

MEMORANDUM

TO:TRANSPORTATION COMMISSION (TC)FROM:JEFF SUDMEIER, CHIEF FINANCIAL OFFICERDATE:AUGUST 16, 2018SUBJECT:SECOND BUDGET SUPPLEMENT - FY 2018-2019

Region 3

\$315,615 – **RAMP Operations Contingency** – *I-70 GW Canyon Variable Speed Signing.* Additional funds requested for project award. The project was re-advertised due to a low number of bidders. In addition to the RAMP funding additional Highway Safety Improvement Program funds were also added.

				Supplement Action					
Phase	Funding	Current		Year of Budget		Total		Revised	Expended
of Work	Program	Budget	FY2019	FY2020	FY2021	Request	Percent Increase	Budget	To-Date
Design	Highway Safety Improvements	\$270,000	\$0	\$0	\$0	\$0		\$270,000	\$243,000
	FASTER Safety	\$302,891	\$0	\$0	\$0	\$0		\$302,891	\$293,612
	Total Design	\$572,891	\$0	\$0	\$0	\$0	0%	\$572,891	\$536,612
Construction	Highway Safety Improvements	\$3,543,158	\$0	\$0	\$0	\$0		\$3,543,158	\$0
	FASTER Safety	\$1,700,000	\$0	\$0	\$0	\$0		\$1,700,000	\$0
	RAMP	\$1,897,109	\$315,615	\$0	\$0	\$315,615		\$2,212,724	\$0
	Total Construction	\$5,243,158	\$315,615	\$0	\$0	\$315,615	6%	\$7,455,882	\$0
Total Project Budget \$5,		\$5,816,049	\$315,615	\$0	\$0	\$315,615	5%	\$8,028,773	\$536,612
		Year of Expenditure		Total					
			FY2019	FY2020	FY2021	Request			
			\$315,615	\$0	\$0	\$315,615			

I-70 GW Canyon Variable Speed Signing Budget Components by Phase, Funding Program, Fiscal Year

For more information, please see the attached I-70 Glenwood Canyon Memo.

Region 5

\$1,140,000 – **Transportation Commission Contingency Reserve** – US 550 Red Mountain Pass Geo-hazard Damage. On July 8, 2018 a severe thunderstorm settled over the US 550 corridor south of Ouray Colorado (Red Mountain Pass). The rain was so severe that it washed rock and debris onto US 550 in several locations. The debris event was the worst near milepost 89.56 and Ruby Walls where it dislodged and destroyed a large retaining wall that supports US550. The event also compromised the structural integrity of the Ruby Walls rock fall fence. Since the incident, CDOT Geo-hazards crews have been able to investigate the area and determine the proper repairs. In order to make the repairs Region 5 is requesting

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\$1,140,000 of TCC funding. Currently, the Geo-Hazards program does not have enough funding to cover the repairs. This event may qualify for Federal Emergency Funding that Region 5 plans to pursue. The TCC pool would be reimbursed if Federal Emergency Funding is awarded for this event.

For more information, please see the attached US Highway 550 Rockfall Memo.

Confirmation Item

Region 2

\$1,600,000 – **Transportation Commission Contingency Reserve** – *US 24E in Manitou Springs Ruxton Creek Culvert Failure.* On July 30, 2018 a sink hole was discovered on US 24E in Manitou Springs. Heavy rains in the area and a failed culvert are believed to be the cause of the sink hole. Currently US 24E is shut down in both directions. Region 2 is requesting to use TC Contingency funding to pay for the emergency project. Initial estimates for the project are \$1,600,000. This action was initiated as a Confirmation Item approved by the Commission Chairperson in order to quickly fund this emergency event.

For more information, please see the attached Ruxton Creek Culvert Memo.

