All State Engineering & Testing Consultants, Inc.
TESTING LABORATORIES-ENGINEERS-INSPECTION SERVICES-CHEMISTS-DRILLING-ENVIRONMENTAL SERVICES

December 20th, 2024
Revised date 3/14/2025

Balli-Trautman Architects, LLc.
1533 Sunset Drive Suite # 101,
Miami, FL 33143

RE: **Geotechnical Engineering Report for**
Single Family Residence
6825 SW 132nd Street, Miami FL 33156

To Whom It May Concern,

This letter presents the results of All State Engineering & Testing Consultants, Inc. (ASETC) Geotechnical Engineering Study for the above referenced project. The purpose of the geotechnical engineering study was to evaluate the site subsurface conditions and provide foundation recommendations for the project.

Project Description
Our understanding of the site is based on our observations during our subsurface investigation. Information you provided to us indicates the project consists of the construction of a Single-Family Residence Addition.

Test Method and Subsurface Investigation
The borings were conducted in accordance with procedures outlined for Standard Penetration Test and split spoon sampling of soils by ASTM Method D-1586 as described below.

Two (2) feet long, two (2) inches O.D. split spoon sampler was driven into the ground by successive blows with a 140 lbs hammer dropping thirty (30) inches. The soil sampler was driven two (2) feet at a time (continuous method) then extracted for visual examination and classification of the soil samples.

The number of blows required for one (1) foot penetration of the sample is designated as "N" (known as the standard Penetration Resistance Value). The N Value provides an indication of the relative density of non-cohesive soils and the consistency of cohesive soils. A general evaluation of soils is made from the established correlation between "N" and the relative density or consistency of soils. This dynamic method of soil testing has been widely accepted by foundation engineers and architects to conservatively evaluate the bearing capacity of soils.

The subsurface investigation consisted of performing five (5), 20-ft deep Standard Penetration Test (SPT) borings (B-1, B-2, B-3, B-4, B-5). The borings were performed on December 3rd, 2024.

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Based on the information obtained from the SPT borings,

Boring B-1 comprised of

0'-0" to 3'-0" Sand with Rock Pieces with N-Values ranging from 13 to 14;
3'-0" to 8'-0" Coarse Quartz Sand with Lime Sand Fragments with N-Values ranging from 14 to 24;
8'-0" to 13'-0" Lime Sand with Rock Fragments with N-Values ranging from 34 to 45;
13'-0" to 20'-0" Lime Rock with Lime Sand with N-Values ranging from 45 to 59;

Boring B-2 comprised of

0'-0" to 3'-0" Sand with Rock Pieces with N-Values ranging from 12 to 16;
3'-0" to 8'-0" Coarse Quartz Sand with Lime Sand Fragments with N-Values ranging from 16 to 24;
8'-0" to 13'-0" Lime Sand with Rock Fragments with N-Values ranging from 30 to 44;
13'-0" to 20'-0" Lime Rock with Lime Sand with N-Values ranging from 44 to 62;

Boring B-3 comprised of

0'-0" to 3'-0" Sand with Rock Pieces with N-Values ranging from 12 to 28;
3'-0" to 8'-0" Coarse Quartz Sand with Lime Sand Fragments with N-Values ranging from 28 to 39;
8'-0" to 13'-0" Lime Sand with Rock Fragments with N-Values ranging from 47 to 60;
13'-0" to 20'-0" Lime Rock with Lime Sand with N-Values ranging from 60 to 78;

Boring B-4 comprised of

0'-0" to 3'-0" Sand with Rock Pieces with N-Values ranging from 19 to 27;
3'-0" to 8'-0" Coarse Quartz Sand with Lime Sand Fragments with N-Values ranging from 27 to 37;
8'-0" to 13'-0" Lime Sand with Rock Fragments with N-Values ranging from 44 to 56;
13'-0" to 20'-0" Lime Rock with Lime Sand with N-Values ranging from 56 to 73;

Boring B-5 comprised of

0'-0" to 3'-0" Sand with Rock Pieces with N-Values ranging from 15 to 23;
3'-0" to 8'-0" Coarse Quartz Sand with Lime Sand Fragments with N-Values ranging from 23 to 35;
8'-0" to 13'-0" Lime Sand with Rock Fragments with N-Values ranging from 43 to 55;
13'-0" to 20'-0" Lime Rock with Lime Sand with N-Values ranging from 55 to 79.

