

# JESSIE AVENUE GUELPH STREET TO HARROW STREET 2008 CITY OF WINNIPEG LOCAL STREETS RENEWALS PROGRAM

Prepared for KGS Group 3<sup>rd</sup> Floor, 865 Waverley Street Winnipeg, Manitoba R3T 5P4

Prepared by

The National Testing Laboratories Limited

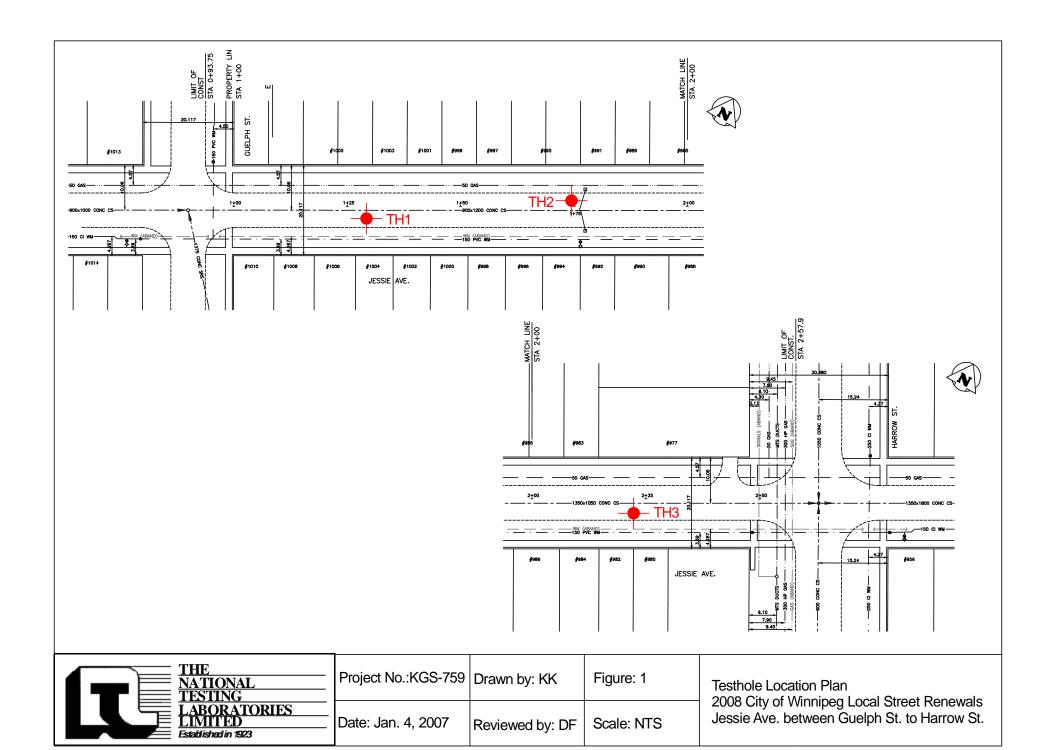
199 Henlow Bay

Winnipeg, Manitoba

R3Y 1G4

### Jessie Avenue Guelph Street to Harrow Street 2008 Local Street Renewals Program Geotechnical Investigation

Taathal		Pavement S	Surface	Pavement Structure Material		Cample	Sample	Moisture	Particle Size Analysis			Atterberg Limits			
Testhol e ID	Testhole Location	Туре	Thickness (mm)	Туре	Thickness (mm)	Sample Description	Depth (m)	Content (%)	Gravel (%)	Sand (%)	Silt (%)	Clay (%)	Liquid Limit	Plastic Limit	Plasticity Index
	EB Lane, 2 m E of property line between 1006 / 1004 Jessie St., 1.5 m away from curb	Asphalt/Concrete	60/180	N/A	-	-	ı	-	-	-	ı	-	-	•	-
TH2	WB Lane, 2.4 m W of property line of 995 /	Asphalt/Concrete	15/190	N/A	-	Clay	0.6	33.7	0.0	2.5	10.3	87.2	84	30	54
1112	991 Jessie St., 1.5 m away from curb	AsphalivConcrete	e 15/190	IN/A	-	Clayey Silt	1.2	10.7	0.0	5	68.4	26.6	25	18	7
	EB Lane, In line with property line between 982 / 980 Jessie St., 1.5 m away from curb	Asphalt/Concrete	27/213	N/A	-	-	-	-	-	-	-	-	-	-	-





**Project Name: 2008 City of Winnipeg Local Street Renewals** 

**Client: KGS Group** 

Depth of Testhole: 2.1 m

Date Drilled: December 14, 2007

Site: Jessie Avenue between Guelph Street to Harrow Street

Logged by: Kurtis Kulchyski

Testhole Location: E.B. Lane, 2 m E of property line between 1006 / 1004 Jessie St., 1.5 m away from curb

		Subsurface Profile	Laboratory Testing
Depth (m)	Symbol	Description	Water Content (%) 0 20 40 60 80 100
0.0		Ground Surface	
0.0-	10000	Asphalt	
		Concrete	
		Clay fill - brown/grey, stiff, moist, high plasticity, trace fine gravel and crushed brick	40.4
0.5-			39.9
		Clay - brown, stiff, moist, high plasticity - trace varves of silt between 1.5 to 1.8 m	41.9
1.0-			36.5
1.5-			39.0
			41.1
2.0-			44.6
	-	<ul> <li>Frost present to a depth of 1.0 m.</li> <li>No water seepage or soil sloughing were observed during or after the completion of drilling.</li> <li>Testhole was terminated at 2.1 m.</li> </ul>	