Attachments:

- a. I-70 Glenwood Canyon Memo
- b. US Highway 550 Rockfall memo
- c. Ruxton Creek Culvert Memo





Second Supplement FY 2019 Budget								
Transaction Date	Transaction Description	Am	ount	Balance	Reference Document			
June-18 July-18	Ending Balance 12S18 Balance 1S19			\$34,522,958 \$35,589,869				
	State match for ER permanent repair projects	\$ (4	20,949)		Multiple			
	US 550 Red Mountain Pass Geo-hazard Damage	\$ (1,1	40,000)		Pending			
	US 24E Ruxton Creek Culvert Failure	\$ (1,6	500,000)		Pending			

Transportation Commission Contingency Reserve Fund Reconciliation

Transportation Commission Program Reserve Fund Reconciliation Second Supplement FY 2019 Budget

\$32,428,920

Pending Balance 2S19

Transaction				Reference
Date	Transaction Description	Amount	Balance	Document
June-18	Ending Balance 12S18		\$123,596,622	
July-18	Balance 1S19		\$139,706,203	
	No requests this month			
August-18	Pending Balance 2S19		\$139,706,203	

Transportation Commission Contingency Snow & Ice Fund Reconciliation Second Supplement FY 2019 Budget

Transaction				Reference
Date	Transaction Description	Amount	Balance	Document
	FY19 Budget Allocation	\$10,000,000		1000250070
	FY18 to FY19 Roll Forward	\$10,000,000		1000250990
July-18	Balance 1S19		\$20,000,000	
August-18	Balance 2S19		\$20,000,000	

Transportation Commission Contingency Reserve Fund

Emergency and Permanent Repairs-Nonparticipating costs and state match

			September 11, 2013 Flood Related Monthly Activity			
	State				То	tal Budget
Reg	Highway	Mileposts	Project Description	County		TCCRF
4	034D	13.750 - 14.71	0 US 34D Reconstruct and Repair Highway and Culverts	Weld	\$	(57,698)
4	055A	0.500 - 1.500	SH55 Revetment Repair to Main Channel of South Platte	Logan	\$	(10,446)
4	014B	102.000 - 120.00	JS287 and SH14 Re-build Road, Redress Shoulder, and Seeding Larimer		\$	(352,805)
			Total		\$	(420,949)
			Spring 2015 Flood Related Monthly Activity			
	State				То	tal Budget
Reg	Highway	Mileposts	Project Description	County		TCCRF
0	0	0.000 - 0.000			\$	-
					\$	-
			Total		\$	-
		Grand	Total TCCRF Activity for Emergency Relief Since Last Reporting		\$	(420,949)



August-18



FY 2018-2019 Contingency Reserve Fund Balance Projection						
July TC Contingency Balance (Emergencies)	\$35,589,869					
Pending Requests:						
State match for ER permanent repair projects	(\$4	20,949)				
US 550 Red Mountain Pass Geo-hazard Damage	(\$1,140,000)					
US 24E Ruxton Creek Culvert Failure	(\$1,600,000)					
Pending August	\$32,428,920					
TC Contingency Reserve Balance						
Projected Outflow:	Low Estimate	High Estimate				
State Match for Emergency Relief/Permanent Recovery	(\$2,000,000)	(\$5,000,000)				
State Match for Spring 2015 Floods	\$0 (\$2,500,000)					
Projected FY 2018-2019 YE Contingency Balance	\$30,428,920	\$24,928,920				
TCCRF Surplus (Deficit) to Reach \$40M Balance July 1, 2019	(\$9,571,080)	(\$15,071,080)				

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FY 2018-2019 Program Reserve Fund Balance Projection						
July TC Program Reserve Balance	\$139,706,203					
No requests this month						
Pending August	¢120	706 202				
TC Program Reserve Fund Balance	φ137	,700,203				
Projected Outflow:	Low Estimate	High Estimate				
FY18-19 Estimated Misc TCCRF Funding Requests	(\$20,000,000)	(\$20,000,000)				
Right of Way Acquisitions	(\$25,629,749)	(\$33,429,749)				
US 550/US160 FASTLANE Grant Match (Potential funding from SB17-	¢0 (¢E4,000,000)					
267 Rev.)	φŪ	(\$54,000,000)				
FY 2018-2019 MS4 Water Quality Work Required by EPA	(\$3,500,000)	(\$3,500,000)				
FY19 ADA Program	\$0	(\$15,000,000)				
Backfill TCCRF Balance to Equal \$40M	(\$9,571,080)	(\$15,071,080)				
Projected Inflow:	High Estimate	Low Estimate				
Reimbursement for Demolition of CDOT Headquarters	\$2,000,000	\$0				
Projected FY 2018-2019 YE Program Reserve Balance	\$83,005,374	(\$1,294,626)				



Resolution # TC-18-06-XX

Approval and Adoption of the Second Supplement to the Fiscal Year 2018-2019 Budget for the Colorado Department of Transportation

Approved by the Transportation Commission on August 16, 2018.