Groundwater Conditions

The groundwater table was encounter at 6'-3" to 6'-11" below the existing ground surface during the performance of the borings. The groundwater elevation is expected to change with seasonal and tidal fluctuations, and during storm/hurricane events. The possibility of groundwater level fluctuations should be considered when developing the design and construction plans for the project.

Foundation Evaluation and Recommendations

Shallow Foundation

Site Recommendations for Addition:

The site preparation work is expected to include site clearing, subgrade leveling, the placement and compaction of fill and backfill material, and proofrolling.

The site clearing should be performed in all the areas of proposed foundation construction and support of on-grade site features. Site clearing should encompass removing all unsuitable materials such as topsoil, organics, trash, and any other deleterious materials. Upon clearing, proofrolling of the areas of proposed construction or support of on-grade features should be performed. Any soft area observed during proofrolling should be removed and replaced with approved fill material.

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We recommend excavate entire building area plus 5'-0" outside the perimeter of construction and remove all unsuitable subsurface material to the necessary depth. We anticipate an average excavation depth of approximately 2'-0" below the footers.

Any fill and backfill materials should be placed in lifts which do not exceed twelve (12) inches. The fill and backfill materials are to be compacted to field dry densities of not less than **95%** of their Maximum Dry Density as determined by the Modified Proctor Compaction Test (ASTM D-1557). The fill and backfill materials should consist of inorganic granular soils, free from deleterious materials, and should be pre-approved by our firm.

The footing and slab subgrades should be compacted to field dry densities of not less than **95%** of their Maximum Dry Density as determined by the Modified Proctor Compaction Test (ASTM D-1557).

Based on the proposed construction, our evaluation of the site subsurface conditions, the Site Preparation Procedures given above having been achieved and verified, we confirm that spread footings and single column pads may be appropriately designed for a ***safe soil bearing capacity of 3000 lb/ft²***.

Limitations

Regardless of the thoroughness of our geotechnical exploration there is always a possibility that conditions on the subject project may be different from those at the test locations. With this being said, ASETC reserves the right to amend/supplement this report upon discovery of new information. Should any subsoil conditions different from those reported in our boring logs be encountered during construction, All State Engineering and Testing Consultants, Inc. should be notified immediately.

The conclusions provided by All State Engineering & Testing Consultants, Inc. are based solely on the information presented in this report. As a mutual protection to clients, the public and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.

We appreciate the opportunity to have been of service to you. Please feel free to contact us if there are any questions or comments pertaining to this report.

Sincerely,

John H. Buscher PE#41844
All State Engineering &
Testing Consultants, Inc.

ATTACHMENT 1.0 – BORING LOG

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ATTACHMENT 1.0 – BORING LOG

All State Engineering & Testing Consultants, Inc.

TESTING LABORATORIES-ENGINEERS-INSPECTION SERVICES-CHEMIST-DRILLING-ENIVIRONMENTAL SERVICES
12949 West Okeechobee Rd. Unit C-4. Hialeah Gardens, Florida 33018 / Phone: 305-888-3373, Fax: 305-888-7443

SPT SOIL BORING REPORT

CLIENT:	Balli-Trautman Architects, LLc	**Page:**	1 of 1
CLIENT ADDRESS:	1533 Sunset Drive s # 101, Miami, FL 33143	**Report #:**	1
PROJECT:	Single Family Residence	**Boring #:**	B-1
PROJECT ADDRESS:	6825 SW 132nd Street, Miami, FL 33156	**Date:**	12/3/24
BORING LOCATION:	Southeast Corner	**Driller:**	TH

