BRIDGE FOUNDATION INVESTIGATION REPORT
I-575 over SR 5C (Ernest Barrett Parkway)
Northwest Corridor Project
GDOT Project No. CSNHS-0008-00(256), PI No. 0008256
Cobb County, Georgia

WILLMER ENGINEERING INC.
Project No. ATL-171-3099A

Document No.: ATL-171-3099**A**
Revision: 1
Issue Date: August 22 2008
Document Status: Issued For Use

Prepared For

GEORGIA TRANSPORTATION PARTNERS
Atlanta, Georgia

Prepared By

WILLMER ENGINEERING INC.
3772 Pleasantdale Road
Suite 165
Atlanta, Georgia 30340-4270

770.939.0089

WILLMER ENGINEERING INC. | WE

August 22, 2008

VIA COURIER

Pete M. McMahon, PE
Georgia Transportation Partners
c/o PBS&J, Inc.
5665 New Northside Drive
Suite 400
Atlanta, Georgia 30328

SUBJECT: **Bridge Foundation Investigation Report**
I-575 over SR 5C (Ernest Barrett Parkway)
Northwest Corridor Project
GDOT Project No. CSNHS -0008-00(256), PI No. 0008256
Cobb County, Georgia
Willmer Project No. ATL-171-3099A

Dear Mr. McMahon:

Willmer Engineering Inc. (Willmer) is pleased to provide this Bridge Foundation Investigation (BFI) report for the proposed widening of I-575 bridge over SR 5C (Ernest Barrett Parkway) in Cobb County, Georgia. The BFI was performed in general accordance with our contract with Georgia Transportation Partners (GTP), dated May 12, 2007. The objective of this investigation was to gather sufficient geotechnical information to support the costing plans to be developed by GTP. Additional borings will be performed in the design/build phase of the project to provide additional information as required. This report was prepared in general accordance with Georgia Department of Transportation (GDOT) guidance documents for bridge foundation investigation. This report was revised to incorporate GTP comments dated November 30, 2007, and GDOT comments dated July 18, 2008.

The attached summary presents the site and subsurface conditions along the proposed bridge alignment, and our geotechnical recommendations related to bridge foundation design and construction.

We appreciate the opportunity to be of service to you on this project and look forward to a continuing relationship. Please contact us if you have any questions concerning this report or require further assistance.

Sincerely,
WILLMER ENGINEERING INC.

Sujit K. Bhowmik, PhD, PE
Chief Engineer

Murthy S. Kotha
Project Engineer

James L. Willmer, PE
Executive Vice President/Principal Consultant

MSK/SKB/JLW:ks
I:\Word Processing\Projects\171-GEO\171-3099 Northwest Corridor Project (Bechtel)\Reports\3099 A - Barrett Parkway\171-3099A REVISED BFI Report - I-575 over Barrett Parkway 08-15-08.doc

Attachments: **Bridge Foundation Investigation**

Figures

Figure 1 Project Location Map
Figure 2 Boring Location Plan
Figure 3 Generalized Subsurface Profile (A-A')
Figure 4 Generalized Subsurface Profile (B-B')
Figure 5 Generalized Subsurface Profile (C-C')
Figure 6 Generalized Subsurface Profile (D-D')

Appendix I

Boring Record Legend
Unified Soil Classification System Reference Sheet
Engineering Description of Rock Hardness
Boring Records: BB-1 through BB-5 (New Borings)
Laboratory Test Results

Appendix II

Boring Records: B-1 through B-12 (Borings from Existing BFI Report)

Revision History:

Revision	Issue Date	Document Status
A	November 26, 2007	Issued for Review
0	January 7, 2008	Issued for Use
1	August 22, 2008	Issued for Use

BRIDGE FOUNDATION INVESTIGATION	
Willmer Project Number	ATL-171-3099A
GDOT Project Number	CSNHS-0008-00(256)
Project P.I. Number	0008256
Location	I-575 Bridge over SR 5C (Ernest Barrett Parkway), Cobb County, Georgia (see Figure 1)
GENERAL INFORMATION	
Project Description	Three new parallel bridges (one in the center median area and one each on the left and right sides of existing bridges) are planned for the proposed I-575 widening over SR 5C (Ernest Barrett Parkway). The bridges will be four-span, 209 feet long reinforced concrete structures. The design lengths for the four spans from south to north are 43.71, 65, 65 and 35.29 feet, respectively. The existing bridges are supported on H-pile bents at the end bents and H-pile footings at the intermediate bents. The BFI report for the existing bridges was obtained from GDOT, and it includes twelve borings performed by GDOT in 1976. Subsurface information from those twelve borings was used along with five new borings performed as part of the present study.
Geologic Information	The project alignment is geologically sited within the Piedmont Physiographic Province of Georgia, and is underlain by Metamorphosed Maffic Rock Formations which include amphibolite, mica schist and biotite gneiss.
Subsurface Features	Subsurface information for this project was obtained from five borings (BB-1 through BB-5) performed by Willmer as part of the present study (see Appendix I) and twelve borings (B-1 through B-12) performed by GDOT in 1976 as part of the Bridge Foundation Investigation (BFI) for the existing bridges (see Appendix II). The subsurface profile is generally comprised of fill and residuum underlain by partially weathered rock and parent bedrock, except at BB-2 where no fill was encountered. It should be noted that the available logs for borings B-1 through B-12 do not differentiate between fill and residuum in the soil description. The fill material consists of loose to medium dense silty sand and stiff to firm sandy silt. The residual soils consist of loose to very dense silty sand/sandy silt. During the present field investigation groundwater was encountered at all boring locations between elevations 945 and 953 feet, and during the field investigation by GDOT in 1976, groundwater was encountered between elevations 961 and 971 feet.

PWR AND AUGER REFUSAL ELEVATIONS (feet)				
Bridge	**Bent No.**	**Reference Boring No.**	**Top of PWR**	**Auger Refusal**
Left	1	B-1	920	**
	2	B-2	*	**
	3	B-4	*	**
	4	B-6	922	**
	5	BB-3	924	919
Center	1	B-1	920	**
		B-7	904	903
	2	B-3	*	**
		BB-2	936	928
		B-8	*	**
	3	B-5	*	**
		B-10	*	**
	4	B-6	922	**
		B-12	928	**
	5	BB-4	927	921
Right	1	BB-1	927	924
	2	B-9	906	902
	3	B-11	923	**
	4	B-12	928	**
	5	BB-5	931	923

* PWR was not encountered in this boring.
** Boring was not extended to auger refusal.

MAXIMUM PILE DESIGN LOADS			
Pile Type	**Load Transfer (%)**		**Design Load**
	Friction	**End Bearing**	
H-Piles	20	80	10 BP 42 = 55 Tons
			12 BP 53 = 70 Tons
			14 BP 73 = 96 Tons
			14 BP 89 = 117 Tons

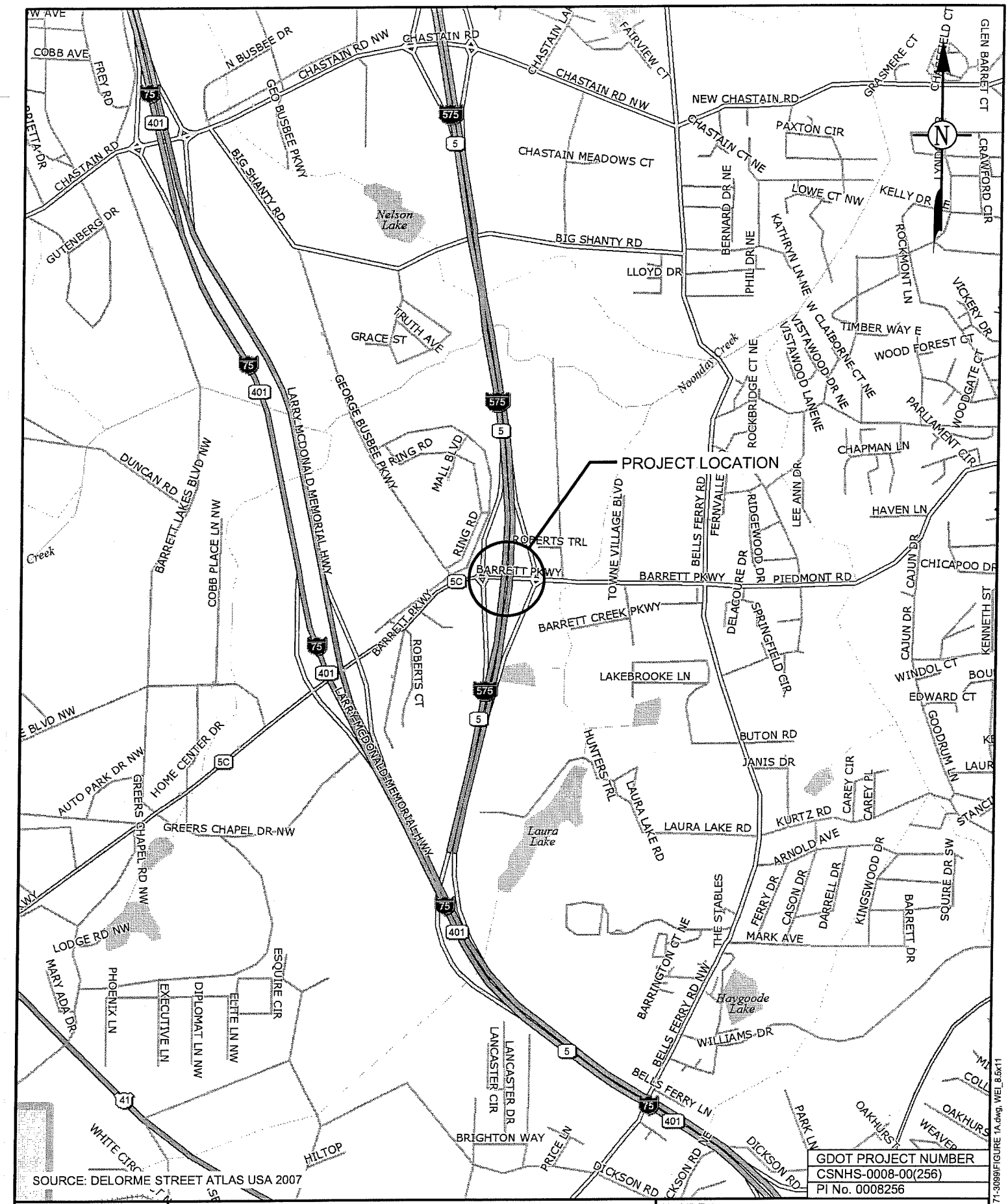
FOUNDATION RECOMMENDATIONS			
Bridge	**Bent No.**	**Pile Footing (Type)**	**Pile Bent (Type)**
Left	1		H
	2	H	
	3	H	
	4	H	
	5		H
Center	1		H
	2	H	
	3	H	
	4	H	
	5		H
Right	1		H
	2	H	
	3	H	
	4	H	
	5		H

PILE TIP ELEVATIONS (feet)				
Bridge	**Bent No.**	**Reference Boring No.**	**H-Pile**	
			Minimum Tip	**Estimated Tip**
Left	1	B-1	934±	920±
	2	B-2	923±	915±
	3	B-4	919±	910±
	4	B-6	926±	920±
	5	BB-3	925±	920±
Center	1- Left	B-1	934±	932±
	1 – Right	B-7	914±	912±
	2- Left	B-3	934±	925±
	2-Center	BB-2	935±	933±
	2- Right	B-8	917±	915±
	3- Left	B-5	925±	925±
	3- Right	B-10	928±	926±
	4- Left	B-6	926±	920±
	4- Right	B-12	927±	920±
	5	BB-4	926±	924±
Right	1	BB-1	926±	924±
	2	B-9	911±	906±
	3	B-11	927±	927±
	4	B-12	927±	927±
	5	BB-5	930±	928±

NOTES	
Elevations	All elevations referenced in this report are based on Control Points No. 153 (1/2" rebar, EL. 988.82 feet) and No. 501 (5/8" rebar, EL. 970.70 feet) established by the surveyors.

PDO	Driving resistance after Minimum Tip Elevations are achieved.
Pile Footings	Due to the high ground water elevations near the footing elevations, we recommend that 12 inches of Type II Foundation Backfill Material be set up for use in the footing areas for Bents 2 and 3. The use of this material should be at the direction of the Engineer and may be eliminated on construction if the footing area is dry.
Waiting Period	We recommend that a minimum waiting period of 60 days be allowed between completion of fill placement and beginning of pile installation at Bents 1 and 5 of the left and right bridges where significant fill will be placed for embankment construction. Settlement of the embankment should be monitored, and the length of the waiting period may be increased or decreased based on the settlement monitoring data, at the discretion of the project Geotechnical Engineer.
Special Problems	None.
As-built Information	As-built information should be forwarded to the Geotechnical Engineering Bureau upon completion of the foundation system.
Prepared By	Murthy S. Kotha / Sujit K. Bhowmik, PhD, PE
Senior Review By	James L. Willmer, PE

