STRUCTURAL CONDITION ASSESSMENT
1800 Michigan Ave
Miami Beach, Florida

Prepared for

J. Luis Quintana

February 14, 2025

PREPARED BY

YHCE
www.yhengineering.com

99 NW 27 AVE, Miami, FL. 33125, (305) 969-9423, Fax (305) 969-9453

Youssef Hachem Consulting Engineering

YOUSSEF H. HACHEM
LICENSE
No.43302
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

Digitally signed by Youssef H Hachem
DN: CN=Youssef H Hachem,
dnQualifier=A01410D0000018C833CDD940012794F,
O=YHCE, C=US
Date: 2025.02.18 07:17:08-05'00'

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STRUCTURAL CONDITION ASSESSMENT for
1800 Michigan Ave
Miami Beach, Florida

I. INTRODUCTION

General

Per the request of Mr. Quintana, we have conducted a visual and structural condition assessment on the existing structure located at 1800 Michigan Avenue in Miami Beach, Florida.

The purpose of the inspections was to assess the structural condition of the property to determine the feasibility of preservation and lifting of the structure to comply with current building code requirements and safe habitability.

Structural System

The Structure is a two-story masonry building. The Building Structural System is as follows:

- First Floor:
  - Elevated wood floor framing, with wood
  - Exterior 3 cell concrete masonry unit walls
  - Interior wood load bearing stud walls
- Second Floor:
  - Wood floor framing, with wood planking
  - Exterior 3 cell concrete masonry unit walls
  - Interior wood load bearing stud walls

The components and cladding of the house, such as doors, windows and roof waterproofing are not addressed in this report. Moreover, Mr. Quintana should perform termite and asbestos testing on the building. The electrical and electrical systems are not part of this report, but essentially are non-existent in the building.

II. METHODOLOGY

This inspection was visual in nature from the exterior and interior of the building. Our office did not perform any destructive or non-destructive testing, however Mr. Quintana engaged a licensed material testing company, of their choosing to perform concrete core samples to test for:

1- Concrete compressive strength
2- Extent of Carbonation

Currently, there are several locations in the building that have decayed wood framing which made a full inspection in parts of the building challenging. Every attempt was made to access all portions of the building to observe all signs of distress in the structural members of the building, which includes masonry, wood, and concrete. Distress signs are cracking, spalling, water damage, and termite damage.

A structural analysis was performed on the building to determine the capacity of the structural systems. It is our opinion that the current structural system of the building does not comply Florida Building Code 2023, HVHZ (High Velocity Hurricane Zone) edition.

III. STRUCTURAL SYSTEMS

Based on Miami Dade County tax records, the structure was built in 1935 with an area of 4,092 square feet. The building is approximately 54 feet long (East-West direction) by 40 feet wide (North-South direction). The building's structural members are as follows:

Foundations: The building is built on shallow foundations about 24″ wide x 12″ thick. The foundations support a concrete stem walls (interior and exterior). The interior stem walls support the interior wood stud walls and the exterior stem walls support the exterior masonry walls.

Exterior Walls: The exterior walls of the building are made up of 3 cell concrete masonry unit ("CMU") block, which were common construction material in 1935. The walls have a 5/8″ stucco smooth finish and rough finish.

Interior Walls: There are two types of interior walls, load bearing and non-load bearing. Both types are wood 2″x4″ stud walls. The load bearing walls support the floor joists system extending from the exterior walls. These stud walls are in turn supported by the concrete stem walls and foundations.

Floors: The flooring system is typical on all floors. The wood floor joists are 2″x10″ spaced at 16″ on center and spanning North-South from the exterior Wood wall over the interior load bearing wood stud walls (running North-South). The joists system is supporting 1″x 6″ wood planks make up the 1st and 2nd floor system. All wood joists are "Fire Cut" into the Wood wall, meaning the wood joists are resting in openings in the Wood wall and are not connected to the walls via strapping or any other mechanism.

Roof: Typical of 1935 construction, the actual roof deck is 2″x8″ wood joists supporting 1″x6″ wood planks. The roof deck is supported by wood knee wall made up of 2″x4″ vertical studs. The knee wall in turn is supported by 2″x8″ wood joists. The knee wall system is used to slope the actual roof deck for stormwater drainage.

IV. SITE OBSERVATIONS

We have inspected the structure on several occasions, and our summary of the evaluation of the existing conditions of the structural components are as follows:

Wood members: The roof of the structure has failed in multiple locations, and the moisture intrusion had caused severe and extensive damage to all the wood members of the building (please see photos below). There is moisture damage (rot) of wood, that has caused wood members to deflect, sag, fail, and multiple areas of total collapse. The wood members collapse in the building have created hazardous conditions within the building. The fact that the building has been vacant for some time now, and the moisture intrusion from the roof, door, and window openings had created an atmosphere for the wood to deteriorate severely.

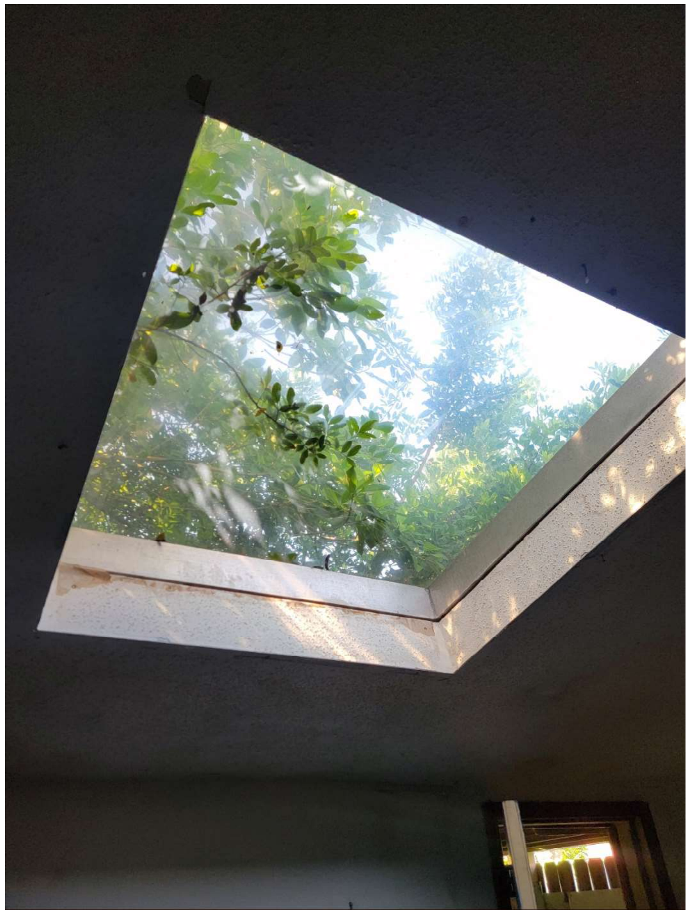
Concrete: The concrete spalling and cracking is evident throughout the building (please see photos below). **Concrete columns and beams exhibit concrete spalling that is estimated at 40% of the area**. Stucco cracking is also evident throughout the building. Previous repairs are also present that exhibit failure and re-cracking.

