

# Memo



**Metro**

600 NE Grand Ave.  
Portland, OR 97232-2736

Date: September 8, 2020  
To: JPACT and Interested Parties  
From: Ken Lobeck, Funding Programs Lead, 503-797-1785  
Subject: September 2020 MTIP Formal Transition Amendment Impacting both the 2018-21 MTIP and new 2021-24 MTIP & Resolution 20-5127 Approval Request

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## **FORMAL AMENDMENT STAFF REPORT**

**FOR THE PURPOSE OF COMPLETING REQUIRED FINAL CORRECTIONS TO THE 2018-21 METROPOLITAN TRANSPORTATION IMPROVEMENT PROGRAM (MTIP) PLUS AMEND, COMPLETE TECHNICAL CORRECTIONS, AND ADD NEW PROJECTS AS PART OF THE TRANSITION FORMAL AMENDMENT TO THE 2021-24 MTIP (SP21-02-SEP)**

## **BACKGROUND**

### **What This Is:**

The September 2020 Formal Metropolitan Transportation Improvement Program (MTIP) Formal/Full Transition Amendment provides part two to the overall transition amendment to the 2021-24 MTIP. The formal amendment contains technical corrections to existing projects and new projects for inclusion in the new 2021-24 MTIP. Fifteen projects comprise the September 2020 Formal Transition Amendment. It also provides a few required technical corrections to projects in the 2018-21 MTIP ensuring that when the project's construction phase is added to the 2021-24 MTIP, programming consistency is maintained between the two MTIPs. The amendment is being processed under MTIP amendment number SP21-02-SEP and under a resolution 20-5127.

### **What is the requested action?**

**TPAC recommends approval of Resolution 20-5127 consisting of fifteen projects in the September Formal Transition Amendment Bundle and recommends an approval recommendation for Metro Council enabling the projects to be amended correctly into the 2021-24 MTIP in October with final approval to occur from USDOT.**

### **About the September Formal Transition Amendment**

As stated, the September Formal Transition MTIP Amendment represents part two of the Transition amendment to the 2021-24 MTIP started with the August 2020 Formal Transition Amendment. The MTIP Transition amendment is a special amendment FHWA allows the Oregon MPOs to complete to make needed technical corrections or add new projects that emerged during the MTIP approval gap period (April through August 2020). For the Transition amendment, FHWA relaxes some of the usual required processing rules and support documentation. Along with the August and September Formal Transition Amendments which contain a total of 28 projects, a separate Transition Administrative Modification containing 11 projects will be submitted during August as well. TPAC is not required to review or approve the Transition Administrative Modification.

The Transition Amendment functions to fill in the missing gaps and programming pieces that result from the gap period back to April. The changes include programming upgrades to existing projects and add new project (primarily discretionary grant awards) that occurred after April.

The Formal Transition Amendment covers required updates and changes based on the below areas:

1. Slipping phases from FY 2020 to FY 2021 that were not carried over into the 2021-24 MTIP
2. Adding a new project phases to an existing programmed 2021-24 project that has a significant impact upon the fiscal constraint finding.
3. Adding the full programming for new project not currently included in the 2021-24 MTIP.
4. Completing major fund swaps within a phase or across all project phases that result in a significant impact upon the fiscal constraint finding.
5. Correcting phase funding for planned fall obligations which could have a significant impact upon the fiscal constraint finding which are due to updated design and delivery. Requirements.
6. Updating phase obligation/delivery timing that involve major domino effects to other project phases (e.g. PE is bumped from FY 2021 to FY 2022 resulting in ROW being delayed to FY 2024 and construction pushed out from FY 2024 to FY 2025).
7. Completing other technical corrections to projects that if not corrected would block a federal approval step or phase obligation.