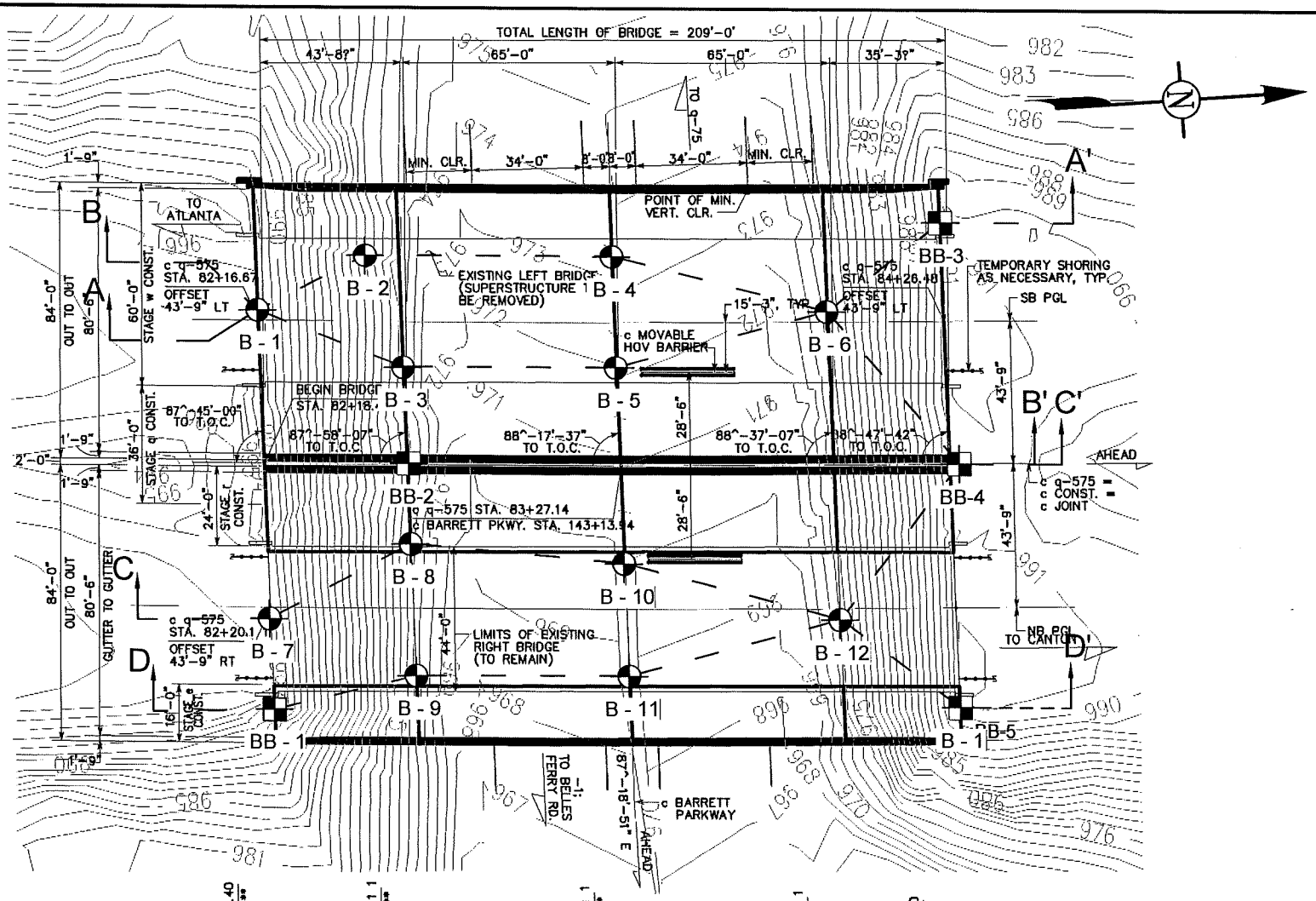
FIGURES

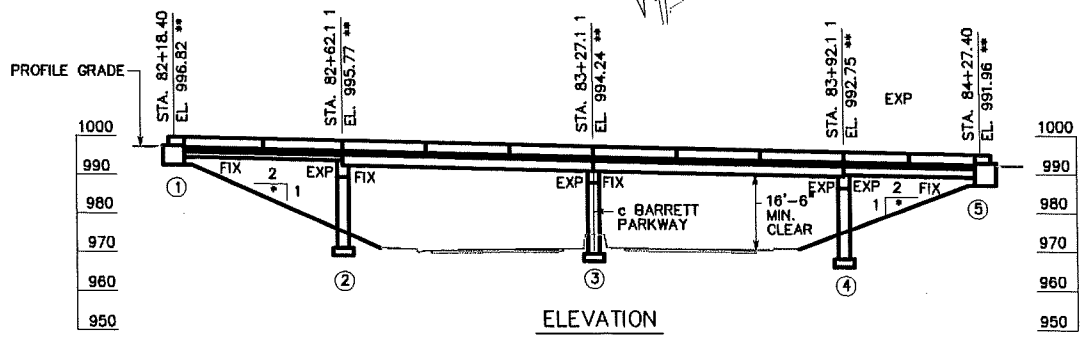


GDOT PROJECT NUMBER
CSNHS-0008-00(256)
PI No. 0008256

SCALE: 1" = 2000'	GEOTECHNICAL ENGINEERING CONSTRUCTION SERVICES ENVIRONMENTAL SERVICES AND ENGINEERING 3772 PLEASANTDALE ROAD - SUITE 165 ATLANTA, GA 30340-4270	FIGURE 1 PROJECT LOCATION MAP I -575OVER S.R. 5C (ERNEST BARRETT PARKWAY) NORTHWEST CORRIDOR PROJECT COBB COUNTY, GEORGIA WILLMER PROJECT No. ATL-171-3099A
DATE: 11/21/2007	WILLMER ENGINEERING INC. WE	
DRAWN BY: MDB		
REVIEWED BY: MK		

I:\AutoCAD\171-GEO\171-3099\FIGURE 1A.dwg, WEI_8.5x11





LEGEND:

BORING LOCATION (GDOT, 1976)
B - 1

BORING LOCATION (WILLMER, 2007)
BB - 1

GDOT PROJECT NUMBER
CSNHS-0008-00(256)
PI No. 0008256

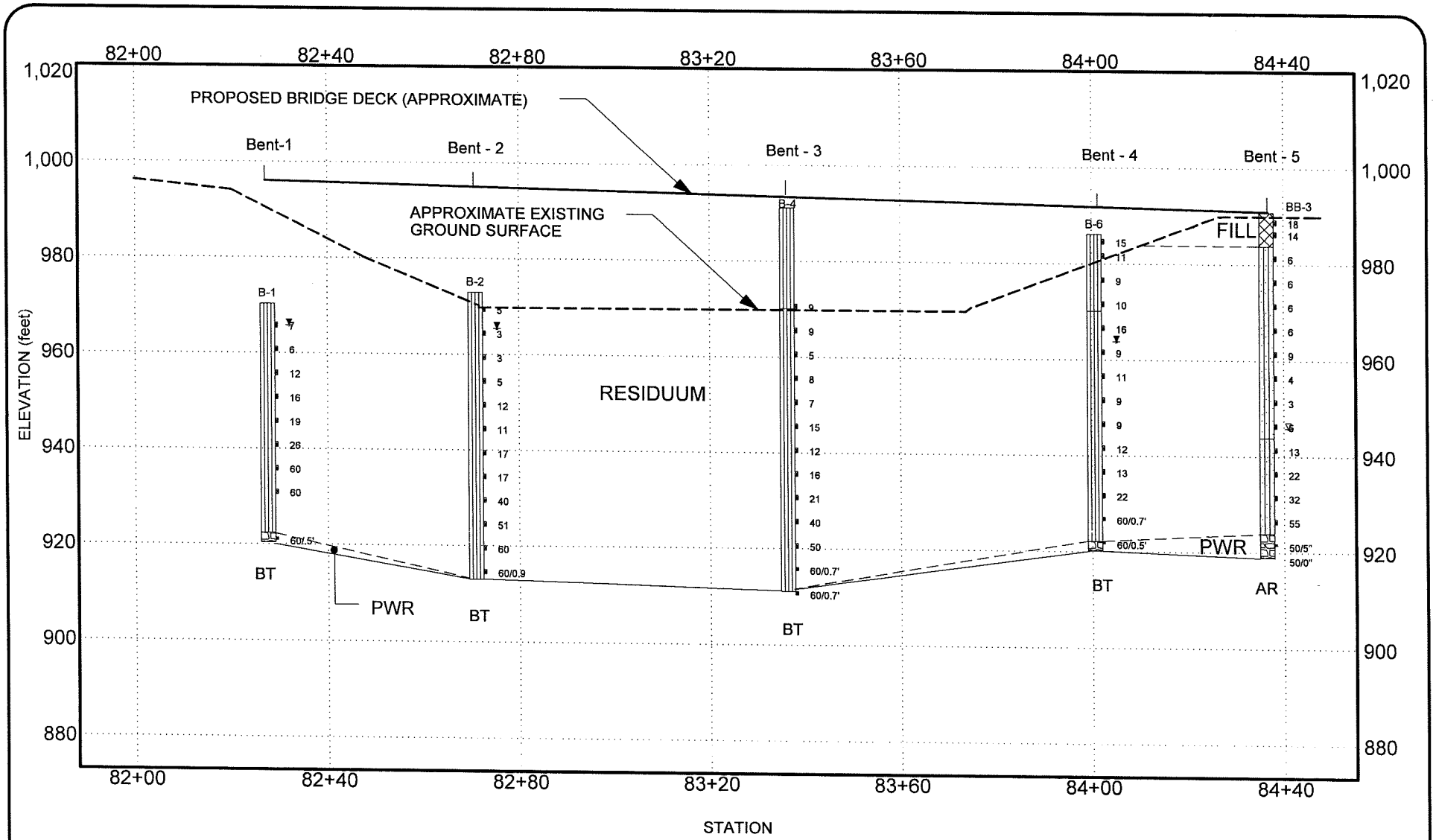
SCALE: 1" = 50'	
DATE: 6/3/2008	
DRAWN BY: CBS	
REVIEWED BY: MK	

WILLMER ENGINEERING INC.

GEOTECHNICAL ENGINEERING ▪ CONSTRUCTION SERVICES
ENVIRONMENTAL SERVICES AND ENGINEERING
3772 PLEASANTDALE ROAD - SUITE 165
ATLANTA, GA 30340-4270

FIGURE 2 - BORING LOCATION PLAN
I -575 OVER S.R. 5C (ERNEST BARRETT PARKWAY)
NORTHWEST CORRIDOR PROJECT
COBB COUNTY, GEORGIA
WILLMER PROJECT No. ATL-171-3099A

I:\AutoCAD\171-GEO\171-3099\Revised Bridge plans\2004 Versions\Geo_Barrett_PE.dwg, WEI_11x8.5



LEGEND:
- Groundwater Table @ 24 hours
- Groundwater Table @ Time of Boring
AR - Auger Refusal
BT - Boring Terminated
PWR - Partially Weathered Rock

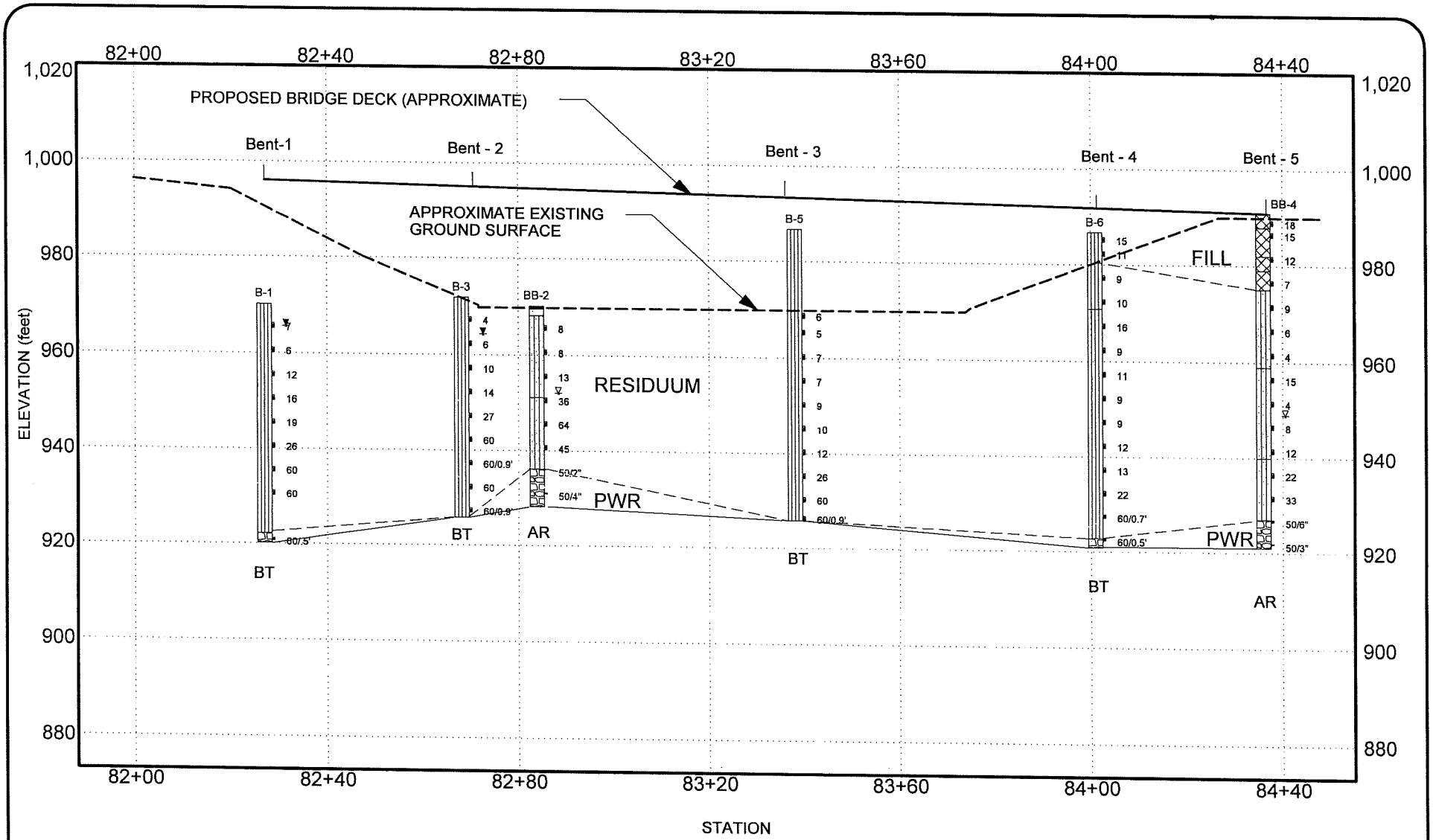
SCALE : 1 inch = 30 feet (vertical)
1 inch = 30 feet (horizontal)

NOTE:
Borings B-1, B-2, B-4 and B-6 were performed by GDOT in 1976.

