SOIL BORING LOG

O'BRIEN & ASSOCIATES, INC.
CONSULTING ENGINEERS
1235 E. DAVIS ST./ARLINGTON HTS., IL 60005
(847)398-1441 * FAX(847) 398-2376

PAGE 1 of 2
DATE August 18, 2011
LOGGED BY AO
OBA JOB No. 11585

ROUTE Mannheim Road
DESCRIPTION I-190 Collector-Culvert
SECTION Sectionxx
LOCATION Mannheim Road Reconstruction, I-190 to North of Higgins, Chicago, IL
COUNTY Cook
DRILLING METHOD Rotary Mud
HAMMER TYPE CME Automatic

STRUCT. NO. xx
Station xx
BORING NO. CB-01
Station 140+04
Offset 115 ft Left
Ground Surface Elev. 639.2 ft

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter n/a
Upon Completion n/a
After n/a Hrs. n/a

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
6.0" Black TOPSOIL FILL	638.7				
SILTY CLAY-brown & black-hard (A-6) Fill			4		
			7 9	4.5+P	20
	635.7				
Black TOPSOIL wet			3		
		-5	5 7	3.25P	26
	633.2				
SILTY CLAY-brown & gray-stiff to hard (A-6)			3		102
			5 6	2.9B	21
			3		103
		-10	3 3	1.0B	23
			4		113
			8 14	4.6B	16
	625.7				
CLAY-gray-stiff to hard (A-6)			5		103
		-15	7 10	4.1B	23
			8		
			13 13	4.5+P	13
			4		116
		-20	4 6	3.5B	15
CLAY-gray-stiff to hard (A-6)			3		112
			4 5	1.2B	17
			6		109
		-25	6 8	1.8B	19
			5		113
			8 14	5.3B	17
	610.7				
SILTY LOAM-gray-dense to very dense (A-4)			18		
		-30	29 32	NP	13
			12		
		-35	14 19	NP	13
	600.7				
SILTY CLAY-gray-hard (A-6)			8		121
		-40	14 16	9.1B	13

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) NP=Non-Plastic VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery LL=Liquid Limit PL=Plastic Limit PI=Plasticity Index

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After n/a Hrs. n/a

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SILTY CLAY-gray-hard (A-6)					
			11		127
		-45	19 23	5.9B	11
			19		122
	589.2	-50	21 23	6.1B	13
End of Boring @ -50.0'					
4.0" Hollow Stem to -6.0'					
Rotary Drilling Started at -6.0'					
CME Automatic Hammer					
		-55			
		-60			
		-65			
		-70			
		-75			
		-80			

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FILE NAME = c:\caddlib\pw\kkhan\great_lakes\dms47849\60P35-S5-Soil Borings 1.dgn	USER NAME = kkhan	DESIGNED - SK	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
DELTA ENGINEERING GROUP, LLC	PLOT SCALE = $SCALE$	DRAWN - SK	REVISED -	
	PLOT DATE = 10/10/2012	CHECKED - GBC	REVISED -	
		DATE - 06/25/12	REVISED -	

MANNHEIM RD OVER O'HARE DITCH CULVERT
SOIL BORING LOGS 1

SCALE: SHEET NO. OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	0105-WRS	COOK	537	324
		CONTRACT NO. 60P35		
	ILLINOIS	FED. AID PROJECT		