**Project Name: 2008 City of Winnipeg Local Street Renewals** 

**Client: KGS Group** 

2.5

Date Drilled: December 14, 2007 Depth of Testhole: 2.1 m

Site: Jessie Avenue between Guelph Street to Harrow Street

Logged by: Kurtis Kulchyski

Testhole Location: W.B. Lane, 2.4 m W of property line of 995 / 991 Jessie St., 1.5 m away from curb **Subsurface Profile Laboratory Testing** Gravel (%) Sand (%) Clay (%) Depth Water Content (%) Silt (%) **Symbol** Description (m) 25 50 75 **Ground Surface Asphalt** Concrete 40.6 - grey, stiff, moist, high plasticity - brown below 0.8 m 0.5 0.0 2.5 10.3 87.2 1.0 Clayey Silt - tan, firm, moist, low plasticity 0.0 26.6 5.0 68.4 Clay - brown, stiff, moist, high plasticity, trace silt and gypsum inclusions 36.2 2.0 • Frost present to a depth of 1.1 m. • No water seepage or soil sloughing were observed during or after the completion of drilling. • Testhole was terminated at 2.1 m.



**Project Name: 2008 City of Winnipeg Local Street Renewals** 

**Client: KGS Group** 

Depth of Testhole: 2.1 m

Site: Jessie Avenue between Guelph Street to Harrow Street

Logged by: Kurtis Kulchyski

Date Drilled: December 14, 2007

Testhole Location: E.B. Lane, In line with property line between 982 / 980 Jessie St., 1.5 m away from curb

		Subsurface Profile	Laboratory Testing
Depth (m)	Symbol	Description	Water Content (%) 0 20 40 60 80 100
0.0-	22222	Ground Surface	
-		Asphalt Concrete	35.7
-		Clay - brown, stiff, moist, high plasticity	33.//
0.5-			37.6
1.0-			39.0
- - -		Clayey Silt - tan, firm, moist, low plasticity	22/4
- 1.5- - -		Clay - brown, stiff, moist, high plasticity, trace varves of silt	38.0
2.0-			46.1
- - -		<ul> <li>Frost present to a depth of 0.9 m.</li> <li>No water seepage or soil sloughing were observed during or after the completion of drilling.</li> <li>Testhole was terminated at 2.1 m.</li> </ul>	
2.5-			











## YALE AVENUE WILTON STREET TO GUELPH STREET 2008 CITY OF WINNIPEG LOCAL STREETS RENEWALS PROGRAM

Prepared for KGS Group 3<sup>rd</sup> Floor, 865 Waverley Street Winnipeg, Manitoba R3T 5P4

Prepared by

The National Testing Laboratories Limited

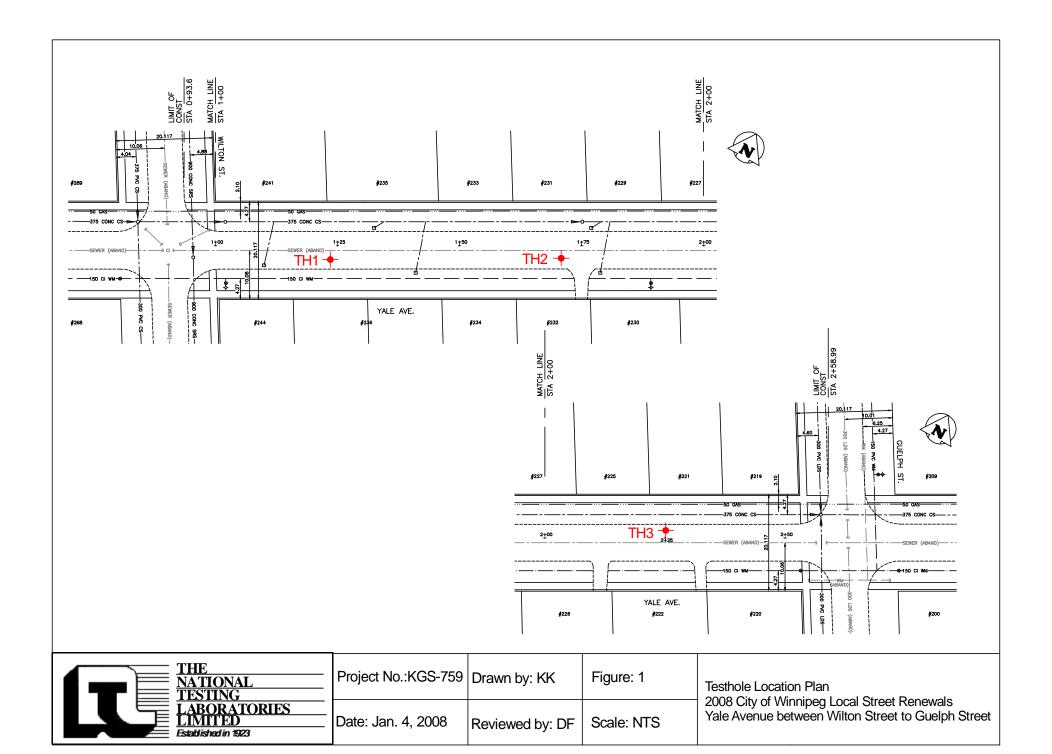
199 Henlow Bay

Winnipeg, Manitoba

R3Y 1G4

### Yale Avenue Wilton Street to Guelph Street 2008 Local Street Renewals Program Geotechnical Investigation

Tootholo		Paveme	nt Surface	Pavement Stru	ucture Material	Commis	Sample	Moisture	Par	ticle Size	e Analy	sis	Att	erberg L	.imits
Testhole ID	Testhole Location	Туре	Thickness (mm)	Туре	Thickness (mm)	Sample Description	Depth (m)	Content (%)	Gravel (%)	Sand (%)	Silt (%)	Clay (%)	Liquid Limit	Plastic Limit	Plasticity Index
TH1	EB lane, In line with the east property line of 241 Yale Ave., 1.8 m away from curb	Asphalt	80	Granular	220	N/A	N/A	-	-	-	-	-	-	-	-
TH2	EB lane, 7.5 m east of property line of 234 / 232 Yale Ave., 1.8 m away from curb	Asphalt	100	Granular	225	Clayey Silt	0.9	21.4	0.0	6.2	64.2	29.6	29	16	13
ТН3	WB lane, 3.5 m east of property line of 225 / 221 Yale Ave., 1.8 m away from curb	Asphalt	95	Granular	205	Silty Clay	0.3	28.4	0.8	16	31.8	51.4	55	22	33