GENERALIZED SUBSURFACE PROFILE
PROFILE A-A'

I-575 Over SR 5C (Ernest Barrett Parkway)
GDOT Project No.: CSNHS-0008-00(256)
PI No.: 0008256
Cobb County, Georgia

PROJECT #	DATE	FIGURE
171-3099A	Nov 07, 2007	3



LEGEND:
- Groundwater Table @ 24 hours
- Groundwater Table @ Time of Boring
AR - Auger Refusal
BT - Boring Terminated
PWR - Partially Weathered Rock

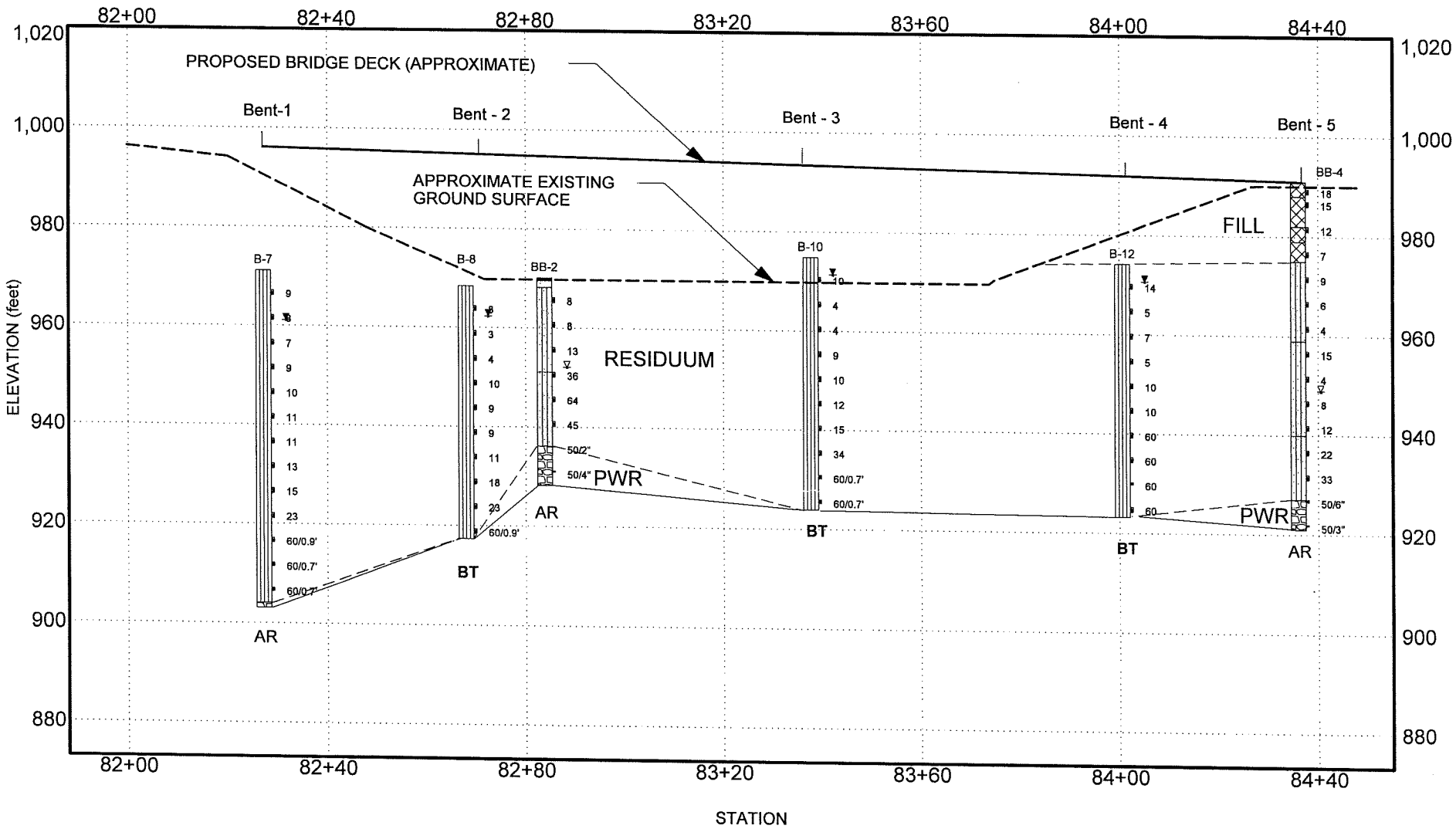
SCALE : 1 inch = 30 feet (vertical)
1 inch = 30 feet (horizontal)

NOTES:
1. Borings B-1, B-3, B-5 and B-6 were performed by GDOT in 1976.
2. B-3 is plotted 15 feet from the location where it was drilled.

GENERALIZED SUBSURFACE PROFILE
PROFILE B-B'

I-575 Over SR 5C (Ernest Barrett Parkway)
GDOT Project No.: CSNHS-0008-00(256)
PI No.: 0008256
Cobb County, Georgia

PROJECT #	DATE	FIGURE
171-3099A	Nov 07, 2007	4



LEGEND:
- Groundwater Table @ 24 hours
- Groundwater Table @ Time of Boring
AR - Auger Refusal
BT - Boring Terminated
PWR - Partially Weathered Rock

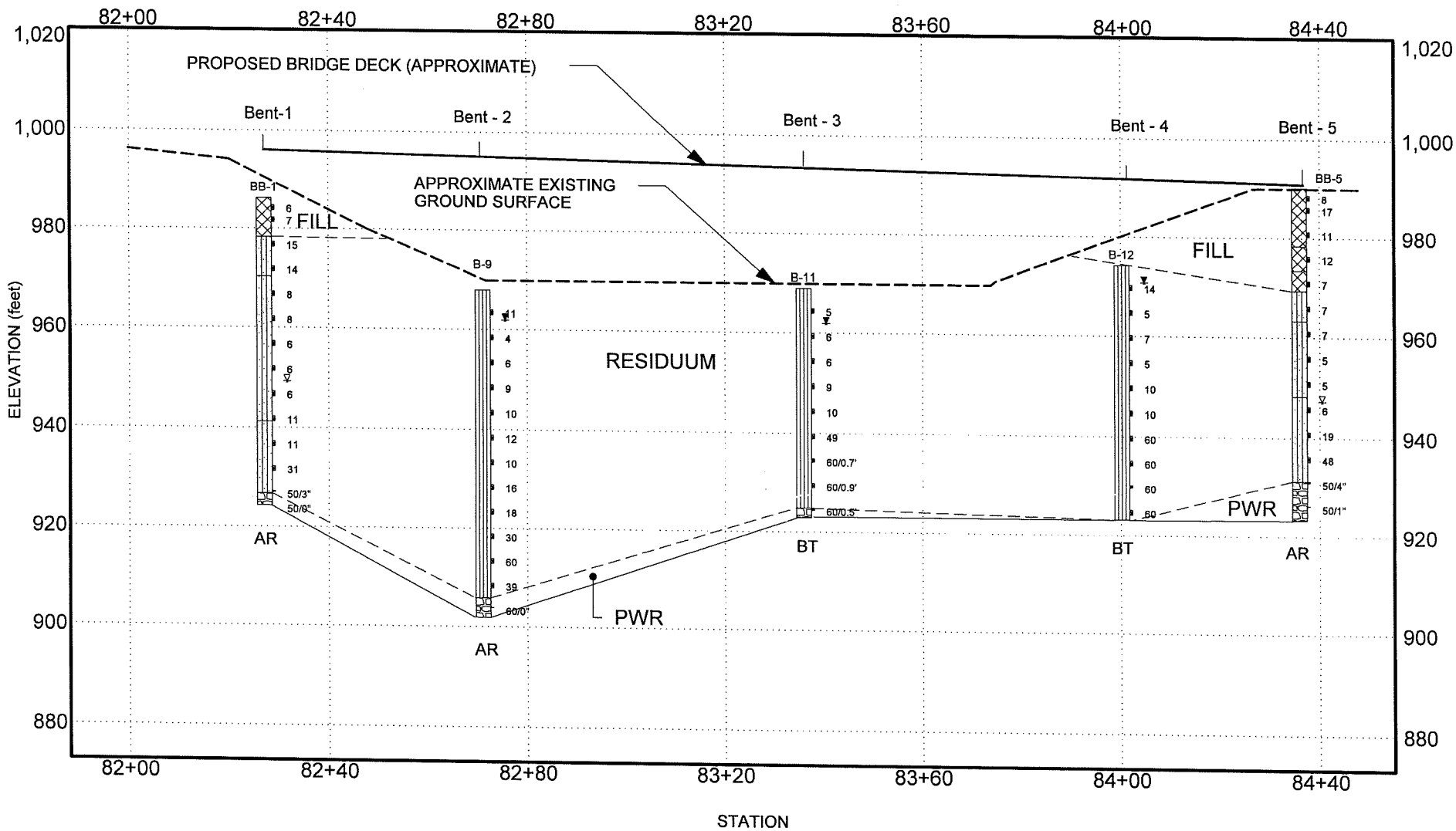
SCALE : 1 inch = 30 feet (vertical)
1 inch = 30 feet (horizontal)

NOTES:
1. Borings B-7, B-8, B-10 and B-12 were performed by GDOT in 1976.
2. B-8 is plotted 15 feet from the location where it was drilled.

GENERALIZED SUBSURFACE PROFILE
PROFILE C-C'

I-575 Over SR 5C (Ernest Barrett Parkway)
GDOT Project No.: CSNHS-0008-00(256)
PI No.: 0008256
Cobb County, Georgia

PROJECT #	DATE	FIGURE
171-3099A	Nov 07, 2007	5



LEGEND:
- Groundwater Table @ 24 hours
- Groundwater Table @ Time of Boring

AR - Auger Refusal
BT - Boring Terminated
PWR - Partially Weathered Rock

SCALE : 1 inch = 30 feet (vertical)
1 inch = 30 feet (horizontal)

NOTE:
Borings B-9, B-11 and B-12 were performed by GDOT in 1976.

GENERALIZED SUBSURFACE PROFILE
PROFILE D-D'

I-575 Over SR 5C (Ernest Barrett Parkway)
GDOT Project No.: CSNHS-0008-00(256)
PI No.: 0008256
Cobb County, Georgia

PROJECT #	DATE	FIGURE
171-3099A	Nov 07, 2007	6

APPENDIX I

BORING RECORD LEGEND

SM, CL, etc: - GROUP SYMBOL based on Unified Soil Classification System.
(Refer to ASTM D-2488 and Table 1 of D-2487)

N-VALUE: BLOWS PER FOOT- Standard Penetration Resistance (SPT) blow count , the sum of the second and third 6-inch increments of the SPT test.
(Refer to ASTM D-1586)

CONSISTENCY / RELATIVE DENSITY Correlated with SPT Blow Count, N:

SILTS AND CLAYS

N (blows per foot)	Consistency
0 - 2	Very Soft
3 - 4	Soft
5 - 8	Firm
9 - 15	Stiff
16 - 30	Very Stiff
31 - 50	Hard
> 50	Very Hard

SANDS

N (blows per foot)	Relative Density
0 - 4	Very Loose
5 - 10	Loose
11 - 30	Medium Dense
31 - 50	Dense
> 50	Very Dense

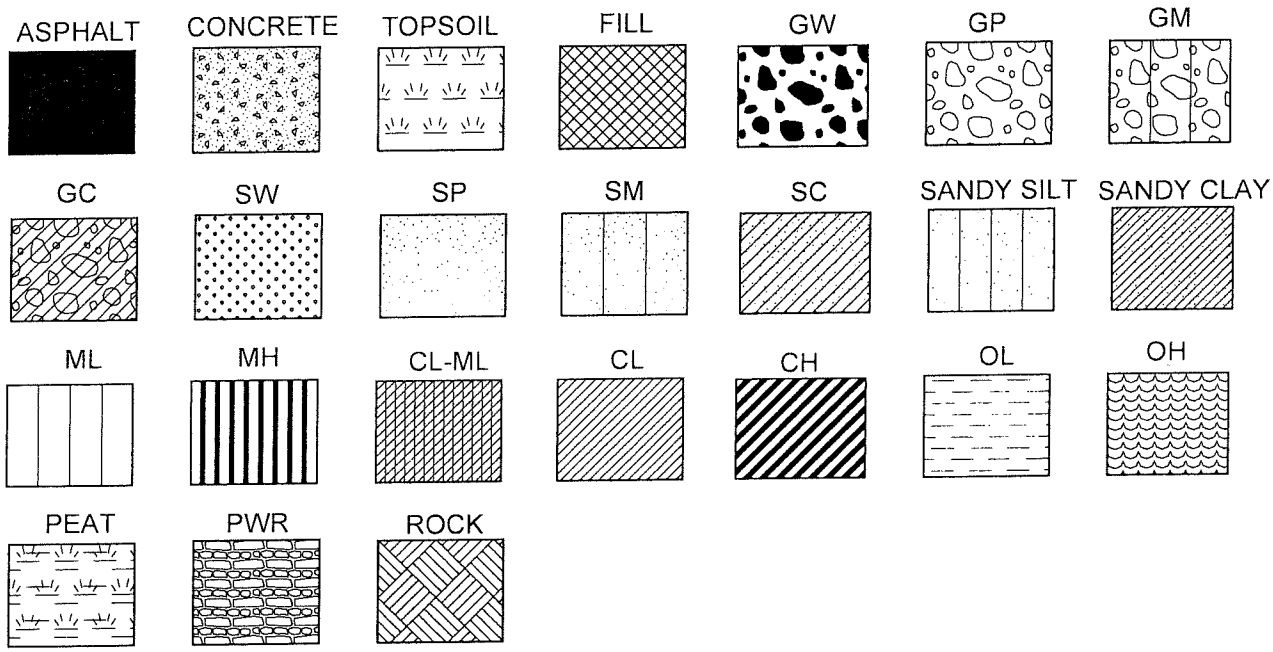
NOTES:

Groundwater Measurements:

▼ Water level at time of backfilling

▽ Water level at time of boring

▨ Caved level at 24 hours



WILLMER ENGINEERING INC. | WE

Willmer Engineering Inc.
3772 Pleasantdale Road, Suite 165
Atlanta, Georgia 30340

UNIFIED SOIL CLASSIFICATION SYSTEM REFERENCE SHEET

MAJOR DIVISIONS			LETTER SYMBOL	TYPICAL DESCRIPTIONS
COARSE GRAINED SOILS MORE THAN 50% OF MATERIAL IS LARGER THAN #200 SIEVE SIZE	GRAVEL AND GRAVELLY SOILS MORE THAN 50% OF COARSE FRACTION RETAINED #4 SIEVE	CLEAN GRAVELS LITTLE OR NO FINES	(GW)	WELL-GRADED GRAVELS, GRAVEL-SAND MIXTURES, LITTLE OR NO FINES
			(GP)	POORLY GRADED GRAVELS, GRAVEL-SAND MIXTURES, LITTLE OR NO FINES
		GRAVELS WITH FINES APPRECIABLE AMOUNT OF FINES	(GM)	SILTY GRAVELS and GRAVEL-SAND-SILT MIXTURES
			(GC)	CLAYEY GRAVELS and GRAVEL-SAND-CLAY MIXTURES
	SAND AND SANDY SOILS MORE THAN 50% OF COARSE FRACTION PASSING #4 SIEVE	CLEAN SAND LITTLE OR NO FINES	(SW)	WELL GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
			(SP)	POORLY GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
		SANDS WITH FINES APPRECIABLE AMOUNT OF FINES	(SM)	SILTY SANDS and SAND-SILT MIXTURES
			(SC)	CLAYEY SANDS and SAND-CLAY MIXTURES
FINE GRAINED SOILS MORE THAN 50% OF MATERIAL IS SMALLER THAN #200 SIEVE SIZE	SILTS AND CLAYS LIQUID LIMIT LESS THAN 50		(ML)	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR VERY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
			(CL)	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
			(OL)	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
	SILTS AND CLAYS LIQUID LIMIT GREATER THAN 50		(MH)	INORGANIC ELASTIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SANDY OR SILTY SOILS
			(CH)	INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS
			(OH)	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS
HIGHLY ORGANIC SOILS			(PT)	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS

WILLMER ENGINEERING INC. | WE

ENGINEERING DESCRIPTION OF ROCK HARDNESS

Hardness	Description
Very hard	Cannot be scratched with knife or sharp pick. Breaking of hand specimens requires several hard blows of geologist's pick.
Hard	Can be scratched with knife or pick only with difficulty. Hard blow of hammer required to detach hand specimen.
Moderately hard	Can be scratched with knife or pick. can be excavated by hard blow of point of a geologist's pick. Hand specimens can be detached by moderate blow.
Medium	Can be grooved or gouged 1/16 inch deep by firm pressure on knife or pick point. Can be excavated in small chips to pieces about 1 inch maximum size by hard blows of the point of a geologist's pick.
Soft	Can be gouged or grooved readily with knife or pick point. Can be excavated in chips to pieces several inches in size by moderate blows of a pick point. Small thin pieces can be broken by finger pressure.
Very soft	Can be carved with knife. Can be excavated readily with point of pick. Pieces 1 inch or more in thickness can be broken with finger pressure. Can be scratched readily by fingernail.
Partially Weathered Rock	For engineering purposes, partially weathered rock (PWR) is locally defined as residual soils exhibiting Standard Penetration Test N-values in excess of 50 blows for 6 inches of penetration.