Interior walls and Ceilings: The components and cladding elements of the building and accessories such as doors, windows, louvers, rails, are all in poor condition. Moreover, the roof waterproofing membrane is also in a poor condition (please see photos below). There are various areas with mold and water intrusion present, all exhibit varying levels of failure. Many areas have rotten wood present due to the water intrusion.

Based on the extent of damage and original construction, the structure would require extensive interior and exterior demolition and would not withstand the necessary shoring and lifting portions of the current building to today’s standards.

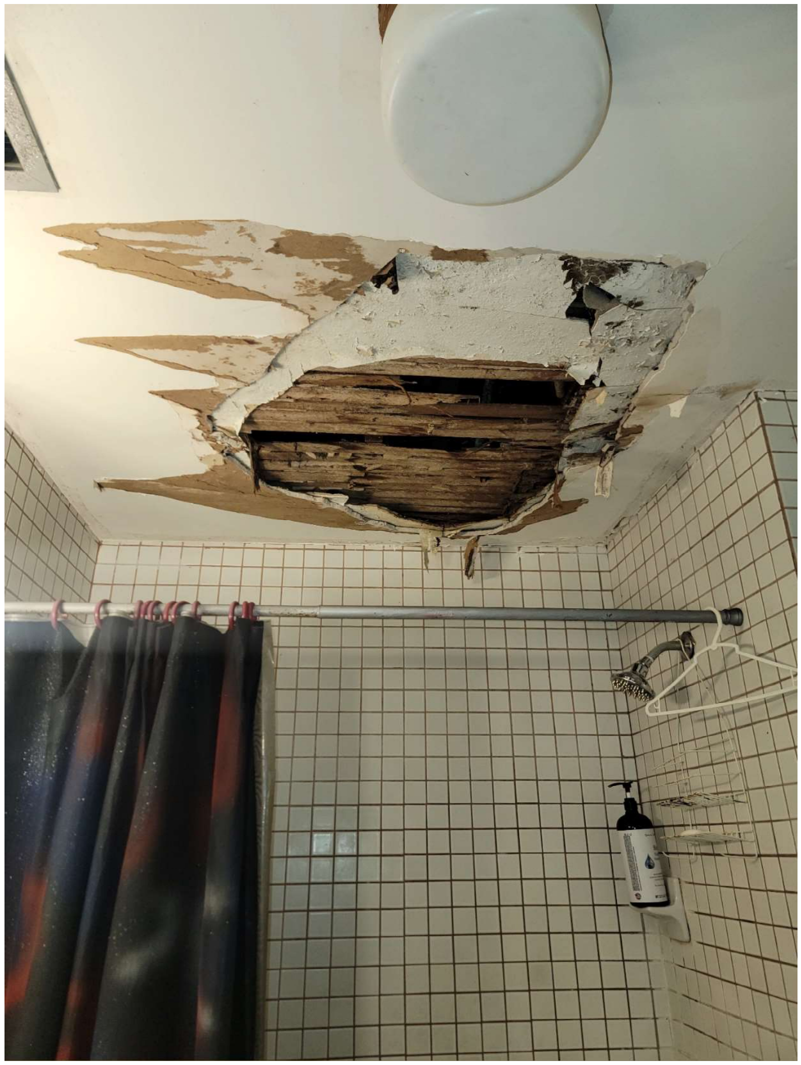

Mold is present on the interior finishes

Mold and water intrusion is present


Skylights present show water intrusion.

Failures noted in the exterior wood canopy

Rotted wood is noticed on the wood joist that make up the second floor of the property



Water intrusion is present throughout the entire property

Water intrusion is present throughout the entire property

V. STRUCTURAL EVALUATION

There are several factors to be considered in the structural evaluation of this building.

Initial Construction:

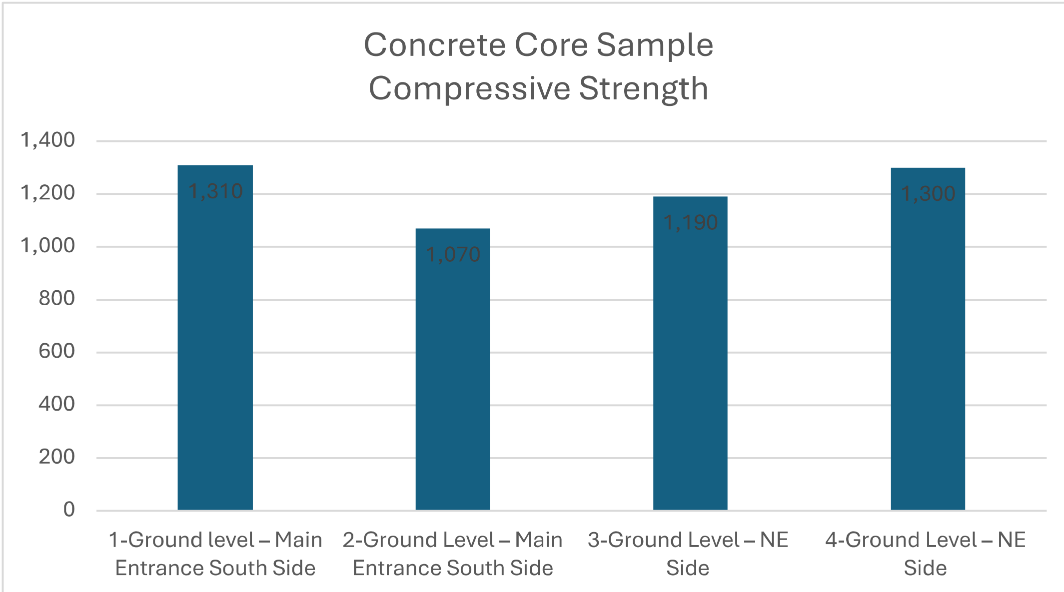
Building construction and standards of the 1930's are considered deficient in today's standards. This applies to this structure and other structures built in the 1930's. This building under current building code is deemed deficient. The structure's roof connections for wind uplift forces, and for wind lateral resistance are non-existent. Moreover, openings protection, and wood reinforcing is also non-existent. To rehabilitate this building, it has to undergo level III alteration of the Florida Building Code 2023 for existing structures. This means that the building has to be strengthened to comply with the current Florida Building Code. Which means that the roof connection tie downs have to be implemented to strengthen the roof, and lateral load structural systems have to be installed such as shearwalls. Wall openings such as doors and windows and the exterior wood walls have to reinforced. Hence, the foundations also have to be strengthened to resist such lateral loads.

Concrete Testing Results:

Ownership engaged NV5, Inc. to conduct concrete laboratory testing on the building to obtain compressive strength, and carbonation depth. The laboratory extracted three (4) concrete core samples of sizes 3.00 in diameter by 6.00 in length approximately, which also were used to test for carbonation.