**Project Name: 2008 City of Winnipeg Local Street Renewals** 

Date Drilled: December 14, 2007 Depth of Testhole: 2.1 m

**Client: KGS Group** Site: Yale Avenue between Wilton Street to Guelph Street Logged by: Kurtis Kulchyski Testhole Location: E.B. Lane, in line with E property line of 241 Yale Ave., 1.8 m away from curb

	,	Subsurface Profile	Laboratory Testing
Depth (m)	Symbol	Description	Water Content (%) 0 20 40 60 80 100
0.0-		Ground Surface	
0.0		Asphalt	
-	% \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	Granular Base - 20 mm maximum aggregate size	7.9
- 0.5		Silty Clay - black/brown, stiff, moist, high plasticity, trace silt inclusions	16.9
-		OL ON	14.8
- - -	-	Clayey Silt - tan, firm, moist, low plasticity, traces varves of clay below 1.1 m	16.2
1.0- - -	-		16.9
- 1.5- - -		Clay - brown, stiff, moist, high plasticity - trace varve of silt at 2.0 m	26.3 37.7
2.0- -			37,0
- -		<ul> <li>Frost present to a depth of 1.0 m.</li> <li>No water seepage or soil sloughing were observed during or after the completion of drilling.</li> <li>Testhole was terminated at 2.1 m.</li> </ul>	
2.5-			



**Project Name: 2008 City of Winnipeg Local Street Renewals** 

Client: KGS Group

Depth of Testhole: 2.1 m

Site: Yale Avenue betwenn Wilton Street to Guelph Street

Logged by: Kurtis Kulchyski

Date Drilled: December 14, 2007

Testhole Location: E.B. Lane, 7.5 m E of property line of 234 / 232 Yale Ave., 1.8 m away from curb

		Subsurface Profile				Laborator	y 1	esting	g		
Depth (m)	Symbol	Description	PL ·	<b>Wate</b>	er <b>Con</b> t	tent (%)  75 1	LL 10	Gravel (%)	Sand (%)	Silt (%)	Clay (%)
0.0		Ground Surface									
0.0-		Asphalt	<b>  </b>				-				
		Granular Base - 20 mm maximum aggregate size		).9 16.5							
0.5-		Silty Clay - black/brown, stiff, moist, high plasticity, trace silt inclusions		22.0							
1.0-	- - - - - - -	Clayey Silt - tan, firm, moist, low plasticity		21.4				0.0	6.2	64.2	29.6
1.5-		Clay - brown, stiff, moist, high plasticity - trace varve of silt at 2.0 m		31.9							
2.0-		<ul> <li>Frost present to a depth of 1.0 m.</li> <li>No water seepage or soil sloughing were observed during or after the completion of drilling.</li> </ul>	_	36	.3						
2.5-		Testhole was terminated at 2.1 m.		!	!						



Date Drilled: December 14, 2007

Logged by: Kurtis Kulchyski

Depth of Testhole: 2.1 m

**Project Name: 2008 City of Winnipeg Local Street Renewals** 

Client: KGS Group

Site: Yale Avenue betwenn Wilton Street to Guelph Street

Testhole Location: W.B. Lane, 3.5 m E of property line of 225 / 221 Yale Ave., 1.8 m away from curb

		Subsurface Profile				Labora	tory <sup>-</sup>	Γestin	g		
Depth (m)	Symbol	Description	PL 0	<b>Wate</b>	er <b>Con</b>	tent (%)  75	LL 110	Gravel (%)	Sand (%)	Silt (%)	Clay (%)
0.0		Ground Surface									
0.0-		Asphalt	1   -		<u>-</u>	<del>-</del>					
-	నించ్దన్నం స్టర్ట్ స్టర్లు నించ్దను	Granular Base - 20 mm maximum aggregate size	9	8   28.4							
- 0.5- -		Silty Clay - black/brown, stiff, moist, high plasticity, trace silt inclusions		25.8				0.8	16.0	31.8	51.4
- - 1.0-		Clayey Silt - tan, firm, moist, low plasticity, varved with clay		25.1							
- - -		Clay - brown, stiff, moist, high plasticity, trace varves of silt		24.5							
1.5- - -				29.7	3.2						
2.0-					0.8						
- - 2.5-		<ul> <li>Frost present to a depth of 1.0 m.</li> <li>No water seepage or soil sloughing were observed during or after the completion of drilling.</li> <li>Testhole was terminated at 2.1 m.</li> </ul>									











# ROSEDALE AVENUE NASSAU STREET TO OSBORNE STREET 2008 CITY OF WINNIPEG LOCAL STREETS RENEWALS PROGRAM

Prepared for KGS Group 3<sup>rd</sup> Floor, 865 Waverley Street Winnipeg, Manitoba R3T 5P4