DEPTH (FEET)	DESCRIPTION OF MATERIALS	Sample No.	Hammer blows on sampler		"N" Value
1	0'-0" to 3'-0" Sand with Rock Pieces		4	5	13
2		0'-2'	8	6	
3			6	7	14
4	3'-0" to 8'-0" Coarse Quartz Sand with Lime Sand Fragments	2'-4'	7	7	
5			8	9	19
6		4'-6'	10	10	
7			11	12	24
8		6'-8'	12	12	
9	8'-0" to 13'-0" Lime Sand with Rock Fragments		14	16	34
10		8'-10'	18	19	
11			19	21	41
12		10'-12'	20	21	
13			21	22	45
14	13'-0" to 20'-0" Lime Rock with Lime Sand	12'-14'	23	24	
15			26	25	52
16		14'-16'	27	27	
17			27	29	58
18		16'-18'	29	30	
19			29	29	59
20		18'-20'	30	29	
21	End of Boring @ 20'-0"				0
22		20'-22'			
23					0
24		22'-24'			
25					0
26		24'-26'			
27					0
28		26'-28'			
29					0
30		28'-30'			

WATER TABLE: 6'-3" below surface

Respectfully Submitted,

John Buscher PE # 41844
All State Engineering & Testing Consultants, Inc.

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SPT SOIL BORING REPORT

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CLIENT ADDRESS:	1533 Sunset Drive s # 101, Miami, FL 33143	**Report #:**	1
PROJECT:	Single Family Residence	**Boring #:**	B-2
PROJECT ADDRESS:	6825 SW 132nd Street, Miami, FL 33156	**Date:**	11/21/24
BORING LOCATION:	Southwest Corner	**Driller:**	TH

DEPTH (FEET)	DESCRIPTION OF MATERIALS	Sample No.	Hammer blows on sampler		"N" Value
1	0'-0" to 3'-0" Sand with Rock Pieces	0'-2'	5	6	12
2			6	7	
3		2'-4'	7	8	16
4	3'-0" to 8'-0" Coarse Quartz Sand with Lime Sand Fragments		8	8	
5		4'-6'	9	10	20
6			10	11	
7		6'-8'	11	12	24
8			12	12	
9	8'-0" to 13'-0" Lime Sand with Rock Fragments	8'-10'	13	14	30
10			16	15	
11		10'-12'	17	18	36
12			18	19	
13		12'-14'	21	20	44
14	13'-0" to 20'-0" Lime Rock with Lime Sand		24	25	
15		14'-16'	25	28	58
16			30	27	
17		16'-18'	30	31	64
18			33	32	
19		18'-20'	32	31	62
20			31	31	
21	End of Boring @ 20'-0"	20'-22'			0
22					
23		22'-24'			0
24					
25		24'-26'			0
26					
27		26'-28'			0
28					
29		28'-30'			0
30					

WATER TABLE: 6'-4" below surface

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SPT SOIL BORING REPORT

CLIENT:	Balli-Trautman Architects, LLc	**Page:**	1 of 1
CLIENT ADDRESS:	1533 Sunset Drive s # 101, Miami, FL 33143	**Report #:**	1
PROJECT:	Single Family Residence	**Boring #:**	B-3
PROJECT ADDRESS:	6825 SW 132nd Street, Miami, FL 33156	**Date:**	12/3/24
BORING LOCATION:	Center	**Driller:**	TH

DEPTH (FEET)	DESCRIPTION OF MATERIALS	Sample No.	Hammer blows on sampler		"N" Value
1	0'-0" to 3'-0" Sand with Rock Pieces		7	8	12
2		0'-2'	4	10	
3			12	14	28
4	3'-0" to 8'-0" Coarse Quartz Sand with Lime Sand Fragments	2'-4'	14	15	
5			17	16	33
6		4'-6'	17	19	
7			19	19	39
8		6'-8'	20	19	
9	8'-0" to 13'-0" Lime Sand with Rock Fragments		21	23	47
10		8'-10'	24	27	
11			26	29	57
12		10'-12'	28	28	
13			30	31	60
14	13'-0" to 20'-0" Lime Rock with Lime Sand	12'-14'	29	32	
15			31	33	66
16		14'-16'	33	38	
17			36	38	77
18		16'-18'	39	40	
19			40	39	78
20		18'-20'	39	40	
21	End of Boring @ 20'-0"				0
22		20'-22'			
23					0
24		22'-24'			
25					0
26		24'-26'			
27					0
28		26'-28'			
29					0
30		28'-30'			

WATER TABLE: 6'-11" below surface

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SPT SOIL BORING REPORT

CLIENT:	Balli-Trautman Architects, LLc	**Page:**	1 of 1
CLIENT ADDRESS:	1533 Sunset Drive s # 101, Miami, FL 33143	**Report #:**	1
PROJECT:	Single Family Residence	**Boring #:**	B-4
PROJECT ADDRESS:	6825 SW 132nd Street, Miami, FL 33156	**Date:**	12/3/24
BORING LOCATION:	Notheast Corner	**Driller:**	TH

