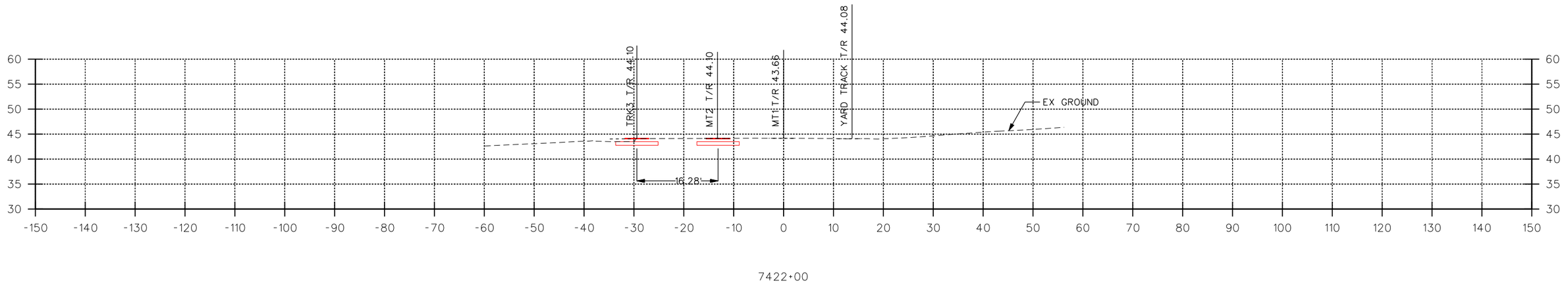

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Tacoma Washington 98424
Phone: 253.922.9780

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XX SUBDIVISION
WILLBRIDGE CROSSOVERS

MT1 STA 7422+00 TO STA 7424+00

CONTRACT NO.
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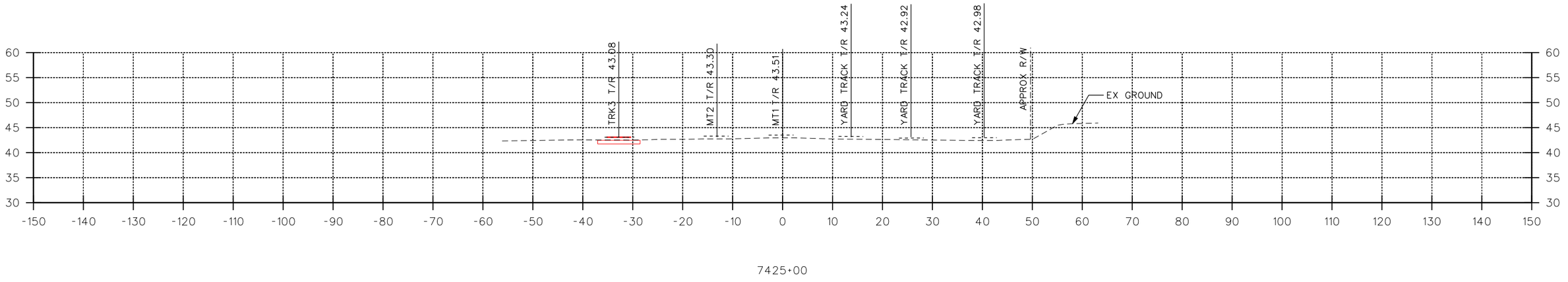
LINE ITEM
COST ELEMENT
PROJECT NUMBER



7425+00

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DATE	MAY 6, 2015

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3700 Pacific Hwy. East, Suite 311
Tacoma Washington 98424
Phone: 253.922.9780

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XX SUBDIVISION
WILLBRIDGE CROSSOVERS

MT1 STA 7425+00

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PROJECT NUMBER	COST ELEMENT	LINE ITEM	CONTRACT DESIGNATOR	PHYSICAL ENTITY	WORK ELEMENT

BNSF-ODOT Willbridge Crossovers Project
Appendix 2: Benefit-Cost Analysis

2024

Oregon Department of Transportation

BNSF

DAVID EVANS AND ASSOCIATES INC.

FY 2024 FSP Grant Application

Benefit-Cost Analysis Narrative

December 2024

Overview

The Oregon Department of Transportation (ODOT), in collaboration with BNSF Railway (BNSF) and Amtrak, is submitting this Federal-State Partnership (FSP) Fiscal Year (FY) 2024 Track 3 Project grant request for $10,396,657 for the Willbridge Crossovers Project Final Design and Construction (the Project) located in Portland, Oregon, approximately 4 miles north of Portland Union Station (see Figure 1). This shovel-worthy Project will reduce delays for 16 daily Amtrak passenger trains (Cascades, Empire Builder, and Coast Starlight) by allowing them to cross over at this location at a higher speed than currently and will reduce freight train congestion and improve air quality. The Project proposes to replace the existing low-speed crossovers with larger higher-speed crossovers that would improve intercity passenger rail service reliability by allowing trains to operate faster, substantially reducing operating delays that occur today as a result of these crossover movements.

In addition, the Project will upgrade and power an existing hand-thrown crossover that allows access from Main Track (MT) 2 to the Willbridge Yard north of the main line. This Project component will allow freight trains to enter and leave the main line without stopping to have a crew member manually throw the crossover, thus increasing efficiency; reducing train idling, operating delays, and congestion; and improving air quality. The Project's completed preliminary design (30 percent) and environmental documentation are included in the appendices.

The Project exemplifies a focused effort to improve both passenger and freight operations on a nationally significant rail passenger corridor. First identified in 1994 as an improvement in the Oregon High Speed Rail Capacity Analysis Investment Program, this Project envisions the completion of upgrades at the Willbridge Control Point (CP) located at Mile Post (MP) 4.1 on the BNSF Fallbridge Subdivision in Portland, Oregon. These upgrades will improve system reliability, reduce passenger and freight rail operational conflicts, and improve operational efficiencies for all rail operators. The upgrades will also allow for diverging speeds of at least 35 miles per hour (mph) for the four daily Amtrak Coast Starlight and Empire Builder long-distance trains and potentially higher speeds for the 12 daily Cascades intercity passenger trains rather than the current speed of 10 mph.

This document provides the details of the Benefit-Cost Analysis (BCA) performed in support of the grant application concerning the Project. The BCA demonstrates the cost-effectiveness of the Project for which ODOT is seeking federal support, and this cost-effectiveness is measured in terms of net present value (NPV) and a benefit-cost ratio (BCR). The Project's FSP grant application provides additional background information, exhibits, and Project details.

Table 3 summarizes issues, solutions, and anticipated benefits of the Project. As summarized in Table 1, when implemented, the Project is expected to achieve a **BCR of 1.2:1 at a 3.1 percent discount**, with benefits exceeding costs. Benefits accrue to economic competitiveness, environmental sustainability, quality of life, and residual project value. The Project is expected to generate $12.8 million in discounted benefits and $10.7 million in discounted capital costs; therefore, **the project has a NPV of $2.1 million**.

Table 1: Benefit-Cost Analysis Summary [1]

Costs	
Discounted Project Capital Costs	$10,742,276
Total Costs	$10,742,276
Discounted Benefits:	
Economic Competitiveness Benefits:	
Vehicle (Train) Operating Cost Savings	$1,962,877
Environmental Sustainability:	
Non-CO_2 Savings	$5,398,157
CO_2 Savings	$857,346
Quality of Life:	
Travel Time Savings	$1,706,121
Residual Value:	
Projected Value of the Remaining Useful Life of the Project	$2,916,708
Total Benefits Before Maintenance Costs	$12,841,210
Life Cycle Costs	
Discounted Operations and Maintenance Costs (disbenefit)	
Total Benefits	**$12,841,210**
Benefit/Cost Ratio	**1.2**
Net Present Value	$2,098,933

[1] Totals are rounded and may be presented with very slight discrepancies.

Figure 1: Project Overview

Methodology

A BCA assigns monetary value to all of the presently measurable improvements, benefits, and costs associated with an infrastructure project for a uniform comparison. The BCA compares the build scenario (the proposed project is constructed) and the no build scenario (the proposed project is not constructed) to define the change in benefits and cost.

The BCA for the Project used the U.S. Department of Transportation (USDOT) *Benefit-Cost Analysis Guidance for Discretionary Grant Programs* (December 2024) to set the analysis framework and guide calculation inputs. A Microsoft Excel-based model was developed for the purpose of this BCA. Accordingly, the BCA Excel spreadsheet references sources for the information used in the BCA on the specific worksheet where the calculation occurs.

The overall BCA methodology included the following steps:

- Define existing and future conditions under both "no build" and "build" scenarios.
- Estimate costs through a period of engineering, design, National Environmental Policy Act processes, and construction (from 2026 to 2027).
- Assess potential benefits with respect to each of the primary selection criteria defined by USDOT.
- Estimate benefits through a period of analysis of 20 years of operation beyond the completion of the Project (from 2027 to 2046), when benefits accumulate.
- Input USDOT-recommended monetized values for reduced fatalities, injuries, property damage, travel time savings, and emissions while using local data sources for monetization of other benefits and costs.
- Use dollar values in real 2023 dollars.
- Discount future benefits and costs with real discount rates of 3.1 percent, consistent with USDOT guidance.

Benefit-Cost Analysis Calculation Inputs

Table 2 lists the assumptions and inputs used in the BCA calculations. The calculations used many standard inputs and values from USDOT's BCA guidance; however, when available, localized data was used for a more customized analysis.

Table 2: BCA Inputs

Variable	Unit	Value	Source/Comment
General Inputs			
Grams per Ton	grams/metric ton	1,000,000	Known.
Grams per Short Ton	grams/ton	907,185	Known.
Feet per Mile	feet/mile	5,280	Known.
Minutes per Hour	minutes	60	Known.
Days per Year	days	365	Known.
Economic Inputs			
Discount Rate	%	3.1%	Office of the Secretary. Benefit-Cost Analysis Guidance for Discretionary Grant Programs. U.S. Department of Transportation. December 2024. Obtained from: https://www.transportation.gov/office-policy/transportation-policy/benefit-cost-analysis-guidance.
Years of Benefits	years	20	USDOT-recommended period for railway improvement projects.
End Year of Analysis	year	2046	Calculated.
Useful Life of Capital Assets	years	40	Assumption of 40 years based on industry experience. Expected tie replacement, ballast lifts, and surface maintenance starting within 25 years, but excluded on an incremental basis as compared to existing infrastructure.
Base Year	year	2023	USDOT-recommended year of analysis.
First Year of Study Period	year	2024	Current year.
Construction Start	year	2026	BNSF.
Construction End	year	2027	BNSF.
First Year of Operations	year	2027	BNSF.
Train Inputs			
Amtrak Cascades Trains per Day	trains/day	2	Amtrak timetables.
Amtrak Coast Starlight Trains per Day	trains/day	2	Amtrak timetables.
Amtrak Empire Builder Trains per Day	trains/day	2	Amtrak timetables.
Freight Trains per Day	trains/day	12	BNSF.

