

NANCY B. WHITE
General Counsel - Florida

BellSouth Telecommunications, Inc.
150 South Monroe Street
Room 400
Tallahassee, Florida 32301
(305) 347-5558

July 23, 2001

Mrs. Blanca S. Bayó
Director, Division of the Commission
Clerk and Administrative Services
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, FL 32399-0850


Re: Request for Permanent Waiver of Physical
Collocation in Lake Mary Central Office

Dear Ms. Bayó:

Enclosed is an original and 15 copies of BellSouth Telecommunications, Inc.'s Petition for Permanent Waiver of physical collocation requirements in the Lake Mary Central Office which we ask that you file in the captioned matter.

A copy of this letter is enclosed. Please mark it to indicate that the original was filed and return the copy to me. Copies have been served to the parties shown on the attached Certificate of Service.

Sincerely,


Nancy B. White
(2)

Enclosures

cc: All parties of record
Marshall M. Criser, III
R. Douglas Lackey

pc docs 201197

DOCUMENT NUMBER-DATE

08978 JUL 23 01

FPSC-COMMISSION CLERK

CERTIFICATE OF SERVICE

Docket No. 010940-TL

I HEREBY CERTIFY that a true and correct copy of foregoing was served via

U.S. Mail this 23rd day of July, 2001 to the following:

Staff Counsel
Florida Public Service
Commission
Division of Legal Services
2540 Shumard Oak Boulevard
Tallahassee, FL 32399-0850

Rhonda P. Merritt
Asst. VP, Law & Gov't Affairs
AT&T Communications of the
Southern States, Inc.
101 North Monroe Street
Suite 700
Tallahassee, FL 32301-1549
Tel: (850) 425-6342
Fax: (850) 425-6361

Leonard Romaine
AT&T Communications of the
Southern States, Inc.
429 Ridge Road
Cube H134
Dayton, N.J. 08810
Tel: (732) 392-4938

Mellony Mishaux
AT&T Communications of the
Southern States, Inc.
1200 Peachtree Street
Promenade 1
Room 12229
Atlanta, GA 30309

Ms. Carolyn Marek
Time Warner Telecom of Florida, L.P.
233 Bramerton Court

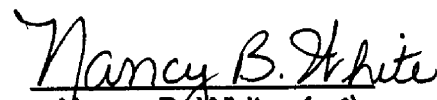
Franklin, TN 37069-4002

Mr. John B. Glicksman
Adelphia Business Solutions of Florida,
Inc.
1 North Main Street
Coudersport, PA 16915-1630

Matthew Feil, Esq.
General Counsel
Florida Digital Network, Inc.
390 North Orange Avenue
Suite 2000
Orlando, FL 32801-1640

Ms. Catherine F. Boone
DIECA Communications, Inc. d/b/a
Covad
Communications Company
10 Glenlake Parkway, Suite 650
Atlanta, GA 30328-3495

Mr. F. B. (Ben) Poag
Sprint Communications
Post Office Box 2214 (MC
FLTLHO0107)
Tallahassee, FL 32316-2214


Nancy B. White (sf)

pc docs 201226

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: BellSouth Telecommunications,) Docket No.: 010940-TL
Inc.'s Petition for Permanent Waiver of)
Physical Collocation In the Lake Mary)
Central Office)
_____) Filed: July 23, 2001

**BELLSOUTH TELECOMMUNICATIONS, INC.'S
PETITION FOR PERMANENT WAIVER**

BellSouth Telecommunications, Inc. ("BellSouth"), files this Petition for Permanent Waiver in accordance with Order No. PSC-99-1744-PAA-TP, issued on September 7, 1999 ("PSC Order"), the Telecommunications Act of 1996 (the "Act") and the Federal Communications Commission's ("FCC") First Report and Order (the "Order"). Pursuant to this authority, BellSouth requests a permanent exemption from the physical collocation requirements as set forth in the Act, in the Order and in the PSC Order for the Lake Mary Central Office ("CO") located at 365 International Drive, Lake Mary, Florida 32746. BellSouth seeks this exemption from the Florida Public Service Commission ("FPSC") on the grounds that it is unable to meet physical collocation requests due to space limitations in the CO and the inability to construct an addition to the building.

1. On June 30, 2000, the Florida Public Service Commission ("Commission") issued Order PSC-00-1181-FOF-TL granting BellSouth a temporary waiver for physical collocation in the Lake Mary central office until June 31, 2001.

2. In its Petition for Temporary Waiver filed with the Commission on March, 30, 2000, BellSouth advised that an addition to the building would be completed at the

end of second quarter of 2001. However, further review of the existing structure and soil conditions at this site indicate that the building cannot be reasonably expanded. There is no further space available for physical collocation. BellSouth is currently searching for a replacement site for the Lake Mary Central Office. A copy of the geotechnical exploration report conducted by Universal Engineering Services is attached as Exhibit 1. Exhibit 1A consists of drawings showing the soil conditions. A copy of the two reports from Parsons is attached as Exhibit 2.

3. The Lake Mary CO building houses switches providing local dial tone. Circuit equipment also located in the CO consists of fiber optic terminals, digital cross-connect systems, multiplexers, digital channel banks, subscriber carrier terminals, and digital cross-connect panels and provides connectivity to other COs and local customers. Rectifiers and battery strings provide power to the above equipment.

4. The area served by the Lake Mary CO is growing rapidly and thus the facility is under enormous space constraints. To meet the demands of the expanding customer base, BellSouth currently has on order from the manufacturer additional Toll/Circuit and Switching equipment.

5. Under the Act, Incumbent Local Exchange Companies ("ILECs") have the following obligation:

The duty to provide, on rates, terms, and conditions that are just, reasonable, and nondiscriminatory, for physical collocation of equipment necessary for interconnection or access to unbundled network elements at the premises of the local exchange carrier, except that the carrier may provide for virtual collocation if the local exchange carrier demonstrates to the State Commission that physical collocation is not practical for technical reasons or because of space limitations.

47 U.S. § 251(c)(b). Thus, an ILEC is required to provide physical collocation unless it is “not practical...because of space limitations.” Id. The term “space limitations” encompasses two factors: first, ILECs are entitled to consider space already in use by the ILEC at the time the collocation request is made; second, ILECs are entitled to “retain a limited amount of floor space for defined future uses” (Order, Par. 604). Without the latter element, competitive entrants “could prevent incumbent LECs from serving their customers effectively.” Id.

6. Due to space limitations in the Lake Mary CO, BellSouth is unable to provide physical collocation. BellSouth is currently searching for a replacement site.

7. In an effort to identify space currently available for physical collocation, BellSouth employed the following procedure:

1. BellSouth determined the total square footage within the facility;
2. BellSouth determined the unavailable space (i.e., restrooms, hallways, stairs, etc.);
3. BellSouth determined assigned space currently occupied by the BellSouth switch, transmission, power and other equipment, as well as necessary administrative space;
4. BellSouth determined the space reserved for future defined uses necessary to adequately serve BellSouth customers, including consideration given to BellSouth’s future switch growth plans;
5. BellSouth identified any unusable space (such as basements subject to flooding); and
6. BellSouth determined available collocation space by subtracting Items 2-5 from item 1.

8. As previously stated, BellSouth's thorough assessment of the facility confirmed that there is no space available for additional physical collocation until the addition is completed. Attached hereto is the space assessment worksheet that details the procedure set forth above. (Exhibit 3). This exhibit also identifies the central office language identifier, the identity of the requesting ALEC and the amount of space sought, the total amount of space at the premises and floor loading requirements. Also attached hereto as Exhibit 4 are floor plans that contain the remaining information required by the PSC Order.

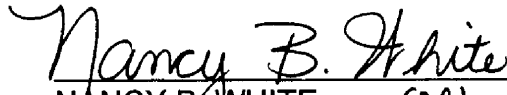
9. There is space reserved for defined future use for BellSouth to meet the growing needs of its customers through the year 2001. The projects include incremental additions to the existing switching system, frame and transmission equipment. These projects will use the remaining space in the facility. As previously stated, BellSouth has been unable to move forward with an addition because of soil conditions.

10. The Lake Mary CO contains no available space for physical collocation and for this reason should be permanently excluded from the collocation requirements. BellSouth will, of course, offer virtual collocation in the Lake Mary CO.

WHEREFORE, having demonstrated good cause for its request, BellSouth asks that the Commission grant its Petition for Permanent Waiver and exempt BellSouth from the obligation to offer physical collocation in the Lake Mary CO.

Respectfully submitted this 23rd day of July, 2001.

BELLSOUTH TELECOMMUNICATIONS, INC.



NANCY B. WHITE (22)

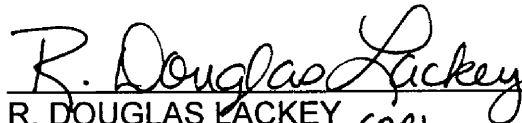
JAMES MEZA

c/o Nancy Sims

150 South Monroe Street, #400

Tallahassee, Florida 32301

(305) 347-5555



R. DOUGLAS LACKEY (22)

J. PHILLIP CARVER

675 West Peachtree Street, #4300

Atlanta, Georgia 30375

(404) 335-0747

202997



UNIVERSAL ENGINEERING SCIENCES

Consultants In: Geotechnical Engineering • Threshold Inspection
Environmental Sciences • Construction Materials Testing

Offices In
• Orlando
• Gainesville
• Fort Myers
• Rockledge
• St. Augustine
• Daytona Beach
• West Palm Beach
• Jacksonville
• Ocala
• Tampa
• Debarry

May 1, 2000

Parsons Infrastructure & Technology Group
4701 Hedgemore Drive
Charlotte, North Carolina 28209

Attention: Mr. Augustine Quattrochi

Reference: Geotechnical Exploration
Preliminary Findings Report
Bellsouth Addition
Lake Mary, Florida
Project No. 10958-001-01
Report No. 113155

Dear Mr. Quattrochi:

Universal Engineering Sciences has performed field and laboratory investigations for the referenced project and we are currently evaluating the findings of these investigations and preparing foundation and remedial grouting recommendations for the proposed addition. We have prepared this preliminary findings report based on the request relayed to us by Mr. Ted Gay of your firm during our telephone discussion on April 13, 2000 addressing the unanticipated soil conditions encountered on the site. Presented in the following paragraphs are a summary of our findings and a preliminary discussion of potential foundation options.

FINDINGS

Our field investigation included twelve SPT borings, eight advanced to a depth of 20 feet below the existing grades in the areas of the proposed one-story additions, and four advanced to depths of 100 to 205 feet below the existing grades in the outer building perimeter areas for the future two-story, "flyover" addition.

Page 1 of 5 Pages

Shallow SPT Boring Profiles

The soil profiles encountered at the shallower, 20-foot boring locations were relatively consistent and included soil profiles comprised of very loose to loose, gray-brown and light brown sand with low fines contents extending to depths of 7 to 10 feet, underlain by loose to medium dense light brown and gray-brown sand extending to depths of 14 to 20 feet. At two locations, B-9 and B-10 performed to the east of the existing structure, the lower portion of the profiles included loose, light brown silty and clayey sands continuing to the termination depth of the borings. The groundwater level was encountered at depths ranging from 12 to 17 feet with the range due to the varying topography of the site and adjacent retention area where several borings were located.

Deep SPT Boring Profiles

The soil profiles encountered at the deep SPT boring locations varied significantly. Boring B-8 performed near the northeastern corner of the proposed northern addition, encountered a soil profile that included upper strata of loose to medium dense sand with low fines contents extending to a depth of approximately 23 feet below the existing grade and underlain by very loose to loose silty and clayey sands continuing to a depth of about 44 feet where the upper surface of the limestone was encountered. The upper 30 feet of the limestone, between 44 and 75 feet, was typically soft and weathered and included zones of lost drilling fluid circulation. Between the depths of 75 and 100 feet, the limestone was generally competent with occasional seams of limesilt present in apparent solution channels. The groundwater level was encountered at a depth of 16 feet during the initial portions of the drilling operations.

