

**INFORMATION UPDATE
HIGHWAY 744 JUDAH HILL LANDSLIDE AND ROAD CLOSURE**

July 15, 2013

CONSULTANT'S REPORT:

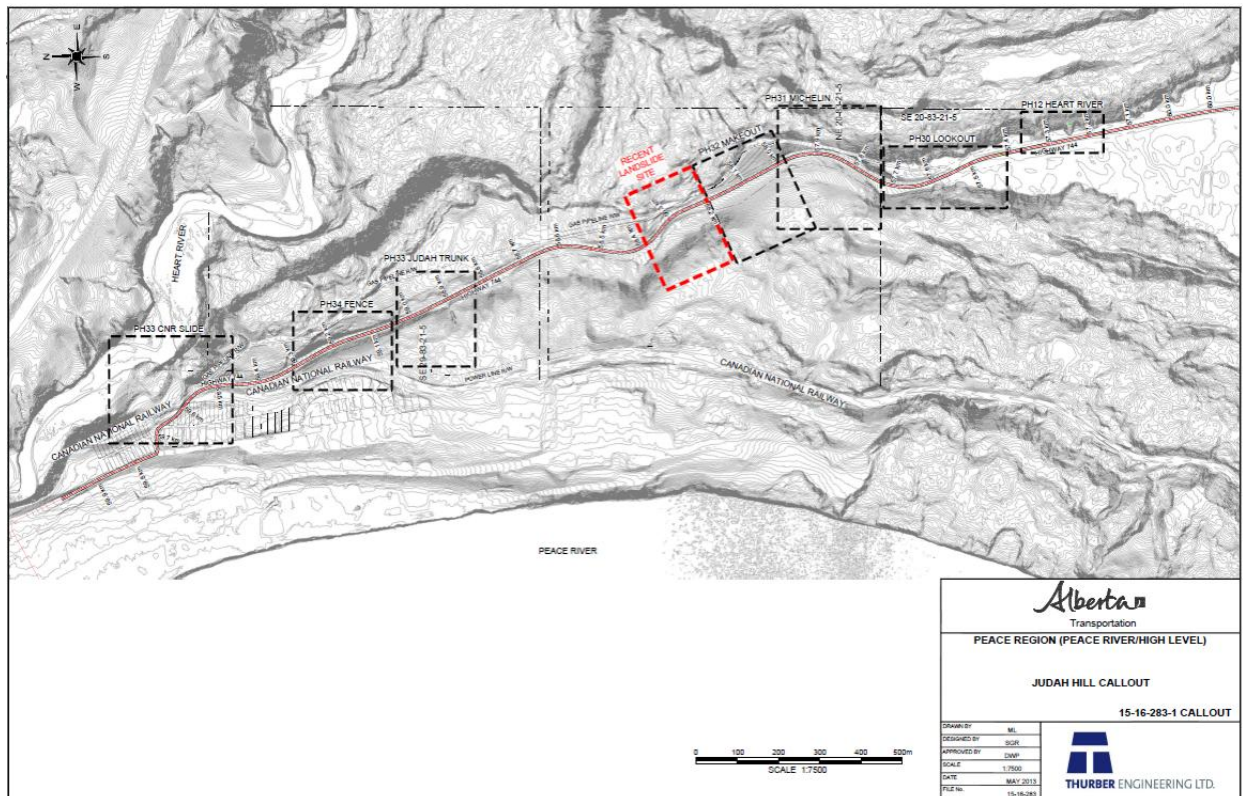
A geotechnical consultant has completed a preliminary investigation into the latest slide on Highway 744. The consultant was asked to identify the geotechnical conditions contributing to the slide and recommend repair options. As with any report, Alberta Transportation will conduct a technical review and input will be provided. The report will then be forwarded to the Minister of Transportation for his review and will also be shared with the public at the appropriate time.

ROAD CLOSURE AREA:

Highway 744 is closed from the Town of Peace River corporate limits to the top of Judah Hill. Due to the slide's location and severity, the duration of the road closure is currently unknown. Traffic entering and exiting the Town of Peace River via Highway 744 has been detoured through Highway 2 and Highway 683.

OVERVIEW:

Alberta Transportation has been managing landslides along Highway 744 for many years. The drawing illustrates seven (7) slide areas along Highway 744 that have been on the monitoring program. The most recent slide activity (May 17) has occurred in a completely new location where no slide movements were noticed in the past several years. This is shown in red in the plan below.



