APPENDIX 'D'

GEOTECHNICAL REPORT

H. MANALO CONSULTING LTD.

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Geotechnical Testing Services for the 2026 Local Steet Renewals and Active Transportation Path

Tender No. 49-2026

Prepared for:

WSP Canada Inc.
1600 Buffalo Place, Winnipeg,
MB R3T 6B8

February 23, 2026

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2026 Local Street Renewals
and Active Transportation Path
Geotechnical Testing Services

HMCL No: 430-2502

Table of Contents

Introduction 1
Field Work Program 1
Laboratory Analysis and Reporting 1

Appendix A – 2026 Local Street Renewals

A.1 Summary of Pavement Measurement and Compressive Strength Test Results 3
A.2 Bayne Crescent Alley – Tu-Pelo Ave to Bayne Cres 6
A.3 London St / McCreedy Rd Alley – Tu-Pelo Ave to Amelia Cres 11
A.4 Sawchuck Bay – Antrim Rd to Antrim Rd 16
A.5 Helmsdale Ave / Kimberley Ave Alley – Golspie St to Raleigh St 22
A.6 Chopin Boulevard – Uxbridge Rd to Wiebes Dr 28
A.7 Zeglinski Crescent – Zeglinski Cres to Wiebes Dr 34

Appendix B – Active Transportation Path

B.1 Summary of Laboratory Testing 40
B.2 Concordia Avenue (Multi-Use Path) (Gateway Rd to Moncton Ave) 42

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Introduction

On December 5, 2025, H. Manalo Consulting Ltd. (HMCL) was authorized by Richard Hawkins of WSP Canada Inc to proceed with the requested geotechnical investigation. The objective of the investigation was to assess existing road conditions through subsurface soil sampling on 2026 Local Street Renewals and Active Transportation Path under the City of Winnipeg Package. The list of streets included in this project is provided in Table 1 below.

Table 1. Location of Local Street Renewals and Active Transportation Path

Location	Treatment
Bayne Crescent Alley – Tu-Pelo Ave to Bayne Cres.	Rehabilitation
London St / McCreedy Rd Alley – Tu-Pelo Ave to Amelia Cres.	Rehabilitation
Sawchuck Bay – Antrim Rd to Antrim Rd.	Rehabilitation
Helmsdale Ave / Kimberley Ave Alley – Golspie St to Raleigh St.	Rehabilitation
Chopin Boulevard – Uxbridge Rd to Wiebes Dr.	Rehabilitation
Zeglinski Crescent – Zeglinski Cres to Wiebes Dr.	Rehabilitation
Concordia Avenue (Multi-Use Path) (Gateway Rd to Moncton Ave)	Multi-use Path

Field Work Program

The investigation adhered to the City of Winnipeg's guidelines provided in the tender, section E3 Site Investigation Requirements. The core locations were designated by WSP Canada Inc. Pavement coring was conducted from December 30, 2025 to January 12, 2026, using a 160 mm diameter coring bit. For local streets scheduled for pavement rehabilitation, pavement cores were extracted at joints and mid-slab to assess pavement condition. Subgrade drilling was carried out to depths of 2.5 m for reconstruction project.

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Initial soil classification was performed on site, and samples were collected. At all core and test hole locations, the sections were refilled with aggregates and cold-mix asphalt. All collected samples were sent to the HMCL laboratory for additional review and analysis.

Laboratory Analysis and Reporting

Core samples were brought back to the laboratory for documentation of pavement type and thickness and core sample images were documented for reference. Asphalt pavement thickness ranged from 30 mm to 68 mm, while the concrete pavement thickness varied between 107 mm to 199 mm. It is worth noted that the fill material is frozen and can not determine true maximum size due to auger grinding material to a finer size.

Subsurface soil samples were tested for moisture content and visually classified. Selected samples underwent plasticity index, particle size distribution, and CBR testing. A soil log for each test hole was completed for reference. The required quantity of testing was determined by the client in accordance with City of Winnipeg requirements.

We appreciated the opportunity to assist you in this project. Please call the undersigned if you require further information.

Prepared by:

Mayumi Kawano, EIT
Geotechnical Engineer Intern
Field and Laboratory Supervisor

Reviewed by:

Paul Bevel
Manager, Field and Laboratory Services

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APPENDIX A.1.

2026 LOCAL STREET RENEWALS

SUMMARY OF PAVEMENT MEASUREMENT AND COMPRESSIVE STRENGTH TEST RESULTS

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A.1 Summary of Pavement Measurement

Rehabilitation Sites

PC No.	Core Hole Location	Pavement Structure		Compressive Strength (MPa)
		Asphalt Thickness (mm)	Concrete Thickness (mm)	
Bayne Crescent Alley (Tu-Pelo Ave to Bayne Cres)				
PC1	Back lane of House # 6 Bayne Cres; 1.5m away from the edge of the alley 14 U, 638741 E, 5532111 N	-	162	31.87
PC2	Back lane of House # 22 Bayne Cres; 1m away from the edge of the alley 14 U, 638801 E, 5532147 N	-	199	31.92
London Street/McCreedy Road Alley (Tu-pelo Ave to Amelia Cres.)				
PC3	Back lane of House #19 McCreedy Rd; 0.7m away from the edge of the alley 14 U, 638826.97 m E, 5532058.02 m N	-	178	41.82
PC4	Back lane of House #47 London St; 1.5 m away from the edge of the alley 14 U, 638914.99 m E, 5532123.03 m N	-	160	42.34
Sawchuck Bay (Antrim Rd to Antrim Rd)				
PC5	North Paved Shoulder 3.5m away from pavement road line 14 U, 625278 E, 5522596 N	68	107	37.45
PC6	South Shoulder 1.5m away from pavement road line 14 U, 625275 E, 5522585 N	-	155	-
PC7	Eastbound Lane 1.5m away from pavement road line 14 U, 625254 E, 5522585 N	-	166	38.25

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A.1 Summary of Pavement Measurement

Rehabilitation Sites

PC No.	Core Hole Location	Pavement Structure		Compressive Strength (MPa)
		Asphalt Thickness (mm)	Concrete Thickness (mm)	
Hemsdale Avenue/Kimberly Avenue Alley (Golspie St to Raliegh St)				
PC8	Back lane near parking entrance of Bldg. 615 Kimberly Ave.; 1m away from the edge of the alley 14 U, 637431 E, 5531705 N	-	165	35.31
PC9	Back lane of House # 642 Helmsdale Ave; 1.5m away from the edge of the alley 14 U, 637543 E, 5531654 N	30	130[A]	-
PC10	Back lane of House # 685 Kimberly Ave; 1.5m away from the edge of the alley 14 U, 637630 E, 5531610 N	-	175	33.86
Chopin Boulevard (Uxbridge Rd N to Wiebes Dr)				
PC17	Front of House # 54 Chopin Blvd, EBL; 1.5m away from the curb 14 U, 639754 E, 5534518 N	-	160	31.52
PC18	Front of House # 27 Chopin Blvd, WBL; 2.5m away from the curb 14 U, 639665 E, 5534579 N	-	160	48.62
PC19	Side of of House # 70 Uxbridge Rd, EBL; 1.5m away from the curb 14 U, 639564 E, 5534641 N	-	151	-
Zeglinski Crescent (Zeglinski Cres to Wiebes Dr)				
PC20	Front of House # 55 Zeglinski Cres, WBL; 1.5m away from the curb 14 U, 639684 m E, 5534668 N	-	155	57.56
PC21	Front of House # 22 Zeglinski Cres, EBL; 1.5m away from the curb 14 U, 639774 E, 5534605 N	-	162	39.05
PC22	Side of House # 85 Wiebes Dr, WBL; 1.5m away from the curb 14 U, 639839 E, 5534567 N	-	168	-

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APPENDIX A.2.

BAYNE CRESCENT ALLEY

(TU-PELO AVE TO BAYNE CRES)

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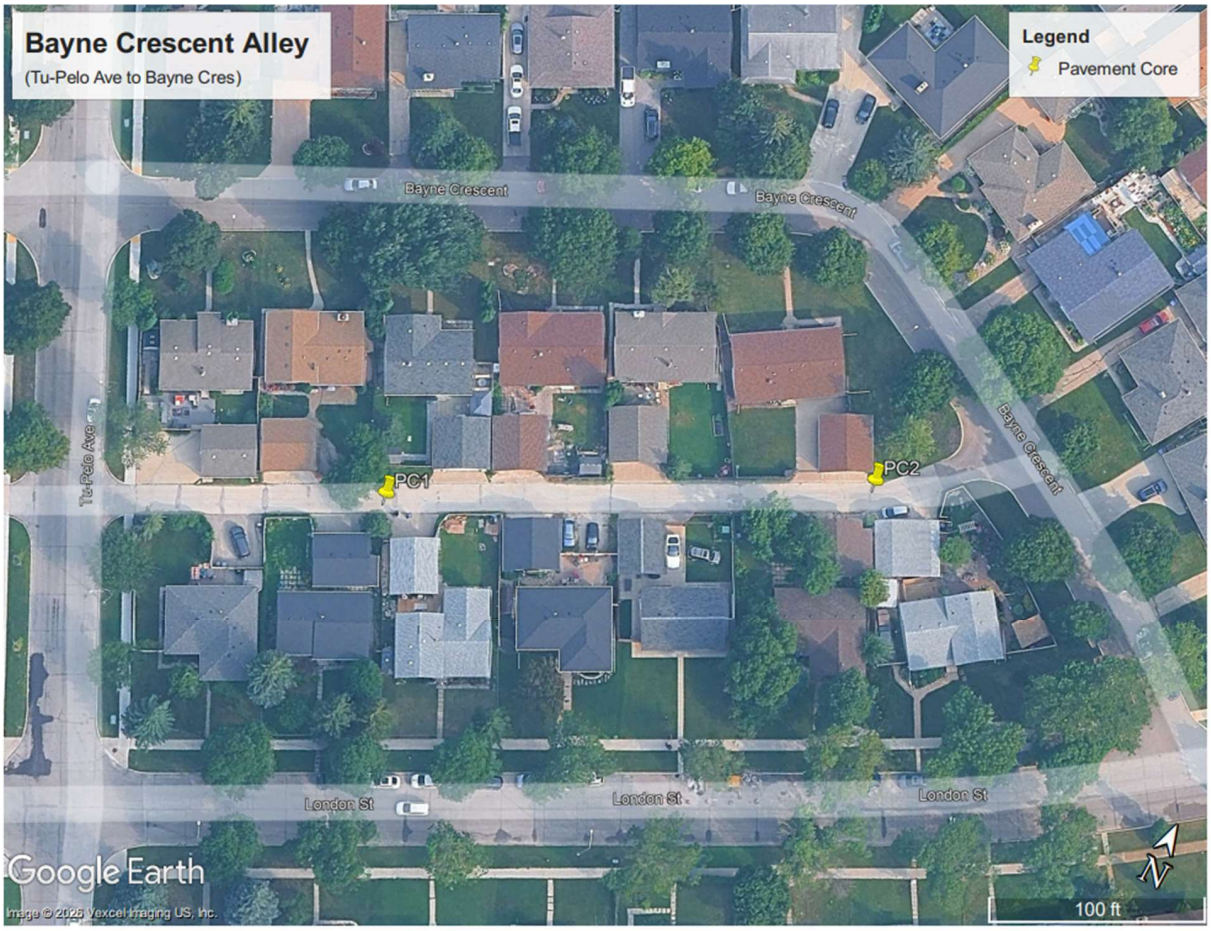
Rehabilitation Sites

Pavement Coring Locations



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Rehabilitation Sites

Pavement Structure Measurement

PC No.	Core Hole Location	Asphalt Thickness (mm)	Concrete Thickness (mm)
Bayne Crescent Alley (Tu-Pelo Ave to Bayne Cres)			
PC1	Back lane of House # 6 Bayne Cres; 1.5m away from the edge of the alley 14 U, 638741 E, 5532111 N	-	162
PC2	Back lane of House # 22 Bayne Cres; 1m away from the edge of the alley 14 U, 638801 E, 5532147 N	-	199

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CONCRETE CORE COMPRESSIVE STRENGTH TEST REPORT (CSA A23.2 14C)

CLIENT:	WSP Canada Inc 1600 Buffalo Place Winnipeg, MB R3T 6B8	DATE: FILE NO: REPORT NO:	15-Jan-26 430-2502 26-001
ATTENTION:	Richard Hawkins	TECHNOLOGIST:	M.V, S.D.G, D.A
PROJECT:	2026 Local Street Renewals – 26 R 07 Various Locations	DATE CORES TAKEN: DOCUMENT NO:	30-Dec-25 to 12-Jan-26 25-4932
STRUCTURE:		DATE RECEIVED IN LAB:	30-Dec-25 to 12-Jan-26

Core Location	Length as Drilled (mm)	Core Diameter (mm)	Tested Core Length (mm)	Length / Diameter (mm)	Correction Factor	Mass (kg)	Age at Break (days)	Date of Break	Type of Fracture	Comp. Strength as Calculated (MPa)	Comp. Strength as Corrected (MPa)
Core 1 - Bayne Crescent	164	95	149	1.6	0.968	2.4	-	15-Jan-26	1	32.92	31.87
Core 2 - Bayne Crescent	189	95	164	1.7	0.976	2.7	-	15-Jan-26	1	32.71	31.92

Remarks

The cores were tested in wet condition in accordance with CSA A23.2-14C.

Reviewed by:

Mayumi Kawano, Supervisor
Field & Lab Testing Services

Approved by:

P. Bevel

Paul Bevel, Manager
Field & Lab Testing Services

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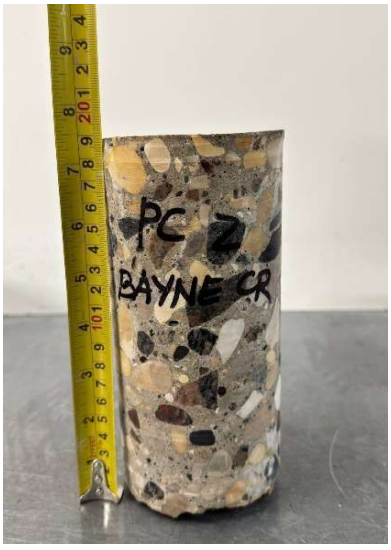
Rehabilitation Sites

Picture of Cores

Bayne Crescent Alley

PC 1 - Core

PC 1 - Site Photo



PC 2 - Core

PC 2 - Site Photo

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APPENDIX A.3.

LONDON STREET/MCCREEDY ROAD ALLEY

(TU-PELO AVE TO AMELIA CRES.)

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Rehabilitation Sites

Pavement Coring Locations

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Rehabilitation Sites

Pavement Structure Measurement

PC No.	Core Hole Location	Asphalt Thickness (mm)	Concrete Thickness (mm)
London Street/McCreedy Road Alley (Tu-pelo Ave to Amelia Cres.)			
PC3	Back lane of House #19 McCreedy Rd; 0.7m away from the edge of the alley 14 U, 638826.97 m E, 5532058.02 m N	-	178
PC4	Back lane of House #47 London St; 1.5 m away from the edge of the alley 14 U, 638914.99 m E, 5532123.03 m N	-	160

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STRUCTURE:		DATE RECEIVED IN LAB:	30-Dec-25 to 12-Jan-26

Core Location	Length as Drilled (mm)	Core Diameter (mm)	Tested Core Length (mm)	Length / Diameter (mm)	Correction Factor	Mass (kg)	Age at Break (days)	Date of Break	Type of Fracture	Comp. Strength as Calculated (MPa)	Comp. Strength as Corrected (MPa)
Core 3 - London St/ McCreedy Rd	165	95	140	1.5	0.960	2.3	-	15-Jan-26	1	43.56	41.82
Core 4 - London St/ McCreedy Rd	159	95	142	1.5	0.960	2.3	-	15-Jan-26	1	44.10	42.34

Remarks

The cores were tested in wet condition in accordance with CSA A23.2-14C.

Reviewed by:

Mayumi Kawano, Supervisor
Field & Lab Testing Services

Approved by:

Paul Bevel, Manager
Field & Lab Testing Services

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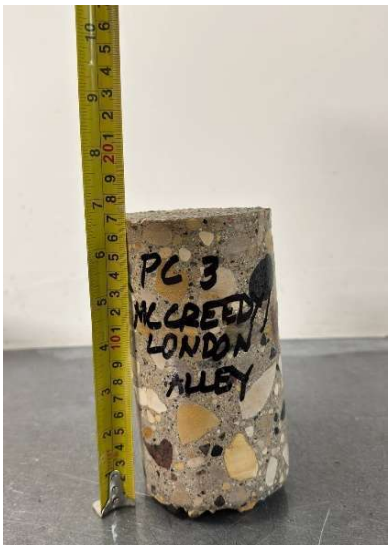
Rehabilitation Sites

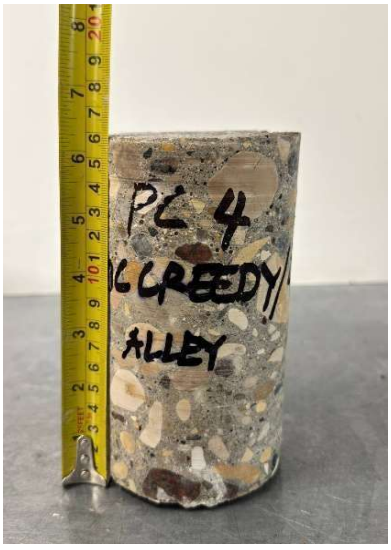
Picture of Cores

Tu-Pelo Ave/London St Alley - McCreedy Rd/Amelia Cr



PC 3 - Core

PC 3 - Site Photo



PC 4 - Core

PC 4 - Site Photo

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APPENDIX A.4.

SAWCHUCK BAY

(ANTRIM RD TO ANTRIM RD)

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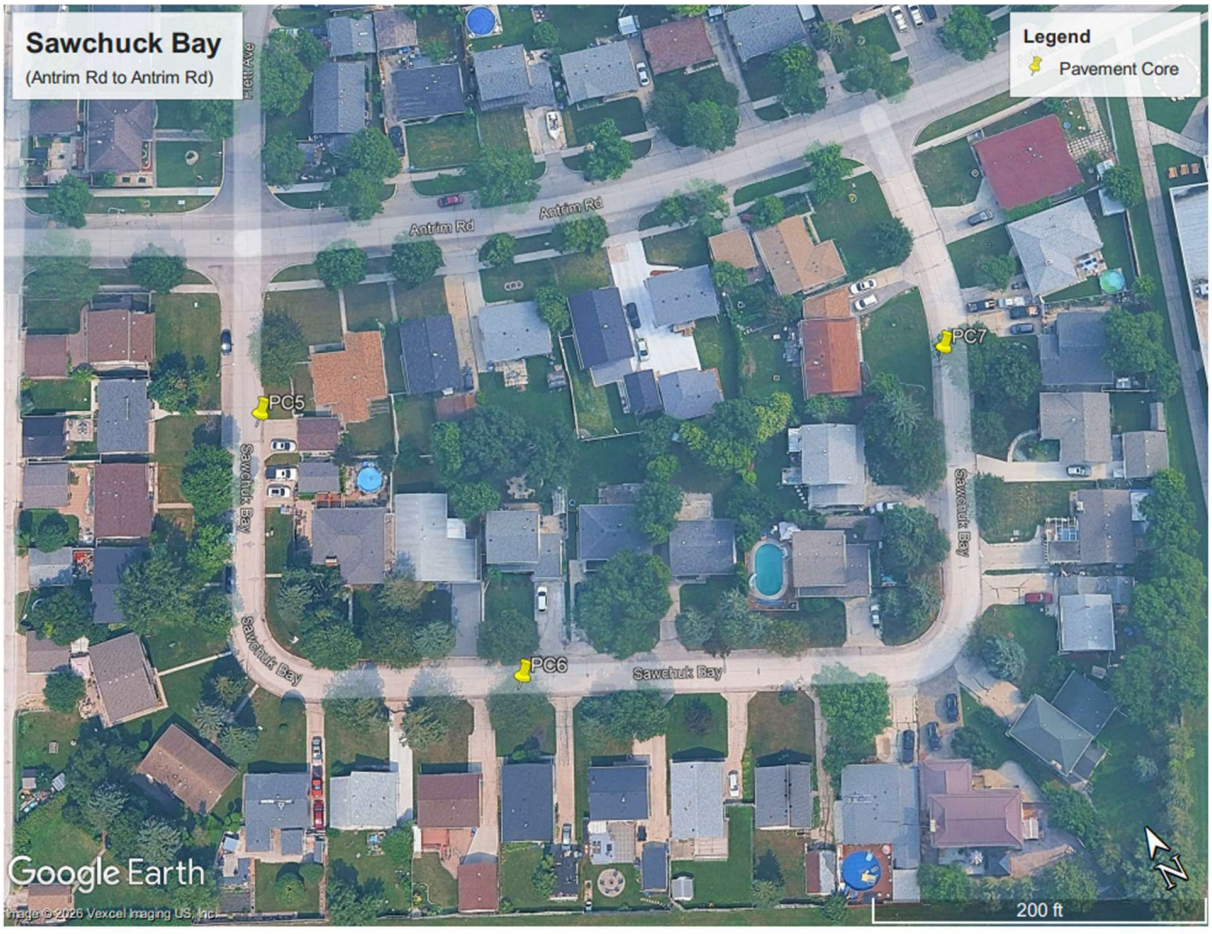
Rehabilitation Sites

Pavement Coring Locations



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Rehabilitation Sites

Pavement Structure Measurement

PC No.	Core Hole Location	Asphalt Thickness (mm)	Concrete Thickness (mm)
Sawchuck Bay (Antrim Rd to Antrim Rd)			
PC5	Side of House # 292 Antrim Rd, NBL; 2m away from the curb 14 U, 638250 E, 5531631 N	68	107
PC6	Front of House # 51 Sawchuck Bay, EBL; 1.5m away from the curb 14 U, 638271 E, 5531567 N	-	155
PC7	Front of House # 6 Sawchuck Bay, SBL; 1.5m away from the curb 14 U, 638368 E, 5531586 N	-	166

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Core Location	Length as Drilled (mm)	Core Diameter (mm)	Tested Core Length (mm)	Length / Diameter (mm)	Correction Factor	Mass (kg)	Age at Break (days)	Date of Break	Type of Fracture	Comp. Strength as Calculated (MPa)	Comp. Strength as Corrected (MPa)
Core 5 - Sawchuck Bay	115	95	99	1.0	0.870	1.6	-	15-Jan-26	1	43.05	37.45
Core 7 - Sawchuck Bay	164	95	146	1.5	0.960	2.4	-	15-Jan-26	1	39.84	38.25

Remarks

The cores were tested in wet condition in accordance with CSA A23.2-14C.

Reviewed by:

Mayumi Kawano, Supervisor
Field & Lab Testing Services

Approved by:

Paul Bevel, Manager
Field & Lab Testing Services

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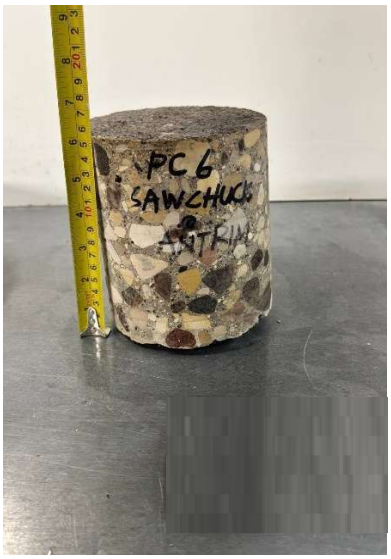
Minor Rehabilitation Sites

Picture of Cores

Sawchuck Bay - Antrim Rd/Antrim Rd

PC 5 - Core

PC 5 - Site Photo



PC 6 - Core

PC 6 - Site Photo

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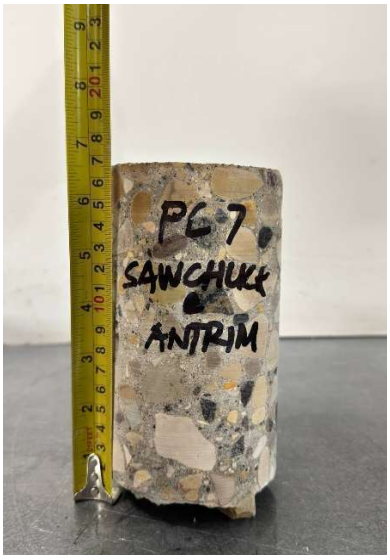
Minor Rehabilitation Sites

Picture of Cores

Sawchuck Bay - Antrim Rd/Antrim Rd



PC 7 - Core

PC 7 - Site Photo

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APPENDIX A.5.

