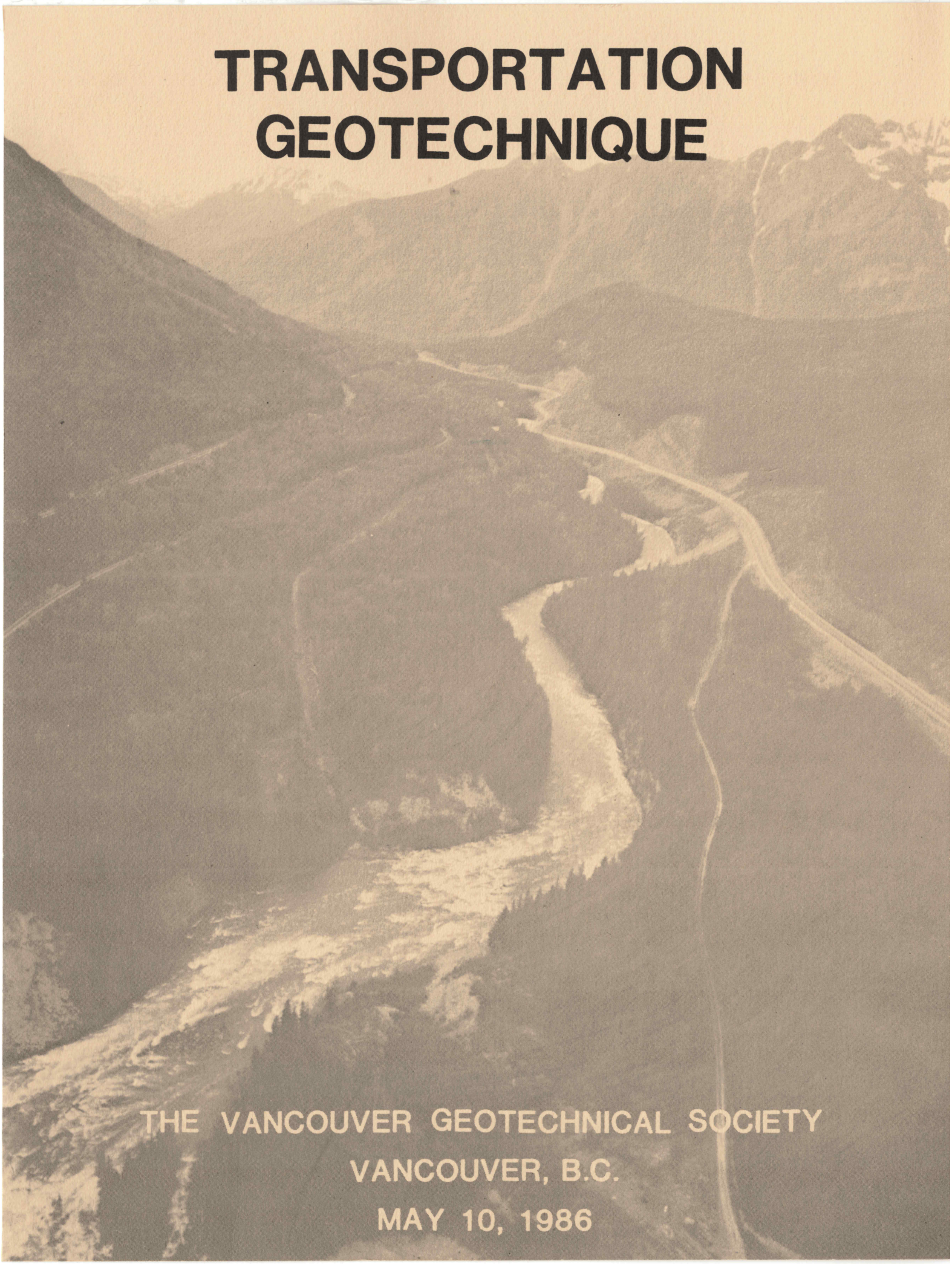
TRANSPORTATION GEOTECHNIQUE



THE VANCOUVER GEOTECHNICAL SOCIETY

VANCOUVER, B.C.