-Concrete compressive: the results of the testing for concrete strength are tabulated and charted as follows:

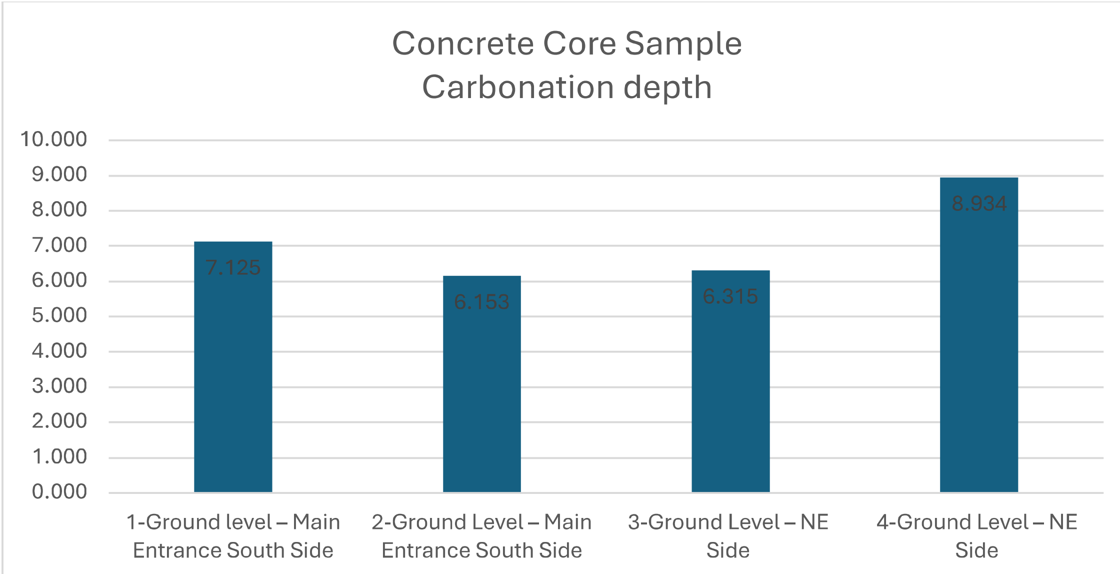
Core	Compressive Strength
Number	[PSI]
1-Ground level – Main Entrance South Side	1,310
2-Ground Level – Main Entrance South Side	1,070
3-Ground Level – NE Side	1,190
4-Ground Level – NE Side	1,300



The Concrete compressive strength ranged from 1,070 to 1,310 PSI. Per Florida Building Code the concrete strength should be 5,000 PSI.

-Carbonation depth: Carbon dioxide from air reacts with the calcium hydroxide in concrete to form calcium carbonate, this process is called carbonation. Carbonation, naturally starts from the exterior surface and progresses inwards. Carbonation actually increases the compressive strength of concrete; however, it also decreases alkalinity, which is essential for corrosion prevention of the reinforcement steel. The results of the testing for carbonation depth are tabulated and charted as follows:

Core	Carbonation depth
Number	[in]
1-Ground level – Main Entrance South Side	7.125
2-Ground Level – Main Entrance South Side	6.153
3-Ground Level – NE Side	6.315
4-Ground Level – NE Side	8.934



1

The carbonation found in the samples ranged between 6.153" – 8.934"

The carbonation is extensive and exposes the reinforcing rebars to corrosion

Site Conditions:

Based on the visual observation in the field, all the wood members of the building such as the roof, floor joists on all floors, and interior stud walls are in very poor and failing condition. Moreover, reinforcing rebars of the concrete members also are in poor condition.

Floor Elevation:

The First finish floor elevation is at 3.14' NAVD (1988), which is approximately 4.64' NGVD. Flood Elevation by FEMA flood maps is at 8.00' NGVD. Hence, the house is below flood. New construction is built at 9.00' NGVD (flood elevation + 1' flood freeboard).

Appendix C shows the wind loads applied to the house per the Florida Building Code, and also analyzes the roof beams of the house which are 4"x6" wood beams spaced at 30" o/c. The analysis shows that the roof beams will fail. When the wind loads applied on them, moreover, the roof beams also do not comply with the Florida Building Code in normal, non-hurricane conditions.

VI. RECOMMENDATIONS

Based on the site observations of the conditions of structural members of the building and level III alteration required by the Florida Building Code, the structural members of this replaced rather than repaired. Hence, in order to do so, these structural members need to be demolished.

It is evident that portions of the structure were built illegally and without permits when built, they were not built up to standards to support loading conditions.
The structure is in moderate to bad condition, leading to deficient structural conditions. The structural members which are mainly wood are deteriorated, moisture damaged and rotting. Most of the structural members cannot be replaced.

The structure is well below flood elevation and to raise the house to comply with FEMA flood rules, the house has to be lifted mechanically. This feat cannot be guaranteed successful based on the deteriorated and damaged structural members of the building.

Based on the concrete testing which averaged 1,217 PSI concrete compressive strength (new construction to comply with current building code concrete is designed for 5,000 PSI) shows that the lifting process will cause serious damage to the foundations.

Furthermore, the carbonation extends deep into the concrete (more than the 2" cover) indicates that all the reinforcing rebars have lost their alkaline protection layer and are exposed to corrosion.

Even if the roof members were in conditions, they do not comply with the requirements of the Florida Building Code. Therefore, the entire roof structure will require demolition and reconstruction at the new required elevation.

We are not confident that the replacement process will not damage the structure, even furthermore due to the connectivity between the members.

