APPENDIX A TEST HOLE LOGS

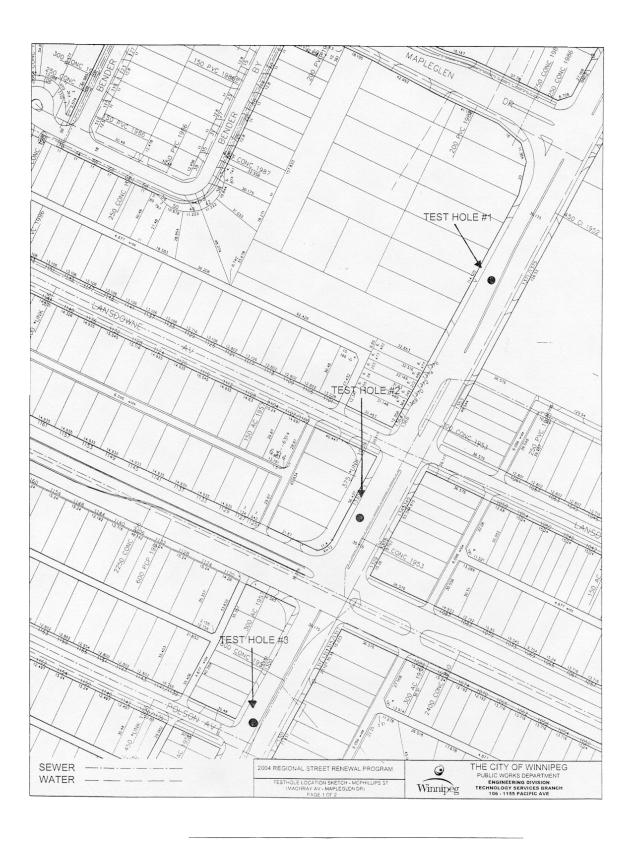
APPENDIX A TEST HOLE LOGS

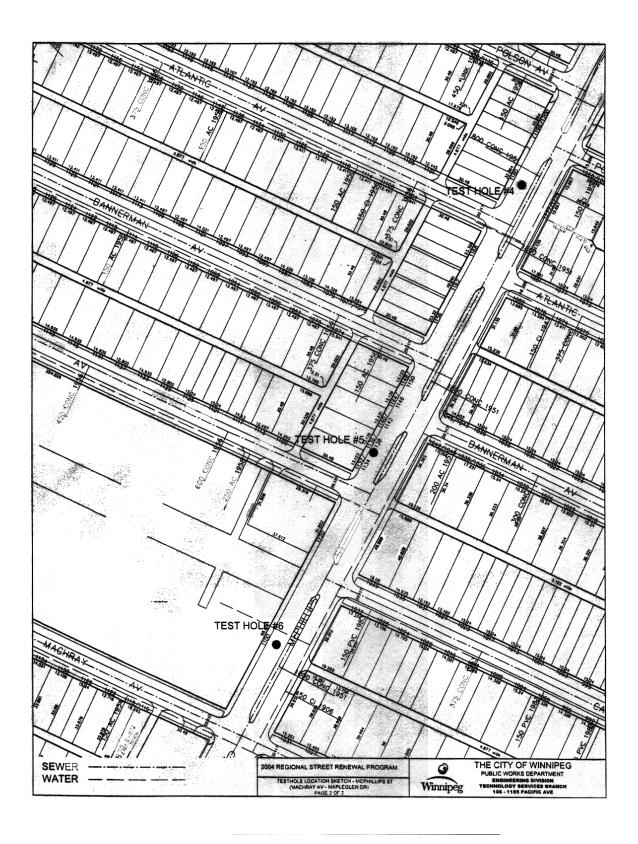
The following test hole logs are provided to aid in the Contractor's evaluation of site conditions. The information presented is considered accurate at the locations shown on the Drawings and at the time of drilling. however, variations in soil conditions may exist between test holes and fluctuations in groundwater levels can be expected seasonally and may occur as a result of construction activities. The nature and extent of variations in soil conditions and variations in groundwater levels may not become evident until construction.