Prepared by

The National Testing Laboratories Limited

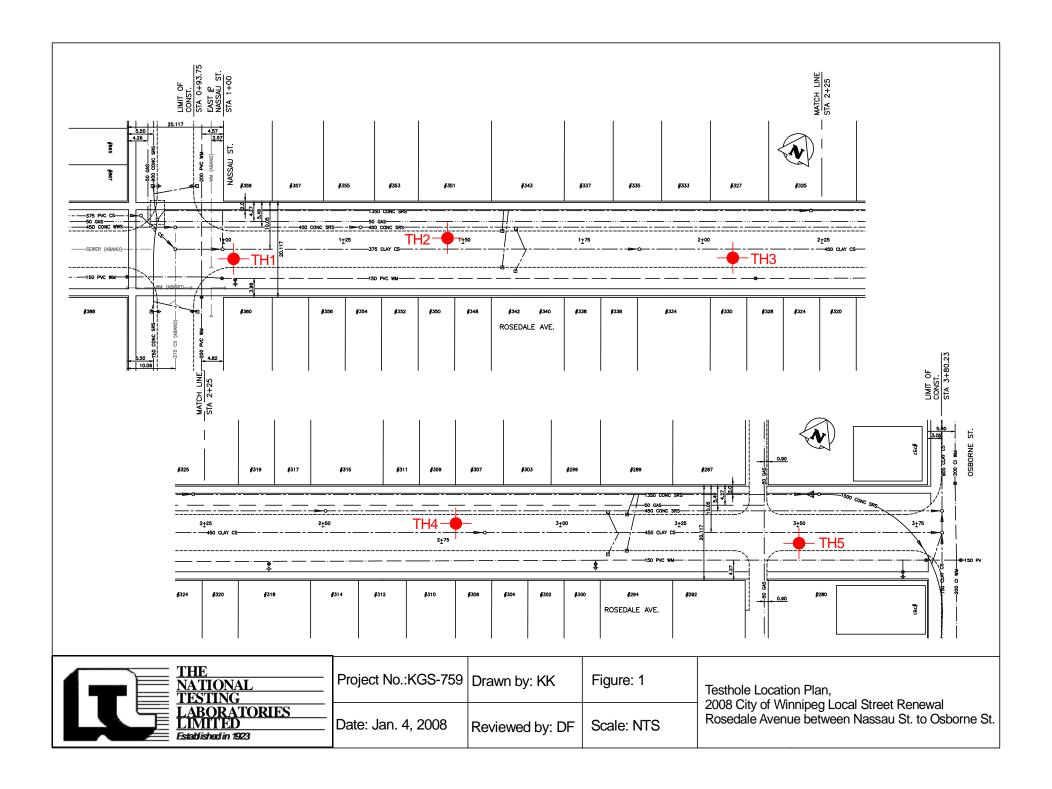
199 Henlow Bay

Winnipeg, Manitoba

R3Y 1G4

### Rosedale Avenue Nassau Street to Osborne Street 2008 Local Street Renewals Program Geotechnical Investigation

Taathala		Pavement S	urface	Pavement S	tructure Material	Commis	Sample	Moisture	Part	ticle Size	Analys	sis	Atterberg Limits		
Testhole ID	Testhole Location	Туре	Thickness (mm)	Туре	Thickness (mm)	Sample Description	Depth (m)	Content (%)	Gravel (%)	Sand (%)	Silt (%)	Clay (%)	Liquid Limit	Plastic Limit	Plasticity Index
	EB lane, 3.3 m east of the west propery line of 360 Rosedale Avenue, 1.8 m away from curb	Asphalt/Concrete	125/175	N/A	-	N/A	N/A	•	1	-		-	-	-	-
TH2	WB lane, 5.9 m east of the property line of 353 / 351 Rosedale Avenue, 1.8 m away from curb	Asphalt/Concrete	25/195	N/A	-	Clay	0.6	37.5	0.0	1.8	15.3	82.9	98	29	69
	EB lane, 2.7 m west of the propery line of 330 / 328 Rosedale Avenue, 1.8 m away from curb	Asphalt/Concrete	27/213	N/A	-	Clayey Silt	1.2	28.6	0.0	2.3	58.2	39.5	37	17	20
TH4	WB lane, 0.1 m east of the property line of 309 / 307 Rosedale Avenue, 1.8 m away from curb	Asphalt/Concrete	25/205	N/A	-	N/A	N/A	-	-	-	-	-	-	-	-
	EB lane, 6.6 m east of the west propery line of 280 Rosedale Avenue, 1.8 m away from curb	Asphalt/Concrete	35/190	N/A	-	N/A	N/A	-	-	1	-	1	-	-	-





**Project Name: 2008 City of Winnipeg Local Street Renewals** 

Client: KGS Group

Depth of Testhole: 2.1 m

Date Drilled: December 18, 2007

Site: Rosedale Avenue between Nassau St. to Osborne St. Logged by: Kurtis Kulchyski Testhole Location: E.B. Lane, 3.3 m E of W property line of 360 Rosedale Ave., 1.8 m away from curb

		Subsurface Profile	Laboratory Testing
Depth (m)	Symbol	Description	Water Content (%) 0 20 40 60 80 100
0.0-		Ground Surface	
0.0-		Asphalt	
-	#C9#13#C9#	Concrete	35.5
- 0.5- -		Clay - black, stiff, moist, high plasticity - brown, trace silt inclusions below 1.0 m	36.4
- 1.0- -			33.9
- - 1.5 - -			40.6
2.0-			47.3
- - -		<ul> <li>Frost present to a depth of 1.0 m.</li> <li>No water seepage or soil sloughing were observed during or after the completion of drilling.</li> <li>Testhole was terminated at 2.1 m.</li> </ul>	
2.5-			



**Project Name: 2008 City of Winnipeg Local Street Renewals** 

Client: KGS Group

Site: Rosedale Avenue Between Nassau St. to Osborne St.