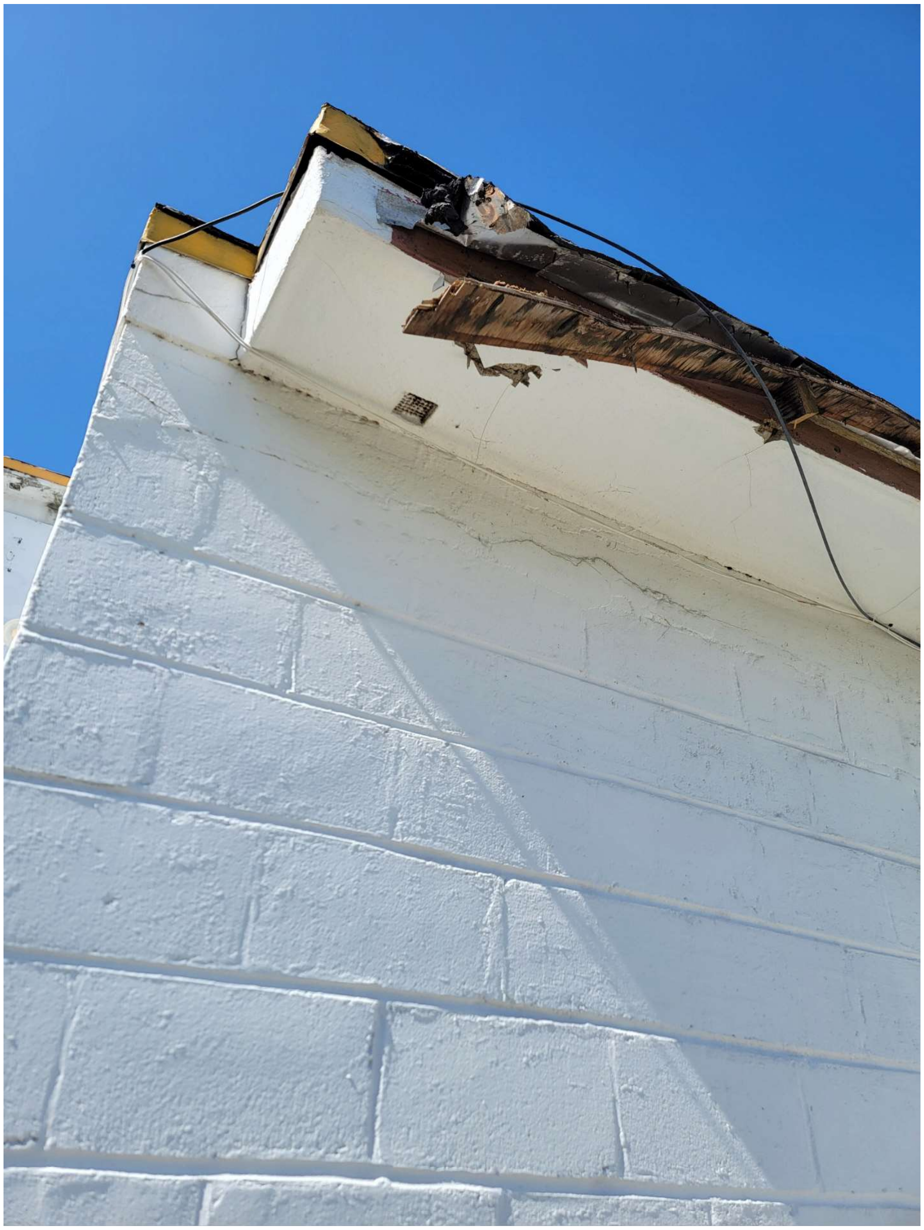
Structure does not comply with today's building code, and even when certain parts of it were built. The materials of the structural systems are compromised and cannot support the loads imposed on it, we recommend demolition of the structure.

APPENDIX A

PHOTOS


Spall and delaminated stucco present

Spall and delaminated stucco present



Rotted wood present on fascia

Cracks noted leading to foundations

Termite damages noticed on wood floors


Water intrusion damages noted

Skylights failure noticed


Deflections noticed on foundations


Mold present in interior finishes due to water intrusion


Water intrusion thru windows

Water intrusion noticed coming from roof

Appendix B
Concrete testing report

January 28, 2025

IRRS 1800 Michigan, LLC
Attn: Ms. Emily Balter
7375 Collins Avenue
Sunny Isles Beach, Florida 33160

Re: Report of Concrete Core Extraction & Testing
1800 Michigan Ave Concrete Core Test
1800 Michigan Avenue
Miami Beach, Florida
NV5 Project No. 18715

Dear Ms. Balter:

NV5, Inc. submits this report in fulfillment of the scope of services described in our proposal 24-0977 dated December 10, 2024. This report describes our understanding of the project, presents our field and laboratory testing results.

<u>This report should be read in its entirety.</u>

Sincerely,
NV5, Inc.

This document has been digitally signed and sealed by:

Printed copies of this document are not considered signed and sealed, and the signature must be verified on any electronic copies

ALFREDO BUDIK
LICENSE
No. 43884
STATE OF FLORIDA
PROFESSIONAL ENGINEER

Leon R. Habr
Project Manager

Alfredo Budik, P.E
Senior Engineer
Florida License No. 43884

Distribution: 1 Copy to Addressee via Email
1 Copy to NV5 File

f:\doc\nv5 reports\18715_1800 michigan ave concrete core test_1800 michigan avenue_miami beach_florida_irrs 1800 michigan, llc_concrete core extraction and testing report_1-28-2025.doc

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1.0 SITE AND PROJECT INFORMATION

The project site is located at 1800 Michigan Avenue in Miami Beach, Florida. The site is bounded by a single-family home to the north, by 18th Street to the south, by Michigan Avenue to the east and by a vacant lot to the west. According to Miami-Dade Property Appraiser page the site corresponds to Folio No. 02-3234-004-0120. NV5 has been requested to perform concrete core compressive strength and carbonation tests. NV5 was informed that a total of six (6) cores will be extracted from various locations as specified by the structural engineer (YHCE) or other designated personnel. Please note that the dates for the concrete pour were not provided.

2.0 PURPOSE AND SCOPE OF WORK

The purpose of our services is to perform a Ground Penetrating Radar (GPR) scan, extract concrete cores and test the cores extracted in the laboratory for compressive strength and depth of carbonation.

3.0 FIELD WORK

3.1 GPR (Ground Penetrating Radar)

The selected locations of the south wall (Main entrance wall) and east wall were scanned with a ground penetrating radar (GPR) to determine the steel reinforcing configuration and to avoid damaging the reinforcement while performing the core extraction. Ground Penetrating Radar (GPR) is a geophysical locating method that uses radio waves to capture images below the surface of the ground or concrete in a non-destructive manner. A GSSI radar system with 350 Mega-hertz (MHz) antenna was used to identify possible steel reinforcement of the slab.

3.2 CONCRETE CORES EXTRACTION

Four (4) core samples were extracted by NV5 per client's request from the south wall (Main entrance wall) and east wall. The core sample locations were determined by the structural engineer (YHCE).

Concrete coring was performed in general accordance with ASTM C42-18, Standard Test Method for Obtaining and Testing Drilled Cores and Sawed Beams of Concrete. Immediately upon completion of the coring process, the core samples were bagged within the time limit indicated in ASTM C42-18 and transported to our laboratory for testing.

The core samples were used for compressive strength testing. The same cores were tested right after the compression test for depth of carbonation.

Concrete core locations are presented in Appendix A.

Table 1 – Core Locations and Tests Performed

Core Number	Core Location	Test Performed
1	South Wall	Compressive Strength- Depth of Carbonation
2	South Wall	Compressive Strength- Depth of Carbonation
3	East Wall	Compressive Strength- Depth of Carbonation
4	East Wall	Compressive Strength- Depth of Carbonation

Concrete core extraction was performed on January 17, 2025. The results and locations of the concrete core laboratory testing are summarized in Section 4.0.

Concrete cores respective lengths are shown in Appendix B of this report.

4.0 LABORATORY TESTING RESULTS

4.1 CONCRETE CORES FOR COMPRESSIVE STRENGTH TESTING

The compressive strength testing of the concrete core samples was performed in general accordance with ASTM C42-18. The core samples were trimmed and later subjected to compressive strength testing. The compressive strength of the concrete cores ranged between 1,070 and 1,310 pounds per square inch (psi).

Details of the compressive strength results of the core samples are presented in Appendix B.

