

Date: Monday, May 6, 2019  
From: Ken Lobeck, Funding Programs Lead, 503-797-1785  
Subject: Attachment 2 to the May 2019 MTIP Formal Amendment Staff Report – OTC Staff Reports

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## **BACKGROUND**

Applicable Oregon Transportation Commission (OTC) staff reports are included for reference to the following projects:

- Key 20481 - I-405: Fremont (Willamette River) Bridge
- Key 20410 - I-84: I-205 – NE 181<sup>st</sup> Ave
- Key 20471 - OR99W: Tualatin River Northbound Bridge
- Key 21283 - NE 12th Ave Over I-84 & Union Pacific RR Bridge (Portland)

**Projects #1 & 2**  
**Key 20481 - I-405: Fremont (Willamette River) Bridge**  
**Key 20410 - I-84: I-205 – NE 181<sup>st</sup> Ave**



Oregon

Kate Brown, Governor

Oregon Transportation Commission  
Office of the Director, MS 11  
355 Capitol St NE  
Salem, OR 97301-3871

**DATE:****TO:** Oregon Transportation Commission**From:** Matthew L. Garrett  
Director

**SUBJECT:** **Consent** - Amend the 2018-2021 Statewide Transportation Improvement Program (STIP) to increase funding for the Yaquina Bay Bridge project; add bridge work and funding to the Interstate 84: Interstate 205 to NE 181<sup>st</sup> Avenue project; and cancel the Fremont Bridge project.

**Requested Action:**

Request approval to amend the 2018-2021 Statewide Transportation Improvement Program (STIP) to increase funding for the Yaquina Bay Bridge project in Newport and add bridge work and funding to the Interstate 84: Interstate 205 to NE 181<sup>st</sup> Avenue project located in both Portland and Gresham. These increases will be funded from the cancellation of the Fremont Bridge project located in Portland.

The cancellation of the Fremont Bridge project frees \$17,794,616 to be redistributed. The Oregon Department of Transportation (ODOT) Bridge Section requests the following:

- Transfer \$1,582,100 of the canceled Fremont Bridge project to the Yaquina Bay Bridge project.
- Transfer \$2,179,980 of the funds from the Fremont Bridge project to the Interstate 84: Interstate 205 to NE 181<sup>st</sup> Avenue project.
- Transfer remaining \$14,032,536 of the Fremont Bridge funds to the 2020 state bridge program.

**Project Funding Summary:**

Project	Current	Proposed
US101: <u>Yaquina</u> Bay Bridge	\$24,667,900	\$26,250,000
I-84: I-205 – NE 181 <sup>st</sup> Ave	\$3,600,000	\$5,779,980
I-405: Fremont (Willamette River) Bridge	\$17,794,616	\$0
State bridge program – federal fiscal year 2020	1,729,403	\$15,761,939
<b>TOTAL</b>	<b>\$47,791,919</b>	<b>\$47,791,919</b>

**Projects to be increased:**

US101: <u>Yaquina</u> Bay Bridge (KN 20109)				
	CURRENT	PROPOSED	COST	
PHASE	YEAR	YEAR	Current	Proposed
Preliminary Engineering	2017	N/A	\$1,049,900	\$485,000
Right of Way	N/A	N/A	\$0	\$0
Utility Relocation	N/A	N/A	\$0	\$0
Construction	2020	2019	\$23,618,000	\$25,765,000
		<b>TOTAL</b>	<b>\$24,667,900</b>	<b>\$26,250,000</b>

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 (Add the date the letter is to be signed)  
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<b>I-84: I-205 – NE 181<sup>st</sup> Avenue (KN 20410)</b>			
		<b>COST</b>	
<b>PHASE</b>	<b>YEAR</b>	<b>Current</b>	<b>Proposed</b>
Preliminary Engineering	2019	\$500,000	\$519,500
Right of Way	N/A	\$0	\$0
Utility Relocation	N/A	\$0	\$0
Construction	2020	\$3,100,000	\$5,260,480
<b>TOTAL</b>		<b>\$3,600,000</b>	<b>\$5,779,980</b>

**Project to be cancelled:**

<b>I-405: Fremont (Willamette River) Bridge (KN 20481)</b>			
		<b>COST</b>	
<b>PHASE</b>	<b>YEAR</b>	<b>Current</b>	<b>Proposed</b>
Preliminary Engineering	2019	\$940,358	\$0
Right of Way	N/A	\$0	\$0
Utility Relocation	N/A	\$0	\$0
Construction	2021	\$16,854,258	\$0
<b>TOTAL</b>		<b>\$17,794,616*</b>	<b>\$0</b>

\* The STIP currently shows \$27,794,616, but there is a pending STIP amendment to decrease this project by \$10M.

