

APPENDIX 'A'

GEOTECHNICAL REPORT

APPENDIX 'A' - GEOTECHNICAL REPORT

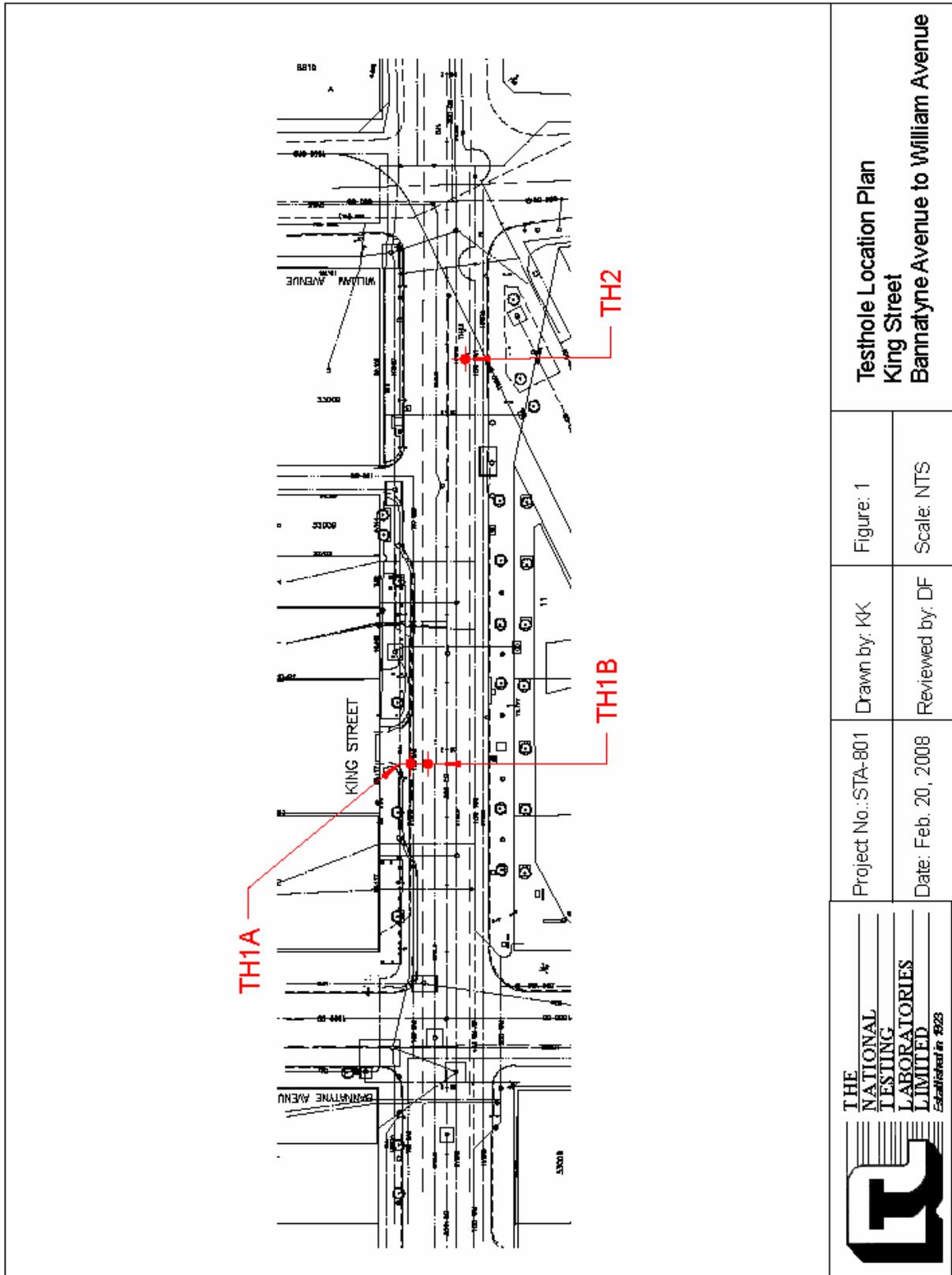
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The geotechnical report is provided to aid in the Contractor's evaluation of the existing pavement structure and/or soil conditions. The information presented is considered accurate at the locations shown on the Drawings and at the time of drilling. However, variations in pavement structure and/or soil conditions may exist between test holes and fluctuations in groundwater levels can be expected seasonally and may occur as a result of construction activities. The nature and extent of variations may not become evident until construction commences.