4.2 CONCRETE CORES FOR CHEMICAL ANALYSIS (Depth of Carbonation)

Right after the compressive strength testing the same core samples were tested for chemical analysis (Depth of Carbonation). The depth of carbonation test was performed in accordance with ASTM C856, Standard Practice for Petrographic Examination of Hardened Concrete to determine the depth of carbonation. The concrete samples were freshly fractured to expose a clean surface, and a pH indicator solution (phenolphthalein) was applied to the exposed area. The indicator reacts to the pH levels within the concrete, turning pink in areas where the pH is above 9, indicating uncarbonated concrete, and remaining colorless in areas where the pH is below 9, indicating carbonation. The depth of carbonation was measured as the distance from the surface of the concrete to the boundary where the color change occurred. This method identified the extent of carbonation and provided data on the concrete's susceptibility to carbonation-related durability concerns.

The depth of carbonation ranged between approximately 6.153 and 8.934. A summary of the test results is summarized below in table 2 and illustrated in Figure 1 through 4.

Table 2 – Core Locations and Tests Performed

Core Number	Core Location	Depth of Carbonation (in)
1	South Wall	7.125
2	South Wall	6.153
3	East Wall	6.315
4	East Wall	8.934

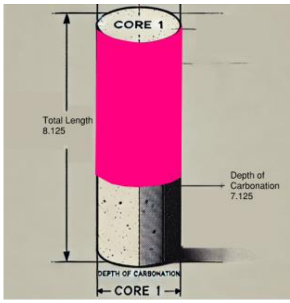


Figure 1- Depth of Carbonation (Core 1)

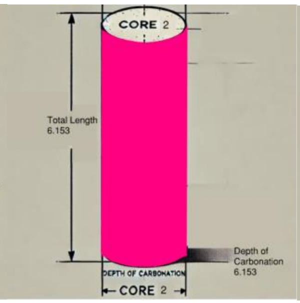


Figure 2- Depth of Carbonation (Core 2)

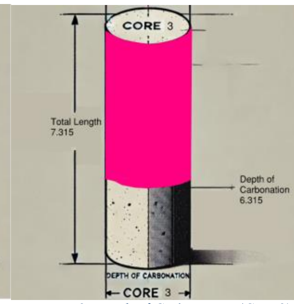


Figure 3- Depth of Carbonation (Core 3)

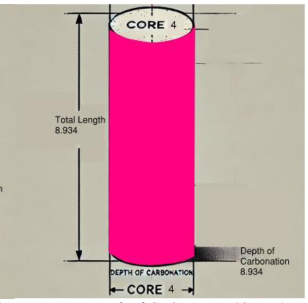


Figure 4- Depth of Carbonation (Core 4)

5.0 REPORT LIMITATIONS

This report has been prepared pursuant to our proposal 24-0977 dated December 10, 2024. This report should be read in its entirety. NV5 is not responsible for misinterpretations arising from only reading sections of the report.

This report has been prepared for the exclusive use of the Owner and other members of the design/construction team for the specific site and project discussed in this report. This report is not applicable to any other site or project.

The tests were performed in general accordance with the procedures described above and the results presented in this report are representative of the in-situ conditions only at the specific locations tested. The structural engineer should evaluate these results accordingly.

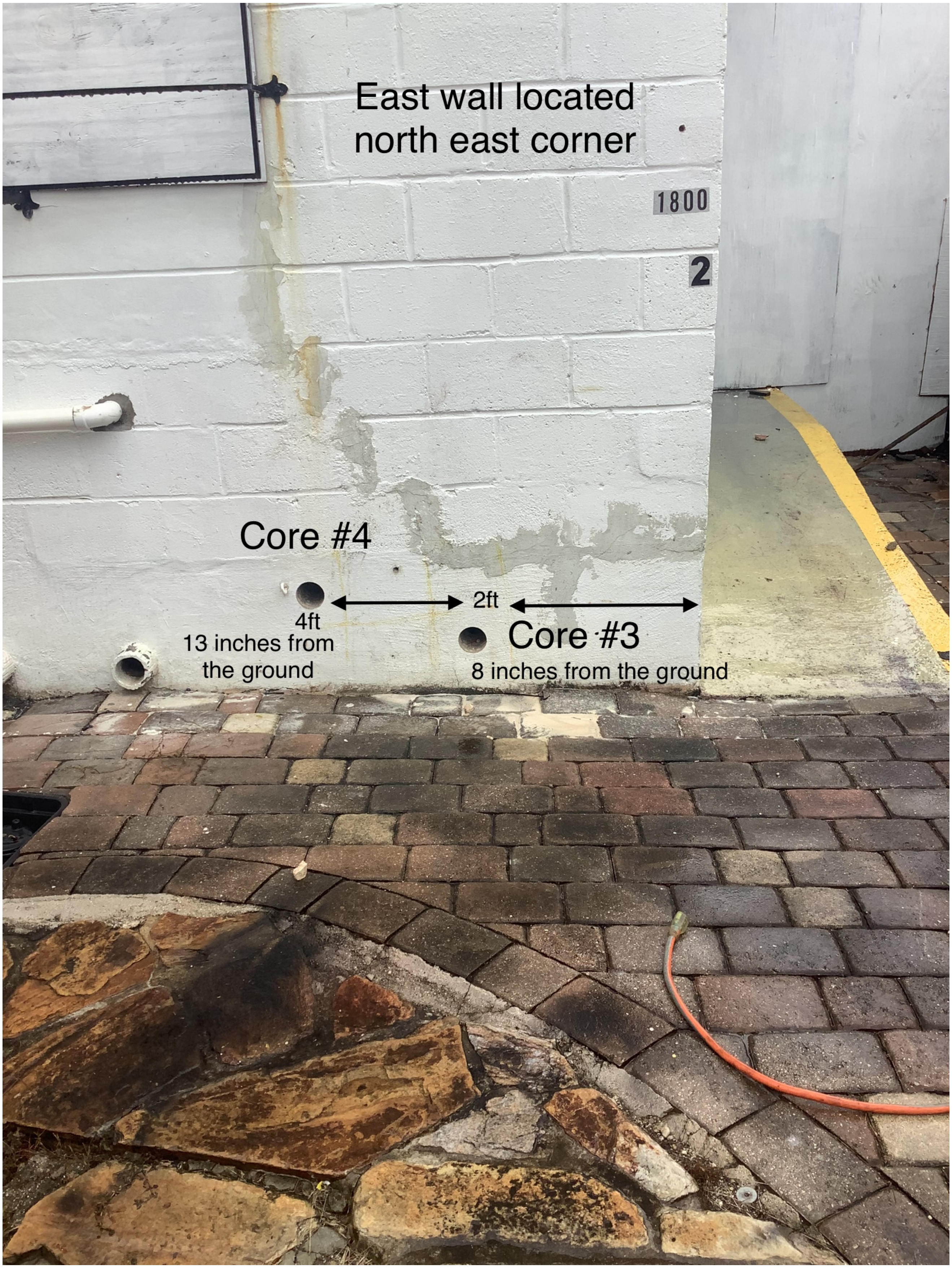
6.0 CLOSURE

We appreciate the opportunity to provide specialized engineering services on this project and look forward to an opportunity to participate in construction related aspects of the development. If you have questions about the information contained in this report, contact the writer on 305.666.3563.