WHEREAS, the budget requests being presented to the Transportation Commission this month have been reviewed and were determined to meet the criteria outlined in Policy Directive 703.0, requiring approval by the Transportation Commission; and

WHEREAS, the project requests included in the Supplement are consistent with the FY 2019 through FY 2022 STIP, and funds are available from the Regions' allocations unless otherwise indicated.

NOW THEREFORE BE IT RESOLVED, after review and consideration, the Second Supplement to the Fiscal Year 2018-2019 Budget is approved by the Transportation Commission.

Herman Stockinger, Secretary Transportation Commission of Colorado

Date





MEMORANDUM

DATE: July 9, 2018

TO: Joshua Laipply, P.E., Chief Engineer Jeff Sudmeier, Chief Financial Officer Jane Fisher, P.E., PMO Director ____

FROM: David A. Eller, R3 Director

and A. Ell_

SUBJECT: I-70 Glenwood Canyon Variable Speed Limit Signing RAMP Funding Request

Purpose

Region 3 is requesting approval to fund the Glenwood Canyon Variable Speed Signing RAMP Operations project with \$315,615 of RAMP contingency funding.

Action

Per P.D. 703, we are requesting that the RAMP Governance Committee approve this request.

Background

This RAMP Operations was recently re-advertised because of high bids on the original advertisement from a single bidder. Since then, we have refined the project scope and plans to clarify several items. This was done with a "best value" philosophy in mind, and has resulted in three bidders for this proejct. The low bid has come in at \$728,773 over our original budget. We have secured other funding (HSIP) for the balance of this deficit once the remaining RAMP Contingency funding is approved for this project.

Details

The scope for the originally approved project included installation of Variable Speed Limit (VSL) signing in Glenwood Canyon. The original estimate assumed fiber communications would be available in the eastbound direction of the canyon. As project development progressed it was determined that VSL signing is actually desired in both the eastbound and westbound directions resulting in the need to provide fiber communication in the westbound direction. The project also includes additional cameras, weather stations, ITS software and hardware upgrades, and other signage upgrades for 13 miles of Glenwood Canyon. If budget actions are approved, the project will be awarded, and work is anticipated to begin by mid August.

Key Benefits

Providing VSL signing and related improvements in Glenwood Canyon provides substantial increase in safety due to the ability to manage traffic speeds and flows in response to weather and other adverse driving conditions. The completed project will enable immediate detection emergency events which



will then trigger speed reductions. Currently the basic work of setting speed reductions for construction zones is extremely dangerous with employees working in live traffic in a width restricted and windy section of I-70. Employee safety will be greatly improved by simply reducing speed limits.

Options

- 1. Approve the request to fund the project with \$315,615 in RAMP Operations Contingency, and fund the remaining balance of \$413,158 with HSIP funding.
- 2. Request additional information and delay action. This may result in the need to rebid the project, which would be expected to raise costs.
- 3. Deny the request.

Next Steps

Upon approval of the funding request this project will be awarded.

/ ach CarphyDate: 8/1/2018 Approved:





REGION TRANSPORTATION DIRECTOR 5615 Wills Boulevard Pueblo, CO 81008

To: Joshua Laipply, CDOT Chief Engineer

From:

Karen Rowe, CDOT Region 2 Director

August 1, 2018 Date:

Subject: Request to use Emergency Contracting Procedures for the Ruxton Creek Culvert Failure on US 24E in Manitou Springs (MP 1.35).

In accordance with State of Colorado Fiscal Rule 2-2 and Section 120.8.3 of the CDOT Construction Manual, I respectfully request your approval to pursue emergency contracting for the replacement of the Ruxton Creek Culvert on US 24E in Manitou Springs at MP 1.35.