#### **September 2020 Amendment Bundle Summary Points:**

- The August and September Formal Transition Amendments along with the August Transition Administrative Modification total 37 projects. This is over a 50% reduction from the number of projects included in the 2018-21 MTIP Transition Amendment. Improved project scheduling, obligation tracking, use of frequent delivery meetings, and improved communications among the lead agency, ODOT and Metro all contribute to this improvement.
- A total of eight projects (61.5%) in the September amendment bundle involve implementation phase slips (i.e. Right-of Way (ROW)/Utility Relocation (UR) and Construction phases slip from FY 2020 to FY 2021). Two general reasons contributed to the phase completion delays. These included:
  - Delays in completing final design and the Project, Specifications, and Estimates (PS&E) package due to unforeseen design requirements being added to the project, costs increases impacting design, and a general slow-down in completing required PS&E tasks due to Covid-19.
  - Delays in completing the ROW which were caused by not identifying full ROW acquisition requirements and to Covid-19 restrictions which slowed down completion of require ROW phase tasks delaying the ability to obligate the Construction phase.

- Below is a short summary of the 15 projects included in the September 2020 Formal Transition Amendment:

<b>Proposed September 2020 Formal Transition Amendment Bundle</b> <b>Amendment Type: Formal/Full</b> <b>Amendment #: SP21-02-SEP</b> <b>Total Number of Projects: 15</b>					
Key Number & MTIP ID	Lead Agency	Project Name	Amendment Action	Added Remarks	Why is a Formal/ Full Amendment Required
Project #1 ODOT Key <b>19276</b> MTIP ID 70674	Clackamas County	Jennings Ave: OR 99E to Oatfield Rd	<b><u>PHASE SLIP AND COST INCREASE:</u></b> The formal amendment addresses a PE and ROW phase funding shortfall by shifting STBG (and match) from the Construction phase to support the PE and ROW phases. The Construction phase is backfilled with local funds based on a phase of \$3,187,983.	The total project cost increases by \$1,237,694 which represents a 30.6% cost increase and is above the 20% threshold. The construction phase is also slipped to FY 2022 based on the updated project schedule.	Cost increases above 20% for \$1 million and greater project costs require a formal amendment
Project #2 ODOT Key <b>20882</b> MTIP ID 70874	Metro	Transit Oriented Development Program (2020)	<b><u>PHASE SLIP</u></b> Adding the Other phase to FY 2021 to the 2021-24 MTIP with \$3,286,135 of Local funds	Expenditure of federal funds in support of similar activities delayed due to Covid-19 workforce slow-down over FY 2020. Funds will be expended in FY 2021	Although this is a phase slip, the project must be added as a new project to the 2021-24 MTIP which requires a formal amendment
Project #3 ODOT Key <b>20888</b> MTIP ID 70871	Metro	CORRIDOR AND SYSTEMS PLANNING (2020)	<b><u>PHASE SLIP:</u></b> \$404,235 of STBG plus required match remains unobligated to FY 2020 project and is being slipped to FY 2021 in the 2021-24 MTIP	The remaining unobligated STBG and match (\$450,502) is being slipped to FY 2021 and will be applied to the FY 2021 Corridor and Systems Planning UPWP project needs. If not required, the funds will be re-programmed to other SFY 22 UPWP requirements.	The slip acts as adding a new project to the 2021-24 MTIP which requires a formal amendment to complete.