HEMSDALE AVENUE/KIMBERLY AVENUE ALLEY

(GOLSPIE ST TO RALIEGH ST)

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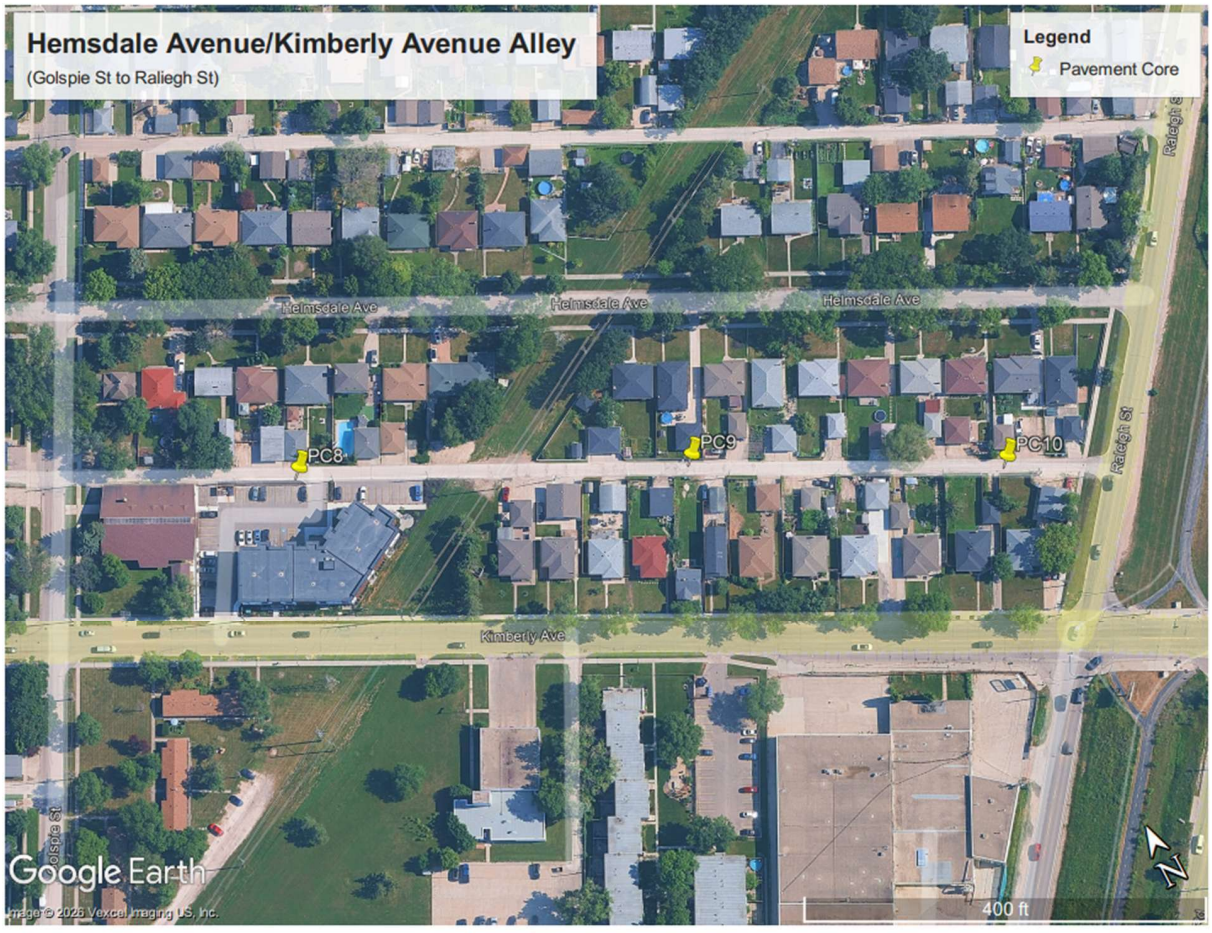
Rehabilitation Sites

Pavement Coring Locations



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Rehabilitation Sites

Pavement Structure Measurement

PC No.	Test Hole Location	Asphalt Thickness (mm)	Concrete Thickness (mm)
Hemsdale Avenue/Kimberly Avenue Alley (Golspie St to Raliegh St)			
PC8	Back lane near parking entrance of Bldg. 615 Kimberly Ave.; 1m away from the edge of the alley 14 U, 637431 E, 5531705 N	-	165
PC9	Back lane of House # 642 Helmsdale Ave; 1.5m away from the edge of the alley 14 U, 637543 E, 5531654 N	30	130[A]
PC10	Back lane of House # 685 Kimberly Ave; 1.5m away from the edge of the alley 14 U, 637630 E, 5531610 N	-	175

Note: [A] - The exact concrete thickness could not be determined due to the deterioration of the concrete.

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CONCRETE CORE COMPRESSIVE STRENGTH TEST REPORT (CSA A23.2 14C)

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STRUCTURE:		DATE RECEIVED IN LAB:	30-Dec-25 to 12-Jan-26

Core Location	Length as Drilled (mm)	Core Diameter (mm)	Tested Core Length (mm)	Length / Diameter (mm)	Correction Factor	Mass (kg)	Age at Break (days)	Date of Break	Type of Fracture	Comp. Strength as Calculated (MPa)	Comp. Strength as Corrected (MPa)
Core 8 - Hemsdale Ave/Kimberly Ave	164	95	144	1.5	0.960	2.4	-	15-Jan-26	1	36.78	35.31
Core 10 - Hemsdale Ave/Kimberly Ave	163	95	145	1.5	0.960	2.4	-	15-Jan-26	1	35.27	33.86

Remarks

The cores were tested in wet condition in accordance with CSA A23.2-14C.

Reviewed by:

Mayumi Kawano, Supervisor
Field & Lab Testing Services

Approved by:

Paul Bevel, Manager
Field & Lab Testing Services

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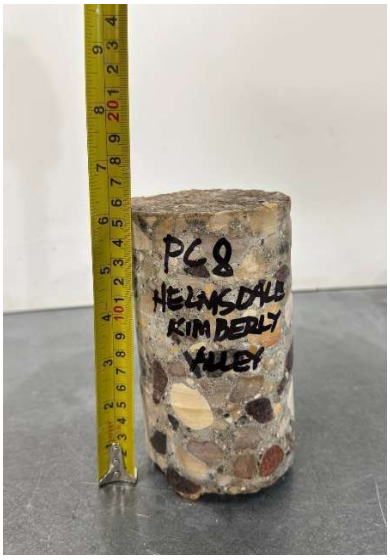
Rehabilitation Sites

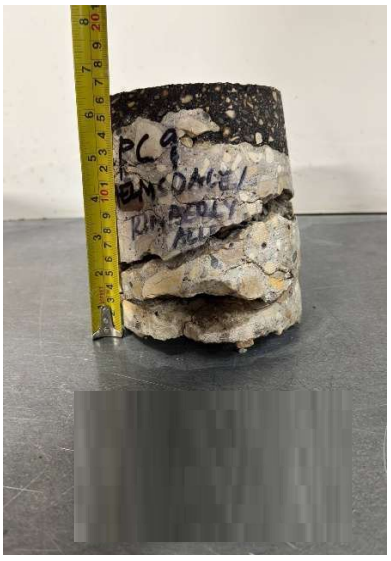
Picture of Cores

Golspie St/Hemsdale Ave Alley - Kimberly Av/Raleigh St



PC 8 - Core

PC 8 - Site Photo



PC 9 - Core

PC 9 - Site Photo

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Rehabilitation Sites

Picture of Cores

Golspie St/Hemsdale Ave Alley - Kimberly Av/Raleigh St

PC 10 - Core

PC 10 - Site Photo

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APPENDIX A.6.

CHOPIN BOULEVARD

(UXBRIDGE RD N TO WIEBES DR)

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Rehabilitation Sites

Pavement Coring Locations

H. MANALO CONSULTING LTD.
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Phone: (204) 697-3854; Cell (204) 997-1355
hermie@hmanalo.ca

Rehabilitation Sites

Pavement Structure Measurement

PC No.	Core Hole Location	Asphalt Thickness (mm)	Concrete Thickness (mm)
Chopin Boulevard (Uxbridge Rd N to Wiebes Dr)			
PC17	Front of House # 54 Chopin Blvd, EBL; 1.5m away from the curb 14 U, 639754 E, 5534518 N	-	160
PC18	Front of House # 27 Chopin Blvd, WBL; 2.5m away from the curb 14 U, 639665 E, 5534579 N	-	160
PC19	Side of of House # 70 Uxbridge Rd, EBL; 1.5m away from the curb 14 U, 639564 E, 5534641 N	-	151

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CONCRETE CORE COMPRESSIVE STRENGTH TEST REPORT (CSA A23.2 14C)

CLIENT:	WSP Canada Inc 1600 Buffalo Place Winnipeg, MB R3T 6B8	DATE: FILE NO: REPORT NO:	15-Jan-26 430-2502 26-001
ATTENTION:	Richard Hawkins	TECHNOLOGIST:	M.V, S. D.G, D.A
PROJECT:	2026 Local Street Renewals – 26 R 07 Various Locations	DATE CORES TAKEN: DOCUMENT NO:	30-Dec-25 to 12-Jan-26 25-4932
STRUCTURE:		DATE RECEIVED IN LAB:	30-Dec-25 to 12-Jan-26

Core Location	Length as Drilled (mm)	Core Diameter (mm)	Tested Core Length (mm)	Length / Diameter (mm)	Correction Factor	Mass (kg)	Age at Break (days)	Date of Break	Type of Fracture	Comp. Strength as Calculated (MPa)	Comp. Strength as Corrected (MPa)
Core 17 - Chopin Blvd	161	95	142	1.5	0.960	2.3	-	15-Jan-26	1	32.83	31.52
Core 18 - Chopin Blvd	161	95	142	1.5	0.960	2.3	-	15-Jan-26	1	50.65	48.62

Remarks

The cores were tested in wet condition in accordance with CSA A23.2-14C.

Reviewed by:

Mayumi Kawano, Supervisor
Field & Lab Testing Services

Approved by:

Paul Bevel, Manager
Field & Lab Testing Services

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Major Rehabilitation Sites

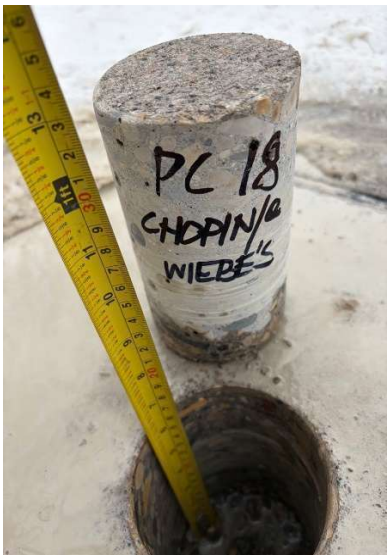
Picture of Cores

Chopin Bv - Uxbridge Rd N/Wiebes Dr

PC 17 - Core

PC 17 - Site Photo

PC 18 - Core



PC 18 - Site Photo

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Major Rehabilitation Sites

Picture of Cores

Chopin Bv - Uxbridge Rd N/Wiebes Dr

PC 19 - Core

PC 19 - Site Photo

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APPENDIX A.7.

ZEGLINSKI CRESCENT

(ZEGLINSKI CRES TO WIEBES DR)

H. MANALO CONSULTING LTD.

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Rehabilitation Sites

Pavement Coring Locations

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Rehabilitation Sites

Pavement Structure Measurement

PC No.	Core Hole Location	Asphalt Thickness (mm)	Concrete Thickness (mm)
Zeglinski Crescent (Zeglinski Cres to Wiebes Dr)			
PC20	Front of House # 55 Zeglinski Cres, WBL; 1.5m away from the curb 14 U, 639684 m E, 5534668 N	-	155
PC21	Front of House # 22 Zeglinski Cres, EBL; 1.5m away from the curb 14 U, 639774 E, 5534605 N	-	162
PC22	Side of House # 85 Wiebes Dr, WBL; 1.5m away from the curb 14 U, 639839 E, 5534567 N	-	168

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Phone: 204-697-3854 Cell: 204-997-1355 Email: hermie@hmanalo.ca

CONCRETE CORE COMPRESSIVE STRENGTH TEST REPORT (CSA A23.2 14C)

CLIENT:	WSP Canada Inc 1600 Buffalo Place Winnipeg, MB R3T 6B8	DATE: FILE NO: REPORT NO:	15-Jan-26 430-2502 26-001
ATTENTION:	Richard Hawkins	TECHNOLOGIST:	M. Vinas, S. De Guzman, D. Aireyu
PROJECT:	2026 Local Street Renewals – 26 R 07 Various Locations	DATE CORES TAKEN: DOCUMENT NO:	30-Dec-25 to 12-Jan-26 25-4932
STRUCTURE:		DATE RECEIVED IN LAB:	30-Dec-25 to 12-Jan-26

Core Location	Length as Drilled (mm)	Core Diameter (mm)	Tested Core Length (mm)	Length / Diameter (mm)	Correction Factor	Mass (kg)	Age at Break (days)	Date of Break	Type of Fracture	Comp. Strength as Calculated (MPa)	Comp. Strength as Corrected (MPa)
Core 20 - Zeglinski Cres	154	95	131	1.4	0.948	2.2	-	15-Jan-26	1	60.72	57.56
Core 21 - Zeglinski Cres	175	95	157	1.7	0.976	2.6	-	15-Jan-26	1	40.01	39.05

Remarks

The cores were tested in wet condition in accordance with CSA A23.2-14C.

Reviewed by:

Mayumi Kawano, Supervisor
Field & Lab Testing Services

Approved by:

Paul Bevel, Manager
Field & Lab Testing Services

H. MANALO CONSULTING LTD.
1402 Notre Dame Avenue, Winnipeg, MB, R3E 3G5
Phone: (204) 697-3854; Cell (204) 997-1355
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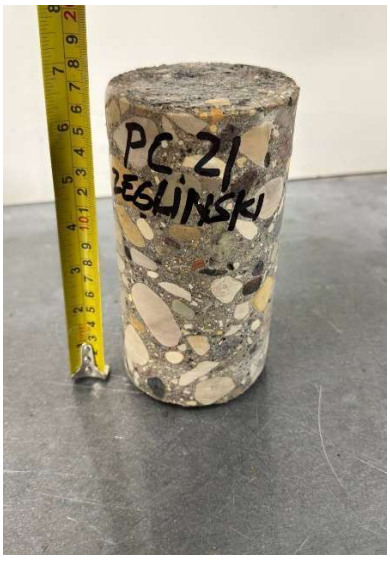
Minor Rehabilitation Sites

Picture of Cores

Zeglinski Cr - Wiebes Dr/Zeglinski Cr

PC 20 - Core

PC 20 - Site Photo



PC 21 - Core

PC 21 - Site Photo

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Minor Rehabilitation Sites

Picture of Cores

Zeglinski Cr - Wiebes Dr/Zeglinski Cr

PC 22 - Core

PC 22 - Site Photo

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APPENDIX B.1.

ACTIVE TRANSPORTATION PATH

SUMMARY OF LABORATORY TESTING

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Phone: (204) 697-3854; Cell (204) 997-1355
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B.1 Summary of Laboratory Testing

Multi-Use Path

Concordia Ave (Multi-use Path)
(Gateway Rd to Moncton Ave)

BH	Sample ID	PSA				PI			PR		CBR	
		Gravel (%)	Sand (%)	Silt (%)	Clay (%)	LL (%)	PL (%)	PI (%)	MDD (kg/m^3)	OMC (%)	at 2.5mm penetration	at 5.1mm penetration
BH13	**HM 834 GS 6**	-	4.4	81.8	13.8	26	15	11	1806	15.5	95	3
BH14	**HM 835 GS 5**	-	2.3	30.6	67.2	61	22	39	1543	23.7	95	2.7
BH16	**HM 837 GS 4**	-	2.0	32.6	65.3	73	31	42	1519	25.6	95	3.3
BH21	**HM 841 GS 4**	-	0.0	31.7	68.3	57	21	36	1550	21	95	2.4
BH23	**HM 843 GS 4**	-	5.7	81.1	13.2	25	19	6	1826	15	95	3.1
BH24	**HM 844 GS 5**	-	4.3	83.8	11.9	24	15	9	1879	13.7	95	2.6

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1402 Notre Dame Avenue, Winnipeg, MB, R3E 3G5
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APPENDIX B.2.

CONCORDIA AVENUE
(MULTI-USE PATH)

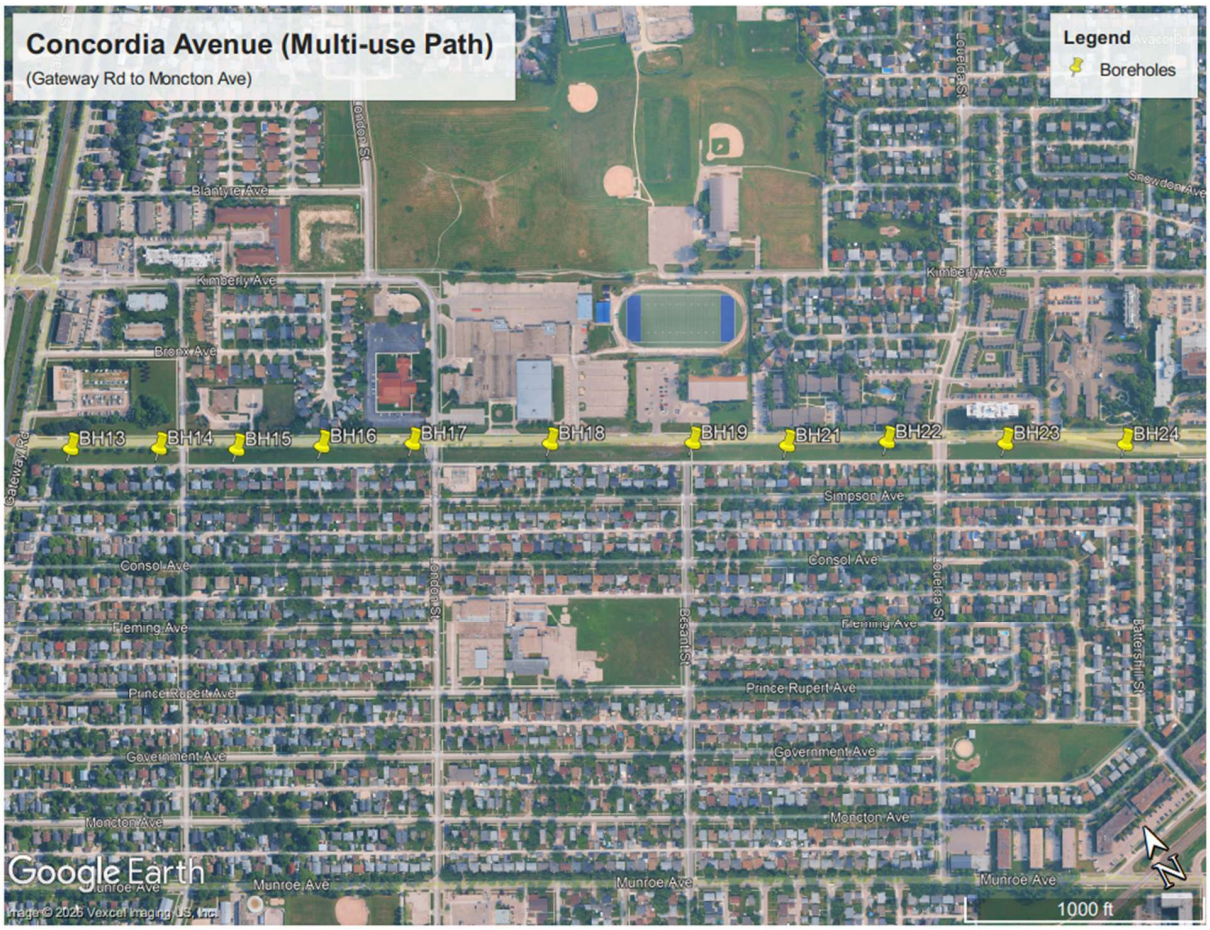
(GATEWAY RD TO MONCTON AVE)

H. MANALO CONSULTING LTD.

1402 Notre Dame Avenue, Winnipeg, MB, R3E 3G5
Phone: (204) 697-3854; Cell (204) 997-1355
hermie@hmanalo.ca

Multi-Use Path

Surface Drilling Locations



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Multi-Use Path

Borehole Locations

Borehole No.	Location
Concordia Avenue (Gateway Rd to Moncton Ave)	
BH13	Near back lane of House # 619 Simpson Ave; 4.5m away from the edge of the alley 14 U, 637585 E, 5531319 N
BH14	Near back lane of House # 667 Simpson Ave; 4m away from the edge of the alley 14 U, 637687 E, 5531271 N
BH15	Near back lane of House # 723 Simpson Ave; 2.5m away from the edge of the alley 14 U, 637775 E, 5531225 N
BH16	Near back lane of House # 751 Simpson Ave; 5.5m away from the edge of the alley 14 U, 637874 E, 5531181 N
BH17	Near back lane of House # 785 Simpson Ave; 8m away from the edge of the alley 14 U, 637978 E, 5531134 N
BH18	Near back lane of House # 835 Simpson Ave; 7m away from the edge of the alley 14 U, 638135 E, 5531053 N
BH19	Near back lane of Simpson Ave and Besant St. Intersection; 7m away from the edge of the alley 14 U, 638298 E, 5530977 N
BH21	Near back lane of House # 929 Simpson Ave; 3m away from the edge of the alley 14 U, 638405 E, 5530921 N
BH22	Near back lane of House # 975 Simpson Ave; 6.5m away from the edge of the alley 14 U, 638520 E, 5530870 N
BH23	Near back lane of House # 1023 Simpson Ave; 3.5m away from the edge of the alley 14 U, 638655 E, 5530802 N
BH24	Near back lane of House # 1059 Simpson Ave; 1.5m away from the edge of the alley 14 U, 638791 E, 5530733 N

