

ATM Engineering

TESTING LABORATORIES - ENGINEERING INSPECTION SERVICES - DRILLING - ENVIRONMENTAL SERVICES.

Aubrey Engineering, LLC d/b/a ATM Engineering

1950 W 84th Street, Hialeah, FL 33014 Phone: 305-646-1888 Fax: 305-646-1887

April 14, 2025

Ramos Architects and Associates
780 Tamiami Canal Road,
Miami, FL 33144

RE: Subsurface Investigation for Proposed Building Addition & Covered Parking Lot
Located at: 50 SW 5th Street, Pompano Beach, FL

Dear Sir.:

Pursuant to your authorization, **ATM ENGINEERING** conducted a subsurface investigation at the above referenced project. The investigation was performed **April 11, 2025**.

The purpose of the investigation was to develop preliminary information about the site and the subsurface conditions existing in the vicinity of the proposed construction.

To achieve the desired objective **two (2) standard penetration test borings and one (1) percolation test** were performed and the logs are enclosed in this report.

TEST METHOD:

The borings were conducted in accordance with the procedures outlined for the standard penetration test and split spoon sampling of soils by ASTM Method D-1586.

A two (2) foot long two (2) inches O.D. Split Spoon Sampler was driven into the ground by successive blows with 140 lbs. The hammer drops thirty (30) inches. The soil sampler was driven two (2) feet at a time, then extracted for visual examination and classification of the retained soil samples.

The number of blows required for a one (1) foot penetration of the sampler 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.

Suitable corrections are applied to this number in order to include the effects of soil overburden pressure and other factors. 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. A continuous drilling and sampling procedure was used therefore, the samples were taken at intervals of two (2) feet or at every change in soil characteristics.

DRC

PZ25-12000015

08/06/2025

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The types of foundation material encountered have been visually classified and are described in detail in the boring logs. The results of the field penetration tests are presented in the boring logs in numerical forms. The average ground water level at the site was found at **five (5) feet, five (5) inches** below the existing surface (see logs). Fluctuation in the observed ground water level should be expected due to seasonal climatic changes, rainfall variation, surface water run-off and other specific factors related to the site in question.

FOUNDATION RECOMMENDATIONS FOR THE PROPOSED BUILDING ADDITION & COVERED PARKING LOT:

Our recommendations are based on the information provided by the client as to the type of structure planned and on our subsurface investigation performed on the proposed site. Our recommendations are as follows:

1. Clear the entire building area plus 5'-0" outside the perimeter of construction and remove all top soil, and unsuitable subsurface material to the necessary depth. We anticipate an average clearance depth of approximately six (6) inches.
2. Compact cleared area to a minimum compaction of 98% of the optimum dry density as per AASHTO T-180. Verify densification procedures by taking an adequate number of field density compaction tests. The cleared area should be inspected prior to the commencement of the backfilling operation to ensure that all the unsuitable material has been removed.
3. Backfill building area, plus 5'-0" outside the perimeter of the structure to the required elevation with a clean mixture of sand, lime rock and lime sand fill (or approved fill material) in compacted layers not to exceed 12" in thickness. Compact each layer to a minimum of 98% of the optimum dry density as per AASHTO T180. Verify densification procedures by taking an adequate number of field density tests, especially in the footing area.
4. Excavate footing trenches to the required depth from the ground elevation.
5. Compact the bottom of the footing trench to a minimum compaction of 98% of the optimum dry density as per AASHTO T-180. Verify densification procedures by taking an adequate number of field density compaction tests.

DESIGN RECOMMENDATIONS:

The above foundation recommendation having been achieved and verified, we anticipate that the foundation and footings may be appropriately proportioned for a safe soil bearing capacity not to exceed **2500 pounds per square foot**. The use of spread footings and single column pads is suggested. A monolithic slab foundation may also be adopted.

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CONCLUSION:

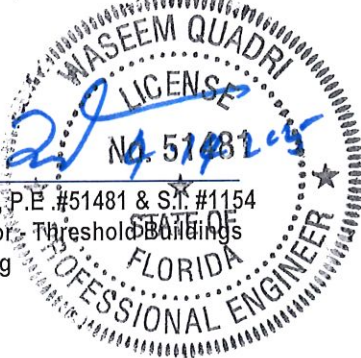
Regardless of the thoroughness of our Geotechnical exploration there is always a possibility that conditions on the subject property (site) may be different from those at the test locations. Therefore, should any subsoil condition different from those reported in our boring logs be encountered during construction, **ATM ENGINEERING**, should be notified immediately.


This report was prepared exclusively for the use of **Ramos Architects and Associates**. The conclusions provided by **ATM ENGINEERING** 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 your company. Please feel free to contact us if there are any questions or comments pertaining to this report.