Key Number & MTIP ID	Lead Agency	Project Name	Amendment Action	Added Remarks	Why is a Formal/ Full Amendment Required
Project #4 ODOT Key <b>20897</b> MTIP ID 70889	Metro	Regional Freight Studies	<b>PHASE SLIP:</b> The project is now acting as the test pilot for Metro for the ODOT consultant certification process. The scope of work for the project requires additional refinement as a result. This has delayed the planned EOY 2020 obligation timing.	Metro is pursuing certification in consultant selection for planning projects to expedite implementation of consultant led Metro UPWP projects ODOT requires a test project to evaluate the developed procedures for consultant selection. The Regional Freight Studies project was chosen as the test pilot project. As the test pilot project, the fund obligation will be synchronized to the consultant selection process. The \$200k of STBG and match will not obligate until late fall or early winter during FY 2021 as a result.	The slip acts as adding a new project to the 2021-24 MTIP which requires a formal amendment to complete.
Project #5 ODOT Key <b>19120</b> MTIP ID 70799	<del>ODOT</del> Gresham	SE 242ND/HOGAN: NE BURNSIDE - E POWELL (GRESHAM)	<b>PHASE SLIP:</b> The ROW phase will not be completed in time to obligate the Construction phase as planned before the end of FY 2020. The amendment slips the construction phase as a new project into FY 2021 in the 2021-24 MTIP	Significant issues with two ROW files (owned by Starbucks and PGE) have arisen, made worse by the COVID-19 pandemic. CON phase can't be obligated until ROW Certification is obtained. The lead agency is being corrected to be Gresham	Construction was planned to obligate by the end of FY 2020. The project was not carried over into the new 2021-24 MTIP. As a result of the phase slip, the project must be re-added to the new 2021-24 MTIP as a new project.
Project #6 ODOT Key <b>22116</b> MTIP ID 71220	ODOT	OR8 curb ramps (Cornelius & Forest Grove)	<b>PHASE SLIP:</b> ROW, and UR phases are slipped to FY 2021. The two phases could not obligate in time before the end of FY 2020. They are being re-added to the 2021-24 MTIP as a new project. Per FHWA guidance to the project, Construction will remain in FY 2020	Special obligation requirements for ADA project will not be completed on time - have a work plan in place but timing will not be sufficient. With this being an ADA settlement project, FHWA granted ODOT an exception and allowed a partial PS&E at the end of July ahead of ROW authorization, so CN will not slip, but RW will.	UR obligation requirements cannot be met by obligation deadline (utilities cannot respond in a timely manner); there may be no reimbursable work needed, and if UR work is needed it won't be needed until FFY21. With this being an ADA settlement project, FHWA granted ODOT an exception and allowed a partial PS&E at the end of July ahead of UR authorization, so CN will not slip, but UR will.

Key Number & MTIP ID	Lead Agency	Project Name	Amendment Action	Added Remarks	Why is a Formal/ Full Amendment Required
Project #7 ODOT 19267 MTIP ID 70806	ODOT	OR141 (Hall Blvd): Scholls Ferry Rd - Hemlock St	<b><u>LIMITS CHANGE:</u></b> The Mile Post limits for the project are expanded by 0.28 miles which triggers the formal amendment.	The formal amendment expands the project mile post limits by expanding them by 0.28 miles. They change from 2.84 to 3.84 to be 2.82 to 4.10 and result in a minor change to the project name.	The PE phase obligation is also updated to reflect the correct original obligation year of 2015. The changes are necessary to complete now in the 2018 MTIP to ensure consistency with the project exists when the Construction phase is added to the 2021-24 MTIP next spring.
Project #8 ODOT Key TBD - New MTIP TBD - New	ODOT	I-5: Interstate Bridges Bearing Replacement (Portland)	<b><u>ADD NEW PROJECT</u></b> The amendment adds the new ODOT/WASDOT project to address corroding connections securing the bridge bearings.	The connections securing the bearings to the bridges are corroded, and are bent due to the forces associated with the bearings no longer being able to provide the movement the bridge needs to function as it was designed. This project will only address the most critical bearings. The other bearings should be able to remain in service until the bridge is replaced.	Per the approved Amendment Matrix, adding a new project to the MTIP requires a formal amendment. OTC approval was required and occurred during their August 2020 meeting.

Key Number & MTIP ID	Lead Agency	Project Name	Amendment Action	Added Remarks	Why is a Formal/ Full Amendment Required
Project #9 ODOT Key <b>TBD - New</b> MTIP ID TBD - New	ODOT	I-5: Interstate Bridges Control Equipment (Portland)	<b><u>ADD NEW PROJECT:</u></b> The amendment adds the project to the 2021-24 MTIP to replace the control system equipment on both of the bridges in order to ensure consistent operation (Bridge ID: 01377A & 07333)	The replacement of critical bridge control equipment was delayed in order to not interfere with the Interstate 5: Interstate Bridge, northbound trunnion replacement. The touch screens and programmable logic controllers are failing, and are no longer supported by the manufacturer. Also, as the high power electronic motor control equipment is reaching the end of its service life, the probability of failure increases. The critical bridge control equipment will be upgraded using modern components that are supported by the original equipment manufacturer. Replacement parts will be able to be obtained throughout the design life of each component, resulting in safe and reliable operation of these bridges for many years.	Per the approved Amendment Matrix, adding a new project to the MTIP requires a formal amendment. OTC approval was required and occurred during their August 2020 meeting.