Variable	Unit	Value	Source/Comment
Freight Traffic Growth	%/Year	0%	DEA project experience.
Amtrak Train Speed	miles/hour	50	BNSF Fallbridge Subdivision track charts.
BNSF Train Speed	miles/hour	35	BNSF Fallbridge Subdivision track charts.
FY 2024 Amtrak Cascades Ridership	persons/train	938,439	Amtrak.
FY 2024 Amtrak Coast Starlight Ridership	persons/train	358,532	Amtrak.
FY 2024 Amtrak Empire Builder Ridership	persons/train	387,953	Amtrak.
Amtrak Northwest State Route Business and Commute Travel Share (Business)	percentage	16%	"Amtrak's Economic Contribution" Brochure, page 5.
Amtrak Northwest State Route Family, Recreation and School Travel Share (Personal)	percentage	84%	"Amtrak's Economic Contribution" Brochure, page 5.
Amtrak Long-distance Route Business and Commute Travel Share (Business)	percentage	9%	"Amtrak's Economic Contribution" Brochure, page 5.
Amtrak Long-distance Route Family, Recreation and School Travel Share (Personal)	percentage	91%	"Amtrak's Economic Contribution" Brochure, page 5.
Average Load Factor Empire Builder PDX-VAN	percentage	46.80%	Amtrak.
Average Load Factor Empire Builder VAN-PDX	percentage	47.30%	Amtrak.
Average Load Factor Coast Starlight PDX-VAN	percentage	65.10%	Amtrak.
Average Load Factor Coast Starlight VAN-PDX	percentage	72.10%	Amtrak.
Average Load Factor Cascades PDX-VAN	percentage	39.80%	Amtrak.
Average Load Factor Cascades VAN-PDX	percentage	38.80%	Amtrak.
Capacity Superliner Coach	persons/car	74	*Trains* magazine.
Capacity Superliner Coach Baggage	persons/car	62	*Trains* magazine.
Capacity Superliner Sleeper	persons/car	44	Amtrak.

Variable	Unit	Value	Source/Comment
Revenue Capacity Superliner Transition Sleeper	persons/car	16	*Trains* magazine.
Capacity Horizon Coach	persons/car	72	Amtrak.
Capacity Talgo VIII trainset	persons/train	272	DEA project experience.
Passenger Train Capacity – Amtrak Cascades	persons/train	280.0	Calculated.
Passenger Train Capacity – Amtrak Coast Starlight	persons/train	240.0	Calculated.
Passenger Train Capacity – Amtrak Empire Builder PDX Section	persons/train	192.0	Calculated.
2024 Passenger Train Occupancy PDX-VAN – Amtrak Cascades	persons/train	110.0	Calculated.
2024 Passenger Train Occupancy PDX-VAN – Amtrak Coast Starlight	persons/train	164.6	Calculated.
2024 Passenger Train Occupancy PDX-VAN – Amtrak Empire Builder	persons/train	90.3	Calculated.
Average Delay Time per Amtrak Train – Portland to Vancouver, WA	minutes/day	13.8	Calculated.
Growth Rate in Delay for Passenger Trains	%	0%	BNSF.
Growth Rate in Amtrak Passenger Train Ridership	%	Varies	See “User Volumes” tab of accompanying excel workbook.
Growth in Annual Amtrak Trains	%	0%	BNSF.

Project Benefits

The Project is anticipated to provide a variety of monetized benefits through improvements to economic competitiveness, environmental sustainability, quality of life, and residual project value, as discussed below.

Table 3: Project Benefits

Category	Issue (No Build)	Type of Impact	Economic Benefit	Summary
Economic Competitiveness	Operating Costs	Operating Cost Savings (All Vehicles)	Monetized value of vehicle operating costs from reduced idling	Decreased operation costs by reducing running time for trains diverging at Willbridge
Environmental Sustainability	Pollutant Emissions	Emissions Reductions (All Vehicles)	Monetized value of emissions reductions due to free flow of traffic over the rail crossing and reduced idling	Decreased emissions (VOCs, NO_X, PM)* by reducing running time for trains diverging at Willbridge
Quality of Life	Travel Time	Time Saved	Monetized value of time	Reduced travel time by reducing running time for trains diverging at Willbridge
Residual Value	State of Good Repair	Capital Life Expectancy	Long life expectancy of railroad capital assets	Expected life of capital asset well outpaces the two-decade time horizon of this analysis

* Note: NO_X = nitrogen oxides; PM = particulate matter; VOCs = volatile organic compounds.

Economic Competitiveness

Train Operating Cost Savings – Reduced Running Time

The Willbridge Crossovers Project achieves train operating cost reductions by decreasing running times for a significant number—one-third, per BNSF data—of all trains on this section of the Fallbridge Subdivision, given the number of trains that change tracks using the Willbridge crossovers.

Methodology for Calculating Improved Running Time

Fundamentally, the Project will achieve better speed standardization of this section of the Fallbridge Subdivision, as shown in Table 4.

Table 4: Freight and Passenger Speeds – Fallbridge Subdivision

Selected Maximum Authorized Speeds – Fallbridge Subdivision				
Locations	**Mile Post(s)**	**Freight (mph)**	**Passenger (Conventional) (mph)**	**Passenger (Talgo) (mph)**
05 (Portland Union Station)	0.5–0.9	30	35	35
	0.9–1.5	35	35	50
	1.5–3.4	35	50	70
	3.4–4.1	35	35	50
Willbridge CP (Diverging)	4.1	10	10	10
	4.1–5	35	35	50
Willamette Bridge	5–5.5	30	30	30
North Portland Junction	5.5–8.1	50	70	79

To tabulate the exact savings per train type, the BCA involved performing a Train Performance Calculation (TPC) using Berkeley Simulation Software's Rail Traffic Controller© software on a model presently being utilized by ODOT (Yanitskaya, 2024). The major train types that presently run in this rail corridor were modeled on the present infrastructure and on the proposed design. Overall, the project will save each passenger train in excess of one minute of travel time per use of the proposed infrastructure, and each freight train nearly seven minutes of travel time per use of the proposed infrastructure. Table 5 shows the results of the TPC simulated operations.

Table 5: TPC No Build and Build Travel Time Comparison

Portland, Oregon, to Vancouver, Washington, Travel Time Comparison				
Train ID	**Direction**	**No Build (hh:mm:ss)**	**Build (hh:mm:ss)**	**Improvement (hh:mm:ss)**
Cascades	Northbound	00:15:44	00:14:40	00:01:04
Empire Builder	Northbound	00:18:02	00:17:02	00:01:00
Coast Starlight	Northbound	00:18:34	00:17:00	00:01:34
Unit Freight	Northbound	00:32:35	00:25:47	00:06:48

Methodology for Estimating Operating Cost Savings

Marginal improvements, if effected daily, build significantly over time. Based on input from BNSF and on Amtrak timetables, the total number of annual trains was estimated. Every day, 12 Amtrak Cascades trains, two Amtrak Empire Builder trains, two Amtrak Coast Starlight trains, and 12 freight trains traverse the corridor. This means that well over 10,000 trains use this corridor annually.

However, not every train diverges, or takes one of the switches, at the Willbridge crossovers, though a significant number do. BNSF, using its detailed dispatching data (Pruneau, 2024) estimated that an average of one-third of all trains historically diverge at the crossovers given the diversity of traffic (a heavy mix of freight and passenger) and that the control point is directly adjacent to two major railyards. Of the more than 10,000 trains that ply the corridor presently each year, approximately 3,400 will benefit directly from the improvement of the crossovers.

The official recommended value per hour of train movements (USDOT, 2024) was utilized and adjusted to the scale of minutes, as appropriate for the scale of improvement per movement that this Project contemplates (see Table 6). The values in Table 6 were then applied to the estimated number of annual trains and the time savings values in Table 5, resulting in an initial annual cost savings that would be accrued from the Project, as shown in Table 7.

Table 6: Train Movement Time Values

Train and Movement Type	Recommended Value per Hour (2023 $)	Calculated Value per Minute
Hauling	Operating Costs	Operating Costs
Freight Train	$706	$12
Commuter Train	$687	$11
Amtrak Long-distance Train	$1,123	$19
Amtrak State-supported Train	$728	$12

Table 7: Annual Train Movement Costs

Train Type	Annual Number of Trains	% Diverted to Crossover	Annual Diverging Trains	Annual No Build Cost	Annual Build Cost
Amtrak Cascades	4,380	0.33	1,445.4	$275,923.65	$257,216.96
Amtrak Empire Builder	730	0.33	240.9	$81,309.50	$76,800.66
Amtrak Coast Starlight	730	0.33	240.9	$83,714.22	$76,650.37
Unit Freight	4,380	0.33	1,445.4	$554,162.35	$438,511.07

It is crucial to note that this analysis did not anticipate increased levels of passenger rail service as expressed in number of train frequencies over those tabulated today, given the uncertainty about implementation timelines—ridership notwithstanding—as discussed in the subsequent section. In addition, although regional planning documents assume freight traffic will grow by 2 percent annually (WSDOT, 2024), the shape of this growth could manifest either in additional trains or in longer trains. For the purposes of this analysis, the number of daily freight trains was held static in order to account for these uncertainties and to provide a more conservative estimate of benefit. Table 8 shows that the Project is anticipated to result in $1.96 million in discounted

train movement delay reduction costs realized from the first year of operations (2027) to the end year of the 20-year analysis horizon (2046).

Table 8: Discounted Train Movement Costs[2]

Year	Operating Time Savings
2027	$145,931
2028	$145,931
2029	$145,931
2030	$145,931
2031	$145,931
2032	$145,931
2033	$145,931
2034	$145,931
2035	$145,931
2036	$145,931
2037	$145,931
2038	$145,931
2039	$145,931
2040	$145,931
2041	$145,931
2042	$145,931
2043	$145,931
2044	$145,931
2045	$145,931
2046	$145,931
Undiscounted Total	**$2,918,613**
Discounted Total	**$1,962,877**

Quality of Life

Train Delay Time Travel Savings

Vehicle travel time savings are based on the difference in time spent traveling with and without the Project. Savings are realized by each person riding a train that diverges at Willbridge crossover. These savings are calculated by projecting the hours of vehicle travel time saved with the Project and multiplying that amount by the value of travel time savings in USDOT's BCA guidelines (USDOT, 2024). That product is then multiplied by the average vehicle occupancy, accounting for both commercial and non-commercial travel.

[2] Totals are rounded and may be presented with very slight discrepancies.

Vehicle travel time savings are determined using the same methodologies for vehicle delay as contemplated in Table 5 and Table 6, in the "Economic Competitiveness" section above. However, the analysis used several methodologies and sources to account for the number of passengers that will ride trains on this section of the Fallbridge Subdivision over the 20-year analysis horizon, as discussed below.

Amtrak Fallbridge Subdivision Ridership Methodology

Train Ridership Estimation

Train ridership fluctuates on a given corridor as passengers travel between overlapping origin-destination travel pairs. Although route ridership is normally presented in the aggregate, not all passengers on this corridor are present on trains between Vancouver, Washington, and Portland, Oregon (the two Amtrak stations common to all passenger trains traversing the route that the Project falls between).

This analysis counted only passengers on board trains actually traversing the section of the Fallbridge Subdivision in question. To estimate the number of passengers directly affected by the Project, load factors for each train running specifically between Vancouver, Washington, and Portland, Oregon, were obtained from Amtrak, as listed in Table 2. Then, the capacity of each average trainset running in 2024 was estimated (Sweeney, 2021) by computing the total capacity of each average train consist (i.e., the physical number of cars and car types in each train consist) utilized by each service line. The results of this calculation, along with the load factors provided by Amtrak, arrived at average passenger loads for each train service, again tabulated in Table 2.

Through the 20-year analysis horizon, general corridor ridership growth rates were then estimated and applied to these passenger load figures, as detailed in the next section.

Ridership Growth

Ridership on the three passenger rail routes was analyzed over the past nine years to assess trends, which are shown in Table 9. The specter of the COVID-19 pandemic is the most noticeable single factor resulting in relatively extreme swings in ridership; however, currently the system is rapidly recovering from these extreme changes.

