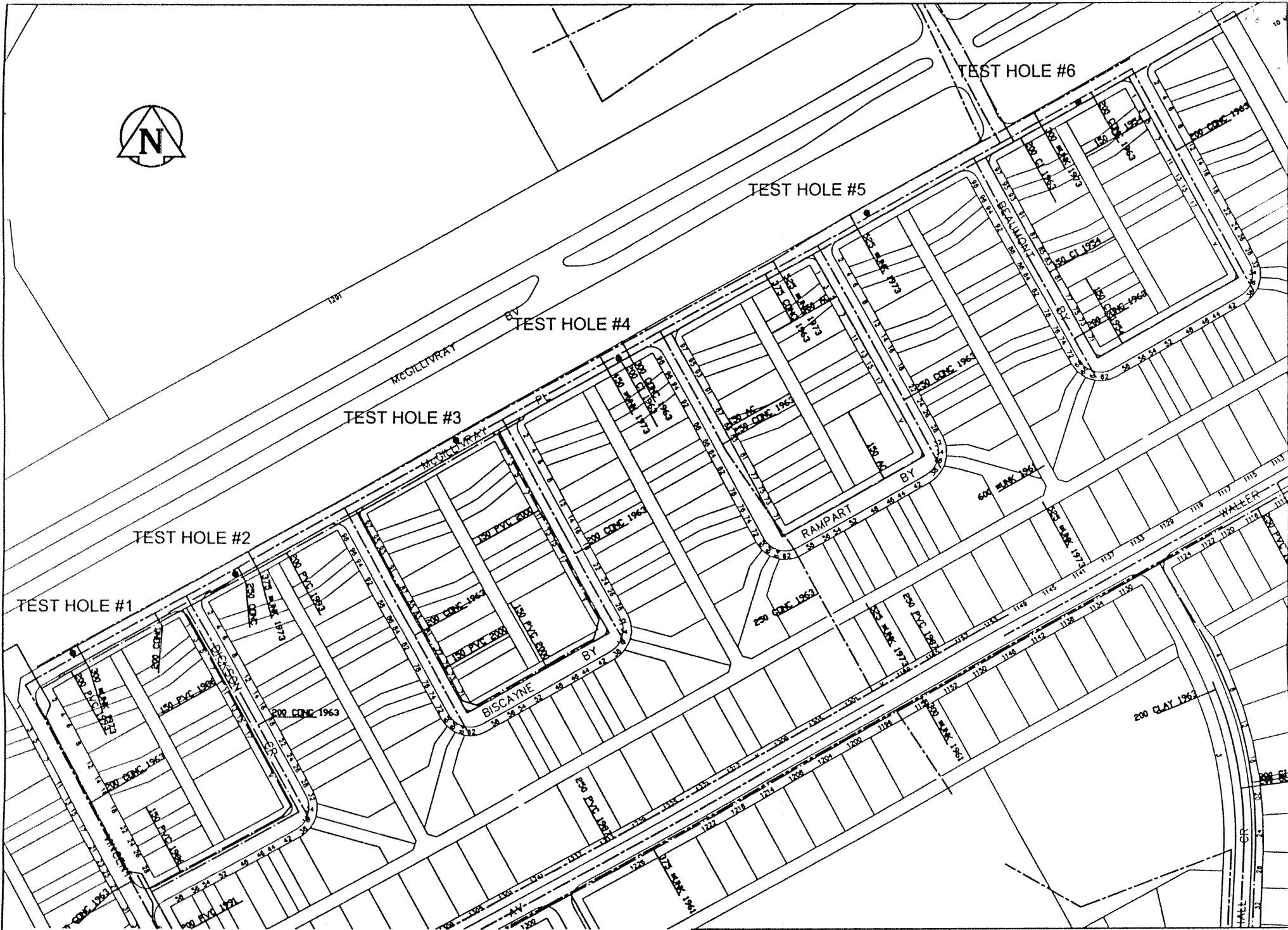


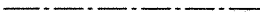

McGILLIVRAY PLACE

BEAUMONT STREET TO VINCENT STREET

2004 STREET RENEWAL PROGRAM

GEOTECHNICAL INVESTIGATION



SEWER 
WATER 

2004 RESIDENTIAL STREET RENEWAL PROGRAM
TESTHOLE LOCATION SKETCH - MCGILLIVRAY PL
(VINCENT ST - BEAUMONT ST)



THE CITY OF WINNIPEG
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION
TECHNOLOGY SERVICES BRANCH
108 - 1155 PACIFIC AVE