McPHILLIPS STREET S/B MAPLE GLEN DRIVE TO MACHRAY STREET

2004 STREET RENEWAL PROGRAM GEOTECHNICAL INVESTIGATION





City of Winnipeg 2004 Street Renewal Program Geotechnical Investigation

		Pavement Surface	ırface	Pavement Stru	Pavement Structure Material		Sample	Moisture		Particle Size Analysis	e Analysis		Aff	Atterberg Limits	ts
Testhole	Testhole		Thickness		Thickness	Sample	Depth	Content	Gravel	Sand	Silt	Clay	Liquid	Plastic	Plasticity
No	Location	Туре	(mm)	Туре	(mm)	Description	(m)	(%)	(%)	(%)	(%)	(%)	Limit	Limit	Limit
-	McPhillips St. S/B	Asphalt/Concrete	45/205	Granular	875										
2	McPhillips St. S/B	_	90/205	Granular	100	Sit	1.8	22.1	1.2	4.5	72.0	22.3	23	17	9
8	McPhillips St. S/B	Asphalt/Concrete	60/195	Granular	870										
4	McPhillips St. S/B	Asphalt/Concrete	\$27.709	Granular	400										
3	McPhillips St. S/B	Asphalt/Concrete	35/225	Granuiar	865										
u c	McPhilling St S/B	Asphalt/Concrete	70/210	Granular	245	Clav	8	39.2	0.0	1.2	0.9	8 26	96	2,5	



Project Name: 2004 City of Winnipeg Street Renewal Program

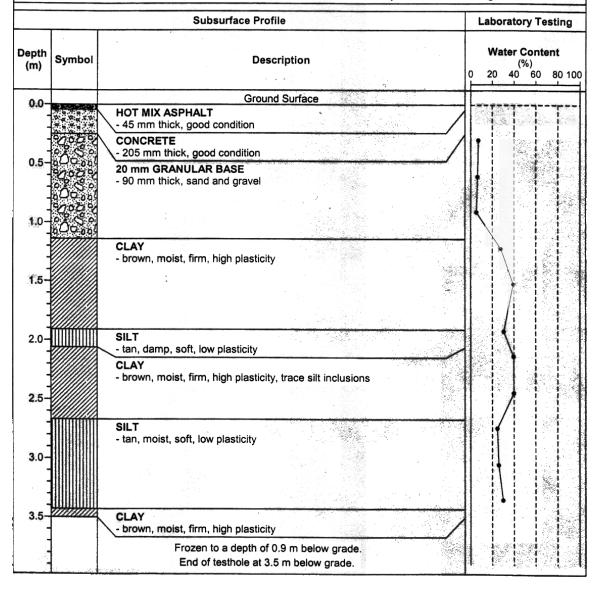
Client: UMA Engineering Ltd.

Date Drilled: January 16, 2004 Depth of Testhole: 3.5 m

Site: McPhillips Street S/B

Logged by: Robert Hochkievich

Testhole Location: 1.5 m W of meridian curb, in line with 1371 McPhillips St. south building line



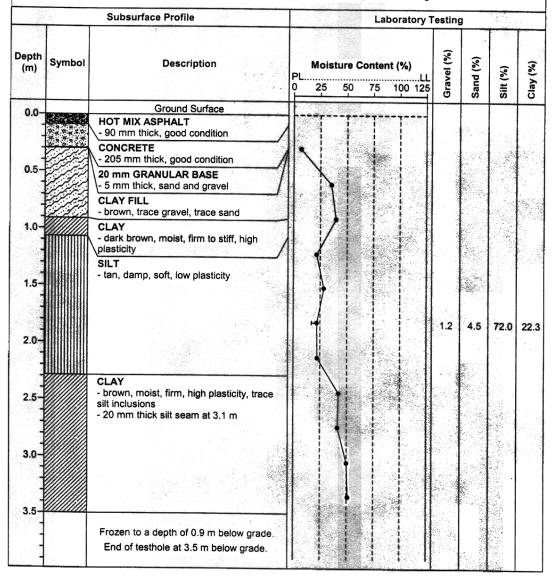


Project Name: 2004 City of Winnipeg Street Renewal Program

Client: UMA Engineering Ltd. Site: McPhillips Street S/B Date Drilled: January 16, 2004 Depth of Testhole: 3.5 m