WILLMER ENGINEERING INC. | WE

Project: **I-575 over SR 5C (Ernest Barrett Parkway)**	**HOLE No. BB-1**
Location: **Cobb County, Georgia**	Sheet 1 of 1
Project Number: **171-3099A; GDOT Proj. # : CSNHS-0008-00(256); PI # : 0008256**	Location: **Bent No. 1, RT Bridge**

Azimuth: -- Angle from Horizontal: **90** Surface Elevation (ft): **986.26** Station: **ST 82+27, 75' Rt. of CL**

Drilling Equipment: **CME 550** Drilling Method: **HSA Auto Hammer**

Core Boxes: -- Samples: **14** Overburden (ft): **62** Rock (ft): -- Total Depth (ft): **62.0**

Logged By: **MK** Date Drilled: **9/27/07**

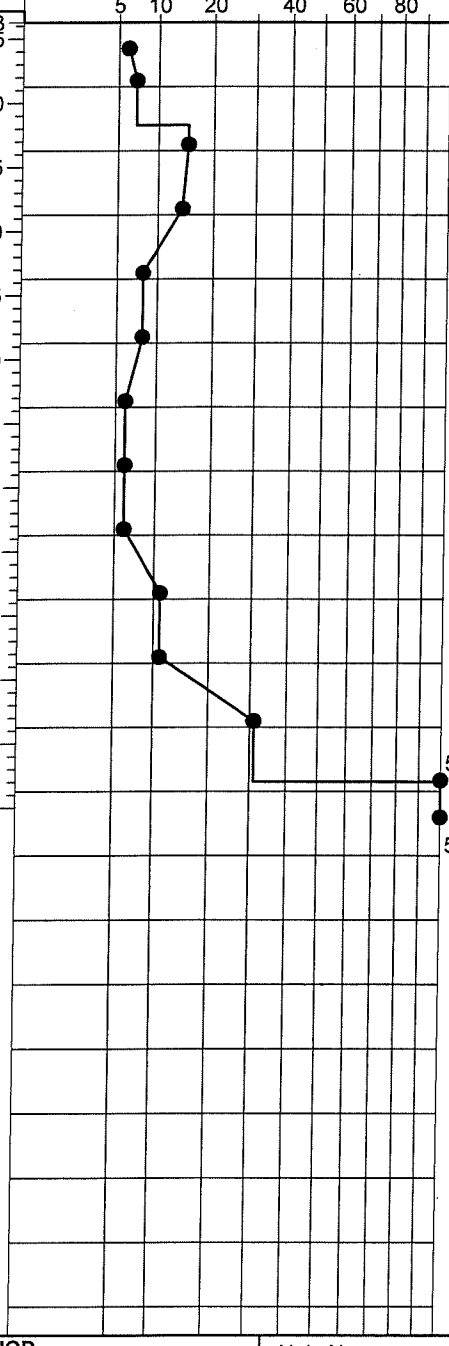
VERTICAL DEPTH (ft)	GRAPHIC LOG	SAMPLE TYPE	REC%	RQD %	MATERIAL DESCRIPTION		ELEVATION (feet)	N-VALUE
		SS			FILL : Loose reddish brown silty medium to fine **SAND**	FILL	986.3	
5		SS					985	6
							980	7
10		SS			RESIDUUM : Medium dense reddish brown and tan silty medium to fine **SAND**	SM	975	15
15		SS					970	14
20		SS			Loose reddish brown, white and tan silty medium to fine **SAND** (slightly micaceous)	SM	965	8
25		SS					960	8
30		SS					955	6
35		SS					950	6
40		SS					945	6
45		SS					940	11
50		SS			Medium dense and dense brown, white and tan silty medium to fine **SAND**	SM	935	11
55		SS					930	31
60		SS						50/3"
		SS			PARTIALLY WEATHERED ROCK : Sampled as very dense brown, white and tan silty medium to fine **SAND** with rock fragments	PWR	925	50/0"

Auger refusal encountered @ 62 feet below existing ground surface.

Groundwater was encountered @ 37 feet below existing ground surface @ time of boring

Bore hole caved in to 32 feet below existing ground surface @ 24 hours after completion of boring.

STANDARD PENETRATION TEST DATA (blows/foot)



SAMPLER TYPE		DRILLING METHOD		Hole No.
SS - Split Spoon	NX - Rock Core, 2-1/8"	HSA - Hollow Stem Auger	RW - Rotary Wash	BB-1
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core	
NQ - Rock Core, 1-7/8"	CT - Continuous Tube	DC - Driving Casing		

WILLMER ENGINEERING INC. | WE

Project: **I-575 over SR 5C (Ernest Barrett Parkway)**	**HOLE No. BB-2**
Location: **Cobb County, Georgia**	Sheet 1 of 1
Project Number: **171-3099A; GDOT Proj. # : CSNHS-0008-00(256); PI # : 0008256**	Location: **Bent No. 2, CNTR Bridge**

Azimuth: -- Angle from Horizontal: **90** Surface Elevation (ft): **970.16** Station: **ST 82+74, CL**

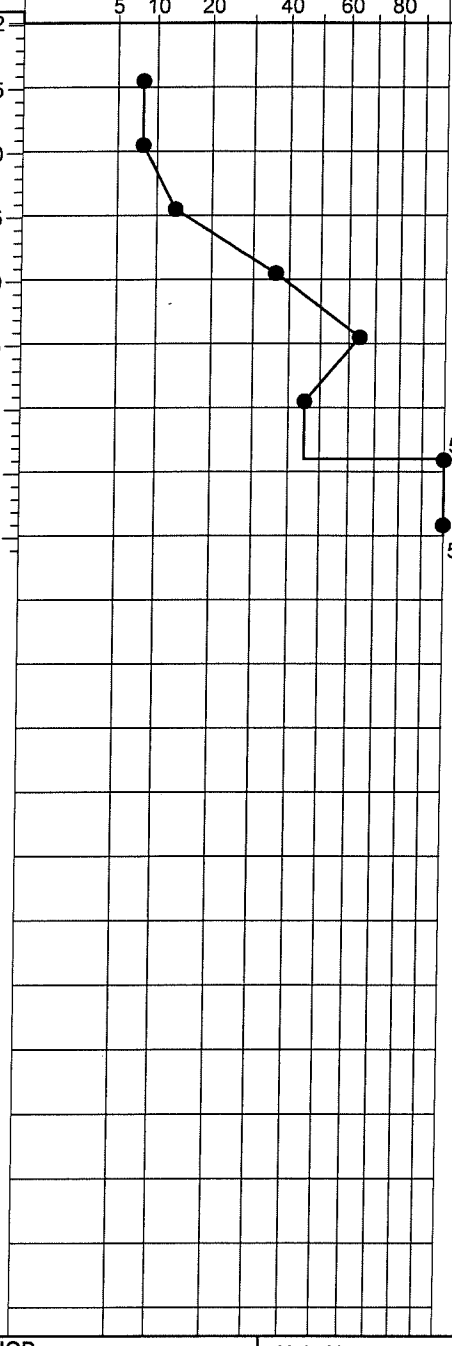
Drilling Equipment: **CME 550** Drilling Method: **HSA Auto Hammer**

Core Boxes: -- Samples: **8** Overburden (ft): **42** Rock (ft): -- Total Depth (ft): **42.0**

Logged By: **MK** Date Drilled: **10/1/07**

VERTICAL DEPTH (ft)	GRAPHIC LOG	SAMPLE TYPE	REC%	RQD %	MATERIAL DESCRIPTION		ELEVATION (feet)	N-VALUE
					ASPHALT - 8 inches	GAB	970.2	
					GAB - 16 inches	SM		
5		SS			RESIDUUM : Loose and medium dense brown, white and tan silty medium to fine **SAND**		965	8
10		SS					960	8
15		SS					955	13
20		SS			Dense and very dense brown, white and tan silty medium to fine **SAND** (slightly micaceous)	SM	950	36
25		SS					945	64
30		SS					940	45
35		SS			PARTIALLY WEATHERED ROCK : Sampled as very dense brown, white and tan silty medium to fine **SAND** with rock fragments	PWR	935	50/2"
40		SS					930	50/4"

STANDARD PENETRATION TEST DATA (blows/foot)



Auger refusal encountered @ 42 feet below existing ground surface.

Groundwater was encountered @ 18 feet below existing ground surface @ time of boring.

SAMPLER TYPE		DRILLING METHOD		Hole No.
SS - Split Spoon	NX - Rock Core, 2-1/8"	HSA - Hollow Stem Auger	RW - Rotary Wash	
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core	**BB-2**
NQ - Rock Core, 1-7/8"	CT - Continuous Tube	DC - Driving Casing		

WILLMER ENGINEERING INC. WE

Project: **I-575 over SR 5C (Ernest Barrett Parkway)** Location: **Cobb County, Georgia** Project Number: **171-3099A; GDOT Proj. # : CSNHS-0008-00(256); PI # : 0008256**	**HOLE No. BB-2** Sheet 1 of 1 Location: **Bent No. 2, CNTR Bridge**

Azimuth: -- Angle from Horizontal: **90** Surface Elevation (ft): **970.16** Station: **ST 82+74, CL**

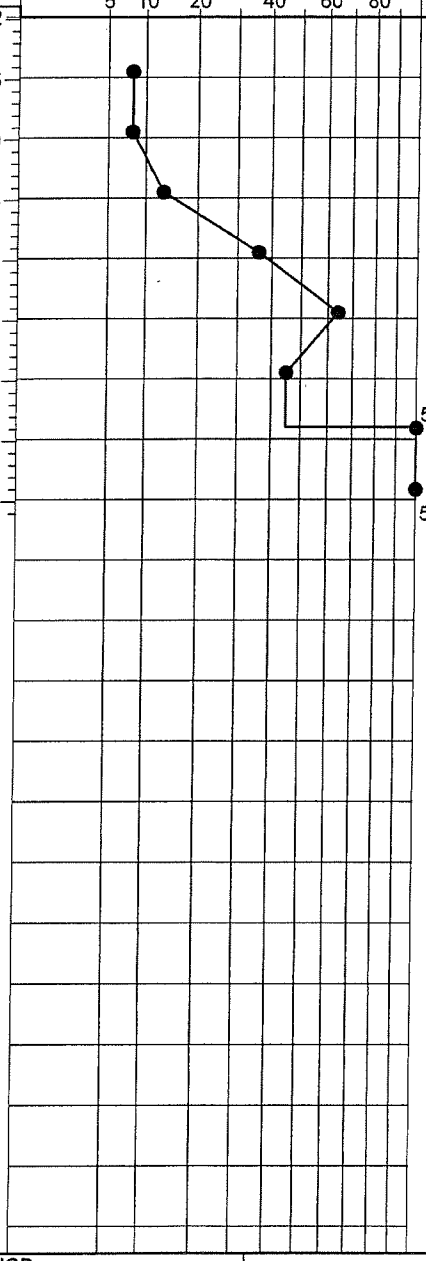
Drilling Equipment: **CME 550** Drilling Method: **HSA Auto Hammer**

Core Boxes: -- Samples: **8** Overburden (ft): **42** Rock (ft): -- Total Depth (ft): **42.0**

Logged By: **MK** Date Drilled: **10/1/07**

VERTICAL DEPTH (ft)	GRAPHIC LOG	SAMPLE TYPE	REC%	RQD %	MATERIAL DESCRIPTION		ELEVATION (feet)	N-VALUE
0					ASPHALT - 8 inches	GAB	970.2	
					GAB - 16 inches	SM		
5		SS			RESIDUUM : Loose and medium dense brown, white and tan silty medium to fine **SAND**		965	8
10		SS					960	8
15		SS					955	13
20		SS			Dense and very dense brown, white and tan silty medium to fine **SAND** (slightly micaceous)	SM	950	36
25		SS					945	64
30		SS					940	45
35		SS			PARTIALLY WEATHERED ROCK : Sampled as very dense brown, white and tan silty medium to fine **SAND** with rock fragments	PWR	935	50/2"
40		SS					930	50/4"

STANDARD PENETRATION TEST DATA (blows/foot)



Auger refusal encountered @ 42 feet below existing ground surface.

Groundwater was encountered @ 18 feet below existing ground surface @ time of boring.