MAY 10, 1986

The Canadian Geotechnical Society

La Société canadienne de Géotechnique

VANCOUVER GEOTECHNICAL SOCIETY

TRANSPORTATION

GEOTECHNIQUE

GEOTECHNICAL ASPECTS OF

TRANSPORTATION ROUTES IN

MOUNTAINEOUS TERRAIN

MAY 10, 1986

HOTEL GEORGIA

VANCOUVER, B.C.

PROGRAM

08:00 - 08:30 - REGISTRATION

08:30 - 11:45 - MORNING SESSIONS

OPENING REMARKS
Peter C. Lighthall, Chairman Organizing Committee
Klohn Leonoff Ltd., Richmond, B.C.

ACCEPTABILITY OF NATURAL HAZARDS IN TRANSPORTATION CORRIDORS
Graham C. Morgan, Thurber Consultants, Victoria, B.C.

DESIGN OF ROCK SLOPES
Dennis C. Martin, Piteau Associates Engineering Ltd., West Vancouver, B.C.

10:15 - 10:30 COFFEE BREAK

MASSIVE LANDSLIDES IN SOFT COMPACTION SHALES
Elmer W. Brooker, EBA Engineering Consultants Ltd., Edmonton, Alberta

REVIEW AND CASE EXAMPLES OF ROCKFALL PROTECTION MEASURES IN THE MOUNTAIN REGION OF CANADIAN NATIONAL RAILWAY
Michael H. Theodore, Construction Department, CN Rail, Edmonton, Alberta

11:45 - 1:15 - NO HOST BAR/LUNCH

1:15 - 3:30 - AFTERNOON SESSION

CHAIRMAN,
Dennis P. Moore, B.C. Hydro Geotechnical Group

BRIDGE ABUTMENTS ON ROCK
Duncan C. Wyllie and Graham E. Rawlings, Golder Associates, Vancouver, B.C.

OVERVIEW OF DESIGN AND CONSTRUCTION PROBLEMS ON THE COQUIHALLA HIGHWAY PROJECT
Norman R. Zapf, Construction Division, Ministry of Transportation and Highways, Victoria, B.C.

GEOTECHNICAL CONSTRAINTS ALONG INTERSTATE 70, GLENWOOD CANYON, COLORADO
Keith A. Turner, Professor of Geological Engineering,
Colorado School of Mines, Golden, Colorado.

3:30 - 4:30 - WRAP-UP SOCIAL SESSION

INTRODUCTORY REMARKS

Western Canada and northwestern U.S.A. are highly dependent on mountain transportation corridors to maintain their economic strength. Road and rail corridors through the Cordilleran mountain ranges carry prairie grains, coal, minerals, forest products and many other resource goods to ports on the west coast for export. Highways and roads throughout the mountain ranges provide the transportation infrastructure to develop and maintain our resource industries by allowing the inexpensive movement of people and goods.

British Columbia and northwestern U.S.A. have seen massive construction and reconstruction of highway and railway routes through the mountains during recent years. One of the largest such projects, British Columbia's Coquihalla Highway, is scheduled to be officially opened for public use less than one week after this symposium on May 16, 1986. These recent activities have underscored the need for innovative designs and transfer of knowledge within the geotechnical community. Accordingly, the Vancouver Geotechnical Society has organized this one day symposium to discuss recent problems in the design, construction and maintenance of transportation routes. The symposium is being held during Expo 86 and its theme of transportation. The organizing committee considers this an ideal opportunity to host an event to which its out-of-province colleagues could be invited.

The organizing committee wishes to thank the seven distinguished speakers who donated their time, not only to deliver lectures but also to prepare written manuscripts. It is hoped that the bound preprints will be a useful reference document for highway, railway and geotechnical engineers in the future.

Peter C. Lighthall
Organizing Committee Chairman