

2016-2018 STIP Operations Allocation \$ 15,759,450  
Proposed Operations Project Amount \$ 15,775,000  
% List 100.1%

Project ID	Project Type	Project	Problem Description	Goals & Objectives	Scoping Estimate	Matched w/ Other Fix-it Projects	Matched w/ Enhance Projects	
<b>OPERATIONS 100% LIST</b>								
F-OP2	Full Signal Upgrade	OR213: Burnside	Signal is old and difficult/costly to maintain.	Upgrade signal to meet current standards to improve safety of the traveling public.	\$5,675,000			
F-OP4	Full Signal Upgrade	OR213: NE Wasco St. (Portland)	Signal is old and difficult/costly to maintain. The span is supported by a wood utility pole that can result in possible clearance issues.	Upgrade signal to meet current standards to improve safety of the traveling public.				
F-OP5	Full Signal Upgrade	OR213: SE Flavel (Portland)	Signal is old and difficult/costly to maintain.	Upgrade signal to meet current standards to improve safety of the traveling public.				
F-OP6	Full Signal Upgrade	OR213: SE Foster	Signal is old and difficult/costly to maintain.	Upgrade signal to meet current standards to improve safety of the traveling public.				
F-OP7	Full Signal Upgrade	OR213: SE Mill (Portland)	Signal is old and difficult/costly to maintain.	Upgrade signal to meet current standards to improve safety of the traveling public.				
F-OP8	Full Signal Upgrade	OR213: SE Raymond	Signal is old and difficult/costly to maintain.	Upgrade signal to meet current standards to improve safety of the traveling public.				
F-OP9	Full Signal Upgrade	OR213: SE Woodstock Blvd (Portland)	Signal is old and difficult/costly to maintain.	Upgrade signal to meet current standards to improve safety of the traveling public.				
F-OP10	Full Signal Upgrade	OR213: SE Yamhill (Portland)	Signal is old and difficult/costly to maintain. The poles are leaning causing clearance issues. There are also possible ADA issues.	Upgrade signal to meet current standards to improve safety of the traveling public.				
F-OP12	Full Signal Upgrade	TV Highway @ Cedar Hills Boulevard	Signal is old and difficult/costly to maintain.	Upgrade signal to meet current standards to improve safety of the traveling public.				E86
F-OP29	Misc. Signal/ Beacon Upgrades	OR8: SW Hall Blvd (Beaverton)	Signal heads are no longer standard and difficult and costly to maintain	Improve signal visibility and driver recognition of signal indications.		\$ 965,000	F-SP7; F-SP12	E86
F-OP30	Misc. Signal/ Beacon Upgrades	OR8: SW Hocken	Signal heads are no longer standard and difficult and costly to maintain	Improve signal visibility and driver recognition of signal indications.	F-SP11; F-SP12		E86	
F-OP31	Misc. Signal/ Beacon Upgrades	OR8: SW Watson	Signal heads are no longer standard and difficult and costly to maintain	Improve signal visibility and driver recognition of signal indications.	F-SP7; F-SP12		E86	
F-OP32	Illumination	99E: Railroad Pedestrian Tunnel in Ore City	The pedestrian tunnel suffers from obsolete fixtures and poor electrical conditions creating poor visibility.	Install approximately 50 luminaries to reduce maintenance costs and increase electrical safety for maintenance personnel. Project will increase visibility in the tunnel, improving safety for public.	\$ 2,478,000		E75	
F-OP33	Illumination	I-5: Denver, NB Tunnel	Existing luminaries are non-functional, creating dark conditions in the tunnel. This is creating poor visibility into the tunnel from the outside.	Install 88 luminaries to bring tunnel lighting closer to current standards similar to the tunnels that have been re-done at the I-205/I-84 interchange. Improve visibility and safety.				
F-OP37	Illumination	OR217: Allen and Denny Interchanges	The electrical system is old and showing signs of corrosion, creating potential unsafe conditions for maintenance personnel. Corrosion on poles could hasten pole failure, a danger to the public.	Install 44 poles and fixtures to bring existing lighting system up to current standards, improving visibility and safety to the public. Improve safety to maintenance personnel working on electrical system.			E94	
F-OP39	Other Operations	I-84: Farley Slide (PE Only)	Columbia River is eroding a long standing slide on I-84	Stabilize slide to reduce damage to I-84	\$ 500,000			
F-OP40	Other Operations	LED Replacement Bucket	Existing LED are at the end of their useful life	Funding will be used to purchase LED's	\$ 200,000			
F-OP41	Other Operations	OR212 @ N. Fork Deep Creek Culvert	Existing culverts are in poor shape and there have been several occasions when the water has flooded the highway causing it to close. This is a major oversized route for Motor Carrier too.	Replace existing culvert	\$ 1,000,000	F-PR2		
F-OP42	Other Operations	Loop Replacement Bucket	Existing loops are old and not functioning correctly	Funding will be used to update loops	\$ 300,000			
F-OP43	Other Operations	Misc. Hardware/Software Bucket	Software and Hardware needed for operating the various electronic devices and improving system management effectiveness	Funding will be provided to update hardware and software used by the region for TMOG operations and other systematic needs	\$ 500,000			
F-OP44	Other Operations	Operations Quick Hit Reserve	Frequently, unanticipated needs are identified between STIP cycle updates	Funding will be used to fund unanticipated operational needs for the region during the 2016-2018 timeframe	\$ 350,000			
F-OP45	Other Operations	Region 1 Striping Bucket	Highway striping replacement and upgrades	Funding will be provided to various projects though out the region to update or address striping needs	\$ 200,000	All Pres		
F-OP46	Other Operations	Rockfall Scaling Project	Various locations region wide continue to have rockfalls onto the highway system, which disrupt or close highway traffic.	Project will provide scaling and rockfall mitigation at various sites region wide.	\$ 3,607,000			
<b>REGION 1 100% OPERATIONS TOTAL</b>					<b>\$15,775,000</b>			

