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

SOIL BORING LOG

PAGE 1 of 2
DATE September 1, 2011
LOGGED BY TOB
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 2.25" Hollow Stem Auger
HAMMER TYPE Diedrich Automatic

STRUCT. NO. xx
Station xx
BORING NO. CB-03
Station 140+74
Offset 63.9 ft Right
Ground Surface Elev. 641.2 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	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Black TOPSOIL	640.2			
		1		103
		1 2	0.6B	22
SILTY CLAY-brown & gray- medium stiff to stiff (A-6)		2		109
	-5	2 3	1.5B	18
		2		
		1 1	1.5P	27
		2		108
	-10	3 5	2.0B	21
	630.2			
SILTY LOAM-gray- medium dense (A-4)		3 4 6	NP	23
	627.7			
		5		111
	-15	7 12	2.8B	19
		5		
CLAY-gray- very stiff to hard (A-6)		7 8	2.5P	18
		5		118
	-20	6 10	2.8B	16

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
CLAY-gray- very stiff to hard (A-6)		4		114
		5 8	2.6B	17
		4		109
	-25	5 8	2.9B	20
		6		120
		8 12	4.6B	15
		7		107
	-30	7 10	2.0B	21
	607.7			
		12		
SILTY LOAM-gray- medium dense (A-4)	-35	12 16	NP	11
	602.7			
		5		119
SILTY CLAY-gray- very stiff to hard (A-6)	-40	7 13	3.0B	15

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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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 Diedrich Automatic

STRUCT. NO. xx
Station xx
BORING NO. CB-03
Station 140+74
Offset 63.9 ft Right
Ground Surface Elev. 641.2 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	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SILTY CLAY-gray- very stiff to hard (A-6)				
		4		109
	-45	9 15	4.8B	11
		5		131
	591.2 -50	10 13	7.7B	11
End of Boring @ -50.0' 4.0" Hollow Stem to -6.0' Rotary Drilling Started at -6.0' Diedrich Automctic Hammer	-55			
	-60			
	-65			
	-70			
	-75			
	-80			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) NP=Non-Plastic VS=Vane Shear Test
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NR-No Recovery LL=Liquid Limit PL=Plastic Limit PI=Plasticity Index

FILE NAME = c:\caddlib\pw\kkhan\great_lakes\dms47849\60P35-S7-Soil Borings 3.dgn	USER NAME = kkhan	DESIGNED - SK	REVISED -
DELTA ENGINEERING GROUP, LLC	PLOT SCALE = $SCALE$	DRAWN - SK	REVISED -
	PLOT DATE = 10/10/2012	CHECKED - GBC	REVISED -
		DATE - 06/25/12	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MANNHEIM RD OVER O'HARE DITCH CULVERT
SOIL BORING LOGS 3

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	0105-WRS	COOK	537	326
		CONTRACT NO. 60P35		
		ILLINOIS FED. AID PROJECT		