Geotechnical Report for King Street

Test Hole Locations



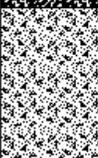
 <p>THE NATIONAL TESTING LABORATORIES LIMITED <small>Established in 1923</small></p>	Project No.: STA-801 Date: Feb. 20, 2008	Drawn by: KK Reviewed by: DF	Figure: 1 Scale: NTS	Testhole Location Plan King Street Bannatyne Avenue to William Avenue
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Summary of Core Samples

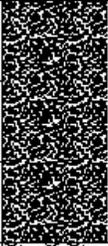
**King Street
 Bannatyne Avenue to William Avenue
 2008 Regional Street Renewal Program**

Testhole ID	Testhole Location	Pavement Surface		Pavement Structure Material		Sample Description	Sample Depth (m)	Moisture Content (%)	Particle Size Analysis				Atterberg Limits		
		Type	Thickness (mm)	Type	Thickness (mm)				Gravel (%)	Sand (%)	Silt (%)	Clay (%)	Liquid Limit	Plastic Limit	Plasticity Index
TH1A	West Traffic Lane, 34 m north of Bannatyne Avenue, 1.5 m east of the turning lane curb	Asphalt / Concrete	120 / 186	Granular	0.8	N/A	N/A	-	-	-	-	-	-	-	-
TH1B	West Traffic Lane, 34 m north of Bannatyne Avenue, 4.1 m east of the turning lane curb	Asphalt	300	Granular	0.8	N/A	N/A	-	-	-	-	-	-	-	-
TH2	East Traffic Lane, 19 m south of William Avenue, 3.2 m west of the east curb	Asphalt / Concrete	150 / 150	N/A	N/A	Clay	0.9	36	0.0	2.6	21.1	76.3	87	24	63
						Silt	2.1	25	0	2.3	77.9	19.8	25	18	7