DEPTH (FEET)	DESCRIPTION OF MATERIALS	Sample No.	Hammer blows on sampler		"N" Value
1	0'-0" to 3'-0" Sand with Rock Pieces		8	9	19
2		0'-2'	10	11	
3			12	13	27
4	3'-0" to 8'-0" Coarse Quartz Sand with Lime Sand Fragments	2'-4'	14	14	
5			15	16	32
6		4'-6'	16	17	
7			17	18	37
8		6'-8'	19	19	
9	8'-0" to 13'-0" Lime Sand with Rock Fragments		20	21	44
10		8'-10'	23	22	
11			22	24	50
12		10'-12'	26	25	
13			25	27	56
14	13'-0" to 20'-0" Lime Rock with Lime Sand	12'-14'	29	31	
15			33	32	66
16		14'-16'	34	35	
17			36	37	72
18		16'-18'	35	32	
19			35	37	73
20		18'-20'	36	33	
21	End of Boring @ 20'-0"				0
22		20'-22'			
23					0
24		22'-24'			
25					0
26		24'-26'			
27					0
28		26'-28'			
29					0
30		28'-30'			

WATER TABLE: 6'-11" below surface

Respectfully Submitted:

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SPT SOIL BORING REPORT

CLIENT:	Balli-Trautman Architects, LLc	**Page:**	1 of 1
CLIENT ADDRESS:	1533 Sunset Drive s # 101, Miami, FL 33143	**Report #:**	1
PROJECT:	Single Family Residence	**Boring #:**	B-5
PROJECT ADDRESS:	6825 SW 132nd Street, Miami, FL 33156	**Date:**	12/3/24
BORING LOCATION:	Northwest Corner	**Driller:**	TH

DEPTH (FEET)	DESCRIPTION OF MATERIALS	Sample No.	Hammer blows on sampler		"N" Value
1	0'-0" to 3'-0" Sand with Rock Pieces		6	7	15
2		0'-2'	8	9	
3			10	11	23
4	3'-0" to 8'-0" Coarse Quartz Sand with Lime Sand Fragments	2'-4'	12	13	
5			14	15	30
6		4'-6'	15	15	
7			16	17	35
8		6'-8'	18	19	
9	8'-0" to 13'-0" Lime Sand with Rock Fragments		19	21	43
10		8'-10'	22	23	
11			23	24	49
12		10'-12'	25	26	
13			26	26	55
14	13'-0" to 20'-0" Lime Rock with Lime Sand	12'-14'	29	31	
15			32	33	66
16		14'-16'	33	35	
17			36	39	77
18		16'-18'	38	38	
19			39	40	79
20		18'-20'	39	39	
21	End of Boring @ 20'-0"				0
22		20'-22'			
23					0
24		22'-24'			
25					0
26		24'-26'			
27					0
28		26'-28'			
29					0
30		28'-30'			

WATER TABLE: 6'-10" below surface

Respectfully Submitted,

John Buscher PE # 41844
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12949 W Okeechobee Rd, Unit 4 , Hialeah Gardens, FL 33018 Office: 305-888-3373 Fax: 305-888-7443 info@allstateengineering.com

PERCOLATION TEST

USUAL OPEN HOLE - CONSTANT HEAD

DATE:	December 5,2024	**Test Number:**	P-1
CLIENT:	Balli-Trautman Architects		
CLIENT ADDRESS:	1533 Sunset Drive S # 101, Miami, FL 333143		
PROJECT:	Single Family Residence		
PROJECT ADDRESS:	6825 SW 132nd Street, Miami, FL		
LOCATION OF TEST:	South Side		

INTERVAL	ELAPSED TIME (MINUTES)	GPM
1	1:00	8
2	1:00	8
3	1:00	8
4	1:00	8
5	1:00	8
6	1:00	8
7	1:00	8
8	1:00	8
9	1:00	8
10	1:00	8