SAMPLER TYPE		DRILLING METHOD		Hole No.
SS - Split Spoon	NX - Rock Core, 2-1/8"	HSA - Hollow Stem Auger	RW - Rotary Wash	BB-2
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core	
NQ - Rock Core, 1-7/8"	CT - Continuous Tube	DC - Driving Casing		

SPTN 171-3099A.GPJ 11/20/07

WILLMER ENGINEERING INC. | WE

Project: I-575 over SR 5C (Ernest Barrett Parkway) Location: Cobb County, Georgia Project Number: 171-3099A; GDOT Proj. # : CSNHS-0008-00(256); PI # : 0008256	**HOLE No. BB-3** Sheet 1 of 1 Location: Bent No. 5, LT Bridge

Azimuth: -- Angle from Horizontal: 90 Surface Elevation (ft): 990.77 Station: ST 84+36, 75' Lt. of CL

Drilling Equipment: CME 550 Drilling Method: HSA Auto Hammer

Core Boxes: -- Samples: 15 Overburden (ft): 72 Rock (ft): -- Total Depth (ft): 72.0

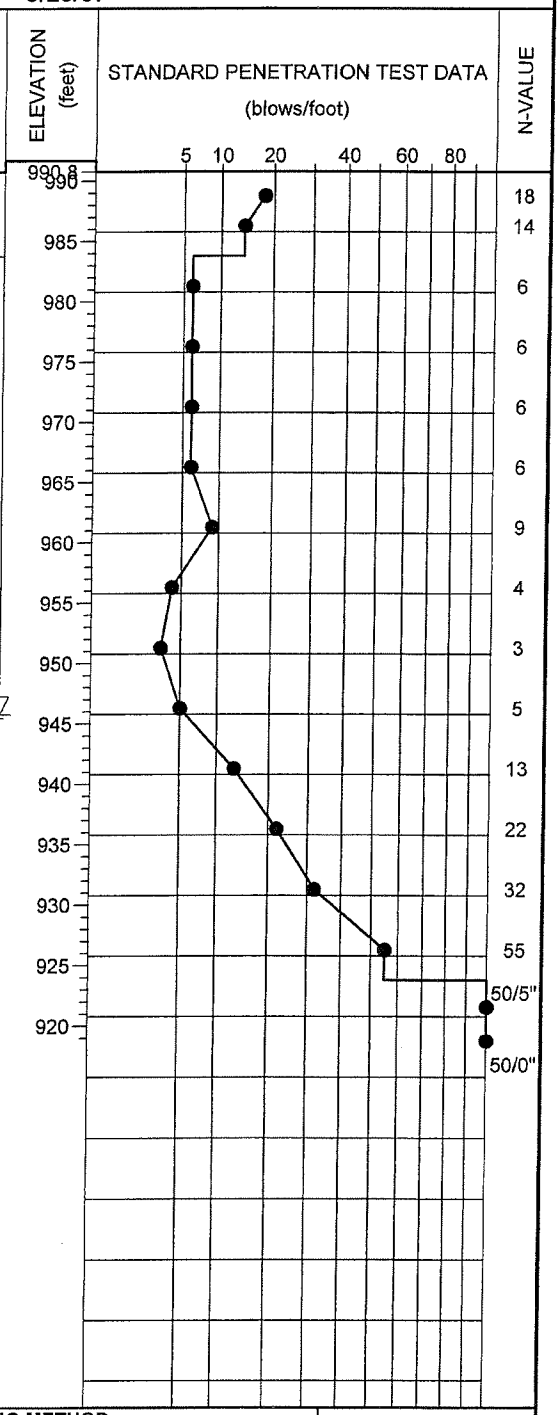
Logged By: MK Date Drilled: 9/26/07

VERTICAL DEPTH (ft)	GRAPHIC LOG	SAMPLE TYPE	REC%	RQD %	MATERIAL DESCRIPTION		ELEVATION (feet)
		SS			FILL : Medium dense orange-red silty medium to fine **SAND** , becomes micaceous at 3 feet	FILL	990.8
5		SS					
10		SS			RESIDUUM : Loose and very loose reddish brown and tan silty medium to fine **SAND** (micaceous)	SM	
15		SS					
20		SS					
25		SS					
30		SS			sand becomes coarse		
35		SS					
40		SS					
45		SS					
50		SS			Medium dense, dense and very dense brown, white and tan silty medium to fine **SAND** (micaceous)	SM	
55		SS					
60		SS					
65		SS					
70		SS SS			PARTIALLY WEATHERED ROCK : Sampled as very dense brown, white and tan silty medium to fine **SAND** with rock fragmnets	PWR	

Auger refusal encountered @ 72 feet below existing ground surface.

Groundwater was encountered @ 45 feet below existing ground surface @ time of boring

Bore hole caved in to 35 feet below existing ground surface @ 24 hours after completion of boring.



SAMPLER TYPE		DRILLING METHOD		Hole No.
SS - Split Spoon	NX - Rock Core, 2-1/8"	HSA - Hollow Stem Auger	RW - Rotary Wash	BB-3
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core	
NQ - Rock Core, 1-7/8"	CT - Continuous Tube	DC - Driving Casing		

SPTN 171-3099A.GPJ 11/20/07

WILLMER ENGINEERING INC. | WE

Project: **I-575 over SR 5C (Ernest Barrett Parkway)** Location: **Cobb County, Georgia** Project Number: **171-3099A; GDOT Proj. # : CSNHS-0008-00(256); PI # : 0008256**	**HOLE No. BB-4** Sheet 1 of 1 Location: **Bent No. 5, CNTR Bridge**

Azimuth: -- Angle from Horizontal: **90** Surface Elevation (ft): **990.99** Station: **ST 84+40, CL**

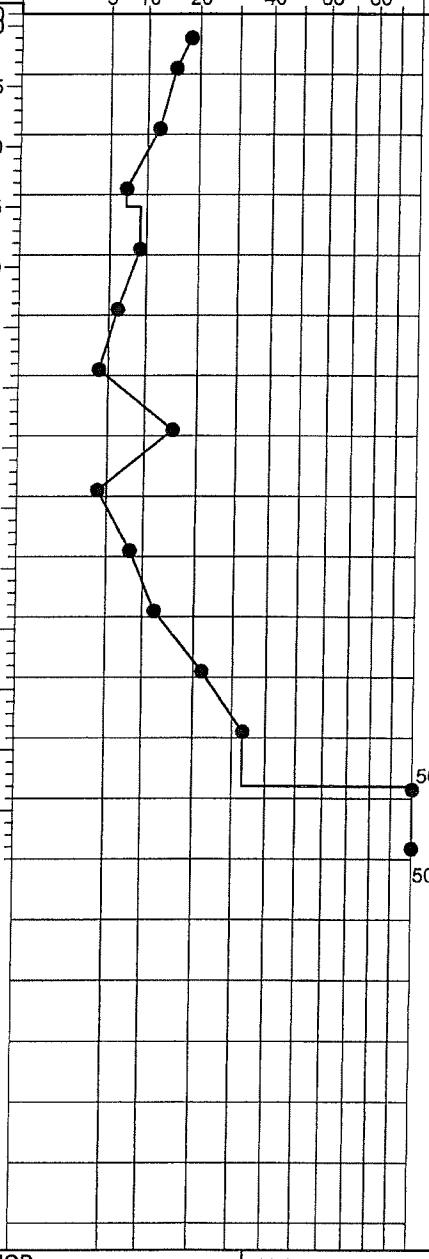
Drilling Equipment: **CME 550** Drilling Method: **HSA Auto Hammer**

Core Boxes: -- Samples: **15** Overburden (ft): **70** Rock (ft): -- Total Depth (ft): **70.0**

Logged By: **MK** Date Drilled: **9/25/07**

VERTICAL DEPTH (ft)	SAMPLE TYPE	MATERIAL DESCRIPTION		ELEVATION (feet)	N-VALUE
	SS	TOPSOIL - 1 inch	FILL	991.0	
5	SS	FILL : Medium dense reddish brown and tan silty medium to fine **SAND**	FILL	990	18
10	SS	Stiff to firm reddish brown medium to fine sandy **SILT** (micaceous)		985	15
15	SS			980	12
20	SS	RESIDUUM : Very loose, loose and medium dense brown and tan silty medium to fine **SAND** (micaceous)	SM	975	7
25	SS			970	9
30	SS			965	6
35	SS			960	4
40	SS			955	15
45	SS			950	4
50	SS			945	8
55	SS	Medium dense and dense brown, white and tan silty medium to fine **SAND** (slightly micaceous)	SM	940	12
60	SS			935	22
65	SS			930	33
70	SS	PARTIALLY WEATHERED ROCK : Sampled as very dense brown, black and tan silty medium to fine **SAND** with rock fragments	PWR	925	50/6"
					50/3"

STANDARD PENETRATION TEST DATA (blows/foot)



Boring terminated @ 70 feet below existing ground surface.

Groundwater was encountered @ 42 feet below existing ground surface @ time of boring

Bore hole caved in to 32 feet below existing ground surface @ 24 hours after completion of boring.

SAMPLER TYPE		DRILLING METHOD		Hole No.
SS - Split Spoon	NX - Rock Core, 2-1/8"	HSA - Hollow Stem Auger	RW - Rotary Wash	BB-4
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core	
NQ - Rock Core, 1-7/8"	CT - Continuous Tube	DC - Driving Casing		

WE

Project: I-575 over SR 5C (Ernest Barrett Parkway)	**HOLE No. BB-5**
Location: Cobb County, Georgia	Sheet 1 of 1
Project Number: 171-3099A; GDOT Proj. # : CSNHS-0008-00(256); PI # : 0008256	Location: Bent No. 5, RT Bridge

Azimuth: -- Angle from Horizontal: 90 Surface Elevation (ft): 990.30 Station: ST 84+36, 75' Rt. of CL

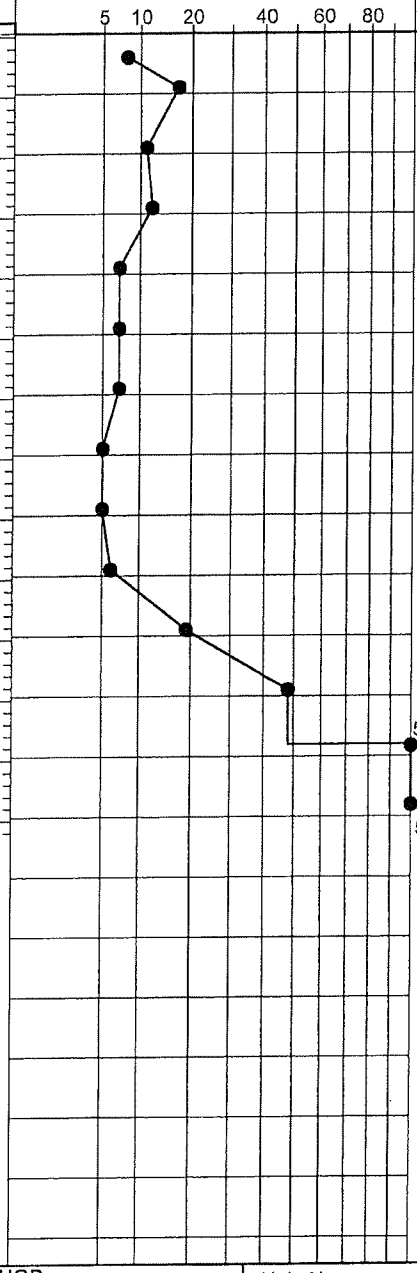
Drilling Equipment: CME 550 Drilling Method: HSA Auto Hammer

Core Boxes: -- Samples: 14 Overburden (ft): 67 Rock (ft): -- Total Depth (ft): 67.0

Logged By: MK Date Drilled: 9/26/07

VERTICAL DEPTH (ft)	GRAPHIC LOG	SAMPLE TYPE	REC%	RQD %	MATERIAL DESCRIPTION		ELEVATION (feet)	N-VALUE
		SS			FILL : Loose and medium dense reddish brown and tan silty medium to fine **SAND**	FILL	990.3	8
5		SS					985	17
10		SS					980	11
15		SS			Stiff brown and tan medium to fine sandy **SILT**	FILL	975	12
20		SS			Firm brown and black medium to fine sandy **SILT** with organic odor	FILL	970	7
25		SS			RESIDUUM : Loose to dense brown, gray and tan silty medium to fine **SAND** (micaceous)	SM	965	7
30		SS					960	7
35		SS					955	5
40		SS					950	5
45		SS					945	6
50		SS					940	19
55		SS					935	48
60		SS			PARTIALLY WEATHERED ROCK : Sampled as very dense brown, white and tan silty medium to fine **SAND** with rock fragments	PWR	930	50/4"
65		SS					925	50/1"

STANDARD PENETRATION TEST DATA (blows/foot)



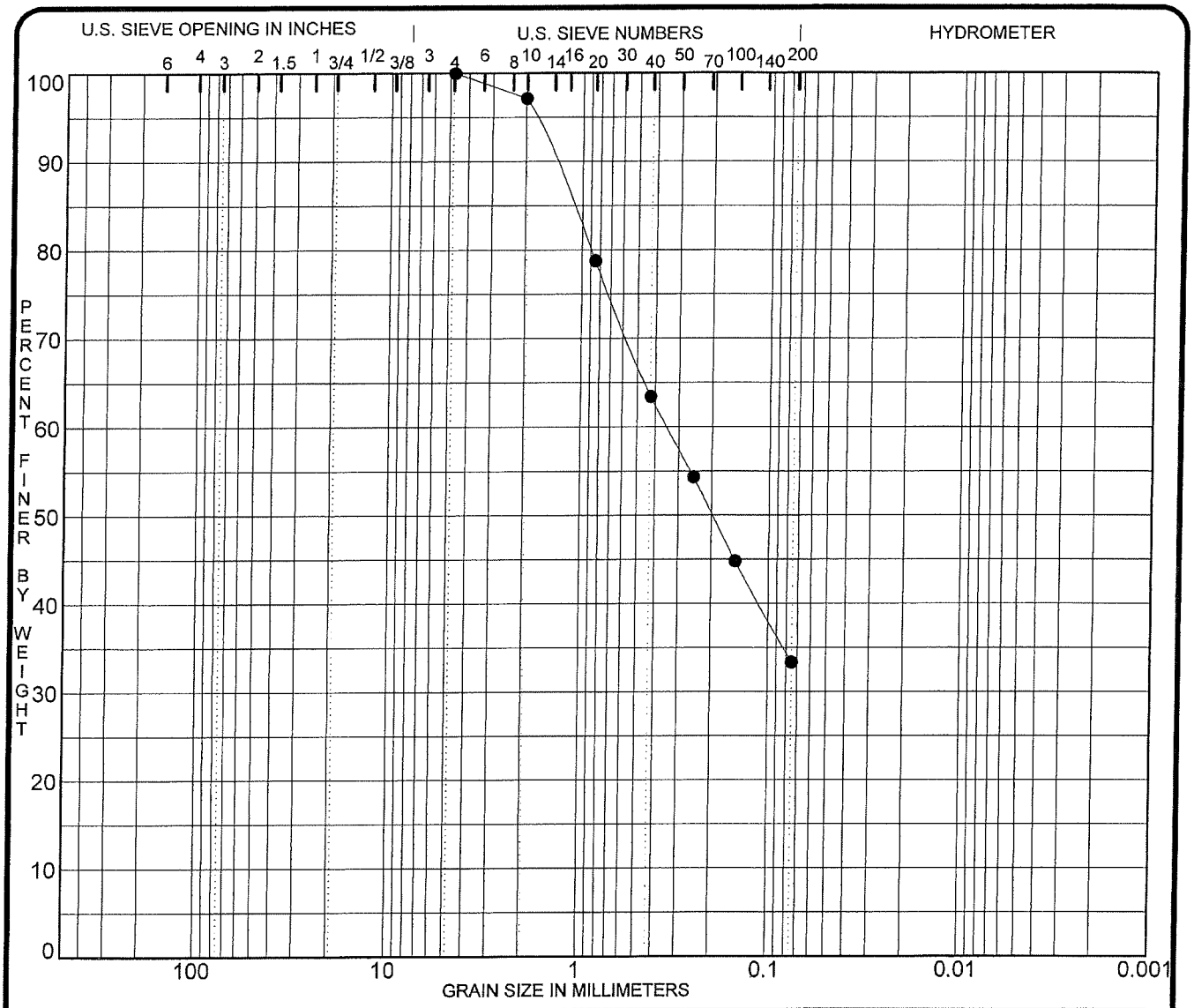
Auger refusal encountered @ 67 feet below existing ground surface.