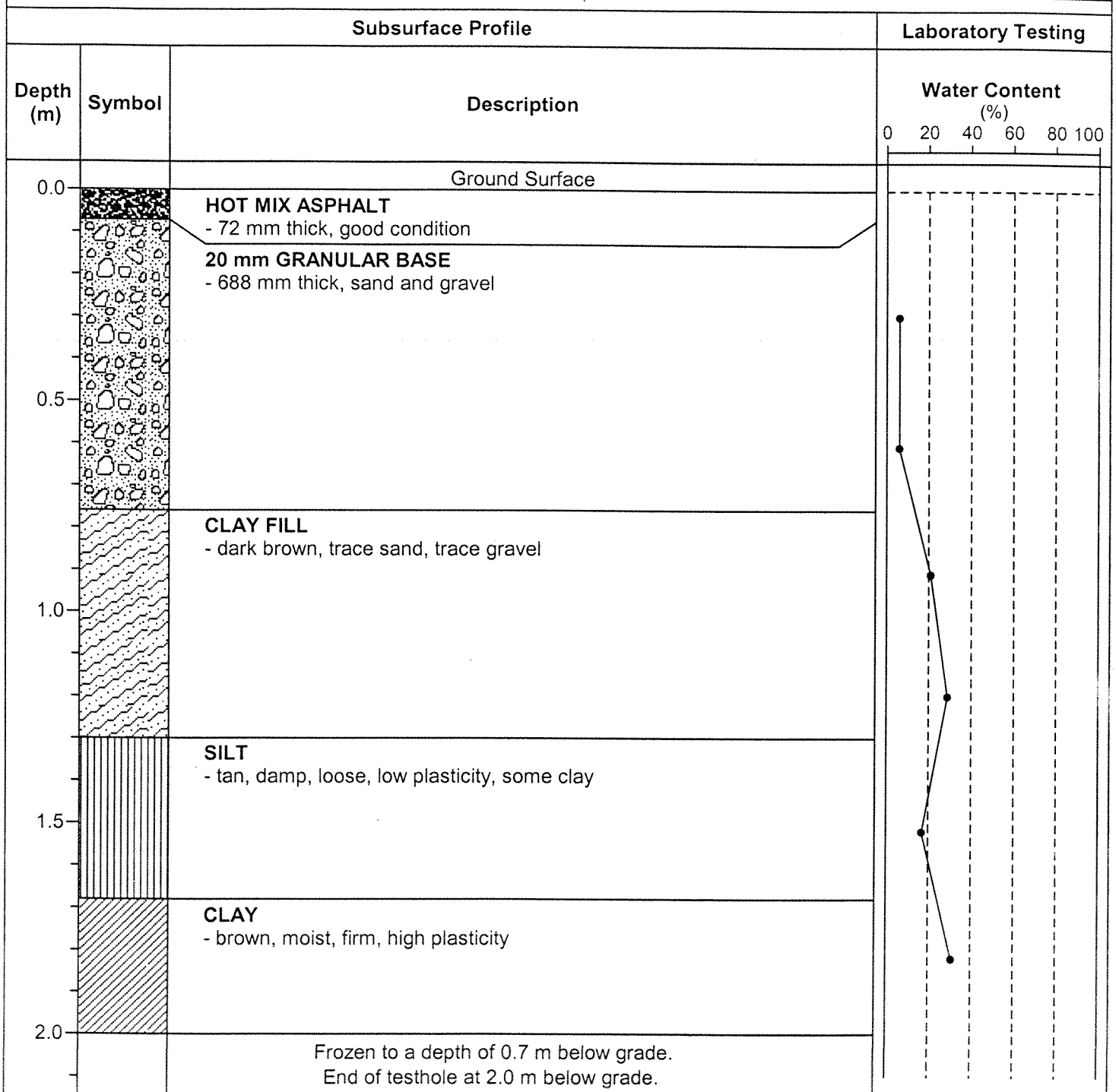
**City of Winnipeg
2004 Street Renewal Program
Geotechnical Investigation**