Boring B-11, located near the southeastern corner of the existing structure encountered a soil profile that included very loose to loose sands with low fines contents extending to a depth of approximately 23 feet below the existing grade and underlain by alternating strata of silty sand, sand with silt and clayey sand to a depth of approximately 84 feet. The lower portion of the profile included a stratum of hard to stiff calcareous clay with occasional consolidated/cemented seams continuing to a depth of 99 feet where limestone was encountered. This boring was advanced to a depth of 110 feet, with the limestone encountered displaying distinct weathering and voids. The groundwater level was encountered at this location at a depth of 17.5 feet below the existing grade during the initial portion of drilling activities.



Boring B-1, located near the southwestern corner of the proposed addition encountered a soil profile that consisted of loose to medium dense sands with generally low silt contents continuing to a depth of 66 feet where soft organic soil was encountered. The organic soils consisted of very soft organic silt and peat, commonly referred to as "muck" and this stratum continued to a depth of approximately 86 feet where a layer of very dense sand was encountered. The deeper soils, between the depths of 86 and 136 feet generally consisted of alternating layers of medium dense to very dense silty sand and sand with silt, with the density loosening with depth. Beginning at an approximate depth of 136 feet, a second stratum of organic soil was encountered, consisting a similar muck material, that extended to a depth of about 176 feet. Between the depths of 176 and 193 feet, the soils consisted of very dense to dense sand. A third layer of soft organic soils were encountered (muck and highly organic silty sand) between the depths of 193 and 203 feet. Below the deeper organic strata the soils consisted of dense sand extending to the boring termination depths of 205 feet below the existing grade.

Boring B-5 was located east of the northern third of the existing structure in the existing retention area and encountered a soil profile that included loose to medium dense sand and silty sand that continued to a depth of approximately 80 feet; a stratum of very loose silty organic sand was encountered in this portion of the profile between the depths of 32 and 36 feet. Below the 80-foot depth, the soils consisted of very loose silty and clayey sands with a stratum of soft sandy clay encountered between the depths of 96 and 102 feet. Below the clay stratum, the soil consisted of very loose silty and clayey sands with numerous zones of raveled material (extremely loose soils that would not support the weight of the drilling rods and sampler, noted as WOR or weight-of-rod on the boring logs) and lost circulation. The raveled soil conditions continued to a depth of approximately 172 feet where a layer of loose silty sand was encountered. The boring was advanced by wash-boring to a depth of 188.5 feet where competent limestone was encountered. The groundwater level was encountered at a depth of 11.5 feet below the existing grade at this location during the initial portion of the drilling operation.

Soils Discussion

The extremely variable soil conditions encountered at the deep boring locations are problematic with regard to foundation design for the two-story "fly-over" addition. The shallow depth of the limestone and raveled soil zones encountered at location B-8 are indicative of potential sinkhole activity that will require remedial grouting. The increasing depth of the limestone moving southward from location B-8, through B-5 to location B-1, together with the deep organic soils found at location B-1 are indicative of a significant ancient sinkhole collapse in the vicinity of location B-1. More worrisome are the significant zones of raveled material found in the lower portion of the profile at boring location B-5; these deep raveled strata are separated from the upper sands by only a minimal clay confining layer and further subsidence of the upper soils may occur in the future if a breach or failure occurs in the clay layer.



Remedial compaction grouting of the upper, weather portion of the limestone and raveled zones found at locations B-8 and B-11 would assist in minimizing the potential for sinkhole activity in the northern and eastern portions of the site. Remedial grouting would also assist in improving the raveled zones and sandier organic soils found at locations B-1 and B-5; however, the deeper soils in the western and southern portions of the site will likely require significant volumes of grout to achieve adequate densification. Please note that a potential exists for sinkhole occurrence during grouting operations that could result in disturbance and/or damage to the existing structure due the added weight of the grout in the soil mass. We recommend that you consider this potential and inform your client of the possibility of sinkhole-induced damage during construction.

PRELIMINARY FOUNDATION DISCUSSION

One-Story Additions

Based on the upper portions of the soil profiles encountered at the test boring locations, it is our opinion that the one-story additions, if constructed separately from the two-story addition, may be adequately supported on shallow foundations following remedial compaction grouting of the deeper raveled soils to address potential sinkhole activity.

The upper 5 to 6 feet of the loose sands should be densified through shallow undercutting and compaction with a heavy weight static roller. The use a static roller will be necessary to minimize the potential for disturbance and undesirable settlement of the existing structure.

Two-Story Fly-Over Addition

We are currently evaluating foundation alternatives for the more heavily-loaded column foundations of the future second-story addition. Our initial review of the soil conditions indicates that two options may be suitable: 1) remedial compaction grouting of the deep soil strata in a grid pattern below the addition and existing structure addressing the potential for sinkhole activity, and continuing the grouting up to the ground surface at the two-story column locations to densify the loose upper soils, and 2) similar remedial compaction grouting of the deep soil strata performed in conjunction with the use of vibro-replacement stone columns supporting the two-story column foundations.

As you are aware, the congestion of the subsurface utilities on the site will increase the difficulty of any subsurface soil improvement program. Based on our experience during the field investigation, the option of using compaction grouting to densify both the deep raveled zones and loose upper sands may be the most suitable method for achieving the desired soil improvement while reducing potential conflicts with the existing below-grade utilities. Additionally, vibro-replacement operations can result in disturbance to the existing structure and the use of this method would require a separation distance of 7 to 10 feet between the existing structure foundation and the proposed column foundations to minimize disturbance. Regardless



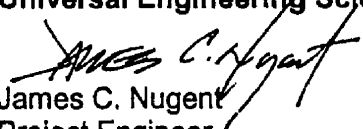
Project No. 10958-001-01
Report No. 113155

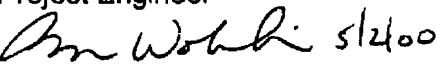
of which option is selected, we strongly recommend that the geotechnical specialty contractor performing the soil improvement contact and meet with representatives of all the subsurface utility owners to coordinate their work effort and minimize the potential for damage to these utilities. We also suggest that the locations of all subsurface utilities be verified visually by hand excavation prior to the start of grouting operations.

CLOSURE

We trust this report meets your immediate needs and provides the preliminary information requested. We are continuing with our evaluation of foundation alternatives and will contact you to discuss possible options as the evaluation progresses. If you have any questions or require additional information, please do not hesitate to contact us. We appreciate this opportunity to provide geotechnical engineering services and look forward to our continued involvement with this project.

Respectfully Submitted,
Universal Engineering Sciences, Inc.


James C. Nugent
Project Engineer

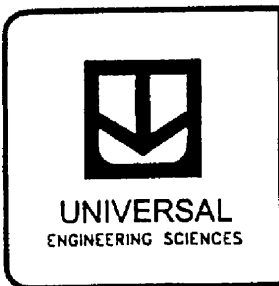
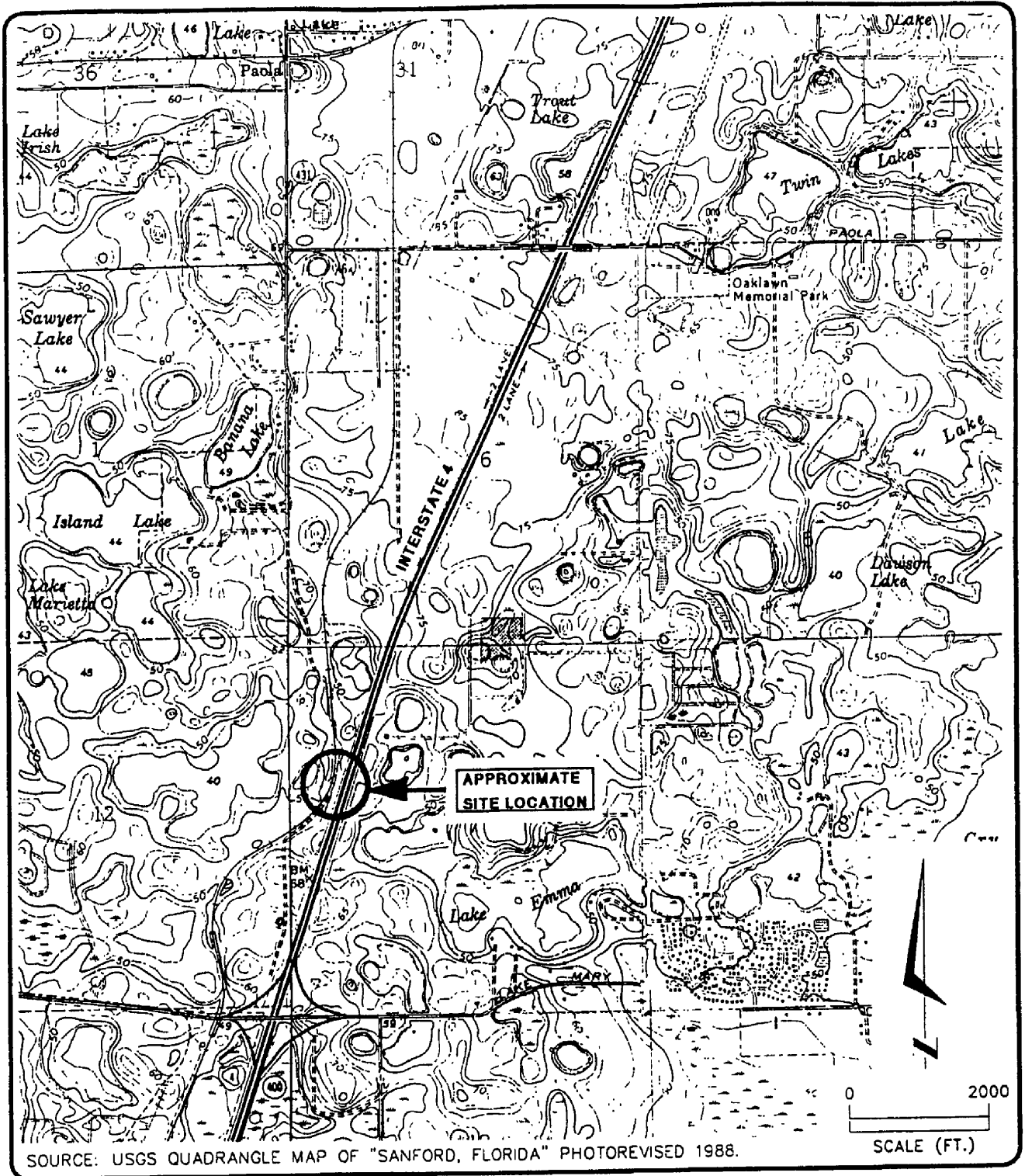

Bruce H. Woloshin, P.E.
P.E. No. 36734
Manager, Geotechnical Engineering

JCN/BHW:cc

Attachments: Appendix A - Site Location Map
Appendix B - Boring Location Plan and Boring Logs



APPENDIX A

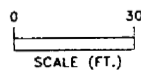
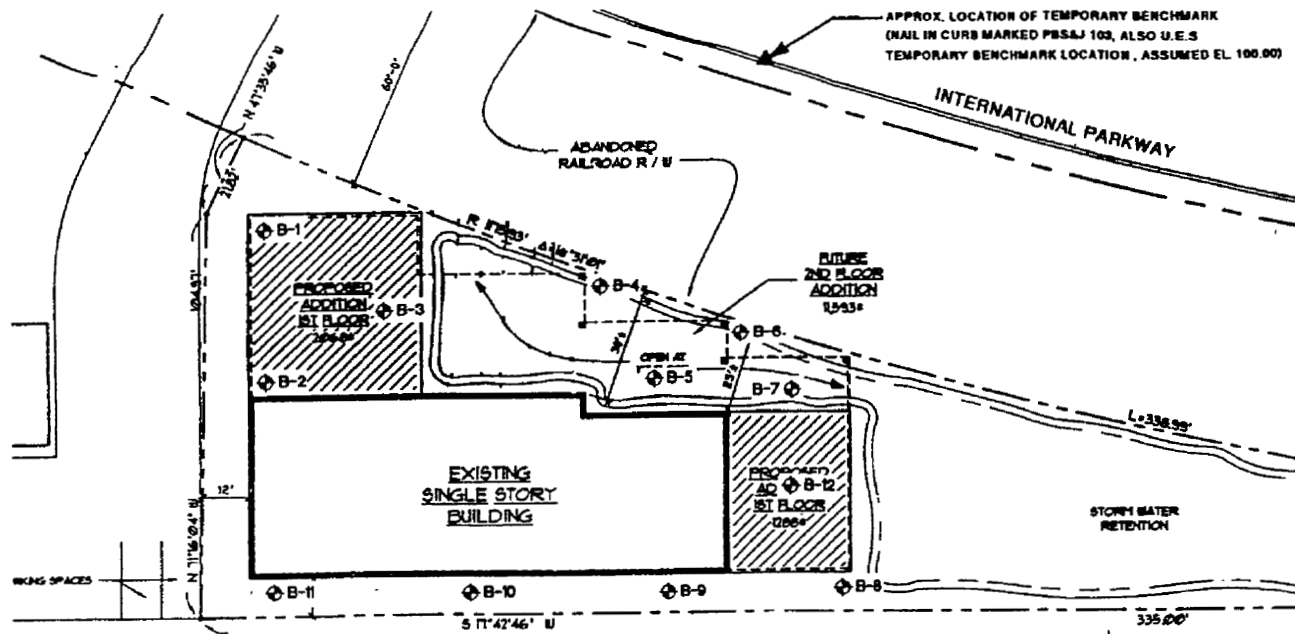