Key Number & MTIP ID	Lead Agency	Project Name	Amendment Action	Added Remarks	Why is a Formal/ Full Amendment Required
Project #10 ODOT Key New - TBD MTIP ID New - New	ODOT	I-5: Interstate Bridge, NB Electrical Components (Portland)	<b><u>ADD NEW PROJECT:</u></b> The amendment adds the new OTC approved project to Restore the electrical components to make the system permanent, rather than a temporary fix	After a crack was discovered in the second trunnion, it was replaced in 2020. There was a significant amount of electrical and mechanical work that was required on the northbound Interstate 5: Interstate Bridge to allow for the replacement of the trunnion shaft. The electrical work consisted of temporarily moving transformers, power panels, conduits, and other components to allow for unrestricted access to the trunnion. The temporary system was not intended to be used to operate the bridge for an extended period of time. This project will restore the electrical components to their original locations, and will connect those components in a permanent manner, replacing the electrical cords that were used for the temporary system	Per the approved Amendment Matrix, adding a new project to the MTIP requires a formal amendment. OTC approval was required and occurred during their August 2020 meeting.
Project #11 ODOT Key 21407 MTIP ID 71060	Portland	OR99W/ Barbur Blvd Area: Sidewalk Infill Projects	<b><u>ADD PHASES:</u></b> ROW and ur phases are added to the project at \$50k each. Funds drawn from construction	Per discussion with Portland, scope will drop two locations as one is locally developer completed and the other will be locally funded. ROW and UR phases are added with the savings. Total project cost remains unchanged	Two site locations: 24th/25th Ave - Multnomah to Spring Garden and 40th Ave are dropped from the scope as they will be completed separately from this project.
Project 12 ODOT Key 20864 MTIP ID TBD 70894	SMART	SMART MOBILITY MANAGEMEN (2020)	<b><u>CANCEL PROJECT FROM 2018-21 MTIP</u></b> The project is being canceled as a duplicate to Key 20867	Cancel per discussion with SMART. The project is an accidental duplicate of K20867	The project was slipped with a partial prior funding obligation under a new key number which created the unnecessary duplication
Project 13 ODOT Key 20873 MTIP ID 70903	SMART	SMART Bus Purchase/PM/ Amenities and Technology 2020	<b><u>PHASE SLIP:</u></b> Other phase and funding slipped to FY 2021. Additional 5307 funds available and added to the project	The TrAMS grant to obligate the funds for maintenance and bus fleet replacement and software will not be approved until FY 2021	Although this is a phase slip, the project must be added as a new project to the 2021-24 MTIP which requires a formal amendment

Key Number & MTIP ID	Lead Agency	Project Name	Amendment Action	Added Remarks	Why is a Formal/ Full Amendment Required
Project 14 ODOT Key <b>20848</b> MTIP ID 70934	TriMet	Low - No Zero Emission Bus Project (2020)	<b>CANCEL PROJECT:</b> The formal amendment cancels the project from the 2018-21 MTIP. The project was not recognized to move forward and be implemented.	The project was not recognized to move forward and be implemented.	Per the approved Amendment Matrix, canceling a project from the MTIP requires a formal/full amendment.
Project #15 ODOT Key <b>22207</b> MTIP ID TBD	TriMet	TriMet Operator Safety and Rider Awareness	<b>PHASE SLIP:</b> The formal amendment slips the Other phase and funding to FY 2021.	The project was added late to the 2018 MTIP (May 2020). Approval of TriMet's Trams grant did not occur before the end of FY 2020 as planned.	Although this is a phase slip, the project must be added as a new project to the 2021-24 MTIP which requires a formal amendment

As mentioned, the above fifteen projects in the September Formal Transition MTIP Amendment bundle represent part two of the two-part formal transition amendment. The Amendment Matrix located below is included as a reference for the rules and justifications governing Formal Amendments and Administrative Modifications to the MTIP that the MPOs and ODOT normally follow.