Testhole No.	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 Limit
1	McGillivray Place	Asphalt	72	Granular	688										
2	McGillivray Place	Asphalt/Concrete	61/100	N/A	N/A										
3	McGillivray Place	Asphalt/Concrete	64/150	N/A	N/A										
4	McGillivray Place	Asphalt/Concrete	51/150	Granular	75										
5	McGillivray Place	Asphalt	71	Granular	400	Silt	1.2	21.1	0.0	5.2	71.7	23.1	27	17	10
6	McGillivray Place	Asphalt/Concrete	53/125	N/A	N/A	Clay	2.0	44.1	0.0	0.7	8.3	91.0	112	24	88

TESTHOLE 146-1



Project Name: 2004 City of Winnipeg Street Renewal Program **Date Drilled:** December 18, 2003
Client: UMA Engineering Ltd. **Depth of Testhole:** 2.0 m
Site: McGillivray Place **Logged by:** Robert Hochkievich
Testhole Location: 1.5 m S of curb, 1.5 m E of 2 Vincent St. west building line

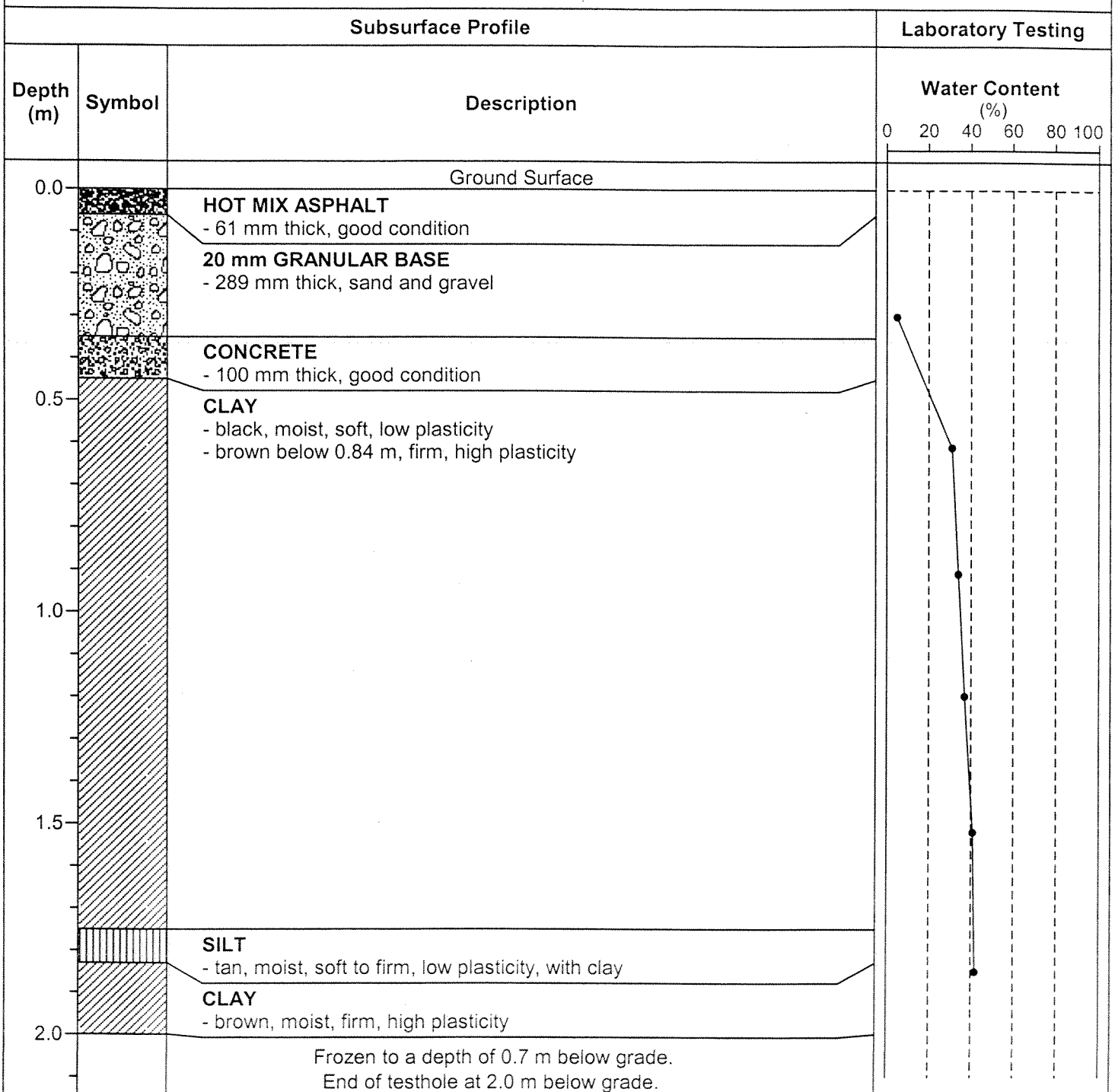


TESTHOLE 146-2



Project Name: 2004 City of Winnipeg Street Renewal Program
 Client: UMA Engineering Ltd.
 Site: McGillivray Place
 Testhole Location: 1.5 m N of curb, 3 m E of 2 Dickson Cr. east building line