BELLSOUTH ADDITION
LAKE MARY, FLORIDA

SITE LOCATION MAP

DRAWN BY: R.K.S.	DATE: 4/25/00	CHECKED BY: JN	DATE: 5/1/00
SCALE: AS SHOWN	PROJECT NO: 10958-001.01	REPORT NO: 113/55	PAGE NO: A-1

APPENDIX B



LEGEND

⊕ STANDARD PENETRATION TEST BORING LOCATION

BORINGS PERFORMED 3/29 - 4/18/00

THIS DRAWING REPRODUCED FROM PLAN PROVIDED BY CLIENT

FOR: PARSONS INFRASTRUCTURE AND TECHNOLOGY GROUP

DRAWN BY: R.K.S.	DATE: 4/24/00
CHECKED BY: JJ	DATE: 5/1/00
REPORT NO: 10158-00-05	SCALE: AS SHOWN
PROJECT NO: 10158-00-01	

BELLSOUTH ADDITION
LAKE MARY, FLORIDA

BORING LOCATION PLAN



UNIVERSAL
ENGINEERING SCIENCES

PAGE NO:

B-1



UNIVERSAL ENGINEERING SCIENCES BORING LOG

PROJECT NO.: 10958-001-01

REPORT NO.: 113155

PAGE: B-2.1

PROJECT: BELLSOUTH ADDITION

BORING DESIGNATION: **B-1**
SECTION: 7 TOWNSHIP: 20S

SHEET: **1 of 4**
RANGE: 30S

LAKE MARY, FLORIDA

CLIENT: PARSONS INFRASTRUCTURE & TECHNOLOGY GROUP

G.S. ELEVATION (ft): 99.7

DATE STARTED: 4/7/00

LOCATION: SEE BORING LOCATION PLAN

WATER TABLE (ft): 17.5

DATE FINISHED: 4/7/00

REMARKS: SET 3" DIA. CASING TO 180.0 FT.

DATE OF READING: 4/10/00

DRILLED BY: U.E.S. - ORLANDO

EST. W.S.W.T. (ft):

TYPE OF SAMPLING: ASTM D-1586

DEPTH (FT.)	SAMPLE	BLOWS PER 6" INCREMENT	N (BLOWS/ FT.)	W.T.	SYMBOL	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG LIMITS		K (FT./ DAY)	ORG. CONT. (%)
									LL	PI		
0						1" MULCH						
		8-7-7	14			Medium dense to loose light brown fine SAND [SP]						
		7-6-8	14									
5		4-3-3	6			-- loose, light gray-brown						
		3-2-3	5									
		4-3-3	6									
10		3-4-4	8									
						Medium dense light orange-brown fine SAND [SP]						
15		6-6-5	11				4	7				
						Medium dense light gray fine SAND [SP]						
20		9-10-15	25									
						Medium dense gray fine SAND; with silt [SP-SM]						
25		3-6-8	14			-- brown						
30		4-5-7	12									
						Medium dense brown fine SAND [SP]						
35		8-12-13	25			-- light brown	1	25				
40		8-10-12	22									
						Loose gray-brown fine SAND; with silt [SP-SM]						
45		3-4-5	9			-- medium dense						
50		8-10-12	22			-- loose						
55		1-2-5	7									

02859



UNIVERSAL ENGINEERING SCIENCES BORING LOG

PROJECT NO.: 10958-001-01

REPORT NO.: 113155

PAGE: B-2.2

PROJECT: BELLSOUTH ADDITION
LAKE MARY, FLORIDA

BORING DESIGNATION: **B-1**
SECTION: 7 TOWNSHIP: 20S

SHEET: **2 of 4**
RANGE: 30S

DEPTH (FT.)	SAMPLE	BLOWS PER 6" INCREMENT	N (BLOWS/ FT.)	W.T.	SYMBOL	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG LIMITS		K (FT./ DAY)	ORG. CONT. (%)
									LL	PI		
55												
60	X	11-8-10	18			Medium dense gray-brown silty fine SAND [SM]						
65	X	4-6-7	13			Medium dense light gray-brown fine SAND [SP]						
70	X	1-0-0	WOR			Very soft dark brown MUCK [PT]		85				23.9
75	X	1-0-0	WOR			- sandy						
80	X	1-0-0	WOR									
85	X	1-0-0	WOR									
90	X	26-27-35	62			Very dense brown fine SAND; with silt [SP-SM]						
95	X	30-56-60	116			Very dense dark gray-brown silty fine SAND [SM]						
100	X	17-33-45	78			-- gray-brown						
105	X	12-17-22	39			Dense gray-brown fine SAND [SP]						
110	X	15-17-18	35			Dense light gray-brown silty fine SAND; with clay [SM]						

02859



UNIVERSAL ENGINEERING SCIENCES BORING LOG

PROJECT NO.: 10958-001-01

REPORT NO.: 113155

PAGE: B-2.3

PROJECT: BELLSOUTH ADDITION
LAKE MARY, FLORIDA

BORING DESIGNATION: **B-1**
SECTION: 7 TOWNSHIP: 20S

SHEET: **3 of 4**
RANGE: 30S

DEPTH (FT.)	SAMPLE	BLOWS PER 6" INCREMENT	N (BLOWS/ FT.)	W.T.	SYMBOL	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG LIMITS		K (FT./ DAY)	ORG. CONT. (%)
									LL	PI		
110												
115	54-52-48	100				Very dense gray-brown fine SAND; with silt [SP]						
120	8-10-14	24				Medium dense gray-brown fine SAND; with seams of organic silt [SP-OH]						
125	14-17-15	32				Dense pale brown silty fine SAND [SM]						
130	5-8-9	17				Medium dense dark gray silty fine SAND; with seams of muck [SM]						
135	4-3-5	8										
140	3-3-4	7				Firm dark brown MUCK; with sandy seams [PT]						
145	3-2-3	5										
150	2-3-3	6										
155	3-3-3	6										
160	4-5-6	11				-- stiff						
165	4-5-4	9										

02859



UNIVERSAL ENGINEERING SCIENCES BORING LOG

PROJECT NO.: 10958-001-01

REPORT NO.: 113155

PAGE: B-2.4

PROJECT: BELLSOUTH ADDITION
LAKE MARY, FLORIDA

BORING DESIGNATION:
SECTION: 7

B-1
TOWNSHIP: 20S

SHEET: **4 of 4**
RANGE: 30S

DEPTH (FT.)	SAMPLE	BLOWS PER 6" INCREMENT	N (BLOWS/ FT.)	W.T.	SYMBOL	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG LIMITS		K (FT./ DAY)	ORG. CONT. (%)
									LL	PI		
165												
170	X	4-3-4	7		Wavy lines	-- firm						
175	X	4-4-4	8		Wavy lines							
180	X	32-58-42	100		Stippled	Very dense light gray fine SAND (SP)						
185	X	10-16-25	41		Stippled	-- dense, gray						
190	X	12-15-17	32		Stippled	-- light gray						
195	X	WOR	WOR		Wavy lines	very soft dark brown sandy MUCK (PT)						
200	X	1-0-1	1		Stippled	Very loose dark brown silty organic SAND; with seams of muck (SM-OL)						
205	X	14-20-24	44		Stippled	Dense light gray-brown fine SAND (SP)						
205						BORING TERMINATED AT 205.0 FT.						
210												
215												
220												

02859



UNIVERSAL ENGINEERING SCIENCES BORING LOG

PROJECT NO.:	10958-001-01
REPORT NO.:	113155
PAGE:	B-2.5

PROJECT: BELLSOUTH ADDITION
LAKE MARY, FLORIDA

BORING DESIGNATION: **B-2**
SECTION: 7 TOWNSHIP: 20S

SHEET: **1 of 1**
RANGE: 30S

CLIENT: PARSONS INFRASTRUCTURE & TECHNOLOGY GROUP
LOCATION: SEE BORING LOCATION PLAN

G.S. ELEVATION (ft): 101.5
WATER TABLE (ft): 17.7

DATE STARTED: 4/11/00
DATE FINISHED: 4/11/00

REMARKS: DYNAMIC CONE PENETROMETER TEST PERFORMED FROM 0 FT.
TO 3 FT.

DATE OF READING: 4/11/00
EST. W.S.W.T. (ft):

DRILLED BY: U.E.S. - ORLANDO
TYPE OF SAMPLING: ASTM D-1586

DEPTH (FT.)	S A M P L E	BLOWS PER 6" INCREMENT	N (BLOWS/ FT.)	W.T.	S Y M B O L	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG LIMITS		K (FT./ DAY)	ORG. CONT. (%)
									LL	PI		
0		1-1 1-1 1-1	1 1 1		•••••	Very loose gray-brown fine SAND [SP]						
5		1-1-1 1-2-2 2-3-4 4-4-5	2 4 7 9		•••••	-- very loose to loose light gray-brown	1	4				
10					•••••							
15		5-6-6	12		•••••	-- medium dense						
20		5-6-5	11	▼	•••••	BORING TERMINATED AT 20.0 FT.						
25												
30												
35												
40												
45												
50												
55												

02859



UNIVERSAL ENGINEERING SCIENCES BORING LOG

PROJECT NO.:	10958-001-01
REPORT NO.:	113155
PAGE:	B-2.6

PROJECT: BELLSOUTH ADDITION

BORING DESIGNATION: **B-3**
SECTION: 7 TOWNSHIP: 20S

SHEET: **1 of 1**
RANGE: 30S

LAKE MARY, FLORIDA

CLIENT: PARSONS INFRASTRUCTURE & TECHNOLOGY GROUP

G.S. ELEVATION (ft): 100.2

DATE STARTED: 3/30/00

LOCATION: SEE BORING LOCATION PLAN

WATER TABLE (ft): 16.8

DATE FINISHED: 3/30/00

REMARKS: DYNAMIC CONE PENETROMETER TEST PERFORMED FROM 0 FT. TO 3 FT.

DATE OF READING: 3/30/00

DRILLED BY: U.E.S. - ORLANDO

EST. W.S.W.T. (ft):

TYPE OF SAMPLING: ASTM D-1586

DEPTH (FT.)	SAMPLER	BLOWS PER 6" INCREMENT	N (BLOWS/FT.)	W.T.	SYMBOL	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG LIMITS		K (FT./DAY)	ORG. CONT. (%)	
									LL	PI			
0		3-3	3			Very loose gray-brown fine SAND (SP)							
		3-3	3			-- light brown							
		2-2	2			-- light gray							
5		1-1-3	4			-- loose, light brown							
		1-1-3	4										
		4-4-4	8										
		4-5-4	9										
10													
							-- shade darker						
15		3-4-5	9	▼									
						-- medium dense, light gray							
20		5-7-10	17			BORING TERMINATED AT 20.0 FT.							
25													
30													
35													
40													
45													
50													
55													

02859



UNIVERSAL ENGINEERING SCIENCES BORING LOG

PROJECT NO.:	10958-001-01
REPORT NO.:	113155
PAGE:	B-2.7

PROJECT: BELLSOUTH ADDITION

BORING DESIGNATION: **B-4**
SECTION: 7 TOWNSHIP: 20S

SHEET: **1 of 1**
RANGE: 30S

LAKE MARY, FLORIDA

CLIENT: PARSONS INFRASTRUCTURE & TECHNOLOGY GROUP

G.S. ELEVATION (ft): 97.4

DATE STARTED: 3/30/00

LOCATION: SEE BORING LOCATION PLAN

WATER TABLE (ft): 12.0

DATE FINISHED: 3/30/00

REMARKS: DYNAMIC CONE PENETROMETER TEST PERFORMED FROM 0 FT. TO 4 FT.

