

SITE NUMBER AND NAME S017 Mount Baldy Rock Cut		HIGHWAY & KM 40:12, 37.302	PREVIOUS INSPECTION DATE May 1, 2018	INSPECTION DATE May 7, 2019
LEGAL DESCRIPTION NE 32-23-8-W5	NAD 83 COORDINATES UTM Northing Easting 11 5652484 634210		RISK ASSESMENT PF: 12 CF: 3 TOTAL: 36	
Average Annual Daily Traffic (AADT): 2600 (north), 2580 (south), (Ref. No. 53190)			Contractor Maintenance Area (CMA): 28	

SUMMARY OF SITE INSTRUMENTATION: None LAST READING DATE: N/A	INSPECTED BY: Chris Gräpel (KCB) Chris Morgan (KCB) Renato Macciotta (KCB) Alex Frotten (AT) Roger Skirrow (AT) Nicolas Ropchan (AT)
PRIMARY SITE ISSUE: Rockfalls from back slope. Site has a narrow ditch and potential rockfall source upslope.	
APPROXIMATE DIMENSIONS: Slope height approximately 15 m, with 3 to 4 m of soil at brow of slope.	
DATE OF ANY REMEDIAL ACTION: Wire mesh and HTCB installed in 2016.	

ITEM	CONDITION EXISTS		DESCRIPTION AND LOCATION	NOTICABLE CHANGE FROM LAST INSPECTION	
	YES	NO		YES	NO
Pavement Distress		X			X
Slope Movement	X		Back slope rockfall of massive limestone. Rock blocks falling into ditch	X	
Erosion	X		Erosion of soil above rock face contributes to rockfall	X	
Seepage		X			X
Culvert Distress		X			X
COMMENTS					
Active site with small rockfalls at the time of inspection. Visit site every two years.					
Large debris piles in mesh gaps. The slope is less steep at the gaps in the mesh due to weathered rock and therefore were left open for animal access up the slope. Blocks are falling along the open sections.					
Rocks up to 1.7 m x 1.2 m x 0.8 m (1.6 m ³) have fallen into the ditch.					
Mesh is working well. Some areas of damaged mesh were noted at the base of the mesh due to large falling rocks. Large rockfalls are damaging the mesh joint with the lower cable, creating loose sections. The mesh should be repaired to prevent rolling because of potential to roll onto the highway. Loose sections of mesh may be more prone to tearing.					
Existing ditch is narrow and flat, allowing some debris to roll onto the highway. Ditch should be cleaned of debris regularly. Maintenance contractor reports that ditches are typically cleaned every 3 to 5 years.					

Sections of the rock face are sheared and unstable. Structural features dip out of slope, allowing blocks to detach and slide towards the highway (Photo 2). Potential for larger blocks to block a lane.

There is exposed soil at the brow of the slope. Crest anchors for the mesh are at risk of being undermined in places.

Recommendations for this site are:

Short-Term

- Rock debris should be cleaned from ditches this year; and
- Reattach the mesh to the base cable so that it functions effectively.

Fallen material could be used to create a small berm behind the HTCB at the mesh gaps, to reduce potential for rockfall material from rolling under the HTCB and onto the highway.



Legend
 ┆┆┆┆┆┆┆ Crest of Rock Slope

NOTES: 1. HORIZONTAL DATUM: NAD83 2. GRID ZONE: UTM Zone 11N 3. IMAGE SOURCE: Bing Maps 2018, Microsoft Corporation Image dated May 2013	CLIENT 	PROJECT SOUTHERN REGION GEOHAZARD RISK MANAGEMENT PROGRAM
		TITLE Site Plan S017 - Mount Baldy Rock Cut Hwy 40:12 km, 37.302
SCALE 1:1,200	PROJECT No. A05115A03	FIG No. 1

Time: 15:27:57 PM
 Date: June 24, 2019
 File: Z:\A\EDM\A05115A03\ABT Southern Region GRMP\A00 Drawings\2019\2. Section BIM\XDS\017_190624.mxd

Photo 1 Rock slope height is approximately 15 m. Loose material at the brow of the slope erodes and contributes to the rockfall. Photo taken facing east on May 7, 2019.



Photo 2 Wire mesh and HTCB installed in 2016. Photo was taken facing south on May 7, 2019.



Photo 3 Rock debris in ditch up to 1.7 m x 1.2 m x 0.8 m in size. Photo was taken facing north on May 7, 2019.



Photo 4 Some tears noted in the wire mesh where attached to the cable at the base. Photo was taken on May 7, 2019.