Testhole Location: W.B. Lane, 5.9 m E of property line of 353 / 351 Rosedale Ave., 1.8 m away from curb

Date Drilled: December 14, 2007

Depth of Testhole: 2.1 m Logged by: Kurtis Kulchyski

		Subsurface Profile				Laboratory	Γestin	g		
Depth (m)	Symbol	Description	PL 0	<b>Wate</b>	r <b>Con</b>	tent (%) LL 75 110	Gravel (%)	Sand (%)	Silt (%)	Clay (%)
0.0-	<b>44884</b>	Ground Surface  Asphalt - Felt Fabric was present underneath the Asphalt layer  Concrete - severely delaminated		23.6	3					
0.5-		( rubble appeared as a mixture of clay and granular )  Clay - black/grey, stiff, moist, high plasticity		37			0.0	1.8	15.3	82.9
1.0-		Clayey Silt - tan, firm, moist, low plasticity - varved with clay below 1.5 m		23/0						
1.5-	-			22.1						
2.0-		Clay - brown, stiff, moist, high plasticity  • Frost present to a depth of 0.9 m. • No water seepage or soil sloughing were observed during or after the completion of drilling. • Testhole was terminated at 2.1 m.		38.4	1					



**Project Name: 2008 City of Winnipeg Local Street Renewals** 

Client: KGS Group Site: Rosedale Avenue Between Nassau St. to Osborne St. Depth of Testhole: 2.1 m Logged by: Kurtis Kulchyski

Date Drilled: December 14, 2007

Testhole Location: E.B. Lane, 2.7 m W of property line of 330 / 328 Rosedale Ave., 1.8 m away from curb

		Subsurface Profile				Labora	tory <sup>-</sup>	Γestin	g		
Depth (m)	Symbol	Description	PL ·	<b>Wate</b> 25	er <b>Con</b>	t <b>ent (%)</b> 75	LL 110	Gravel (%)	Sand (%)	Silt (%)	Clay (%)
0.0-		Ground Surface							0,	0,	
0.0-		Asphalt									
-		Concrete									
-		Clay - black, stiff, moist, high plasticity									
0.5-				37	7.9						
-											
-				35	.5						
1.0-											
-		Clayey Silt - tan, firm, moist, low plasticity		28.6				0.0	2.3	58.2	39.5
1.5-		Clay - brown, stiff, moist, high plasticity, trace varves of silt		38	8.8						
-				4	0.0						
-											
2.0-				 	44.6						
-	-	<ul> <li>Frost present to a depth of 0.9 m.</li> <li>No water seepage or soil sloughing were observed during or after the completion of drilling.</li> </ul>									
2.5-		Testhole was terminated at 2.1 m.		į	į	į					



**Project Name: 2008 City of Winnipeg Local Street Renewals** 

Client: KGS Group Site: Rosedale Avenue between Nassau St. to Osborne St. Depth of Testhole: 2.1 m Logged by: Kurtis Kulchyski

Date Drilled: December 14, 2007

Testhole Location: W.B. Lane, 0.1 m E of property line of 309 / 307 Rosedale Ave., 1.8 m away from curb

		Subsurface Profile		Labo	ratory Te	sting
Depth (m)	Symbol	Description	0	<b>W</b> 20	ater Cont (%) 40 60	
0.0		Ground Surface	+			
0.0-		Asphalt	$\exists \lceil$			
=		Concrete				
-					35.7	
-		Clay	$\dashv$		•	
_		- black, stiff, moist, high plasticity		į		
0.5-		- grey/brown, trace silt inclusions below 0.6 m				
0.0				i	37 9	
-					<i>•</i>	
-				İ		į
-					/	
_			41	/		
1.0-		Clayey Silt - tan, firm, moist, low plasticity		17/4		
1.0		tan, mm, moist, low plasticity	Ш	Ţ		
-	<del>-</del>					
-	//////	Clay	$\dashv$		3.5	
-		- brown, stiff/firm, moist, high plasticity, trace varves of silt			Y	
_						
1.5-					40.2	
1.5			Ш			
_						
-					43.1	
-					19.1	
_						
2.0-						
2.0					40.8	
-			$\exists 1$			
-		• Frost present to a depth of 0.9 m.				
-	-	<ul> <li>No water seepage or soil sloughing were observed during or after the completion of drilling.</li> </ul>				
_		Testhole was terminated at 2.1 m.		!		
2.5-						



**Project Name: 2008 City of Winnipeg Local Street Renewals** 

Client: KGS Group Site: Rosedale Avenue between Nassau St. to Osborne St. Depth of Testhole: 2.1 m Logged by: Kurtis Kulchyski

Date Drilled: December 14, 2007

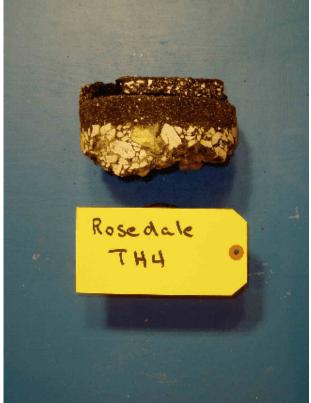
Testhole Location: E.B. Lane, 6.6 m E of W. property line of 280 Rosedale Ave., 1.8 m away from curb

		Subsurface Profile	Laboratory Testi	ing
Depth (m)	Symbol	Description	Water Conten (%) 0 20 40 60 8	
0.0-		Ground Surface		
0.0-		Asphalt		
-		Concrete		
- - 0.5		Clay - black, stiff, moist, high plasticity - trace rootlets and fine gravel observed near the surface	38.9 36.6	
- - - 1.0-		Clayey Silt - tan/light grey, firm, moist, low plasticity	22/9	
- - - 1.5-			21.7	
- - 2.0-		Clay - grey/brown, stiff, moist, high plasticity, trace varves of silt to 2.0 m	31.3	
- - -		<ul> <li>Frost present to a depth of 0.9 m.</li> <li>No water seepage or soil sloughing were observed during or after the completion of drilling.</li> <li>Testhole was terminated at 2.1 m.</li> </ul>		
2.5-				









Note: Complete core samples of the pavement structure were not retrieved at every location. The condition of the concrete made retrieval of the sample impractical. The pavement structure was penetrated with a carbide bit during the investigation.