H. MANALO CONSULTING LTD.

Project No: 430-2502

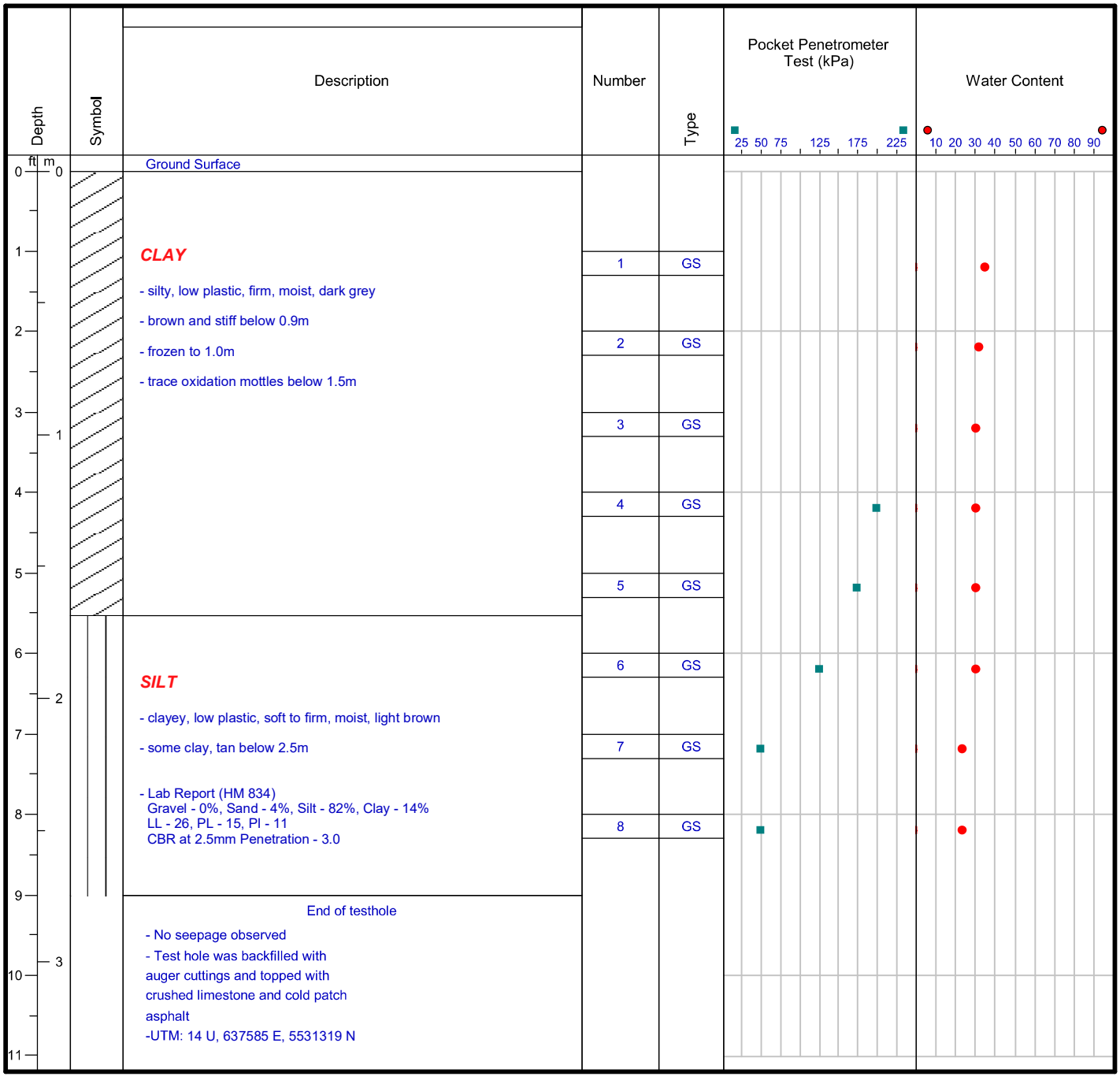
Project: Local Street Renewals 26-R-07

Client: WSP Canada Inc

Location: Near back lane of House # 619 Simpson Ave

TH13

Logged By: MK



Drill Method: Auger Drilling

Drill Date: January 9, 2026

Hole Size: 5 Inches

Datum: Existing surface

Checked by: Paul Bevel

Sheet: 1 of 1

H. MANALO CONSULTING LTD.

Project No: 430-2502

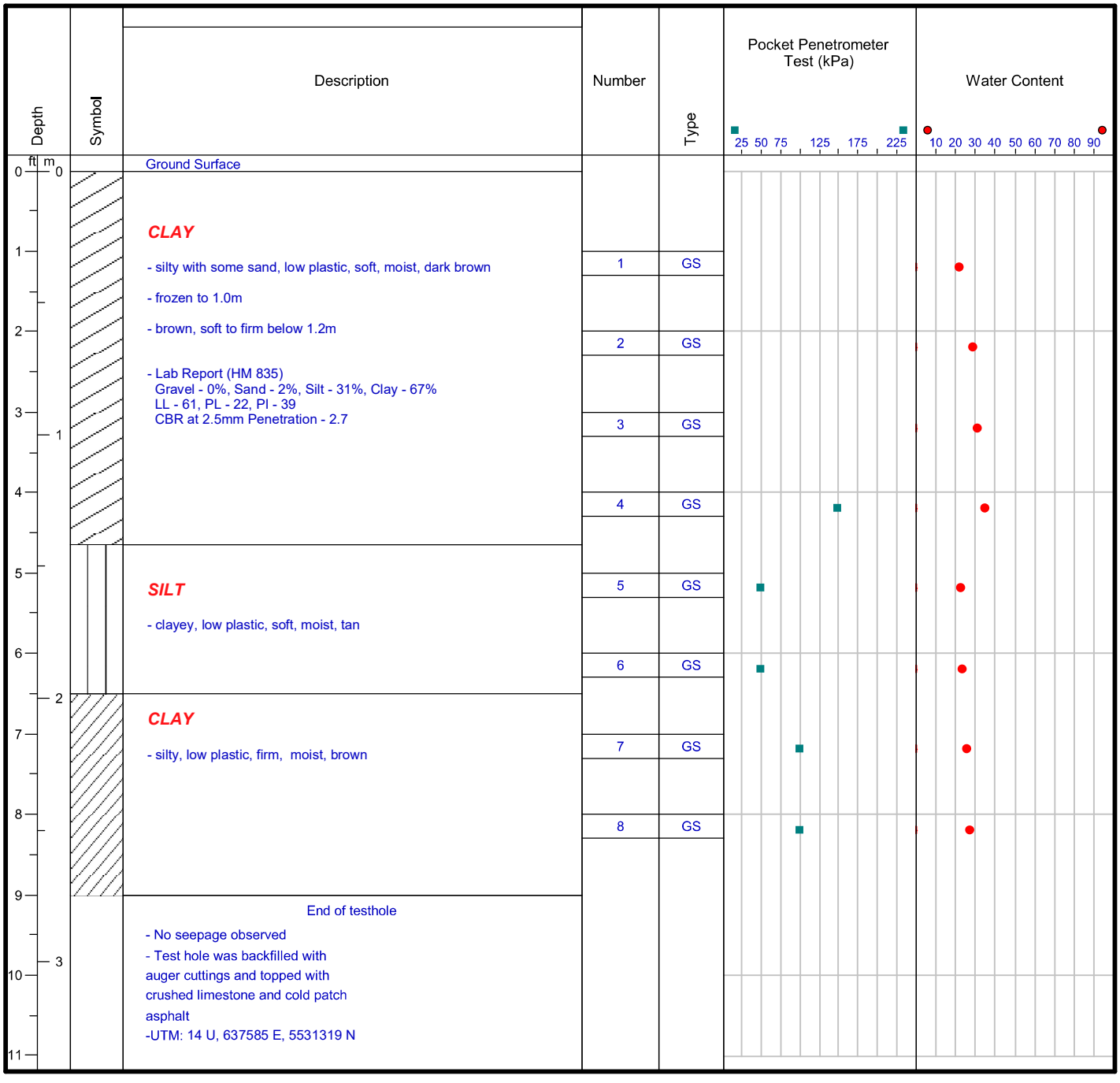
Project: Local Street Renewals 26-R-07

Client: WSP Canada Inc

Location: Near back lane of House # 667 Simpson Ave

TH14

Logged By: MK



Drill Method: Auger Drilling

Drill Date: January 9, 2026

Hole Size: 5 Inches

Datum: Existing surface

Checked by: Paul Bevel

Sheet: 1 of 1

H. MANALO CONSULTING LTD.

Project No: 430-2502

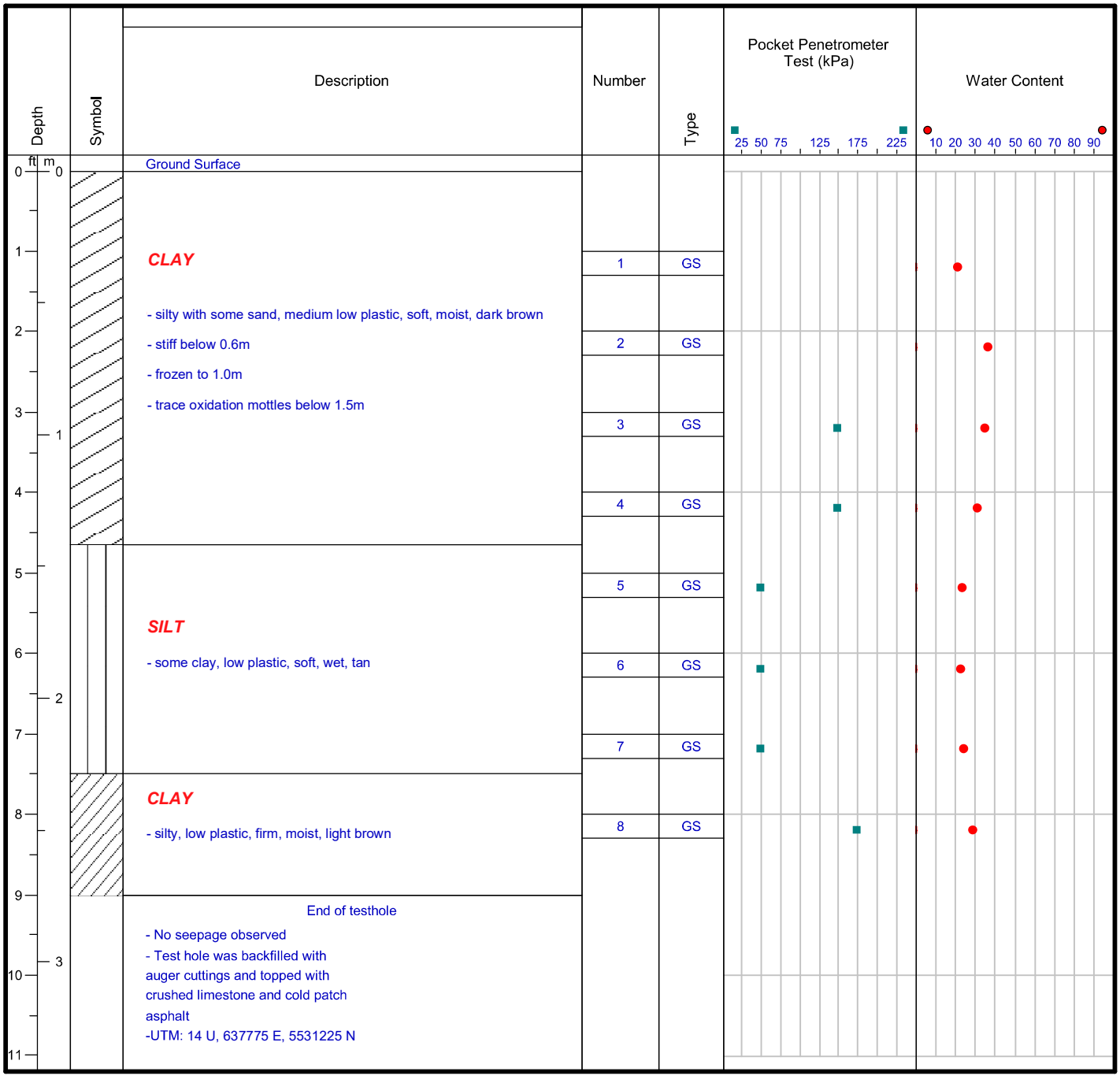
Project: Local Street Renewals 26-R-07

Client: WSP Canada Inc

Location: Near back lane of House # 723 Simpson Ave

TH15

Logged By: MK



Drill Method: Auger Drilling

Drill Date: January 9, 2026

Hole Size: 5 Inches

Datum: Existing surface

Checked by: Paul Bevel

Sheet: 1 of 1

H. MANALO CONSULTING LTD.

Project No: 430-2502

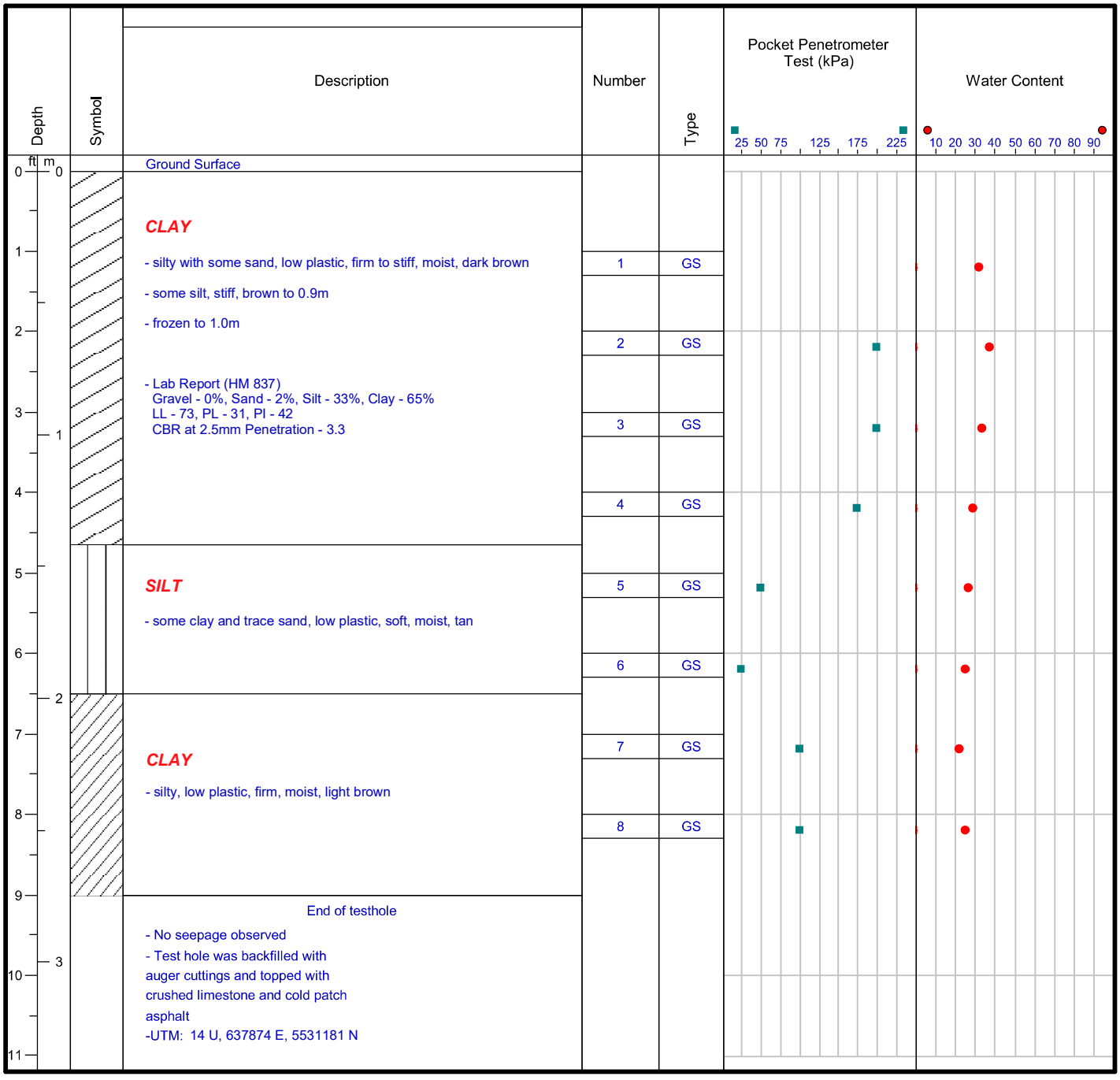
Project: Local Street Renewals 26-R-07

Client: WSP Canada Inc

Location: Near back lane of House # 751 Simpson Ave

TH16

Logged By: MK



Drill Method: Auger Drilling

Drill Date: January 9, 2026

Hole Size: 5 Inches

Datum: Existing surface

Checked by: Paul Bevel

Sheet: 1 of 1

H. MANALO CONSULTING LTD.

Project No: 430-2502

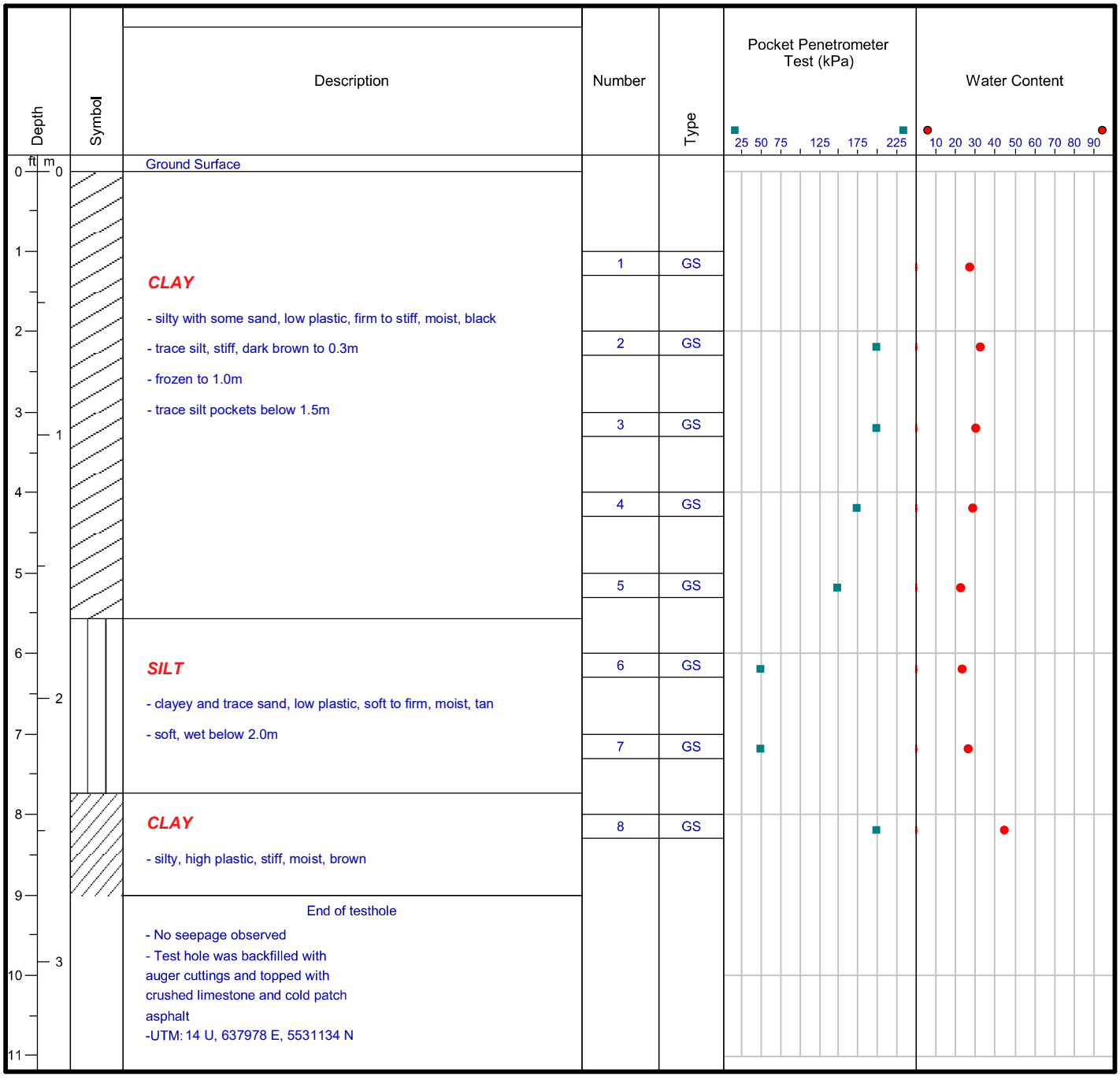
Project: Local Street Renewals 26-R-07

Client: WSP Canada Inc

Location: Near back lane of House # 785 Simpson Ave

TH17

Logged By: MK



Drill Method: Auger Drilling

Drill Date: January 9, 2026

Hole Size: 5 Inches

Datum: Existing surface

Checked by: Paul Bevel

Sheet: 1 of 1

H. MANALO CONSULTING LTD.

Project No: 430-2502

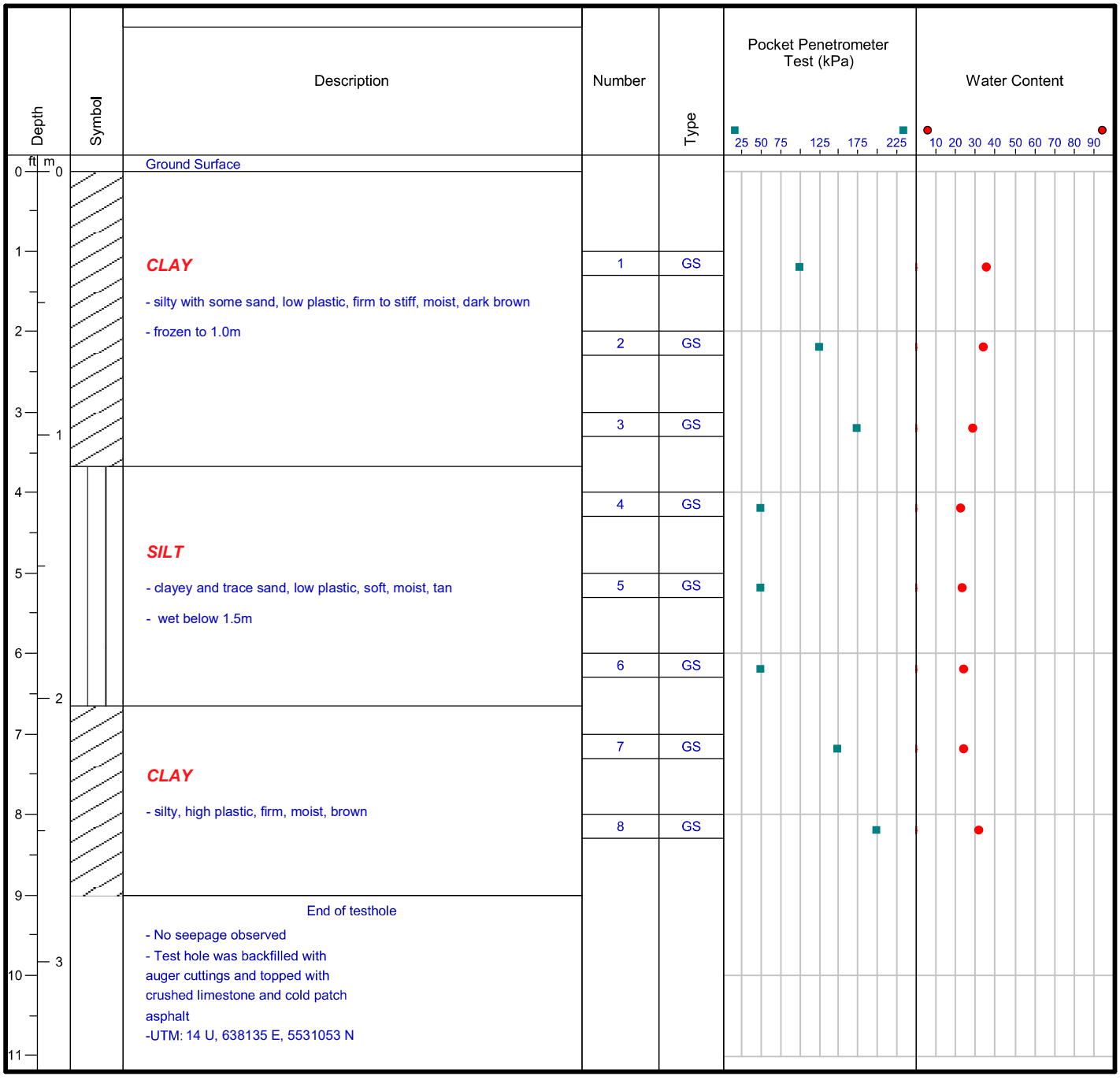
Project: Local Street Renewals 26-R-07

Client: WSP Canada Inc

Location: Near back lane of House # 835 Simpson Ave

TH18

Logged By: MK



Drill Method: Auger Drilling

Drill Date: January 9, 2026

Hole Size: 5 Inches

Datum: Existing surface

Checked by: Paul Bevel

Sheet: 1 of 1

H. MANALO CONSULTING LTD.

Project No: 430-2502

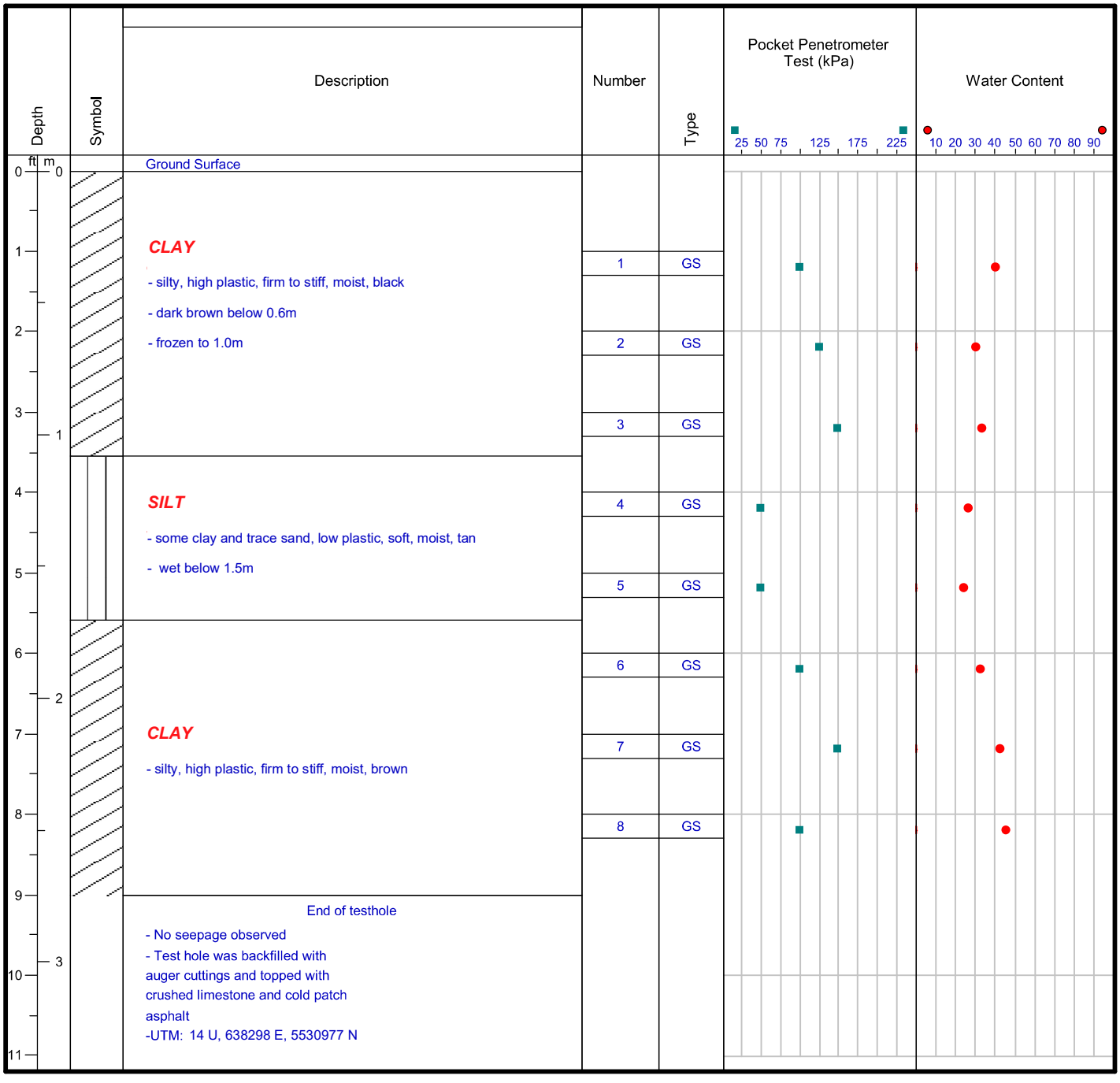
Project: Local Street Renewals 26-R-07

Client: WSP Canada Inc

Location: Near back lane of Simpson Ave and Besant St.

