

SITE NUMBER AND NAME: <b>S049 Hoot and Howl Slide</b>		HIGHWAY & KM: 504:02, 5.090	PREVIOUS INSPECTION DATE: May 19, 2022	INSPECTION DATE: <b>May 29, 2024</b>
LEGAL DESCRIPTION: 03-17-04-16 W4M	NAD 83 COORDINATES: UTM Northing Easting 12 5460493 417931		RISK ASSESMENT: PF: 8 CF: 3 TOTAL: 24	
AVERAGE ANNUAL DAILY TRAFFIC (AADT): 180 (east) (Reference No. 7000054)			CONTRACTOR MAINTENANCE AREA (CMA): 24	

SUMMARY OF SITE INSTRUMENTATION:  There is no instrumentation at the S049 site.  LAST READING DATE: N/A	INSPECTED BY: Chris Grapel (KCB) Peter Roy (KCB) Alex Frotten (TEC) Kristen Tappenden (TEC)
PRIMARY SITE ISSUE: Large translational earth slide on the south embankment of the highway. Approximately 20 m of guard rail on the south side of the highway is being undermined by the retrogressing head scarp.	
APPROXIMATE DIMENSIONS: Approximately 20 m of highway is being impacted by the head scarp. The landslide is approximately 50 to 70 m wide in the middle of the embankment.	
DATE OF ANY REMEDIAL ACTION: Unknown – guardrail was repaired	

ITEM	CONDITION EXISTS		DESCRIPTION AND LOCATION	NOTICABLE CHANGE FROM LAST INSPECTION	
	YES	NO		YES	NO
Pavement Distress		X	Undermining of the south shoulder at the guardrail and the pavement edge is spalling.		X
Slope Movement	X		Translational slide with open back scarp approximately 1/3 the way down the slope and a tension crack approximately 2 m below pavement elevation		X
Erosion	X		Some minor erosion below fence line and near the CSP culvert outlet		X
Seepage		X	N/A – none observed		X
Culvert Distress		X	N/A – culvert appears to be in good condition		X

<b>COMMENTS</b>
No significant changes were observed between the 2022 and 2024 inspection. No significant changes have been observed at the site since 2018 (overall site shown in Photo 1)
The site is well vegetated.
Approximately 50 mm of settlement has been observed in the guardrail, where it is being undermined.
The pavement edge is cracking due to slope movement and asphalt pieces are rolling down the slope.
The CSP culvert (oriented approximately northwest-southeast) located west of the slide zone is in good condition without any signs of distress from the slide movement. The culvert inlet is slightly rusted and may have some debris inside. Minor erosion was noted at the outlet and standing water was observed during previous inspections.
During the 2024 inspection, a tension crack approximately 23 m long and 2 m below the pavement elevation appears to drop by approximately 100 mm to 150 mm (sloping towards the east).
The right (west) flank of the scarp shows visible movement toward the creek and the slide appears to be extending further upslope. An erosion gully from the highway ditch is feeding into the right flank. There is no visible feature of

a left flank.

There is a well-developed toe roll at the toe of the slope. There is no evidence of upward movement at the toe, which indicates translational slide movement.

A berm appears to be present at the toe of the slope adjacent to the slide area and culvert. However, the berm is also located on the opposite side of the embankment and appears to be an old roadway.

Maintenance/Repair/Monitoring Recommendations:

- The site should be regularly inspected by TEC's MCI and inspected every two-years as part of the Southern Region Section B inspections.
- Drainage improvements should be completed to divert surface water runoff away from the head scarp.
- Deeper-than-typical guardrail posts should be installed in this area to allow the guardrail to be at the typical/design guardrail height.