# RUE ST. PIERRE ST. THERESE AVENUE TO AVENUE DU COUVENT 2008 CITY OF WINNIPEG LOCAL STREETS RENEWALS PROGRAM

Prepared for KGS Group 3<sup>rd</sup> Floor, 865 Waverley Street Winnipeg, Manitoba R3T 5P4

Prepared by

The National Testing Laboratories Limited

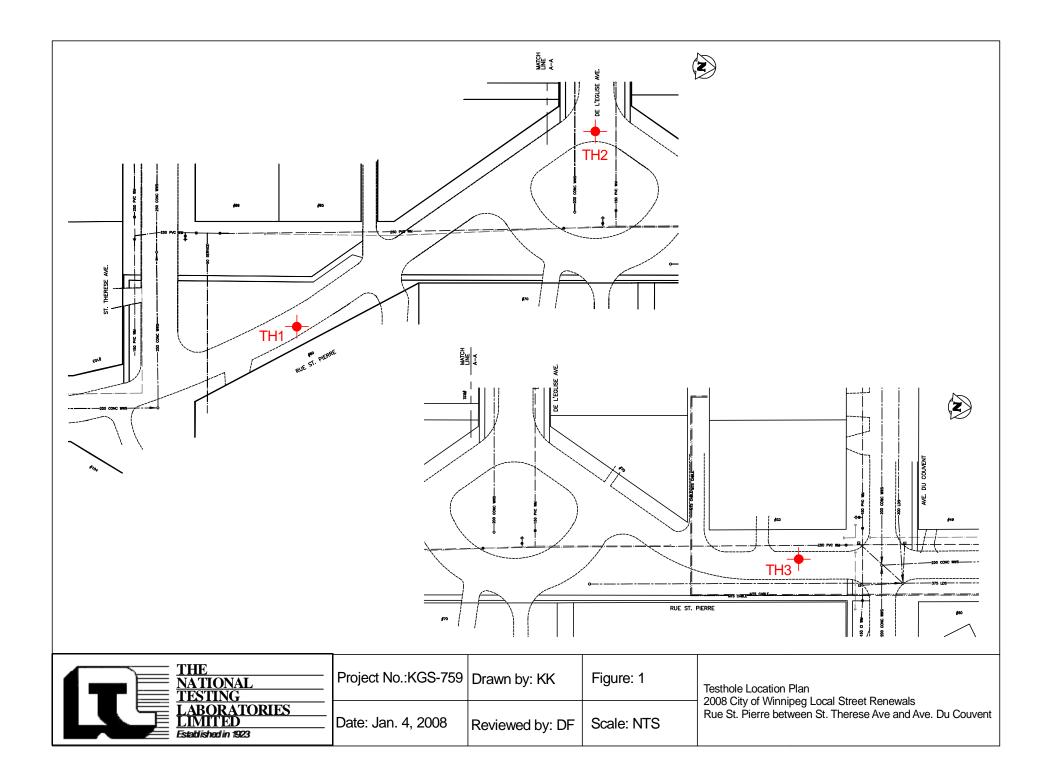
199 Henlow Bay

Winnipeg, Manitoba

R3Y 1G4

### Rue St. Pierre St. Therese Avenue to Avenue Du Couvent 2008 Local Street Renewals Program Geotechnical Investigation

Testhole		Pavement Surface		Pavement Structure Material		Commis	Sample	Moisture	Pai	rticle Size	Analy	sis	At	terberg Li	mits
ID	Testhole Location	Туре	Thickness (mm)	Туре	Thickness (mm)	Sample Description	Depth (m)	Content (%)	Gravel (%)	Sand (%)	Silt (%)	Clay (%)	Liquid Limit	Plastic Limit	Plasticity Index
TH1	NB Lane, 40 m N of the intersection with St. Therese Avenue, 1.5 m away from curb	Asphalt	130	Granular	320	Clay	0.6	32	0.1	8.8	24.8	66.3	65	23	42
I IH2	2.5 m west of the westerley edge of the traffic circle	Asphalt	95	Granular	205	Clayey Silt	1.2	23.8	0.0	6.6	62.2	31.2	29	17	12
	SB Lane, 6.5 m N of the driveway of 53 Rue St. Pierre, 1.8 m away from curb	Asphalt	130	Granular	327	N/A	N/A	-	-	•	-	-	-	ı	-





**Project Name: 2008 City of Winnipeg Local Street Renewals** 

Client: KGS Group Site: Rue St. Pierre between St. Therese Ave. to Ave. Du Couvent Depth of Testhole: 2.1 m Logged by: Kurtis Kulchyski

Date Drilled: December 14, 2007

Testhole Location: N.B. Lane, 40 m N of intersection with St. Therese Ave., 1.5 m away from curb

		Subsurface Profile	Laboratory Testing										
Depth (m)	Symbol	Description	PL 0		er Con	tent (% 75	<b>)</b> LL 110	Gravel (%)	Sand (%)	Silt (%)	Clay (%)		
0.0		Ground Surface		I					0,	0,			
0.0-		Asphalt											
- - -		Granular Base - 20 mm maximum aggregate size	5.	6									
0.5-		Clay - grey, stiff, moist, high plasticity		32.	0	 		0.1	8.8	24.8	66.3		
1.0-				30.2	2								
- - - 1.5		Clayey Silt - tan, firm, moist, low plasticity		21/9									
- - - 2.0-		Clay - brown, stiff, moist, high plasticity		33.	9.9								
- - - 2.5	-	<ul> <li>Frost present to a depth of 0.9 m.</li> <li>No water seepage or soil sloughing were observed during or after the completion of drilling.</li> <li>Testhole was terminated at 2.1 m.</li> </ul>			•								