****

Appendix A
Concrete Core Locations


main entrance / South wall
1800
13ft
6ft
Text
Core #1
Core #2
8 inches above ground
Existing holes
8 inches above ground


East wall located
north east corner
1800
2
Core #4
4ft
13 inches from
the ground
2ft
Core #3
8 inches from the ground

Appendix B
Concrete Core Compressive Stregth

CORES COMPRESSIVE STRENGTH REPORT

NV5, INC.
14486 COMMERCE WAY, MIAMI LAKES FL 33016
TELEPHONE NO. 305-666-3563   FAX NO.: 305-666-3069

PROJECT NAME: 1800 Michigan Ave Concrete Core Test
PROJECT NUMBER: 18715
DATE: 1/22/2025

CLIENT: IRRS 1800 Michigan, LLC
SAMPLE BY: NV5
SET NO.: 1

CONTRACTOR: YHCE
SPECIFIED STRENGTH: Not Provided
PAGE NO.: 1

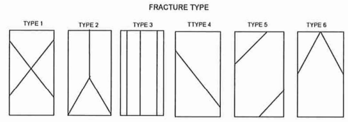
TEST METHOD: In general accordance with ASTM C42-20
CONCRETE SUPPLIER: Not Provided

Core	Core Location	Structural Element	Core Dimensions					Compressive Strength				Fracture Type	Maximum Nominal Aggregate Size	Pour Date	Core Date	Preparation Date	Test Date	Core Weight (lbs.)	Core Unit Weight (lbs./ft³)
			Diameter (inches)	Lengths			Cross Sectional Area (sq.inches)	Maximum Load (lbs.)	L/D	Correction Factor	Approx. Compressive Strength (psi)								
				Original (inches)	w/o cap (inches)	with cap (inches)													
1	Ground Level - Main Entrance South Side	slab	3.149	8.875	5.401	N/A	7.79	10443	1.72	0.98	1,310	3	# 57	N/A	1/17/2025	1/18/2025	1/22/2025	3.02	124.21
2	Ground Level - Main Entrance South Side	slab	3.145	6.153	4.904	N/A	7.77	8602	1.56	0.96	1,070	3	# 57	N/A	1/17/2025	1/18/2025	1/22/2025	2.70	122.29
3	Ground Level - Northeast Side of Residence	slab	3.149	7.315	4.221	N/A	7.79	9862	1.34	0.94	1,190	3	# 57	N/A	1/17/2025	1/18/2025	1/22/2025	2.39	125.52
4	Ground Level - Northeast Side of Residence	slab	3.145	8.934	4.810	N/A	7.77	10480	1.53	0.96	1,300	3	# 57	N/A	1/17/2025	1/18/2025	1/22/2025	2.71	125.39

Notes

1 According to ACI 318 and Note 4 of ASTM C42, "The concrete represented by the cores is considered structurally adequate if the average strength of three cores is at least 85% of the specified strength and no single core strength is less than 75% of the specified strength". Compressive strength results should be reviewed by the Engineer of Record for acceptance.
2 According to ASTM C42-20 — "Allow the cores to remain in the sealed plastic bags or nonabsorbent containers for at least 5 days after last being wetted and before testing, unless stipulated otherwise by the specifier of tests".
3 Direction of load application is Parallel and moisture condition is bagged.
4 Due to tightly spaced reinforcing steel, the core diameter had to be reduced under the recommended diameter described in ASTM C42 with the approval of the structure Engineer
5 All cores were trimmed and grinded prior to compressive strenght testing

FRACTURE TYPE



ALFREDO BUDIK
LICENSE
No. 43884
STATE OF FLORIDA
PROFESSIONAL ENGINEER

Alfredo Budik, P.E.
Senior Engineer
Florida License No. 43884

1/22/25

NV5

Appendix C
Calculations Roof Beams

MecaWind v2485

Developed by Meca Enterprises Inc., www.mecaenterprises.com, Copyright © 2025

Calculations Prepared by:
Date: Feb 13, 2025
File Location: U:\2024\MISC\H241230 (1800 Michigan)\DESIGN PHASE\Calculations\WIND CALC'S\house.wnd

General:
Reference Abbreviations: T: Table, F: Figure, E: Equation, §: Section

Wind Load Standard	=	FBC 2023	Basic Wind Speed	=	175.0 mph
Exposure Classification	=	D	Risk Category	=	II
Structure Type	=	Building	Design Basis for Wind Pressures	=	ASD
MWFRS Analysis Method	=	None	C&C Analysis Method	=	Ch 30 Pt 1
Dynamic Type of Structure	=	Rigid	Show Advanced Options	=	False

Wind Speed Basis to be used in calculations:
V = Convert to ASD wind speed: $V_{ult} \cdot 0.6^{0.5}$ [Eqn 16-17] = 135.6 mph

Building:

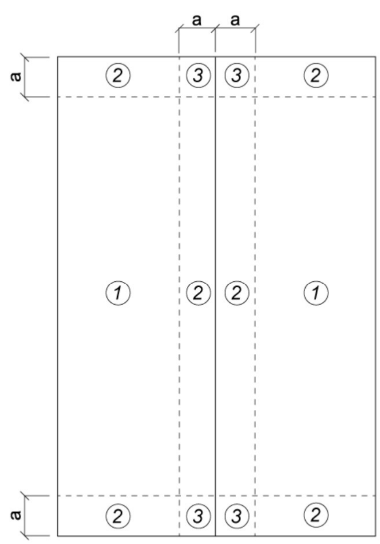
Roof	=	Roof Type	=	Gabled	Encl	=	Enclosure Classification	=	Enclosed
Help	=	Help on Building Roof Type	=	Help	W	=	Building Width	=	28.600 ft
L	=	Building Length	=	110.000 ft	R_{Ht}	=	Ridge Height	=	24.767 ft
E_{Ht}	=	Eave Height	=	20.000 ft	Pitch	=	Pitch of Roof	=	4.0 :12
θ	=	Slope of Roof	=	18.435 Deg	OH	=	Overhang Configuration	=	All None
Par	=	Parapet	=	None	HT_{over}	=	Override Mean Roof Height	=	False
Ht_{man}	=	Mean Roof Height	=	22.383 ft	RA_{over}	=	Override Roof Area	=	False
GC_{pi_o}	=	Override GC_{pi} value	=	False	IsElev	=	Building is Elevated	=	False

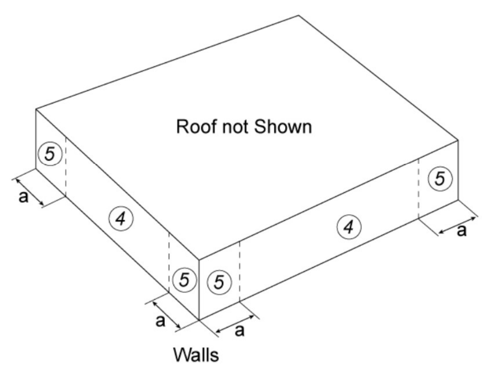
Exposure Constants [T:26.11-1]:

α = 3-s Gust-speed exponent	=	11.500	Z_g = Nominal Ht of Boundary Layer	=	1935.000 ft
â = Reciprocal of α	=	0.087	b = 3 sec gust speed factor	=	1.090
α_m = Mean hourly Wind-Speed Exponent	=	0.125	b_m = Mean hourly Windspeed Exponent	=	0.780
c = Turbulence Intensity Factor	=	0.150	ε = Integral Length Scale Exponent	=	0.1250

Components and Cladding (C&C) Wind Loads per Ch 30 Pt 1 Roof & Wall

FBC 2023 refers to ASCE 7-22 for these calculations.





h = Mean structure height	=	22.383 ft	$K_h = 2.41 \cdot (Z/Z_g)^{2/\alpha}$	=	1.110
K_{zt} = No Topographic Feature	=	1.000	K_d = Directionality Factor T:26.6-1	=	0.85
GC_{pi} = ± Internal Press Coef T:26.13-1	=	±0.18	LF = ASD Load Factor	=	0.60
K_e = Ground Elev Factor T:26.10-1	=	1.000	$q_h = 0.00256 \cdot K_h \cdot K_{zt} \cdot K_e \cdot V^2 \cdot LF$ E:26.10-1	=	52.20 psf

θ = Slope of Roof = 18.43 °
a = Max(a_1, 0.04•B, 3 ft [0.9 m]) = 3.000 ft

a_1 = Min(0.1•B, 0.4•h) = 2.860 ft

Wind Pressures for C&C Ch 30 Pt 1 Roof & Wall
All wind pressures include a Load Factor (LF) of 0.6

Description	Zone	Width ft	Span ft	Area ft^2	1/3 Rule	Figure	GC_{pi}	GC_{pd}	GC_{pu}	P_{down} psf	P_{uplift} psf
	1	1.0000	1.0000	1.00	No	30.3-2B	±0.18	0.60	-2.00	34.61	-96.72
	2	1.0000	1.0000	1.00	No	30.3-2B	±0.18	0.60	-2.70	34.61	-127.78
	3	1.0000	1.0000	1.00	No	30.3-2B	±0.18	0.60	-3.60	34.61	-167.71

GC_{pd} = Down (+) External Coefficient
P_{down} = Down Press: q_h•K_d•[GC_{pd}-GC_{pi}] E:30.3-1
+Press = Pressure Acting Toward Surface
§30.2.2 = C&C Min Pressure = 9.60 psf
Width = Width of Component
Area = Span • Width
GC_{pi} = +Internal Coef T:26.13-1

GC_{pu} = Uplift (-) External Coefficient
P_{uplift} = Uplift Press: q_h•K_d•[GC_{pu}-GC_{pi}] E:30.3-1
-Press = Pressure Acting Away from Surface
Zone = Applicable Zone per Figure
Span = Span of Component
1/3 Rule = Width limited to Span/3
Figure = Applicable Figure from Standard

Wood Beam

Project File: roof.ec6

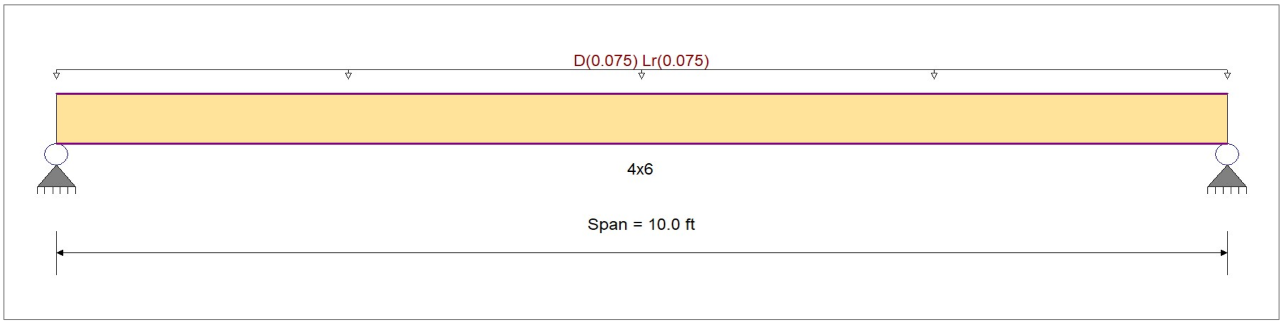
DESCRIPTION: roof beam

CODE REFERENCES

Calculations per NDS 2018, IBC 2021, ASCE 7-16
Load Combination Set : IBC 2021

Material Properties

Analysis Method :	Allowable Stress Design	Fb +	1,000.0 psi	*E : Modulus of Elasticity*	
Load Combination :	IBC 2021	Fb -	1,000.0 psi	Ebend- xx	1,400.0 ksi
		Fc - Prll	1,400.0 psi	Eminbend - xx	510.0 ksi
Wood Species :	Southern Pine	Fc - Perp	565.0 psi		
Wood Grade :	No.2: 2"-4" Thick: 5"-6" Wide	Fv	175.0 psi		
		Ft	600.0 psi	Density	34.330 pcf
Beam Bracing :	Beam is Fully Braced against lateral-torsional buckling				



Applied Loads

Service loads entered. Load Factors will be applied for calculations.

Beam self weight NOT internally calculated and added
Uniform Load : D = 0.0750, Lr = 0.0750 , Tributary Width = 1.0 ft

DESIGN SUMMARY

Design N.G.

Maximum Bending Stress Ratio	=	1.020 : 1	Maximum Shear Stress Ratio	=	0.244 : 1
Section used for this span		**4x6**	Section used for this span		**4x6**
fb: Actual	=	1,275.09 psi	fv: Actual	=	53.32 psi
F'b	=	1,250.00 psi	F'v	=	218.75 psi
Load Combination		+D+Lr	Load Combination		+D+Lr
Location of maximum on span	=	5.000 ft	Location of maximum on span	=	0.000 ft
Span # where maximum occurs	=	Span # 1	Span # where maximum occurs	=	Span # 1

Maximum Deflection

Max Downward Transient Deflection	0.250 in	Ratio =	480 >=360	Span: 1 : Lr Only
Max Upward Transient Deflection	0 in	Ratio =	0 <360	n/a
Max Downward Total Deflection	0.500 in	Ratio =	240 >=180	Span: 1 : +D+Lr
Max Upward Total Deflection	0 in	Ratio =	0 <180	n/a