Table 9: Amtrak Ridership in the Subject Corridor, 2016–2024

Cascades Ridership				*COVID-19 Pandemic*			*COVID-19 Recovery*	
2016	2017	2018	2019	*2020*	*2021*	*2022*	2023	2024
792,500	810,000	796,300	817,900	*343,000*	*181,500*	*390,200*	668,360	938,439
Compound Annual Growth Rate (CAGR)	2%	-2%	3%	*-58%*	*-47%*	*115%*	71%	40%
Empire Builder Ridership								
2016	2017	2018	2019	*2020*	*2021*	*2022*	2023	2024
454,600	454,500	423,700	428,500	*252,500*	*221,300*	*303,600*	348,993	387,953
CAGR	0%	-7%	1%	*-41%*	*-12%*	*37%*	15%	11%
Coast Starlight Ridership								
2016	2017	2018	2019	*2020*	*2021*	*2022*	2023	2024
453,000	438,800	412,500	421,200	*258,200*	*190,000*	*352,600*	337,355	358,532
CAGR	-3%	-6%	2%	*-39%*	*-26%*	*86%*	-4%	6%

However, on the subject corridor, two other major elements must be taken into account. First is the addition of two round trips to the Amtrak Cascades corridor late in 2023 (WSDOT, 2023). These two additional round trips brought Cascades service to six round trips—the highest level of corridor service yet offered between Portland and Seattle—and they have been propelling robust growth. WSDOT projects that, at the present level of service, Cascades will be serving 1.3 million passengers by 2045, which conveniently coincides with the planning horizon of this analysis (WSDOT, 2024).

The second major element to take into account is an ongoing capacity crunch experienced by Amtrak's long-distance service line (Johnston, 2022), which includes Empire Builder and Coast Starlight services. Consists on these trains are significantly smaller than they have been historically due to a high number of cars being out of service and in need of repair and maintenance. The high number of trains out of service has contributed to suppressed recovery back to the Empire Builder's and Coast Starlight's pre-pandemic ridership numbers, as shown in Table 9. However, the recent public Amtrak Board Meeting held in Seattle early in December 2024 addressed finite timelines on reintroduction of cars into the long-distance fleet within this decade (Johnston, 2024). Therefore, it follows that the historical averages shown in Table 9 also may be achieved within the time horizon of this analysis.

Taking both the stratospheric rise of Amtrak Cascades service over the past three years and the return of additional equipment to Amtrak's long-distance services into account, this BCA assumed rates of growth that would allow Cascades service to achieve its growth numbers as projected by WSDOT, and that the long-distance service would return to ridership in the vicinity of its average pre-pandemic passenger loads. To achieve both of these figures, the analysis adopted conservative Compound Average Growth Rates (CAGRs) for ridership on these trains over the 20-year horizon of this analysis (see Table 10).

Table 10: Adopted Passenger Ridership Growth Rates

CAGR 2025–2030	CAGR 2030–2046	Amtrak Route
5%	0.5%	Cascades
2.5%	0%	Empire Builder
2.5%	0%	Coast Starlight

Calculation of Time Savings

To calculate travel time savings in dollars, the analysis used the time savings (in Table 5) and applied the recommended time values (in Table 11) (USDOT, 2024), given the number of estimated trains (in Table 7) and the estimated ridership (as described in the immediately preceding section). One engineer was assumed for each train counted. A general split of passenger rail ridership between "Personal" travel and "Business" travel as listed in Table 2 (Amtrak, 2015) by service line was applied to estimated ridership figures to more accurately estimate benefits.

Table 11: Recommended Time Values

Category	Hourly Value (2023 $)	Calculated Minute Value
Personal	$19.40	$0.32
Business	$33.50	$0.56
Locomotive Engineers	$52.90	$0.88

Use of these time values produced a time savings of **$1.7 million** over the 20-year analysis period at the 3.1 percent discount rate, as shown in Table 12.

Table 12: Discounted Travel Time Savings[3]

Year	Travel Time Savings
2027	$112,580
2028	$116,903
2029	$121,422
2030	$126,147
2031	$126,557

[3] Totals are rounded and may be presented with very slight discrepancies.

Year	Travel Time Savings
2032	$126,970
2033	$127,384
2034	$127,801
2035	$128,219
2036	$128,640
2037	$129,063
2038	$129,487
2039	$129,914
2040	$130,344
2041	$130,775
2042	$131,208
2043	$131,644
2044	$132,082
2045	$132,522
2046	$132,964
Undiscounted Total	**$2,552,624**
Discounted Total	**$1,706,121**

Environmental Sustainability

Train Emissions Cost Savings – Reduced Delays

Train emissions cost savings consist of cost savings associated with reduced delay and related decreased emissions resulting from improved travel times as shown in Table 5. To determine the extent of this benefit, the travel time was calculated by employing the Methodology for Calculating Improved Running Time in the "Economic Competitiveness" section. Starting with these calculated inputs, the BCA then utilized the monetized values of damage done by each pollutant in USDOT's BCA guidelines document (USDOT, 2024) (see Table 13).

Table 13: Recommended Emissions Time-Values

Train and Movement Type	Recommended Value per Hour (2023 $)	Recommended Value per Hour (2023 $)	Calculated Value Per Minute	Calculated Value Per Minute
Hauling Values	Non-CO_2 Emissions	CO_2 Emissions	Non-CO_2 Emissions	CO_2 Emissions
Freight Train	$2,284	$290	$38.07	$4.83
Commuter Train	$755	$226	$12.58	$3.77
Amtrak Long-distance Train	$755	$226	$12.58	$3.77
Amtrak State-supported Train	$755	$226	$12.58	$3.77

These values were multiplied by the number of trains estimated in Table 7, and the amount of time savings per train type as listed in Table 5. Projections for CO_2 emissions in future years were discounted using a 2 percent rate, also provided by USDOT in its BCA guidelines document (USDOT, 2024). After applying a 3.1 percent discount rate to the non-CO_2 emissions savings, the resulting train delay-based emissions benefit from the Project due to the reduction in running time resulting from replacement of the crossovers is **$6.2 million**. Table 14 presents the discounted cost savings of emissions reductions for the Project.

Table 14: Discounted Emissions Reduction Savings[4]

Year	Non-CO_2 Emissions Reduction	CO_2 Emissions Reduction
2027	$401,327	$55,642
2028	$401,327	$55,642
2029	$401,327	$55,642
2030	$401,327	$55,642
2031	$401,327	$55,642
2032	$401,327	$55,642
2033	$401,327	$55,642
2034	$401,327	$55,642
2035	$401,327	$55,642
2036	$401,327	$55,642
2037	$401,327	$55,642
2038	$401,327	$55,642
2039	$401,327	$55,642
2040	$401,327	$55,642
2041	$401,327	$55,642
2042	$401,327	$55,642
2043	$401,327	$55,642
2044	$401,327	$55,642
2045	$401,327	$55,642
2046	$401,327	$55,642
Undiscounted Total	**$8,026,550**	**$1,112,835**
Discounted Total	**$5,398,157**	**$857,346**

Residual Value

T the Project will have residual value after the end of the 20-year analysis period, because the useful life of the Project elements is longer than 20 years. Therefore, the BCA estimated the remaining value of these Project elements for the time after the analysis period ends and discounted this remaining value at a straight rate over the anticipated life of the project (40

[4] Totals are rounded and may be presented with very slight discrepancies.

years). As noted in Table 15, the residual value after the end of the analysis period is **$2.9 million** when discounted at 3.1 percent, or a non-discounted residual value of **$5.9 million.**

Table 15: Residual Value

Project Component	Capital Cost (2023 $)	Useful Life (Years)	Residual Value
Overall Project (One Component)	*$11,772,598*	**40**	$5,886,299
Discounted Residual Value (2046)			$2,916,708

Secondary Benefits

The Project will also generate secondary benefits. These secondary benefits are more difficult to precisely measure and monetize than those described above and include the following:

- Saved time from cascading delays caused by congestion from trains waiting longer for trains diverging at Willbridge that block both main line tracks.

Project Costs

The following section presents the project cost estimates used in this BCA, as developed by David Evans and Associates, Inc.

Table 16 summarizes the project's future capital costs, with construction occurring over the course of one year. Refer to the detailed budget section of the grant application for a breakdown of the Capital Cost in Year-of-Expenditure Dollars.

Table 16: Discounted Capital Costs by Year

Year	Capital Cost in Year-of-Expenditure Dollars	Cost in Constant Dollars (2023 $)
2026	**$12,995,822**	$11,772,598

Life Cycle Costs

Life cycle costs, or those costs associated with maintaining new capital assets produced by this project, are not anticipated to meaningfully change from what is experienced at the project location today over the 20-year analysis period, primarily because:

- Routine maintenance for signal elements is not anticipated to change after the reconfiguration that is part of the Project.
- Wear on the new crossovers, comprehending switch points, switch rail, and frogs is largely determined by the traffic that they experience. Because this analysis contemplates no increase in traffic over the 20-year horizon compared to current conditions, the maintenance costs for these Project elements should remain effectively the same.

The forecasted life cycle costs with the Project do not represent an increase over obligations today and therefore do not create a disbenefit that counts against the calculated benefits.

Conclusion Summary

To briefly conclude, the Willbridge Crossovers Project benefits, which will accrue through the use of thousands of trains saving hours of accumulated time, are anticipated to exceed costs, resulting in the favorable summary outcomes as seen in Table 17.

Table 17: BCA Truncated Summary

Cost Category	Projected Value
Total Discounted Benefits	$12,841,210
Total Discounted Costs	$10,742,276
Net Present Value (NPV)	$2,098,933
Benefit Cost Ratio (BCR)	1.20

References

The references used in this analysis are listed below, and the accompanying BCA Excel workbook provides additional notes and assumptions.

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BNSF-ODOT Willbridge Crossovers Project
Appendix 3: Environmental Compliance

2024

Oregon Department of Transportation

BNSF

DAVID EVANS AND ASSOCIATES INC.

Expiration 07/31/2015 OMB No. 2130-0548

Federal Railroad Administration (FRA)
CATEGORICAL EXCLUSION WORKSHEET

The purpose of this worksheet is to assist Project sponsors in gathering and organizing materials for environmental analysis required under the National Environmental Policy Act (NEPA), particularly for projects that may qualify as Categorical Exclusions. Categorical Exclusions are categories of actions (i.e. types of projects) that the FRA has determined, based on its experience, typically do not individually or cumulatively have a significant effect on the human environment and which generally do not require the preparation of either an environmental impact statement (EIS) or an environmental assessment (EA). Decisions to prepare EAs and EISs are made by FRA.

Submission of the worksheet by itself does not meet NEPA requirements. FRA must concur in writing with the Categorical Exclusion recommendation for NEPA requirements to be met.

The Project sponsor is responsible for providing FRA with a sufficient level of documentation and analysis to help inform FRA's determination that a Categorical Exclusion is the appropriate NEPA class of action. Documentation and analysis may include background research, results of record searches, field investigations, field surveys, and any past planning or studies.

Instructions for completing this worksheet are available on the FRA website at: http://www.fra.dot.gov/eLib/Details/L02708. Please complete this worksheet using compatible word processing software and submit and transmit the completed form in MS Word electronic format.

The following documents must be submitted along with this worksheet:

1. Include maps or diagram of the Project area that identifies locations of critical resource areas, wetlands, potential historic sites, or sensitive noise receptors such as schools, hospitals, and residences.
2. Include maps or diagrams of the proposed modifications to existing railways, roadways, and parking facilities.
3. Copies of all agency correspondence particularly with permitting agencies.
4. Representative photographs of the Project area.

