

# Memorandum

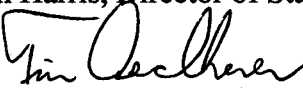
## MATERIALS AND GEOTECHNICAL BRANCH SOILS AND ROCKFALL PROGRAM

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**DATE:** July 14, 2005

**TO:** Tim Harris, Director of Staff Services

**FROM:**   
Tim Aschenbrener, Materials and Geotechnical Branch Manager

**SUBJECT:** Revised Rockfall Mitigation Project Plan Site Schedule


This memo is an update of rockfall mitigation decision items for Georgetown Hill and a request for approval of the updated FY 2006 – FY 2010 Rockfall Mitigation Project Plan (RMPP) site schedule. Currently, rockfall along Georgetown Hill is rated in the Colorado Rockfall Hazard Rating System (CRHRS) but funding of mitigation is not allocated through the Rockfall Program. On January 6, 2005 the Rockfall Program was directed to update the RMPP site schedule to include Georgetown Hill.

A \$1.5M increase in the Rockfall Program budget was approved by the Transportation Commission during their April 2005 meeting. With the budget increase, the RMPP site schedule is revised to include Georgetown Hill and reflect a \$3M budget.

A Feasibility Study was prepared to assist in prioritizing rockfall locations along Georgetown Hill. In the study bedrock outcrops and rockfall source areas were mapped and evaluated. Using this data, areas for future rockfall mitigation were categorized and various mitigation measures were evaluated for effectiveness, constructability, maintenance requirements, environmental constraints, and cost. The Feasibility Study compliments the Georgetown Incline Rockfall Evaluation Report dated November 13, 2003.

The proposed RMPP site schedule is presented here:

I concur,

  
\_\_\_\_\_  
Tim Harris, Director of Staff Services

7-18-05  
\_\_\_\_\_  
Date

Table 2 (updated June 2005) Rockfall Mitigation Project Plan FY06 - FY10

Fiscal Year	Site	Region	Mile Post		CRHRS Score	CRHRS Rank	Preliminary Estimate
			Begin	End			
FY 2006	I-70 - Georgetown Hill	1	227.438	227.610	NA	NA	\$1,450,000.00
	US 550 - Moles Pass	5	60.577	61.000	672	2	\$600,000.00
	US 550 - Moles Pass	5	58.178	58.416	563	17	\$400,000.00
	SH 12 - Weston	2	50.700	50.760	582	12	\$200,000.00
	Personnel Services/Operating Costs						\$300,000.00
							<b>\$2,950,000.00</b>
FY 2007	I-70 - Georgetown Hill	1	226.400	227.170	NA	NA	\$1,500,000.00
	SH 119 - Clear Creek Canyon	1	2.700	2.750	615	5	\$200,000.00
	SH 119 - Clear Creek Canyon	1	6.351	6.394	606	6	\$200,000.00
	US 6 - Clear Creek Canyon	1	270.200	270.363	597	8	\$250,000.00
	US 6 - Clear Creek Canyon	1	266.015	266.068	555	18	\$150,000.00
	US 6 - Clear Creek Canyon	1	267.085	267.217	552	19	\$250,000.00
	SH 119 - Clear Creek Canyon	1	0.000	0.167	543	24	\$250,000.00
	Personnel Services/Operating Costs						\$350,000.00
							<b>\$3,150,000.00</b>
FY 2008	I-70 - Georgetown Hill	1	226.160	226.350	NA	NA	\$1,200,000.00
	US 50 - Big Horn Sheep Canyon	2	242.230	242.600	579	13	\$500,000.00
	US 550 - Red Mountain Pass	5	66.898	66.251	588	10	\$550,000.00
	US 550 - Red Mountain Pass	5	66.959	66.424	582	19	\$300,000.00
	Personnel Services/Operating Costs						\$350,000.00
							<b>\$2,900,000.00</b>
FY 2009	I-70 - Georgetown Hill	1	226.050	226.200	NA	NA	\$1,400,000.00
	SH 133 - McClure Pass	3	44.370	45.130	575	14	\$500,000.00
	SH 133 - Paonia Reservoir	3	24.790	24.860	569	16	\$200,000.00
	SH 133 - Paonia Reservoir	3	24.060	24.350	552	19	\$400,000.00
	SH 133 - Paonia Reservoir	3	24.380	24.620	545	23	\$350,000.00
	Personnel Services/Operating Costs						\$400,000.00
							<b>\$3,250,000.00</b>
FY 2010	I-70 - Georgetown Hill	1	226.680	227.630	NA	NA	\$1,400,000.00
	SH 82 - Snowmass	3	35.600	36.200	543	24	\$450,000.00
	SH 145 - Norwood	5	96.538	96.693	552	19	\$300,000.00
	SH 145 - Norwood	5	97.047	97.185	543	24	\$200,000.00
	Personnel Services/Operating Costs						\$400,000.00
							<b>\$2,750,000.00</b>
Total Rockfall Pool expenditures planned to date:							<b>\$15,000,000.00</b>
Anticipated expenditures per year for FY 2006 - FY2010:							<b>\$3,000,000.00</b>
Notes:							
1) Personnel Services/Operating Costs include:							
1. Salaries for Rockfall Program Personnel.							
2. Daily operating costs including equipment and supplies necessary for rock slope evaluation.							
2) Georgetown Hill sites are selected based on information from a Rockfall Mitigation Feasibility Study, May 2005.							
3) Preliminary estimates are based on past project costs, inflation is not taken into consideration.							