TH19

Logged By: MK



Drill Method: Auger Drilling

Drill Date: January 9, 2026

Hole Size: 5 Inches

Datum: Existing surface

Checked by: Paul Bevel

Sheet: 1 of 1

H. MANALO CONSULTING LTD.

Project No: 430-2502

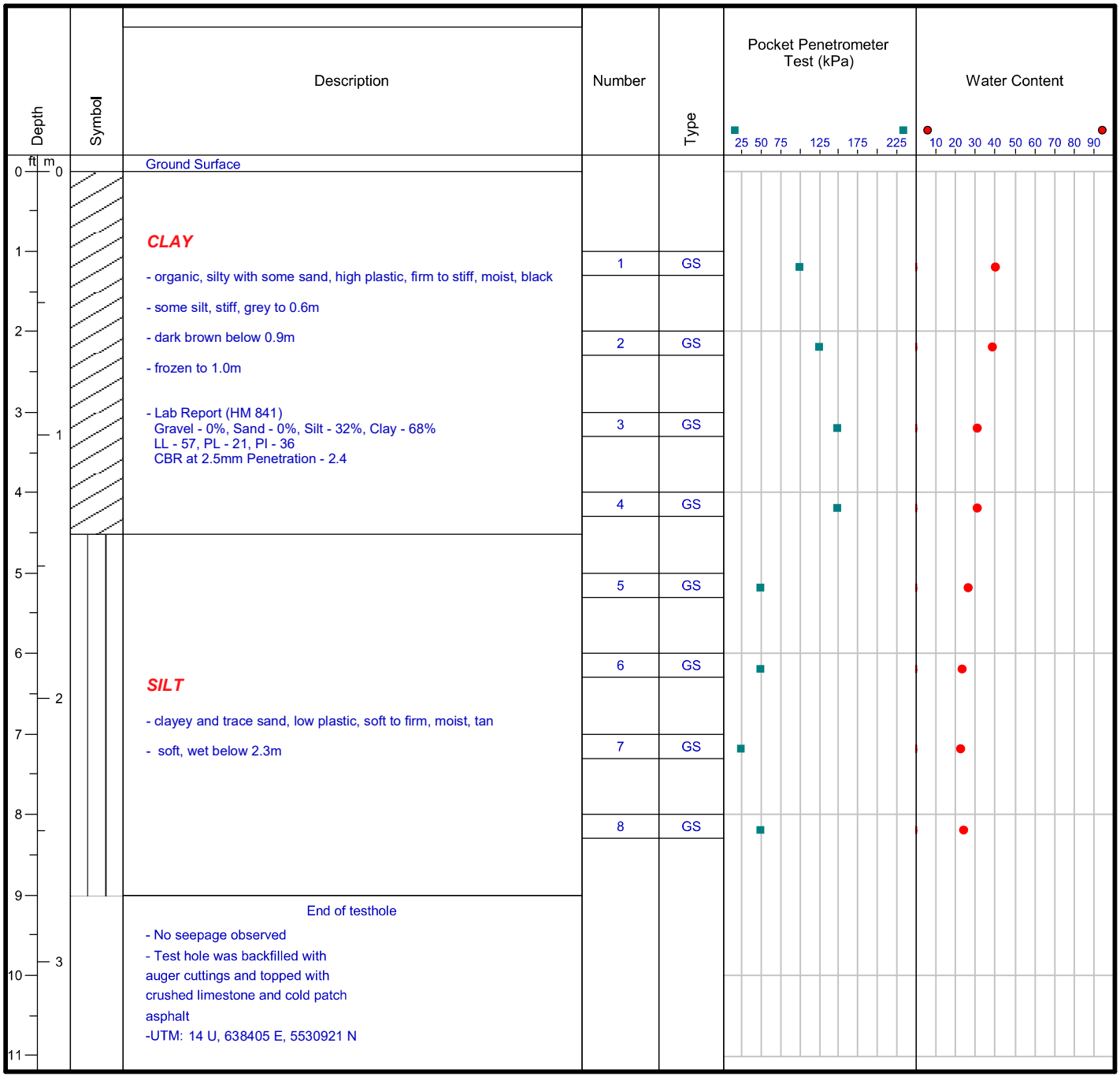
Project: Local Street Renewals 26-R-07

Client: WSP Canada Inc

Location: Near back lane of House # 929 Simpson Ave

TH21

Logged By: MK



Drill Method: Auger Drilling

Drill Date: January 9, 2026

Hole Size: 5 Inches

Datum: Existing surface

Checked by: Paul Bevel

Sheet: 1 of 1

H. MANALO CONSULTING LTD.

Project No: 430-2502

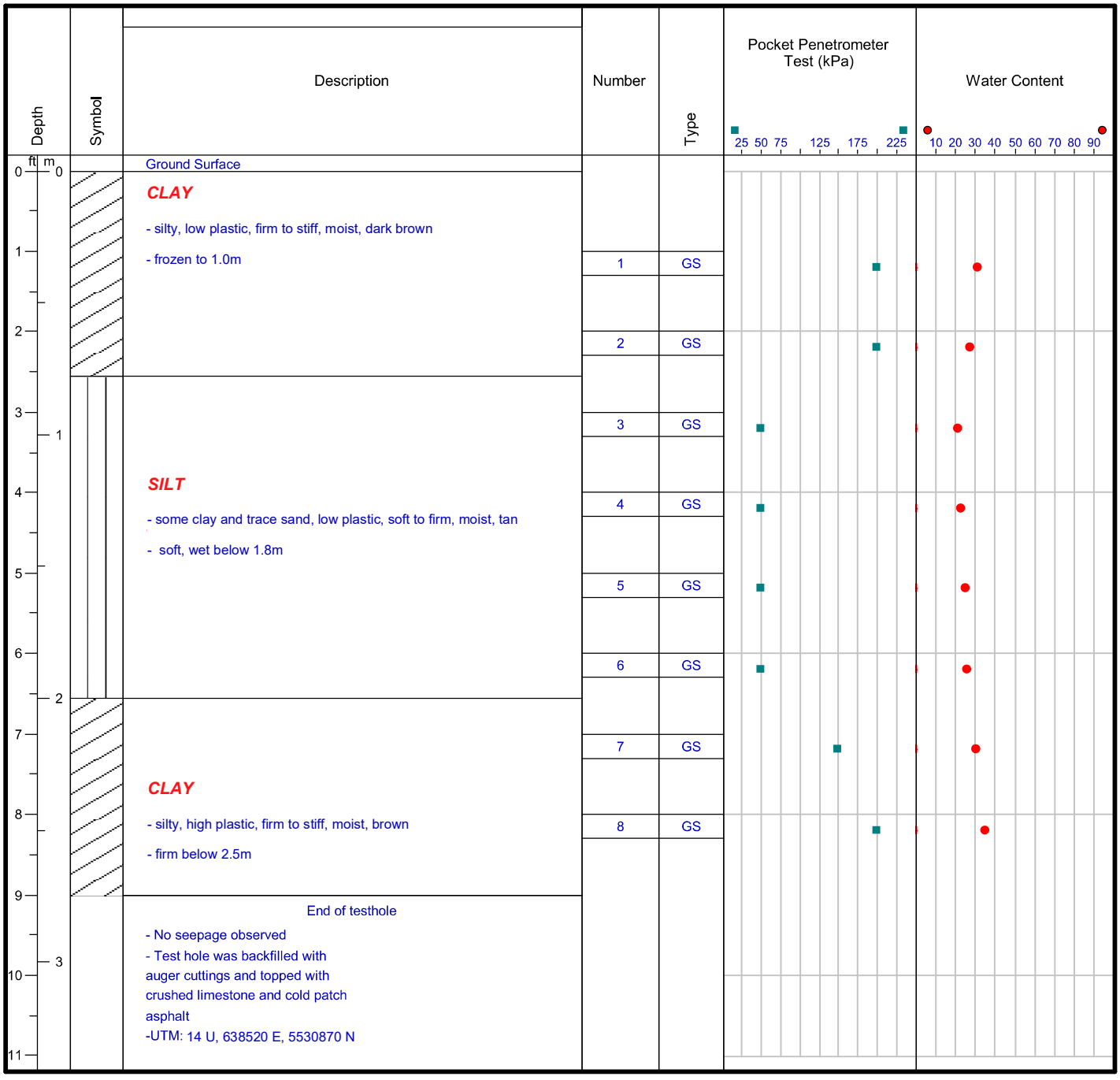
Project: Local Street Renewals 26-R-07

Client: WSP Canada Inc

Location: Near back lane of House # 975 Simpson Ave

TH22

Logged By: MK



Drill Method: Auger Drilling

Drill Date: January 9, 2026

Hole Size: 5 Inches

Datum: Existing surface

Checked by: Paul Bevel

Sheet: 1 of 1

H. MANALO CONSULTING LTD.

Project No: 430-2502

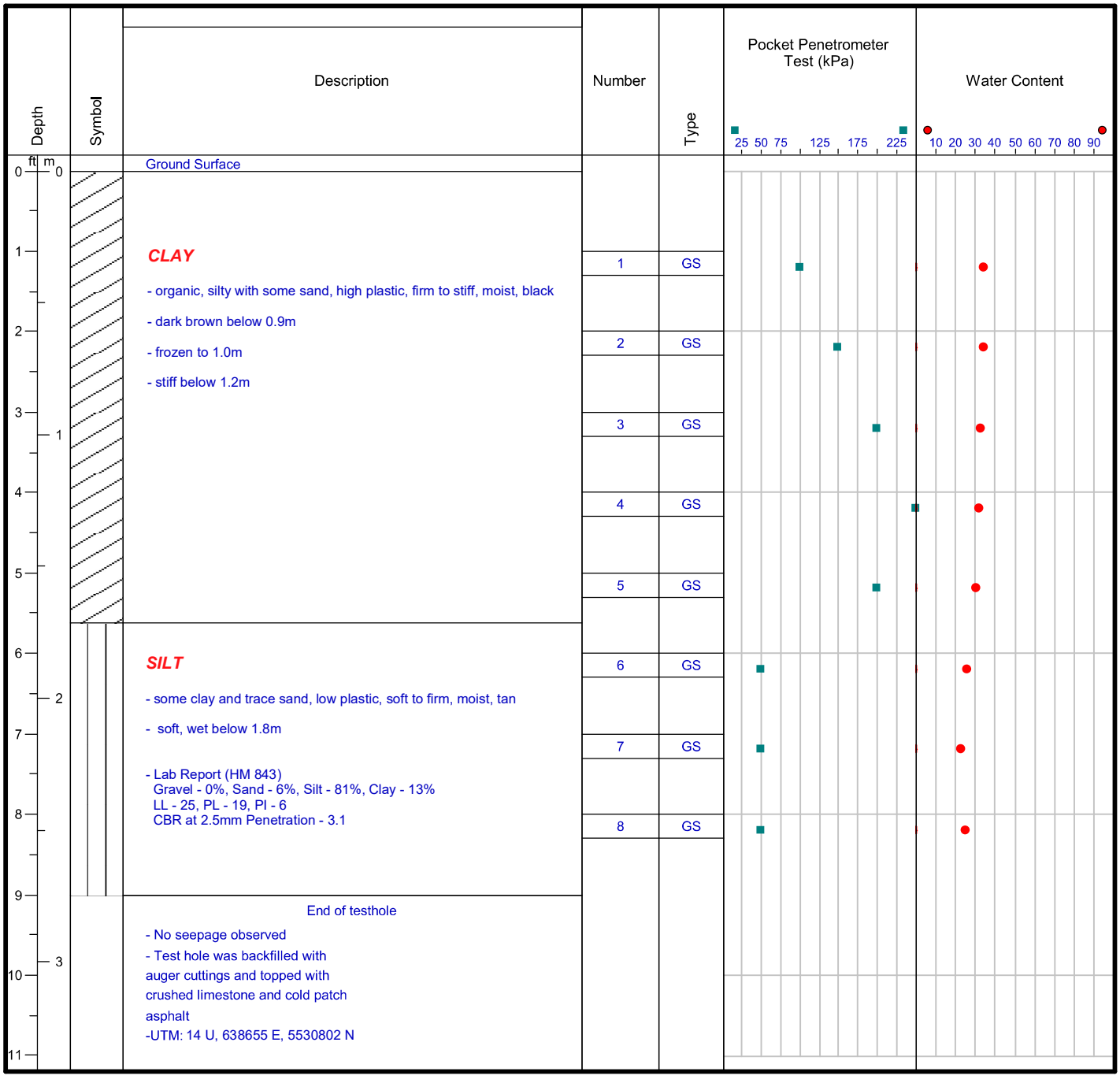
Project: Local Street Renewals 26-R-07

Client: WSP Canada Inc

Location: Near back lane of House # 1023 Simpson Ave

TH23

Logged By: MK



Drill Method: Auger Drilling

Drill Date: January 9, 2026

Hole Size: 5 Inches

Datum: Existing surface

Checked by: Paul Bevel

Sheet: 1 of 1

H. MANALO CONSULTING LTD.

Project No: 430-2502

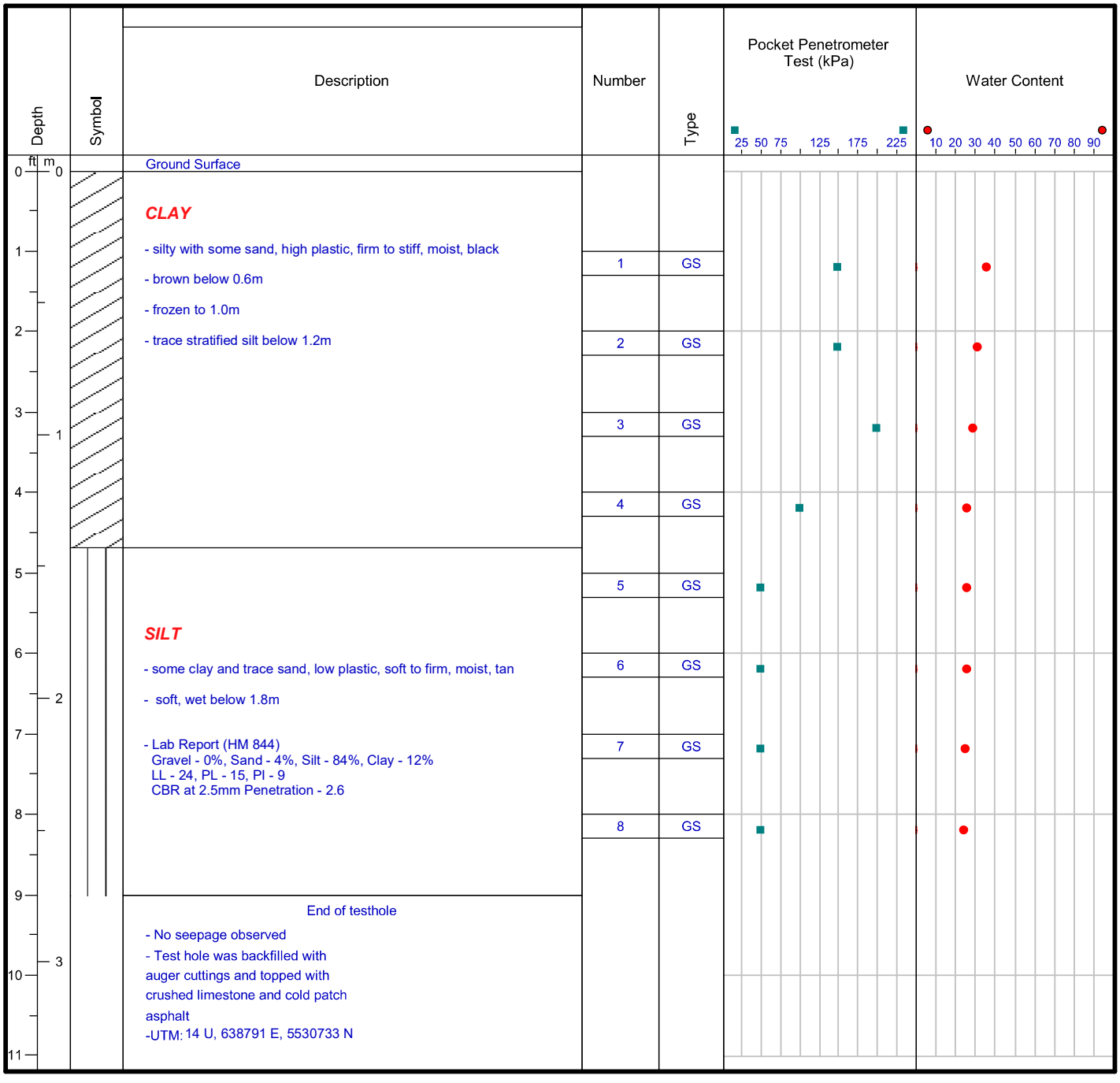
Project: Local Street Renewals 26-R-07

Client: WSP Canada Inc

Location: Near back lane of House # 1059 Simpson Ave

TH24

Logged By: MK



Drill Method: Auger Drilling

Drill Date: January 9, 2026

Hole Size: 5 Inches

Datum: Existing surface

Checked by: Paul Bevel

Sheet: 1 of 1

H. MANALO CONSULTING LTD.
1402 Notre Dame Ave, Winnipeg MB R3E 3G5
Phone: 204-697-3854 Cell: 204-997-1355

Canadian Council of Independent Laboratories

CALIFORNIA BEARING RATIO (CBR) TEST - ASTM D 1883

Client:	WSP Canada Inc.	Project No:	430-2502	
	1600 Buffalo Place	Lab No:	HM 834	
	Winnipeg, MB R3T 6B8	Date sampled/By:	09-Jan-26	HA
Attention:	Richard Hawkins	Date Received:	09-Jan-26	HA
Project	2026 Local Street Renewals – 26-R-07	Date Tested /By:	19-Jan-26	JJ
Location:	Concordia Ave (Gateway Rd to Moncton Ave)			

SAMPLE DATA

Sample Type:	SILT - some clay trace sand		
Source:	Concordia Ave - BH-13 - GS 6		
Sampled by:	HA		
Optimum Moisture Content:	15.5	%	
Maximum Dry Density:	1806	kg/cm^3	
Method of Compaction:	Standard Proctor		
Tested by:	HA	Date Tested:	16-Jan-26

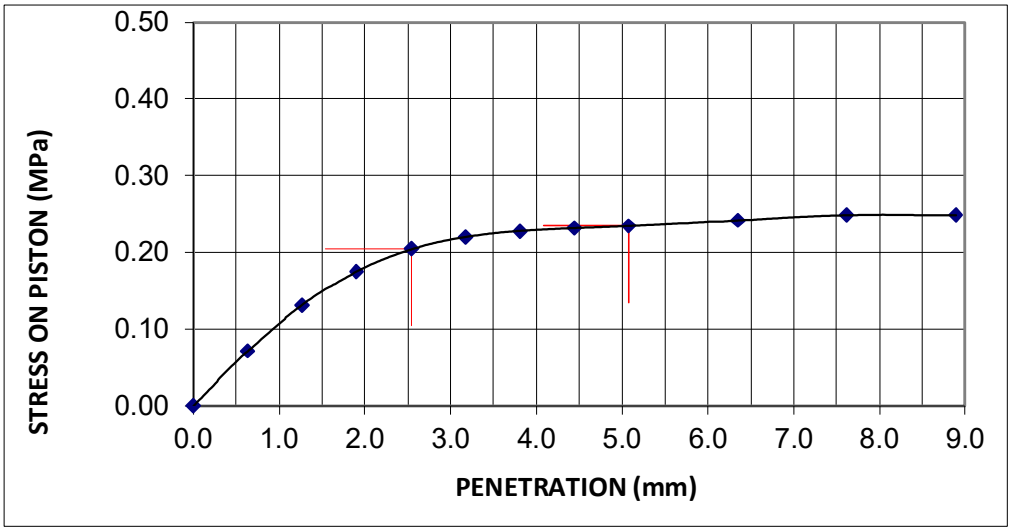
SPECIMEN DATA

DESCRIPTION	Before Soaking	After Testing
Moisture Content (MC), %	15.0	16.5
MC of top 25mm layer, %		
Dry Density, kg/m^3	1715	1711
Compaction,%	95%	
CBR at 2.5mm penetration, %		3.0
Swell, %		0.5

LOAD DATA

PENETRATION mm	STRESS MPa
0	0.00
0.64	0.07
1.27	0.13
1.91	0.17
2.54	0.20
3.18	0.22
3.81	0.23
4.45	0.23
5.08	0.23
6.35	0.24
7.62	0.25
8.89	0.25

LOAD PENETRATION CURVE



PENETRATION mm	STANDARD LOAD MPa	TEST LOAD ACTUAL MPa	TEST LOAD CORRECTED MPa	BEARING RATIO (soaked) at 2.5 mm penetration	BEARING RATIO (soaked) at 5.1 mm penetration
2.54	6.9	0.20	0.20	3.0	-
5.08	10.3	0.23	0.23	-	2.3

Remarks:

P. Bevel

Reviewed by: Paul Bevel

H. MANALO CONSULTING LTD.
1402 Notre Dame Ave, Winnipeg MB R3E 3G5
Phone: 204-697-3854 Cell: 204-997-1355

Canadian Council of Independent Laboratories

CALIFORNIA BEARING RATIO (CBR) TEST - ASTM D 1883

Client:	WSP Canada Inc.	Project No:	430-2502	
	1600 Buffalo Place	Lab No:	HM 835	
	Winnipeg, MB R3T 6B8	Date sampled/By:	08-Jan-26	HA
Attention:	Richard Hawkins	Date Received:	08-Jan-26	HA
Project	2026 Local Street Renewals – 26-R-07	Date Tested /By:	15-Jan-26	JJ
Location:	Concordia Ave (Gateway Rd to Moncton Ave)			

SAMPLE DATA

Sample Type:	CLAY - Silty with trace sand		
Source:	Concordia Ave - BH-14 - GS 4		
Sampled by:	HA		
Optimum Moisture Content:	23.7	%	
Maximum Dry Density:	1543	kg/cm^3	
Method of Compaction:	Standard Proctor		
Tested by:	JJ	Date Tested:	13-Jan-26

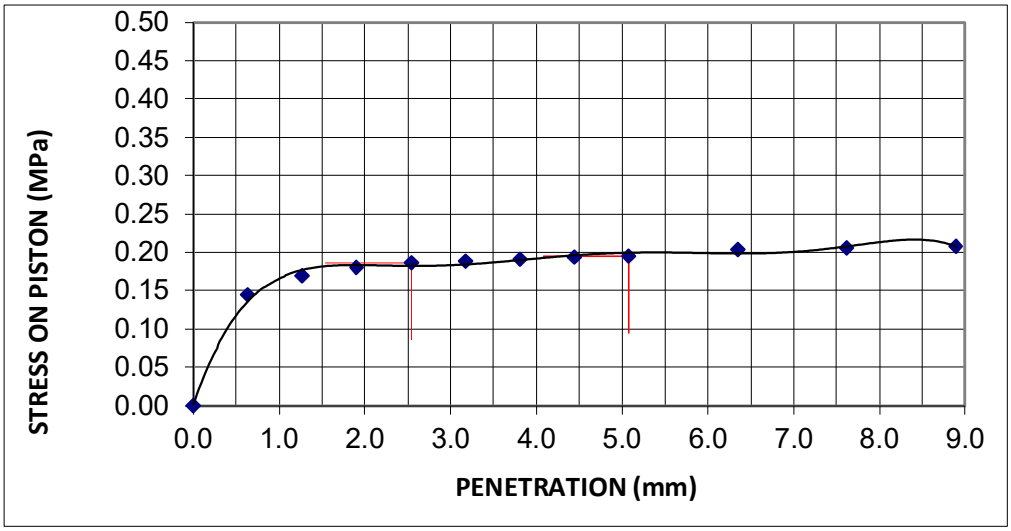
SPECIMEN DATA

DESCRIPTION	Before Soaking	After Testing
Moisture Content (MC), %	24.2	30.1
MC of top 25mm layer, %		
Dry Density, kg/m^3	1472	1408
Compaction,%	95%	
CBR at 2.5mm penetration, %		2.7
Swell, %		10.8

LOAD DATA

PENETRATION mm	STRESS MPa
0	0.00
0.64	0.14
1.27	0.17
1.91	0.18
2.54	0.19
3.18	0.19
3.81	0.19
4.45	0.19
5.08	0.19
6.35	0.20
7.62	0.21
8.89	0.21

LOAD PENETRATION CURVE



PENETRATION mm	STANDARD LOAD MPa	TEST LOAD ACTUAL MPa	TEST LOAD CORRECTED MPa	BEARING RATIO (soaked) at 2.5 mm penetration	BEARING RATIO (soaked) at 5.1 mm penetration
2.54	6.9	0.19	0.19	2.7	-
5.08	10.3	0.19	0.19	-	1.9

Remarks:

P. Bevel

Reviewed by: Paul Bevel

H. MANALO CONSULTING LTD.
1402 Notre Dame Ave, Winnipeg MB R3E 3G5
Phone: 204-697-3854 Cell: 204-997-1355

Canadian Council of Independent Laboratories

CALIFORNIA BEARING RATIO (CBR) TEST - ASTM D 1883

Client:	WSP Canada Inc.	Project No:	430-2502	
	1600 Buffalo Place	Lab No:	HM 837	
	Winnipeg, MB R3T 6B8	Date sampled/By:	09-Jan-26	HA
Attention:	Richard Hawkins	Date Received:	09-Jan-26	HA
Project	2026 Local Street Renewals – 26-R-07	Date Tested /By:	19-Jan-26	JJ
Location:	Concordia Ave (Gateway Rd to Moncton Ave)			

SAMPLE DATA

Sample Type:	CLAY - Silty with trace sand		
Source:	Concordia Ave - BH-16 - GS 4		
Sampled by:	HA		
Optimum Moisture Content:	25.6	%	
Maximum Dry Density:	1519	kg/cm^3	
Method of Compaction:	Standard Proctor		
Tested by:	ECS	Date Tested:	15-Jan-26

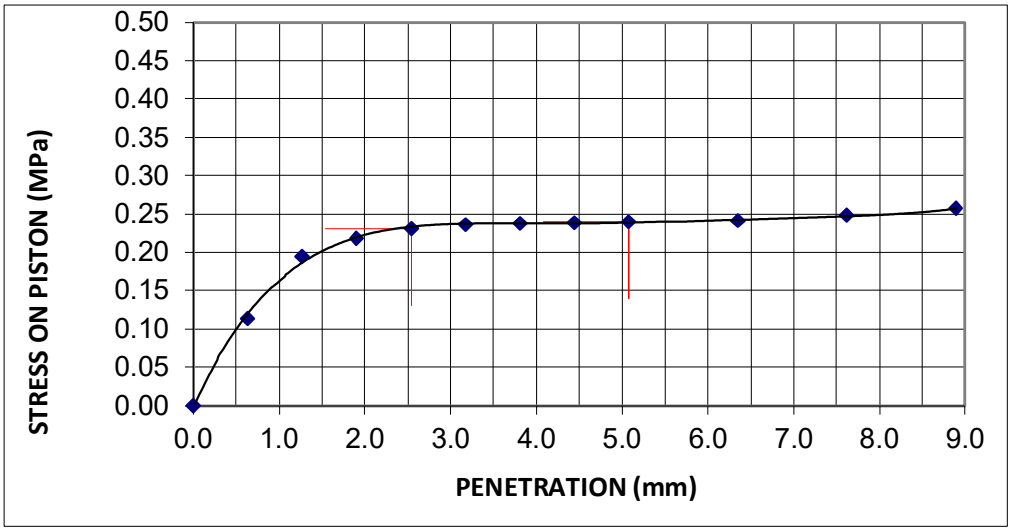
SPECIMEN DATA

DESCRIPTION	Before Soaking	After Testing
Moisture Content (MC), %	29.0	32.2
MC of top 25mm layer, %		
Dry Density, kg/m^3	1445	1434
Compaction,%	95%	
CBR at 2.5mm penetration, %		3.3
Swell, %		2.0

LOAD DATA

PENETRATION mm	STRESS MPa
0	0.00
0.64	0.11
1.27	0.19
1.91	0.22
2.54	0.23
3.18	0.24
3.81	0.24
4.45	0.24
5.08	0.24
6.35	0.24
7.62	0.25
8.89	0.26

LOAD PENETRATION CURVE



PENETRATION mm	STANDARD LOAD MPa	TEST LOAD ACTUAL MPa	TEST LOAD CORRECTED MPa	BEARING RATIO (soaked) at 2.5 mm penetration	BEARING RATIO (soaked) at 5.1 mm penetration
2.54	6.9	0.23	0.23	3.3	-
5.08	10.3	0.24	0.24	-	2.3

Remarks:

P. Bevel

Reviewed by: Paul Bevel

H. MANALO CONSULTING LTD.
1402 Notre Dame Ave, Winnipeg MB R3E 3G5
Phone: 204-697-3854 Cell: 204-997-1355

Canadian Council of Independent Laboratories

CALIFORNIA BEARING RATIO (CBR) TEST - ASTM D 1883

Client:	WSP Canada Inc.	Project No:	430-2502	
	1600 Buffalo Place	Lab No:	HM 841	
	Winnipeg, MB R3T 6B8	Date sampled/By:	09-Jan-26	HA
Attention:	Richard Hawkins	Date Received:	09-Jan-26	HA
Project	2026 Local Street Renewals – 26-R-07	Date Tested /By:	19-Jan-26	JJ
Location:	Concordia Ave (Gateway Rd to Moncton Ave)			

SAMPLE DATA

Sample Type:	CLAY - Silty		
Source:	Concordia Ave - BH-24 - GS 4		
Sampled by:	HA		
Optimum Moisture Content:	21.0	%	
Maximum Dry Density:	1550	kg/cm^3	
Method of Compaction:	Standard Proctor		
Tested by:	ECS	Date Tested:	15-Jan-26

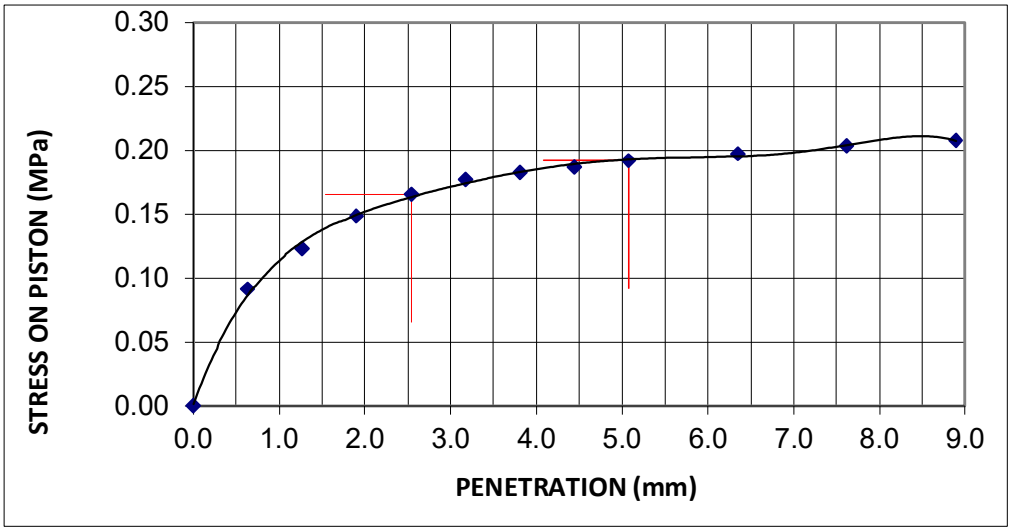
SPECIMEN DATA

DESCRIPTION	Before Soaking	After Testing
Moisture Content (MC), %	27.0	28.9
MC of top 25mm layer, %		
Dry Density, kg/m^3	1468	1437
Compaction,%	95%	
CBR at 2.5mm penetration, %		2.4
Swell, %		6.3

LOAD DATA

PENETRATION mm	STRESS MPa
0	0.00
0.64	0.09
1.27	0.12
1.91	0.15
2.54	0.17
3.18	0.18
3.81	0.18
4.45	0.19
5.08	0.19
6.35	0.20
7.62	0.20
8.89	0.21

LOAD PENETRATION CURVE



PENETRATION mm	STANDARD LOAD MPa	TEST LOAD ACTUAL MPa	TEST LOAD CORRECTED MPa	BEARING RATIO (soaked) at 2.5 mm penetration	BEARING RATIO (soaked) at 5.1 mm penetration
2.54	6.9	0.17	0.17	2.4	-
5.08	10.3	0.19	0.19	-	1.9

Remarks:

P. Bevel

Reviewed by: Paul Bevel

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CALIFORNIA BEARING RATIO (CBR) TEST - ASTM D 1883

Client:	WSP Canada Inc.	Project No:	430-2502	
	1600 Buffalo Place	Lab No:	HM 843	
	Winnipeg, MB R3T 6B8	Date sampled/By:	09-Jan-26	HA
Attention:	Richard Hawkins	Date Received:	09-Jan-26	HA
Project	2026 Local Street Renewals – 26-R-07	Date Tested /By:	19-Jan-26	JJ
Location:	Concordia Ave (Gateway Rd to Moncton Ave)			

SAMPLE DATA

Sample Type:	SILT - some clay trace sand		
Source:	Concordia Ave - BH-23 - GS 4		
Sampled by:	HA		
Optimum Moisture Content:	15.0	%	
Maximum Dry Density:	1826	kg/cm^3	
Method of Compaction:	Standard Proctor		
Tested by:	ECS	Date Tested:	15-Jan-26

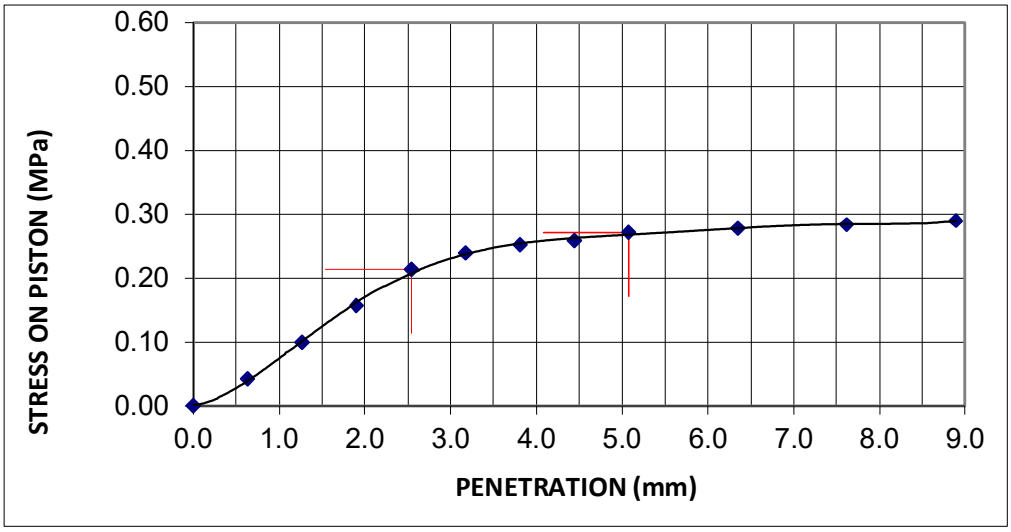
SPECIMEN DATA

DESCRIPTION	Before Soaking	After Testing
Moisture Content (MC), %	14.2	15.3
MC of top 25mm layer, %		
Dry Density, kg/m^3	1734	1728
Compaction,%	95%	
CBR at 2.5mm penetration, %		3.1
Swell, %		0.5

LOAD DATA

PENETRATION mm	STRESS MPa
0	0.00
0.64	0.04
1.27	0.10
1.91	0.16
2.54	0.21
3.18	0.24
3.81	0.25
4.45	0.26
5.08	0.27
6.35	0.28
7.62	0.28
8.89	0.29

LOAD PENETRATION CURVE



PENETRATION mm	STANDARD LOAD MPa	TEST LOAD ACTUAL MPa	TEST LOAD CORRECTED MPa	BEARING RATIO (soaked) at 2.5 mm penetration	BEARING RATIO (soaked) at 5.1 mm penetration
2.54	6.9	0.21	0.21	3.1	-
5.08	10.3	0.27	0.27	-	2.6

Remarks:

P. Bevel

Reviewed by: Paul Bevel

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Canadian Council of Independent Laboratories

CALIFORNIA BEARING RATIO (CBR) TEST - ASTM D 1883

Client:	WSP Canada Inc.	Project No:	430-2502	
	1600 Buffalo Place	Lab No:	HM 844	
	Winnipeg, MB R3T 6B8	Date sampled/By:	09-Jan-26	HA
Attention:	Richard Hawkins	Date Received:	09-Jan-26	HA
Project	2026 Local Street Renewals – 26-R-07	Date Tested /By:	19-Jan-26	JJ
Location:	Concordia Ave (Gateway Rd to Moncton Ave)			

SAMPLE DATA

Sample Type:	SILT - some clay trace sand		
Source:	Concordia Ave - BH-24 - GS 5		
Sampled by:	HA		
Optimum Moisture Content:	13.7	%	
Maximum Dry Density:	1879	kg/cm^3	
Method of Compaction:	Standard Proctor		
Tested by:	ECS	Date Tested:	15-Jan-26

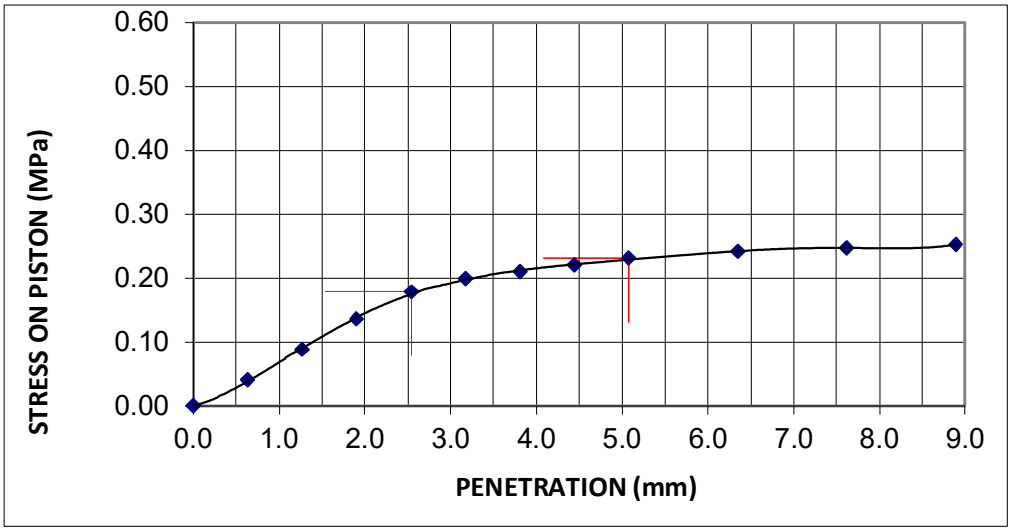
SPECIMEN DATA

DESCRIPTION	Before Soaking	After Testing
Moisture Content (MC), %	14.2	15.3
MC of top 25mm layer, %		
Dry Density, kg/m^3	1777	1741
Compaction,%	95%	
CBR at 2.5mm penetration, %		2.6
Swell, %		0.5

LOAD DATA

PENETRATION mm	STRESS MPa
0	0.00
0.64	0.04
1.27	0.09
1.91	0.14
2.54	0.18
3.18	0.20
3.81	0.21
4.45	0.22
5.08	0.23
6.35	0.24
7.62	0.25
8.89	0.25

LOAD PENETRATION CURVE



PENETRATION mm	STANDARD LOAD MPa	TEST LOAD ACTUAL MPa	TEST LOAD CORRECTED MPa	BEARING RATIO (soaked) at 2.5 mm penetration	BEARING RATIO (soaked) at 5.1 mm penetration
2.54	6.9	0.18	0.18	2.6	-
5.08	10.3	0.23	0.23	-	2.2

Remarks:

P. Bevel

Reviewed by: Paul Bevel

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PARTICLE SIZE ANALYSIS OF SOILS TEST REPORT

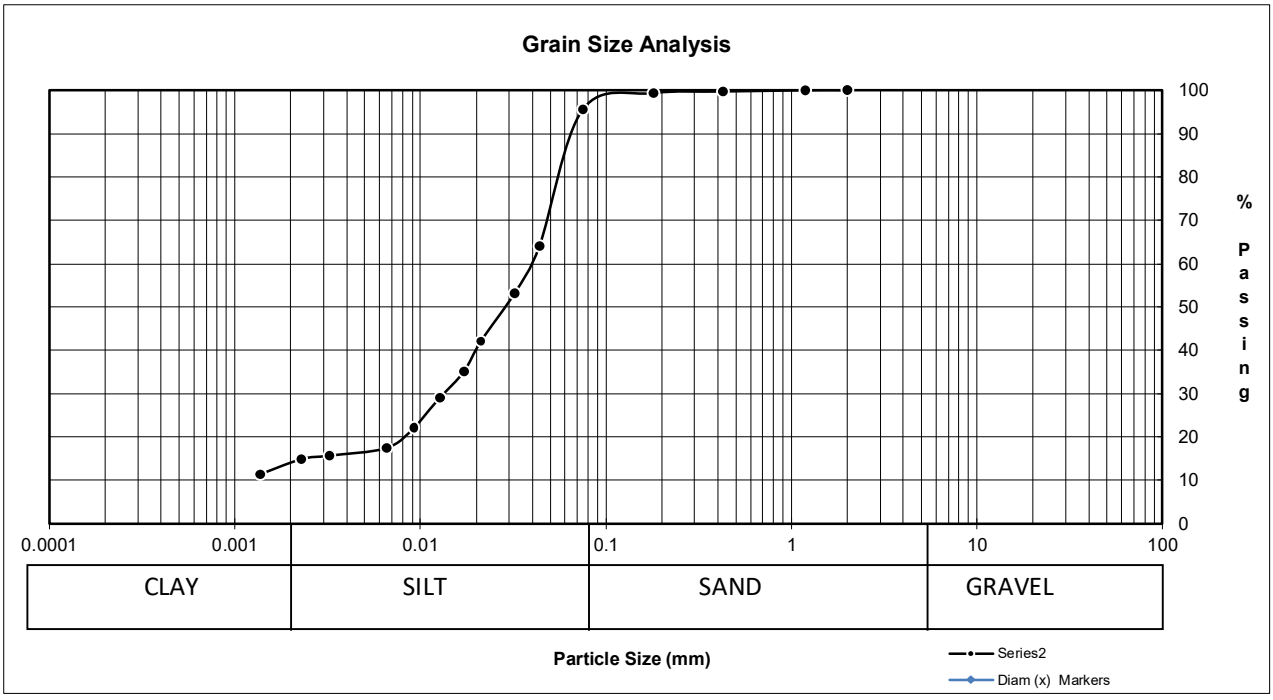
CLIENT: WSP Canada Inc.
1600 Buffalo Place
Winnipeg, MB R3T 6B8
ATTENTION: Richard Hawkins
PROJECT: 2026 Local Street Renewals – 26-R-07
Concordia Ave (Gateway Rd to Moncton Ave)

Project No.: 430-2502
PSA Test No.: 8
Lab No.: HM 834

Date Sampled: 09-Jan-26
Sampled By: HA
Date Received: 09-Jan-26
Date Tested: 14-Jan-26

Material Identification
B.H./T.H. No. **BH 13**
Depth **6-ft**
Sample Source **GS 6**
Specific Gravity of Material: **2.65**

Sieve Analysis		Hydrometer Analysis	
Sieve (mm)	% Passing	Diameter	% Finer
50.00	100.0		
37.50	100.0		
25.00	100.0		
19.00	100.0		
16.00	100.0		
12.50	100.0	0.0436	64.1
9.50	100.0	0.0321	53.1
4.75	100.0	0.0211	42.1
2.00	100.0	0.0171	35.1
1.18	100.0	0.0127	29.1
0.425	99.7	0.0092	22.1
0.180	99.3	0.0066	17.5
0.075	95.6	0.0014	11.3



% Composition		D10
	Gravel	D30
4.38	Sand	D60
81.81	Silt	Cu
13.81	Clay	Cc

Remarks:

Technician: B. Yung

Reviewed by: Paul Bevel

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PARTICLE SIZE ANALYSIS OF SOILS TEST REPORT

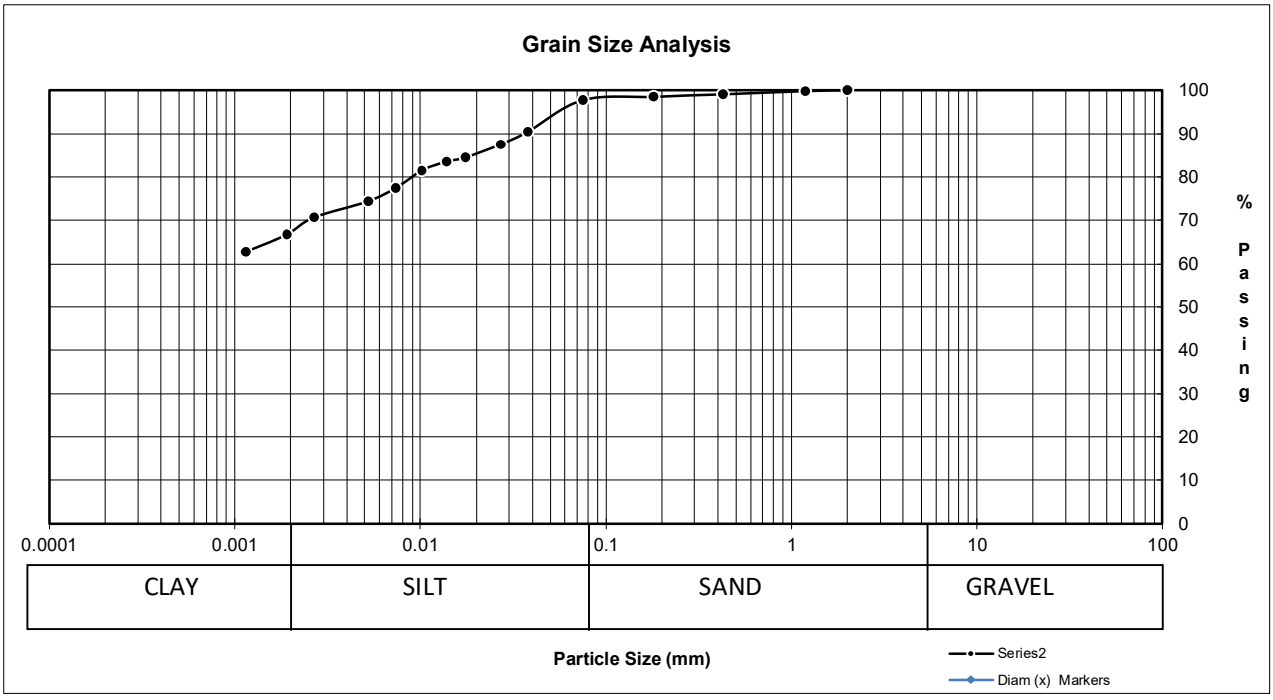
CLIENT: WSP Canada Inc.
1600 Buffalo Place
Winnipeg, MB R3T 6B8
ATTENTION: Richard Hawkins
PROJECT: 2026 Local Street Renewals – 26-R-07
Concordia Ave (Gateway Rd to Moncton Ave)

Project No.: 430-2502
PSA Test No.: 7
Lab No.: HM 835

Date Sampled: 08-Jan-26
Sampled By: HA
Date Received: 08-Jan-26
Date Tested: 13-Jan-26

Material Identification
B.H./T.H. No. **BH 14**
Depth **4-ft**
Sample Source **GS4**
Specific Gravity of Material: **2.65**

Sieve Analysis		Hydrometer Analysis	
Sieve (mm)	% Passing	Diameter	% Finer
50.00	100.0		
37.50	100.0		
25.00	100.0		
19.00	100.0		
16.00	100.0		
12.50	100.0	0.0378	90.5
9.50	100.0	0.0271	87.5
4.75	100.0	0.0174	84.5
2.00	100.0	0.0138	83.5
1.18	99.8	0.0102	81.5
0.425	99.1	0.0073	77.5
0.180	98.5	0.0052	74.5
0.075	97.7	0.0011	62.8



% Composition		D10
	Gravel	D30
2.26	Sand	D60
30.55	Silt	Cu
67.19	Clay	Cc

Remarks:

Technician: B. Yung

Reviewed by: Paul Bevel

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PARTICLE SIZE ANALYSIS OF SOILS TEST REPORT

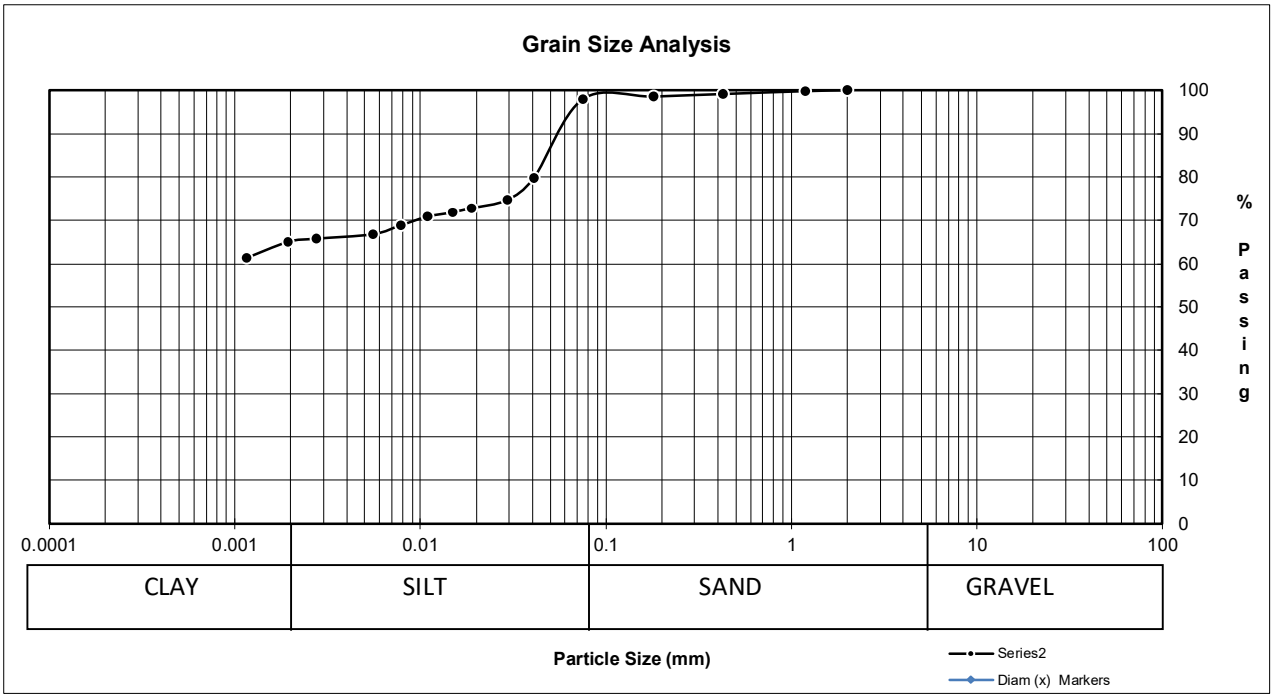
CLIENT: WSP Canada Inc.
1600 Buffalo Place
Winnipeg, MB R3T 6B8
ATTENTION: Richard Hawkins
PROJECT: 2026 Local Street Renewals – 26-R-07
Concordia Ave (Gateway Rd to Moncton Ave)

Project No.: 430-2502
PSA Test No.: 9
Lab No.: HM 837

Date Sampled: 09-Jan-26
Sampled By: HA
Date Received: 09-Jan-26
Date Tested: 14-Jan-26

Material Identification
B.H./T.H. No. **BH 16**
Depth **4-ft**
Sample Source **GS 4**
Specific Gravity of Material: **2.65**

Sieve Analysis		Hydrometer Analysis	
Sieve (mm)	% Passing	Diameter	% Finer
50.00	100.0		
37.50	100.0		
25.00	100.0		
19.00	100.0		
16.00	100.0		
12.50	100.0	0.0407	79.8
9.50	100.0	0.0294	74.8
4.75	100.0	0.0188	72.8
2.00	100.0	0.0149	71.8
1.18	99.8	0.0109	70.8
0.425	99.1	0.0078	68.8
0.180	98.6	0.0056	66.8
0.075	98.0	0.0012	61.4



% Composition		D10
	Gravel	D30
2.04	Sand	D60
32.63	Silt	Cu
65.33	Clay	Cc

Remarks:

Technician: B. Yung

Reviewed by: Paul Bevel

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PARTICLE SIZE ANALYSIS OF SOILS TEST REPORT

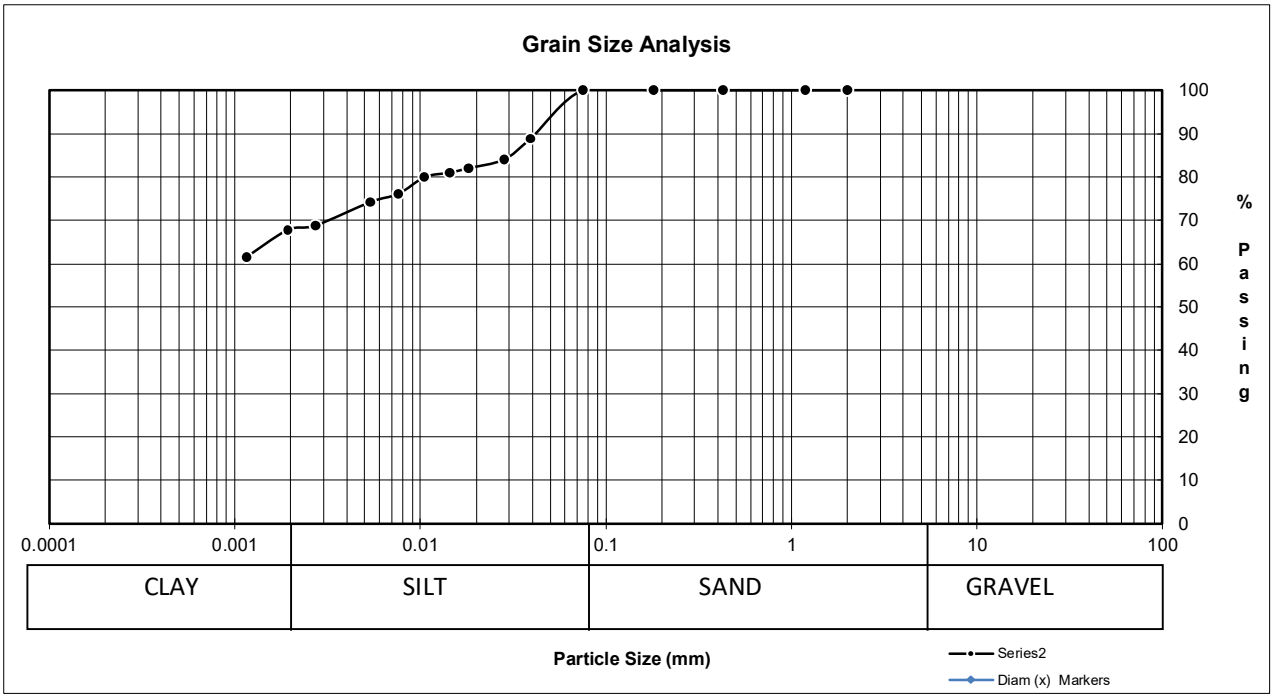
CLIENT: WSP Canada Inc.
1600 Buffalo Place
Winnipeg, MB R3T 6B8
ATTENTION: Richard Hawkins
PROJECT: 2026 Local Street Renewals – 26-R-07
Concordia Ave (Gateway Rd to Moncton Ave)

Project No.: 430-2502
PSA Test No.: 10
Lab No.: HM 841

Date Sampled: 09-Jan-26
Sampled By: HA
Date Received: 09-Jan-26
Date Tested: 14-Jan-26

Material Identification
B.H./T.H. No. **BH 21**
Depth **4-ft**
Sample Source **GS 4**
Specific Gravity of Material: **2.65**

Sieve Analysis		Hydrometer Analysis	
Sieve (mm)	% Passing	Diameter	% Finer
50.00	100.0		
37.50	100.0		
25.00	100.0		
19.00	100.0		
16.00	100.0		
12.50	100.0	0.0390	88.9
9.50	100.0	0.0282	84.0
4.75	100.0	0.0180	82.0
2.00	100.0	0.0143	81.0
1.18	100.0	0.0105	80.0
0.425	100.0	0.0076	76.2
0.180	100.0	0.0054	74.3
0.075	100.0	0.0012	61.6



% Composition		
	Gravel	D10
	Sand	D30
	Sand	D60
31.66	Silt	Cu
68.34	Clay	Cc

Remarks:

Technician: B. Yung

Reviewed by: Paul Bevel

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PARTICLE SIZE ANALYSIS OF SOILS TEST REPORT

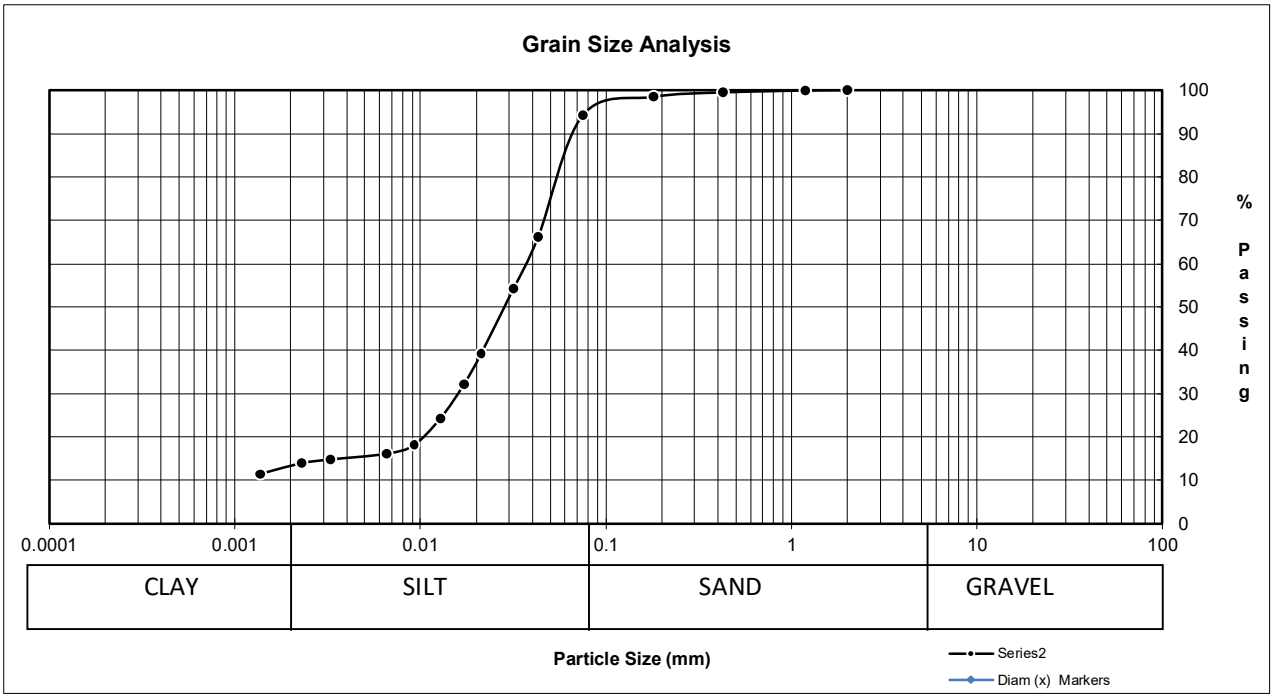
CLIENT: WSP Canada Inc.
1600 Buffalo Place
Winnipeg, MB R3T 6B8
ATTENTION: Richard Hawkins
PROJECT: 2026 Local Street Renewals – 26-R-07
Concordia Ave (Gateway Rd to Moncton Ave)

Project No.: 430-2502
PSA Test No.: 12
Lab No.: HM 843

Date Sampled: 09-Jan-26
Sampled By: HA
Date Received: 09-Jan-26
Date Tested: 14-Jan-26

Material Identification
B.H./T.H. No. **BH 23**
Depth **4-ft**
Sample Source **GS 4**
Specific Gravity of Material: **2.65**

Sieve Analysis		Hydrometer Analysis	
Sieve (mm)	% Passing	Diameter	% Finer
50.00	100.0		
37.50	100.0		
25.00	100.0		
19.00	100.0		
16.00	100.0		
12.50	100.0	0.0429	66.2
9.50	100.0	0.0318	54.2
4.75	100.0	0.0212	39.2
2.00	100.0	0.0171	32.2
1.18	99.9	0.0128	24.2
0.425	99.5	0.0092	18.2
0.180	98.5	0.0066	16.2
0.075	94.3	0.0014	11.4



% Composition		D10
	Gravel	D30
5.70	Sand	D60
81.10	Silt	Cu
13.20	Clay	Cc

Remarks:

Technician: B. Yung

Reviewed by: Paul Bevel

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PARTICLE SIZE ANALYSIS OF SOILS TEST REPORT

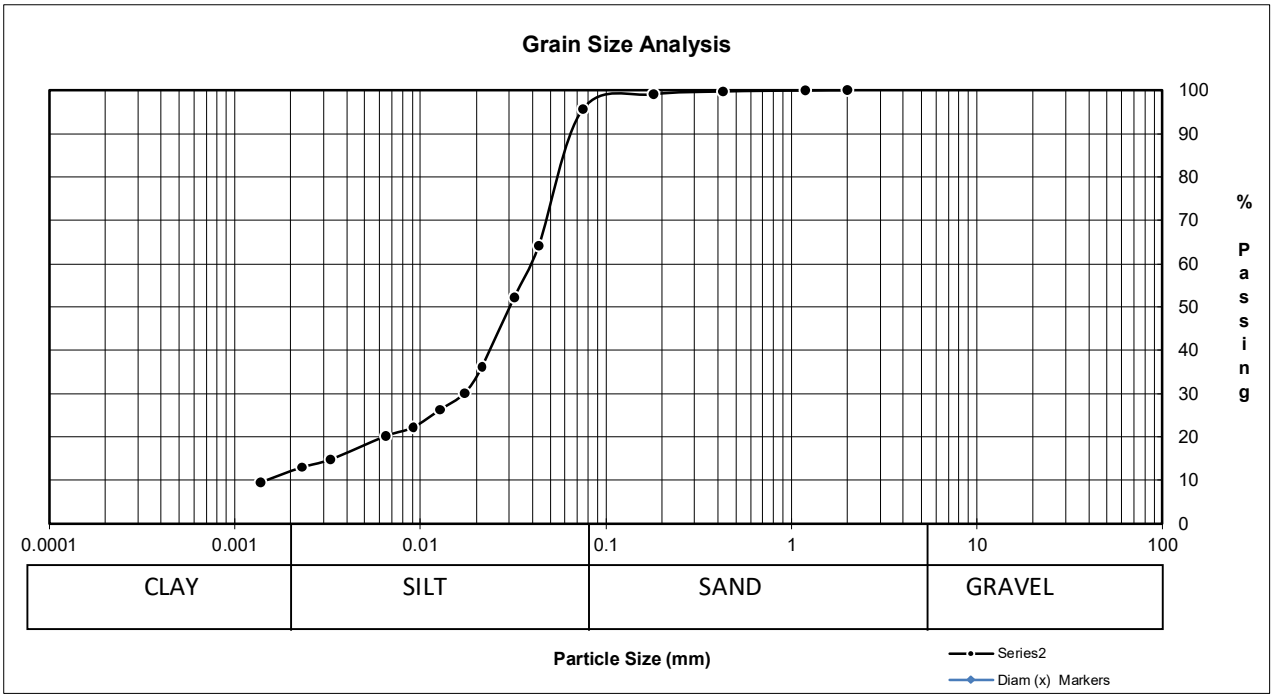
CLIENT: WSP Canada Inc.
1600 Buffalo Place
Winnipeg, MB R3T 6B8
ATTENTION: Richard Hawkins
PROJECT: 2026 Local Street Renewals – 26-R-07
Concordia Ave (Gateway Rd to Moncton Ave)

Project No.: 430-2502
PSA Test No.: 11
Lab No.: HM 844

Date Sampled:	09-Jan-26	Date Received:	09-Jan-26
Sampled By:	HA	Date Tested:	14-Jan-26

Material Identification
B.H./T.H. No. **BH 24**
Depth **5-ft**
Sample Source **GS 5**
Specific Gravity of Material: **2.65**

Sieve Analysis		Hydrometer Analysis	
Sieve (mm)	% Passing	Diameter	% Finer
50.00	100.0		
37.50	100.0		
25.00	100.0		
19.00	100.0		
16.00	100.0		
12.50	100.0	0.0432	64.2
9.50	100.0	0.0320	52.2
4.75	100.0	0.0214	36.2
2.00	100.0	0.0172	30.2
1.18	99.9	0.0127	26.2
0.425	99.7	0.0091	22.2
0.180	99.0	0.0065	20.2
0.075	95.7	0.0014	9.4



% Composition		D10
0.00	Gravel	D30
4.34	Sand	D60
83.80	Silt	Cu
11.86	Clay	Cc

Remarks:

Technician: B. Yung

Reviewed by: Paul Bevel

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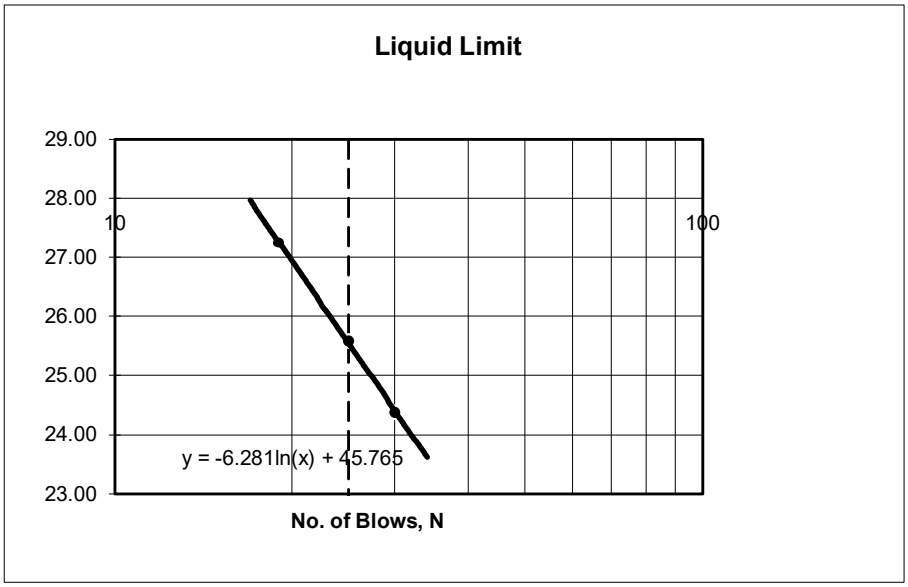
Atterberg Limits (ASTM D4318)

Client:	WSP Canada Inc.	Project No.:	430-2502
	1600 Buffalo Place	PI Test No.:	8
	Winnipeg, MB R3T 6B8	Lab No.:	HM 834
Attention.:	Richard Hawkins	Date Sampled/By:	09-Jan-26 HA
Project:	2026 Local Street Renewals – 26-R-07	Date Received:	09-Jan-26
	Concordia Av(Gateway Rd to Moncton Ave	Date Tested / By:	22-Jan-26 BY

Liquid Limit Determination					Liquid Limit 25 Blows
Dish No.:	1	2	3		
Wet Soil + Dish:	13.97	10.94	10.94		
Dry Soil + Dish:	12.5	9.52	9.55		
Moisture:	1.47	1.42	1.39		
Dish:	6.47	3.97	4.45		
Dry Soil:	6.03	5.55	5.1		
% Moisture:	24.38	25.59	27.25		
No. of Blows:	30	25	19		
Liquid Limit:					26



Material Identification:

Test Hole:	**BH 13**
Grab Sample No:	**GS 6**
Depth:	**6-ft**
Liquid Limit, %:	**26**
Plastic Limit, %:	**15**
Plasticity Index:	**11**
(LL-PL)	

Plastic Limit Determination					
Dish No.:	1	2	3		
Wet Soil + Dish:	8.33	8.52	8.77		
Dry Soil + Dish:	7.87	7.97	8.26		
Moisture:	0.46	0.55	0.51		
Dish:	4.77	4.39	4.59		
Dry Soil:	3.1	3.58	3.67		
% Moisture:	14.84	15.36	13.90		
				Average:	**15**

Test Method : ASTM: D4318, D2216
Remarks:

P. Bevel
Reviewed by: Paul Bevel

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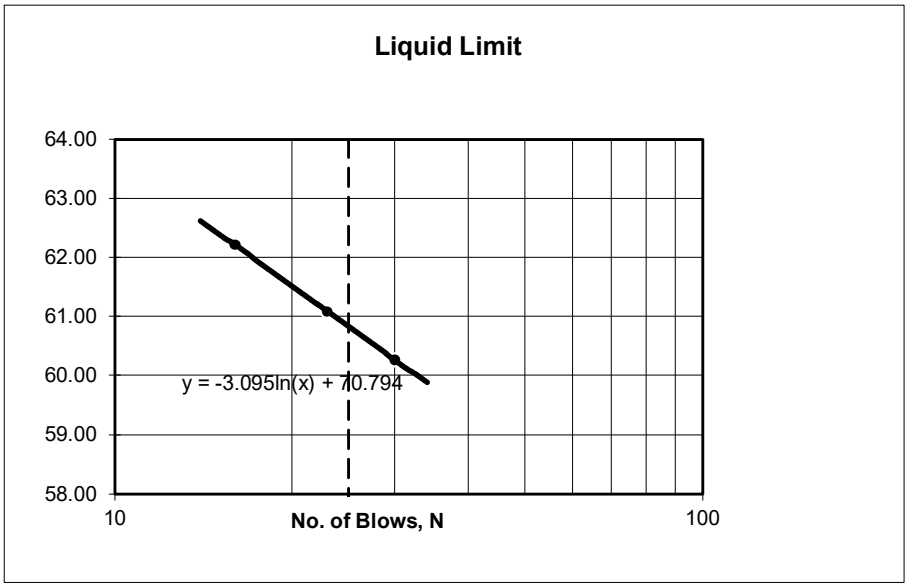
Atterberg Limits (ASTM D4318)

Client:	WSP Canada Inc.	Project No.:	430-2502
	1600 Buffalo Place	PI Test No.:	7
	Winnipeg, MB R3T 6B8	Lab No.:	HM 835
Attention.:	Richard Hawkins	Date Sampled/By:	08-Jan-26 HA
Project:	2026 Local Street Renewals – 26-R-07	Date Received:	08-Jan-26
	Concordia Ave	Date Tested / By:	22-Jan-26 BY

Liquid Limit Determination					Liquid Limit 25 Blows
Dish No.:	1	2	3		
Wet Soil + Dish:	10.45	10.88	9.60		
Dry Soil + Dish:	8.22	8.51	7.69		
Moisture:	2.23	2.37	1.91		
Dish:	4.52	4.63	4.62		
Dry Soil:	3.7	3.88	3.07		
% Moisture:	60.27	61.08	62.21		
No. of Blows:	30	23	16		
Liquid Limit:					61



Material Identification:

Test Hole:	**BH 14**
Grab Sample No:	**GS 4**
Depth:	**4-ft**
Liquid Limit, %:	**61**
Plastic Limit, %:	**22**
Plasticity Index:	**39**
(LL-PL)	

Plastic Limit Determination					
Dish No.:	1	2	3		
Wet Soil + Dish:	7.28	7.77	7.56		
Dry Soil + Dish:	6.8	7.23	6.95		
Moisture:	0.48	0.54	0.61		
Dish:	4.54	4.52	4.49		
Dry Soil:	2.26	2.71	2.46		
% Moisture:	21.24	19.93	24.80		
				Average:	**22**

Test Method : ASTM: D4318, D2216
Remarks:

P. Bevel
Reviewed by: Paul Bevel

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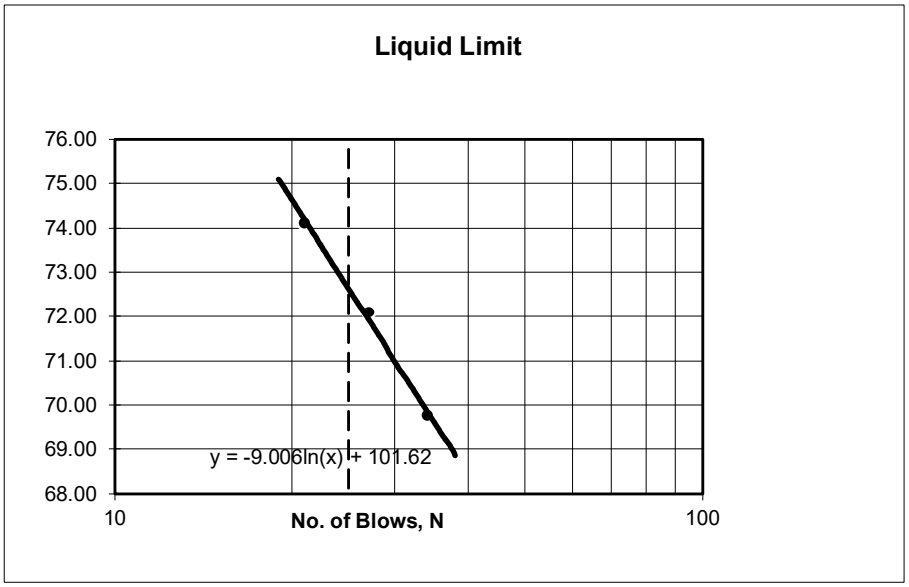
Atterberg Limits (ASTM D4318)

Client:	WSP Canada Inc.	Project No.:	430-2502
	1600 Buffalo Place	PI Test No.:	9
	Winnipeg, MB R3T 6B8	Lab No.:	HM 837
Attention.:	Richard Hawkins	Date Sampled/By:	09-Jan-26 HA
Project:	2026 Local Street Renewals – 26-R-07	Date Received:	09-Jan-26
	Concordia Av(Gateway Rd to Moncton Ave	Date Tested / By:	21-Jan-26 BY

Liquid Limit Determination					Liquid Limit 25 Blows
Dish No.:	1	2	3		
Wet Soil + Dish:	10.76	11.51	11.44		
Dry Soil + Dish:	8.29	8.59	8.49		
Moisture:	2.47	2.92	2.95		
Dish:	4.75	4.54	4.51		
Dry Soil:	3.54	4.05	3.98		
% Moisture:	69.77	72.10	74.12		
No. of Blows:	34	27	21		
Liquid Limit:					73



Material Identification:

Test Hole:	**BH 16**
Grab Sample No:	**GS 4**
Depth:	**4-ft**
Liquid Limit, %:	**73**
Plastic Limit, %:	**31**
Plasticity Index:	**42**
(LL-PL)	

Plastic Limit Determination					
Dish No.:	1	2	3		
Wet Soil + Dish:	8.27	8.1	8.32		
Dry Soil + Dish:	7.4	7.23	7.40		
Moisture:	0.87	0.87	0.92		
Dish:	4.54	4.44	4.45		
Dry Soil:	2.86	2.79	2.95		
% Moisture:	30.42	31.18	31.19		
				Average:	**31**

Test Method : ASTM: D4318, D2216
Remarks:

P. Bevel
Reviewed by: Paul Bevel

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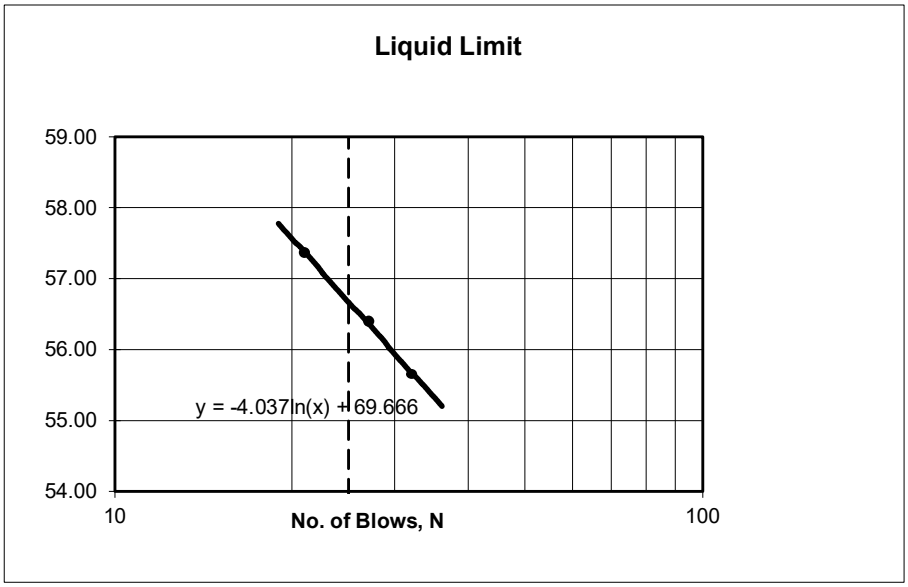
Atterberg Limits (ASTM D4318)

Client:	WSP Canada Inc.	Project No.:	430-2502
	1600 Buffalo Place	PI Test No.:	10
	Winnipeg, MB R3T 6B8	Lab No.:	HM 841
Attention.:	Richard Hawkins	Date Sampled/By:	09-Jan-26 HA
Project:	2026 Local Street Renewals – 26-R-07	Date Received:	09-Jan-26
	Concordia Av(Gateway Rd to Moncton Ave	Date Tested / By:	22-Jan-26 BY

Liquid Limit Determination					Liquid Limit 25 Blows
Dish No.:	1	2	3		
Wet Soil + Dish:	11.30	12.61	11.60		
Dry Soil + Dish:	8.84	9.77	8.99		
Moisture:	2.46	2.845	2.61		
Dish:	4.42	4.72	4.44		
Dry Soil:	4.42	5.045	4.55		
% Moisture:	55.66	56.39	57.36		
No. of Blows:	32	27	21		
Liquid Limit:					57



Material Identification:

Test Hole:	**BH 21**
Grab Sample No:	**GS 4**
Depth:	**4-ft**
Liquid Limit, %:	**57**
Plastic Limit, %:	**21**
Plasticity Index: (LL-PL)	**35**

Plastic Limit Determination					
Dish No.:	1	2	3		
Wet Soil + Dish:	8.22	8.29	8.16		
Dry Soil + Dish:	7.63	7.6	7.50		
Moisture:	0.59	0.69	0.66		
Dish:	4.67	4.49	4.42		
Dry Soil:	2.96	3.11	3.08		
% Moisture:	19.93	22.19	21.43		
				Average:	**21**

Test Method : ASTM: D4318, D2216
Remarks:

P. Bevel
Reviewed by: Paul Bevel

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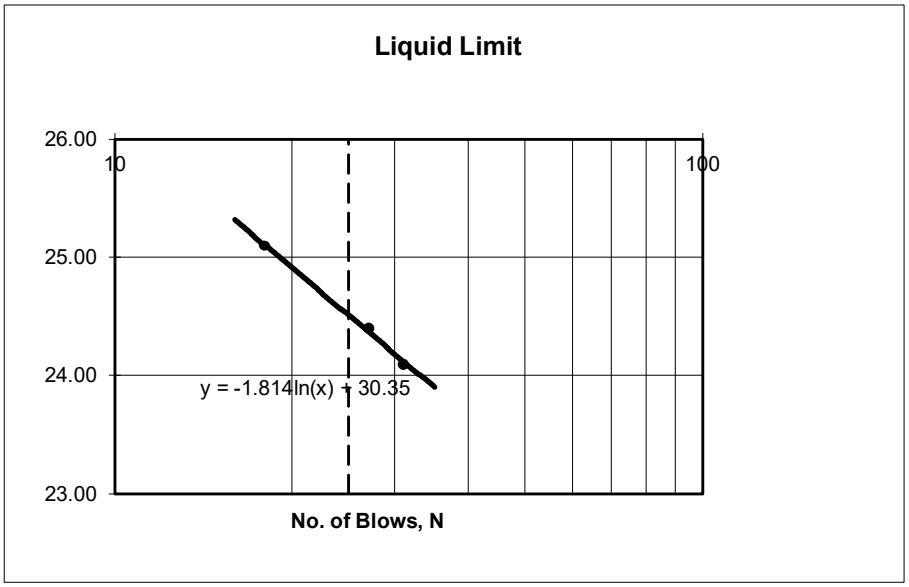
Atterberg Limits (ASTM D4318)

Client:	WSP Canada Inc.	Project No.:	430-2502
	1600 Buffalo Place	PI Test No.:	12
	Winnipeg, MB R3T 6B8	Lab No.:	HM 843
Attention.:	Richard Hawkins	Date Sampled/By:	09-Jan-26 HA
Project:	2026 Local Street Renewals – 26-R-07	Date Received:	09-Jan-26
	Concordia Av(Gateway Rd to Moncton Ave	Date Tested / By:	22-Jan-26 BY

Liquid Limit Determination					Liquid Limit 25 Blows
Dish No.:	1	2	3		
Wet Soil + Dish:	15.55	12.12	14.71		
Dry Soil + Dish:	13.41	10.63	12.68		
Moisture:	2.14	1.49	2.03		
Dish:	4.51	4.53	4.58		
Dry Soil:	8.9	6.1	8.1		
% Moisture:	24.10	24.40	25.10		
No. of Blows:	31	27	18		
Liquid Limit:					25



Material Identification:

Test Hole:	**BH 23**
Grab Sample No:	**GS4**
Depth:	**4-ft**
Liquid Limit, %:	**25**
Plastic Limit, %:	**19**
Plasticity Index: (LL-PL)	**6**

Plastic Limit Determination					
Dish No.:	1	2	3		
Wet Soil + Dish:	9.84	10.94	10.56		
Dry Soil + Dish:	8.98	9.93	9.68		
Moisture:	0.86	1.01	0.88		
Dish:	4.48	4.53	4.88		
Dry Soil:	4.5	5.4	4.8		
% Moisture:	19.01	18.70	18.35		
				Average:	**19**

Test Method : ASTM: D4318, D2216
Remarks:

P. Bevel
Reviewed by: Paul Bevel

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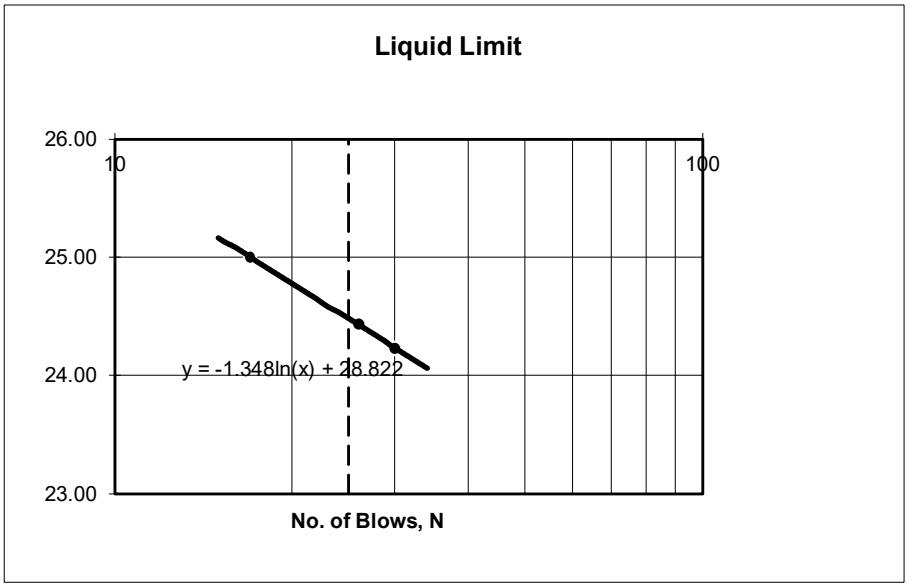
Atterberg Limits (ASTM D4318)

Client:	WSP Canada Inc.	Project No.:	430-2502
	1600 Buffalo Place	PI Test No.:	11
	Winnipeg, MB R3T 6B8	Lab No.:	HM 844
Attention.:	Richard Hawkins	Date Sampled/By:	09-Jan-26 HA
Project:	2026 Local Street Renewals – 26-R-07	Date Received:	09-Jan-26
	Concordia Av(Gateway Rd to Moncton Ave	Date Tested / By:	22-Jan-26 BY

Liquid Limit Determination					Liquid Limit 25 Blows
Dish No.:	1	2	3		
Wet Soil + Dish:	15.00	11.89	11.84		
Dry Soil + Dish:	12.95	10.44	10.36		
Moisture:	2.05	1.455	1.48		
Dish:	4.49	4.48	4.44		
Dry Soil:	8.46	5.955	5.92		
% Moisture:	24.23	24.43	25.00		
No. of Blows:	30	26	17		
Liquid Limit:					24



Material Identification:

Test Hole:	**BH 24**
Grab Sample No:	**GS 5**
Depth:	**5-ft**
Liquid Limit, %:	**24**
Plastic Limit, %:	**15**
Plasticity Index: (LL-PL)	**9**

Plastic Limit Determination					
Dish No.:	1	2	3		
Wet Soil + Dish:	9.18	12.4	12.59		
Dry Soil + Dish:	8.58	11.37	11.48		
Moisture:	0.6	1.03	1.11		
Dish:	4.49	4.63	4.62		
Dry Soil:	4.09	6.74	6.86		
% Moisture:	14.67	15.28	16.18		
				Average:	**15**

Test Method : ASTM: D4318, D2216
Remarks:

P. Bevel
Reviewed by: Paul Bevel

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MAXIMUM DRY DENSITY AND MOISTURE CONTENT - Proctor Method (ASTM D698)

CLIENT	WSP Canada Inc.	Project No.:	430-2502
	1600 Buffalo Place	Lab No.:	HM 834
	Winnipeg, MB R3T 6B8	Proctor Test No.:	8
ATTENTION:	Richard Hawkins		
PROJECT:	2026 Local Street Renewals – 26-R-07		
	Concordia Ave (Gateway Rd to Moncton Ave)		

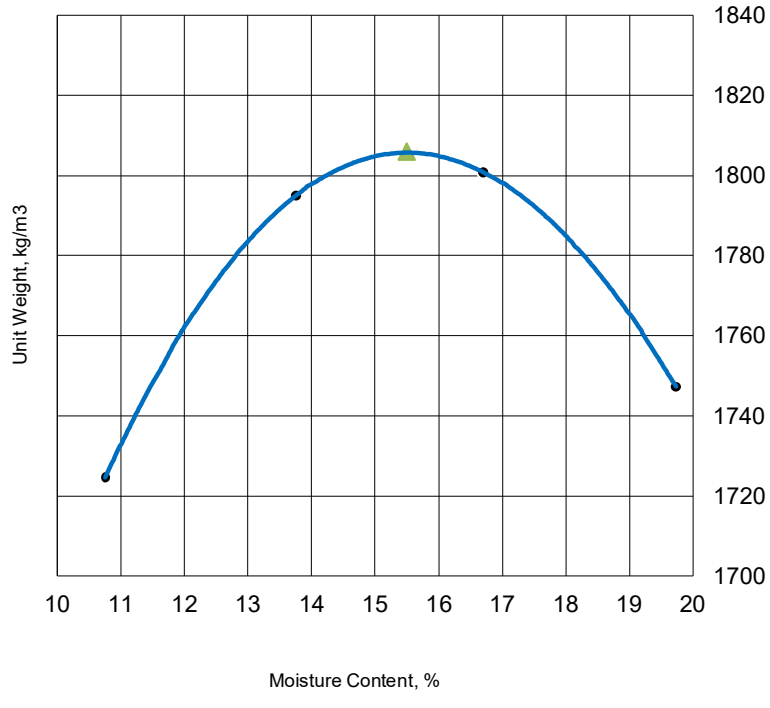
Date Sampled:	09-Jan-26	Date Received:	09-Jan-26
Sampled By:	HA	Date Tested:	16-Jan-26

MATERIAL INFORMATION

Material Type:	SILT - some clay and trace sand		
Material Use:	Soil Investigati	Material Supplier:	Not Applicable
Maximum Size:	4.75mm	Material Source:	BH 13 - GS 6

PROCEDURE	A
PREPARATION	Dry
COMPACTION METHOD	Manual
BLOWS PER LAYER	25
NO. OF LAYERS	3
MOLD SIZE	100
MOLD VOLUME	935
WEIGHT OF HAMMER	2.5 kg

Test No.	1	2	3	4
Wet Density	1910	2042	2102	2092
Moisture Content	10.8	13.7	16.7	19.7
Dry Density	1725	1795	1801	1747



Maximum Dry Density (MDD):
1806 kg/m³
Optimum Moisture Content
15.5 %

STONE CORRECTION (ASTM D 4718)

Retained on 4.75mm sieve:
_____ %
Corrected Moisture:
15.5 %
Corrected Maximum Dry Density:
1806 kg/m³

Remarks:

P. Bevel

Tested by: Hamid Abedinzadeh Reviewed by: Paul Bevel

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MAXIMUM DRY DENSITY AND MOISTURE CONTENT - Proctor Method (ASTM D698)

CLIENT	WSP Canada Inc.	Project No.:	430-2502
	1600 Buffalo Place	Lab No.:	HM 835
	Winnipeg, MB R3T 6B8	Proctor Test No.:	7
ATTENTION:	Richard Hawkins	68	
PROJECT:	2026 Local Street Renewals – 26-R-07		
	Concordia Ave		

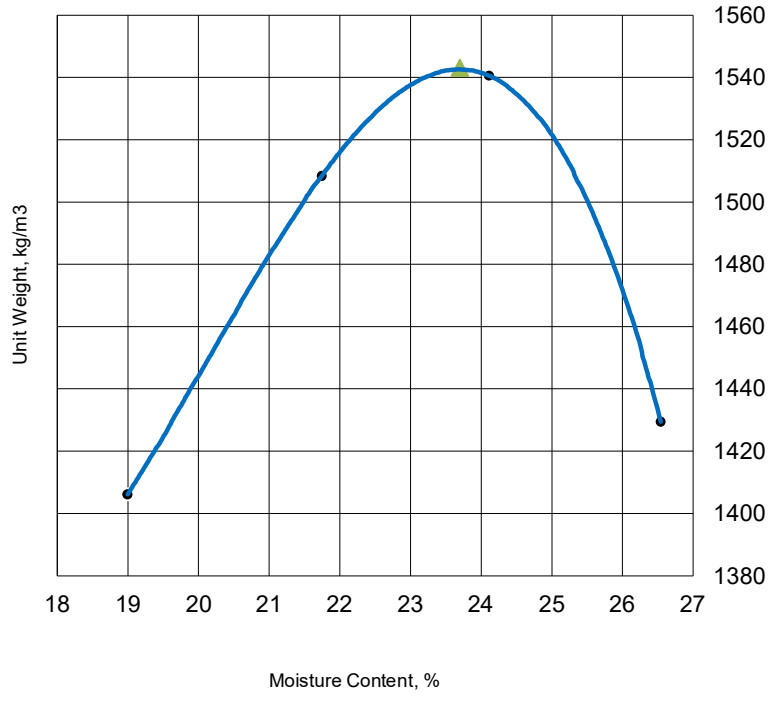
Date Sampled:	08-Jan-26	Date Received:	08-Jan-26
Sampled By:	HA	Date Tested:	13-Jan-26

MATERIAL INFORMATION

Material Type:	CLAY - silty with trace sand		
Material Use:	Soil Investigati	Material Supplier:	Not Applicable
Maximum Size:	4.75mm	Material Source:	BH 14 - GS 4

PROCEDURE	A
PREPARATION	Dry
COMPACTION METHOD	Manual
BLOWS PER LAYER	25
NO. OF LAYERS	3
MOLD SIZE	100
MOLD VOLUME	943
WEIGHT OF HAMMER	2.5 kg

Test No.	1	2	3	4
Wet Density	1673	1837	1912	1809
Moisture Content	19.0	21.7	24.1	26.5
Dry Density	1406	1509	1541	1430



Maximum Dry Density (MDD): 1543 kg/m³

Optimum Moisture Content: 23.7 %

STONE CORRECTION (ASTM D 4718)

Retained on 4.75mm sieve: ____ %

Corrected Moisture: 23.7 %

Corrected Maximum Dry Density: 1543 kg/m³

Remarks:

P. Bevel

Tested by: Jaehang Jeong

Reviewed by: Paul Bevel

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MAXIMUM DRY DENSITY AND MOISTURE CONTENT - Proctor Method (ASTM D698)

CLIENT	WSP Canada Inc.	Project No.:	430-2502
	1600 Buffalo Place	Lab No.:	HM 837
	Winnipeg, MB R3T 6B8	Proctor Test No.:	9
ATTENTION:	Richard Hawkins		
PROJECT:	2026 Local Street Renewals – 26-R-07		
	Concordia Ave (Gateway Rd to Moncton Ave)		