Groundwater was encountered @ 43 feet below existing ground surface @ time of boring

Bore hole caved in to 35 feet below existing ground surface @ 24 hours after completion of boring.

SAMPLER TYPE		DRILLING METHOD		Hole No.
SS - Split Spoon	NX - Rock Core, 2-1/8"	HSA - Hollow Stem Auger	RW - Rotary Wash	BB-5
ST - Shelby Tube	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core	
NQ - Rock Core, 1-7/8"	CT - Continuous Tube	DC - Driving Casing		

SPTN 171-3099A.GPJ 11/20/07



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

	Specimen Identification	Soil Description	MC%	LL	PL	PI	Cc	Cu
●	BB-1 (S-5) (18.5-20 ft)	Reddish brown silty medium to fine SAND						
		(micaceous)						

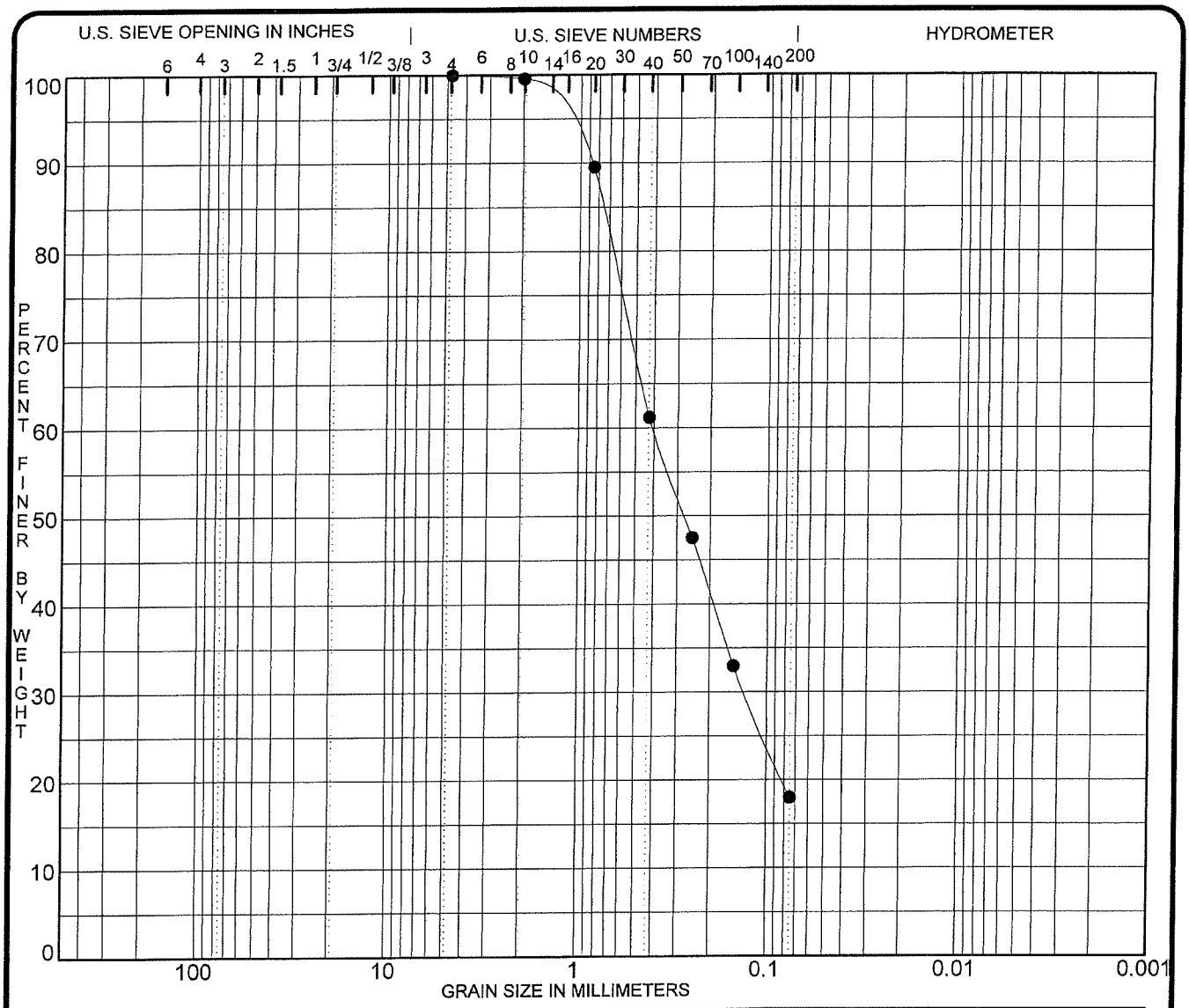
	Specimen Identification	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	3503	4.75	0.35			0.0	66.7	33.3	

PROJECT I - 575 / SR 5C (Ernest Barrett Pky), Cobb Co., GA
GDOT Proj #: CSNHS-0008-00 (256), PI #: 0008256

JOB NO. 171-3099 A
DATE 11/20/07

WILLMER ENGINEERING INC. WE

GRADATION CURVE



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

	Specimen Identification	Soil Description	MC%	LL	PL	PI	Cc	Cu
●	BB-2 (S-3) (8.5-10 ft)	Brown and gray silty medium to fine SAND						
		(micaceous)						

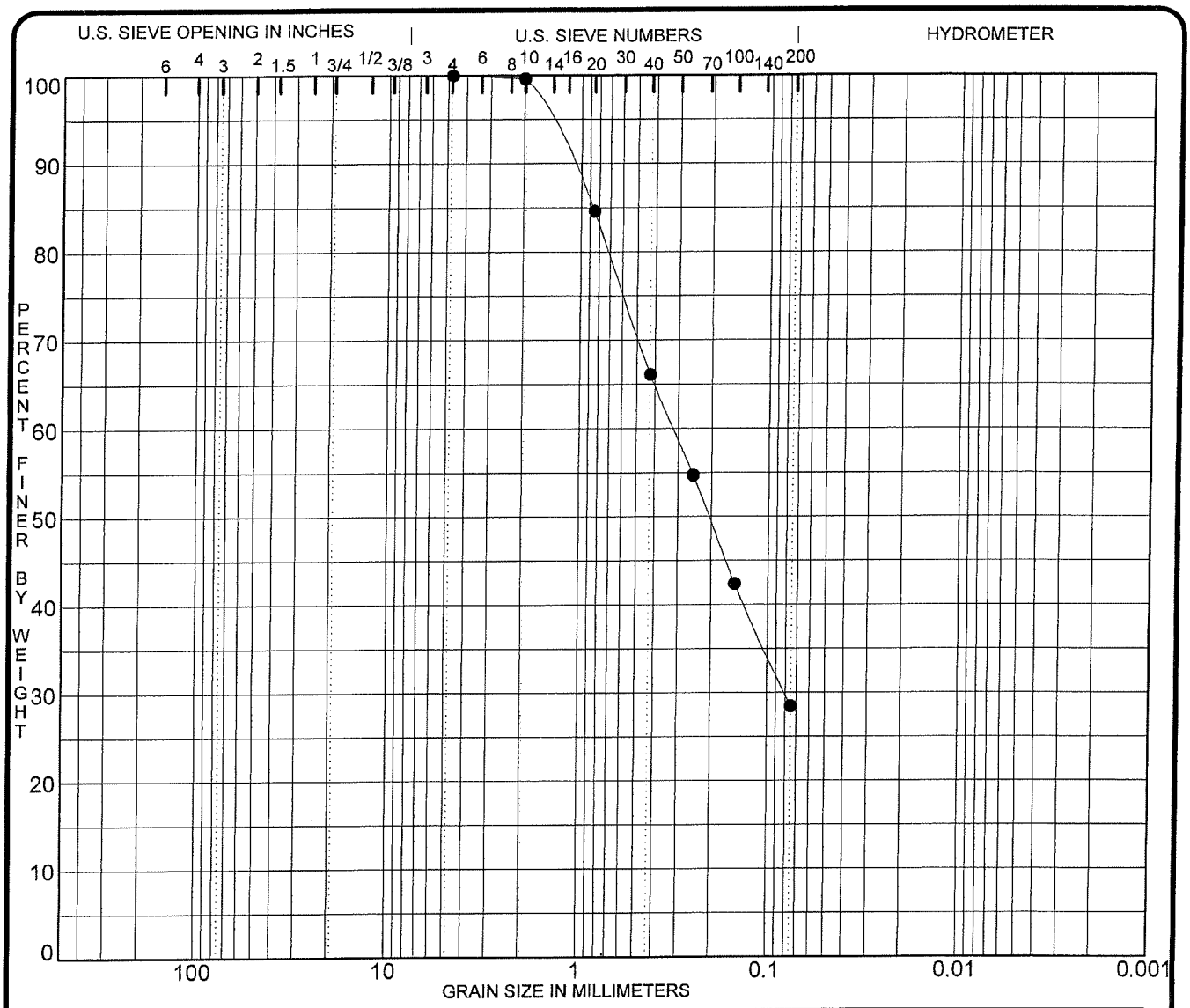
	Specimen Identification	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	3504	4.75	0.41	0.131		0.0	82.0	18.0	

PROJECT I - 575 / SR 5C (Ernest Barrett Pky), Cobb Co., GA
GDOT Proj #: CSNHS-0008-00 (256), PI #: 0008256

JOB NO. 171-3099 A
DATE 11/20/07

WILLMER ENGINEERING INC. WE

GRADATION CURVE



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

	Specimen Identification	Soil Description	MC%	LL	PL	PI	Cc	Cu
●	BB-3 (S-10) (43.5-45 ft)	Black, white and brown silty medium to fine SAND						
		(micaceous)						

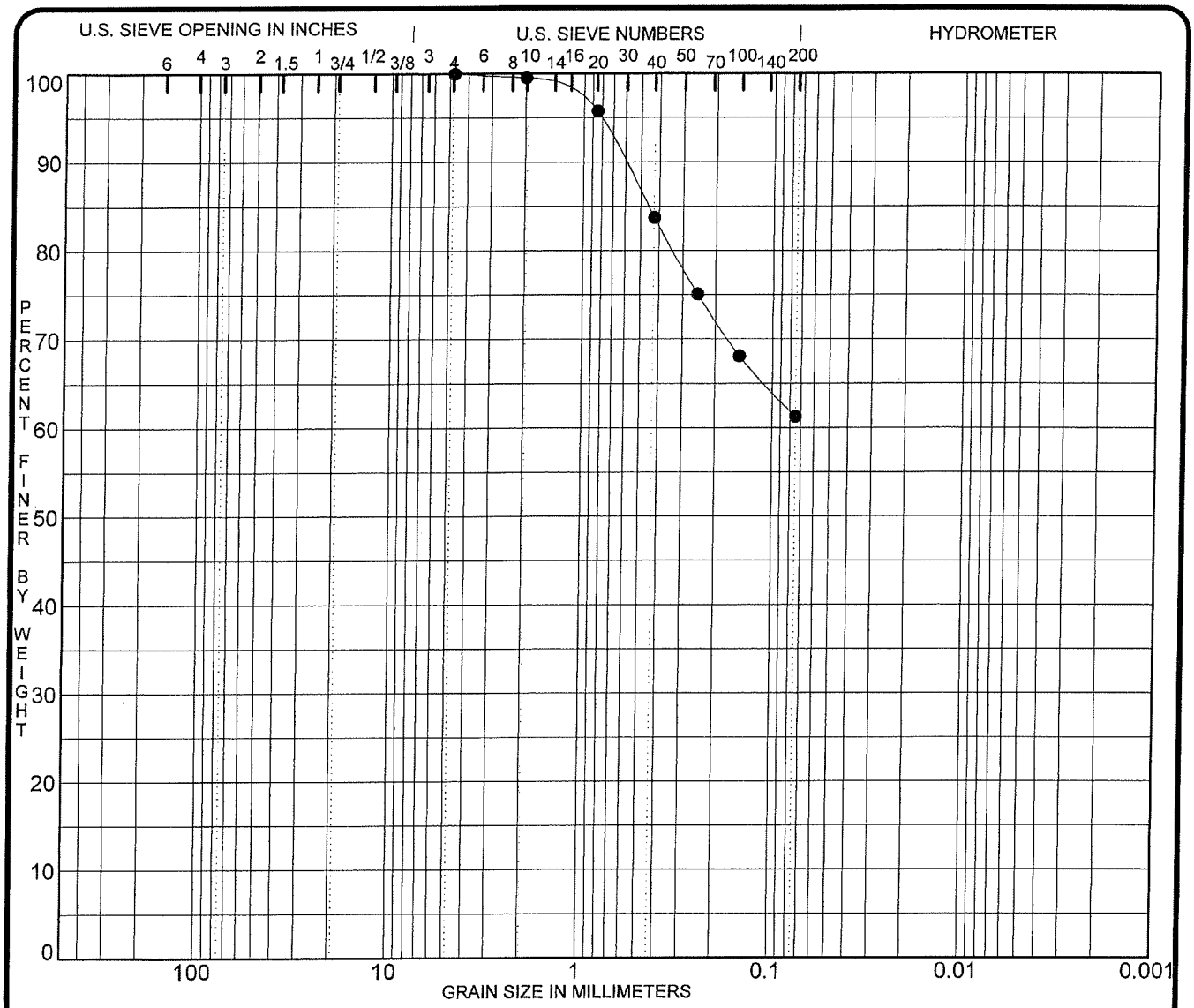
	Specimen Identification	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	3505	4.75	0.32	0.081		0.0	71.5	28.5	

PROJECT I - 575 / SR 5C (Ernest Barrett Pky), Cobb Co., GA
GDOT Proj #: CSNHS-0008-00 (256), PI #: 0008256