DATE OF READING: 3/30/00

DRILLED BY: U.E.S. - ORLANDO

EST. W.S.W.T. (ft):

TYPE OF SAMPLING: ASTM D-1586

DEPTH (FT.)	SAMPLE	BLOWS PER 6" INCREMENT	N (BLOWS/ FT.)	W.T.	SYMBOL	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG LIMITS		K (FT./ DAY)	ORG. CONT. (%)		
									LL	PI				
0		3-3	3			Very loose dark gray-brown fine SAND [SP] -- light brown								
		3-3	3											
		3-4	4											
		3-3	3											
5		4-5-4	9					-- loose						
		5-6-6	12											
		5-5-5	10											
		5-6-6	12					-- medium dense, light gray-brown						
10				▼										
		6-7-6	13					-- light brown	1	21				
15														
		8-10-15	25					BORING TERMINATED AT 20.0 FT.						
20														
25														
30														
35														
40														
45														
50														
55														

02859



UNIVERSAL ENGINEERING SCIENCES BORING LOG

PROJECT NO.:	10958-001-01
REPORT NO.:	113155
PAGE:	B-2.8

PROJECT: BELLSOUTH ADDITION
LAKE MARY, FLORIDA

BORING DESIGNATION: **B-5** SHEET: **1 of 4**
SECTION: 7 TOWNSHIP: 20S RANGE: 30S

CLIENT: PARSONS INFRASTRUCTURE & TECHNOLOGY GROUP
LOCATION: SEE BORING LOCATION PLAN

G.S. ELEVATION (ft): 97.2 DATE STARTED: 4/11/00
WATER TABLE (ft): 11.5 DATE FINISHED: 4/13/00

REMARKS: SET 3" DIA. CASING TO 120.0 FT. BORING LOCATION MOVED
APPROX. 10 FT. NORTHWEST OF STAKED LOCATION. DYNAMIC
CONE PENETROMETER TEST PERFORMED FROM 0 FT. TO 3 FT.

DATE OF READING: 4/13/00 DRILLED BY: U.E.S. - ORLANDO
EST. W.S.W.T. (ft): TYPE OF SAMPLING: ASTM D-1586

DEPTH (FT.)	S A M P L E	BLOWS PER 6" INCREMENT	N (BLOWS/ FT.)	W.T.	S Y M B O L	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG LIMITS		K (FT./ DAY)	ORG. CONT. (%)
									LL	PI		
0		1-1	1			Very loose light brown fine SAND [SP]						
		1-1	1			-- loose light gray-brown fine SAND [SP]						
		1-1	1									
5		2-2-3	5									
		2-3-4	7									
		4-5-5	10				-- medium dense, light gray-brown					
		5-5-6	11									
10				▼			-- gray-brown					
		5-6-8	14									
							-- light gray-brown					
20		7-9-11	20									
25		9-13-14	27			-- gray						
30		13-11-7	18									
35		1-1-0	1			Very loose dark brown silty organic SAND [SM]	10	50			12.9	
40		12-11-8	19			Medium dense dark gray-brown fine SAND; with silt [SP-SM]						
45		10-9-8	17			-- gray-brown						
50		8-12-12	24			Medium dense light gray-brown fine SAND [SP]						
55		7-6-7	13			Medium dense dark gray-brown fine SAND; with silt [SP-SM]						

02855



UNIVERSAL ENGINEERING SCIENCES BORING LOG

PROJECT NO.:	10958-001-01
REPORT NO.:	113155
PAGE:	8-2.9

PROJECT: BELLSOUTH ADDITION
LAKE MARY, FLORIDA

BORING DESIGNATION: **B-5** SHEET: **2 of 4**
SECTION: 7 TOWNSHIP: 20S RANGE: 30S

DEPTH (FT.)	SAMP P L E	BLOWS PER 6" INCREMENT	N (BLOWS/ FT.)	W.T.	S Y M B O L	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG LIMITS		K (FT./ DAY)	ORG. CONT. (%)
									LL	PI		
55												
60	X	12-11-10	21		•••••	Medium dense light gray fine SAND [SP]						
65	X	6-6-8	14		•••••	Medium dense gray-brown fine SAND; with silt [SP-SM]						
70	X	9-10-10	20		•••••							
75	X	4-5-6	11		•••••	Medium dense gray-brown silty fine SAND [SM]						
80	X	2-3-4	7		•••••	-- loose						
85	X	1-0-0	WOR		•••••	TOTAL LOSS OF CIRCULATION -- very loose, light gray-brown						
90	X	2-2-2	4		/ / / / /	Very loose light gray-brown clayey fine SAND [SC]						
95	X	8-8-10	18		•••••	Medium dense light green-brown silty fine SAND [SM]						
100	X	2-0-3	3		/ / / / /	Soft light gray-green sandy CLAY [CH]	86	48				
105	X	1-0-1	1		•••••	Very loose light gray silty fine SAND [SM]						
110	X	1-1-1	2		•••••							

02859



UNIVERSAL ENGINEERING SCIENCES BORING LOG

PROJECT NO.: 10958-001-01

REPORT NO.: 113155

PAGE: B-2.10

PROJECT: BELLSOUTH ADDITION
LAKE MARY, FLORIDA

BORING DESIGNATION: **B-5**
SECTION: 7 TOWNSHIP: 20S

SHEET: **3 of 4**
RANGE: 30S

DEPTH (FT.)	SAMPLE	BLOWS PER 6" INCREMENT	N (BLOWS/ FT.)	W.T.	SYMBOL	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG LIMITS		K (FT./ DAY)	ORG. CONT. (%)
									LL	PI		
110												
115	X	6-6-5	11			RAVELED MATERIAL						
120	X	0-0-0	WOR			NO CIRCULATION						
125	X	0-0-0	WOR									
130	X	0-0-0	WOR									
135	X	4-5-5	10			Loose light green-brown silty fine SAND; trace of organics [SM]						
140			WOR			RAVELED MATERIAL						
145			WOR			NO CIRCULATION						
150	X	1-0-1	1			Very loose dark brown clayey fine SAND; trace of organics [SC]	31	26				3.9
155	X	1-1-1	2			-- with seams of green clay						
160	X	0-0-0	WOR			RAVELED MATERIAL						
165	X	6-5-5	10			NO CIRCULATION						
						Stiff dark gray organic CLAY; with seams of limesilt [CL-OL]						

02859



UNIVERSAL ENGINEERING SCIENCES BORING LOG

PROJECT NO.:	10958-001-01
REPORT NO.:	113155
PAGE:	B-2.11

PROJECT: BELLSOUTH ADDITION
LAKE MARY, FLORIDA

BORING DESIGNATION: **B-5** SHEET: **4 of 4**
SECTION: 7 TOWNSHIP: 20S RANGE: 30S

DEPTH (FT.)	S A M P L E	BLOWS PER 6" INCREMENT	N (BLOWS/ FT.)	W.T.	S Y M B O L	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG LIMITS		K (FT./ DAY)	ORG. CONT. (%)
									LL	PI		
165						RAVELED MATERIAL NO CIRCULATION						
170	X	0-0-0	WOR									
175	X	4-4-4	8			Loose light gray-green silty fine SAND (SM)						
180						WASH BORED FROM 175 FT. TO 188.5 FT.						
185						Very dense light brown LIMESTONE						
190	X	100	100/0"			BORING TERMINATED AT 188.5 FT.						
195												
200												
205												
210												
215												
220												

02859



UNIVERSAL ENGINEERING SCIENCES BORING LOG

PROJECT NO.:	10958-001-01
REPORT NO.:	113155
PAGE:	B-2.12

PROJECT: BELLSOUTH ADDITION
LAKE MARY, FLORIDA

BORING DESIGNATION: **B-6** SHEET: **1 of 1**
SECTION: 7 TOWNSHIP: 20S RANGE: 30S

CLIENT: PARSONS INFRASTRUCTURE & TECHNOLOGY GROUP
LOCATION: SEE BORING LOCATION PLAN
REMARKS: DYNAMIC CONE PENETROMETER TEST PERFORMED FROM 0 FT.
TO 10 FT.

G.S. ELEVATION (ft): 100.7 DATE STARTED: 3/30/00
WATER TABLE (ft): 16.0 DATE FINISHED: 3/30/00
DATE OF READING: 3/30/00 DRILLED BY: U.E.S. - ORLANDO
EST. W.S.W.T. (ft): TYPE OF SAMPLING: ASTM D-1586

DEPTH (FT.)	SAMPLING	BLOWS PER 6" INCREMENT	N (BLOWS/FT.)	W.T.	SYMBOL	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG LIMITS		K (FT./DAY)	ORG. CONT. (%)		
									LL	PI				
0		2-3	3			Very loose gray-brown fine SAND; with silt [SP-SM]								
		3-4	4											
		4-4	4											
		3-3	3											
		3-2	2											
5		2-2	2					Very loose light brown fine SAND [SP]						
		2-2	2											
		2-2	2											
		2-2	2											
		1-2	2											
10														
15	X	8-6-8	14	▼		- medium dense								
20	X	8-11-10	21			- light gray-brown BORING TERMINATED AT 20.0 FT.								
25														
30														
35														
40														
45														
50														
55														

02859



UNIVERSAL ENGINEERING SCIENCES BORING LOG

PROJECT NO.:	10958-001-01
REPORT NO.:	113155
PAGE:	B-2.13

PROJECT: BELLSOUTH ADDITION

BORING DESIGNATION: **B-7**
SECTION: 7

SHEET: **1 of 1**
RANGE: 30S

LAKE MARY, FLORIDA

CLIENT: PARSONS INFRASTRUCTURE & TECHNOLOGY GROUP

G.S. ELEVATION (ft): 97.4

DATE STARTED: 3/29/00

LOCATION: SEE BORING LOCATION PLAN

WATER TABLE (ft): 13.0

DATE FINISHED: 3/29/00

REMARKS:

DATE OF READING: 3/29/00

DRILLED BY: U.E.S. - ORLANDO

EST. W.S.W.T. (ft):

TYPE OF SAMPLING: ASTM D-1586

DEPTH (FT.)	SAMPLER	BLOWS PER 6" INCREMENT	N (BLOWS/FT.)	W.T.	SYMBOL	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG LIMITS		K (FT./DAY)	ORG. CONT. (%)	
									LL	PI			
0						Very loose gray-brown fine SAND [SP]							
	X	2-2-2	4			-- light gray-brown, with roots							
	X	3-2-2	4			-- loose, light brown							
5	X	4-5-5	10			-- light gray-brown							
	X	4-5-5	10			-- brown							
	X	5-5-5	10										
10	X	4-3-4	7										
				▼			-- gray-brown						
15	X	3-3-3	6				-- medium dense						
20	X	4-7-9	16				BORING TERMINATED AT 20.0 FT.						
25													
30													
35													
40													
45													
50													
55													

02859



UNIVERSAL ENGINEERING SCIENCES BORING LOG

PROJECT NO.:	10958-001-01
REPORT NO.:	113155
PAGE:	B-2.14

PROJECT: BELLSOUTH ADDITION
LAKE MARY, FLORIDA

BORING DESIGNATION: **B-8** SHEET: **1 of 2**
SECTION: 7 TOWNSHIP: 20S RANGE: 30S

CLIENT: PARSONS INFRASTRUCTURE & TECHNOLOGY GROUP
LOCATION: SEE BORING LOCATION PLAN
REMARKS: SET 3" DIA. CASING TO 90.0 FT.