I. PROJECT DESCRIPTION

Project Sponsor Oregon Department of Transportation	**Date Submitted to FRA** May 15, 2015	**FRA Funding (TIGER, HSIPR, Rail Line Relocation, RRIF, etc.) or other FRA Action** HSIPR
Contact Person **Cary Goodman**	**Phone** (503) 986-4230	**E-mail address** Cary.Goodman@odot.state.or.us
Proposed Project Title Willbridge Crossovers		
Location (Include Street Address, City or Township, County, and State) Portland, Multnomah County, Oregon. Adjacent to Oregon Highway 30. NW Balboa Avenue is within Project area. Township 1N, R1E, Section 19; Township 1N, Range 1W, Section 24; and Township 1N, Range 1W, Section 13. All on the Willamette Meridian.		
NEPA Contact Michael Holthoff	**Phone** (503) 986-3428	**E-mail Address** Michael.G.Holthoff@odot.state.or.us

Description of Proposed Action (Project): Fully describe the Project including specifics that may be of environmental concern such as: *widening an embankment to stabilize roadbed; repairing or replacing bridge pier foundations, extending culverts, including adding rip-rap in a waterway; earthwork and altering natural (existing) drainage patterns and creating a new water discharge; contaminated water needing treatment; building a new or adding on to a shop building; fueling or collection of fuel or oil and contaminated water; building or extending a siding; and building or adding on to a yard. Where applicable fully describe the operational characteristics of the facility to be improved by the proposed action and any anticipated operational changes that may result.*

The Willbridge Crossovers are located in Portland, Oregon, on the Pacific Northwest Rail Corridor (PNWRC). The crossovers are used each day by 12 Amtrak passenger rail trains (8 Amtrak Cascades trains, 2 Amtrak Coast Starlight trains, and 2 Empire Builder trains), and is one of three universal crossover locations between Portland and Vancouver, Washington. The slow speeds through the crossovers by through-freight trains traveling between Portland and Vancouver, and freight trains entering and leaving this segment of main line, creates main line congestion that delays passenger and freight trains.

Figure 1 illustrates the Project. The Project will replace the two main line crossovers (one left-hand and one right-hand) with larger (No. 20) turnouts to reduce freight train congestion and allow passenger trains to crossover at a higher speed. Trains using the Willbridge Crossovers will be able to travel at speeds up to 40 miles per hour (mph), faster than the existing 10 mph for passenger trains. All construction will occur within existing railroad right-of-way.

To accommodate the longer crossovers, the existing turnout (No. 11) from main track to the Portland and Western Railroad branch line will be removed and a new turnout will be installed in a new location west of its current location. An existing hand-thrown left-hand crossover east of the Willbridge Control Point that allows access from the main line to Swithing Lead and the yard north of main line will be removed and a new power left-hand will be added to the Willbridge Control Point. This will allow freight trains to enter and leave the main line without stopping on the main track to allow a manual crossover.

Signals and the interlocking signal system that controls movement of the trains through the Project area will be replaced to accommodate the reconfigured tracks. The construction and ongoing maintenance of the Willbridge Control Point will require the installation of a maintenance pad (berm) to the north of the main lines and switching lead.

There is an existing culvert that carries a creek (Saltzman Creek) under the main track and the switching lead. A modification to the north headwall of the culvert and new walkway to accommodate train switching operations will be required, but the culvert will not be replaced.

No structures or private property will be acquired. The total project cost, including professional services and 30% contingency costs, is estimated to be $7 million. The Oregon Department of Transportation (ODOT) is in the process of identifying potential funding sources for final engineering and construction.

The Federal Railroad Administration is providing funding for Preliminary Engineering and Environmental review of the Project through a grant from its High-Speed Intercity Passenger Rail Program.

Purpose and Need of Proposed Action (Project).

The Purpose of the proposed action (Project) is to reduce freight train congestion to allow passenger trains on the PNWRC to crossover at a higher speed at the Willbridge Crossovers.

The Need for the Project arises from the current slow speeds by through-freight trains traveling between Portland and Vancouver, and freight trains entering and leaving this segment of main line, which creates main line congestion that delays passenger and freight trains. Passenger trains that crossover at this location must slow to 10 mph in an area where they could otherwise travel at 35 mph (50 mph if the train is a tilting Amtrak Cascades passenger train.) The centralized traffic control (CTC) operated crossovers are currently #11 crossovers, which restrict the speed of crossover moves between the two main tracks to 10 mph.

II. NEPA CLASS OF ACTION

Please check the category or categories that the Project best fits. If no category applies, contact FRA as an EA or EIS may need to be prepared.

☐ Changes in plans for a Project for which an environmental document has been prepared, where the changes would not alter the environmental impacts of the action. *(Describe the full consequences of the changes only in part III)*

☐ Maintenance of: existing railroad equipment; track and bridge structures; electrification, communication, signaling, or security facilities; stations; maintenance-of-way and maintenance-of-equipment bases; and other existing railroad-related facilities. *("Maintenance" means work, normally provided on a periodic basis, which does not change the existing character of the facility, and may include work characterized by other terms under specific FRA programs)*

☐ Temporary replacement of an essential rail facility if repairs are commenced immediately after the occurrence of a natural disaster or catastrophic failure.

☐ Operating assistance to a railroad to continue existing service or to increase service to meet demand, where the assistance will not result in a change in the effect on the environment.

☐ Financial assistance for the construction of minor loading and unloading facilities, provided that proposals are consistent with local zoning, do not involve the acquisition of a significant amount of land, and do not significantly alter the traffic density characteristics of existing rail or highway facilities.

☒ Minor rail line additions *including construction of side tracks, passing tracks, crossovers, short connections between existing rail lines, and new tracks within existing rail yards,* provided that such additions are consistent with existing zoning, do not involve acquisition of a significant amount of right of way, and do not substantially alter the traffic density characteristics of the existing rail lines or rail facilities.

☐ Acquisition of existing railroad equipment, track and bridge structures, electrification, communication, signaling or security facilities, stations, maintenance of way and maintenance of equipment bases, and other existing railroad facilities or the right to use such facilities, for the purpose of conducting operations of a nature and at a level of use similar to those presently or previously existing on the subject properties.

☐ Research, development and/or demonstration of advances in signal, communication and/or train control systems on existing rail lines provided that such research, development and/or demonstrations do not require the acquisition of substantial amounts of right-of-way, and do not substantially alter the traffic density characteristics of the existing rail line.

☐ Improvements to existing facilities to service, inspect, or maintain rail passenger equipment, *including expansion of existing buildings, the construction of new buildings and outdoor facilities, and the reconfiguration of yard tracks.*

☐ Alterations to existing facilities, locomotives, stations and rail cars in order to make them accessible for the elderly and persons with disabilities, *such as modifying doorways, adding or modifying lifts, constructing access ramps and railings, modifying restrooms, and constructing accessible platforms.*

☒ Bridge rehabilitation, reconstruction or replacement, the rehabilitation or maintenance of the rail elements of docks or piers for the purposes of intermodal transfers, and the construction of bridges, culverts, or grade separation projects, predominantly within existing right-of-way, that do not involve extensive in-water construction activities, *such as projects replacing bridge components including stringers, caps, piles, or decks, the construction of roadway overpasses to replace at-grade crossings, construction or reconstruction of approaches and/or embankments to bridges, or construction or replacement of short span bridges.*

☐ Acquisition (including purchase or lease), rehabilitation, or maintenance of vehicles or equipment that does not cause a substantial increase in the use of infrastructure within the existing right-of-way or other previously disturbed locations, *including locomotives, passenger coaches, freight cars, trainsets, and construction, maintenance or inspection equipment.*

☒ Installation, repair and replacement of equipment and small structures designed to promote transportation safety, security, accessibility, communication or operational efficiency that take place predominantly within the existing right-of-way and do not result in a major change in traffic density on the existing rail line or facility, *such as the installation, repair or replacement of surface treatments or pavement markings, small passenger shelters, passenger amenities, benches, signage, sidewalks or trails, equipment enclosures, and fencing, railroad warning devices, train control systems, signalization, electric traction equipment and structures, electronics, photonics, and communications systems and equipment, equipment mounts, towers and structures, information processing equipment, and security equipment, including surveillance and detection cameras.*

☐ Environmental restoration, remediation and pollution prevention activities in or proximate to existing and former railroad track, infrastructure, stations and facilities conducted in conformance with applicable laws, regulations and permit requirements, *including activities such as noise mitigation, landscaping, natural resource management activities, replacement or improvement to storm water oil/water separators, installation of pollution containment systems, slope stabilization, and contaminated soil removal or remediation activities.*

☐ Assembly or construction of facilities or stations that are consistent with existing land use and zoning requirements, do not result in a major change in traffic density on existing rail or highway facilities and result in approximately less than ten acres of surface disturbance, *such as storage and maintenance facilities, freight or passenger loading and unloading facilities or stations, parking facilities, passenger platforms, canopies, shelters, pedestrian overpasses or underpasses, paving, or landscaping.*

☒ Track and track structure maintenance and improvements when carried out predominantly within the existing right-of-way that do not cause a substantial increase in rail traffic beyond existing or historic levels, *such as stabilizing embankments, installing or reinstalling track, re-grading, replacing rail, ties, slabs and ballast, installing, maintaining, or restoring drainage ditches, cleaning ballast, constructing minor curve realignments, improving or replacing interlockings, and the installation or maintenance of ancillary equipment.*

III. PROJECT INFORMATION

Potential impacts from both construction and changes to operations (where applicable) should be analyzed and identified for each resource type below. Where appropriate, the Project sponsor may commit to mitigation measures to avoid, reduce, or minimize impacts, including the use of Best Management Practices (BMP). Mitigation measures necessary to comply with other laws or regulations (e.g. Clean Water Act Section 404) should also be identified and the impacts

from mitigation considered.

A. **Affected Environment:** *Briefly describe the ecosystems and environmental conditions in the area affected by the Project (defined as broadly as necessary to evaluate potential impacts and address Project area habitats).*

The Project area is a rail use located in industrial northwest Portland, adjacent to the U.S. Highway 30 (US 30) multi-modal transportation corridor. Adjacent land uses to the Project area are transportation (US 30) and industrial. The Willamette River is approximately 2,000 feet northeast of the Project area. The Project area topography is nearly level on fill and is a former floodplain of the Willamette River. The elevation within the Project area is approximately 50 feet above mean sea level. Saltzman Creek flows below the main tracks in the Project area. The waterway is conveyed through a concrete double box culvert. There is also one unnamed creek in the Project area which is conveyed under the Project area by pipe to the Willamette River. There are no jurisdictional wetlands or other waters within the Project area. See Figures 2 and 3 for more information on the affected environment.

B. ***Location & Land Use:*** *Briefly describe the existing land use of the Project site and surrounding properties and resources and identify and discuss any potential inconsistencies the Project might have with local land use plans and policies.*

The Project area is located in an industrial area of northwest Portland. All lands within and adjacent to the Project area are designated "Heavy Industrial" by Title 33 (Planning and Zoning) of the Portland City Code. The Project area has been affected by highway, railroad, and various industrial projects for almost 100 years. Adjacent land uses include OR 30 to the west (NW St. Helens Road in the city of Portland) and industrial to the east (tank farms, and a regional garbage transfer station). The Project area lies on nearly level fill over a former floodplain of the Willamette River, which is approximately 2,000 feet to the northeast. All Project work will be completed within existing railroad right-of-way. Therefore, the Project will have no temporary or permanent impacts to adjacent land uses and there will be no potential inconsistencies with City of Portland land use plans and policies. No land use permits are required. See Figures 2 and 3 for more information on location and land use.