## METRO REQUIRED PROJECT AMENDMENT REVIEWS

In accordance with 23 CFR 450.316-328, Metro is responsible for reviewing and ensuring MTIP amendments comply with all federal programming requirements. Each project and their requested changes are evaluated against multiple MTIP programming review factors that originate from 23 CFR 450.316-328. The programming factors include:

- Verification as required to programmed in the MTIP:
  - Awarded federal funds and is considered a transportation project
  - Identified as a regionally significant project.
  - Identified on and impacts Metro transportation modeling networks.
  - Requires any sort of federal approvals which the MTIP is involved.

ODOT-FTA-FHWA Amendment Matrix	
<b>Type of Change</b>	
<b>FULL AMENDMENTS</b>	
1. Adding or cancelling a federally funded, and regionally significant project to the STIP and state funded projects which will potentially be federalized	
2. Major change in project scope. Major scope change includes: <ul style="list-style-type: none"> <li>• Change in project termini - greater than .25 mile in any direction</li> <li>• Changes to the approved environmental footprint</li> <li>• Impacts to AQ conformity</li> <li>• Adding capacity per FHWA Standards</li> <li>• Adding or deleting worktype</li> </ul>	
3. Changes in Fiscal Constraint by the following criteria: <ul style="list-style-type: none"> <li>• FHWA project cost increase/decrease: <ul style="list-style-type: none"> <li>• Projects under \$500K – increase/decrease over 50%</li> <li>• Projects \$500K to \$1M – increase/decrease over 30%</li> <li>• Projects \$1M and over – increase/decrease over 20%</li> </ul> </li> <li>• All FTA project changes – increase/decrease over 30%</li> </ul>	
4. Adding an emergency relief permanent repair project that involves substantial change in function and location.	
<b>ADMINISTRATIVE/TECHNICAL ADJUSTMENTS</b>	
1. Advancing or Slipping an approved project/phase within the current STIP (If slipping outside current STIP, see Full Amendments #2)	
2. Adding or deleting any phase (except CN) of an approved project below Full Amendment #3	
3. Combining two or more approved projects into one or splitting an approved project into two or more, or splitting part of an approved project to a new one.	
4. Splitting a new project out of an approved program-specific pool of funds (but not reserves for future projects) or adding funds to an existing project from a bucket or reserve if the project was selected through a specific process (i.e. ARTS, Local Bridge...)	
5. Minor technical corrections to make the printed STIP consistent with prior approvals, such as typos or missing data.	
6. Changing name of project due to change in scope, combining or splitting of projects, or to better conform to naming convention. (For major change in scope, see Full Amendments #2)	
7. Adding a temporary emergency repair and relief project that does not involve substantial change in function and location.	



- Passes fiscal constraint verification:
  - Project eligibility for the use of the funds
  - Proof and verification of funding commitment
  - Requires the MPO to establish a documented process proving MTIP programming does not exceed the allocated funding for each year of the four year MTIP and for all funds identified in the MTIP.
- Passes the RTP consistency review:
  - Identified in the current approved constrained RTP either as a stand- alone project or in an approved project grouping bucket
  - RTP project cost consistent with requested programming amount in the MTIP
  - If a capacity enhancing project – is identified in the approved Metro modeling network
- Satisfies RTP goals and strategies consistency: Meets one or more goals or strategies identified in the current RTP.
- If not directly identified in the RTP's constrained project list, the project is verified to be part of the MPO's annual Unified Planning Work Program (UPWP) if federally funded and a regionally significant planning study that supports RTP goals and strategies and/or will contribute to or impact RTP performance measure targets.
- Determined the project is eligible to be added to the MTIP, or can be legally amended as required without violating provisions of 23 CFR450.300-338 either as a formal Amendment or administrative modification:
  - Does not violate supplemental directive guidance from FHWA/FTA's approved Amendment Matrix.
  - Adheres to conditions and limitation for completing technical corrections, administrative modifications, or formal amendments in the MTIP.
  - Is eligible for special programming exceptions periodically negotiated with USDOT as well.
  - Programming determined to be reasonable of phase obligation timing and is consistent with project delivery schedule timing.
- Reviewed and initially assessed for Performance Measurement impacts to include:
  - Safety
  - Asset Management - Pavement
  - Asset Management – Bridge
  - National Highway System Performance Targets
  - Freight Movement: On Interstate System
  - Congestion Mitigation Air Quality (CMAQ) impacts
  - Transit Asset Management impacts
  - RTP Priority Investment Areas support
  - Climate Change/Greenhouse Gas reduction impacts
  - Congestion Mitigation Reduction impacts
- MPO responsibilities completion:
  - Completion of the required 30 day Public Notification period:
  - Project monitoring, fund obligations, and expenditure of allocated funds in a timely fashion.
  - Acting on behalf of USDOT to provide the required forum and complete necessary discussions of proposed transportation improvements/strategies throughout the MPO.