Date Drilled: December 18, 2003
 Depth of Testhole: 2.0 m
 Logged by: Robert Hochkievich



TESTHOLE 146-3



Project Name: 2004 City of Winnipeg Street Renewal Program

Date Drilled: December 18, 2003

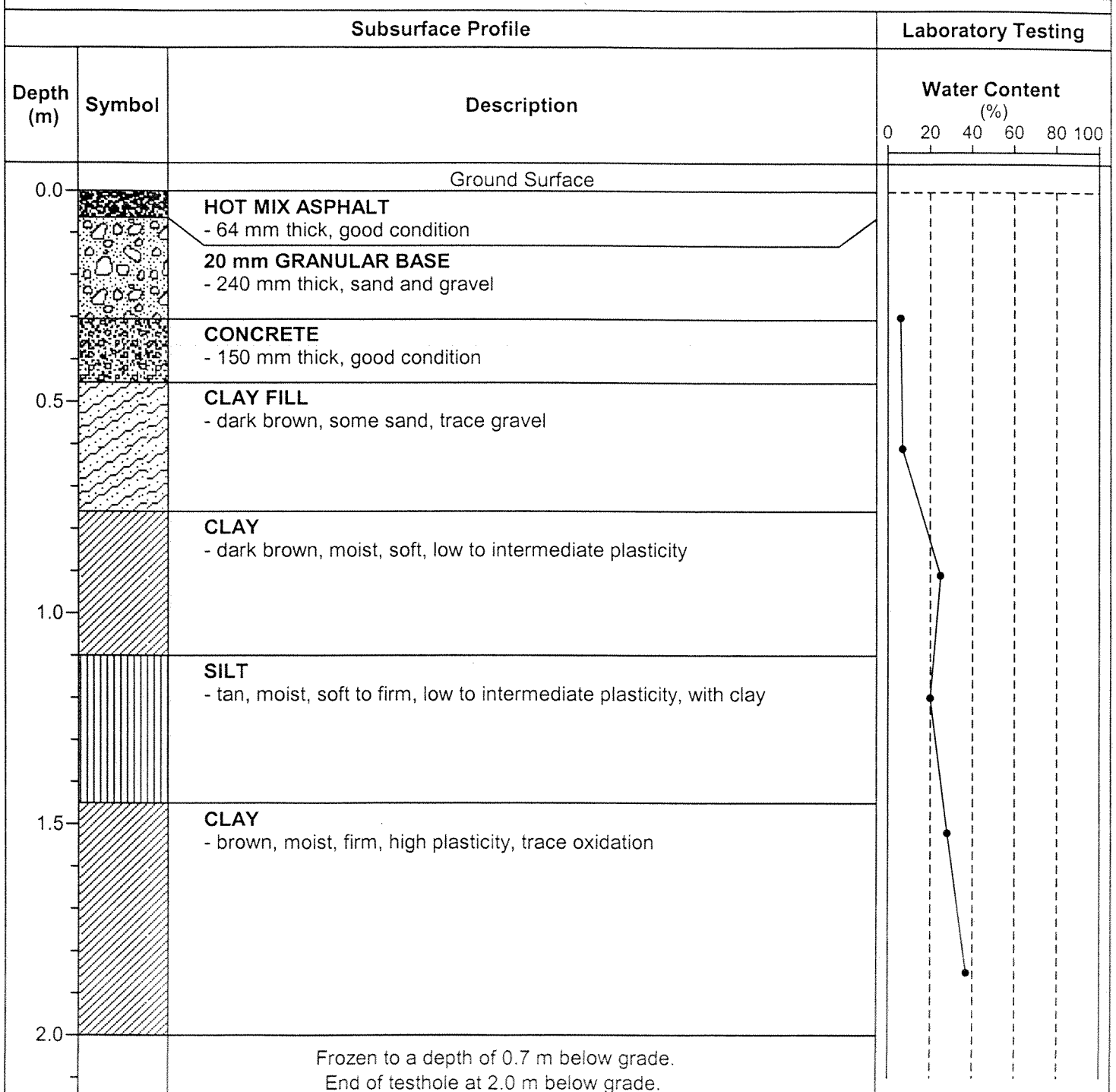
Client: UMA Engineering Ltd.