C. **Cultural Resources:** *Is the Project of the type where there is no potential to affect historic properties? Check yes or no depending on whether resources have been identified in the immediate vicinity of the Project (Area of Potential Effect)*

☐ *Yes, explain how Project has no potential to affect historic properties. (Continue to D)*

☒ *No, there is potential to affect historic properties. Describe identification procedures to determine the existence of cultural resources in the Project area.*

Built Environment

A site survey performed by ODOT cultural resources staff confirmed there are no structures or buildings within the Project area. Due to the limited scope of the Project, FRA did not determine the National Register eligibility of the BNSF Railway railroad as a whole.

Archaeological Resources

ODOT cultural resources staff conducted background research at the Oregon State Historic Preservation Office (SHPO). This research did not identify any known archaeological sites within the Project area. A pedestrian archaeological survey of the Project area was conducted on March 5, 2013, and no archaeological sites were observed or recorded during the survey.

FRA submmitted a Section 106 consultation package to the SHPO on July 31,2015, in which FRA determined the Project would result in no historic properties affected. Correspondence with SHPO is saved in the FRA environmental file for this Project. In letters dated September 17, 2015 (archaeological resources) and September 9, 2015 (above-ground resources), SHPO staff indicated that the project will likely have no effect on archaeological resources and will not have an adverse effect on the unevaluated BNSF rail line.

Describe any resource(s) identified in the project area and then describe any potential effect of the Project on the resource(s).

Built Environment
Because of the limited scope of the Project, FRA did not make a National Register eligibility determination for the BNSF Railway railroad. However, FRA understands that SHPO may consider the railroad to be historically signficant for its role in the economic development of the Pacific Northwest, in particular the Cowlitz Corridor and connecting Portland with Puget Sound. The alignment of the railroad has remained much the same since its construction, but individual elements such as rails, grade, and ballast likely have been replaced over the life of the railroad, which are part of common rail line maintenance. There have been no major alterations to the rail line. Although the crossovers are part of the BNSF Railway main line railroad, the crossovers themselves are not a contributing feature in terms of the historical development of the overall railroad. The rail line is an extensive unit and, were it determined to be a National Register-eligible property, will not be affected by a routine maintenance project, such as upgrading the crossovers.

Archaeological Resources
There are no known archaeological sites. The Project area is situated in a previously disturbed area that has been affected by highway, railroad, and various industrial projects for almost a hundred years. Prior to that time the area was sparsely settled and was mostly wetlands, sloughs, and small lakes. In historic and modern times the landscape has been filled, cut, and thoroughly disturbed. It is highly unlikely that intact sediments remain, and archaeological materials, if any, would have been removed or buried. The archaeology baseline report is in the FRA environmental file and was provided to SHPO as part of FRA's Section 106 consultation.

Has consultation with the State Historic Preservation Office occurred?

☐ *No, contact FRA*

☒ *Yes, describe and attach relevant correspondence*

ODOT prepared a draft Section 106 "Finding of Effect." FRA submitted a Section 106 consultation package to SHPO on July 31, 2015 and SHPO concurred with FRA's findings on September 9, 2015 (above-ground resources) and September 17, 2015 (archaeological resources).

What resources of interest to Federally-recognized Native American Tribes are known to be present in the Project area?

There are no known resources of interest to Federally-recognized Native American Tribes present in the Project area. ODOT notified the following tribes about the Project in early June 2015, and no substantive comments or objections have been received to date.

- Confederated Tribes of the Grand Ronde Community of Oregon
- Confederated Tribes of Siletz
- Confederated Tribes of the Warm Springs Reservation of Oregon
- Confederated Tribes and Bands of the Yakama Nation
- Cowlitz Tribe

D. **Parks and Recreational Facilities:** *Are there any publicly owned park, wildlife and waterfowl refuge, or recreational area of national, state, or local significance within or directly adjacent to the Project area?*

☒ No, include a short statement describe efforts to identify parks and recreational facilities in the Project area.

A site visit and research of adopted City of Portland plans confirmed that there are no publicly owned parks, wildlife or waterfowl refuges, or recreational areas within or adjacent to the Project area. The Project area is entirely within railroad right-of-way.

☐ Yes, include a detailed description of the property, including map or drawing, describe the recreational uses of the property, any unique characteristics of the property, any consultations with the entity with legal jurisdiction over the property, and the potential impact on the property.

E. **Transportation:** *Would the Project have any effect (beneficial or adverse) on transportation including but not limited to other railway operations, road traffic, or increase the demand for parking?*

☐ No, explain why the Project would have no effect (beneficial or adverse) on transportation

☒ Yes, describe potential transportation, traffic, and parking impacts, and address capacity constraints and potential impacts to existing railroad and highway operations. Also, summarize any consultation that has occurred with other railroads or highway authorities whose operations this Project will impact.

The Project will have a beneficial effect on railway operations by reducing passenger train delays and freight rail congestion. The Project will not directly increase the number of passenger or freight trains operated through Willbridge Crossovers, but will increase operational speeds for freight and passenger rail trains. Trains using the crossovers will be able to travel at speeds up to 40 mph, faster than the existing 10 mph for passenger trains. There

will be no temporary or permanent adverse traffic operational impacts to OR 30 because all improvements will be made within existing railroad right-of-way. No parking areas will be impacted.

ODOT has coordinated directly with BNSF Railway on the Project design because BNSF Railway owns the railroad within the Project area. ODOT has also coordinated with Portland & Western Railroad that owns tracks northwest of the Project area. BNSF Railway and Portland & Western Railroad support the Project because the Project will improve freight operations and reduce train congestion through the crossovers.

Some construction vehicles entering and leaving the site may have minor impacts to traffic along NW Balboa Ave, but this serves a limited number of industrial properties and is not a through street. US 30 will not be impacted by construction activities as construction activities will occur on or north of the BNSF tracks.

The tracks are owned and controlled by BNSF Railway, who will also be in charge of controlling the construction. As many as ten track closures of up to four hours each are anticipated for installing track components and the new signal bridge. The impacts of these outages would be planned well in advance by BNSF Network Operations and other parts of BNSF so as to minimize the impact to the trains on their network, including daily Amtrak passenger trains. In addition, for the duration of the track and signal work, trains could be intermittently slowed to as slow as 10 MPH to allow them to pass over track that is not fully aligned and tamped, pass signals that are being tested, or when workers and equipment are present. The limited project length will minimize the impact of these slow orders to one or two minutes per train.

F. Noise and Vibration: *Are there any sensitive receptors in the Project area?*

☒ No, describe why there are no sensitive receptors (residences, parks, schools, hospitals, public gathering spaces) in or near the Project area. (Continue to G)

A site visit confirmed that there are no sensitive receptors (such as residences, parks, schools, hospitals, or public gathering spaces) within or adjacent to the Project area. Adjacent land uses to the Project area are industrial and transportation (US 30). The Project area is located in an industrial area of northwest Portland. All lands within and adjacent to the Project area are designated "Heavy Industrial" by Title 33 (Planning and Zoning) of the Portland City Code.

☐ Yes, will the Project change the noise and/or vibration exposure of the sensitive receptors when applying the screening distances for noise and vibration assessment found in FRA and Federal Transit Administration's noise impacts assessment guidance manuals? Such changes in exposure might include changes in noise emissions and/or events, or changes in vibration emissions and/or events.

If the Project is anticipated to change the noise or vibration exposure of sensitive receptors, complete and attach a General Noise and/or Vibration Assessment. Describe the results of the Assessment and any mitigation that will address potential impacts.

G. Air Quality: *Is the Project located in a Non-Attainment or Maintenance area?*

☐ No, identify any air emissions increases or benefits that the project will create. (Continue to H)

☒ Yes, for which of the following pollutants:

☒ Carbon Monoxide (CO) ☒ Ozone (O_3), volatile organic compounds or Nitrous Oxides (NO_x)
☐ Particulate Matter (PM_{10} and $PM_{2.5}$)

Will the Project, both during construction and operation, result in new emissions of criteria pollutants including Carbon Monoxide (CO), Ozone (O_3), volatile organic compounds, or Nitrous Oxides NO_x, Particulate Matter (PM_{10} and $PM_{2.5}$)?

☒ No ☐ Yes, Attach an emissions analysis for General Conformity regarding CO, O_3, PM_{10}, and NO_x.

Based on the emissions analysis, will the Project increase concentrations of ambient criteria pollutants to levels that exceed the NAAQS, lead to the establishment of a new non-attainment area, or delay achievement of attainment?

☒ No ☐ Yes, Describe any substantial impacts from the Project.

The Project will improve freight and passenger rail operations through the Willbrige Crossovers. However, the Project will not directly increase the number of passenger trains and freight trains that operate through the Willbridge Crossovers, and therefore, will not increase concentrations of ambient criteria pollutants to levels that exceed NAAQS.

H. Hazardous Materials: *Does the Project involve the use or handling of hazardous materials?*

☒ No (continue to I)

☐ Yes, describe the use and measures that will mitigate any potential for release and contamination.

I. Hazardous Waste: *Is the Project site in a developed area or was previously developed or used for industrial or agricultural production,*

☐ No, describe the steps taken to determine that hazardous materials are not present on the Project site. (Continue to J)

☒ Yes. *If yes, is it likely that hazardous materials will be encountered by undertaking the Project? (Prior to acquiring land or a facility with FRA funds, FRA must be consulted regarding the potential presence of hazardous materials)*

☐ Yes, complete a Phase I site assessment and attach.

☒ No, explain why it is unlikely that hazardous materials will be encountered.

A Phase 1 Hazardous Materials Reconnaissance Report was prepared in March 2015 to identify known and suspected sites adjacent to the Project area that have been investigated for possible contamination in the past. The Project area is within an industrial area that has a history of soil and groundwater contamination dating back to the 1950s and 1960s due to the improper discharge of hazardous waste east of the railroad tracks surrounding and including the storage tank farm. A database search and field reconnaissance were used to identify potential hazardous materials sites.

Database Search: No sites were identified within the Project area. The search identified 18 Environmental Cleanup Site Information database sites within 0.5-mile of the Project area. The search also identified two active leaking underground storage tank cleanup sites west of OR 30 near the Project area.

Field Reconnaissance: Land uses that may potentially generate hazardous materials were identified in the vicinity of the Project area, including a trucking service, roofing service, gasoline fuel station, and an electrical substation. All land uses are located west of the Project area and OR 30.

The potential for encountering contaminated soils is low because minimal excavations are planned for the Project (no extensive and deep excavations that extend into native soils and/or below the groundwater table), and because there are no known hazardous materials sites within the Project area.

If a Phase I survey was completed, is a Phase II site assessment recommended?

☒ No, explain why a Phase II site assessment is not recommended.

There are no known hazardous materials sites within the Project area. The potential for encountering contaminated soils is low because minimal excavations are planned for the Project.

☐ Yes, describe the mitigation and clean-up measures that will be taken to remediate any hazardous materials present and what steps will be taken to ensure that the local community is protected from contamination during construction and operation of the Project.

