THE
NATIONAL
TESTING
LABORATORIES
LIMITED

GEOTECHNICAL INVESTIGATION FOR BUS RAPID TRANSIT SYSTEM SOUTHWESTERN TRANSIT CORRIDOR

Prepared for
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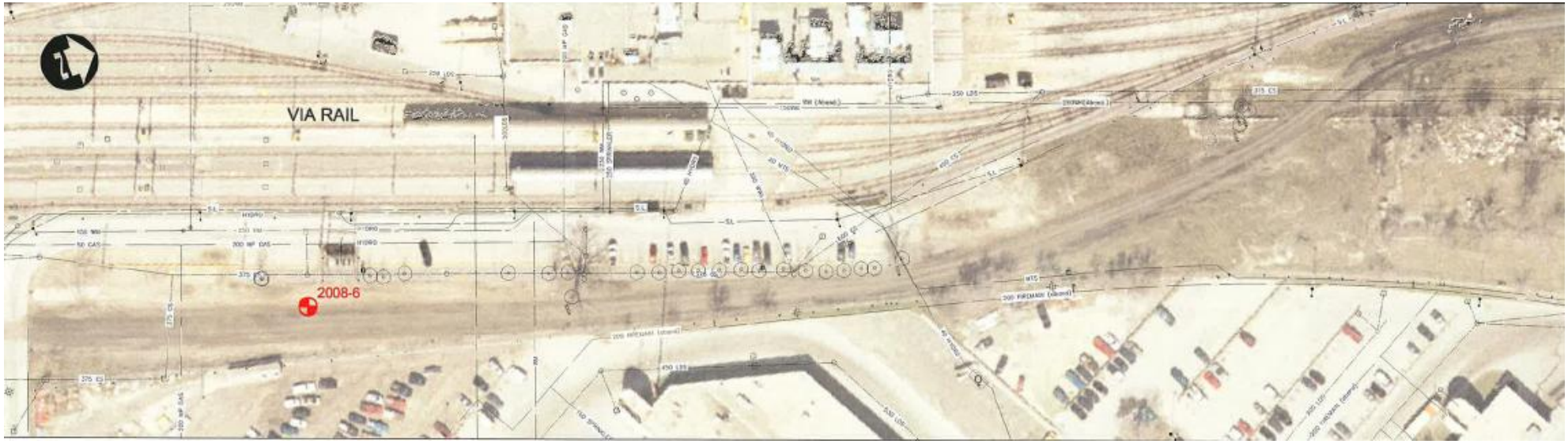
November 30, 2008

THE NATIONAL TESTING LABORATORIES LIMITED *Established in 1923*	Project No.:DIL-812	Drawn by: KK	Figure: 1	Testhole Location Plan Bus Rapid Transit System Southwestern Transit Corridor Winnipeg, MB
	Date: Nov 13, 2008	Reviewed by: DF	Scale: NTS	



THE NATIONAL TESTING LABORATORIES LIMITED *Established in 1923*	Project No.:DIL-812	Drawn by: KK	Figure: 3	Testhole Location Plan Bus Rapid Transit System Southwestern Transit Corridor Winnipeg, MB
	Date: Nov 13, 2008	Reviewed by: DF	Scale: NTS	