Logged by: Robert Hochkievich

Testhole Location: In line with centre line, centered with 1330 McPhillips St. building



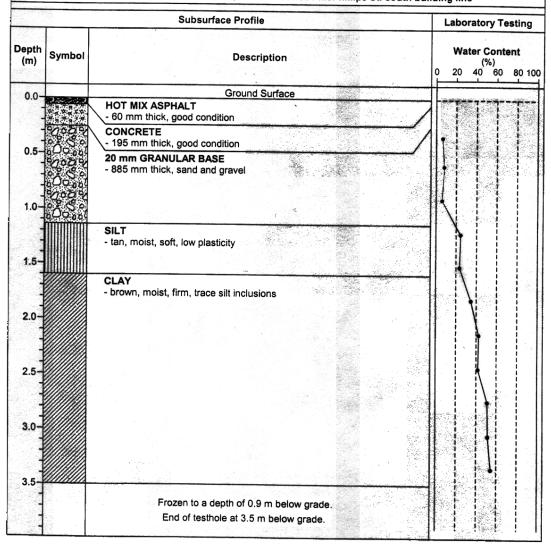


Project Name: 2004 City of Winnipeg Street Renewal Program

Client: UMA Engineering Ltd. Site: McPhillips Street S/B Date Drilled: January 16, 2004 Depth of Testhole: 3.5 m

Logged by: Robert Hochkievich

Testhole Location: 1.6 m W of median curb, in line with 1301 McPhillips St. south building line





Project Name: 2004 City of Winnipeg Street Renewal Program Date Drilled: January 16, 2004

Client: UMA Engineering Ltd. Site: McPhillips Street S/B Depth of Testhole: 3.5 m

Logged by: Robert Hochkievich

Testhole Location: 1.5 m W of median curb, 7 m N of 1180 McPhillips St. south building line

		Subsurface Profile	Laboratory Testing
Depth (m)	Symbol	Description	Water Content (%) 0 20 40 60 80 10
0.0	M. Down	Ground Surface	
-	N	HOT MIX ASPHALT - 50 mm thick, good condition	
	97029	CONCRETE	
0.5-		- 225 mm thick, good condition	•
	8000 °C	20 mm GRANULAR BASE - 415 mm thick, sand and gravel	
_		CLAY FILL	
1.0-		- brown, some sand, trace gravel	
		SILT	
		- tan, moist, soft, low plasticity, some clay	
1.5-		CLAY	
-		- brown, moist, firm, high plasticity, trace silt inclusions	
2.0-			
-			
-			
2.5-			
3.0-			
3.5-			•
-		Frozen to a depth of 0.9 m below grade.	
		End of testhole at 3.5 m below grade.	



Project Name: 2004 City of Winnipeg Street Renewal Program

Client: UMA Engineering Ltd.
Site: McPhillips Street S/B

Date Drilled: January 16, 2004
Depth of Testhole: 3.5 m
Logged by: Robert Hochkievich

Testhole Location: 1.6 m W of median curb, 2 m N of 1136 McPhillips St. south building line

	<u> </u>	Subsurface Profile	Laboratory Testing
Depth (m)	Symbol	Description	Water Content (%) 0 20 40 60 80 10
0.0-		Ground Surface	
-		HOT MIX ASPHALT - 35 mm thick, good condition	
-	8000	CONCRETE - 225 mm thick, fair to good condition	
0.5-	200 200 200	20 mm GRANULAR BASE - 865 mm thick, sand and gravel	
1.0-			
1.5-		CLAY - brown, moist, firm, high plasticity - trace silt seams below 2.1 m - grey below 2.7 m	
2.0-			
2.5-			
3.0-			
3.5-			
		Frozen to a depth of 0.9 m below grade. End of testhole at 3.5 m below grade.	



Project Name: 2004 City of Winnipeg Street Renewal Program Date Drilled: January 16, 2004

Client: UMA Engineering Ltd. Site: McPhillips Street S/B

Depth of Testhole: 3.5 m

Logged by: Robert Hochkievich

Testhole Location: In line with S/B lane centre line, 3 m S of school gym south building line

