

**BORING LOG 3D-B-14**

WEI Job No.: 201-40-01  
Client: **McDonough Associates Inc.**  
Project: **US 45, Segment 3**  
Location: **Ret. Wall 016-Z005, Cook Co., T36N, R12E**

Datum: NGVD  
Elevation: 671.96 ft  
North: 1611750.25 ft  
East: 1115373.17 ft  
Station: 309+47.20  
Offset: 70.09 RT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	Sample Type	SPT Values (blows/ft)	Cu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	Sample Type	SPT Values (blows/ft)	Cu (tsf)	Moisture Content (%)	
871.0	Brown SILTY CLAY LOAM, some gravel	0								0						
	--FILL--															
	Medium dense, gray CRUSHED STONE (stone size up to 5-inch)	1	1	NP	6 to 8		7			1	11	NP	4 to 6	2.89	15	
	--FILL--															
		2	2	NP	6 to 8		13			2	12	NP	3 to 5	2.46	16	
		3	3	NP	7 to 7		18			3	13	NP	4 to 5	2.54	18	
		4	4	NP	5 to 7		14			4	14	NP	5 to 6	1.15	13	
861.5	CRUSHED STONE with soft, gray SILTY CLAY	10								10						
860.0	Very soft, gray SILTY CLAY Organic Content=4.4%	15	6		0 to 1	0.08	60			15	14		7 to 8	7.63	11	
		7	7		0 to 1	0.25	30			16	16		7 to 8	5.00	12	
854.0	Very soft, gray SILTY CLAY LOAM with sand seams	20	8		2 to 2	0.25	18		830.0	Medium dense, gray FINE SAND	40	14		5 to 5	1.15	13
851.5	Stiff to very stiff, gray SILTY CLAY, trace gravel	25	9		3 to 4	3.69	15			45	15	NP	8 to 12	NP	20	
		10	10		7 to 8	3.25	20			65	19	NP	7 to 8	8	20	
		25	10		7 to 8	3.25	20			70	20	NR	12 to 25			
		50	16		7 to 11	5.00	12			75						

**GENERAL NOTES**

Begin Drilling 08-25-2011 Complete Drilling 08-25-2011  
Drilling Contractor **Groff** Drill Rig **CME ATV**  
Driller **T&K** Logger **B. Wilson** Checked by **C. Marin**  
Drilling Method **3.25" IDA HSA; Boring backfilled upon completion**

**WATER LEVEL DATA**

While Drilling 3.50 ft  
At Completion of Drilling **DRY**  
Time After Drilling **NA**  
Depth to Water **NA**  
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

**BORING LOG 3D-B-14**

WEI Job No.: 201-40-01  
Client: **McDonough Associates Inc.**  
Project: **US 45, Segment 3**  
Location: **Ret. Wall 016-Z005, Cook Co., T36N, R12E**

Datum: NGVD  
Elevation: 671.96 ft  
North: 1611750.25 ft  
East: 1115373.17 ft  
Station: 309+47.20  
Offset: 70.09 RT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	Sample Type	SPT Values (blows/ft)	Cu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	Sample Type	SPT Values (blows/ft)	Cu (tsf)	Moisture Content (%)
		55	17		4 to 5	2.21	12								
615.5	Medium dense, gray SILTY LOAM, little gravel	60	18		11 to 9		13			60					
610.5	Dense, gray LOAM, some gravel	65	19		7 to 18		8			65	19	NP	7 to 21		
604.5	Hard, gray SILTY CLAY, trace gravel	70	20		32 to 25					70	20	NR	12 to 25		
600.5	Boring terminated at 71.50 ft	75	21		12 to 19	7.63	11			75					

**GENERAL NOTES**

Begin Drilling 08-25-2011 Complete Drilling 08-25-2011  
Drilling Contractor **Groff** Drill Rig **CME ATV**  
Driller **T&K** Logger **B. Wilson** Checked by **C. Marin**  
Drilling Method **3.25" IDA HSA; Boring backfilled upon completion**

**WATER LEVEL DATA**

While Drilling 3.50 ft  
At Completion of Drilling **DRY**  
Time After Drilling **NA**  
Depth to Water **NA**  
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

**BORING LOG PBJ-01**

WEI Job No.: 201-40-01  
Client: **McDonough Associates Inc.**  
Project: **US 45, Segment 3**  
Location: **Mainline, Peat Area J, Cook Co., T36N, R12E**

Datum: NGVD  
Elevation: 673.28 ft  
North: 1811649.39 ft  
East: 1115359.00 ft  
Station: 308+46.51  
Offset: 54.72 RT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	Sample Type	SPT Values (blows/ft)	Cu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	Sample Type	SPT Values (blows/ft)	Cu (tsf)	Moisture Content (%)
872.6	Hard, brown SILTY CLAY	1	3		7	4.50	15			1	3	P	9 to 11		
	--FILL--														
	Medium dense, gray CRUSHED STONE (stone size up to 5-inch)	2	11	NP	13 to 10		4			2	11	NP	13 to 10		
	--FILL--														
		3	11	NP	12 to 10		4			3	11	NP	12 to 10		
		4	11	NP	13 to 9		10			4	11	NP	13 to 9		
		5	14	NP	9 to 11		6			5	14	NP	9 to 11		
		6	23	NP	15 to 10		5			6	23	NP	15 to 10		
		7	4	NP	4 to 7		4			7	4	NP	4 to 7		
857.8	Very soft to soft, black and gray SILTY CLAY LOAM, trace organics	8	0		0 to 0	0.16	33			8	0		0 to 0		
	--L <sub>c</sub> (%)=38, P <sub>c</sub> (%)=19--														
	--%Gravel=0.2--														
	--%Sand=3.7--														
	--%Silt=75.4--														
	--%Clay=20.7--														
	--A-6 (17)--														
852.8	Medium stiff to stiff, brown SILTY CLAY	10	3		3 to 6	0.74	19			10	3		3 to 6		
		11	2		3 to 6	1.56	19			11	2		3 to 6		
848.3	Boring terminated at 25.00 ft	25								25					

**GENERAL NOTES**

Begin Drilling 10-18-2010 Complete Drilling 10-18-2010  
Drilling Contractor **WTS** Drill Rig **D 50 ATV**  
Driller **K&K** Logger **C. Davis** Checked by **C. Marin**  
Drilling Method **3.25" IDA HSA; Boring backfilled upon completion**

**WATER LEVEL DATA**

While Drilling 2.50 ft  
At Completion of Drilling **CONTRACT NO. 60M62**  
Time After Drilling **NA**  
Depth to Water **NA**  
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.