Emergency Condition

During the morning of July 30, 2018, a 2-foot sink hole was discovered on US 24E (Manitou Avenue Business Route) at MP 1.35 near Ruxton Avenue at the west end of Manitou Springs. CDOT Maintenance determined later that morning that the sink hole was caused from extensive damage to a large culvert that conveys Ruxton Creek under US 24E. Heavy rains in Manitou Springs the week prior likely caused much of the damage. The culvert is likely over 100-years old and is constructed with a concrete spread-footer, rock masonry walls and a concrete arch supporting the top. The westerly wall and spread footer has moved with partial failure of the culvert wall. A large void along the length of the culvert extends for about 40feet. The width of the damage and void is about 4 to 5 feet outside of westerly culvert wall. After meeting with Staff Bridge and CDOT Maintenance, the recommended action is to remove the culvert from the existing sidewalk on the south end of US 24E to Fountain Creek and replace the structure with a 12' X 10' concrete box culvert with the option of a threeside CBC.

Currently Manitou Avenue is closed in both directions and it anticipated that the work could be finished by the end of September or sooner based on initial conversations with Contractors and Staff Bridge. Access into Manitou is still available on either side of the closure. Access from the west is from Serpentine Drive or US 24/US 24E Business Interchange. From the east, access is from US 24E Business/US 24 Interchange or Sunshine Trail.

Emergency Procurement

The closure is affecting access to local business during the peak of the tourist season in Manitou even though access can be accomplished at both ends of Manitou Springs it has



Subject: Request to use Emergency Contracting Procedures for the Ruxton Creek Culvert Failure on US 24E in Manitou Springs (MP 1.35)

disrupted traffic flow and truck shipment on the west end of the town is effected as Serpentine Dive is a windy roadway with limited truck access.

Region 2 is requesting to utilize emergency contracting procurement and has begun developing a bid package with limited detailed plans and specifications with estimated quantities. All work is anticipated to take place in CDOT Right of Way. Coordination has also begun with respect to environmental considerations such as ensuring post construction fish passage and a clean water diversion.

The initial cost estimate for the project is \$1.6 Million for replacement of a 60-foot 12' X 10' CBC with extensive creek diversion. The current schedule includes completing the procurement and notice to proceed by August 10th or sooner with a completion date by the end of September, 2018. The CDOT team is looking for options to reduce the cost and schedule as the plans are being developed with the support of Staff Bridge. We will provide a fixed completion date but will allow the Contractor to work 7 days a week. This approach has been discussed with Town of Manitou officials and the Mayor of Manitou and they are in agreement on this approach.

CDOT R2 will pay for the repairs from our current MLOS budget in order to procure through emergency contracting procedures ASAP. Region 2 would respectfully request that the actual construction cost be submitted to the Transportation Commission in the amount around \$1.5 million to \$2 Million for reimbursement with TC contingency funds. We will be exploring whether the cost is eligible for emergency repair funding for the flood that occurred in Manitou on Monday July 23rd, 2018.

I Concur: Joshua Laipply, P.E., CDC

cc: Herman Stockinger, Deputy Executive Director Jason Ahrens, Region 2 business manager Mark Andrew, North Program Engineer Marci Gray, Award Officer, Engineering Contracts D'Wayne Gaymon, Region 2 Maintenance David Watt, Region 2 Resident Engineer Rob Frei, Region 2 Environmental Manger Jeff Sudimeir, CFO Liliya Gershman, CDOT Controllers Office Micheal Krochalis, OFMB Jerad Esquibel, Director of Project Support Kevin Ryburn, Area Engineer File





MEMORANDUM

DATE:	August 1, 2018
то:	Josh Laipply, Chief Engineer
FROM:	Michael D. McVaugh, Region 5 Transportation Director
SUBJECT:	Request to use Transportation Commission funding for emergency crib wall and rockfall fencing repairs and upgrades on US Highway 550 at MP 89.56.