## APPROVAL STEPS AND TIMING

Metro's approval process for formal amendment includes multiple steps. The required approvals for the September Formal Transition MTIP amendment (SP21-02-SEP) will include the following:

<u>Action</u>	<u>Target Date</u>
• Initiate the required 30-day public notification process.....	August 25, 2020
• TPAC notification and approval recommendation.....	September 4, 2020
• <b>JPACT approval and recommendation to Council.....</b>	<b>September 17, 2020</b>
• Completion of Public Notification Process.....	September 23, 2020
• Metro Council approval.....	October 1, 2020

Notes:

- \* If any notable comments are received during the public comment period requiring follow-on discussions, they will be addressed by JPACT.

USDOT Approval Steps:

<u>Action</u>	<u>Target Date</u>
• Amendment bundle submission to ODOT for review.....	October 6, 2020
• Submission of the final amendment package to USDOT.....	NLT October 7, 2020
• ODOT clarification and approval.....	End of October, 2020
• USDOT clarification and final amendment approval.....	Early November, 2020

## ANALYSIS/INFORMATION

1. **Known Opposition:** None known at this time.
2. **Legal Antecedents:** Amends the 2021-24 Metropolitan Transportation Improvement Program adopted by Metro Council Resolution 20-5110 on July 23, 2020 (FOR THE PURPOSE OF ADOPTING THE 2021-2024 METROPOLITAN TRANSPORTATION IMPROVEMENT PROGRAM FOR THE PORTLAND METROPOLITAN AREA).
1. **Anticipated Effects:** Enables the projects to obligate and expend awarded federal funds.
2. **Metro Budget Impacts:**
  - a. UPWP allocated and unobligated planning funds for the Portland Metro MPO FY 2020 Transit Oriented Development (TOD) program are preserved for obligation and expenditure during FY 2021.
  - b. UPWP allocated and unobligated planning funds for the Portland Metro MPO FY 2020 Corridor and Systems Planning program are preserved for obligation and expenditure during FY 2021.
  - c. UPWP allocated planning funds for the Portland Metro MPO FY 2020 Regional Freight Studies are preserved for obligation and expenditure during FY 2021.

## RECOMMENDED ACTION:

**TPAC recommends approval of Resolution 20-5127 consisting of fifteen projects in the September Formal Transition Amendment Bundle and recommends an approval recommendation for Metro Council enabling the projects to be amended correctly into the 2021-24 MTIP in October with final approval to occur from USDOT.**

Attachments: OTC letters supporting the I-5 Bridge Projects



# Oregon

Kate Brown, Governor

Oregon Transportation Commission

Office of the Director, MS 11

355 Capitol St NE

Salem, OR 97301-3871

**DATE:** August XX, 2020

**TO:** Karen Rowe  
Delivery and Operations Division Administrator

**Attachment 1: OTC Letters – I-5  
Interstate Bridges  
Bearing Replacements**

**FROM:** Rian Windsheimer  
Region 1 Manager

**SUBJECT:** Amend the 2021-2024 Statewide Transportation Improvement Program (STIP) to add the Interstate 5: Interstate bridges bearing replacement (Portland) project

**Requested Action:**

Approve to amend the 2021-2024 Statewide Transportation Improvement Program (STIP) to add a border bridge project on the Interstate bridges in Portland.

Funding to come from the state bridge program and the Washington Department of Transportation.