Depth of Testhole: 2.0 m

Site: McGillivray Place

Logged by: Robert Hochkievich

Testhole Location: 1.5 m S of curb, 2 m E of 1 Biscayne Bay east building line

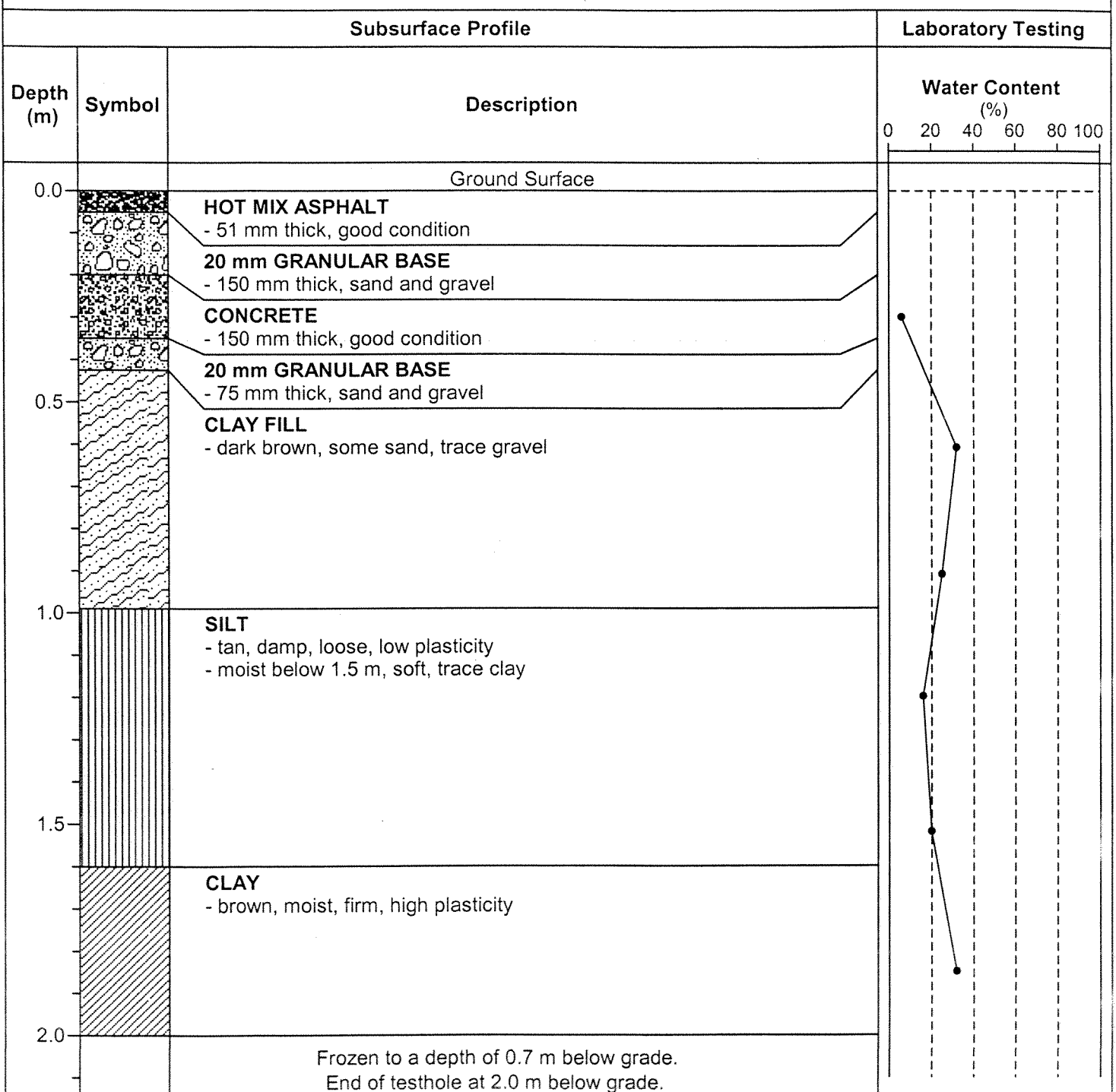


TESTHOLE 146-4



Project Name: 2004 City of Winnipeg Street Renewal Program
 Client: UMA Engineering Ltd.
 Site: McGillivray Place
 Testhole Location: 1.5 m N of curb, 4 m E of 98 Rampart Bay west building line

