

INFORMATION HANDOUT

For Contract No. 06-0P0704

At 06-Ker-58-R85.1

Identified by

Project ID 0612000018

MATERIALS INFORMATION

Geotechnical Recommendations for Cut Slopes

Tehachapi-Cummings County Water District

Memorandum

*Flex your power!
Be energy efficient!*

To: MR. DANIEL K. HA
Project Engineer
D06 Deputy Region Project Development

Date: June 27, 2014

File:
06-KER-58-R85.1
06-0P0704
0612000018
Broome Road OC
(widen ramps)

From: DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
OFFICE OF GEOTECHNICAL SERVICES – MS 5
GEOTECHNICAL DESIGN - NORTH

Subject: Geotechnical Recommendations for Cut Slopes

We have made a site reconnaissance and observed the surface exposures of the materials in the areas of the proposed cut slopes at the above referenced project. No subsurface exploration was conducted.

The material that will be encountered in the project cut slopes is a granitic type of rock called quartz diorite. The rock at this site is hard, moderately to highly weathered and moderately to strongly fractured.

The geologic structure of the rock consists of weak joint (fracture) sets which strike primarily north-south and dip 60 to 80 degrees to the east with some vertical joints.

The draft project plan layout and typical cross sections provided by your office were used for providing the following recommendations.

Recommendations

The proposed cuts are suitable from a geotechnical standpoint.

The proposed 4:1 cut slopes will not cause stability issues and the geologic structure is favorable.

Based on observation of the surface exposures in the area (existing slopes and cut-pads above both EB and WB ramps) the site rippability is estimated to be 70% rippable and 30% marginally rippable using a Caterpillar D9 with a multi-shank ripper (Ref. 1). This estimate is presented without the benefit of a seismic refraction survey.

DANIEL K. HA
June 27, 2014
06-0P0704

Bloome Road OC
06-KER-58-R85.1
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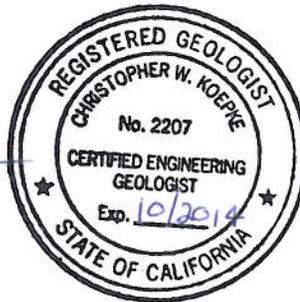
For the derivation of quantities, it is recommended that 100% of the proposed cut slope volumes be classified as "Roadway Excavation" and that no blasting will be required.

A provision should be added to the construction considerations of the contract documents whereby the contractor should expect that an estimated 30% of the roadway excavation may require the use of hard rock excavation equipment such as hoe rams or other rock splitting apparatus.

Rock boulders estimated to be 3 feet or larger in diameter should be anticipated in the borrow material generated from the roadway excavation.

If you have any questions or comments, please call Christopher Koepke at (916) 227-1040.

Christ Koepke



CHRISTOPHER KOEPKE, C.E.G. 2207
Engineering Geologist
Office of Geotechnical Design North

Reference:

- 1) Caterpillar Inc., "Handbook of Ripping, 12th Edition"

cc : GDN File

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TEHACHAPI-CUMMINGS COUNTY WATER DISTRICT

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September 18, 2014

Daniel Ha
CalTrans

Sent via fax: (559) 244-2852

RE: CONSTRUCTION WATER – BROOME ROAD INTERCHANGE PROJECT

Dear Mr. Ha,

Pursuant to our telephone conversation, TCCWD anticipates being able to supply construction water for your Broome Road project, subject to the following conditions:

1. Our nearest connection point is located on the east side of Tucker Road, approx. 1,500 ft. north of Highline Road in Tehachapi.
2. We can provide a 2" construction meter at this location and there is adequate room to place an overhead tank trailer, if desired.
3. An "Application for Water Service" will need to be completed.
4. A deposit of \$200.00 is required (credited against water use) along with an additional application fee of \$35.00 – total = \$235.00.
5. Water used will be billed at rate of \$1,385.00/acre foot.
6. Ability to provide service may be impacted by any emergency drought measures that may be in place at time of application. Currently, we have no drought restrictions on providing water service.

Should you desire any additional information, please do not hesitate to contact me.

Regards,

TEHACHAPI-CUMMING COUNTY WATER DISTRICT



Tom Neisler
Operations Manager