**STIP Amendment Funding Summary:**

<b>Project</b>	<b>Current Funding</b>	<b>Proposed Funding</b>
Interstate 5: Interstate bridges bearing replacement (Portland)	\$0	\$550,000
State Bridge Program	\$275,000	\$0
Washington Department of Transportation	\$275,000	\$0
<b>TOTAL</b>	<b>\$550,000</b>	<b>\$550,000</b>

**Project to be added:**

<b>Interstate 5: Interstate bridges bearing replacement (Portland) (KN TBD)</b>			
<b>PHASE</b>	<b>YEAR</b>	<b>COST</b>	
		<b>Current</b>	<b>Proposed</b>
Preliminary Engineering	2021	\$0	\$30,000
Right of Way	N/A	\$0	0
Utility Relocation	N/A	\$0	\$0
Construction	2022	\$0	\$520,000
<b>TOTAL</b>		<b>\$0</b>	<b>\$550,000</b>

**Background:**

The Columbia River Interstate 5 Interstate Bridge was built in 1916 and carries over 67,000 vehicles each day. There are bearings that support the Interstate bridges that are designed to allow for expansion and contraction due to temperature changes. Several of these bearings have failed and no longer allow for movement. Some are outside their tolerable travel limits, others are severely

corroded, and some have parts that are no longer functional. The connections securing the bearings to the bridges are corroded, and are bent due to the forces associated with the bearings no longer being able to provide the movement the bridge needs to function as it was designed. This project will only address the most critical bearings. The other bearings should be able to remain in service until the bridge is replaced.

**Options:**

With approval, the bearings that have failed will be replaced and the bridge can remain in service as it was designed. There will be no unintended forces due to expansion and contraction as the bridge reacts to changes in temperature.

Without approval, the failed bearings will remain in service. There will be substantial forces generated as the steel expands and contracts due to changes in temperature, but is unable to move as the designer intended.

**Attachments:**

- Attachment 1 – Location and vicinity maps

**Copies to:**

Kris Strickler	Travis Brouwer	Tom Fuller	Lindsay Baker
Mac Lynde	Cooper Brown	Rian Windsheimer	Gabriela Garcia
Ray Mabey	Bert Hartman	Rachelle Nelson	



# Oregon

Kate Brown, Governor

## Oregon Transportation Commission

Office of the Director, MS 11

355 Capitol St NE

Salem, OR 97301-3871

**DATE:** August XX, 2020

**TO:** Kristopher W. Strickler  
Director

Attachment 1 - OTC Letters:  
I-5 Interstate Bridges  
Control Equipment

**FROM:** Rian Windsheimer  
Region 1 Manager

**SUBJECT:** **Consent XX** – Amend the 2018-2021 Statewide Transportation Improvement Program (STIP) to add the Interstate 5: Interstate bridges control equipment (Portland) project

**Requested Action:**

Approve amending the 2018-2021 Statewide Transportation Improvement Program (STIP) to add a border bridge project for the Interstate bridges in Portland.

Funding will come from the state bridge program and the Washington Department of Transportation.

**STIP Amendment Funding Summary:**

Project	Current Funding	Proposed Funding
Interstate 5: Interstate bridges control equipment (Portland) project	\$0	\$1,000,000
State Bridge Program	\$500,000	\$0
Washington Department of Transportation	\$500,000	\$0
<b>TOTAL</b>	<b>\$1,000,000</b>	<b>\$1,000,000</b>

**Project to be added:**

<b>Interstate 5: Interstate bridges control equipment (Portland) project (KN TBD)</b>			
<b>PHASE</b>	<b>YEAR</b>	<b>COST</b>	
		<b>Current</b>	<b>Proposed</b>
Preliminary Engineering	2021	\$0	\$80,000
Right of Way	N/A	\$0	0
Utility Relocation	N/A	\$0	\$0
Construction	2022	\$0	\$920,000
<b>TOTAL</b>		<b>\$0</b>	<b>\$1,000,000</b>

**Background:**

The replacement of critical bridge control equipment was delayed in order to not interfere with the Interstate 5: Interstate Bridge, northbound trunnion replacement. The touch screens and programmable logic controllers are failing, and are no longer supported by the manufacturer. Also, as the high power electronic motor control equipment is reaching the end of its service life, the probability of failure increases. Because of technical advancements, it is not possible to obtain replacement parts from the original equipment manufacturer to repair them should they fail. There are faults that are occurring on

an intermittent and random basis. While these faults have been able to be reset, the existing control system for this critical border bridge does not have the reliability and redundancy needed to ensure consistent operation. By replacing outdated control equipment, this project will provide the bridge operators with a system they can maintain, and have confidence in as they open and close the bridge.