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**Project Name: 2008 City of Winnipeg Local Street Renewals** 

Client: KGS Group

Site: Rue St. Pierre between St. Therese Ave. to Ave. Du Couvent

Testhole Location: 2.5 m W of the westerly edge of the Traffic Circle

Date Drilled: December 14, 2007

Depth of Testhole: 2.1 m Logged by: Kurtis Kulchyski

		Subsurface Profile	Laboratory Testing									
Depth (m)	Symbol	Description	PL ·	<b>Wate</b>	er <b>Con</b>	tent (% 75	) LL 110	Gravel (%)	Sand (%)	Silt (%)	Clay (%)	
0.0		Ground Surface										
0.0-		Asphalt		<del>-</del>		<u>T</u>						
-	ನೆಂದ್ದಿನ್ ೧೦೪೪ ನಂದ್ರನಂ	Granular Base - 20 mm maximum aggregate size	6.2	2								
- 0.5- -		Clay - black/grey, stiff, moist, high plasticity		28.0								
- - 1.0-				38	3.6							
- - -		Clayey Silt - tan, firm, moist, low plasticity		23/8				0.0	6.6	62.2	31.2	
1.5-												
- - 2.0-		Clay - brown, stiff, moist, high plasticity		36	.4							
- - - 2.5		<ul> <li>Frost present to a depth of 1.1 m.</li> <li>No water seepage or soil sloughing were observed during or after the completion of drilling.</li> <li>Testhole was terminated at 2.1 m.</li> </ul>										



**Project Name: 2008 City of Winnipeg Local Street Renewals** 

**Client: KGS Group** 

Depth of Testhole: 2.1 m

Site: Rue St. Pierre between St. Therese Ave. to Ave. Du Couvent

Logged by: Kurtis Kulchyski

Date Drilled: December 14, 2007

Testhole Location: S.B. Lane, 6.5 m N of driveway of 53 Rue St. Pierre, 1.8 m away from curb

		Subsurface Profile	Laboratory Testing
Depth (m)	Symbol	Description	Water Content (%) 0 20 40 60 80 100
0.0		Ground Surface	
0.0-		Asphalt	
-	%00%0c %00%0c %00%0c	Granular Base - 20 mm maximum aggregate size	5.3
0.5-		Clay - black/brown, stiff, moist, high plasticity - brown below 1.7 m	30.6
1.0- - -			29.8 32.3
- 1.5- -			30.0
2.0-			37.1
- - -		<ul> <li>Frost present to a depth of 1.0 m.</li> <li>No water seepage or soil sloughing were observed during or after the completion of drilling.</li> <li>Testhole was terminated at 2.1 m.</li> </ul>	
2.5-			











# BALMORAL STREET PORTAGE AVENUE TO ELLICE AVENUE 2008 CITY OF WINNIPEG LOCAL STREETS RENEWALS PROGRAM

Prepared for KGS Group 3<sup>rd</sup> Floor, 865 Waverley Street Winnipeg, Manitoba R3T 5P4