**Background – projects to be increased:**

**U.S. 101: Yaquina Bay Bridge**

The U.S. 101: Yaquina Bay Bridge was built in 1936 and is listed on the National Register. The concrete approach spans have a corrosion control system installed that is near the end of its useful life and should be removed so that a new coating and power supply and control system can be installed.

There are fifteen approach spans on the southern portion of this bridge, including five arch spans. The history of funding for this project is that a portion of the funds needed to address the corrosion control on the southern spans was split from another project to enable some work to be done. House Bill 2017 funding was added so that the entire southern approach could be addressed in one project.

There are five concrete spans on the northern approach that have the same need for a new cathodic protection system as the southern approach. Adding the northern approach to the current project will be more efficient than having a separate future contract that is just for the northern approach.

If this request is not approved, the project will remain with the current scope and budget. The northern approach spans will have a future project to install a new cathodic protection system.

If approved, this project will continue as scheduled and will add the northern approaches, creating efficiencies in the project delivery for this bridge.

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***Interstate 84: Interstate 205 to NE 181<sup>st</sup> Avenue***

The construction phase of this project was added using House Bill 2017 funding. The Interstate 84: Interstate 205 to NE 181<sup>st</sup> Avenue project will remove and replace five and a half miles of rutted pavement on Interstate 84, but it does not currently include repairs to the concrete bridge surfaces. There are four bridges that have worn concrete driving surfaces within the limits of this project. Adding the repair of the driving surface of these bridges to this project creates funding efficiencies and will allow those traveling this section a smoother, safer driving experience.

If this request is not approved, the project will continue as programmed, addressing the rutted pavement on Interstate 84. Drivers will have a smooth driving surface where the asphalt was removed and replaced, but will experience concrete bridge driving surfaces that have significant rutting, especially in the middle lane. There may be safety concerns during wet weather as vehicles transition from asphalt with no standing water, to concrete bridge decks with standing water in the ruts.

If approved, this project will address all of the driving surfaces within the project, including the bridges, which translates to a smoother, safer driving experience.

**Background – project to be canceled:**

***Interstate 405: Fremont (Willamette River) Bridge***

The Interstate 405: Fremont (Willamette River) Bridge was built in 1973. This bridge is 2154 feet long and carries 130,000 vehicles daily on eight lanes. There are eight ramps on the east approach to the bridge, and seven ramps on the west approach.

The paint on this bridge has been in service for 46 years and is nearing the end of its service life. There are numerous areas where the paint is peeling and there are some areas that are in the early stages of corrosion. The funding that was originally allocated to this project was intended to paint the eight ramps on the east approach. In January 2018, funds totaling \$3,060,275 were moved to another project in Southern Oregon so that project could be awarded. In January 2019, funds totaling \$10,000,000 were moved to the Major Bridge Maintenance program, so that major bridges in the Portland Metropolitan area, and other bridges statewide, could be strengthened.

While the remaining funding could be used to paint up to five of the east approach ramps, depending on which ramps are chosen, this is a small portion of the entire bridge. Although the paint is nearing the end of its service life, this bridge is not in a salt water environment so the rate of corrosion is low compared with other locations. Due to the area of steel for the main portion of the Fremont Bridge and the fifteen approach ramps, any paint project will need to be completed in stages. However, a project funded at the current level is not efficient.

If this request is not approved, the project will remain with the current scope and budget. Up to five of the east approach ramps will be painted.

If approved, this project will be canceled and added a later date.

**Attachments:**

**Project #3: Key 20471**  
**OR99W: Tualatin River Northbound Bridge**



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 Kate Brown, Governor

Oregon Transportation Commission  
 Office of the Director, MS 11  
 355 Capitol St NE  
 Salem, OR 97301-3871

**DATE:****TO:** Oregon Transportation Commission**From:** Matthew L. Garrett  
Director

**SUBJECT: Consent** - Amend the 2018-2021 Statewide Transportation Improvement Program (STIP) to increase funding for the Northwest Forest Lane over Interstate 84 bridge project and cancel the construction phase of the Tualatin River northbound bridge project.

