

Anton Anderson Memorial (Whittier) Tunnel - Drainage Improvements

FY2015 Request: \$2,700,000
Reference No: 58610

AP/AL: Allocation

Project Type: Construction

Category: Transportation

Location: Whittier

House District: Kodiak/Cordova (HD 35)

Impact House District: Kodiak/Cordova (HD 35)

Contact: Jeff Ottesen

Estimated Project Dates: 07/01/2014 - 06/30/2019

Contact Phone: (907)465-4070

Appropriation: Surface Transportation Program

Brief Summary and Statement of Need:

This project will install additional water control systems to extend the performance life of the concrete panel driving surface of the Whittier Tunnel. This work will also include a LIDAR survey to determine where additional rock needs to be removed from the tunnel crown to make enough room for the additional water control systems.

Funding:	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	Total
Fed Rcpts	\$2,700,000						\$2,700,000
Total:	\$2,700,000	\$0	\$0	\$0	\$0	\$0	\$2,700,000

<input type="checkbox"/> State Match Required	<input checked="" type="checkbox"/> One-Time Project	<input type="checkbox"/> Phased - new	<input type="checkbox"/> Phased - underway	<input type="checkbox"/> On-Going
0% = Minimum State Match % Required		<input type="checkbox"/> Amendment	<input type="checkbox"/> Mental Health Bill	

Operating & Maintenance Costs:

	<u>Amount</u>	<u>Staff</u>
Project Development:	0	0
Ongoing Operating:	0	0
One-Time Startup:	0	0
Totals:	0	0

Prior Funding History / Additional Information:

No prior funding history

Project Description/Justification:

A significant amount of water drains from the tunnel crown and sidewalls. This water saturates the underlying ballast which causes: 1) the precast concrete panel inverts to settle; 2) accelerates the corrosion of the rail; and 3) corrosion of the rebar in the precast concrete panels that form the driving surface of the tunnel invert.

Constructing additional drainage systems will extend the performance life of the driving surface and delay the difficult reconstruction and replacement of the precast concrete panel tunnel invert.

The 2000 construction project installed water control systems in the wetter sections of the tunnel. An additional 2,000 to 2,500 lineal feet of water control systems needs to be installed in wet areas not covered in the 2000 construction project. Additional rock may have to be excavated from the tunnel crown to create enough room for the additional water control systems. In addition, some of the existing water control systems need to be modified in some areas where water drips from the edge of the pan onto the tunnel walls and splashes on to the panel surface. The water from these areas can be controlled by installing a gutter with drain pipes that collects the water from the pan and drains it into the storm drain system.

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Installation of the additional water control system will reduce the amount of water draining to the tunnel invert and underlying ballast. This will reduce the risk of panel settlement, corrosion of the rail and extend the performance life of the precast concrete invert system.