

**Elliott Highway: Washington Creek Bridge Replacement for Gas Pipeline**      **FY2006 Request: \$3,500,000**  
**Reference No: 40514**

**AP/AL:** Allocation      **Project Type:** Construction  
**Category:** Transportation  
**Location:** Fairbanks Areawide      **Contact:** John MacKinnon  
**House District:** Fairbanks Areawide (HD 7-11)      **Contact Phone:** (907)465-6973  
**Estimated Project Dates:** 07/01/2005 - 06/30/2010  
**Appropriation:** Governor's Transportation Access to Resources Initiative

**Brief Summary and Statement of Need:**

Replace structurally deficient bridge including new approaches for safer travel and commerce needs on North Slope oil fields and gas pipeline construction.

<b>Funding:</b>	<b>FY2006</b>	<b>FY2007</b>	<b>FY2008</b>	<b>FY2009</b>	<b>FY2010</b>	<b>FY2011</b>	<b>Total</b>
Bond Funds	\$3,500,000						\$3,500,000
<b>Total:</b>	<b>\$3,500,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$3,500,000</b>

<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
<b>Totals:</b>	<b>0</b>	<b>0</b>

**Additional Information / Prior Funding History:**

**Project Description/Justification:**

The Washington Creek Bridge (Bridge # 838) needs to be replaced as soon as possible. Based on inspection of the bridge in July 2004, this bridge has a Sufficiency Rating of 43.5, and the substructure is rated at 3 on a 10-point scale. These values indicate the bridge is structurally deficient and eligible for federal bridge replacement funding. Both bridge piers are significantly out of plumb – 14 inches in 10 feet at one location. As the piers shift, the anchor bolts connecting the girders to the abutments are shearing off. This damage appears to be getting progressively worse (more bolts are shearing off every year). The ends of the girders are starting to dig into the reinforced concrete backwalls. Unfortunately, the soil that supports these backwalls is slumping towards the creek, and they are losing this support.

This structure is located on the Elliott Highway (Dalton Highway portion) between Fairbanks and Livengood. The Alaska trucking industry hauls many heavy loads (some weighing as much as 398,000 pounds) across this bridge every winter on their way to the North Slope oil fields. Large module movements for the northern reaches of the gas line project will also need to cross this structure. The approaches to the bridge are also not on ideal geometric alignment, thus a realignment of the roadway is also needed at the time of bridge replacement.

An ideal strategy would be to construct a replacement structure in the summer of 2005; this schedule is not achievable considering all the preliminary work (surveying, foundation investigation, environmental clearance, and right-of-way certification) required during the design phase. Summer 2006 construction appears to be more realistic, which will require a design start in 2005. The department will use federal money to begin design in 2005 and will use both federal and non-federal funding for the two types of work (bridge replacement and roadway realignment) respectively.