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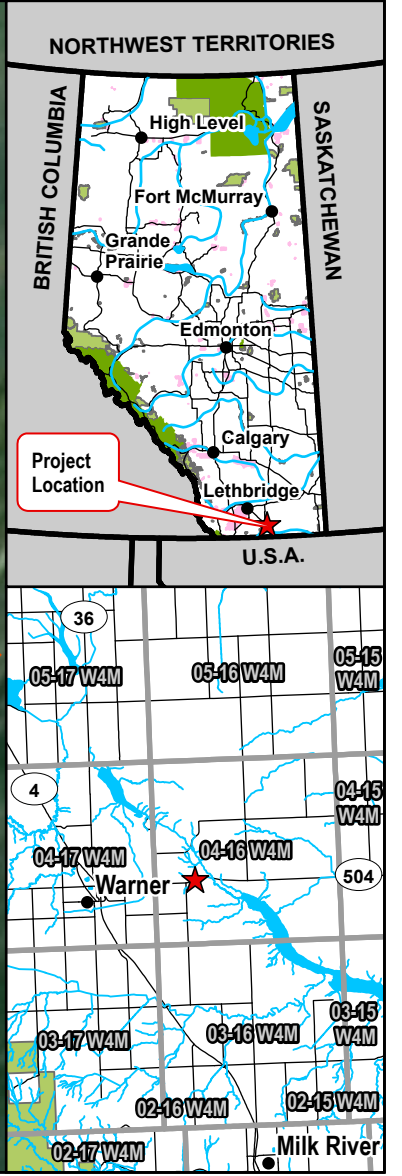
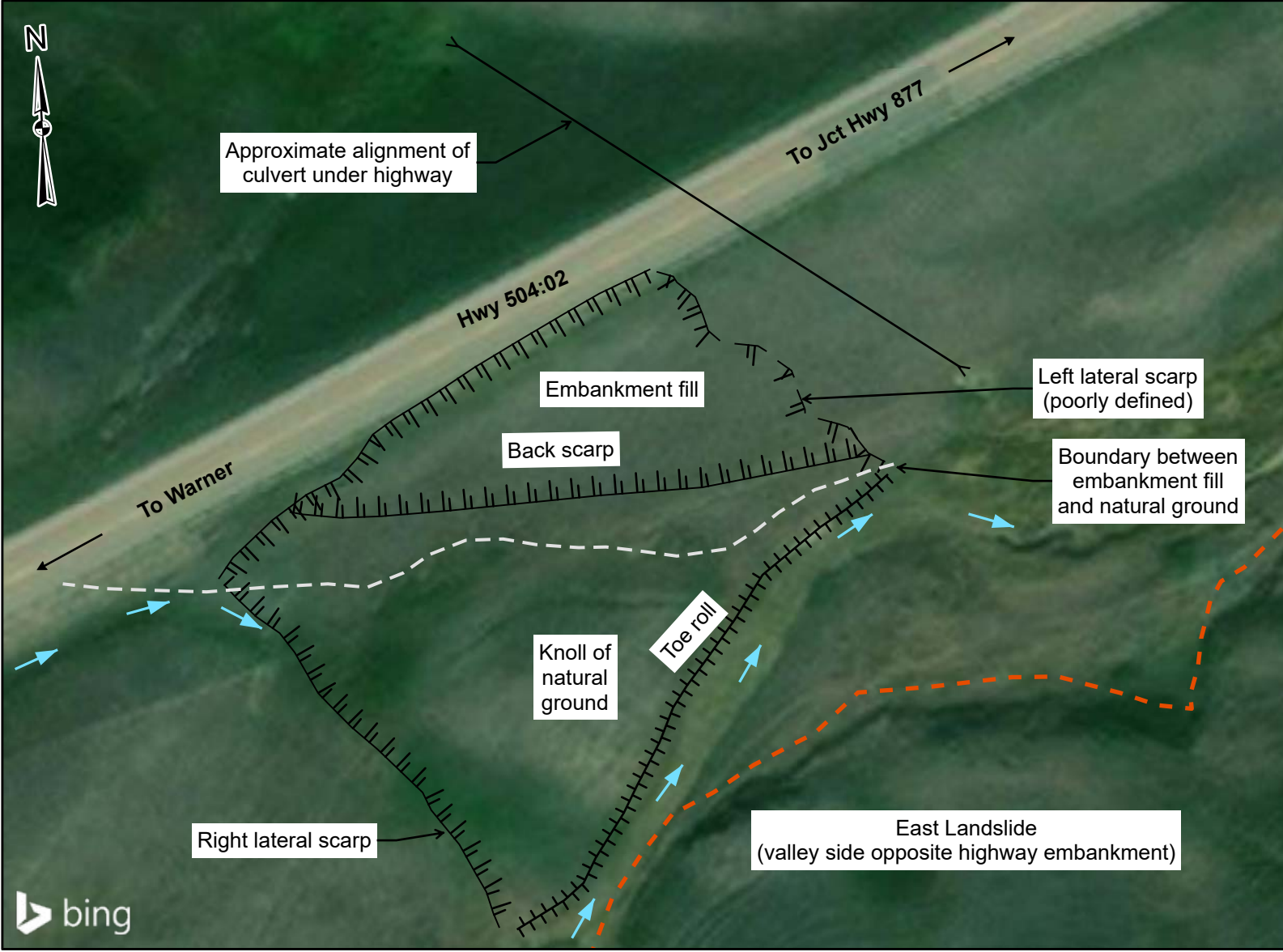
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<p>Peter Roy, P.Eng. Civil Engineer</p>	
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- Legend**
- Flow Direction
  - Boundary
  - Culvert
  - Scarp
  - Toe Roll
  - Slide Extent