**Requested Action:**

Request approval to amend the 2018-2021 Statewide Transportation Improvement Program (STIP) to increase funding for the Northwest Forest Lane over Interstate 84 bridge project located in Hood River County and cancel the construction phase of the Tualatin River northbound bridge project located in Tualatin. Some of the construction phase funding will be used to increase the preliminary engineering phase of the Tualatin River northbound project.

The cancellation of the construction phase of the Tualatin River northbound bridge project frees \$749,900 to be redistributed. The Oregon Department of Transportation (ODOT) Bridge Section requests the following:

- Transfer \$746,877 of the funding freed up from the cancelation of the construction phase of the Tualatin River northbound bridge project to the Northwest Forest Lane over Interstate 84 bridge project.
- Return the additional \$3,023 freed up from the cancelation of the construction phase of the Tualatin River northbound bridge project to the state bridge program.

**Project Funding Summary:**

Project	Current	Proposed
I-84: NW Forest Lane over I-84	\$1,431,123	\$2,178,000
OR99W: Tualatin River northbound bridge	\$1,391,400	\$641,500
State bridge program – federal fiscal year 2020	\$1,729,403	\$1,732,426
<b>TOTAL</b>	<b>\$4,551,926</b>	<b>\$4,551,926</b>

**Projects to be increased:**

I-84: NW Forest Lane over I-84 (KN 20485)			
		COST	
PHASE	YEAR	Current	Proposed
Preliminary Engineering	2019	\$261,000	\$696,000
Right of Way	N/A	\$0	\$0
Utility Relocation	N/A	\$0	\$0

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Construction	2021	\$1,170,123	\$1,482,000
<b>TOTAL</b>		<b>\$1,431,123</b>	<b>\$2,178,000</b>

**+Project to be reduced:**

<b>OR99W: Tualatin River northbound bridge (KN 20471)</b>			
		<b>COST</b>	
<b>PHASE</b>	<b>YEAR</b>	<b>Current</b>	<b>Proposed</b>
Preliminary Engineering	2018	\$188,500	\$641,500
Right of Way	N/A	\$0	\$0
Utility Relocation	N/A	\$0	\$0
Construction	2020	\$1,202,900	\$0
<b>TOTAL</b>		<b>\$1,391,400</b>	<b>\$641,500</b>

**Background:*****Interstate 84: NW Forest Lane over Interstate 84***

The Interstate 84: NW Forest Lane over Interstate 84 bridge was built in 1965. It has the lowest clearance of any Interstate 84 overpass from Interstate 205 to Interstate 82. This project will increase the vertical clearance for this portion of Interstate 84 by 5 inches in the eastbound direction and by 4 inches in the westbound direction. If more clearance can be gained without an unreasonable increase in cost, then more clearance will be provided. This will help in the long term effort to improve vertical clearance on Interstate 84. Increasing vertical clearance on the interstates improves safety since large loads do not have to travel on two-lane highways. Also, detours are minimized, which is especially important in winter when detour routes can require traveling through mountainous regions.

The design for this project will be completed by consultants, which will increase the cost of the project. This was not accounted for in the original estimate. The increase in construction and in construction engineering, due to inflation and market values, was also not accounted for in the original estimate.

If this request is not approved, the project will be under funded and cannot go to construction. In which case there will be a future letter to fully fund the design phase and cancel the construction phase so it can compete for funding in the following STIP.

If approved, this project will continue as programmed, improving the vertical clearance on Interstate 84 as planned.

***Oregon 99W: Tualatin River northbound bridge***

The Oregon 99W: Tualatin River northbound bridge was built in 1955. The concrete driving surface is thin by modern design standards, and is considered to be a poor design detail. There are areas on the underside of the deck that have cracks; rust staining from the corrosion of the steel reinforcement, and patches to replace missing portions of the original concrete.

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The thickness of the driving surface was increased by an additional layer of concrete in 1993. The additional concrete that was added is reaching the end of its service life. There are large cracks, and even though the cracks have been sealed, water will penetrate the surface and cause potholes to develop as the additional layer of concrete loses its bond with the original driving surface.

This design will be outsourced, which will add to the cost. Also, the load rating needs to be updated as part of the design process, and the bridge will likely require strengthening to be able to remain unrestricted for all legal and permit loads. The original estimate did not include the costs associated with the outsourced design; the need for an updated load rating, and the strengthening that will likely be required.

If this request is not approved, the project will be under funded and cannot go to construction. In which case, there will be a future letter to cancel the project.

