CENTRAL REGION GRMP
SITE INSPECTION FORM

SITE NUMBER AND NAME: **C072 Chicken Creek Slide**	HIGHWAY & KM: 22:24, 9.80	PREVIOUS INSPECTION DATE: June 27, 2023	INSPECTION DATE: **June 9, 2025**
LEGAL DESCRIPTION: 09-33-040-07 W5M 12-34-040-07 W5M	NAD 83 COORDINATES: UTM Northing Easting 11 5817436 640058	RISK ASSESSMENT: PF: 1 CF: 4 TOTAL: 4	
HIGHWAY CLASSIFICATION NUMBER: 2		CONTRACT MAINTENANCE AREA (CMA): 514	
AVERAGE ANNUAL DAILY TRAFFIC (AADT): 2,320(north) & 3,020 (south) (Ref No. 990020)			

SUMMARY OF SITE INSTRUMENTATION:	INSPECTED BY:
Three slope inclinometers (SIs) installed on the east slope in 1990 – status unknown. LAST READING DATE: N/A	Chris Gräpel (KCB) James Lyons (KCB) Tony Penney (TEC) Chris Newman (TEC)

PRIMARY SITE ISSUE: There was a shallow slope failure in the west (southbound) highway embankment slope that was repaired in 2021. At the location of the site, the highway crosses Chicken Creek, which is a tributary of Canyon Creek, which is a tributary of the North Saskatchewan River. The original slide on the east (northbound) highway embankment slope was repaired in 1990.

APPROXIMATE DIMENSIONS: The west (southbound) highway embankment slope is approximately 6 m high and is sloped at approximately 3H:1V. The east (northbound) highway embankment slope is approximately 13 m high and is sloped at approximately 4H:1V.

DATE OF ANY REMEDIAL ACTION: 1990 – a site investigation and repair work were completed at the location of the original slide on the east (northbound) slope. October 2016 – a pavement patch was completed in the west (southbound) lane. 2017 – a pavement patch was completed in the west (southbound) lane. November 2021 – the shallow slide in the west (southbound) highway embankment was repaired with buried drains at the base of the embankment and geogrid-reinforced granular fill.

ITEM	**CONDITION EXISTS**		**DESCRIPTION AND LOCATION**	**NOTICABLE CHANGE FROM LAST INSPECTION**	
	YES	NO		YES	NO
Pavement Distress	X		Minor pavement cracking was observed in the west (southbound) pavement patch.		X
Slope Movement		X	The west (southbound) slope was repaired in November 2021 and appears to be performing well.		X
Erosion		X	N/A – none observed during the 2025 inspection.		X
Seepage		X	N/A – none observed during the 2025 inspection.		X
Culvert Distress		X	N/A – none observed during the 2025 inspection.		X

COMMENTS

General:

- The 1800-mm-diameter multi-plate corrugated-steel-pipe (CSP) culvert (Bridge File No. 13457) was sleeved with a 1300-mm-diameter CSP culvert (date unknown). The culvert is underlying Hwy 22:24 (oriented east-west) south of the 2021 repair (Photo 1 and 2).
- During the 2025 inspection, there was a red diamond hazard sign installed above the culvert along the west (southbound) guardrail (Photo 3).

West Highway Embankment Slope:

- The west (southbound) lane was patched during 2021 construction (Photos 1, 2, 3, and 5). A thin pavement crack (less than approximately 10 mm to 15 mm wide) was observed in the patch upslope of the 2021 repair but does not appear to have widened between the 2023 and 2025 inspections (Photo 5). KCB suspects this may be a previous saw cut that is reflected through the pavement patch and not attributed to slide movement.
- The shallow highway embankment slide was repaired in November 2021 with geogrid-reinforced granular fill (Photos 1 through 4). The coir roll installed at the crest of the slope appeared to be in good condition.
- Four buried perforated pipe drains (wrapped in filter fabric) were installed at the base of the excavation and daylight near the toe of the slope. The drain outlets were dry during both the 2023 and 2025 inspections (Photo 6). The toe of the highway embankment was relatively wet during the 2025 inspection and appears to be poorly drained.
- The 2021 repaired slope was relatively smooth, well vegetated (mostly grass), and appeared to be performing well (Photos 1 through 4). The embankment slope appeared drier than inspections before the 2021 repair, indicating the drainage improvements (granular fill and buried perforated pipe drains) are performing well.
- The fence at the toe of the highway embankment slope (below the 2021 repair) was deflected but does not appear to have changed significantly between the 2023 and 2025 inspections.