Date Drilled: December 18, 2003
 Depth of Testhole: 2.0 m
 Logged by: Robert Hochkievich



TESTHOLE 146-5



Project Name: 2004 City of Winnipeg Street Renewal Program
 Client: UMA Engineering Ltd.
 Site: McGillivray Place
 Testhole Location: 1 m S of curb, 2 m W of 2 Rampart Bay east building line

Date Drilled: December 18, 2003
 Depth of Testhole: 2.0 m
 Logged by: Robert Hochkievich

Subsurface Profile			Laboratory Testing							
Depth (m)	Symbol	Description	Moisture Content (%)				Gravel (%)	Sand (%)	Silt (%)	Clay (%)
			PL	LL						
0.0		Ground Surface								
		HOT MIX ASPHALT - 71 mm thick, good condition								
		20 mm GRANULAR BASE - 400 mm thick, sand and gravel								
0.5		CLAY FILL - dark brown, some sand, trace gravel								
		SILT - tan, moist, soft, low plasticity, some clay								
1.0										
1.5		CLAY - brown, moist, firm, high plasticity								
2.0		Frozen to a depth of 0.7 m below grade. End of testhole at 2.0 m below grade.								
							0.0	5.2	71.7	23.1

TESTHOLE 146-6



Project Name: 2004 City of Winnipeg Street Renewal Program

Date Drilled: December 18, 2003

Client: UMA Engineering Ltd.

Depth of Testhole: 2.0 m

Site: McGillivray Place

Logged by: Robert Hochkievich

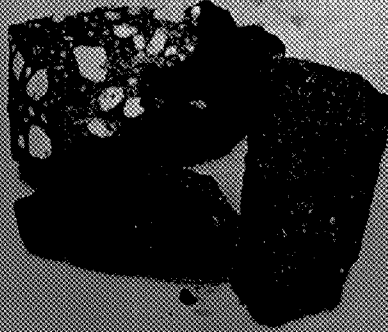
Testhole Location: 1 m N of curb, 1 m W of 1 Beaumont Bay west building line

Subsurface Profile			Laboratory Testing															
Depth (m)	Symbol	Description	Moisture Content (%)				Gravel (%)	Sand (%)	Silt (%)	Clay (%)								
			PL	LL														
			0	25	50	75	100	125										
0.0		Ground Surface																
		HOT MIX ASPHALT - 71 mm thick, good condition																
		20 mm GRANULAR BASE - 400 mm thick, sand and gravel																
0.5		CLAY FILL - dark brown, some sand, trace gravel																
		SILT - tan, moist, soft, low plasticity, some clay																
1.0																		
1.5		CLAY - brown, moist, firm, high plasticity																
2.0																		
		Frozen to a depth of 0.7 m below grade. End of testhole at 2.0 m below grade.																
									0.0	0.7	8.3	91.0						

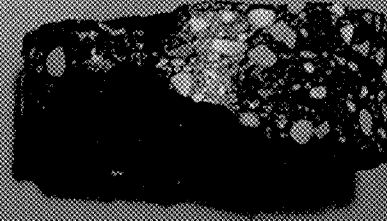
TH1



TH2



TH3



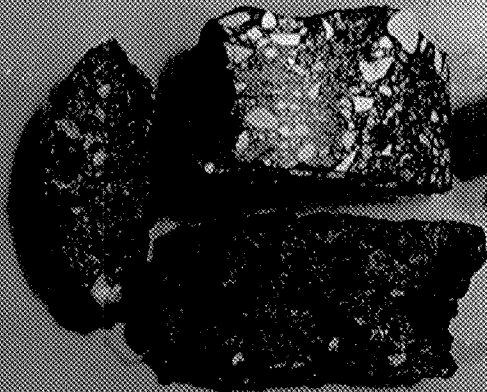
McGILLIVRAY PLACE (146)



TH4



TH5



TH6



McGILLIVRAY PLACE (146)