JOB NO. 171-3099 A
DATE 11/20/07

WILLMER ENGINEERING INC. WE

GRADATION CURVE



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

	Specimen Identification	Soil Description	MC%	LL	PL	PI	Cc	Cu
●	BB-4 (S-4) (13.5-15 ft)	Brown medium to fine sandy SILT (micaceous)						

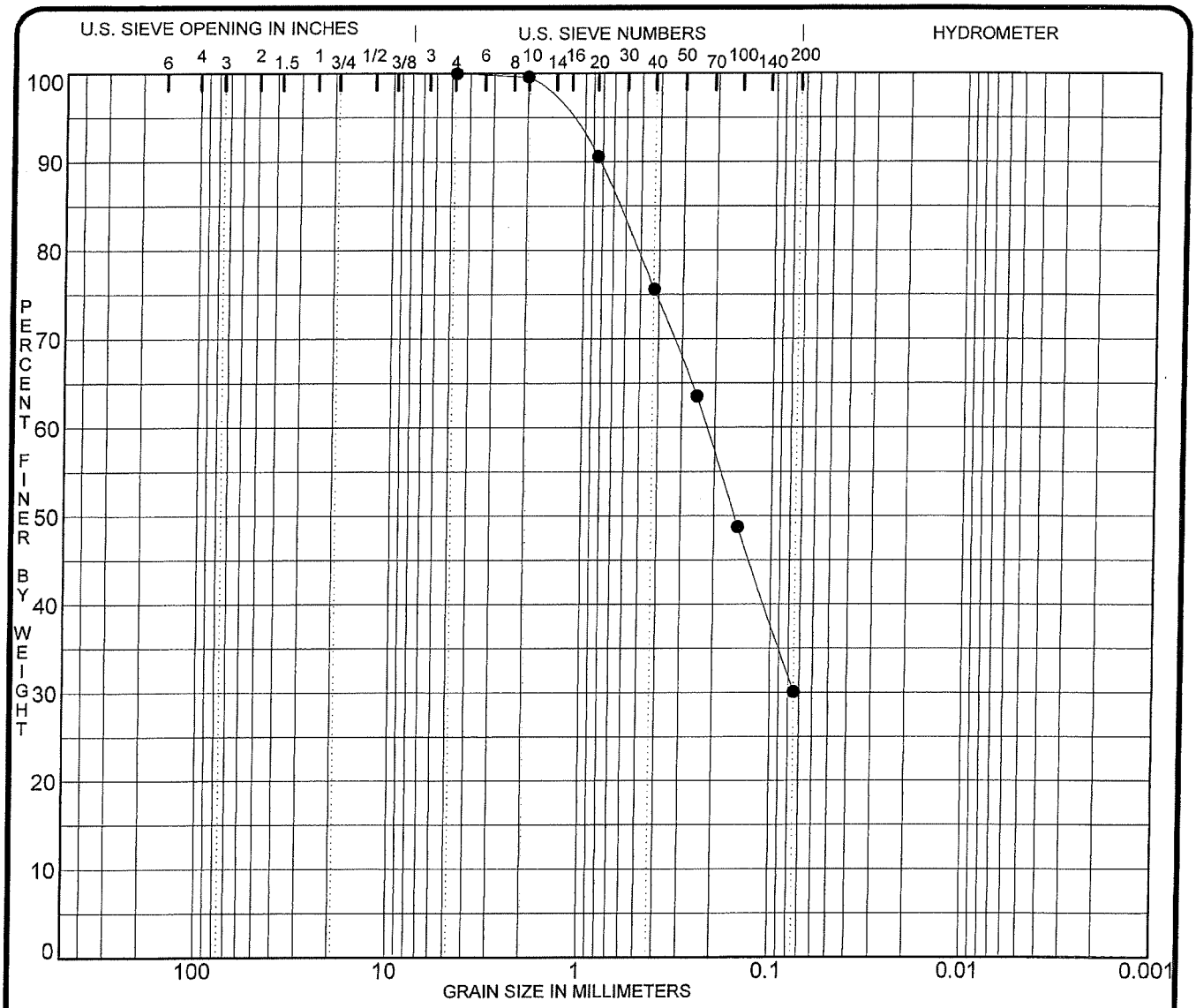
	Specimen Identification	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	3506	4.75				0.0	38.7	61.3	

PROJECT I - 575 / SR 5C (Ernest Barrett Pky), Cobb Co., GA
GDOT Proj #: CSNHS-0008-00 (256), PI #: 0008256

JOB NO. 171-3099 A
DATE 11/20/07

WILLMER ENGINEERING INC. WE

GRADATION CURVE



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

	Specimen Identification	Soil Description	MC%	LL	PL	PI	Cc	Cu
●	BB-4 (S-12) (53.5-55 ft)	White and brown silty medium to fine SAND (slightly micaceous)						

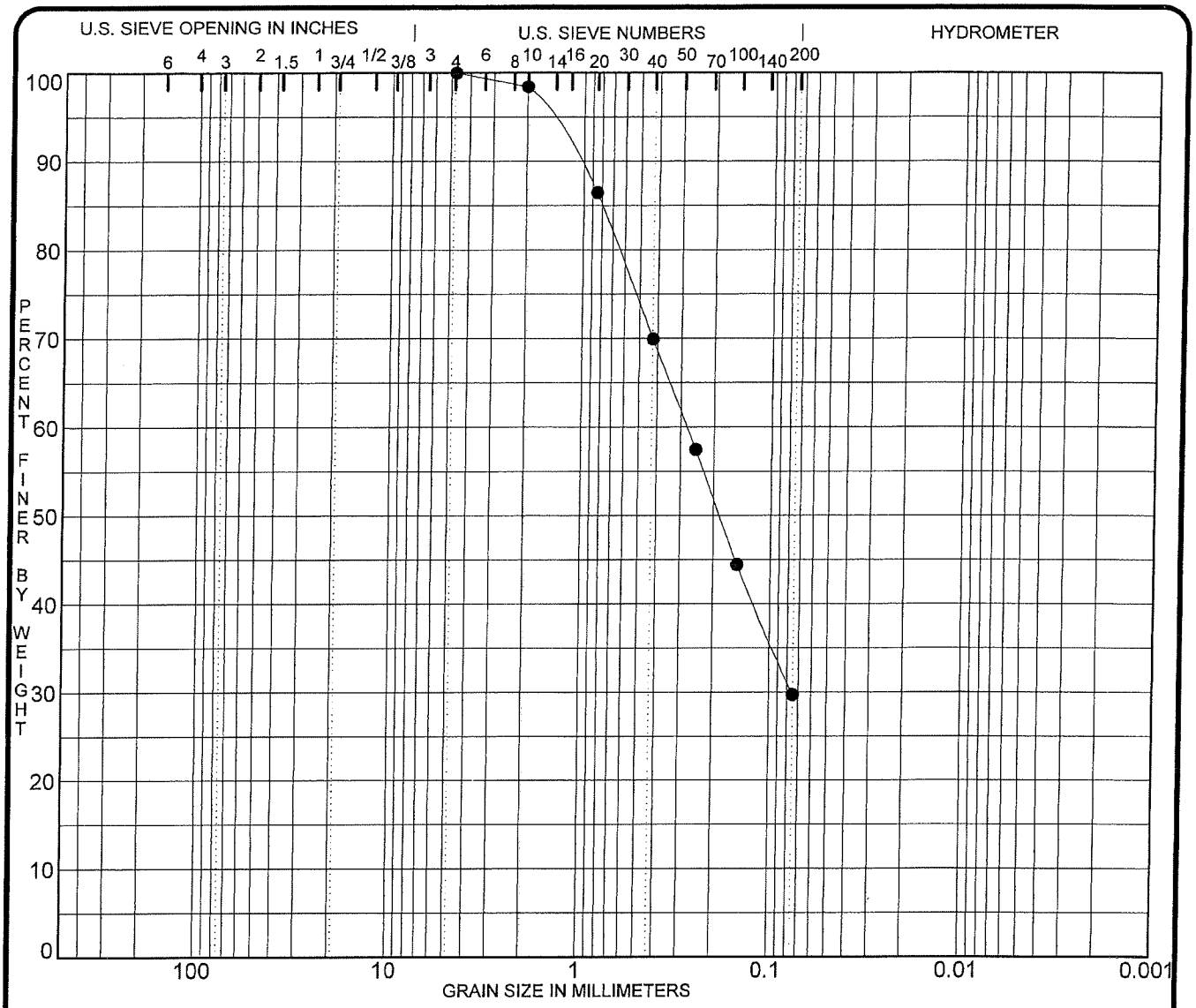
	Specimen Identification	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	3507	4.75	0.22			0.0	69.9	30.1	

PROJECT I - 575 / SR 5C (Ernest Barrett Pky), Cobb Co., GA
GDOT Proj #: CSNHS-0008-00 (256), PI #: 0008256

JOB NO. 171-3099 A
DATE 11/20/07

WILLMER ENGINEERING INC. WE

GRADATION CURVE



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

	Specimen Identification	Soil Description	MC%	LL	PL	PI	Cc	Cu
●	BB-5 (S-10) (43.5-45 ft)	Brown and tan silty medium to fine SAND						
		(micaceous)						

	Specimen Identification	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	3508	4.75	0.28	0.076		0.0	70.3	29.7	

PROJECT I - 575 / SR 5C (Ernest Barrett Pky), Cobb Co., GA
GDOT Proj #: CSNHS-0008-00 (256), PI #: 0008256

JOB NO. 171-3099 A
DATE 11/20/07

WILLMER ENGINEERING INC. WE

GRADATION CURVE

APPENDIX II

DOT 490

DEPARTMENT OF TRANSPORTATION

OFFICE OF MATERIALS AND RESEARCH, FOREST PARK, GEORGIA

SOILS ENGINEERING AND GEOLOGY BRANCH

BRIDGE SUBSURFACE INVESTIGATION

CSNHS-0008-00(256)

PROJECT PI No. 0008256 COUNTY Cobb DATE 8/23/76

LOCATION I-575 over SR 5C (Ernest Barrett Parkway) BORING NO. B-1

BENT NO. 1 FOOTING GROUND ELEV. 970.10

PROPOSED FOOTING ELEV. PARTY CHIEF Pulliam

ELEV.	BORING LOG		BLOW	UNIFIED	γ	W	Gs	% 200	% CLAY	LL	PI	C	Ø
	Gr. El.												
970													
Swt	Lse. Brn. Gray Micas. Clayey Sandy Silt	2s	7										
960	Loose Mltc. Micas. Sandy Silt	4s	6										
		5u											
		6s	12										
		7u											
950		8s	16										
	Medium Dense Same	9s	19										
940	Dense Mltc. Micas. Sandy Silt	10s	26										
		11s	60										
930	Very Dense Same	12s	60										
920		13s	60=.5'										
	End Drilling												

The Department of Transportation in making this foundation report available to contractors assumes no responsibility for its accuracy.

No claim will be considered if the contractor relies on this information in his bidding or in his construction operations and finds that it is inaccurate.

This foundation investigation report is not considered as a part of the Plans and Specifications or contract on the job.

DOT 490

DEPARTMENT OF TRANSPORTATION

OFFICE OF MATERIALS AND RESEARCH, FOREST PARK, GEORGIA

SOILS ENGINEERING AND GEOLOGY BRANCH

BRIDGE SUBSURFACE INVESTIGATION

CSNHS-0008-00(256)

PROJECT PI No. 0008256 COUNTY Cobb DATE 8/19/76

LOCATION I-575 over SR 5C (Ernest Barrett Parkway) BORING NO. B-2

BENT NO. 2 FOOTING GROUND ELEV. 973.37

PROPOSED FOOTING ELEV. PARTY CHIEF Pulliam

ELEV.	BORING LOG		BLOW	UNIFIED	γ	W	Gs	% 200	% CLAY	LL	PI	C	ø
	Gr. El. ?												
970	Loose Mltc. Micas. Sandy Silt	1s	5										
Gwt.													
		2s	3										
960	Very Loose Same	3s	3										
	Loose Mltc. Micas. Sandy Silt	4s	5										
950		5s	12										
		6s	11										
940	Medium Dense Same	7s	17										
		8s	17										
930		9s	40										
	Dense Mltc. Micas. Sandy Silt	10s	51										
920	Very Dense Same	11	60s										
		12s	60=9'										
	End Drilling												

The Department of Transportation in making this foundation report available to contractors [illegible] responsibility for its accuracy. [illegible] will be considered if the contractor [illegible] report is not [illegible] the 10%

DOT 490

DEPARTMENT OF TRANSPORTATION

OFFICE OF MATERIALS AND RESEARCH, FOREST PARK, GEORGIA

SOILS ENGINEERING AND GEOLOGY BRANCH

BRIDGE SUBSURFACE INVESTIGATION

CSNHS-0008-00(256)

PROJECT PI No. 0008256 COUNTY Cobb DATE 8/19/76

LOCATION I-575 over SR 5C (Ernest Barrett Parkway) BORING NO. B-3

BENT NO. 2 FOOTING GROUND ELEV. 971.47

PROPOSED FOOTING ELEV. PARTY CHIEF Pulliam

ELEV.	BORING LOG		BLOW	UNIFIED	γ	W	Gs	% 200	% CLAY	LL	PI	C	ø		
	Gr. El. 7														
970	Very Loose Mltc. Micas. Sandy Silt	1s	4												
Swt.															
960	Loose Same	2s	6												
		3s	10												
950	Medium Dense Mltc. Micas. Sandy Silt	4s	14												
	Dense Same	5s	27												
940		6s	60												
	Very Dense Mltc. Micas. Sandy Silt	7s	60=9'												
930		8s	60												
		9s	60=9'												
	End Drilling														

The Department of Transportation in making this foundation report available to contractors assumes no responsibility for its accuracy.

No claim will be considered if the contractor relies on this information in his bidding or in his construction operations and finds that it is inaccurate.

This foundation investigation report is not considered as a part of the Plans and Specifications or Contract on the job.

DOT 490

DEPARTMENT OF TRANSPORTATION

OFFICE OF MATERIALS AND RESEARCH, FOREST PARK, GEORGIA

SOILS ENGINEERING AND GEOLOGY BRANCH

BRIDGE SUBSURFACE INVESTIGATION

CSNHS-0008-00(256)

PROJECT PI No. 0008256 COUNTY Cobb DATE 7/22/76

LOCATION I-575 over SR 5C (Ernest Barrett Parkway) BORING NO. B-4

BENT NO. 3 FOOTING GROUND ELEV. 991.37

PROPOSED FOOTING ELEV. PARTY CHIEF Pulliam

ELEV.	BORING LOG		BLOW	UNIFIED	γ	W	Gs	% 200	% CLAY	LL	PI	C	ø
	Gr. El. ?												
990													
	Lse. to Med. Dse. Mltc.												
980	Micas. Sandy Silt												
970			9										
		2s	9										
960		3s	5										
	Loose Same												
		4s	8										
950		5s	7										
		6s	15										
940		7s	12										
	Medium Dense Mltc.												
	Micas. Sandy Silt	8s	16										
930		9s	21										

Cont.