Highway 744 Statistics at Slide Area:

- Average Daily Traffic Volume is 920 vehicles per day
- 96% of traffic is passenger vehicles
- Highway 744 was paved in 1985
- Pavement overlay in 1999
- Roadway Width = 7.8m

Landslides can, and do, occur without warning at locations not known to be slide prone.

Since 1985, when the highway was paved, Alberta Transportation has spent approximately \$9 million (not adjusted for inflation) repairing slide damage on this section of highway.

Slide Area Monitoring and Repair

Alberta Transportation has an extensive Geohazard Risk Assessment Program in place to monitor slide areas throughout the province. This program consists of annual site assessments to examine slope movement, pavement distress, and local erosion, identify any changes and to assess risk levels. These site inspections are done by Alberta Transportation's regional staff, geotechnical consultant and geotechnical specialists.

Extensive instrumentation is installed for monitoring the slide movements. Readings are taken from these instruments twice a year.

After all geohazard sites across the province have been inspected and risk levels for all sites have been updated, a prioritization process is initiated to determine which sites will be investigated, instrumented, monitored or repaired. Risk levels are determined based on the probability of failure and the consequence of failure.

The Judah Hill site received a risk level rating of 200 (the highest level) based on the rate of movement and total closure consequence of the movement.

Approximately five to 10 sites are repaired annually province-wide, based on priority and available funding.

All reports, plans and photos from inspections in the Peace River Region are available on Alberta Transportation's website at <http://www.transportation.alberta.ca/2251.htm>.

TIMELINE OF INITIAL EVENTS:

Alberta Transportation's Peace River Regional Office received a call on May 3, 2013 from a local resident who noticed cracking and pavement distortion on a section of Highway 744 (locally known as Judah Hill). After an initial site inspection by regional staff, maintenance contractor LaPrairie Works Inc. was directed to increase road inspections to twice daily to closely monitor any additional cracking and hillside slide movement.

On May 7, minor patching was carried out in this area to improve rideability for the travelling public.

On May 14, the department's geotechnical consultant recommended additional maintenance activities, including milling the top of the protruding piles and more patching around them, and filling the large cracks as best as possible. Further, preparation for a detour for the east ditch was suggested.

On May 15, significant slide movement occurred making the southbound lane impassable. Traffic was redirected through the northbound lane by flag persons. Construction began on a gravel lane in the east ditch to accommodate traffic through the slide area and was completed on the afternoon of May 17.

On May 17, daily road inspections were increased to four times daily and that same night, the pavement dropped substantially, requiring Alberta Transportation to close the highway at midnight for safety reasons. Site photographs taken by Alberta Transportation staff are included in this document to illustrate the degree and pace of the road distortion because of the shifting earth underneath the roadbed.

ONGOING ACTIONS:

Since May 17, Alberta Transportation asked its geotechnical consultant to conduct a thorough investigation into this latest slide. As part of the investigation, the consultant completed a survey of the slide area and drilled test holes to determine the slip plane along with soil logs. In addition, a pipe was installed in the slide area to maintain the drainage.

Alberta Transportation received the consultant's report during the second week of July. Staff are reviewing the report and evaluating the options. Alberta Transportation staff is also interested to hear from impacted residents.

CONTACT US:

As always, we encourage people to contact us any time they see a difference or notice new cracks in a road. Thanks in part to an alert member of the public, we were able to respond thoroughly to this issue. As demonstrated, we can ensure staff are on-site to assess the situation immediately and will respond promptly with further detailed studies as required. These situations can develop quickly and all of us are encouraged to pay attention to any changes in our roads.

Up-to-date road information, including the current closure of this section of Highway 744, is a click or a phone call away (5-1-1 toll-free). Visit 511.alberta.ca or follow us on Twitter @511Alberta to get on the road to safer travel.

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PHOTOS:

May 6, 2013:



Alberta Transportation

May 15, 2013:



Alberta Transportation

May 15, 2013:



Alberta Transportation

May 17, 2013:



Alberta Transportation

May 21, 2013:



Alberta Transportation

May 21, 2013:



Alberta Transportation

May 21, 2013:



Alberta Transportation

May 21, 2013:



Alberta Transportation

Late June 2013
Thurber Engineering