**PROJECTS ALLOCATED TOWARDS \$3.5M HMT FUNDING TO REDUCE MAINTENANCE COSTS**

<b>OPERATIONS - NOT FUNDED</b>							
F-OP1	Full Signal Upgrade	OR10: SW 107th Ave.	Signal is old and difficult/costly to maintain.	Upgrade signal to meet current standards to improve safety of the traveling public.	\$ 797,000		
F-OP13	Full Signal Upgrade	US30 B (Lombard) at Chautauqua	Signal is old and difficult/costly to maintain. Old installation. Poles are leaning. Clearance issues. Less than 2' from curb. Possible ADA issues, 8/8/8 signal heads.	Upgrade signal to meet current structural standards. A basic package of signal equipment upgrades will provide a safety benefit to the traveling public (countdown ped heads, 12/12/12 LED signal heads, reflectorized signal head backboards and red light ex	\$ 794,000		
F-OP14	Full Signal Upgrade	US30 B (Lombard) at Drummond	Signal is old and difficult/costly to maintain. Old installation. Poles are leaning. Clearance issues. Less than 2' from curb. Possible ADA issues, 12/8/8 signal heads.	Upgrade signal to meet current structural standards. A basic package of signal equipment upgrades will provide a safety benefit to the traveling public (countdown ped heads, 12/12/12 LED signal heads, reflectorized signal head backboards and red light ex	\$ 684,000		

2016-2018 STIP Operations Allocation  
Proposed Operations Project Amount  
% List