East Highway Embankment Slope:

- During the 2017 inspection, debris was observed at or just above the crown of the culvert inlet, indicating the culvert may have insufficient capacity to handle flow volumes during spring freshet or significant precipitation events. The culvert outlet was not inspected during the 2023 inspection. During the 2025 inspection, a beaver dam was observed at the culvert inlet (Photo 7). The beaver dam was approximately 1.5 m to 2.0 m high, extended above the crown of the culvert, and was impounding water.
- The highway embankment slope was well vegetated and the previous repair completed in 1990 generally appears to be performing well (Photo 8). During the 2025 inspection, evidence of minor movement (thin ground cracks) was observed in the lower portion of the highway embankment slope. Movement may be attributed to increased water levels in Chicken Creek, due to the beaver dam at the culvert inlet, increasing the groundwater level and reducing the overall stability of the slope.

Maintenance/Repair/Monitoring Recommendations:

- The site should continue to be regularly inspected by TEC's Maintenance Contract Inspector (MCI).
- The site should be removed from TEC's list of active Central Region GRMP sites.
- The beaver dam at the 1300-mm-diameter CSP culvert inlet should be removed.
- The red diamond hazard sign should be removed.

This report is an instrument of service of Klohn Crippen Berger Ltd. The report has been prepared for the exclusive use of Alberta Transportation and Economic Corridors (Client) for the specific application to the Central Region Geohazard Risk Management Program (Contract No. CON0022160) and it may not be relied upon by any other party without KCB's written consent.

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(ii) The observations, findings and conclusions in this report are based on observed factual data and conditions that existed at the time of the work and should not be relied upon to precisely represent conditions at any other time.

(iii) The report is based on information provided to KCB by the Client or by other parties on behalf of the client (Client-supplied information). KCB has not verified the correctness or accuracy of such information and makes no representations regarding its correctness or accuracy. KCB shall not be responsible to the Client for the consequences of any error or omission contained in Client-supplied information.

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PROFESSIONAL ENGINEER ALBERTA
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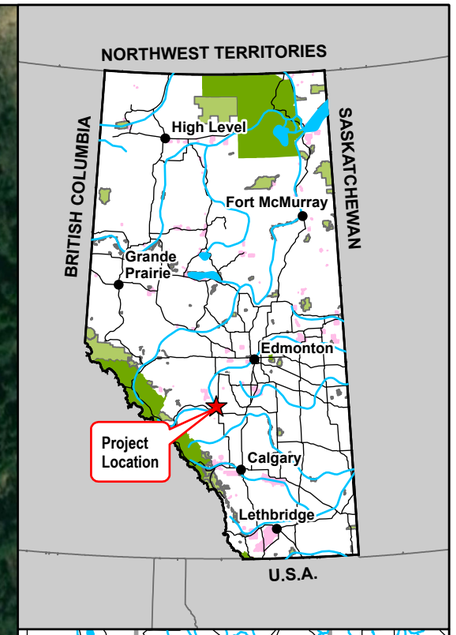
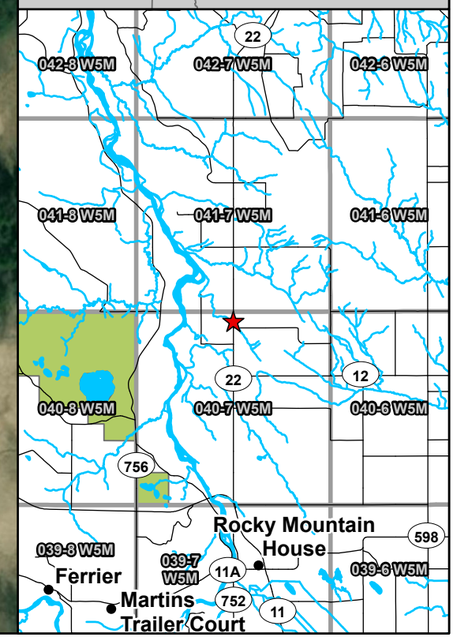
2025-08-22