J. Property Acquisition: *Is property acquisition needed for the Project?*

☒ No (continue to K)

☐ Yes, indicate how much property and whether the acquisition will result in relocation of businesses or individuals. **Note:** *acquiring property prior to completing the NEPA process and receiving written FRA concurrence in the NEPA recommendation may jeopardize Federal financial participation in the Project.*

K. Community Impacts and Environmental Justice: *Is the Project likely to result in impacts to adjacent communities? Impacts might be both beneficial (e.g. economic benefits) or adverse (e.g. reduction in community cohesion).*

☒ No, describe the steps taken to determine whether the Project might result in impacts to adjacent communities. (Continue to L)

The Project area is located in an area dominated by industrial and transportation land uses. Land adjacent to the Project area are

designated for transportation (US 30; to the west) and industrial land uses (to the east). The Project will modify existing tracks within existing railroad right-of-way that have been historically in operation for over one hundred years. No community resources are immediately adjacent to the Project area. Therefore, the Project will not disrupt or displace community resources or any part of a community. There is no known opposition to the Project.

Demographic data from the U.S. Census Bureau indicates that the Project area and its vicinity has a slightly lower percentage of minority (19.3%) and low-income (11.3%) populations when compared to the City of Portland (23.9% and 14.1%, respectively). No structures would be acquired or displaced and all construction would occur within existing railroad right-of-way. The Project is located in an heavy industrial area, adjacent land uses are industrial and transportation (Highway 30), and there are no EJ populations residing directly adjacent to the project area. Therefore, the Project will not have a disproportionately high and adverse effect on low-income or minority populations.

☐ Yes, characterize the socio-economic profile of the affected community, including the presence of minority or low-income populations.

Describe any potential adverse effects to communities, including noise, visual and barrier effects. Indicate whether the Project will have a disproportionately high and adverse effect on minority or low-income populations. Describe outreach efforts targeted specifically at minority or low-income populations.

L. **Impacts On Wetlands:** *Does the Project temporarily or permanently impact wetlands or require alterations to streams or waterways?*

☒ No, describe the steps taken to determine that the Project is not likely to temporarily or permanently impact wetlands or require alterations to streams or waterways.

The National Wetland Inventory does not indicate the presence of wetlands in the Project area. All non-water areas in the Project area are mapped as Urban Land, 0-3% slopes in the Multnomah County Soil Survey. The soil survey designation reflects the known filling and grading that occurred historically. This soil is non-hydric, which indicates a proclivity toward supporting upland characteristics. No jurisdictional wetlands were observed in the Project area during field reconnaissance. The entire Project area is upland with very little vegetation present.

There are two waterways in the Project area:

1. Saltzman Creek: This creek flows below the main tracks in the Project area. The waterway is conveyed through a 60-inch concrete double box culvert with concrete head/wing walls, and is approximately 51 feet long. The Project will modify the north headwall of the culvert but the Project design does not require extending the length of the culvert.

2. Unnamed Waterway: This unnamed waterway is below ground in the Project area, except for a concrete inlet in the Project area. The waterway is conveyed below the main tracks in the Project area by a 24-inch diameter pipe.

The Project will not temporarily or permanently impact or require alterations to Saltzman Creek or the unnamed waterway.

☐ Yes, show wetlands and waters on the site map and classification. Describe the Project's potential impact to on-site and adjacent wetlands and waters and attach any correspondence with the US Army Corps of Engineers.

Is a Section 404 Permit necessary?

☐ Yes, attach all permit related documentation

☒ No

M. **Floodplain Impacts:** *Is the Project located within the 100-year floodplain or are regulated floodways affected?*

☒ No (continue to N)

☐ Yes, describe the potential for impacts due to changes in floodplain capacity or water flow, if any and how the Project will comply with Executive Order 11988. If impacts are likely, attach scale maps describing potential impacts and describe any coordination with regulatory entities.

N. **Water Quality:** *Are protected waters of special quality or concern, or protected drinking water resources present at or directly adjacent to the Project site?*

☒ No, describe the steps taken to identify *protected waters of special quality or concern, or protected drinking water resources present at or directly adjacent to the Project site.*

There are no protected waters of special quality or concern, protected drinking water resources, or essential fish habitat present within or directly adjacent to the Project area.

Field reconnaissance was conducted to identify water resources in the Project area. There are two waterways (Saltzman Creek and an unnamed creek) in the Project area as described in Section L.

To prevent physical disturbances of Saltzman Creek, work isolation measures will be installed (such as sheet pile, concrete barriers, plastic sheeting, and plywood) to prevent discharges of concrete rubble, ballast, track material, or construction debris from leaving the Project area. Effective erosion and sediment control and spill containment best management practices that prevent inadvertent discharges of pollutants to Saltzman Creek will also be implemented.

To prevent physical disturbances to the unnamed waterway, work isolation measures at the concrete inlet will be installed to prevent discharges of concrete rubble, ballast, track material, or construction debris from entering the conveyance.

All construction will be performed under a National Pollution Discharge Elimination System (NPDES) construction stormwater discharge permit.

☐ Yes, describe water resource and the potential for impact from the Project, and any coordination with regulatory entities.

O. **Navigable Waterways:** *Does the Project cross or have effect on a navigable waterway?*

☒ No (continue to P)

☐ Yes, describe potential for impact and any coordination with US Coast Guard.

P. **Coastal Zones:** *Is the Project in a designated coastal zone?*

☒ No (continue to Q)

☐ Yes, describe coordination with the State regarding consistency with the coastal zone management plan and attach the State finding if available.

Q. **Prime and Unique Farmlands:** *Does the Project impact any prime or unique farmlands?*

☒ No, describe the steps taken to identify *impacts to prime or unique farmlands.*

The Project area is entirely within existing railroad right-of-way. All non-water areas in the Project area are mapped as Urban Land, 0-3% slopes in the Multnomah County Soil Survey. Therefore, no prime or unique farmlands will be impacted.

☐ Yes, describe potential for impact and any coordination with the Soil Conservation Service of the US Department of Agriculture.

R. **Critical Habitat and Endangered Species:** *Are there any designated critical habitat areas (woodlands, prairies, wetlands, rivers, lakes, streams, and geological formations determined to be essential for the survival of a threatened or endangered species) within or directly adjacent to the Project site?*

☒ No, describe the steps taken to identify critical habitat within or directly adjacent to the Project site.

Field reconnaissance and United States Fish and Wildlife Service (USFWS) and National Marine Fisheries Services (NMFS) on-line information were used to identify the potential presence of critical habitat in the Project area.

ODOT has determined that designated critical habitat and Essential Fish Habitat will not be affected by the Project because they are not present in the Project area. The Endangered Species Act (ESA) Determination of No Effect documentation is in the FRA environmental file. Critical Habitat are not present within the Project area. Listed fish species may have used Saltzman Creek historically, and may be present still downstream of the Project area, but are not located within the Project area.

☐ Yes, describe them and the potential for impact.

Are any Threatened or endangered species located in or adjacent to the site?

☒ No, describe the steps taken to identify the presence of endangered species directly

adjacent to the Project site.

Field reconnaissance and USFWS and NFMS on-line information were used to identify the presence of federally listed threatened or endangered species in the Project area.

Listed fish are present (downstream) in the Willamette and Columbia rivers, and might have been present historically in Saltzman Creek. However, no federally listed threatened or endangered species, or their designated critical habitat, were identified within the Project area. Potentially suitable habitat to support potentially occurring listed species does not currently exist in the Project area. ODOT has determined that listed species will not be affected by the Project because neither they, nor their critical habitat, are present in the Project area. The ESA Determination of No Effect documentation is attached.

☐ Yes, describe them and the potential for impact. Describe any consultation with the State and the US Fish and Wildlife Service about the impacts to these natural areas and on threatened and endangered fauna and flora that may be affected. If required prepare a biological assessment and attach it and any applicable agency correspondence.

S. Public Safety: *Will the Project result in any public safety impacts?*

☒ No, describe method used to determine whether the Project results in any safety or security impacts

The Project will not add any new at-grade crossings that could negatively impact freight rail, passenger rail, or vehicular safety. The Project is located on private railroad right-of-way, and will not add any facilities or infrastucture that will negatively impact security of the Project and its facilities, and public safety (employee safety, passenger safety, pedestrian safety, and vehicluar safety). There no known potential construction safety concerns.

☐ Yes, describe the safety or security concerns and the measures that would need to be taken to provide for the safe and secure operation of the Project during and after its construction.

T. Cumulative Impacts: A "cumulative impact" is the impact on the environment that results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts may include ecological (such as the effects on natural resources and on the components, structures, and functioning of affected ecosystems), aesthetic, historic, cultural, economic, social, or health, whether direct, indirect, or resulting from smaller actions that individually have no significant impact. Determining the cumulative environmental consequences of an action requires delineating the cause-and-effect relationships between the multiple actions and the resources, ecosystems, and human communities of concern.

Are cumulative impacts likely? ☒ No ☐ Yes, describe the impacts:

No cumulative impacts are likely. The Project will improve a section of an existing railroad line. Construction impacts will occur entirely within the existing railroad right-of-way in an area that has been previously disturbed. There are no known present or forseeable actions in the vicinity of the Project area, including any projects in the 2015-2018 Statewide Transportation Improvement Program (STIP). For these reasons, the Project, when combined with other past, present, and reasonably forseeable actions is not

anticipated to have cumulative impacts.

U. **Indirect Impacts:** "Indirect impacts" are those that are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect impacts may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems.

Are Indirect impacts likely? ☒ No ☐ Yes, describe the impacts:

No indirect impacts are likely. Improved freight and passenger operational speeds through the crossovers will improve freight and passenger rail reliability. However, improved reliability is not anticipated to increase the number of freight and passenger trains between Portland and Vancouver that pass through the crossovers.

V. **Mitigation:** Describe all mitigation measure commitments which address identified impacts that have been incorporated into the Project, if any.

Water Quality: To prevent physical disturbances to the unnamed waterway, work isolation measures at the concrete inlet will be installed to prevent discharges of concrete rubble, ballast, track material, or construction debris from entering the conveyance.

All construction will be performed under a National Pollution Discharge Elimination System (NPDES) construction stormwater discharge permit.

W. **Public Notification:** *Briefly describe any public outreach efforts undertaken on behalf of the Project, if any. Indicate opportunities the public has had to comment on the Project (e.g., Board meetings, open houses, special hearings).*

Information about this project has been provided on the ODOT website at www.oregon.gov/ODOT/RAIL/pages/passenger_rail. No public outreach has been conducted specifically for this project, though information about the project has been available during other outreach events conducted as part of the Oregon Passenger Rail project. Specific outreach activities for that project are listed at http://www.oregonpassengerrail.org/page/past-meetings-and-events.

Has the Project generated any public discussion or concern, even though it may be limited to a relatively small subset of the community? Indicate any concerns expressed by agencies or the public regarding the Project.

To date, no concerns have been raised by agencies or the public regarding the project.

X. **Related Federal, State, or Local Actions:** *Does the Project require any additional actions (e.g., permits) by other Agencies?* Attach copies of relevant correspondence. It is not necessary to attach voluminous permit applications if a single cover Agency transmittal will indicate that a permit has been granted. Permitting issues should be described in the relevant resource discussion above.