\$ 15,759,450  
\$ 15,775,000  
100.1%

Project ID	Project Type	Project	Problem Description	Goals & Objectives	Scoping Estimate	Matched w/ Other Fix-it Projects	Matched w/ Enhance Projects
F-OP15	Full Signal Upgrade	US30 B (Lombard) at Greely	Signal is old and difficult/costly to maintain. Old installation. Poles are leaning, Clearance issues. Less than 2' from curb. Possible ADA issues, 12/8/8 signal heads.	Upgrade signal to meet current structural standards. A basic package of signal equipment upgrades will provide a safety benefit to the traveling public (countdown ped heads, 12/12/12 LED signal heads, reflectorized signal head backboards and red light ex	\$ 736,000		
F-OP16	Full Signal Upgrade	US30 B (Lombard) at Wabash	Signal is old and difficult/costly to maintain. Old installation. Poles are leaning, Clearance issues. Less than 2' from curb. Possible ADA issues, 8/8/8 signal heads.	Upgrade signal to meet current structural standards. A basic package of signal equipment upgrades will provide a safety benefit to the traveling public (countdown ped heads, 12/12/12 LED signal heads, reflectorized signal head backboards and red light ex	\$ 835,000		
F-OP17	Full Signal Upgrade	US30B (Lombard) at Delaware	Signal is old and difficult/costly to maintain. Old installation. Poles are leaning, Clearance issues. Less than 2' from curb. Possible ADA issues, 12/8/8 signal heads.	Upgrade signal to meet current structural standards. A basic package of signal equipment upgrades will provide a safety benefit to the traveling public (countdown ped heads, 12/12/12 LED signal heads, reflectorized signal head backboards and red light ex	\$ 829,000		
F-OP18	Full Signal Upgrade	US30B (Lombard) at Denver	Signal is old and difficult/costly to maintain. Old installation. Poles are leaning, Clearance issues. Less than 2' from curb. Possible ADA issues, 12/8/8 signal heads.	Upgrade signal to meet current structural standards. A basic package of signal equipment upgrades will provide a safety benefit to the traveling public (countdown ped heads, 12/12/12 LED signal heads, reflectorized signal head backboards and red light ex	\$ 834,000		
F-OP19	Full Signal Upgrade	US30B: NE 11th Ave. (Portland)	Signal is old and difficult/costly to maintain.	Upgrade signal to meet current standards to improve safety of the traveling public.	\$ 727,000		
<b>Full Signal Grade Subtotal</b>					<b>\$ 6,236,000</b>		
F-OP20	Misc. Signal/ Beacon Upgrades	I-84: SE 207th (EB Off- Ramp)	Vehicle pedestal in island for the southbound-to-eastbound left-turn is in a location that is susceptible to being struck by vehicles.	Increase the durability and life span of this signal vehicle pedestal by moving it to a better location.	\$ 65,000		
F-OP21	Misc. Signal/ Beacon Upgrades	OR10: at Jesuit HS	Signal heads are no longer standard and difficult and costly to maintain	Improve signal visibility and driver recognition of signal indications.	\$ 49,000		
F-OP22	Misc. Signal/ Beacon Upgrades	OR141 (Hall Blvd): SW Locust St	Signal heads are no longer standard and are more difficult/costly to maintain.	Improve signal visibility and driver recognition of signal indications by increasing lens size from 8" to 12". Replacing signal heads also reduces maintenance efforts/costs and makes it easier to stock standard equipment.	\$ 203,000		
F-OP23	Misc. Signal/ Beacon Upgrades	OR213: Macksburg Rd	Overhead flashing beacon is difficult/costly to maintain. Data has shown that motorists occasionally misinterpret the overhead beacons, leading to an increase in crashes over what is experienced at locations with advance warning beacons.	Replace old equipment with new ground-mounted flashers that have been shown to provide more clear information to motorists than the old overhead flashing beacon installations	\$ 70,000	F-PR4	
F-OP24	Misc. Signal/ Beacon Upgrades	OR219: Spring	A flashing beacon may or may not be needed based on current use	If beacons are no longer needed at this location to warn for trucks, remove. If it cannot be removed, replace it with new equipment.	\$ 45,000		
F-OP25	Misc. Signal/ Beacon Upgrades	OR224: Lake Rd. (EB Off-Ramp) (Milwaukie)	Old signal is hard to maintain, and 2 poles need to be replaced. The signals are outdated & do not meet current ODOT or federal standards	Replace signal poles to make signal easier/cheaper to maintain. Updating signal heads to larger lenses will make the signals more visible to motorists and may improve safety.	\$ 218,000		E74
F-OP26	Misc. Signal/ Beacon Upgrades	OR43: I-205 SB On-Ramp (West Linn)	12/8/8 signal heads are no longer standard and are more difficult/costly to maintain. Illuminated signs are obsolete and can be replaced by aluminum signs (if any signs are still necessary). Aluminum signs require less maintenance and don't use power.	Improve signal visibility and driver recognition of signal indications by increasing lens size from 8" to 12". Reduce maintenance and power costs by eliminating illuminated signs.	\$ 71,000	F-IM2	
F-OP27	Misc. Signal/ Beacon Upgrades	OR43: SW Radcliffe Rd. (SB Flasher)	Existing wood post-mounted flashing beacon is in a location that is susceptible to being struck by vehicles.	Increase the durability and life span of this flashing beacon by replacing it with a vehicle pedestal (metal pole) and moving it to a better location.	\$ 63,000		E46
<b>Misc. Signal/Beacon Upgrade Subtotal</b>					<b>\$ 784,000</b>		
F-OP34	Illumination	I-84: 122nd Underpass	Existing lighting poles are old and showing signs of corrosion.	Service and replace 12 fixtures to bring underpass lighting system up to current standard.	\$ 194,000		
F-OP36	Illumination	OR 217: Beaverton Hillsdale Interchange	Poor electrical system conditions are a danger to maintenance personnel and the general public due to electrical faults and shorts. Poles are at end of life cycle, increases failure potential.	Install 20 poles and fixtures to reduce maintenance costs and bring illumination at the interchange up to current standards, improve electrical safety for maintenance personnel and the public.	\$ 904,000		
<b>Illumination Subtotal</b>					<b>\$ 39,144,000</b>		
F-OP38	Other Operations	Culvert Replacement Bucket	Region wide, culverts are damaged, corroded, or failing and are costly to maintain.	Funding will be provided to various projects through out the Region to address damaged and/or failing culverts within their project limits	\$ 1,000,000	All Pres	
<b>Operation Buckets Subtotal</b>					<b>\$ 1,000,000</b>		
<b>NON-FUNDED OPERATIONS SUBTOTAL</b>					<b>\$47,164,000</b>		