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**CITY OF KELOWNA**

**MEMORANDUM**

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**Date:** March 10, 2005  
**File No.:** 5210-07

**To:** City Manager

**From:** Transportation Manager

**Subject:** **McCulloch Road Slope Stability**

Report Prepared by: Dale Beaudry, Roads & Equipment Superintendent

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**RECOMMENDATION:**

THAT Council authorize the restoration of the McCulloch Road slope 250 meters north of the KLO Creek bridge as outlined in the report of the Transportation Manager dated March 10, 2005;

AND THAT Council approve funding of \$115,000 from the Non-Arterial Road Reserve;

AND FURTHER THAT Council direct staff to bring forward the appropriate 2005 Financial Plan amendments.

**DISCUSSION:**

On September 23, 2004 City staff reported severe cracking on McCulloch Road approximately 250 m north of KLO Creek bridge. A consultant was hired to provide a geotechnical assessment of the failure. The consultant provided the City with three options for stabilizing the road. Option "A" consisted of constructing a shot rock berm along the outside slope of the failure area to provide lateral support, at a cost of \$355,000, which would be a throw away should the Canyon Creek Development proceed. Option "B" consisted of removing the existing failed slope and replacing it with a berm similar to Option "A" at a cost of \$325,000, which would also be a throw away. Option "C" involved moving the road alignment into the existing slope and abandoning the portion of the road that has failed at a cost of \$300,000. This option came closest to the proposed Canyon Creek Development road improvements. The existing road right of way is not wide enough to allow us to consider this option without purchasing property at the top of the slope, which is not included in the estimate.

We contacted the developers to explore the possibility of pooling our resources to construct a new road that would benefit the local residents and would be able to be used to meet the developers' obligations under his development permit. Unfortunately the developer is not in a position to commit to a date when or if this development might proceed, at this time.

Recognizing that development is likely to occur within the next year, we asked our geotechnical consultant to have another look at the failure and provide us with a short term remedial action plan that will provide stabilization to the failed slope with the understanding the work would be throw away. The proposed works, Option "D", requires the removal of the existing failure, the construction of a timber crib, filled with rock and excavated fill material. This temporary fix is expected to last 3 – 5 years.

Staff is recommending Option "D" which will involve up to a 48 hour closure of McCulloch Road. Crews will work around the clock until the road can be reopened. Two additional eight hour closures will be required for final surface restoration. During this period all McCulloch Road traffic will have to be detoured to Highway 33 via McCulloch Lake Road.

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Ron Westlake, Transportation Manager



Approved for inclusion:

John Vos

Director of Works & Utilities

cc: Director of Financial Services  
Roads & Equipment Superintendent