James Lyons, P.Eng.
Civil Engineer

PERMIT TO PRACTICE
KLOHN CRIPPEN BERGER LTD.
RM SIGNATURE:
RM APEGA ID #: 58463
DATE: August 25 2025
PERMIT NUMBER: P009196
The Association of Professional Engineers and Geoscientists of Alberta (APEGA)





Legend

- Power Pole
- Culvert
- Guardrail
- Creek
- Berm Downslope Crest
- Buried Powerline
- Fence
- Crack

0 100 Metres

NOTES:
1. HORIZONTAL DATUM: NAD83
2. GRID ZONE: UTM ZONE 11N
3. IMAGE SOURCE: 2025 MICROSOFT CORPORATION, 2025 MAXAR CNES, DISTRIBUTION AIRBUS DS

CLIENT: Alberta

Klohn Crippen Berger

PROJECT: CENTRAL REGION GEOHAZARD RISK MANAGEMENT PROGRAM

TITLE: Site Plan
C072 - Chicken Creek Slide
Hwy 22:24, km 9.8

SCALE	PROJECT No.	FIG No.
1:2,000	A05116A02	1

File: Z:\AEDM\A05116A02 ABT Central Region GRMP400 Drawings\GIS\02_ProFiles\2023\Section B\ABT_Central_SectionB_230724\ABT_Central_SectionB_230724.aprx Date: Time: Creator: : NMirhadi

Inspection Photographs

Photo 1 **An aerial photo of the C072 site, highlighting the location of the pavement patch (red line), slide repair extents (red dashed line), and culvert (Bridge File No. 13457) inlet and outlet (red arrows). Photo taken June 9, 2025 facing southeast.**

