April 24, 2013 File No. 0035 007 00

## Morrison Hershfield

Attn: Mr. Ron Bruce 25 Scurfield Blvd, Unit 1 Winnipeg, MB R3Y 1G4

RE Pavement Structure Investigation Report for 2013 Regional and Local Street Renewals – Portage Ave Package

This letter summarizes the results of the supplementary pavement structure investigation completed April 22, 2013 for the proposed 2013 City of Winnipeg Regional and Local Street Renewals (PW File #: 13-C-03) on Portage Avenue between Greenwood Place and Sherburn Avenue. The supplemental investigation was performed to determine the concrete thickness in selected locations as the thickness was not confirmed in the previous pavement structure investigation performed March 11 to 14, 2013. A total of six (6) test holes were drilled. The locations of the original test hole locations as well as the supplementary test hole locations are shown on the attached figure (Figure 01). Supplementary test holes are noted as "B" to the original test holes in the vicinity of the core location.

Diamond Concrete Cutting and Coring Ltd. cored the pavement structure (asphalt or concrete) using a portable coring drill press equipped with a hollow 165 mm diameter diamond core drill bit. Core samples were retrieved and taken to TREK's materials testing laboratory where the thickness was logged and photographs were taken. The attached table includes the test hole locations and pavement thicknesses. Core photographs are also attached.

If you have any questions regarding the findings presented, please contact the undersigned at your earliest convenience.

Kind Regards,

TREK Geotechnical Per:

Certificate of Authorization

- Ch 11/18/12

No. 4877

Date: Apr. 24, 2013

Stephen Renner, C.E.T.

Geotechnical Technologist

Stephen Renner

Nelson Ferreira, M.Sc., L.Ing. Geotechnical Engineer, Principal

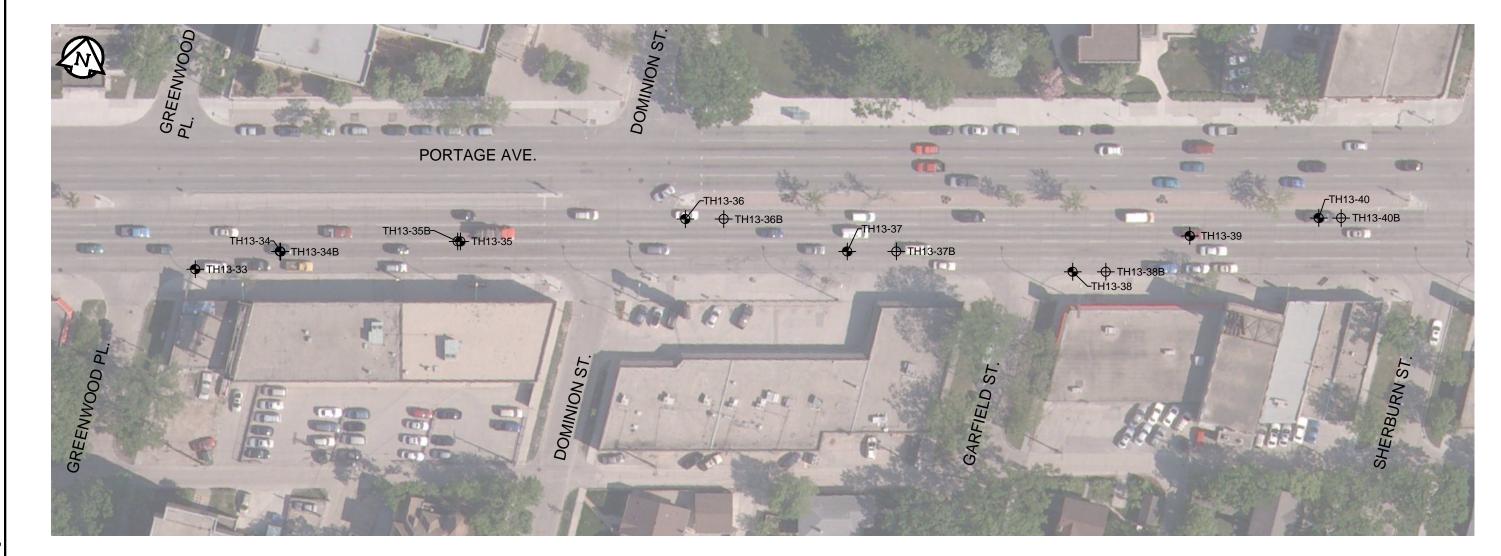
Attach

LEGEND :

TEST HOLE (TREK, MARCH 11-14, 2013)

TEST HOLE (TREK, APRIL 22, 2013)

## NOTES:



## 2013 City of Winnipeg Regional and Local Street Renewals PW File #: 13-C-03

## **Pavement Structure Investigation**

Test Hole No.	Test Hole Location (Street Name)	Pavement Surface		Pavement Structure Material	
		Туре	Thickness (mm)	Туре	Thickness (mm)
TH13-34B	5.8m E of LP# 2-048-636, 4.3m N of curb in 2nd lane	Asphalt	89	Concrete	197
TH13-35B	3.6m W of 2nd LP of Greendwood Pl. and Portage Ave., 4.7m S of median in 3rd lane	Asphalt	127	Concrete	140
TH13-36B	17.1m E of LP# 2-048-638, 1.9m S of median in median lane	Asphalt	108	Concrete	241
TH13-37B	11.2m E of LP# 2-048-646, 4.6m N of curb in 2nd lane	Asphalt	114	Concrete	178
TH13-38B	5.2m E of LP# 2-048-627, 1m N of curb in curb lane	Asphalt	70	Concrete	260
TH13-40B	10.7m E of 2nd LP of Garfield St. and Portage Ave., 1.3m S of median in median lane	Asphalt	178	Concrete	191





Photo 41: Asphalt and Concrete Core Sample from Test Hole TH13-34B



Photo 42: Asphalt Core Sample from Test Hole TH13-35B





Photo 43: Asphalt and Concrete Core Sample from Test Hole TH13-36B



Photo 44: Asphalt and Concrete Core Sample from Test Hole TH13-37B





Photo 45: Asphalt and Concrete Core Sample from Test Hole TH13-38B



Photo 46: Asphalt and Concrete Core Sample from Test Hole TH13-40B