G.S. ELEVATION (ft): 101.3 DATE STARTED: 3/29/00
WATER TABLE (ft): 16.0 DATE FINISHED: 3/30/00
DATE OF READING: 3/30/00 DRILLED BY: U.E.S. - ORLANDO
EST. W.S.W.T. (ft): TYPE OF SAMPLING: ASTM D-1586

DEPTH (FT.)	SAMPLE	BLOWS PER 6" INCREMENT	N (BLOWS/ FT.)	W.T.	SYMBOL	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG LIMITS		K (FT./ DAY)	ORG. CONT. (%)
									LL	PI		
0						Loose brown fine SAND [SP]						
		3-4-5	9			-- medium dense, light brown						
		7-6-5	11			-- loose, with roots						
5		2-2-3	5			-- very loose, no roots						
		1-2-2	4									
		2-2-2	4									
10		3-4-4	8			-- loose						
						-- pale brown						
15		3-3-3	6	▼		-- medium dense, light gray-brown						
20		5-5-6	11									
25		1-1-1	2			Very loose light gray silty fine SAND; with orange mottling [SM]	17	33				
30		1-0-1	1									
						Loose light gray fine SAND; with silt [SP-SM]						
35		1-2-3	5									
						Very loose light gray clayey fine SAND [SC]						
40		1-2-1	3									
45		1-2-4	6			Loose light brown weathered LIMESTONE; with limesilt						
50		3-3-5	8			-- light gray						
55		14-26-6	32			Dense to medium dense light brown fragmented LIMESTONE; with shell PARTIAL LOSS OF CIRCULATION						

02859



UNIVERSAL ENGINEERING SCIENCES BORING LOG

PROJECT NO.:	10958-001-01
REPORT NO.:	113155
PAGE:	B-2.15

PROJECT: BELLSOUTH ADDITION
LAKE MARY, FLORIDA

BORING DESIGNATION: **B-8**
SECTION: 7 TOWNSHIP: 20S RANGE: 30S

SHEET: **2 of 2**
RANGE: 30S

DEPTH (FT.)	SAMPLE	BLOWS PER 6" INCREMENT	N (BLOWS/ FT.)	W.T.	SYMBOL	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG LIMITS		K (FT./ DAY)	ORG. CONT. (%)
									LL	PI		
55					[Brick Pattern]							
60	X	28-13-7	20		[Brick Pattern]	CIRCULATION REGAINED 60 FT. TO 63 FT.						
65	X	20-10-11	21		[Brick Pattern]	-- medium dense						
70	X	6-8-11	19		[Brick Pattern]							
75	X	100	100/3"		[Brick Pattern]	-- very dense						
80	X	100	100/3"		[Brick Pattern]	TOTAL LOSS OF CIRCULATION						
85	X	6-9-8	17		[Brick Pattern]	-- medium dense, with seams of limesilt						
90	X	100	100/6"		[Brick Pattern]	-- very dense						
95	X	100	100/6"		[Brick Pattern]	Very dense light brown weathered LIMESTONE						
100	X	100	100/6"		[Brick Pattern]	BORING TERMINATED AT 100.0 FT.						
105												
110												

02859



UNIVERSAL ENGINEERING SCIENCES BORING LOG

PROJECT NO.:	10958-001-01
REPORT NO.:	113155
PAGE:	B-2.16

PROJECT: BELLSOUTH ADDITION
LAKE MARY, FLORIDA

BORING DESIGNATION: **B-9**
SECTION: 7 TOWNSHIP: 20S

SHEET: **1 of 1**
RANGE: 30S

CLIENT: PARSONS INFRASTRUCTURE & TECHNOLOGY GROUP
LOCATION: SEE BORING LOCATION PLAN
REMARKS: DYNAMIC CONE PENETROMETER TEST PERFORMED FROM 0 FT.
TO 3 FT.

G.S. ELEVATION (ft): 101.5 DATE STARTED: 4/11/00
WATER TABLE (ft): 16.5 DATE FINISHED: 4/11/00
DATE OF READING: 4/11/00 DRILLED BY: U.E.S. - ORLANDO
EST. W.S.W.T. (ft): TYPE OF SAMPLING: ASTM D-1586

DEPTH (FT.)	SAMPLE	BLOWS PER 6" INCREMENT	N (BLOWS/ FT.)	W.T.	SYMBOL	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG LIMITS		K (FT./ DAY)	ORG. CONT. (%)
									LL	PI		
0		1-2 1-1 1-1	2 1 1			Very loose light brown fine SAND [SP]						
5		1-2-2 2-2-2 2-3-2 2-3-3	4 4 5 6			-- loose, shade lighter -- light gray-brown						
15		3-3-4	7	▼	[SC]	Loose light brown clayey fine SAND [SC]	20	18				
20		3-3-3	6		[SM]	Loose light brown silty fine SAND; with clay [SM] BORING TERMINATED AT 20.0 FT.						
25												
30												
35												
40												
45												
50												
55												

02859



UNIVERSAL ENGINEERING SCIENCES BORING LOG

PROJECT NO.:	10958-001-01
REPORT NO.:	113155
PAGE:	B-2.17

<p>PROJECT: BELLSOUTH ADDITION LAKE MARY, FLORIDA</p> <p>CLIENT: PARSONS INFRASTRUCTURE & TECHNOLOGY GROUP</p> <p>LOCATION: SEE BORING LOCATION PLAN</p> <p>REMARKS: DYNAMIC CONE PENETROMETER TEST PERFORMED FROM 0 FT. TO 3 FT.</p>	<p>BORING DESIGNATION: B-10</p> <p>SECTION: 7 TOWNSHIP: 20S SHEET: 1 of 1 RANGE: 30S</p> <p>G.S. ELEVATION (ft): 102.7 DATE STARTED: 4/11/00</p> <p>WATER TABLE (ft): 17.0 DATE FINISHED: 4/11/00</p> <p>DATE OF READING: 4/11/00 DRILLED BY: U.E.S. - ORLANDO</p> <p>EST. W.S.W.T. (ft): TYPE OF SAMPLING: ASTM D-1586</p>
---	---

DEPTH (FT.)	SAMPLING	BLOWS PER 6" INCREMENT	N (BLOWS/ FT.)	W.T.	SYMBOL	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG LIMITS		K (FT./ DAY)	ORG. CONT. (%)	
									LL	PI			
0	X	1-1	1			Very loose gray-brown fine SAND [SP] - light orange-brown very loose to loose, light gray-brown							
	X	1-1	1										
	X	1-1	1										
5	X	1-1-2	3										
	X	1-2-2	4										
	X	2-3-2	5										
	X	2-3-3	6										
10	X	2-3-3	6										
15	X	2-3-3	6										
				▼									
20	X	3-3-3	6					Loose light brown clayey fine SAND [SC] BORING TERMINATED AT 20.0 FT.	18	22			
25													
30													
35													
40													
45													
50													
55													

02859



UNIVERSAL ENGINEERING SCIENCES BORING LOG

PROJECT NO.:	10958-001-01
REPORT NO.:	113155
PAGE:	B-2.18

PROJECT: BELLSOUTH ADDITION

BORING DESIGNATION: **B-11** SHEET: **1 of 2**
 SECTION: 7 TOWNSHIP: 20S RANGE: 30S

LAKE MARY, FLORIDA

CLIENT: PARSONS INFRASTRUCTURE & TECHNOLOGY GROUP

G.S. ELEVATION (ft): 101.8 DATE STARTED: 4/18/00

LOCATION: SEE BORING LOCATION PLAN

WATER TABLE (ft): 17.5 DATE FINISHED: 4/18/00

REMARKS: DYNAMIC CONE PENETROMETER TEST PERFORMED FROM 0 FT. TO 3 FT.

DATE OF READING: 4/18/00 DRILLED BY: U.E.S. - ORLANDO

EST. W.S.W.T. (ft): TYPE OF SAMPLING: ASTM D-1586

DEPTH (FT.)	SAMPLE	BLOWS PER 6" INCREMENT	N (BLOWS/ FT.)	W.T.	SYMBOL	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG LIMITS		K (FT./ DAY)	ORG. CONT. (%)
									LL	PI		
0		2-1 1-1 1-1	1 1 1			Very loose dark gray-brown fine SAND [SP] -- light yellow-brown						
5		2-2-3 2-3-4 3-2-3 3-4-5	5 7 5 9			loose -- light gray-brown -- with orange mottling	1	3				
15		3-4-4	8			-- light yellow-brown, with brown mottling						
20		5-4-4	8	▼		Loose gray-brown fine SAND; with silt [SP-SM]	9	28				
25		4-5-6	11			Medium dense light gray-brown silty fine SAND; with clay [SM]						
30		5-9-9	18									
35		3-3-6	9			Loose light brown fine SAND; with silt [SP-SM]						
40		5-5-4	9			-- light gray-brown	10	27				
45		3-3-4	7									
50		9-11-12	23			Medium dense light brown fine SAND [SP]						
55		2-2-3	5			Loose light yellow-brown silty fine SAND [SM]						

02859



UNIVERSAL ENGINEERING SCIENCES BORING LOG

PROJECT NO.:	10958-001-01
REPORT NO.:	113155
PAGE:	B-2.19

PROJECT: BELLSOUTH ADDITION
LAKE MARY, FLORIDA

BORING DESIGNATION: **B-11** SHEET: **2 of 2**
SECTION: 7 TOWNSHIP: 20S RANGE: 30S

DEPTH (FT.)	S A M P L E	BLOWS PER 6" INCREMENT	N (BLOWS/ FT.)	W.T.	S Y M B O L	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG LIMITS		K (FT./ DAY)	ORG. CONT. (%)
									LL	PI		
55												
60	X	2-2-2	4		•••••	- very loose, with seams of red-orange staining						
65	X	2-0-2	2		•••••	Very loose light gray fine SAND; with silt (SP-SM)						
70	X	1-1-1	2		•••••	Very loose light brown silty fine SAND; with shell (SM)						
75	X	2-2-3	5		•••••	Loose light orange-brown fine SAND; with silt (SP-SM)						
80	X	9-10-12	22		•••••	- medium dense, light gray						
85	X	2-3-4	7		•••••	Loose light green-brown clayey fine SAND; trace of shell (SC)						
90	X	24-100	100/3"		▨▨▨▨▨	Hard light brown consolidated CLAY (calcareous) (CL)						
95	X	9-9-10	19		▨▨▨▨▨	-- very stiff, with lenses of organic silt						
100	X	9-8-0	8		▨▨▨▨▨	Loose light brown weathered LIMESTONE; with seams of limesilt						
105	X	7-8-8	16		▨▨▨▨▨	VOID TOTAL LOSS OF CIRCULATION Medium dense to dense light gray weathered LIMESTONE						
110	X	9-12-23	35		▨▨▨▨▨	BORING TERMINATED AT 110. FT.						

