

SITE NUMBER AND NAME C063 Frost Heave		HIGHWAY & KM 11:12, 24.734	PREVIOUS INSPECTION DATE Feb 28, 2018	INSPECTION DATE Feb 21, 2019
LEGAL DESCRIPTION NE 24-38-1 W5	NAD 83 COORDINATES: UTM Northing Easting 11 5796735 703911		RISK ASSESSMENT PF: 8 CF: 3 TOTAL: 24	
AVERAGE ANNUAL DAILY TRAFFIC (AADT): 16,180 (west) & 16,420 (east) (Ref. No. 70000488)			CONTRACT MAINTENANCE AREA (CMA): 19	

SUMMARY OF SITE INSTRUMENTATION: Operational: Three vibrating wire piezometers and three ground temperature cables. LAST READING DATE: February 18, 2019	INSPECTED BY: Chris Gräpel (KCB) Ryan Gazley (KCB) Tony Penney (AT) Dewayne Wlad (AT)
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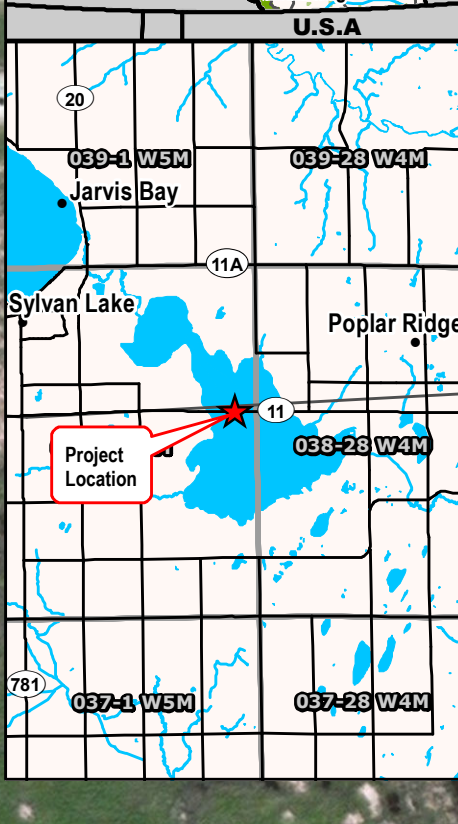
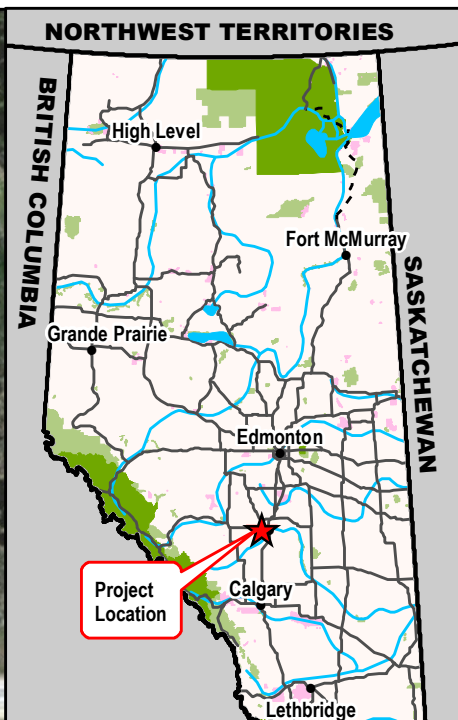
PRIMARY SITE ISSUE:
Frost heave occurring in the westbound highway embankment. Frost heave exacerbated by the installation of 26 drains (8 in the west section, 18 in the east section) across the westbound highway embankment during the twinning of the highway in 2008. Differential heaving is occurring between frost susceptible highway fill and non-frost-susceptible drain backfill resulting in a "rolling" pavement surface

APPROXIMATE DIMENSIONS:
West section is approximately 200 m long, east section is approximately 450 m long (westbound lanes only)

DATE OF ANY REMEDIAL ACTION:

ITEM	CONDITION EXISTS		DESCRIPTION AND LOCATION	NOTICABLE CHANGE FROM LAST INSPECTION	
	YES	NO		YES	NO
Pavement Distress	X		Transverse pavement cracking generally corresponds to locations of drains		X
Slope Movement		X			X
Erosion		X			X
Seepage		X			X
Culvert Distress		X			X

COMMENTS
Frost heaving on the highway appears to occur at the drain backfill locations. Frost heaving was observed to be worse than in the previous year; with the west section heaving more than the east section.
The site will be repaired in Spring 2019 as detailed in Alberta Transportation Tender TND0019153.



- Legend**
- ① Photo Location
 - ➔ Photo Direction
 - >----- Drain
 - > < Culvert

NOTES:
 1. HORIZONTAL DATUM: NAD83
 2. GRID ZONE: UTM Zone 11N
 3. IMAGE SOURCE: Bing Maps 2019, Microsoft Corporation. Image dated September 2013
 4. Site visit photos dated February 21, 2019

CLIENT

PROJECT CENTRAL REGION GEOHAZARD RISK MANAGEMENT PROGRAM		
TITLE C063 - Site Inspection Hwy 11:12, km 24.734		
SCALE 1:2,500	PROJECT No. A05115A02	FIG No. 1

Time: 12:09:49 PM
 Date: February 27, 2019
 File: Z:\A\EDM\A05115A02\ABT Central Region GRNIP\400 Drawings\2019\2. Section B11_2019_Frost Heave Tour\MXD\C63_190227.mxd

Photo 1 **Location of frost heave site (east section). Photo shows the rolling pavement condition. Photo taken on February 21, 2018 looking west.**

