

INFORMATION HANDOUT

For Contract No. 02-4E3104

At District 2, Trinity County, Route 299, Post Mile 45.9/46.2

Identified by

Project ID 02000202801

MATERIALS INFORMATION

Geotechnical Recommendations for Poison Pond Curve Improvement Safety Project

Memorandum

*Flex your power!
Be energy efficient!*

To: MR. AL TRUJILLO
District 2 Safety Team Senior Engineer

Attn: Mr. Justin Borders
Transportation Engineer

Date: October 18, 2012

File: 02-TRI-299-PM 45.7/46.0
0200020280
EA 02-4E310
Poison Pond Curve
Improvement Safety
Project

From: DEPARTMENT OF TRANSPORTATION
Division of Engineering Services
Geotechnical Services

Subject: Geotechnical Recommendations for Poison Pond Curve Improvement Safety Project

As per your request, Mr. J. Scott Lewis of the Office of Geotechnical Design North (OGDN) has visited the site of the Poison Pond Curve Improvement and Road Widening Project on State Highway 299 between postmile 45.7 and 46.0. I have assessed the cut slope you designated for design slope ratio, rippability, and rockfall catchment width. Your request specifically asked that the effort by our office be limited to reconnoitering the site and not involve any subsurface investigation in order to keep support costs down; therefore, no subsurface work was performed.

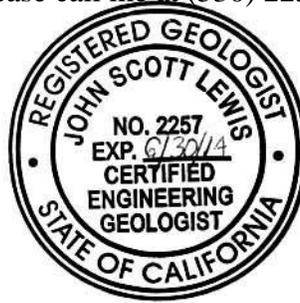
Observations of the existing cut slope where the proposed cut is to occur indicate that the slope is composed primarily of layered and bedded metavolcanic material, together with some overlying soil derived from this rock that exists atop and along the peripheral edges of the existing cut. Based strictly on surface observations of the exposed cut face and the overlying surface, our Office believes that the cut will be rippable with only moderate difficulty to a horizontal depth of 15 feet into the existing cut slope utilizing ripping equipment equal to a Caterpillar D9 with a single tooth ripper.

The existing cut slope, which has a slope ratio of about 0.75:1, is considered stable. There is no visible evidence to suggest that the proposed design cut slope ratio of 0.75:1 will not be just as stable.

The existing cut slope has a very limited rockfall catchment area at its base comprised of a 1- to 2-foot unpaved shoulder that is currently inadequate to prevent rockfall run out from sending rocks into the westbound travelled way. Considering that the proposed cut slope is expected to be approximately ten feet higher than the existing cut, OGDN recommends an unpaved shoulder of at least 8 feet width with a backslope of 6:1 to act as catchment for the proposed cut slope. OGDN believes that such a catchment will retain at least 90% of rockfall runout from reaching the pavement.

If you have any questions or comments, please call me at (530) 225-3516.


J. SCOTT LEWIS, P.G., C.E.G., R.G.P.
Associate Engineering Geologist
Office of Geotechnical Design - North



cc: Al Trujillo
Chris Harvey (Project Manager)
Reza Mahallati
Roy Bibbens-OGDN File
Justin Borders- Project Engineer (R.E. Pending File)