02859



UNIVERSAL ENGINEERING SCIENCES BORING LOG

PROJECT NO.:	10958-001-01
REPORT NO.:	113155
PAGE:	8-2.20

PROJECT: BELLSOUTH ADDITION

BORING DESIGNATION: **B-12** SHEET: **1 of 1**
 SECTION: 7 TOWNSHIP: 20S RANGE: 30S

LAKE MARY, FLORIDA

CLIENT: PARSONS INFRASTRUCTURE & TECHNOLOGY GROUP

G.S. ELEVATION (ft): 97.9 DATE STARTED: 3/29/00

LOCATION: SEE BORING LOCATION PLAN

WATER TABLE (ft): 13.6 DATE FINISHED: 3/29/00

REMARKS:

DATE OF READING: 3/29/00

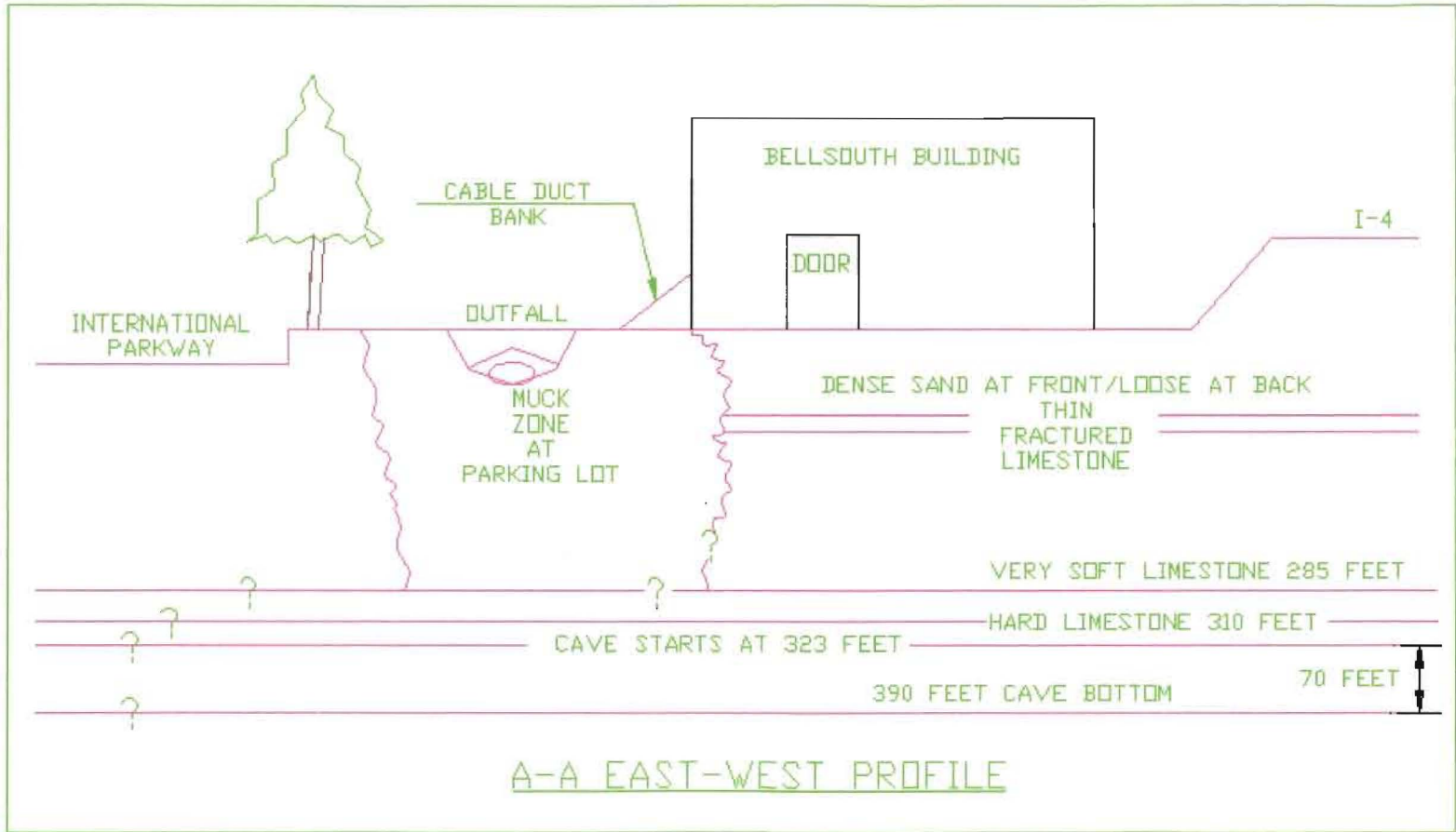
DRILLED BY: U.E.S. - ORLANDO

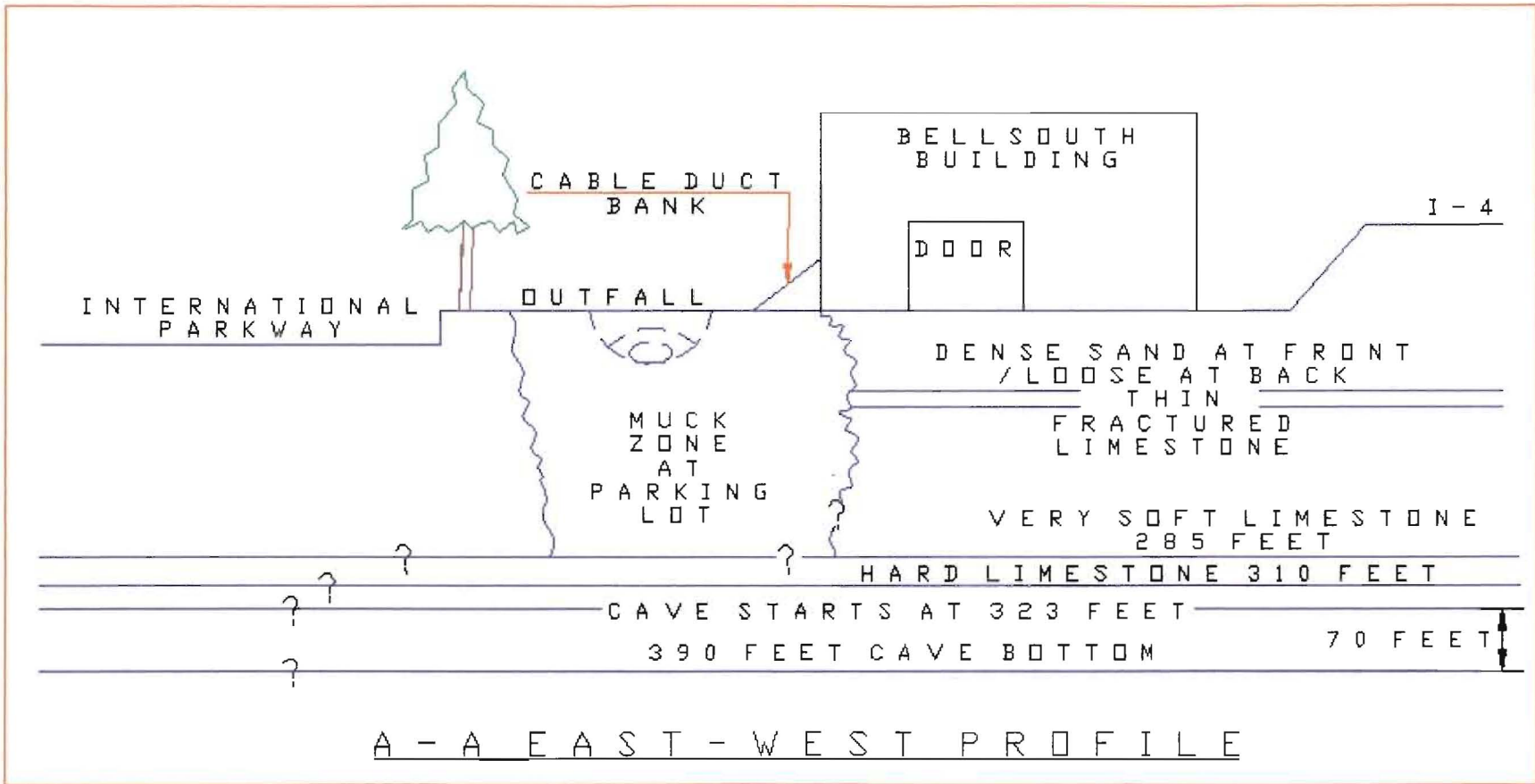
EST. W.S.W.T. (ft):