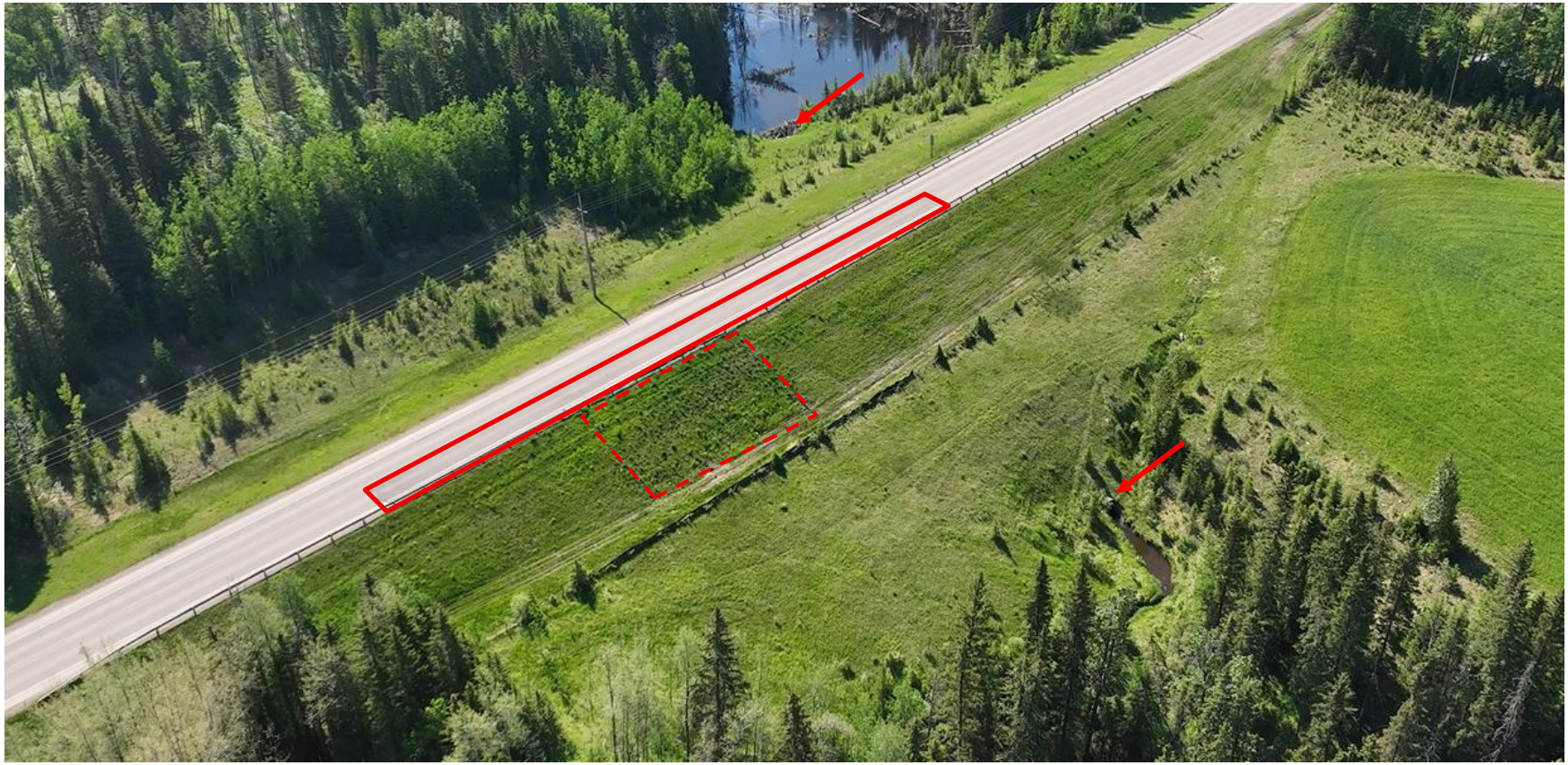


Photo 2 **An aerial view of the C072 site, highlighting the pavement patch (red line), slide repair extents (red dashed line), and culvert (Bridge File No. 13457) inlet and outlet (indicated by red arrows). Photo taken June 9, 2025 facing north-northwest.**