**Options:**

With approval, the critical bridge control equipment will be upgraded using modern components that are supported by the original equipment manufacturer. Replacement parts will be able to be obtained throughout the design life of each component, resulting in safe and reliable operation of these bridges for many years.

Without approval, the critical bridge control equipment will be maintained using replacement components, both new and used, purchased from multiple sources. These components have a lower reliability than new components purchased from the original manufacturer. The result of keeping the current system in service is an increased risk of system failure, impacting both river navigation and interstate traffic.

**Attachments:**

- Attachment 1 – *Location and vicinity maps*

**Copies to:**

Jerri Bohard	Travis Brouwer	Tom Fuller	Bob Gebhardt
Cooper Brown	Mac Lynde	Rian Windsheimer	Gabriella Garcia
Ray Mabey	Bert Hartman	Rachelle Nelson	



# Oregon

Kate Brown, Governor

Oregon Transportation Commission

Office of the Director, MS 11

355 Capitol St NE

Salem, OR 97301-3871

**DATE:** August XX, 2020

**TO:** Karen Rowe  
Delivery and Operations Division Administrator

**Attachment 1 – OTC Letters:  
I-5 Bridges  
NB Electrical Components**

**FROM:** Rian Windsheimer  
Region 1 Manager

**SUBJECT:** Amend the 2021-2024 Statewide Transportation Improvement Program (STIP) to add the Interstate 5: Interstate Bridge, northbound electrical components (Portland) project

**Requested Action:**

Approve to amend the 2021-2024 Statewide Transportation Improvement Program (STIP) to add a border bridge project on the northbound Interstate Bridge in Portland.

Funding to come from the state bridge program and the Washington Department of Transportation.

**STIP Amendment Funding Summary:**

<b>Project</b>	<b>Current Funding</b>	<b>Proposed Funding</b>
Interstate 5: Interstate Bridge, northbound electrical components (Portland)	\$0	\$500,000
State Bridge Program	\$250,000	\$0
Washington Department of Transportation	\$250,000	\$0
<b>TOTAL</b>	<b>\$500,000</b>	<b>\$500,000</b>

**Project to be added:**

<b>I-5: Interstate Bridge, northbound electrical components (Portland) (KN TBD)</b>			
<b>PHASE</b>	<b>YEAR</b>	<b>COST</b>	
		<b>Current</b>	<b>Proposed</b>
Preliminary Engineering	2021	\$0	\$40,000
Right of Way	N/A	\$0	0
Utility Relocation	N/A	\$0	\$0
Construction	2021	\$0	\$460,000
<b>TOTAL</b>		<b>\$0</b>	<b>\$500,000</b>

**Background:**

The northbound Columbia River Interstate 5 Interstate Bridge was built in 1916. In 1997 one of the trunnions that are part of the mechanical system used to open and close the bridge was replaced due to the discovery of a structural crack. After a crack was discovered in the second trunnion, it was replaced in 2020.

There was a significant amount of electrical and mechanical work that was required on the northbound Interstate 5: Interstate Bridge to allow for the replacement of the trunnion shaft. The electrical work consisted of temporarily moving transformers, power panels, conduits, and other components to allow for unrestricted access to the trunnion. The temporary system was not intended to be used to operate the bridge for an extended period of time. This project will restore the electrical components to their original locations, and will connect those components in a permanent manner, replacing the electrical cords that were used for the temporary system.

**Options:**

With approval the equipment that was relocated to accommodate the replacement of the trunnion shaft can be restored to its original location, with electrical connections that are permanent, reliable, and durable.

Without approval the electrical equipment will remain in its current temporary location, and be will continue to be connected in a temporary manner with electrical cords.

**Attachments:**

- Attachment 1 – Location and vicinity maps

**Copies to:**

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Mac Lynde	Cooper Brown	Rian Windsheimer	Gabriela Garcia
Ray Mabey	Bert Hartman	Rachelle Nelson	