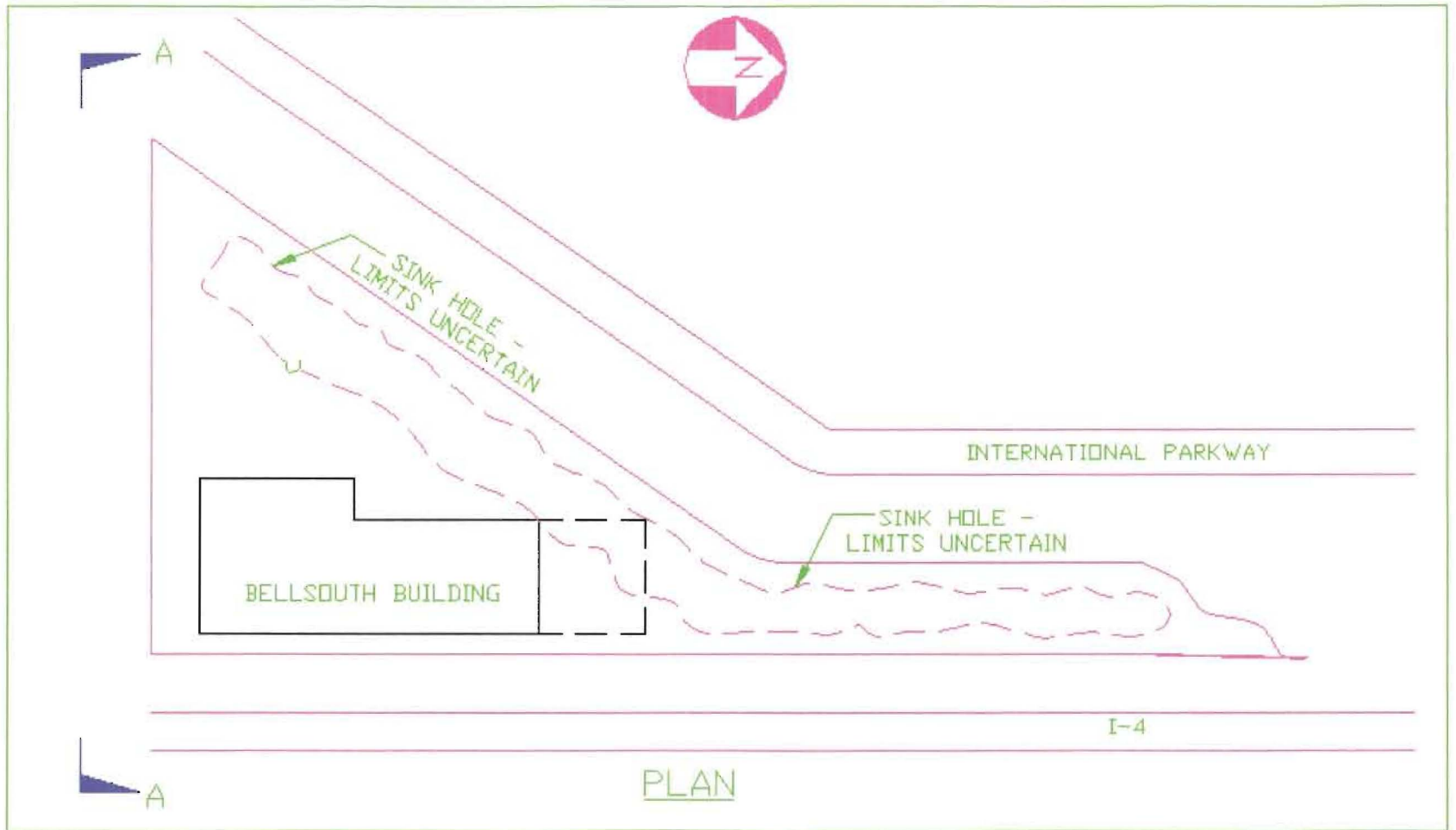
TYPE OF SAMPLING: ASTM D-1586

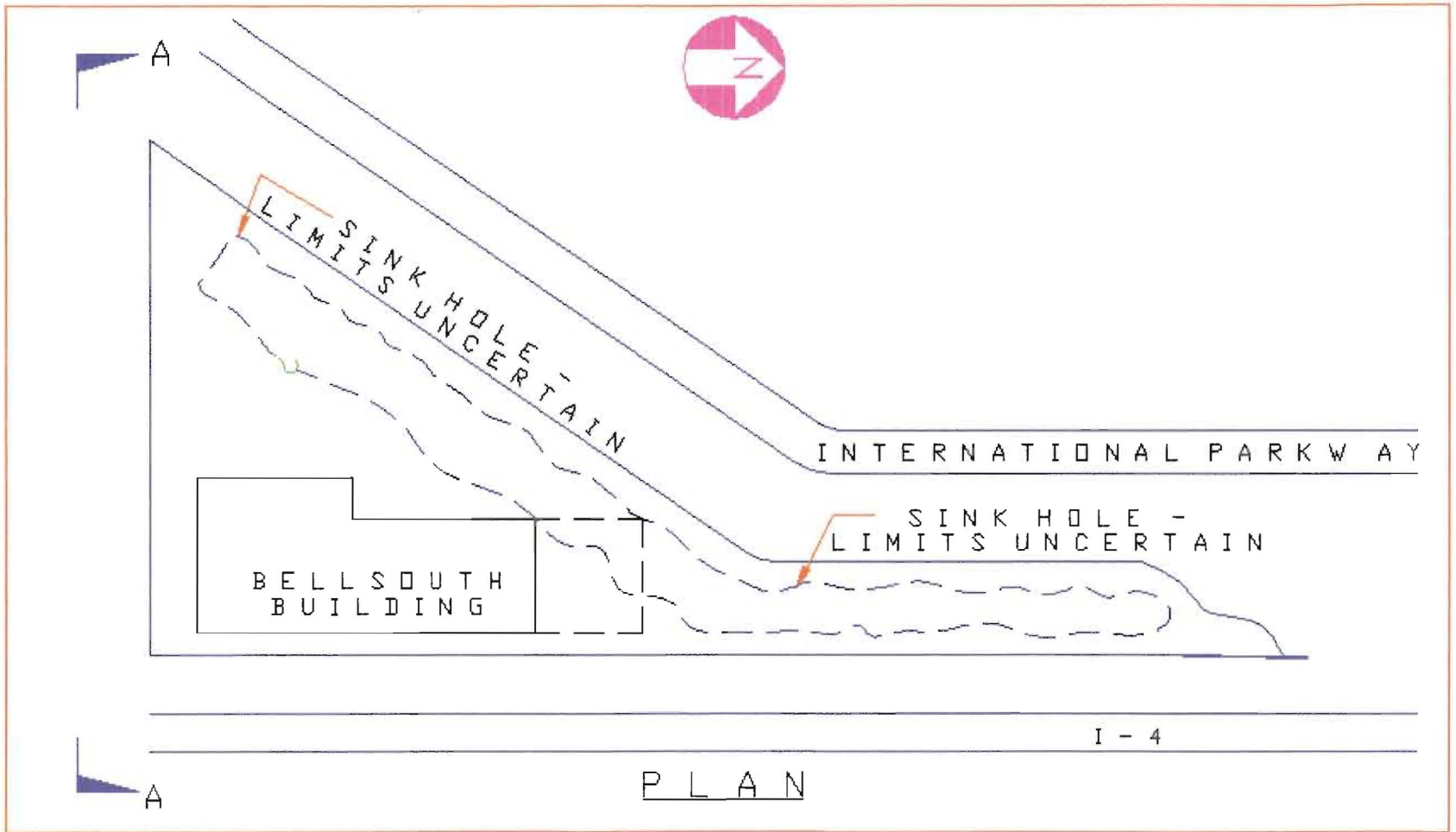
DEPTH (FT.)	S A M P L E	BLOWS PER 8" INCREMENT	N (BLOWS/ FT.)	W.T.	S Y M B O L	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG LIMITS		K (FT./ DAY)	ORG. CONT. (%)
									LL	PI		
0						Very loose gray-brown fine SAND [SP]						
	X	2-1-1	2			- light gray-brown						
	X	2-2-2	4			- loose, light brown						
5	X	5-5-5	10									
	X	5-5-6	11									
	X	4-4-5	9									
10	X	3-3-4	7				- brown					
							- gray-brown					
15	X	4-4-3	7	▼								
20	X	4-4-3	7				BORING TERMINATED AT 20.0 FT.					
25												
30												
35												
40												
45												
50												
55												

02859









Parsons Infrastructure & Technology Group Inc.

4701 Hedgemore Drive • Charlotte, North Carolina 28209 • (704) 529-6246 • FAX (704) 558-4283

P-737132-21300-001

October 17, 2000

BellSouth Telecommunications, Inc.
301 West Bay Street
Room 10GG1
Jacksonville, FL 32202

Attention: Jim Bloomer, BST Facility Planner

Re: Lake Mary – GLC 39280
Lake Mary, FL
Future Building Additions

Dear: Jim

Based on the results of the geotechnical exploration, the possibility of building additions on this site for future expansion are highly problematic.

Two different building addition scenarios were investigated.

The first dealt with the possibility of a second story addition independently supported from the existing one-story structure, referred to as a "flyover". If remedial compaction grouting were a viable option, this compaction could take three to four months. The compaction grouting for the other structures in the development took less time because there was not an existing structure to consider. There would be more hand excavation especially around the telephone duct bank and other underground utilities. Cost estimated at \$300,000-500,000

The problems that arise in addition to cost and schedule constraints are as follows:

- Damage that could be caused by sinkhole occurrence during grouting operations that could result in disturbance/and or damage to the existing structure due to the added weight of the grout in the soil mass.
- Construction activity of this type would require a permit and the water company would probably object to this activity. Injection grouting could affect the water supply to their wells. Considerable coordination would need to occur between the

Our Quality Policy

"We are committed to providing quality services and products. We will, as a company and as individuals, meet the mutually agreed-to requirements the first time and strive for continuous improvement of our work processes."

county and the water company. An alternate plan would probably need to be developed in case the grouting operations affected the water amount and quality being pumped.

The second dealt with the one story side and rear additions only and the situation is similar to scenario noted above.

- In addition to the remedial compaction grouting of the deeper raveled soil, the upper five to six feet of loose sand would need to be removed for the shallow foundations. Then a heavy weight static roller would be used to compact the replacement soil. Use of any vibration equipment for this operation is not recommended.
- Hand excavation would be needed around known underground duct banks and utilities.
- The distinct possibility exists that damage could occur during these operations to the existing structure and underground connections.

Finally in making a bad situation worse, it appears that the water company will drill one additional deep well (300-400 feet deep) just north of the existing central office. According to Bruce Woloshin of Universal Engineering Sciences, Pizutti (Heathrow) has warned the water company that they will be liable for any subsequent ground movement that could cause building damage because of more water being removed. It would seem that this would be difficult to prove in a court of law. Besides the area needs more potable water.

Just leaving the existing situation as is may have a deleterious affect since existing wells being used by the neighboring water company continue to remove water from this underground sinkhole.

Please contact us if any further information is needed.

Sincerely,

Augustine A. Quattrocchi
Task Manager
PARSONS I&T

Ted Gay
Senior Structural Engineer
PARSONS I&T

Attachments: Universal Engineering Sciences geotechnical report dated May 1, 2000

cc: Gary Ward, P. E.
Olice Williams – BellSouth project manager
File 737132-21300



Parsons Infrastructure & Technology Group Inc.

4701 Hedgemore Drive • Charlotte, North Carolina 28209 • (704) 529-6246 • FAX (704) 558-4283

P-737132-21300-001

November 7, 2000

BellSouth Telecommunications, Inc.
301 West Bay Street
Room 10GG1
Jacksonville, FL 32202

Attention: Jim Bloomer, BST Facility Planner

Re: Lake Mary – GLC 39280
Lake Mary, FL
Future Building Additions

Dear: Jim

Based on the results of the geotechnical exploration, Parsons recommends that no future building additions be considered for this site.

The conclusion reached by Universal Engineering Sciences in their May 1, 2000 geotechnical exploration report indicate not only potential sinkhole activity but also significant ancient sinkhole collapse on the property. Twelve borings were taken around the existing central office ranging in depth from 20 feet to 205 feet with no suitable soil materials encountered to support building foundations.

Two different building addition scenarios were investigated.

The first dealt with the possibility of a second story addition independently supported from the existing one-story structure, referred to as a "flyover", since the existing building foundations could not support a second floor.

The poor soil conditions could be improved by remedial injection grouting. However, this is not a viable option since it is unknown how much grouting would be required due to the deep raveled zones and sandy organic soils encountered. Best guess is that this compaction could take three to four months. The compaction grouting for the other structures in the development probably took less time because there was not an existing structure to consider. Cost estimated at \$300,000-500,000

Our Quality Policy

"We are committed to providing quality services and products. We will, as a company and as individuals, meet the mutually agreed-to requirements the first time and strive for continuous improvement of our work processes."

The problems that arise in addition to cost and schedule considerations are as follows:

- Damage that could be caused by sinkhole occurrence during grouting operations that could result in disturbance/and or damage to the existing structure and underground utilities due to the added weight of the grout in the soil mass.
- Construction activity of this type would require a permit and the neighboring water company would probably object to this activity. Injection grouting could affect the water supply to their wells. Considerable coordination would need to occur between the county and the water company. An alternate plan would probably need to be developed in case the grouting operations affected the water amount and quality being pumped.

The second dealt with the one story side and rear additions only and the situation is similar to scenario noted above.

- In addition to the remedial compaction grouting of the deeper raveled soil, the upper five to six feet of loose sand would need to be removed for the shallow foundations. Then a heavy weight static roller would be used to compact the replacement soil. Use of any vibration equipment for this operation is not recommended.
- Hand excavation would be needed around known underground duct banks and utilities.
- The distinct possibility exists that damage could occur during these operations to the existing structure and underground connections.

Finally in making a bad situation worse, it appears that the water company will drill one additional deep well (300-400 feet deep) just north of the existing central office. According to Bruce Woloshin of Universal Engineering Sciences, Pizutti (Heathrow) has warned the water company that they will be liable for any subsequent ground movement that could cause building damage because of more water being removed. It would seem that this would be difficult to prove in a court of law. The justification is that the area needs more potable water.

Just leaving the existing situation as is may have a deleterious affect since existing wells being pumped by the neighboring water company continue to remove water from this underground sinkhole. The significant zones of raveled material found are separated from the upper sands by only a minimal clay confining layer and further subsidence of the upper soils may occur in the future if a breach or failure occurs in the clay layer.

Please contact us if any further information is needed.

Sincerely,

Augustine A. Quattrocchi
Task Manager
PARSONS I&T

Ted Gay
Senior Structural Engineer
PARSONS I&T

Attachments: Universal Engineering Sciences geotechnical report dated May 1, 2000

cc: Gary Ward, P. E.
Olice Williams – BellSouth project manager
File 737132-21300

SPACE ASSESSMENT WORK SHEET

PETITION FOR WAIVER OF COLLOCATION REQUIREMENTS

7/20/01

1	CENTRAL OFFICE CLLI:		<u>LKMYFLMA</u>
2	COLLOCATOR AND AMOUNT OF SPACE		<u>NA</u>
			sf
3.	TOTAL GROSS SQ. FT.		<u>5194</u>
4.	FLOOR PLANS - INCLUDING DIMENSIONS - ATTACHED		
a.	BST occupied equipment space		<u>4076.5</u> sf
	Nonregulated services		<u>0</u> sf
	Administrative offices - not related to installing, repairing, maintaining CO equipment		<u>50</u> sf
b.	Retired equipment		<u>0</u> sf
c.	Future BST space reservations		<u>458.5</u> sf
	Switch	<u>281.5</u>	
	Circuit	<u>84</u>	
	Frame	<u>93</u>	
d.	Collocation space (Actual and Future**)		<u>222</u> sf
e.	Other 3-d party space		<u>0</u> sf
	What is the occupancy		
f.	Switch turnaround space		
	Service Yr <input style="width: 50px;" type="text"/>		<u>0</u> sf
g.	Unavailable space		<u>387</u> sf
	Unusable space (grounding and exit aisles)		
	Remaining space		<u>0</u> sf
h.	Central office growth plans.		
	Forecast completion		
	Yr		
	Addition <input style="width: 50px;" type="text"/> Pending Zoning		sf
	Renovation <input style="width: 50px;" type="text"/>		<u>0</u> sf
i.	Any other plans for relieving space exhaust		No
5.	Floor loading	150#sf	sf
	Power rooms only	350#sf	sf

SPACE ASSESSMENT WORK SHEET

NAME OF PERSON FILLING OUT FORM:

James D. Bloomer - Manager - Facility Planner
(PRINT NAME AND TITLE)