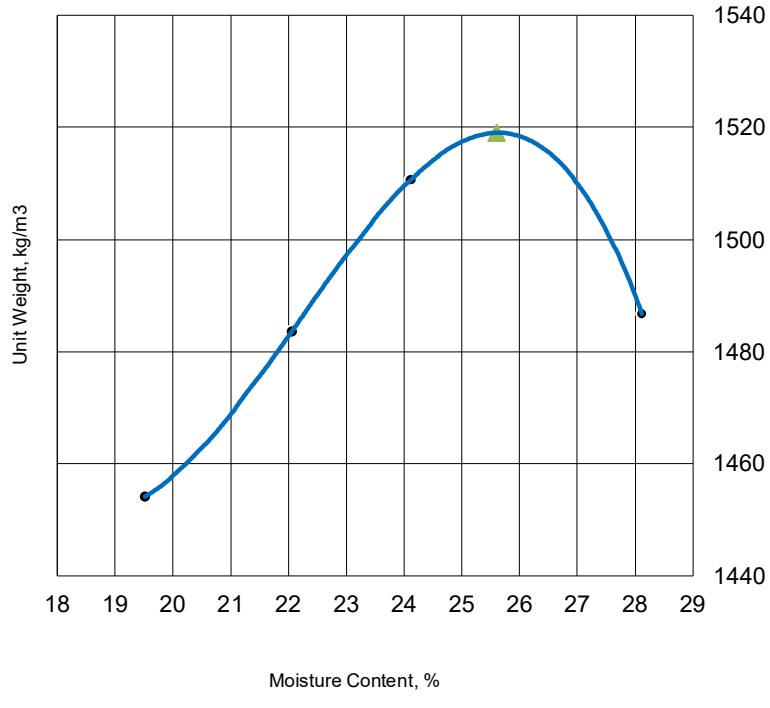
Date Sampled:	09-Jan-26	Date Received:	09-Jan-26
Sampled By:	HA	Date Tested:	15-Jan-26

MATERIAL INFORMATION

Material Type:	CLAY - silty with trace sand		
Material Use:	Soil Investigati	Material Supplier:	Not Applicable
Maximum Size:	4.75mm	Material Source:	BH 16 - GS 4

PROCEDURE	A
PREPARATION	Dry
COMPACTION METHOD	Manual
BLOWS PER LAYER	25
NO. OF LAYERS	3
MOLD SIZE	100
MOLD VOLUME	935
WEIGHT OF HAMMER	2.5 kg

Test No.	1	2	3	4
Wet Density	1738	1811	1875	1905
Moisture Content	19.5	22.1	24.1	28.1
Dry Density	1454	1484	1511	1487



Maximum Dry Density (MDD): 1519 kg/m³

Optimum Moisture Content: 25.6 %

STONE CORRECTION (ASTM D 4718)

Retained on 4.75mm sieve: ____ %

Corrected Moisture: 25.6 %

Corrected Maximum Dry Density: 1519 kg/m³

Remarks:

Tested by: Edel Santiago

Reviewed by: Paul Bevel

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MAXIMUM DRY DENSITY AND MOISTURE CONTENT - Proctor Method (ASTM D698)

CLIENT	WSP Canada Inc.	Project No.:	430-2502
	1600 Buffalo Place	Lab No.:	HM 841
	Winnipeg, MB R3T 6B8	Proctor Test No.:	10
ATTENTION:	Richard Hawkins		
PROJECT:	2026 Local Street Renewals – 26-R-07		
	Concordia Ave (Gateway Rd to Moncton Ave)		

74

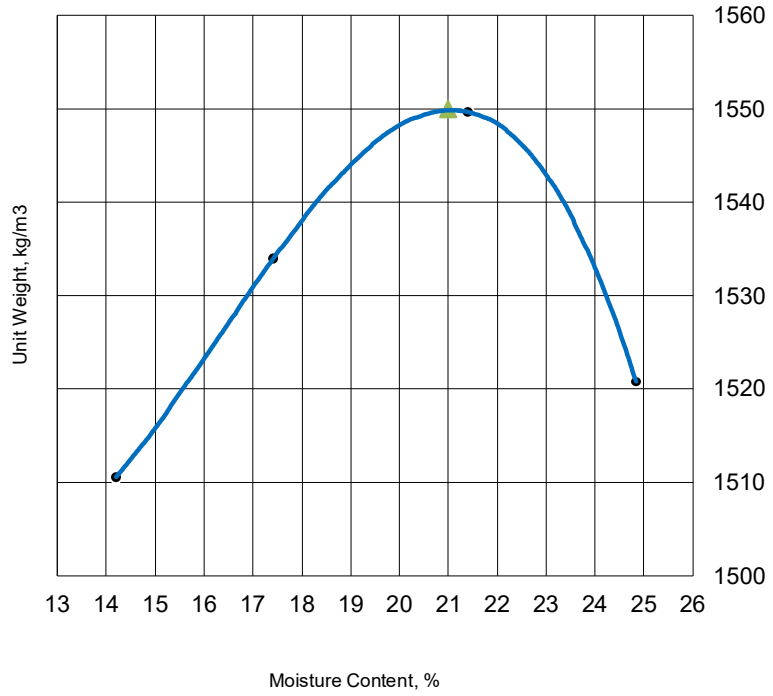
Date Sampled:	09-Jan-26	Date Received:	09-Jan-26
Sampled By:	HA	Date Tested:	15-Jan-26

MATERIAL INFORMATION

Material Type:	CLAY - silty		
Material Use:	Soil Investigati	Material Supplier:	Not Applicable
Maximum Size:	4.75mm	Material Source:	BH 21 - GS 4

PROCEDURE	A
PREPARATION	Dry
COMPACTION METHOD	Manual
BLOWS PER LAYER	25
NO. OF LAYERS	3
MOLD SIZE	100
MOLD VOLUME	935
WEIGHT OF HAMMER	2.5 kg

Test No.	1	2	3	4
Wet Density	1725	1801	1881	1898
Moisture Content	14.2	17.4	21.4	24.8
Dry Density	1511	1534	1550	1521



Maximum Dry Density (MDD): 1550 kg/m³

Optimum Moisture Content: 21.0 %

STONE CORRECTION (ASTM D 4718)

Retained on 4.75mm sieve: ____ %

Corrected Moisture: 21.0 %

Corrected Maximum Dry Density: 1550 kg/m³

Remarks:

P. Bevel

Tested by: Edel Santiago

Reviewed by: Paul Bevel

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MAXIMUM DRY DENSITY AND MOISTURE CONTENT - Proctor Method (ASTM D698)

CLIENT	WSP Canada Inc.	Project No.:	430-2502
	1600 Buffalo Place	Lab No.:	HM 843
	Winnipeg, MB R3T 6B8	Proctor Test No.:	12
ATTENTION:	Richard Hawkins		
PROJECT:	2026 Local Street Renewals – 26-R-07		
	Concordia Ave (Gateway Rd to Moncton Ave)		

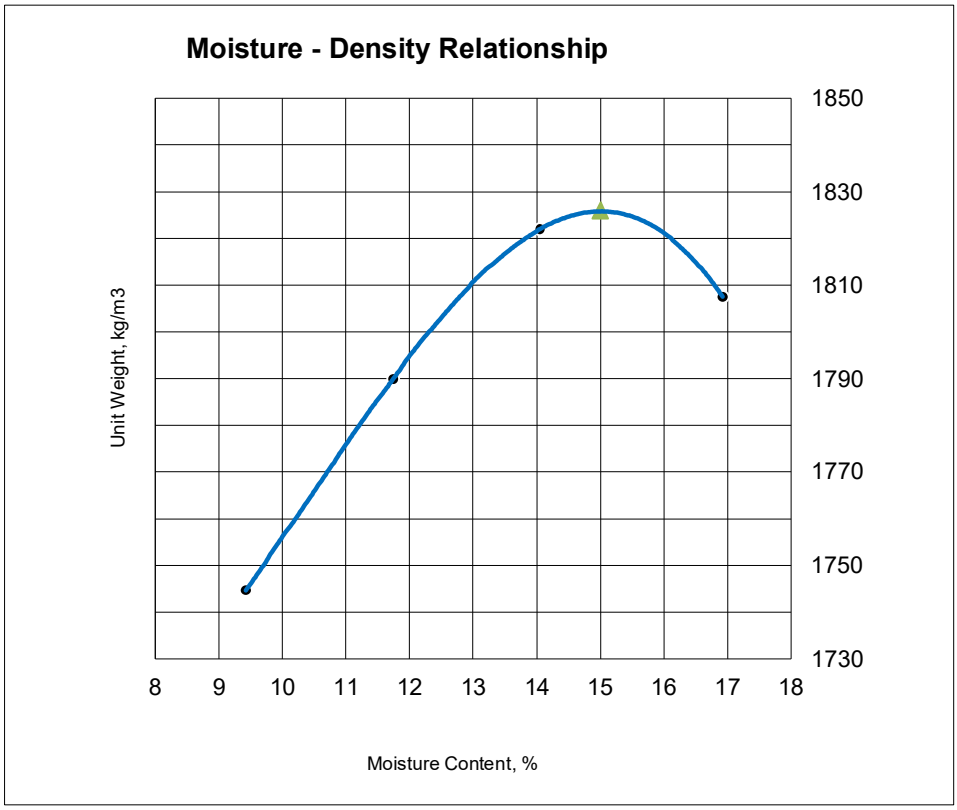
Date Sampled:	09-Jan-26	Date Received:	09-Jan-26
Sampled By:	HA	Date Tested:	15-Jan-26

MATERIAL INFORMATION

Material Type:	SILT - some clay trace sand		
Material Use:	Soil Investigati	Material Supplier:	Not Applicable
Maximum Size:	4.75mm	Material Source:	BH 23 - GS 4

PROCEDURE	A
PREPARATION	Dry
COMPACTION METHOD	Manual
BLOWS PER LAYER	25
NO. OF LAYERS	3
MOLD SIZE	100
MOLD VOLUME	935
WEIGHT OF HAMMER	2.5 kg

Test No.	1	2	3	4
Wet Density	1909	2000	2078	2113
Moisture Content	9.4	11.7	14.1	16.9
Dry Density	1745	1790	1822	1808



Maximum Dry Density (MDD): 1826 kg/m³

Optimum Moisture Content: 15.0 %

STONE CORRECTION (ASTM D 4718)

Retained on 4.75mm sieve: ____ %

Corrected Moisture: 15.0 %

Corrected Maximum Dry Density: 1826 kg/m³

Remarks:

P. Bevel

Tested by: Edel Santiago

Reviewed by: Paul Bevel

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MAXIMUM DRY DENSITY AND MOISTURE CONTENT - Proctor Method (ASTM D698)

CLIENT	WSP Canada Inc.	Project No.:	430-2502
	1600 Buffalo Place	Lab No.:	HM 844
	Winnipeg, MB R3T 6B8	Proctor Test No.:	11
ATTENTION:	Richard Hawkins		
PROJECT:	2026 Local Street Renewals – 26-R-07		
	Concordia Ave (Gateway Rd to Moncton Ave)		

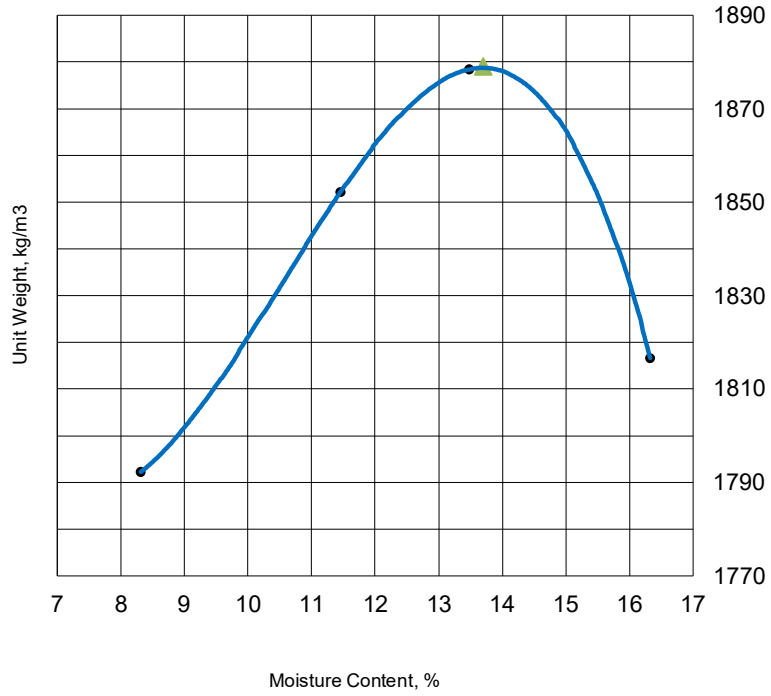
Date Sampled:	09-Jan-26	Date Received:	09-Jan-26
Sampled By:	HA	Date Tested:	15-Jan-26

MATERIAL INFORMATION

Material Type:	SILT - some clay trace sand		
Material Use:	Soil Investigati	Material Supplier:	Not Applicable
Maximum Size:	4.75mm	Material Source:	BH 24 - GS 5

PROCEDURE	A
PREPARATION	Dry
COMPACTION METHOD	Manual
BLOWS PER LAYER	25
NO. OF LAYERS	3
MOLD SIZE	100
MOLD VOLUME	935
WEIGHT OF HAMMER	2.5 kg

Test No.	1	2	3	4
Wet Density	1941	2064	2132	2113
Moisture Content	8.3	11.5	13.5	16.3
Dry Density	1792	1852	1878	1817



Maximum Dry Density (MDD): 1879 kg/m³

Optimum Moisture Content: 13.7 %

STONE CORRECTION (ASTM D 4718)

Retained on 4.75mm sieve: ____ %

Corrected Moisture: 13.7 %

Corrected Maximum Dry Density: 1879 kg/m³

Remarks:

P. Bevel

Tested by: Edel Santiago

Reviewed by: Paul Bevel

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MOISTURE CONTENT OF SOIL (ASTM D2216)

Client:	WSP Canada Inc. 1600 Buffalo Place Winnipeg, MB R3T 6B8	Project No: Test No.: Lab No.:	430-2502 12 HM 834
Attention:	Richard Hawkins	Date Sampled / By:	January 9, 2026 HA
Project:	2026 Local Street Renewals – 26-R-07 Concordia Avenue - BH 13	Date Received: Date Tested / By:	January 9, 2026 January 13, 2026 Chris B.

Test Hole No.	BH 13-1	BH 13-2	BH 13-3	BH 13-4	BH 13-5
Depth	**1-ft**	**2-ft**	**3-ft**	**4-ft**	**5-ft**
Tare No.	P1-23	P1-5	H-23	P1-25	F4
Wt Wet Sample + Tare	158.7	182	161.4	172.7	180.6
Wt Dry Sample + Tare	118.8	138.6	124.8	133.1	139.2
Wt Water	39.9	43.4	36.6	39.6	41.4
Wt Tare	4.7	4.5	4.5	4.5	4.1
Wt Dry Sample	114.1	134.1	120.3	128.6	135.1
Moisture Content (%)	**35.0**	**32.4**	**30.4**	**30.8**	**30.6**
Test Hole No.	BH 13-6	BH 13-7	BH 13-8		
Depth	**6-ft**	**7-ft**	**8-ft**		
Tare No.	H-5	M39	H11		
Wt Wet Sample + Tare	193.8	181.4	172.2		
Wt Dry Sample + Tare	149.7	147.3	139.8		
Wt Water	44.1	34.1	32.4		
Wt Tare	4.5	4.8	4.4		
Wt Dry Sample	145.2	142.5	135.4		
Moisture Content (%)	**30.4**	**23.9**	**23.9**		

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MOISTURE CONTENT OF SOIL (ASTM D2216)

Client:	WSP Canada Inc. 1600 Buffalo Place Winnipeg, MB R3T 6B8	Project No: Test No.: Lab No.:	430-2502 13 HM 835
Attention:	Richard Hawkins	Date Sampled / By:	January 9, 2026 / HA
Project:	2026 Local Street Renewals – 26-R-07 Concordia Avenue BH 14	Date Received: Date Tested / By:	January 9, 2026 January 13, 2026/Chris B.

Test Hole No.	BH 14-1	BH 14-2	BH 14-3	BH 14-4	BH 14-5
Depth	1-ft	2-ft	3-ft	4-ft	5-ft
Tare No.	A6	H1	GM8	P2	84
Wt Wet Sample + Tare	162.3	184.1	177.1	203.3	199.9
Wt Dry Sample + Tare	133.8	143.4	135.8	151.5	163.6
Wt Water	28.5	40.7	41.3	51.8	36.3
Wt Tare	4.2	4.7	4.0	4.0	4.6
Wt Dry Sample	129.6	138.7	131.8	147.5	159.0
Moisture Content (%)	**22.0**	**29.3**	**31.3**	**35.1**	**22.8**
Test Hole No.	BH 14-6	BH 14-7	BH 14-8		
Depth	6-ft	7-ft	8-ft		
Tare No.	M10	PNL	M28		
Wt Wet Sample + Tare	203	196.1	179		
Wt Dry Sample + Tare	164.6	156.6	140.9		
Wt Water	38.4	39.5	38.1		
Wt Tare	4.7	4.9	4.7		
Wt Dry Sample	159.9	151.7	136.2		
Moisture Content (%)	**24.0**	**26.0**	**28.0**		
Test Hole No.					
Depth					
Tare No.					
Wt Wet Sample + Tare					
Wt Dry Sample + Tare					
Wt Water					
Wt Tare					
Wt Dry Sample					
Moisture Content (%)					
Test Hole No.					
Depth					
Tare No.					
Wt Wet Sample + Tare					
Wt Dry Sample + Tare					
Wt Water					
Wt Tare					
Wt Dry Sample					
Moisture Content (%)					

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MOISTURE CONTENT OF SOIL (ASTM D2216)

Client:	WSP Canada Inc. 1600 Buffalo Place Winnipeg, MB R3T 6B8	Project No: Test No.: Lab No.:	430-2502 15 HM 837
Attention:	Richard Hawkins	Date Sampled / By:	January 9, 2026 / HA
Project:	2026 Local Street Renewals – 26-R-07 Concordia Avenue BH 16	Date Received: Date Tested / By:	January 9, 2026 January 13, 2026/Chris B.

Test Hole No.	BH 16-1	BH 16-2	BH 16-3	BH 16-4	BH 16-5
Depth	1-ft	2-ft	3-ft	4-ft	5-ft
Tare No.	P16	A1	P121	P126	GM21
Wt Wet Sample + Tare	186.6	196.8	227.3	186.7	177.6
Wt Dry Sample + Tare	141.9	144.3	171.6	145.4	140.5
Wt Water	44.7	52.5	55.7	41.3	37.1
Wt Tare	4.4	3.9	4.7	4.6	3.8
Wt Dry Sample	137.5	140.4	166.9	140.8	136.7
Moisture Content (%)	**32.5**	**37.4**	**33.4**	**29.3**	**27.1**
Test Hole No.	BH 16-6	BH 16-7	BH 16-8		
Depth	6-ft	7-ft	8-ft		
Tare No.	P17	P132	P121		
Wt Wet Sample + Tare	193.8	219.7	244.1		
Wt Dry Sample + Tare	156	180	195.7		
Wt Water	37.8	39.7	48.4		
Wt Tare	4.6	4.3	3.9		
Wt Dry Sample	151.4	175.7	191.8		
Moisture Content (%)	**25.0**	**22.6**	**25.2**		

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MOISTURE CONTENT OF SOIL (ASTM D2216)

Client:	WSP Canada Inc. 1600 Buffalo Place Winnipeg, MB R3T 6B8	Project No: Test No.: Lab No.:	430-2502 19 HM 841
Attention:	Richard Hawkins	Date Sampled / By:	January 9, 2026 HA
Project:	2026 Local Street Renewals – 26-R-07 Concordia Avenue BH 21	Date Received: Date Tested / By:	January 9, 2026 January 13, 2026 ChrisB.

Test Hole No.	BH 21-1	BH 21-2	BH 21-3	BH 21-4	BH 21-5
Depth	1-ft	2-ft	3-ft	4-ft	5-ft
Tare No.	CB 06	CB 07	CB 08	CB 09	CB 10
Wt Wet Sample + Tare	220.6	168.3	208.4	161.1	356.2
Wt Dry Sample + Tare	157.9	122.4	159.3	123.5	281.4
Wt Water	62.7	45.9	49.1	37.6	74.8
Wt Tare	4.5	4.4	4.4	4.7	4.7
Wt Dry Sample	153.4	118.0	154.9	118.8	276.7
Moisture Content (%)	**40.9**	**38.9**	**31.7**	**31.6**	**27.0**
Test Hole No.	BH 21-6	BH 21-7	BH 21-8		
Depth	6-ft	7-ft	8-ft		
Tare No.	CB 11	CB 12	CB 13		
Wt Wet Sample + Tare	368.3	190.3	197.4		
Wt Dry Sample + Tare	297.9	155.7	159.3		
Wt Water	70.4	34.6	38.1		
Wt Tare	4.6	4.5	4.4		
Wt Dry Sample	293.3	151.2	154.9		
Moisture Content (%)	**24.0**	**22.9**	**24.6**		

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MOISTURE CONTENT OF SOIL (ASTM D2216)

Client:	WSP Canada Inc. 1600 Buffalo Place Winnipeg, MB R3T 6B8	Project No: Test No.: Lab No.:	430-2502 21 HM 843
Attention:	Richard Hawkins	Date Sampled / By:	January 9, 2026 HA
Project:	2026 Local Street Renewals – 26-R-07 Concordia Avenue BH 23	Date Received: Date Tested / By:	January 9, 2026 January 13, 2026 Chris B.

Test Hole No.	BH 23-1	BH 23-2	BH 23-3	BH 23-4	BH 23-5
Depth	1-ft	2-ft	3-ft	4-ft	5-ft
Tare No.	CB 22	CB 23	CB 24	CB 25	CB 26
Wt Wet Sample + Tare	171.1	208.2	169.3	207.6	216.6
Wt Dry Sample + Tare	128.7	155.9	128.5	158.1	166.6
Wt Water	42.4	52.3	40.8	49.5	50.0
Wt Tare	4.5	4.3	4.4	4.6	4.7
Wt Dry Sample	124.2	151.6	124.1	153.5	161.9
Moisture Content (%)	**34.1**	**34.5**	**32.9**	**32.2**	**30.9**
Test Hole No.	BH 23-6	BH 23-7	BH 23-8		
Depth	6-ft	7-ft	8-ft		
Tare No.	CB 27	CB 28	CB 29		
Wt Wet Sample + Tare	195.6	194.3	166.8		
Wt Dry Sample + Tare	156.2	158.4	134.4		
Wt Water	39.4	35.9	32.4		
Wt Tare	4.7	4.5	4.6		
Wt Dry Sample	151.5	153.9	129.8		
Moisture Content (%)	**26.0**	**23.3**	**25.0**		

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MOISTURE CONTENT OF SOIL (ASTM D2216)

Client:	WSP Canada Inc. 1600 Buffalo Place Winnipeg, MB R3T 6B8	Project No: Test No.: Lab No.:	430-2502 22 HM 844
Attention:	Richard Hawkins	Date Sampled / By:	January 9, 2026 HA
Project:	2026 Local Street Renewals – 26-R-07 Concordia Avenue BH 24	Date Received: Date Tested / By:	January 9, 2026 January 13, 2026 Chris B.

Test Hole No.	BH 24-1	BH 24-2	BH 24-3	BH 24-4	BH 24-5
Depth	1-ft	2-ft	3-ft	4-ft	5-ft
Tare No.	CB 30	CB 31	CB 32	CB 33	CB 34
Wt Wet Sample + Tare	157.6	175.3	171.5	218.6	238.5
Wt Dry Sample + Tare	116.9	134.4	133.6	174.4	189.6
Wt Water	40.7	40.9	37.9	44.2	48.9
Wt Tare	4.6	4.5	4.4	4.6	4.6
Wt Dry Sample	112.3	129.9	129.2	169.8	185.0
Moisture Content (%)	**36.2**	**31.5**	**29.3**	**26.0**	**26.4**
Test Hole No.	BH 24-6	BH 24-7	BH 24-8		
Depth	6-ft	7-ft	8-ft		
Tare No.	CB 35	CB 36	CB 37		
Wt Wet Sample + Tare	185.7	187	233.5		
Wt Dry Sample + Tare	148.4	150.2	188		
Wt Water	37.3	36.8	45.5		
Wt Tare	4.7	4.6	4.3		
Wt Dry Sample	143.7	145.6	183.7		
Moisture Content (%)	**26.0**	**25.3**	**24.8**		