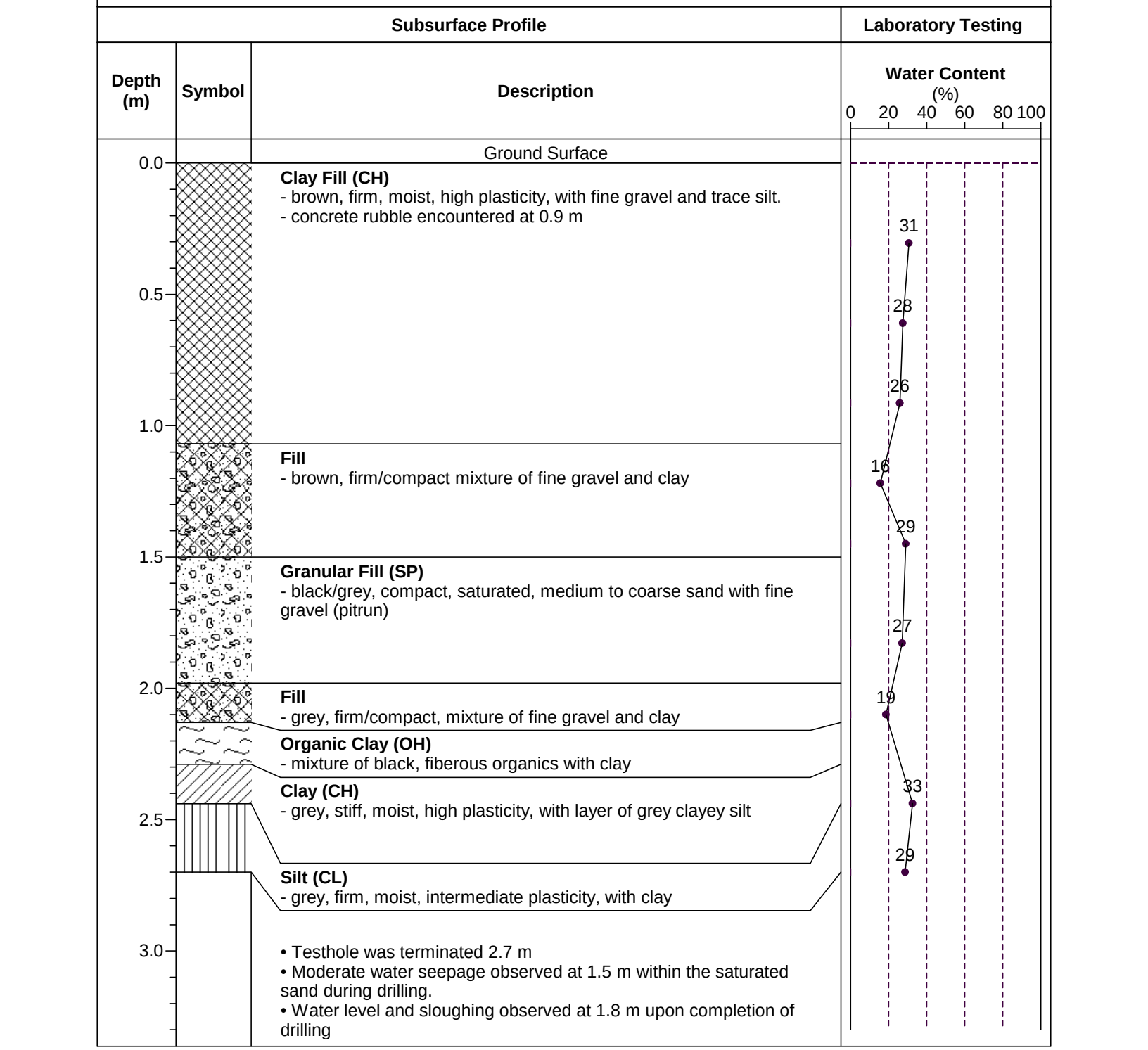
TABLE 1
TESTHOLE LOCATIONS
BUS RAPID TRANSIT SYSTEM
SOUTHWESTERN TRANSIT CORRIDOR

Testhole ID	UTM Co-ordinate	General Description
2008-1	632930 E / 5524146 N	Berwick Athletic Field (West side of Soccer Field)
2008-2	633076 E / 5524483 N	CNR Fort Rouge Yards
2008-3	633140 E / 5524665 N	CNR Fort Rouge Yards
2008-4	633207 E / 5524857 N	CNR Fort Rouge Yards
2008-5	633276 E / 5525020 N	CNR Fort Rouge Yards
2008-6	633471 E / 5525490 N	CNR Fort Rouge Yards
2008-7	633600 E / 5526274 N	Jessie Avenue
2008-8	633883 E / 5526945 N	Lagopoulus Way
2008-9	633974 E / 5527056 N	Between Stradbrook and CNR Rivers
2008-10	634096 E / 5527211 N	Between Stradbrook and CNR Rivers
2008-11	634169 E / 5527322 N	Between Stradbrook and CNR Rivers
2008-D1	633585 E / 5526390 N	Corydon Avenue
2008-D2	633669 E / 5526486 N	Donald Street
2008-D3	633641 E / 5526544 N	McMillan Avenue
2008-D4	633710 E / 5526587 N	Donald Street
2008-D5	633768 E / 5526749 N	Between Donald Street and CNR Rivers
2008-H1	633925 E / 5527037 N	Stradbrook Avenue
2008-H2	633981 E / 5527097 N	Stradbrook Avenue
2008-H3	634015 E / 5527134 N	Harkness Avenue