DEPTH OF HOLE :	15 feet	**DIA. OF HOLE :**	0.5 feet	**PERC. RATE:**	8.0 GPM
DEPTH OF WATER TABLE BELOW GROUND SURFACE :				6 feet	
SATURATED HOLE DEPTH :		9 feet	**STABILIZED FLOW RATE:**		0.017824
		k-VALUE:	1.56E-04		

SUBSURFACE INVESTIGATION

Depth Below Ground Surface	Soil Description
0'-0" to 3'-0"	Sand with Rock Pieces
3'-0" to 8'-0"	Cemented Sand with Lime Sand Fragments
8'-0" to 15'-0"	Lime Sand with Rock Fragments

Field Technician: TH
Typed by: AS

Respectfully Submitted,

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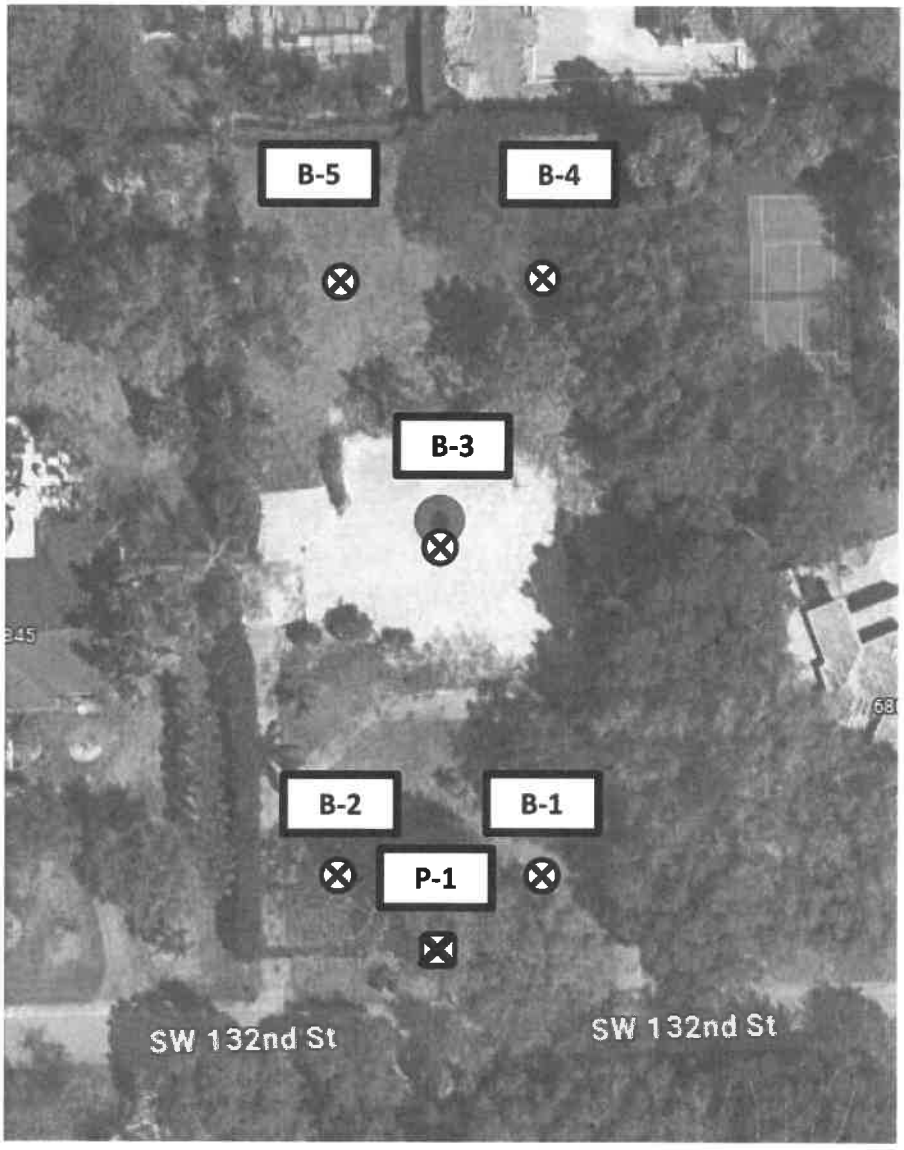
Boring Location Map

6825 SW 132nd Street, Miami, FL 33156



N

Legend

⊗ Boring Location

⊠ Percolation Location