Emergency Conditions

At approximately 5:45 p.m. on July 8, 2018, a slow intense summer thunderstorm settled over the US 550 corridor south of Ouray Colorado (Red Mountain Pass). This event was significant enough that it washed rock, debris, and mud down onto US highway 550 in several locations, including the Ruby Walls rockfall area. The debris event, particularly at milepost 89.56 and Ruby Walls, was sufficiently large enough that it dislodged and destroyed a large crib wall (retaining wall) that supports US 550 and compromised the structural integrity and functionality of the Ruby Walls rockfall fence (See attached photos of the crib wall and rockfall fence damage). The flooding debris ranged from 10- 15 feet deep on the inside lanes of the highway and at least four feet high on the outside shoulder of the highway. The loss of the crib wall caused about 10 feet of shoulder to be lost as well as subsequent scour back to the edge of pavement with some undermining of the roadway surface. The debris flow blocked all lanes of US 550 in addition to the crib wall failure.

The debris flows and rockfall closed US 550 for approximately 1 day to assess the damage. The closure was between the summit of Red Mountain pass and Ouray. CDOT staff from Region 5 Maintenance and Engineering as well as the CDOT Geohazards Unit worked collaboratively to assess the damage and determine if the road was safe to reopen. CDOT was able to reopen the roadway to single lane alternating traffic on July 9, 2018.

The Geohazards Unit has evaluated the debris flow area above the highway to determine the extent of rock scaling, rockfall fence stability and needed repairs, and how to effectively replace the crib wall to safely restore full two lane traffic operations. Currently the Geohazards unit has sufficient funds (approximately \$300k) to repair the crib wall, but this will weaken their financial ability to respond to other incidents statewide. On July 12th, GeoStabilization International (GSI) mobilized equipment to the site and began crib wall replacement. The crib wall work is expected to take approximately 30 days, which would give an anticipated reopening date of August 15, 2018 for full two-lane, two-way traffic. Repair of the existing rockfall fence is anticipated to be completed this August with a subsequent full replacement initiated this fall after Labor day to reduce economic impacts to San Juan and Ouray Counties who have been hard hit this year by the early summer closure of US 550 due to wildfires.

US 550 in this area is used by over 2,200 vehicles per day, of which 10.1 percent are trucks, supporting the critical tourist industry in Ouray and San Juan Counties. Identified detour routes utilizing SH 145 via SH 62 on the



north and US 160 on the south, can be implemented if full closures are anticipated. These detours can add up to approximately 2 additional hours of travel. The goal of the Region is to find a fall solution to replace the rockfall fence without going to long term full closures of US 550.

Emergency Contracting Issues

Due to the severe damage to the US 550 crib wall, Ruby Walls rockfall fencing and the economic impacts to a tourist industry, that has already suffered from the recent wildfire highway closures, I am requesting your approval to pursue emergency contracting as described below.

Pursuant to the provisions of State of Colorado Fiscal Rule 2-2 and Section 120.8.3 of the CDOT Construction Manual CDOT, Chief Engineer approval is requested to pursue emergency contracting for the repair of US Highway 550 at milepost 89.56. CDOT will utilize an existing Non-Project Specific (NPS) contract through Staff Geotechnical unit for on-call rockfall removal, repair and mitigation with GeoStabilization International (GSI).

Plan development for the long-term repair is being led by CDOT Geohazards Program in coordination with Region 5 Engineering Staff. The project's scope is to complete slope stabilization, debris removal, rockfall netting and fence repair/replacement, roadway, and final crib wall repairs and scour protection.

Roadway and Final Crib Wall Repair and Scour Protection:

A portion of the existing cribwall will be removed to a line that is approximately 8 feet off the edge of the pavement. Ground anchors will be installed across the face of the embankment. Shotcrete will be used as the stabilization cover that will be supported by micropiles at the base of the wall. The existing timber facing will be reused (and supplemented where damaged) to preserve the historical character of the structure. The ends of the new wall will be lengthened and protected with riprap. Traffic control would utilize the existing one way alternating traffic pattern with possible intermittent stops to accommodate short construction activities. The anticipated duration for this work is estimated between 20 to 30 days.