Prepared by

The National Testing Laboratories Limited

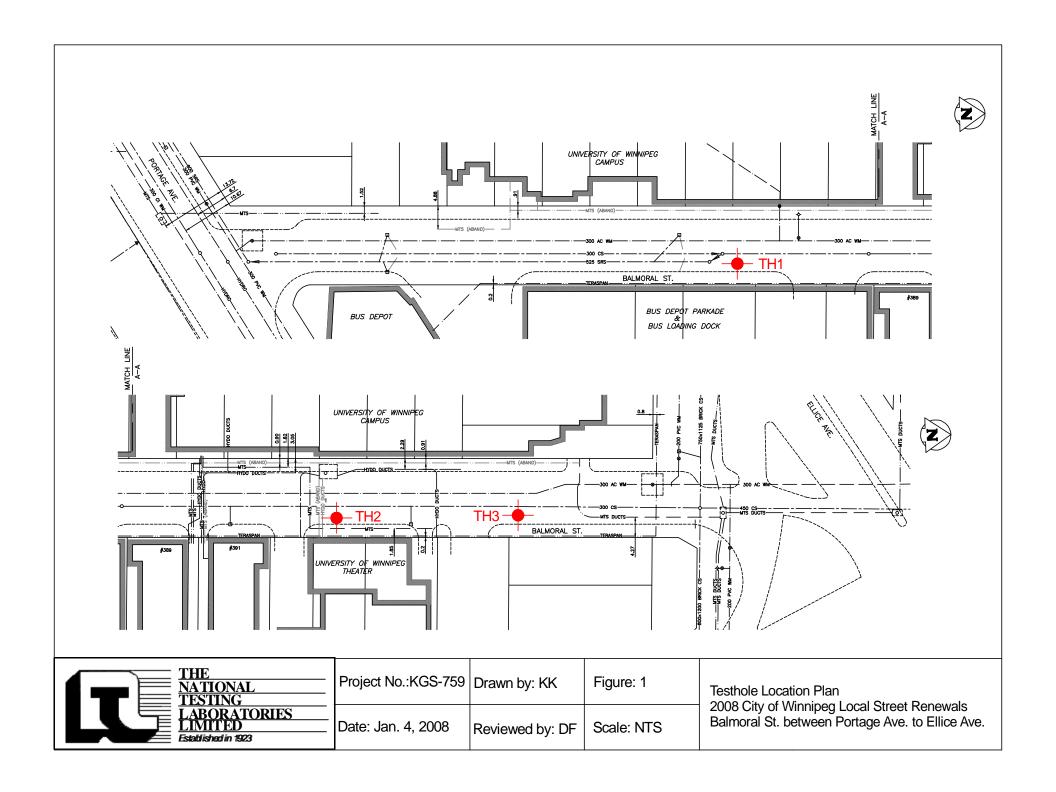
199 Henlow Bay

Winnipeg, Manitoba

R3Y 1G4

### Balmoral Street Portage Avenue to Ellice Avenue 2008 Local Street Renewals Program Geotechnical Investigation

Tablesia		Pavement Surface		Pavement Structure Material		la	Sample	Moisture	Particle Size Analysis				Atterberg Limits		
Testhole ID	Testhole Location	Туре	Thickness (mm)	Туре	Thickness (mm)	Sample Description	Depth (m)	Content (%)	Gravel (%)	Sand (%)	Silt (%)	Clay (%)	Liquid Limit	Plastic Limit	Plasticity Index
I H1	E. Curb Lane, 28 m N of the NW corner of the Bus Depot Parkade, 1.7 m away from curb	Concrete	190	Granular	710	N/A	N/A	1	-	-	-	ı	-	-	-
TH2	E. Curb Lane, 6.5 m N of the SW corner of the U of W Theater, 1.7 m away from curb	Concrete	230	Granular	670	Silty Clay	1.2	24.6	0.0	6.5	35.2	58.3	46	18	28
TH3	E. Curb Lane, 20 m N of the NW corner of the U of W Theater, 2.0 m away from curb	Concrete	200	Granular	867	N/A	N/A	-	-	-	-	1	-	-	-





Date Drilled: December 18, 2007

Depth of Testhole: 2.1 m

**Project Name: 2008 City of Winnipeg Local Street Renewals** 

Client: KGS Group

Site: Balmoral Street between Portage Avenue to Ellice Avenue Logged by: Kurtis Kulchyski

Testhole Location: E.Curb Lane, 28 m N of the NW corner of Bus Depot Parkade, 1.7 m away from curb

		Subsurface Profile	Laboratory Testing
Depth (m)	Symbol	Description	Water Content (%) 0 20 40 60 80 100
0.0		Ground Surface	
0.0-		Concrete	
- 0.5- - -		Granular Base - 20 mm maximum aggregate size Note: 75 mm leveling lift of 20 mm down limestone was observed between the concrete and granular base	8.1
1.0- - -		Silty Clay - brown, stiff, moist, high plasticity, trace varves of silt	32.4
- 1.5- - -			36.2 45.5
- 2.0- -		Frank and the school and the school and	49.4
- - 2.5-		<ul> <li>Frost present to a depth of 1.1 m.</li> <li>No water seepage or soil sloughing were observed during or after the completion of drilling.</li> <li>Testhole was terminated at 2.1 m.</li> </ul>	



Date Drilled: December 18, 2007

**Project Name: 2008 City of Winnipeg Local Street Renewals** 

**Client: KGS Group** 

Depth of Testhole: 2.1 m Site: Balmoral Street between Portage Avenue to Ellice Avenue Logged by: Kurtis Kulchyski

Testhole Location: E.Curb Lane, 6.5 m N of the SW corner of U of W Theater, 1.7 m away from curb

	· · · · · · · ·	Subsurface Profile	Laboratory Testing									
Depth (m)	Symbol	Description	PL 0	<b>Wate</b>	er <b>Con</b> t	t <b>ent (%</b> 75	) LL 110	Gravel (%)	Sand (%)	Silt (%)	Clay (%)	
0.0-		Ground Surface	#									
	<u> </u>	Concrete  Granular Base										
0.5-	00000000000000000000000000000000000000	- 20 mm maximum aggregate size Note: 50 mm levelling lift of 20 mm down limestone was observed between the concrete and granular base	4 5.									
1.0-		Silty Clay - brown, stiff, moist, high plasticity, trace varves of silt		24.6				0.0	6.5	35.2	58.3	
1.5-				36	44.1							
2.0-					53.5							
2.5-	-	<ul> <li>Frost present to a depth of 1.0 m.</li> <li>No water seepage or soil sloughing were observed during or after the completion of drilling.</li> <li>Testhole was terminated at 2.1 m.</li> </ul>										



**Project Name: 2008 City of Winnipeg Local Street Renewals** 

Client: KGS Group

Depth of Testhole: 2.1 m

Site: Balmoral Street Between Portage Avenue to Ellice Avenue

Logged by: Kurtis Kulchyski

Date Drilled: December 18, 2007

Testhole Location: E.Curb Lane, 20 m N of the NW corner of U of W Theater., 2.0 m away from curb

		Subsurface Profile	Laboratory Testing
Depth (m)	Symbol	Description	Water Content (%) 0 20 40 60 80 100
0.0		Ground Surface	
0.0-		Concrete	
- 0.5- - - -		Granular Base - 20 mm maximum aggregate size Note: 50 mm leveling lift of 20 mm down limestone was observed between the concrete and granular base - granular becomes grey with and increased clay binder content with depth / odour observed	7.0 8 1 14.2
1.0- - -	60% 60c	Silty Clay - grey/brown, stiff, moist, high plasticity - brown below 1.4 m - trace layer ofsilt at 2.0 m	32.4
1.5- - - -			36.2 45.5
2.0-			49.4
-		<ul> <li>Frost present to a depth of 1.3 m.</li> <li>No water seepage or soil sloughing were observed during or after the completion of drilling.</li> <li>Testhole was terminated at 2.1 m.</li> </ul>	
2.5-	1		







