

**STONY PLAIN REGION
GEOHAZARD RISK ASSESSMENT
SITE INSPECTION FORM**

SITE NUMBER AND NAME: NC 47 – Embankment Slope Failure	HIGHWAY AND KM: Access Road 172, km 2.1	PREVIOUS INSPECTION DATE: June 3, 2009	INSPECTION DATE: May 21, 2010
LEGAL DESCRIPTION: SE 4-50-22-W4M	NAD 83 COORDINATES:	RISK ASSESSMENT: PF: 2 CF: 4 TOTAL: 8	

SUMMARY OF SITE INSTRUMENTATION: Slope Inclinator: 1	INSPECTED BY: Adam Gmeinweser, P. Eng. (EBA) Fred Cheng, P. Eng. (TRANS) Sabhago Oad, P. Eng. (TRANS)
LAST READING DATE: May 11, 2010	
PRIMARY SITE ISSUE: Shallow rotational failure of south embankment slope.	
APPROXIMATE DIMENSIONS: Approximately 6.1 m in height and 12.2 m in length.	
DATE OF REMEDIAL ACTION:	

ITEM	CONDITION EXISTS		DESCRIPTION AND LOCATION	NOTICABLE CHANGE FROM LAST INSPECTION	
	YES	NO		YES	NO
Pavement Distress	X		Cracks along shoulder associated with embankment failure 2H:1V embankment failure stabilized with soil nails		X
Slope Movement	X				X
Erosion		X			
Seepage		X			
Culvert Distress		X			

COMMENTS:
 Rotational failure centered on a culvert; failure possibly due to a high water event.
 Soil nailing performed in 2008 to stabilize embankment.
 2009 Risk Assessment reduced from 48 to 8 after repairs. Risk level unchanged since 2009.
 Location and site plan shown in Figure NC-47.
 Site conditions shown in Photos 1 and 2.

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SITE OBSERVATIONS:

- The fill slope is steeper than what is normally constructed by TRANS being approximately 2H:1V and 6.1 m high.
- The slope failure was repaired in October 2008.
- Soil nails sticking out of ground, potentially a risk to public.
- Shallow slope movements have stopped since application of soil nailing in 2008.
- There were minor deep seated movements noted at approximate embankment base level. These could be associated with lateral spreading along organics or wet soils near the culvert/ creek location.

RECOMMENDATIONS:

- Monitor SI to assess if movements at depth continue. Consider removing site from GRMP if Fall 2010 readings show no further movement.
- Monitor SI in Fall 2010 and remove from GRMP.
- Have MCI place topsoil over slope and have seeded to cover soil nails protruding from slope. Topsoil should be seeded. Alternatively, a compost mat (i.e., EcoBlanket™) could be placed over the area.
- Crack near the south side of the road should be sealed.