If approved, the construction phase will be added back at a later time and the preliminary engineering phase will continue with load rating and bridge strengthening added.

Attachments:

- Attachment 1 - Location and Vicinity Maps

Copies (w/attachment) to:

Jerri Bohard	Travis Brouwer	Dave Thompson	Bob Gebhardt
McGregor Lynde	Jeff Flowers	Rian Windsheimer	Amanda Sandvig
Arlene Santana	Gabriela Garcia	Talena Adams	Emily Clyburn
John Maher	Bert Hartman	Rachelle Nelson	Paul Scarlett

**Project #4: Key 21283**  
**NE 12th Ave over I-84 & Union Pacific RR Bridge (Portland)**



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 355 Capitol St NE  
 Salem, OR 97301-3871

**DATE:****TO:** Oregon Transportation Commission**From:** Matthew L. Garrett  
Director

**SUBJECT: Consent** - Amend the 2018-2021 Statewide Transportation Improvement Program (STIP) to increase funding for the Northeast 12<sup>th</sup> Avenue over Interstate 84 and Union Pacific Railroad bridge project.

**Requested Action:**

Request approval to amend the 2018-2021 Statewide Transportation Improvement Program (STIP) to increase funding for the Northeast 12<sup>th</sup> Avenue over Interstate 84 and Union Pacific Railroad bridge project located in Portland.

The Northeast 12<sup>th</sup> Avenue over Interstate 84 and Union Pacific Railroad bridge project requires an additional \$1,931,244. The Oregon Department of Transportation (ODOT) Bridge Section requests the following:

- Transfer \$431,244 from the bridge overpass protective screening federal fiscal year 2020 funds.
- Transfer \$1,500,000 from the bridge overpass protective screening federal fiscal year 2021 funds.

**Project Funding Summary:**

Project	Current	Proposed
NE 12 <sup>th</sup> Ave over I-84 & Union Pacific RR bridge (Portland)	\$250,000	\$2,181,244
Bridge overpass protective screening FFY2020	\$614,916	\$183,672
Bridge overpass protective screening FFY 2021	\$1,500,000	\$0
<b>TOTAL</b>	<b>\$2,364,916</b>	<b>\$2,364,916</b>

**Project to be increased:**

NE 12 <sup>th</sup> Ave over I-84 & Union Pacific RR bridge (Portland) (KN 21283)			
		COST	
PHASE	YEAR	Current	Proposed
Preliminary Engineering	2020	\$45,000	\$215,118
Right of Way	N/A	\$0	\$0
Utility Relocation	N/A	\$0	\$0
Construction	2021	\$205,000	\$1,966,126
<b>TOTAL</b>		<b>\$250,000</b>	<b>\$2,181,244</b>

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**Background:**

Oregon Revised Statute [\(ORS\) 366.462](#) requires that all freeway overpasses constructed after November 4, 1993 have fences that are designed to deter persons from throwing objects from the overpasses onto the freeways. This ORS also requires that the Oregon Department of Transportation (ODOT) develop a prioritization system to construct fences first on those overpasses that involve the greatest risks, and to construct at least 15 fences per year on existing freeway overpasses.

In December 2017, the OTC approved funding to add protective screening to the NE 12<sup>th</sup> Ave over I-84 & Union Pacific RR Bridge, (Bridge 07039), which is owned by the City of Portland. On March 15, 2019, an updated project estimate was provided by the City of Portland. This estimate includes the handling and disposal of lead paint; the need for railroad flagging due to the close proximity to the Union Pacific Railroad right-of-way, and coordination needed for multiple partial closures of Interstate 84 to complete the project. Installing the protective screen is complicated by the bridge being over 100 years old, and there are additional aesthetic considerations due to it being in a special local zoning district.

The staging areas are very limited, and there is concern that the House Bill 2017 funded projects may saturate the construction market and result in higher bids. The construction portion of this estimate is \$944,580. Contingencies, overhead, construction management, design engineering, and project management represent the remainder of the cost increase.

Funding for this increase will come from the \$1.5M that is allocated yearly to address freeway overpass screening.

If this request is not approved, this freeway overpass will not receive screening and the requirements of ORS 366.462 will not be met at this location.

If approved, this project will continue as scheduled and will meet the requirements of (ORS) 366.462.

**Attachments:**

- Attachment 1 - Location and Vicinity Maps

**Copies (w/attachment) to:**

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Talena Adams  
Sam Hunaidi

Bob Gebhardt  
Amanda Sandvig  
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