**NOTES:**  
 1. HORIZONTAL DATUM: NAD83  
 2. GRID ZONE: UTM ZONE 11N  
 3. IMAGE SOURCE: MAXAR 2024

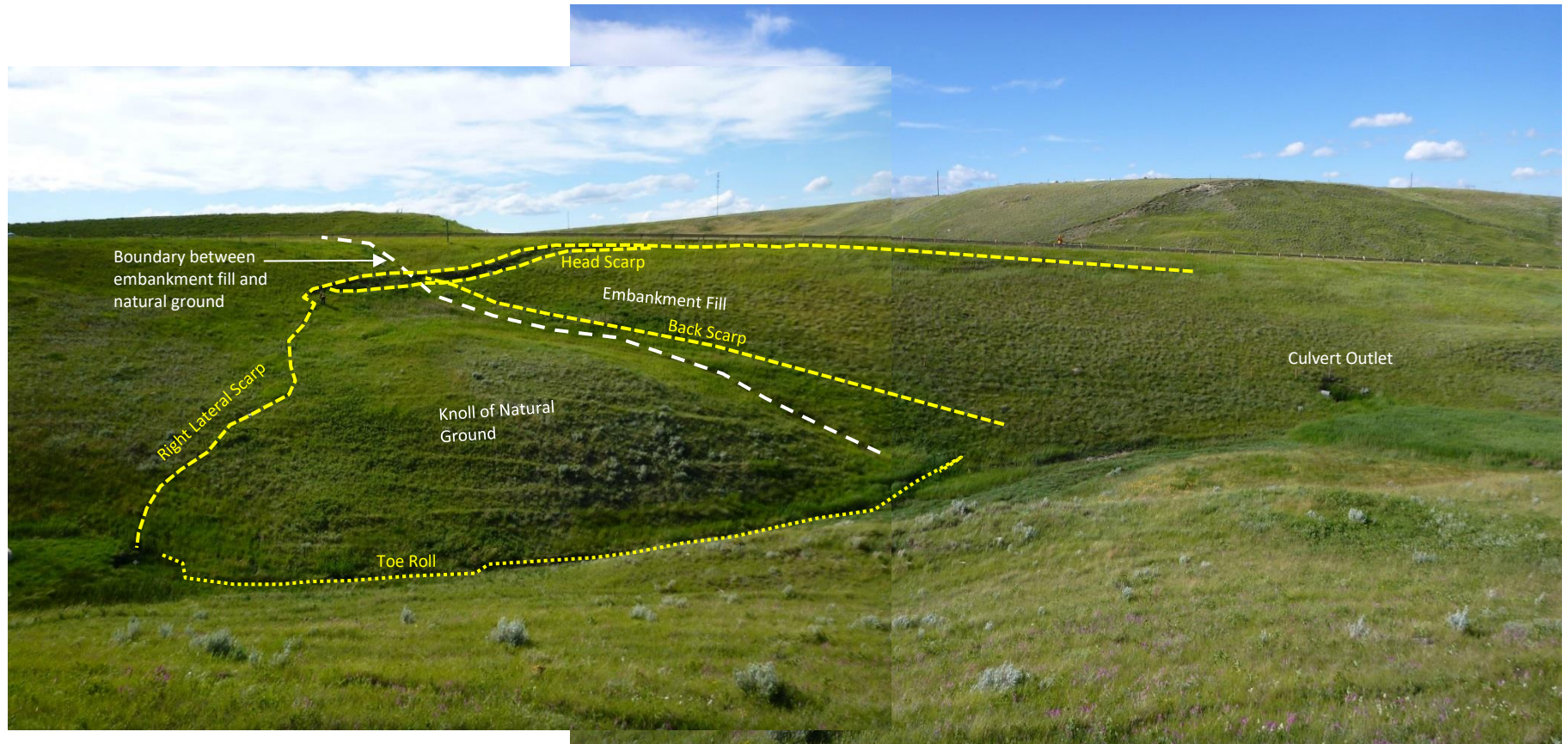
CLIENT




PROJECT SOUTHERN REGION GEOHAZARD RISK MANAGEMENT PROGRAM		
TITLE Site Plan S049 - Hoot and Howl Slide Hwy 504:02, km 5.090		
SCALE 1:800	PROJECT No. A05116A03	FIG No. 1



**Photo 1** High embankment slope instability, translational slide. Presence of back scarp infers a reverse graben has formed which is evidence of translational slide movement usually along a horizontal weak layer at depth. Higher head scarp at west end indicates slide is exhibiting hinged movement, dropping more at the west end where more of the slide mass involves natural ground and a pre-existing basal rupture surface exists and is controlling movement. Photos taken June 16, 2016, facing northward.





**Photo 2** View east across the slide zone. Tall grass is obscuring the visible slide features.  
Photo taken May 29, 2024, facing east.



**Photo 3** Head scarp on right flank. Photo taken on May 29, 2024, facing northwest.





**Photo 4** Tension crack on embankment fill (indicated by red dashed line) approximately 2 m below pavement elevation. Photo taken May 29, 2024, facing southwest.



**Photo 5** CSP culvert outlet near the left flank of the slide zone. The CSP culvert appears to be in good condition. Photo taken May 29, 2024, facing northwest.





**Photo 6**      **Head scarp at the edge of the pavement. Loss of pavement support over approximately 20 m length. Photo taken facing west on May 29, 2024.**