☐ **Section 106** *Historic Properties*

☐ **Section 401**/404 **of the Clean Water Act**; *Wetlands and Water Quality*

☒ **Section 402 of the Clean Water Act**

☐ **USCG 404** *Navigable Waterways*

☐ **Migratory Bird Treaty Act**

☐ **Endangered Species Act** *Threatened and Endangered Biological Resources*

☐ **Magnuson-Stevens Fishery Conservation and Management Act** *Essential Fish Habitat*

☐ **Safe Drinking Water Act**

☐ **Section 6(f) Land and Conservation Act**

☒ **Other State or Local Requirements** (Describe)

The Oregon Fish Passage Law (ORS 509.580 through .910) requires facility owners to address fish passage requirements prior to installation, major replacement, fundamental change in permit status, or abandonment of artificial obstructions located in waters in which native migratory fish are currently or were historically present. Facility improvements that trigger fish passage requirements include:

a. Roadbed installation or replacement around culverts
b. Roadbed fill or removal of over 50% of the roadbed material directly above the culvert
c. New culvert, overflow pipe, or apron
d. Extension of existing culverts, overflow pipes, or aprons
e. Wingwall modifications
f. Replacement or repair of over 50% of the linear length along the bottom of culverts (over a 10-year period)
g. Replacement or repair of over 50% of the apron floor at either the inlet or outlet of culverts (over a 10-year period)
h. Reducing a culvert's existing diameter or lining an existing culvert (i.e., sliplining)
i. making an existing fish-passable culvert an obstruction

Facility improvements that do not trigger fish passage requirements are:

a. Headwalls
b. Sliver fills
c. Replacement of ends of pipes, if not extended

The Willbridge Crossovers project does not appear to trigger fish passage requirements because: (1) the existing Salzman Creek box culvert will not be resized or lengthened, (2) the culvert apron will not be modified, and (3) less than 50% of roadbed material above the culvert would be filled or removed. Planned modification of the culvert headwall does not trigger fish passage requirements per the CULVERT REPAIR FISH PASSAGE PILOT PROGRAMMATIC AGREEMENT between ODOT and ODFW. ODFW makes final determinations regarding applicability of the Oregon Fish Passage Law.

For Agency Use	*Date Received:*
Reviewed By: Laura Shick *Date:* 9/24/2015	*Recommendation for action:* ☒ *Accept* ☐ *Return for Revisions* ☐ *Not Eligible*
Comments:	
Concurrence by Counsel: ☒ *Accept Recommendation* ☐ *Return with Comments*	*Reviewed By:* Christopher Van Nostrand *Date:* 10/7/2015
Comments:	
Concurrence by Approving Official:	*Date:* 10/8/2015

For Agency Use

Will the Proposal result in the use of a resource protected by 49 U.S.C. §303 (Section 4(f)) of the Department of Transportation Act of 1966?

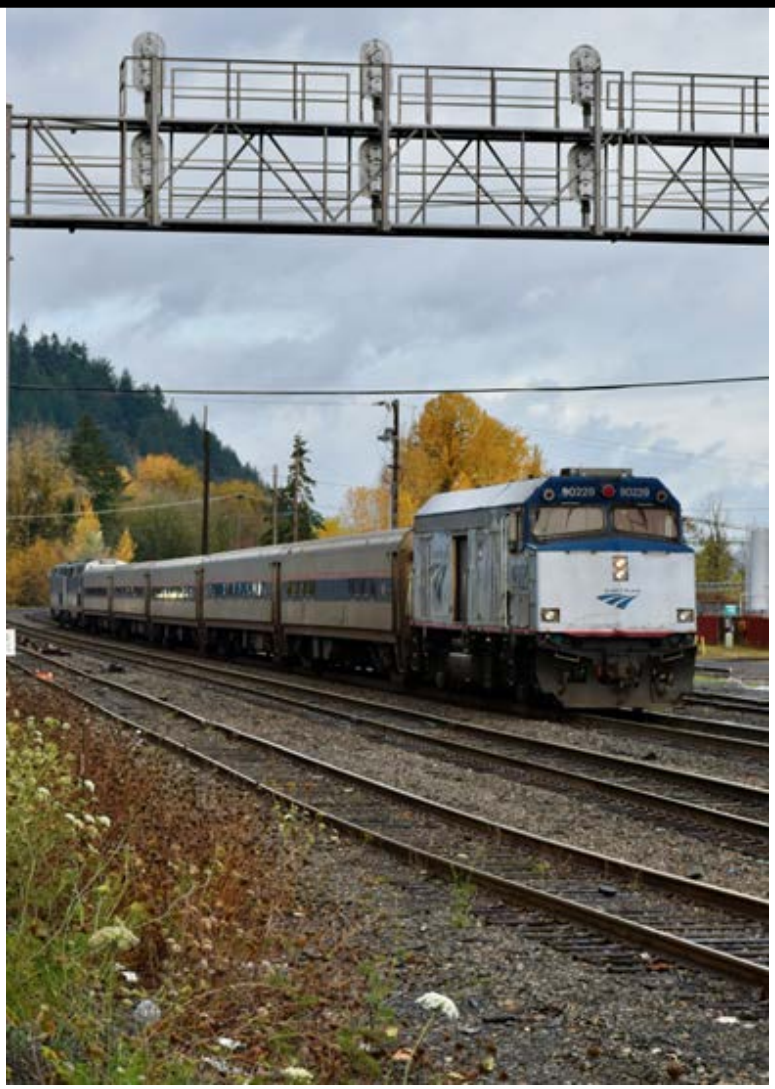
☐ YES ☒ NO

Is the proposal an integral part of a program of current Federally supported actions which, when considered separately, would not be classified as major actions, but when considered together may result in substantial impacts?

☐ YES ☒ NO

BNSF-ODOT Willbridge Crossovers Project
Appendix 4: Documentation of Match Sources

2024



Oregon Department of Transportation

BNSF

DAVID EVANS AND ASSOCIATES INC.

French Thompson
General Director
Public Infrastructure & Investments

BNSF Railway Company
P. O. Box 961502
Fort Worth, TX 76161-0052

2600 Lou Menk Drive
Fort Worth, Texas 76131-2830
(817) 352-6316

French.Thompson@BNSF.com

December 16, 2024

Amit Bose, Administrator
Federal Railroad Administration
1200 New Jersey Ave, SE
Washington, DC 202590

Subject: BNSF Letter of Support and Financial Contribution Letter – Willbridge Crossovers Project

Dear Administrator Bose,

BNSF Railway supports efforts by the Oregon Department of Transportation (ODOT) to secure federal discretionary funding under the Federal-State Partnership (FSP) discretionary grant for the Willbridge Crossovers Project. If awarded, the project will fund the upgrades of the current track No. 11 crossover turnouts in the control point that currently restrict diverging train speeds to 10 mph, with modern No. 20 turnouts allowing speeds up to 35 mph for freight trains, the four daily Amtrak Coast Starlight and Empire Builder long distance trains and potentially higher for the 12 daily Cascades intercity passenger trains using the new AIRO trainsets as part of the Pacific Northwest Rail Corridor. Upon the requested federal match award, BNSF would be willing to contribute $866,388 in private matching funds towards the $12,995,822 total project cost, with a request of $10,396,657 in Fed-State Partnership Funds.

The Federal Railroad Administration (FRA) has indicated in the FSP grant program that projects that are ready for Track 3, Final Design and Construction will be prioritized for funding during this grant cycle. The proposed Willbridge Crossover project has FRA and BNSF approved 30% preliminary design documents with an approved National Environmental Protection Agency (NEPA), FRA Categorical Exclusion and is a “shovel ready” project.

Willbridge Crossover project will eliminate a key regional rail freight and passenger chokepoint. It will benefit both freight and passenger rail services in the region, increasing capacity, improving safety, reducing congestion, and enhancing reliability of all rail services on this important rail corridor.

BNSF values our working relationship with ODOT and is prepared to work with all involved public agencies on further development of this project, subject to satisfactory review of final engineering and entering into definitive agreements as may be required by BNSF or other project stakeholders.

BNSF appreciates your thorough review of this application and looks forward to continuing its relationship with ODOT through this important project.

Sincerely,

French Thompson
General Director – Public Infrastructure & Investments

Oregon
Tina Kotek, Governor

Department of Transportation
Public Transportation Division
555 13th Street NE
Salem, OR 97301
Phone: (503) 986-3300
Fax: (503) 986-4189

December 12, 2024

The Honorable Pete Buttigieg, Secretary
U.S. Department of Transportation
1200 New Jersey Ave, SE
Washington, D.C. 20590

RE: Oregon Department of Transportation Funding Commitment Letter Federal State Partnership (FSP) Willbridge Crossover Project Grant Application

Mr. Buttigieg,

The Oregon Department of Transportation (ODOT) is committed to ensuring the Willbridge Crossovers Project is a success. According to the 2024 FSP NOFO any project that is funded under this NOFO must provide a 20% non-Federal match. The Willbridge Crossovers Project is estimated to cost $12,995,822. ODOT is applying for a $10,396,657 FSP grant and in conjunction with project partners Amtrak and BNSF Railway will provide a non-Federal match of $2,599,164. ODOT is committed to providing $866,388 of this non-Federal match.

The purpose of the Willbridge Crossovers Project is to improve the reliability of the Amtrak Cascades service, as well as Amtrak long-distance passenger rail services. Currently, the Willbridge crossovers operate using tight radius switches (No.11 Turnouts) causing both freight and passenger trains to slow down to 10 MPH. ODOT is proposing the replacement of the No. 11 turnouts with No. 20 turnouts, allowing for both passenger and freight trains to change tracks at 35 MPH reducing mutual delays between passenger and freight trains, improving the on-time performance and overall reliability of Amtrak passenger rail services.

The crossovers at Willbridge serve as a critical switching point for both Amtrak passenger rail services and Freight services. The upgraded turnouts will reduce delays and improve the velocity of all trains through increasing yard ingress/egress speeds allowing for rapid movements between main tracks.

This letter serves as ODOT's official financial commitment to the Willbridge Crossovers Project. Thank you for your consideration of investment in this important regional track infrastructure improvement project.

Sincerely,

Jennifer SELLERS (Dec 12, 2024 16:24 PST)

Jennifer Sellers
Multimodal and Rail Services Unit Manager

NATIONAL RAILROAD PASSENGER CORPORATION
1 Massachusetts Avenue, NW, Washington, DC 20001

Stephen J. Gardner
Chief Executive Officer, Amtrak

December 13, 2024

The Honorable Amit Bose
Federal Railroad Administrator
U.S. Department of Transportation
1200 New Jersey Avenue, SE
Washington, DC, 20590

RE: Letter of Support Federal State Partnership (FSP) Grant Application

Dear Administrator Bose,

On behalf of the National Railroad Passenger Corporation (Amtrak), I am writing to express support for the Oregon Department of Transportation's (ODOT) application for the FY24 Federal-State Partnership for Intercity Passenger Rail (FSP) Grant discretionary funding for the **Willbridge Crossovers Project**.

The purpose of the Willbridge Crossovers Project is to improve the reliability of the Amtrak Cascades service, as well as Amtrak long-distance passenger rail services. Currently, the Willbridge crossovers operate using tight radius switches (No.11 Turnouts) requiring both freight and passenger trains to slow down to 10 miles per hour (MPH). ODOT is proposing replacing the No. 11 turnouts with No. 20 turnouts, allowing for both passenger and freight trains to change tracks at 35 MPH, reducing delays between passenger and freight trains, improving the on-time performance and overall reliability of Amtrak passenger rail services.

The crossovers at Willbridge are a critical intermediate switching point for Amtrak passenger rail services and freight services. Higher-speed turnouts at Willbridge will improve yard ingress/egress speed to clear the main line faster and permit rapid movement from main tracks, resulting in improved velocity for all trains.

ODOT is requesting $9,600,000 in funding through the FSP Program with non-federal matching funds of $2,400,000. Amtrak has committed $867,000 in matching funds to this project.

We support ODOT and look forward to the continued partnership with the State of Oregon. Thank you for your consideration of investment in this important infrastructure replacement project.