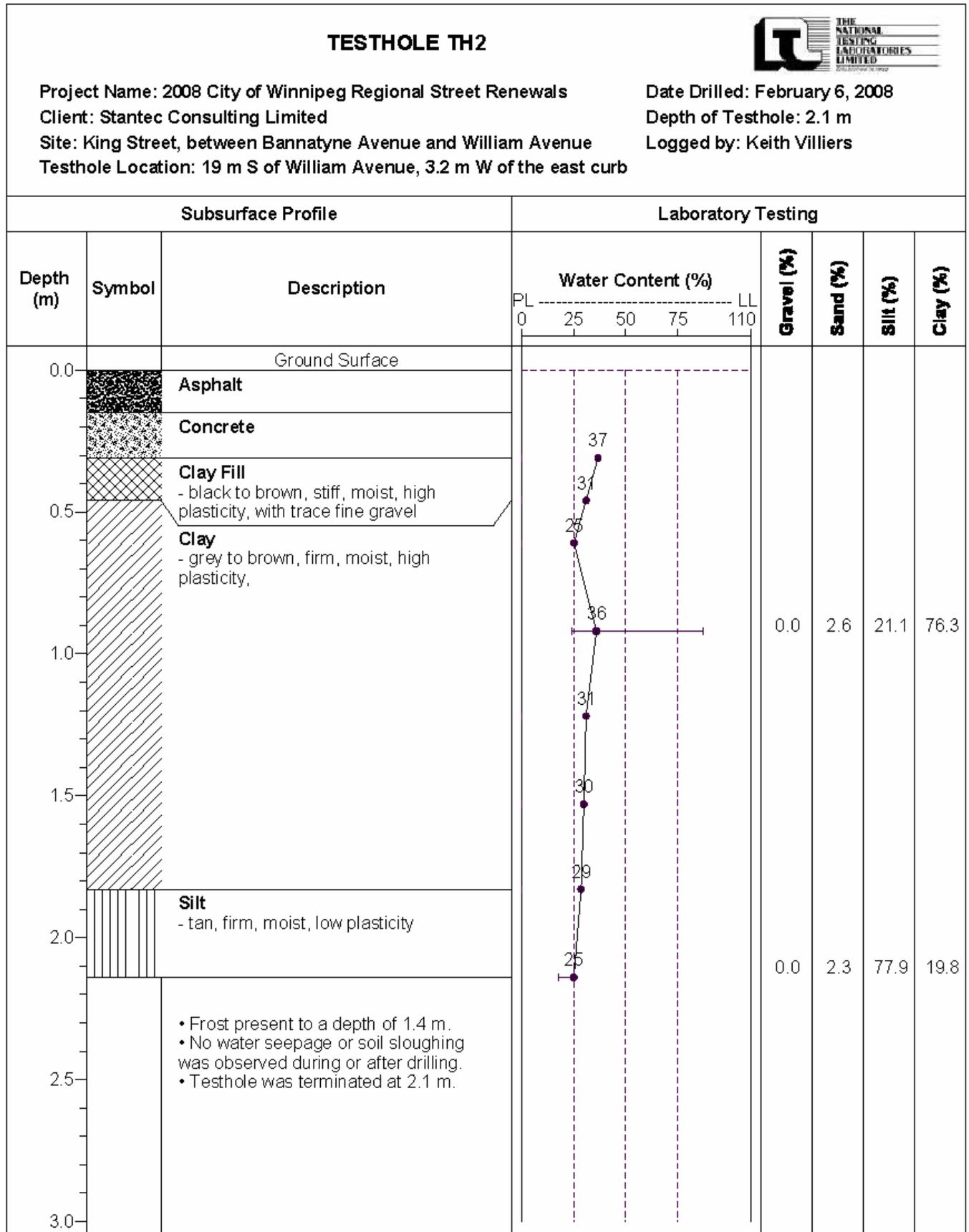
Test Hole Log for Test Hole 1A

TESTHOLE TH1A			
Project Name: 2008 City of Winnipeg Regional Street Renewals Client: Stantec Consulting Limited Site: King Street, between Bannatyne Avenue and William Avenue Testhole Location: 34 m N of Bannatyne Avenue, 1.5 m E of the turning lane curb		Date Drilled: February 6, 2008 Depth of Testhole: 1.1 m Logged by: Keith Villiers	
Subsurface Profile			Laboratory Testing
Depth (m)	Symbol	Description	Water Content (%)
			0 20 40 60 80 100
0.0		Asphalt	
		Concrete	
0.5		Granular Base - brown, compact, moist, 20 mm maximum aggregate size	15 12 10
1.0		<ul style="list-style-type: none"> • Frost present through out depth. • No water seepage or soil sloughing was observed during or after drilling. • Auger refusal at 1.1 m on top of a concrete hydro duct. 	
1.5			

Test Hole Log for Test Hole 1B

TESTHOLE TH1B		
		
Project Name: 2008 City of Winnipeg Regional Street Renewals Client: Stantec Consulting Limited Site: King Street, between Bannatyne Avenue and William Avenue Testhole Location: 34 m N of Bannatyne Avenue, 4.1 m E of the turning lane curb		Date Drilled: February 8, 2008 Depth of Testhole: 1.1 m Logged by: Kurtis Kulchyski
Subsurface Profile		
Depth (m)	Symbol	Description
0.0		Ground Surface Asphalt
0.5		Granular Base - brown, compact, moist, 20 mm maximum aggregate size
1.0		<ul style="list-style-type: none"> • Frost present through out depth. • No water seepage or soil sloughing was observed during or after drilling. • Auger refusal at 1.1 m on top of a abandoned concrete steam duct.
1.5		

Test Hole Log for Test Hole 2



Pavement Core Photos



Testhole TH1A core sample



Testhole TH2 core sample

Note: An intact core sample could not be recovered from Testhole TH1B.