The Department of Transportation in making this foundation report available to contractors assumes no responsibility for its accuracy.

No claim will be considered if the contractor relies on this information in his bidding or in his construction operations and finds that it is inaccurate.

This foundation investigation report is not considered part of the Plans and Specifications of Contract on the job.

DOT 490

DEPARTMENT OF TRANSPORTATION

OFFICE OF MATERIALS AND RESEARCH, FOREST PARK, GEORGIA

SOILS ENGINEERING AND GEOLOGY BRANCH

BRIDGE SUBSURFACE INVESTIGATION

CSNHS-0008-00(256)

PROJECT PI No. 0008256 COUNTY Cobb DATE 7/22/76

LOCATION I-575 over SR 5C (Ernest Barrett Parkway) BORING NO. B-4 Continued

BENT NO. 3 FOOTING GROUND ELEV. 991.37

PROPOSED FOOTING ELEV. PARTY CHIEF Pulliam

ELEV.	BORING LOG		BLOW	UNIFIED	γ	W	Gs	% 200	% CLAY	LL	PI	C	ø		
		10s	40												
	Dense Same														
920		11s	50												
	Very Dense Mltc	12s	60=.7'												
	Micas. Sandy Silt														
910		13s	60=.7'												
	End Drilling														

The Department of Transportation in making this subsurface report available to contractors [illegible] no responsibility for its accuracy. [illegible] agreed if the contractor [illegible] reliance in his bidding or [illegible] and finds that [illegible] subsurface investigation report is not considered as a part of the Plans and Specifications [illegible]

DOT 490

DEPARTMENT OF TRANSPORTATION

OFFICE OF MATERIALS AND RESEARCH, FOREST PARK, GEORGIA

SOILS ENGINEERING AND GEOLOGY BRANCH

BRIDGE SUBSURFACE INVESTIGATION

CSNHS-0008-00(256)

PROJECT PI No. 0008256 COUNTY Cobb DATE 7/22/76

LOCATION I-575 over SR 5C (Ernest Barrett Parkway) BORING NO. B-5

BENT NO. 3 FOOTING GROUND ELEV. 987.07

PROPOSED FOOTING ELEV. PARTY CHIEF Pulliam

ELEV.	BORING LOG		BLOW	UNIFIED	γ	W	Gs	% 200	% CLAY	LL	PI	C	ø
	Gr. El. 7												
980	Lse. to Med. Dense Mltc. Micas. Sdy. Silt												
970		1s	6										
		2s	5										
		3s	7										
960	Loose Same	4s	7										
950		5s	9										
		6s	10										
940	Medium Dense Mltc. Micas. Sandy Silt	7s	12										
	Dense Same	8s	26										
930	Very Dense Mltc. Micas. Sandy Silt	9s	60										
	End Drilling	10s	60=9'										

The Department of Transportation in making this foundation report available to contractors assumes no responsibility for its accuracy.

No claim will be considered if the contractor relies on this information in his bidding or in his construction operations and finds that it is inaccurate.

This foundation investigation report is not considered as a part of the Plans and Specifications of Contract on the job.

DOT 490

DEPARTMENT OF TRANSPORTATION

OFFICE OF MATERIALS AND RESEARCH, FOREST PARK, GEORGIA

SOILS ENGINEERING AND GEOLOGY BRANCH

BRIDGE SUBSURFACE INVESTIGATION

CSNHS-0008-00(256)

PROJECT PI No. 0008256 COUNTY Cobb DATE 7/22/76

LOCATION I-575 over SR 5C (Ernest Barrett Parkway) BORING NO. B-6

BENT NO. 4 FOOTING GROUND ELEV. 986.47

PROPOSED FOOTING ELEV. PARTY CHIEF Pulliam

ELEV.	BORING LOG		BLOW	UNIFIED	γ	W	Gs	% 200	% CLAY	LL	PI	C	ø
	Gr. El.												
	Med. Dse. Red Yel. Micas. Clayey Sandy Silt	1s	15										
980	Medium Dense Mltc. Micas. Sandy Silt	2s	11										
	Loose Same	3s	9										
970		4s	10										
	Medium Dense Mltc. Micas. Sandy Silt	5s	16										
Gwt	Loose Same	6s	9										
960	Medium Dense Mltc. Micas. Sandy Silt		11										
950	Loose Same	8s	9										
		9s	9										
940		10s	12										
	Medium Dense Mltc. Micas. Sandy Silt	11s	13										
930		12s	22										
		13s	60=.7'										
920	Very Dense Same	14s	60=5'										

The Department of Transportation in making this foundation report available to contractors assumes no responsibility for its accuracy.

No claim will be considered if the contractor relies on this report in his bidding or in his construction operations and finds that it is inaccurate.

This foundation investigation report is not considered as a part of the Plans and Specifications or Contract on the job.

DOT 490

DEPARTMENT OF TRANSPORTATION

OFFICE OF MATERIALS AND RESEARCH, FOREST PARK, GEORGIA

SOILS ENGINEERING AND GEOLOGY BRANCH

BRIDGE SUBSURFACE INVESTIGATION

CSNHS-0008-00(256)

PROJECT PI No. 0008256 COUNTY Cobb DATE 8/18/76

LOCATION I-575 over SR 5C (Ernest Barrett Parkway) BORING NO. B-7

BENT NO. 1 FOOTING GROUND ELEV. 971.07

PROPOSED FOOTING ELEV. PARTY CHIEF Pulliam

ELEV.	BORING LOG		BLOW	UNIFIED	γ	W	Gs	% 200	% CLAY	L.L.	PI	C	ø
	Gr. El.												
970													
		1s	9										
Gwt. 960		2s	8										
	Loose Mltc. Micas. Sandy Silt	3s	7										
950		4s	9										
		5s	10										
940		6s	11										
		7s	11										
930	Medium Dense Same	8s	13										
		9s	15										
920		10s	23										
		11s	60=9"										
910	Very Dense Mltc. Micas. Sandy Silt	12s	60=7"										

Cont

[illegible] as a part of the [illegible] and Specifications or Contract on the job.

6

DOT 490

DEPARTMENT OF TRANSPORTATION

OFFICE OF MATERIALS AND RESEARCH, FOREST PARK, GEORGIA

SOILS ENGINEERING AND GEOLOGY BRANCH

BRIDGE SUBSURFACE INVESTIGATION

CSNHS-0008-00(256)

PROJECT PI No. 0008256 COUNTY Cobb DATE 08/18/76

LOCATION I-575 over SR 5C (Ernest Barrett Parkway) BORING NO. B-7 Continued

BENT NO. 1 FOOTING GROUND ELEV. 971.07

PROPOSED FOOTING ELEV. PARTY CHIEF Pulliam

ELEV.	BORING LOG		BLOW	UNIFIED	γ	W	Gs	% 200	% CLAY	LL	PI	C	Ø		
		-13s	60=9"												
		V.Dse.Weathered Rock													
900	Practical Refusal.														

The Department of Transportation is making this foundation report available to [illegible] assumes no responsibility [illegible]

No claim will [illegible]

DOT 490

DEPARTMENT OF TRANSPORTATION

OFFICE OF MATERIALS AND RESEARCH, FOREST PARK, GEORGIA

SOILS ENGINEERING AND GEOLOGY BRANCH

BRIDGE SUBSURFACE INVESTIGATION

CSNHS-0008-00(256)

PROJECT PI No. 0008256 COUNTY Cobb DATE 8/18/76

LOCATION I-575 over SR 5C (Ernest Barrett Parkway) BORING NO. B-8

BENT NO. 2 FOOTING GROUND ELEV. 968.57

PROPOSED FOOTING ELEV. PARTY CHIEF Pulliam

ELEV.	BORING LOG		BLOW	UNIFIED	γ	W	Gs	% 200	% CLAY	LL	PI	C	ø		
			-	-											
970	Gr. El. 7														
	Loose Mltc. Micas.														
Swt.	Clayey Sandy Silt	1s	8												
960															
	Very Loose Mltc.	2s	3												
	Micas. Sandy Silt	3s	4												
950															
		4s	10												
	Loose Same	5s	9												
940															
		6s	9												
		7s	11												
930															
	Medium Dense Mltc.	8s	18												
	Micas. Sandy Silt	9s	23												
920															
	Very Dense Same	10s	60=9"												
	End Drilling														

The Department of Transportation in making this foundation report available to contractors assumes no responsibility for its accuracy.

No claim will be considered if the contractor relies on this information in his bidding or in his construction operations and finds that it is inaccurate.

This foundation investigation report is not considered as a part of the Plans and Specifications or contract on the job.

DOT 490

DEPARTMENT OF TRANSPORTATION

OFFICE OF MATERIALS AND RESEARCH, FOREST PARK, GEORGIA

SOILS ENGINEERING AND GEOLOGY BRANCH

BRIDGE SUBSURFACE INVESTIGATION

CSNHS-0008-00(256)

PROJECT PI No. 0008256 COUNTY Cobb DATE 8/18/76

LOCATION I-575 over SR 5C (Ernest Barrett Parkway) BORING NO. B-9

BENT NO. 2 FOOTING GROUND ELEV. 967.87

PROPOSED FOOTING ELEV. PARTY CHIEF Pulliam

ELEV.	BORING LOG		BLOW	UNIFIED	γ	W	Gs	% 200	% CLAY	LL	PI	C	ø
	Gr. El. ?												
	Med.Dse.Mltc. Micas Clayey Sandy Silt	1s	11										
Gwt 960													
	Very Loose Mltc. Micas.Sandy Silt	2s	4										
		3s	6										
950													
	Loose Same	4s	9										
		5s	10										
940													
	Medium Dense Mltc. Micas.Sandy Silt	6s	12										
	Loose Same	7s	10										
930													
		8s	16										
	Medium Dense Mltc. Micas.Sandy Silt	9s	18										
920													
		10s	30										
	Dense Same												
	Very Dense Mltc. Micas.Sandy Silt	11s	60										
910													
	Dense Same	12s	39										
	V.Dse.Weathered Rock	13s	HB										
900													
	Practical Refusal												

The Department of Transportation in making this foundation report available to contractors assumes no responsibility for its accuracy.

No claim will be considered if the contractor relies on this information in his bidding or in his construction operations and finds that it is inaccurate.

This foundation investigation report is not [illegible] as a part of the Plans and Specifications [illegible] contract on the job.

DOT 490

DEPARTMENT OF TRANSPORTATION

OFFICE OF MATERIALS AND RESEARCH, FOREST PARK, GEORGIA

SOILS ENGINEERING AND GEOLOGY BRANCH

BRIDGE SUBSURFACE INVESTIGATION

CSNHS-0008-00(256)

PROJECT PI No. 0008256 COUNTY Cobb DATE 8/24/76

LOCATION I-575 over SR 5C (Ernest Barrett Parkway) BORING NO. B-10

BENT NO. 3 FOOTING GROUND ELEV. 974.87

PROPOSED FOOTING ELEV. PARTY CHIEF Pulliam

ELEV.	BORING LOG		BLOW	UNIFIED	γ	W	Gs	% 200	% CLAY	LL	PI	C	Ø
	Gr. El.												
Gwt. 970	Loose Mltc. Micas. Sandy Silt	1s	10										
	Very Loose Mltc. Micas. Sandy Silt	2s	4										
960		3s	4										
	Loose Same	4s	9										
950		5s	10										
		6s	12										
940	Medium Dense Mltc. Micas. Sandy Silt	7s	15										
	Dense Same	8s	34										
930	Very Dense Mltc. Micas. Sandy Silt	9s	60=.7'										
		10s	60=.7'										
	End Drilling												

The Department of Transportation in making [illegible] available to contractors [illegible] for its accuracy. [illegible] will be [illegible] if the contractor [illegible] in his bidding or [illegible] operations and finds that [illegible] State.

This foundation investigation report is not [illegible] as a part of the Plans and Specs [illegible] Contract on the job.

DOT 490

DEPARTMENT OF TRANSPORTATION

OFFICE OF MATERIALS AND RESEARCH, FOREST PARK, GEORGIA

SOILS ENGINEERING AND GEOLOGY BRANCH

BRIDGE SUBSURFACE INVESTIGATION

PROJECT CSNHS-0008-00(256) PI No. 0008256 COUNTY Cobb DATE 8/24/76

LOCATION I-575 over SR 5C (Ernest Barrett Parkway) BORING NO. B-11

BENT NO. 3 FOOTING GROUND ELEV. 968.87

PROPOSED FOOTING ELEV. PARTY CHIEF Pulliam

ELEV.	BORING LOG		BLOW	UNIFIED	γ	W	Gs	% 200	% CLAY	LL	PI	C	ø
970	Gr. El.												
Gwt		1s	5										
960		2s	6										
	Loose Mltc. Micas. Sandy Silt	3s	6										
950		4s	9										
		5s	10										
940	Dense Same	6s	49										
		7s	60=.7'										
930	Very Dense Mltc. Micas. Sandy Silt	8s	60=.9'										
		9s	60=.5'										
920	End Drilling												

[illegible] in making [illegible] contractors [illegible] the boring. [illegible] the surface [illegible] this boring or [illegible] and fills that [illegible] investigation report is not [illegible] of the Plans and Specifications [illegible] job.

DOT-490

DEPARTMENT OF TRANSPORTATION

OFFICE OF MATERIALS AND RESEARCH, FOREST PARK, GEORGIA

SOILS ENGINEERING AND GEOLOGY BRANCH

BRIDGE SUBSURFACE INVESTIGATION

CSNHS-0008-00(256)

PROJECT PI No. 0008256 COUNTY Cobb DATE 8/24/76

LOCATION I-575 over SR 5C (Ernest Barrett Parkway) BORING NO. B-12

BENT NO. 4 FOOTING GROUND ELEV. 974.17

PROPOSED FOOTING ELEV. PARTY CHIEF Pulliam

ELEV.	BORING LOG		BLOW	UNIFIED	γ	W	Gs	% 200	% CLAY	LL	PI	C	ø
	Gr. El.												
970	Medium Dense Mltc. Micas. Sandy Silt	1s	14										
3 wt.		2s	5										
960		3s	7										
	Loose Same	4s	5										
950		5s	10										
		6s	10										
940		7s	60										
	Very Dense Mltc. Micas. Sandy Silt	8s	60										
930		9s	60-5"										
		10s	60										
920	End Drilling												