TESTHOLE 2008-4

Project Name: Bus Rapid Transit System
Client: Dillon Consulting Ltd.
Site: Southwestern Transit Corridor
Testhole Location: 633207 E / 5524857 N - CNR Fort Rouge Yards

Date Drilled: October 22, 2008
Depth of Testhole: 2.7 m
Logged by: Kurtis Kulchyski

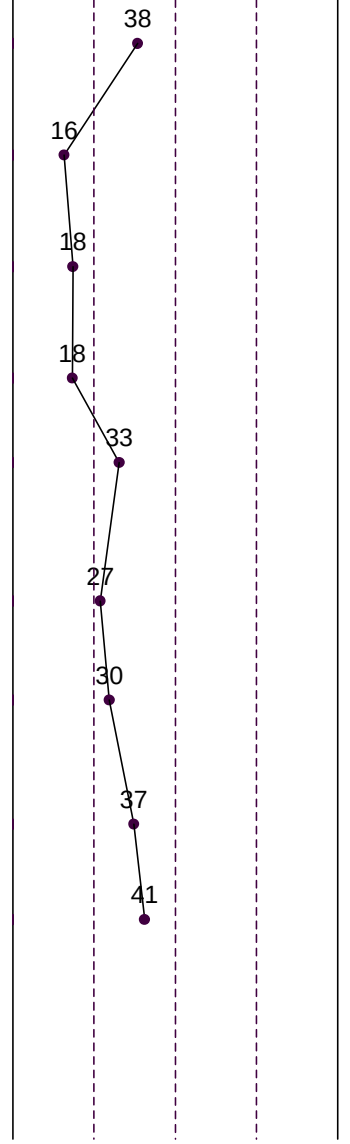


TESTHOLE 2008-5

Project Name: Bus Rapid Transit System
Client: Dillon Consulting Ltd.
Site: Southwestern Transit Corridor
Testhole Location: 633276 E / 5525020 N - CNR Fort Rouge Yards

Date Drilled: October 22, 2008
Depth of Testhole: 2.7 m
Logged by: Kurtis Kulchyski

Subsurface Profile			Laboratory Testing				
Depth (m)	Symbol	Description	Water Content (%) PL ---------- LL (0 25 50 75 100)	Gravel (%)	Sand (%)	Silt (%)	Clay (%)
0.0		Ground Surface					
		Granular Base (SW) - grey, dense, moist, fine to coarse sand with fine gravel					
		Fill - brown, firm/compact mixture of fine gravel and clay					
0.5		**Granular Fill (SM)** - tan, compact, saturated, fine to medium sand, trace fine gravel (pitrun)					
1.0				0	88.0	8.5	3.5
1.5		**Organic Clay (OL)** - mixture of black, fiberous organics with clayey silt					
		Clay (CH) - light grey, stiff, moist, intermediate plasticity, with silt - high plasticity below 1.8 m - brown below 2.6 m					
2.0							
2.5							
3.0		• Testhole was terminated 2.7 m • Heavy water seepage observed at 0.5 m within the saturated sand during drilling. • Water level and sloughing observed at 0.6 m upon completion of drilling					



TESTHOLE 2008-6

Project Name: Bus Rapid Transit System
Client: Dillon Consulting Ltd.
Site: Southwestern Transit Corridor
Testhole Location: 633471 E / 5525490 N - CNR Fort Rouge Yards

Date Drilled: October 22, 2008
Depth of Testhole: 2.4 m
Logged by: Kurtis Kulchyski

Depth (m)	Symbol	Description
		Ground Surface
0.0		**Granular Base (SW)** - tan, dense, moist, fine to coarse sand with fine gravel
		Clay Fill (CH) - black, stiff, moist, high plasticity, some fine gravel - brown with silt inclusions below 0.3 m
0.5		
1.0		**Clay (CH)** - black/brown, stiff, moist, high plasticity
1.5		**Silt (CL-ML)** - tan, firm, moist, low plasticity, some clay
2.0		**Clay (CH)** - brown, stiff, moist, high plasticity, with trace layers of silt
2.5		• Testhole was terminated 2.4 m • No water seepage or sloughing were observed during or upon completion of drilling
3.0		

Laboratory Testing

Water Content (%)

PL ---------- LL
0 25 50 75 100