

MEMORANDUM

Attention:	Brady Harris, McElhanney	Date:	June 11, 2025
cc:	Valentino Tjia, McElhanney Fraser Peterson, McElhanney Winnie Miao, McElhanney	From:	John Carter, P.Eng.
Project:	University of British Columbia (UBC) South Campus Works Yard, Nurseries Road and Westbrook Mall, Vancouver, BC	File:	GA23-1294-01
		Sent Via:	Email
Subject:	Pavement Design Review		

Further to the email received from McElhanney on May 21, 2025, GeoWest Engineering Ltd. (GeoWest) has been requested to review the pavement recommendations provided by GeoWest in the following documents:

1. Geotechnical Site Assessment Report – UBC South Campus Works Yard, Onsite Works, Phase 1, Nurseries Road, Vancouver, BC dated March 1, 2024 (GeoWest Onsite Report)
2. Geotechnical Assessment Report – UBC South Campus, Widening of Nurseries Road, Vancouver, BC dated March 1, 2024 (GeoWest Offsite Report)

In addition to the above referenced GeoWest reports, McElhanney has provided us with a geotechnical investigation report prepared by Phillips Engineering Ltd. (Phillips) dated September 5, 2012 for the new BC Integrated Research Library Facility, Nurseries Road, Vancouver, BC. The test hole information contained in the Phillips geotechnical investigation report has been used by GeoWest for general reference purposes.

The pavement recommendations provided by GeoWest are to be reviewed in conjunction with the current UBC South Campus Works Yard Removals drawing (Drawing Number C002, Revision A) prepared by McElhanney and dated May 16, 2025 which is attached to this memorandum. Specific review of the pavement recommendations for Nurseries Road, the Warehouse Yard, and the Material Recovery Facility (MRF) is required.

Our review of the McElhanney drawing indicates that the on-site design has changed significantly since the above referenced GeoWest reports were issued. The previously contemplated location of development is no longer within the proposed development area. Therefore, none of the current GeoWest test hole locations are within the proposed development area. Furthermore, the test hole locations shown in the Phillips report are not within the proposed development area.

The following on-site traffic volume information has been provided to us by McElhanney:

- Vehicle traffic for both the Warehouse Yard and MRF is expected to be low, at approximately 20 vehicle movements per day.
- The largest anticipated vehicle for the Warehouse Yard is a 53 ft truck.
- The largest anticipated vehicle for the MRF is a tandem dump truck.

Presuming that similar soil conditions are present in the Warehouse Yard and MRF areas, the same site preparations measured outlined in the GeoWest Onsite Report are employed during construction, and the limited traffic volumes summarized above are realized, it is our considered opinion that the following pavement structure could be utilized in the Warehouse Yard and MRF areas:

- 65 mm of asphalt course underlain by,
- 150 mm of 19 mm minus crushed gravel base course, underlain by,
- 200 mm of 75 mm minus crushed sand and gravel subbase course, underlain by,
- Geotechnical Engineer-approved subgrade or compacted engineered fill placed over Geotechnical Engineer-approved subgrade.

Based on our review of the Nurseries Road portion of the McElhanney design, we do not see an opportunity to reduce the currently recommended pavement structure provided in the GeoWest Off-site Report.

We understand that McElhanney will also require geotechnical design recommendations for concrete slabs including bearing resistances, frost depth, and modulus of subgrade reaction. A supplementary geotechnical investigation of the proposed new development areas in the Warehouse Yard and MRF will be required to assess the soil conditions to provide these recommendations. The supplementary geotechnical investigation will also allow for assessment of the feasibility of the reduced on-site pavement structure in these same two areas. GeoWest will provide a scope and budget for a supplementary geotechnical investigation under separate cover.

We trust that the information provided in this memorandum meets your immediate needs. Should you require further assistance, please contact the undersigned.

GeoWest Engineering Ltd.

REVIEWED BY:

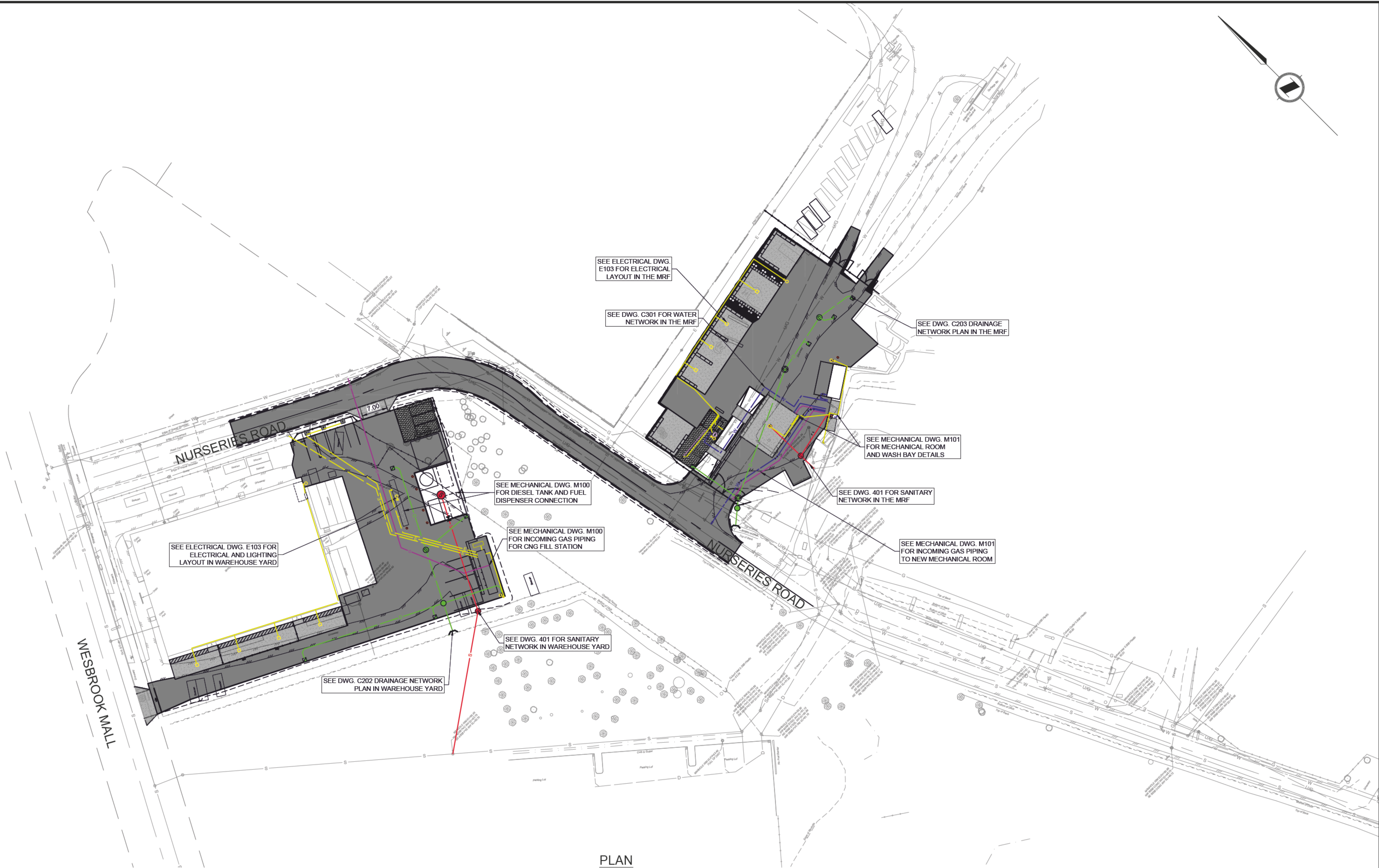
Per: John Carter, M.Eng., P.Eng.
Principal, Senior Geotechnical Engineer

Dejan Jovanovic, P.Eng.
Principal, Senior Geotechnical Engineer

JC/erc

Attachment: McElhanney UBC South Campus Works Yard Removals Drawing

DATE: 2025-05-16, 16:24 FILE: X:\2\12\Projects\2121012300 UBC South Campus Work Yard\07_DRAWINGS\01_Sheets\0123-C0-200.dwg McElhanney ANS D - 2021-09-14



PLAN
1:500

Rev	Date	Description	Drawn	Design	App'd
A	2025-05-16	ISSUED FOR 100% DEVELOPMENT DESIGN	KY	KY	VT

THIS DRAWING AND DESIGN IS THE PROPERTY OF McELHANNEY AND SHALL NOT BE USED, REUSED OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY. McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING AND DESIGN HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, ITS EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO, THIS DRAWING, BY ANY THIRD PARTY, INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UNDERGROUND FACILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, ITS EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS PLAN. PRIOR TO CONSTRUCTION CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

**THE UNIVERSITY OF BRITISH COLUMBIA**

ORIGINAL DWG SIZE: ANSI D (22" x 34")

**McElhanney**

Suite 200
858 Beatty Street
Vancouver BC
Canada V6B 1C1
T 604 683 8521



PRELIMINARY
NOT FOR
CONSTRUCTION

THIS DRAWING HAS NOT BEEN
APPROVED AND MAY CONTAIN
ERRORS AND OMISSIONS

THE UNIVERSITY OF BRITISH COLUMBIA
6200 UNIVERSITY BLVD, VANCOUVER, BC V6T 1Z4

UBC SOUTH CAMPUS WORKS YARD

OVERALL UTILITY PLAN

Drawing No.
C200

Project Number
2121-01293-00

Rev.
A

DESTROY ALL PRINTS BEARING PREVIOUS REVISION