The current damage assessment identifies total repair costs are estimated to be \$350,000 (\$225K for Cribwall repair/replacement, \$125K for unforeseen contingencies, testing and inspection).

Rockfall Netting and Fence Repair/Replacement:

The existing draped rock netting that was installed in 2013 needs to be pinned down to contain the loose rock material that has been scouring out during storm events and generating shallow debris flow events. This requires the drilling and installation of #8 bar anchors around the perimeter of the netting. The crew would also perform scaling work around the netting on areas of exposed loose rock that may be prone to fall during future rain events. The existing rock fence that was installed in 2014 was designed to catch occasional small volume rock migration beneath the rock netting and was not intended to accommodate debris flow loading. Following the high intensity storm events it has been completely filled with material and portions of the fencing have split. It cannot contain any more material and recent rains have sloughed rock over the fence area and down to the roadway. The fencing will be patched in the split locations and a portion of the debris above the top of the fence will be removed. Additionally, a second, more robust fence barrier would be installed below the existing barrier. The new barrier would be 11.5 feet tall and constructed with high tensile wire netting, providing greater impact resistance and debris retention volume with a longer interval between maintenance clean outs.



It is estimated that the work will take 41 days and will require some road closure periods. This work would not begin until after Labor Day in order minimize impacts to summer traffic volumes.

Region 5 is requesting Transportation Contingency Funds for the project. The Geohazards unit does not have sufficient funds to cover the scope of the work including completion of the cribwall repairs. It should also be noted that this work may qualify for Federal Emergency Funding.

With your support of this request, Region 5 intends to proceed with the emergency repair as discussed. This assumes two separate efforts - one in the near term for patching the existing system and a separate mobilization later in the year (after tourist season) to install a new barrier and anchor the cable net to the slope.

The following table itemizes the estimate costs for the work.

Description	Unit	Qty	Unit Cost	Total Cost	Duration (days)	Notes
Mobilization #1	EA	1	\$10,260.06	\$10,260.06	2	
Permanent Soil Nail Wall and Micropile base	LF	120	\$1380.01	\$165,600.73	20	Includes reinforced shotcrete facing.
Rough cut timber facia	SF	1,776	\$27.93	\$49,609.49	10	
Contingencies				\$124,530		
			Subtotal Cribwall	\$350,000.28		
Mobilizations #2&3	EA	2	\$9,400.00	\$18,800.00	4	
Scope #1 - Repair/Patch Existing Mesh	LS	1	\$50,700.00	\$50,700.00	6	Single crew; no helicopter support; setup/safety scale/patch existing fence
Scope #2 - Scaling and Cable Net Anchors/Patch	LS	1	\$142,750.00	\$142,750.00	14	Double crew; one half-day heli support; total of 90 5-ft epoxy- coated #8 bar anchors; no cable net material replacement
Scope #2 - New Debris Fence	LF	213	\$1,418.90	\$302,225.00	19	Double crew; 2 half-days heli support; Geobrugg SL-100 fence w/5m post spacing; two #8 bar anchors per post assumed; 5-ft embedment cable anchors assumed



Traffic Control	LS	1	\$50,000.00	\$50,000.00	33	Concurrent with scopes 1 & 2, Includes temp traffic signals, flagging and signage, TCS
Subtotal (all phases)				\$914,475.28		
Contingencies				\$85,000		
CE & Indirects				\$143,534		This would only apply if Region 5 had to advertise for bids on the new fencing and repair work on the Ruby Walls work.
			Total Request	\$1,143,009.26		

I concur: ____

Date:___

Josh Laipply, P.E. Chief Engineer

cc: Kevin Ryburn – Area Engineer
Robert Jaros – State Controller
Jeffery Sudmeier– CFO
Eric Ehrbar – OFMB
Kevin Curry– R5 Program EngineerJeff
Medenwaldt – R5 Business Manager
Tony Cady – R5 Envir. & Planning Mngr

Greg Stacy – R5 Section 3 Maint. Superintendent Julie Mileham - Risk Management Lori Copeland– Accounting and Finance Mike Krochalis – Deputy Finance Officer Hermann Stockinger- Deputy Executive Director