Sincerely yours,


Waseem Quadri, P.E. #51481 & S.T. #1154
Special Inspector - Threshold Buildings
ATM Engineering




Robert Shank
President

RS/

DRC

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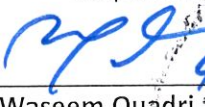
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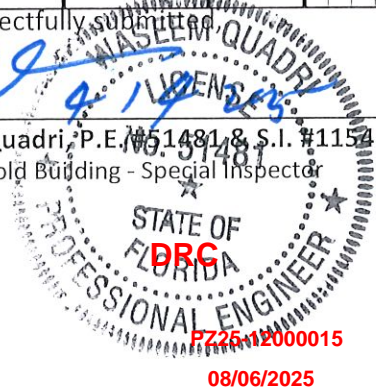
SOIL BORING LOG

CLIENT	Ramos Architects and Associates			Order No	25-0411	
ADDRESS	780 Tamiami Canal Road, Miami, FL 33144			Report No.	1	
PROJECT	Proposed Building Addition & Covered Parking Lot			Boring No.	B-1	
ADDRESS	50 SW 5th Street, Pompano Beach, FL			Date	4/11/2025	
LOCATION	As Marked on Aerial Photography			Driller/Hleper	AG/MP	
				Helper	MP	
Depth (feet)	DESCRIPTION OF MATERIALS	Sample No.	Hammer blows on sampler		"N"	"N" Curve
	Soil Boring from 0' to 20'					10 20 30 40 50+
1	0'-0" to 0'-2" Asphalt	0'-2'	11	13	25	
2	0'-2" to 1'-0" Backfill - tan silica sand with some rocks		12	9		
3	1'-0" to 4'-0" Dark brown silica sand with some rocks	2'-4'	8	7	14	
4			7	6		
5	4'-0" to 8'-6" Light brown medium silica sand	4'-6'	6	7	15	
6			8	7		
7		6'-8'	7	9	18	
8			9	8		
9	8'-6" to 10'-0" Brown medium sand	8'-10'	7	9	19	
10			10	9		
11		10'-12'	8	11	21	
12			10	9		
13	10'-0" to 20'-0" Tan medium silica sand with some rocks	12'-14'	9	10	20	
14			10	13		
15		14'-16'	12	11	22	
16			11	10		
17		16'-18'	10	12	23	
18			11	13		
19		18'-20'	12	11	26	
20			15	12		
21	End of Boring @ 20'					
22						
23						
24						
25						
26						
27						
28						
29						
30						

Water Level: (▼) 5'-6"
Sample Type: Split Spoon (SS)
At Date: 4/11/2025


Robert Shank, President

Respectfully submitted,

Waseem Quadri, P.E. #14818, S.I. #1154
Threshold Building - Special Inspector



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SOIL BORING LOG

CLIENT	Ramos Architects and Associates			Order No	25-0411	
ADDRESS	780 Tamiami Canal Road, Miami, FL 33144			Report No.	1	
PROJECT	Proposed Building Addition & Covered Parking Lot			Boring No.	B-2	
ADDRESS	50 SW 5th Street, Pompano Beach, FL			Date	4/11/2025	
LOCATION	As Marked on Aerial Photography			Driller/Hleper	AG/MP	
				Helper	MP	
Depth (feet)	DESCRIPTION OF MATERIALS			Sample No.	Hammer blows on sampler	"N" Curve
	Soil Boring from 0' to 20'					10 20 30 40 50+
1	0'-0" to 0'-2" Asphalt			0'-2'	13 10	19
2	0'-2" to 1'-0" Backfill - tan lime sand and rocks				9 4	
3				2'-4'	4 5	10
4	1'-0" to 4'-6" Dark brown silica sand with some rocks				5 6	
5				4'-6'	6 7	14
6					7 6	
7				6'-8'	6 5	9
8	4'-6" to 10'-0" Brown medium silica sand				4 6	
9				8'-10'	6 7	15
10					8 9	
11				10'-12'	9 8	15
12	10'-0" to 12'-6" Dark brown medium silica sand				7 9	
13				12'-14'	10 10	19
14					9 8	
15				14'-16'	10 11	21
16					10 10	
17	12'-6" to 20'-0" Tan medium silica sand with some rocks			16'-18'	9 8	21
18					13 12	
19				18'-20'	12 11	21
20					10 13	
21	End of Boring @ 20'					
22						
23						
24						
25						
26						
27						
28						
29						
30						

Water Level: (▼) 5'-4"

Sample Type: Split Spoon (SS)

At Date: 4/11/2025


Robert Shank, President

Respectfully submitted,

Waseem Quadri, P.E. #51481 & S.I. #1154
Threshold Building - Special Inspector



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PERCOLATION TEST USUAL OPEN HOLE TEST (CONSTANT HEAD)

CLIENT:	Ramos Architects and Associates	Date: 4/11/2025
CLIENT ADDRESS:	780 Tamiami Canal Road, Miami, FL 33144	TEST #: P-1
PROJECT NAME:	Proposed Building Addition & Covered Parking Lot	
PROJECT ADDRESS:	50 SW 5th Street, Pompano Beach, FL	

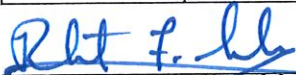
LOCATION OF TEST	As Marked on Aerial Photography		
DIAMETER OF HOLE (IN)	6	LAT:	LON:
DEPTH HOLE (FEET)	15		
WATER TABLE BELOW GROUND SURFACE:	5 ft	3 in	

No.	Elapse Time (minute)	GPM
1	1	6.0
2	1	6.0
3	1	5.0
4	1	5.0
5	1	5.0
6	1	4.0
7	1	4.0
8	1	4.0
9	1	4.0
10	1	4.0

PERCOLATION RATE :	4.7
K-VALUE:	1.016E-04

SOIL DEPTH	SOIL DESCRIPTION
0'-0" to 0'-2"	Asphalt
0'-2" to 1'-0"	Backfill - tan lime sand and rocks
1'-0" to 4'-0"	Dark brown sand with some rocks
4'-0" to 7'-0"	Light brown silica sand
7'-0" to 12'-0"	Brown medium silica sand
12'-0" to 15'-0"	Tan medium sand with some rocks

FIELD TECH.	AG/MP
TYPE BY:	jt


Robert Shank, President



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