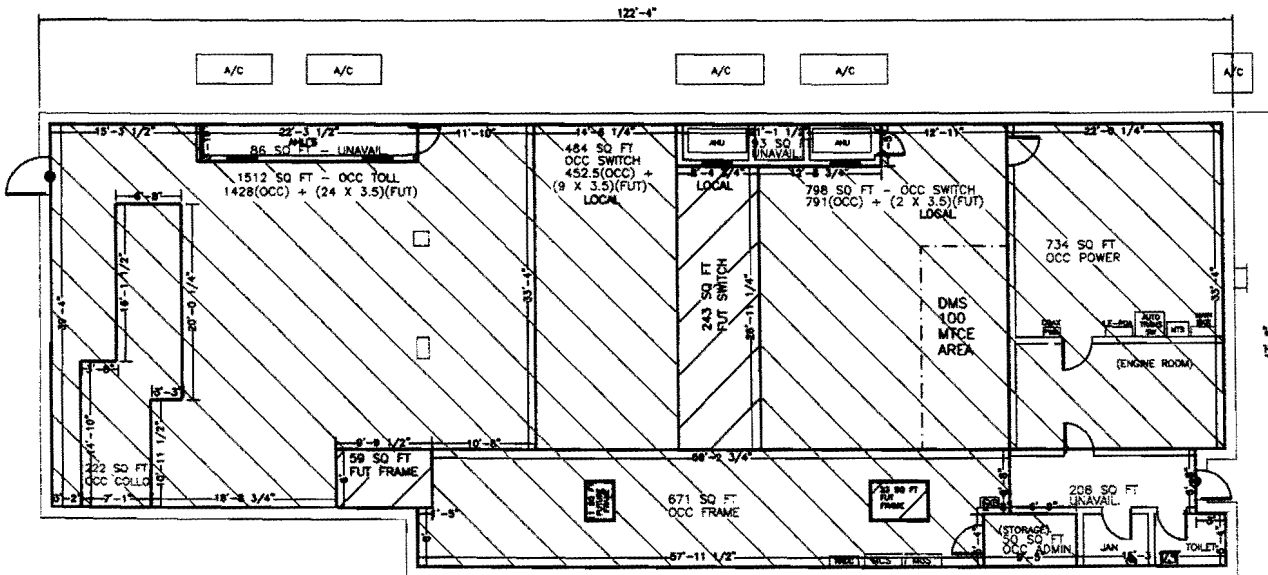
TEL. NO. 904-350-3428

AUTHORIZED BY:

Same as above

TEL. NO. _Same as Above

EXHIBIT 4



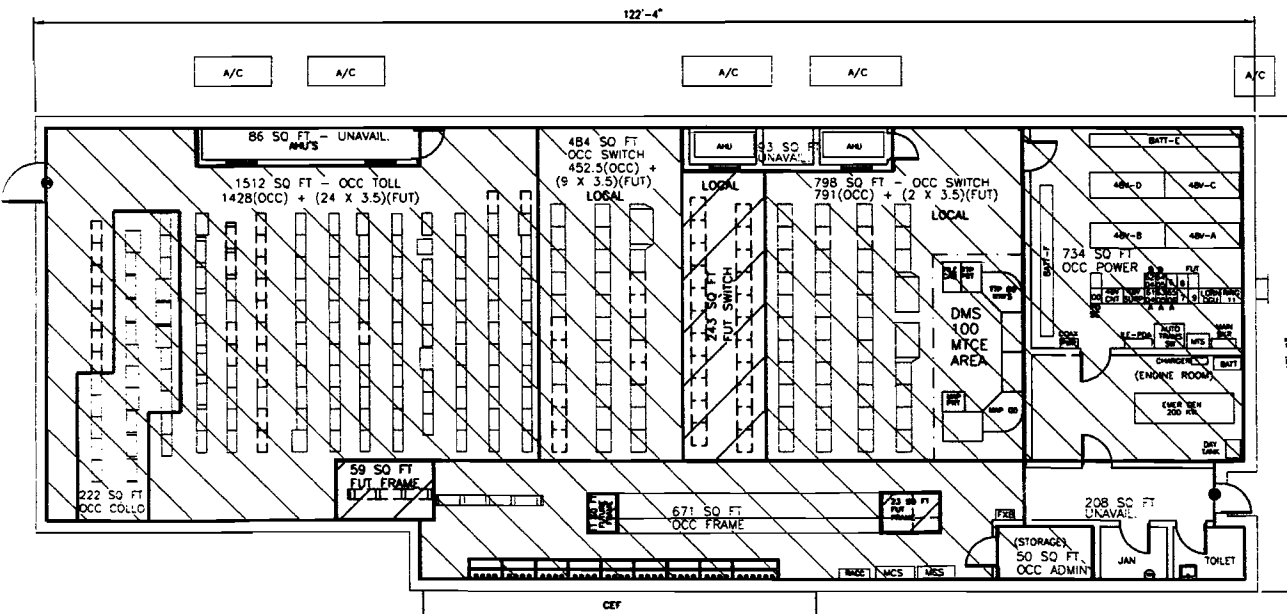
JULY 20, 2001

A	TOTAL GROSS SQ FT	5194	
	AIR HANDLING UNIT	86	□
	AIR HANDLING UNITS	93	
	VESTIBULE, JANITOR & RESTROOMS	208	
B	TOTAL UNAVAILABLE SPACE	387	
	COLLO	222	▨
	SWITCH	452.5 + 791 = 1243.5	
	TOLL	1428	
	FRAME	671	
	POWER & ENGINE	734	▨
	ADMIN	50	
C	TOTAL OCCUPIED SPACE	4348.5	
	SWITCH	243 + (11 x 3.5) = 281.5	▨
	TOLL	(24 x 3.5) = 84	
	FRAME	11 + 23 + 59 = 93	
D	TOTAL RESERVED SPACE	458.5	

OCC - OCCUPIED
 FUT - FUTURE
 UNAVAIL - UNAVAILABLE
 □ - BUILDING COLUMN

39280 LAKE MARY FIRST FLOOR PLAN
 PSC WAIVER ITEM 4 A-F PAGE 1

- NOTES
1. CEILING HEIGHT 12'6" CLEAR HEIGHT 12'6"
 2. CEILING INSERTS NOT AVAILABLE-FLOOR SUPPORT ONLY
 3. NO CHANGE IN FLOOR PLAN UNLESS APPROVED BY OPERATIONS MANAGER - PROPERTY MANAGEMENT
 4. FINISH FLOOR LOADING 150 LBS PER SQ FT



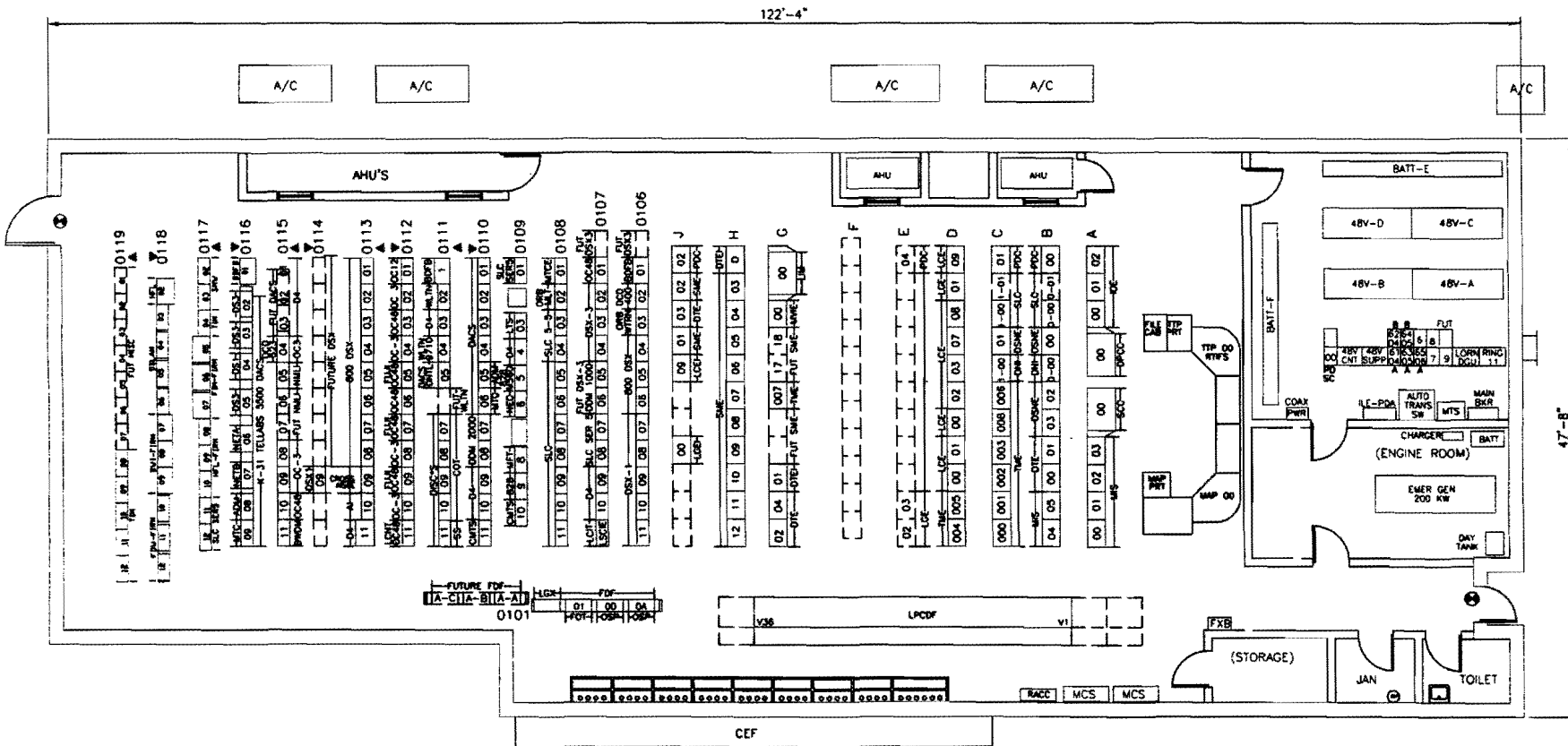
JULY 20, 2001

A	TOTAL GROSS SO FT	5194	
	AIR HANDLING UNIT	86	
	AIR HANDLING UNITS	93	
	VESTIBULE, JANITOR & RESTROOMS	208	
B	TOTAL UNAVAILABLE SPACE	387	
	COLLO	222	
	SWITCH	452.5 + 791 = 1243.5	
	TOLL	1428	
	FRAME	671	
	POWER & ENGINE	734	
	ADMIN	50	
C	TOTAL OCCUPIED SPACE	4348.5	
	SWITCH	243 + (11 x 3.5) = 281.5	
	TOLL	(24 x 3.5) = 84	
	FRAME	11 + 23 + 59 = 93	
D	TOTAL RESERVED SPACE	458.5	

OCC - OCCUPIED
 FUT - FUTURE
 UNAVAIL - UNAVAILABLE
 [Symbol] - BUILDING COLUMN

39280 LAKE MARY FIRST FLOOR PLAN PSC WAIVER ITEM 4 A-F PAGE 2

- NOTES
1. CEILING HEIGHT 12'6" CLEAR HEIGHT 12'6"
 2. CEILING INSERTS NOT AVAILABLE - FLOOR SUPPORT ONLY
 3. NO CHANGE IN FLOOR PLAN UNLESS APPROVED BY OPERATIONS MANAGER - PROPERTY MANAGEMENT
 4. FINISH FLOOR LOADING 150 LBS PER SQ FT



39280 LAKE MARY FIRST FLOOR PLAN PSC WAIVER ITEM 4 G-H PAGE 1

- NOTES
1. CEILING HEIGHT 12'6" CLEAR HEIGHT 12'6"
 2. CEILING INSERTS NOT AVAILABLE--FLOOR SUPPORT ONLY
 3. NO CHANGE IN FLOOR PLAN UNLESS APPROVED BY OPERATIONS
MANAGER - PROPERTY MANAGEMENT
 4. FINISH FLOOR LOADING 150 LBS PER 50 FT