Sincerely,

Stephen J. Gardner
Chief Executive Officer

cc: Kris Strickler, Director, Oregon Department of Transportation

BNSF-ODOT Willbridge Crossovers Project
Appendix 5: Letters of Support

2024

Oregon Department of Transportation

BNSF

DAVID EVANS AND ASSOCIATES INC.

Washington State Department of Transportation

Transportation Building
310 Maple Park Avenue S.E.
P.O. Box 47300
Olympia, WA 98504-7300
360-705-7000
TTY: 1-800-833-6388
www.wsdot.wa.gov

December 4, 2024

Amit Bose, Administrator
Federal Railroad Administration
U.S. Department of Transportation
1200 New Jersey Ave, SE
Washington, DC 20590

RE: FEDERAL-STATE PARTNERSHIP APPLICATION –WILLBRIDGE CROSSOVERS PROJECT

Dear Administrator Bose,

The Washington State Department of Transportation (WSDOT) expresses its support for the Oregon Department of Transportation's (ODOT's) Federal-State Partnership for Intercity Passenger Rail Program application for the Willbridge Crossovers Project.

WSDOT and ODOT jointly sponsor the Amtrak Cascades passenger train service in the Pacific Northwest. The Willbridge Crossovers Project will improve the reliability of the Amtrak Cascades trains, as well as Amtrak's long-distance passenger rail services. Currently, the Willbridge crossovers, north of Portland, operate using tight radius switches (No.11 turnouts) requiring both freight and passenger trains to slow down to 10 mph. ODOT proposes to replace the No. 11 turnouts with No. 20 turnouts, allowing trains to change tracks at 35 mph. This will reduce delays between passenger and freight trains, improve on-time performance and increase reliability of Amtrak passenger rail services.

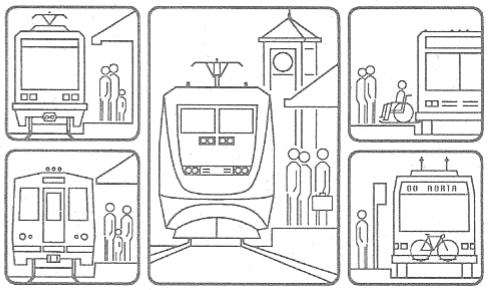
The crossovers at Willbridge are a critical intermediate switching point for the Amtrak passenger rail services and freight services. Twelve daily Amtrak Cascades trains heading north into Washington and south into Portland's Union Station traverse this rail intersection. Higher-speed turnouts at Willbridge will improve yard ingress/egress speed to clear the mainline faster for meet/pass benefits and permit rapid movement to and from main tracks, resulting in improved movement for all trains.

Thank you for your consideration of this important project.

Sincerely,

Roger Millar, P.E., FAICP, Dist. M., ASCE
Secretary of Transportation

Association of Oregon Rail and Transit Advocates
AORTA • P. O. Box 2772 • Portland, Oregon 97208-2772
Also known as OreARP • Oregon Association of Railway Passengers



November 18, 2024

The Honorable Pete Buttigieg, Secretary
U.S. Department of Transportation
1200 New Jersey Ave, SE
Washington, D.C. 20590

Re: Letter of Support Federal State Partnership Grant Application

Dear Secretary Buttigieg:

The Association of Oregon Rail and Transit Advocates supports the Oregon Department of Transportation (ODOT) application for the FY24 Federal-State Partnership for Intercity Passenger Rail (FSP) Grant discretionary funding for the Willbridge Crossovers Project.

The purpose of the Willbridge Crossovers Project is to improve the reliability of the Amtrak Cascades service, as well as Amtrak long-distance passenger rail services. Currently, the Willbridge crossovers operate using tight radius switches (No.11 Turnouts) causing both freight and passenger trains to slow down to 10 MPH. ODOT is proposing the replacement of the No. 11 turnouts with No. 20 turnouts, allowing for both passenger and freight trains to change tracks at 35 MPH reducing mutual delays between passenger and freight trains, improving the on-time performance and overall reliability of Amtrak passenger rail services.

The crossovers at Willbridge are a critical intermediate switching point for the Amtrak passenger rail services and Freight services. Higher-speed turnouts at Willbridge will improve yard ingress/egress speed to clear the mainline faster for meet/pass benefits and permit rapid movement from main track to main track, resulting in improved velocity for all trains.

We support ODOT and look forward to the continued partnership with the State of Oregon. Thank you for your consideration of investment in this important infrastructure replacement project.

Sincerely,

Jon Nuxoll, AORTA President
www.aortarail.org
jonnuxoll@usa.net

December 2, 2024

The Honorable Pete Buttigieg, Secretary
U.S. Department of Transportation
1200 New Jersey Ave, SE
Washington, D.C. 20590

Re: Letter of Support Federal State Partnership Grant Application

Mr. Buttigieg,

Oregon Rail Users' League (ORULE) supports the Oregon Department of Transportation (ODOT) application for the FY24 Federal-State Partnership for Intercity Passenger Rail (FSP) Grant discretionary funding for the Willbridge Crossovers Project.

The purpose of the Willbridge Crossovers Project is to improve the reliability of the Amtrak Cascades service, as well as Amtrak long-distance passenger rail services. Currently, the Willbridge crossovers operate using tight radius switches (No.11 Turnouts) causing both freight and passenger trains to slow down to 10 MPH. ODOT is proposing the replacement of the No. 11 turnouts with No. 20 turnouts, allowing for both passenger and freight trains to change tracks at 35 MPH reducing mutual delays between passenger and freight trains, improving the on-time performance and overall reliability of Amtrak passenger rail services.

The crossovers at Willbridge are a critical intermediate switching point for the Amtrak passenger rail services and Freight services. Higher-speed turnouts at Willbridge will improve yard ingress/egress speed to clear the mainline faster for meet/pass benefits and permit rapid movement from main track to main track, resulting in improved velocity for all trains.

We support ODOT and look forward to the continued partnership with the State of Oregon. Thank you for your consideration of investment in this important infrastructure replacement project.

Sincerely,

Jenny Dresler, Executive Director
Oregon Rail Users' League (ORULE)

November 18, 2024

The Honorable Pete Buttigieg, Secretary
U.S. Department of Transportation
1200 New Jersey Ave, SE
Washington, D.C. 20590

Re: Letter of Support Federal State Partnership Grant Application

Dear Mr. Buttigieg,

The Portland & Western Railroad supports the Oregon Department of Transportation (ODOT) application for the FY24 Federal-State Partnership for Int ercity Passenger Rail (FSP) Grant discretionary funding for the Willbridge Crossovers Project. ODOT is requesting $9,600,000 in funding through the FSP Program with non-federal matching funds of up to $2,400,000.

The purpose of the Willbridge Crossovers Project is to improve the reliability of the Amtrak Cascades service, as well as Amtrak long-distance passenger rail services. Currently, the Willbridge crossovers operate using tight radius switches (No.11 Turnouts) causing both freight and passenger trains to slow down to 10 MPH. The project would see the replacement of the No. 11 turnouts with No. 20 turnouts, allowing for both passenger and freight trains to change tracks at 35 MPH. Doing so will reduce delays between passenger and freight trains, and importantly improve the on-time performance and overall reliability of Amtrak passenger rail services.

The crossovers at Willbridge are a critical intermediate switching point for both the Amtrak passenger rail services and freight services. Higher-speed turnouts at Willbridge will improve yard ingress/egress speed to clear the mainline faster for meet/pass benefits and permit rapid movement from main track to main track, resulting in improved velocity for all trains.

We support ODOT and look forward to our continued partnership with the State of Oregon. Thank you for your consideration of investment in this important infrastructure replacement project.

Respectfully submitted,

Ross R. Lane

Assistant Vice President, Portland & Western Railroad

PROSPER PORTLAND

December 13, 2024

The Honorable Pete Buttigieg, Secretary
U.S. Department of Transportation
1200 New Jersey Ave, SE
Washington, D.C. 20590

Re: Letter of Support Federal State Partnership Grant Application

Mr. Buttigieg,

Prosper Portland supports the Oregon Department of Transportation (ODOT) application for the FY24 Federal-State Partnership for Intercity Passenger Rail (FSP) Grant discretionary funding for the Willbridge Crossovers Project.

Prosper Portland is keenly aware of the need for improvements and investment along the Amtrak Cascades corridor as ridership continues to grow. Prosper Portland, the City of Portland's economic and urban development agency, owns and operates Portland's Union Station. The 128-year-old historic Portland Union Station is a critical regional and national transportation asset supporting Amtrak Cascade services to and through the Portland region. As an asset owner and partner to Amtrak in the Portland market, we see the Willbridge Crossovers Project as an important step to investing in the long-term health of passenger rail transportation and operations within the Portland region.

Willbridge is 4.3 miles north of Portland Union Station where trains switch between the two mainlines. The Willbridge Crossovers Project will improve the reliability of the Amtrak Cascades service and long-distance passenger rail services – with benefits accruing to riders to and through Union Station. Currently, the Willbridge crossovers operate using tight radius switches (No.11 Turnouts) causing both freight and passenger trains to slow down to 10 MPH. ODOT is proposing the replacement of the No. 11 turnouts with No. 20 turnouts, allowing for both passenger and freight trains to change tracks at 35 MPH reducing mutual delays between passenger and freight trains, improving the on-time performance and overall reliability of Amtrak passenger rail services.

prosperportland.us

220 NW Second Ave.,
Suite 200, Portland, OR
97209-3943

503-823-3200 Main
503-823-3368 Fax

The crossovers at Willbridge are a critical intermediate switching point for the Amtrak passenger rail services and Freight services. Higher-speed turnouts at Willbridge will improve yard ingress/egress speed to clear the mainline faster for meet/pass benefits and permit rapid movement from main track to main track, resulting in improved velocity for all trains.

ODOT is requesting $9,600,000 in funding through the FSP Program with non-federal matching funds of up to $2,400,000.

We support ODOT and look forward to the continued partnership with the State of Oregon.

Thank you for your consideration of investment in this important infrastructure replacement project.

Sincerely,

Shea Flaherty Betin
Interim Executive Director

Port of Portland

December 2, 2024

The Honorable Pete Buttigieg, Secretary
U.S. Department of Transportation
1200 New Jersey Ave, SE
Washington, D.C. 20590

RE: Support for ODOT FSP Grant Application – Willbridge Crossovers Project

Dear Secretary Buttigieg:

The Port of Portland (Port) supports the Oregon Department of Transportation (ODOT) application for funding through the FY24 Federal-State Partnership for Intercity Passenger Rail (FSP) grant program for the Willbridge Crossovers Project. The Port's mission is to build shared prosperity for the region through travel, trade, and economic development. The Port is also a long-standing member of the Oregon Rail User's League.

The purpose of the Willbridge Crossovers Project (Project) is to improve the reliability of the Amtrak Cascades service and Amtrak long-distance passenger rail services. Currently, the Willbridge crossovers operate using tight radius switches (No. 11 turnouts) causing both freight and passenger trains to slow down to 10 MPH. ODOT is proposing the replacement of the No. 11 turnouts with No. 20 turnouts, allowing for both passenger and freight trains to change tracks at 35 MPH, reducing mutual delays between passenger and freight trains. The Project will improve the on-time performance and overall reliability of Amtrak passenger rail service, as well as freight rail.

The Port supports the ODOT request for $9.6M in funding through the FSP program for the Willbridge Crossovers Project. Thank you for your consideration in funding this important regional rail infrastructure project.

Sincerely,

Curtis Robinhold
Executive Director