

SITE NUMBER AND NAME: C030 Slide and Erosion Site		HIGHWAY & KM: 734:12, 40.628	PREVIOUS INSPECTION DATE: June 23, 2016	INSPECTION DATE: June 12, 2017
LEGAL DESCRIPTION: 09-10-19-033-08 W5M	NAD 83 COORDINATES: UTM Northing Easting 11 5745765 629598		RISK ASSESSMENT: PF: 1 CF: 1 TOTAL: 1	
AVERAGE ANNUAL DAILY TRAFFIC (AADT): 160 (south) (Ref No. 51280)			CONTRACT MAINTENANCE AREA (CMA): 18	

SUMMARY OF SITE INSTRUMENTATION: None LAST READING DATE: N/A	INSPECTED BY: Chris Gräpel (KCB) Courtney Mulhall (KCB) Roger Skirrow (AT) Tony Penney (AT)
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PRIMARY SITE ISSUE: Two slides on the south side (northbound lane) of Hwy 734 where the highway traverses the north slope of the James River Valley. Erosion damage caused by flooding in 2005 was previously repaired in September 2005. Additional drainage improvements were completed between 2014 and 2016 as part of AT's high-water-mitigation program.

APPROXIMATE DIMENSIONS:

DATE OF ANY REMEDIAL ACTION: 2004 – slope instability repaired; September 2005 – erosion damage caused by flooding in 2005 repaired; Fall 2014 – maintenance of the subsurface drains, culvert slope drains, drainage pipes, and slide area undertaken; June 2016 – four 1000 mm diameter CSP culverts with higher flow capacities and a riprap armored channel were installed/constructed to divert water away from the slide area, and w-beam guardrails were installed above the culverts and slide area. 2016 – original slide area repaired and slope drains repaired.

ITEM	CONDITION EXISTS		DESCRIPTION AND LOCATION	NOTICABLE CHANGE FROM LAST INSPECTION	
	YES	NO		YES	NO
Pavement Distress		X	None observed, gravel surfaced road		X
Slope Movement	X		Slide by outfall; slide downstream of riprap armored channel	X	
Erosion	X		Erosion gully downstream of outfall; erosion downstream of riprap armored channel		X
Seepage		X	None observed		X
Culvert Distress	X		Culverts damaged during construction, but open		X

COMMENTS

The culverts were damaged during construction. The MCI and AT bridge branch should inspect the culverts periodically to monitor their performance. The minimum 600 mm covering fill was present at the time of inspection. Drainage from the riprap armored channel is draining towards the crest of the James River valley slope. Drainage from the riprap armored channel is exacerbating a historic slide on the north slope (outside bend) of the James River Valley.

Vegetation is establishing itself on the east bank of the riprap armored channel, and growing through the erosion control cloth that was placed around the culverts and in the ditches in June 2016. The stockpile on the west bank of the riprap armored channel remains poorly vegetated.

The quantity and diameter of culverts installed at the site resulted in the site becoming a bridge file (BF83183). The stockpile of excavated soil from the C030, C037-I, and C037-II sites has not vegetated. The contractor used broadcast seeding instead of drill seeding. Vegetation is growing in other areas on site. The warranty inspection

should include assessment of the vegetation growth on the stockpile.
This site should be inspected every two years to monitor the landslide at the outlet of the riprap armoured channel and to assess vegetation growth.