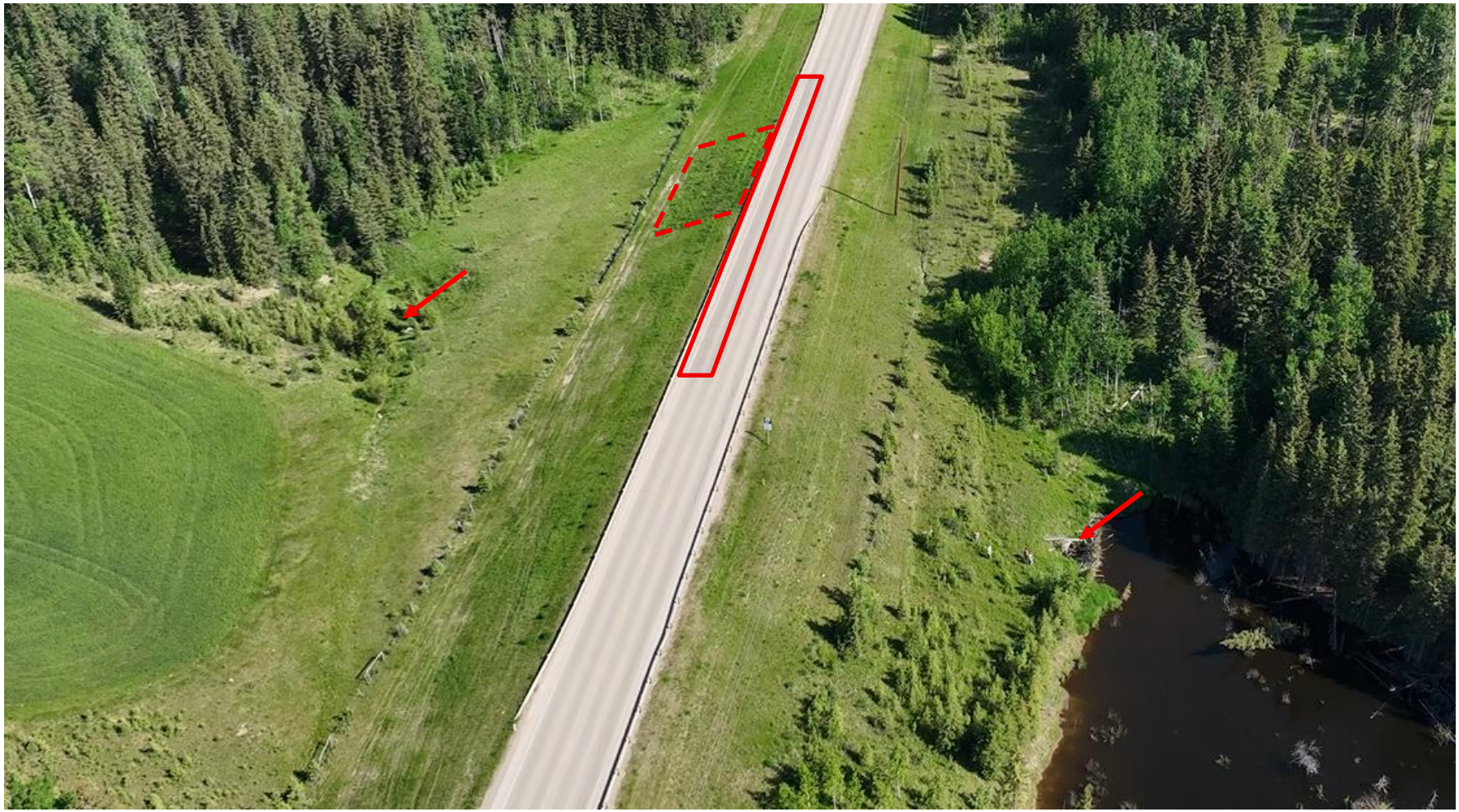


Photo 3 **Guardrail and pavement patch in west (southbound) lane. Red diamond hazard sign indicated by red arrow. Photo taken June 9 2025 facing south.**

Photo 4 **The repair of the highway embankment slope is well vegetated and appears to be performing well. Photo taken June 9, 2025 facing south-southwest.**

Photo 5 **Thin (less than 15 mm) pavement crack in the west (southbound) pavement patch. The pavement crack may be attributed to construction and does not appear to have worsened since the 2023 inspection. Photo taken June 9, 2025 facing north-northeast.**

Photo 6 **The drains installed during the slide repair, daylighting at the toe of the west (southbound) embankment slope, do not appear to be flowing and were dry during the inspection. Photo taken June 9, 2025 facing east.**

Photo 7 **Beaver dam, approximately 1.5 m to 2.0 m in height, was observed at the culvert (Bridge File No. 13457) inlet. Photo taken Jun 9, 225 facing north.**

Photo 8 **East highway embankment slope above culvert inlet is well vegetated and appears to be performing satisfactorily. Minor evidence of movement (ground cracks) observed near the embankment toe. Photo taken June 9, 2025 facing south.**