Maximum Forces & Stresses for Load Combinations

Load Combination		Max Stress Ratios										Moment Values			Shear Values		
Segment Length	Span #	M	V	CD	CM	C_t	CLx	C_F	Cfu	C_i	C_r	M	fb	F'b	V	fv	F'v
D Only														0.0	0.00	0.0	0.0
Length = 10.0 ft	1	0.708	0.169	0.90	1.00	1.00	1.00	1.000	1.00	1.00	1.00	0.94	637.5	900.0	0.34	26.7	157.5
+D+Lr					1.00	1.00	1.00	1.000	1.00	1.00	1.00			0.0	0.00	0.0	0.0
Length = 10.0 ft	1	1.020	0.244	1.25	1.00	1.00	1.00	1.000	1.00	1.00	1.00	1.88	1,275.1	1,250.0	0.68	53.3	218.8
+D+0.750Lr					1.00	1.00	1.00	1.000	1.00	1.00	1.00			0.0	0.00	0.0	0.0
Length = 10.0 ft	1	0.893	0.213	1.25	1.00	1.00	1.00	1.000	1.00	1.00	1.00	1.64	1,115.7	1,250.0	0.60	46.7	218.8
+0.60D					1.00	1.00	1.00	1.000	1.00	1.00	1.00			0.0	0.00	0.0	0.0
Length = 10.0 ft	1	0.239	0.057	1.60	1.00	1.00	1.00	1.000	1.00	1.00	1.00	0.56	382.5	1,600.0	0.21	16.0	280.0

Wood Beam

DESCRIPTION: roof beam

Overall Maximum Deflections

Load Combination	Span	Max. "-" Defl	Location in Span	Load Combination	Max. "+" Defl	Location in Span
+D+Lr	1	0.4997	5.036		0.0000	0.000

Vertical Reactions

Support notation : Far left is #1 Values in KIPS

Load Combination	Support 1	Support 2
Max Upward from all Load Conditions	0.750	0.750
Max Upward from Load Combinations	0.750	0.750
Max Upward from Load Cases	0.375	0.375
D Only	0.375	0.375
+D+Lr	0.750	0.750
+D+0.750Lr	0.656	0.656
+0.60D	0.225	0.225
Lr Only	0.375	0.375

Project Title:
Engineer:
Project ID:
Project Descr:

Wood Beam

Project File: roof.ec6

LIC# : KW-06016439, Build:20.23.08.30 YOUSSEF HACHEM CONSULTING ENGINEERING INC (c) ENERCALC INC 1983-2023

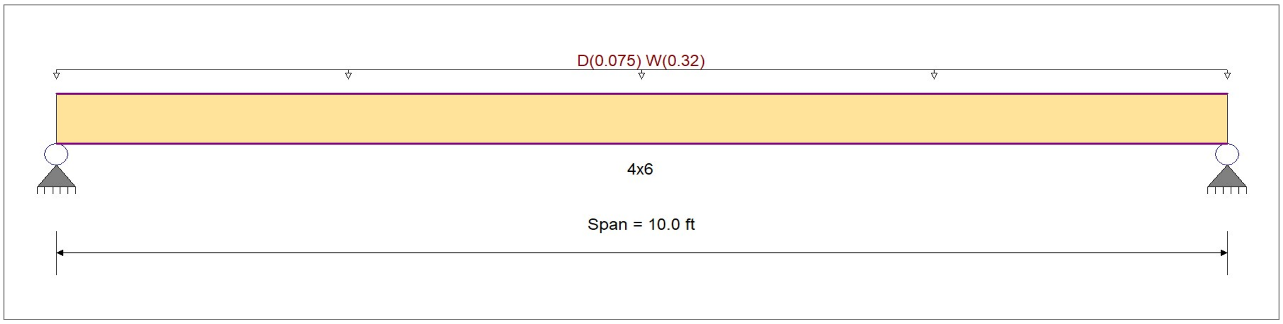
DESCRIPTION: wind uplift roof beam

CODE REFERENCES

Calculations per NDS 2018, IBC 2021, ASCE 7-16
Load Combination Set : IBC 2021

Material Properties

Analysis Method :	Allowable Stress Design	Fb +	1,000.0 psi	*E : Modulus of Elasticity*	
Load Combination :	IBC 2021	Fb -	1,000.0 psi	Ebend- xx	1,400.0 ksi
		Fc - Prll	1,400.0 psi	Eminbend - xx	510.0 ksi
Wood Species :	Southern Pine	Fc - Perp	565.0 psi		
Wood Grade :	No.2: 2"-4" Thick: 5"-6" Wide	Fv	175.0 psi		
		Ft	600.0 psi	Density	34.330 pcf
Beam Bracing :	Beam is Fully Braced against lateral-torsional buckling				



Applied Loads

Service loads entered. Load Factors will be applied for calculations.

Beam self weight NOT internally calculated and added
Uniform Load : D = 0.0750, W = 0.320 , Tributary Width = 1.0 ft

DESIGN SUMMARY

Design N.G.

Maximum Bending Stress Ratio	=	1.419: 1	Maximum Shear Stress Ratio	=	0.339 : 1
Section used for this span		**4x6**	Section used for this span		**4x6**
fb: Actual	=	2,269.66 psi	fv: Actual	=	94.91 psi
F'b	=	1,600.00 psi	F'v	=	280.00 psi
Load Combination		+D+0.60W	Load Combination		+D+0.60W
Location of maximum on span	=	5.000 ft	Location of maximum on span	=	0.000 ft
Span # where maximum occurs	=	Span # 1	Span # where maximum occurs	=	Span # 1

Maximum Deflection

Max Downward Transient Deflection	1.066 in	Ratio =	112 <360	Span: 1 : W Only
Max Upward Transient Deflection	0 in	Ratio =	0 <360	n/a
Max Downward Total Deflection	0.889 in	Ratio =	134 <180	Span: 1 : +D+0.60W
Max Upward Total Deflection	0 in	Ratio =	0 <180	n/a

Maximum Forces & Stresses for Load Combinations

Load Combination		Max Stress Ratios										Moment Values			Shear Values		
Segment Length	Span #	M	V	CD	CM	C_t	CLx	C_F	Cfu	C_i	C_r	M	fb	F'b	V	fv	F'v
D Only														0.0	0.00	0.0	0.0
Length = 10.0 ft	1	0.708	0.169	0.90	1.00	1.00	1.00	1.000	1.00	1.00	1.00	0.94	637.5	900.0	0.34	26.7	157.5
+D+0.60W					1.00	1.00	1.00	1.000	1.00	1.00	1.00			0.0	0.00	0.0	0.0
Length = 10.0 ft	1	1.419	0.339	1.60	1.00	1.00	1.00	1.000	1.00	1.00	1.00	3.34	2,269.7	1,600.0	1.22	94.9	280.0
+D+0.450W					1.00	1.00	1.00	1.000	1.00	1.00	1.00			0.0	0.00	0.0	0.0
Length = 10.0 ft	1	1.164	0.278	1.60	1.00	1.00	1.00	1.000	1.00	1.00	1.00	2.74	1,861.6	1,600.0	1.00	77.9	280.0
+0.60D+0.60W					1.00	1.00	1.00	1.000	1.00	1.00	1.00			0.0	0.00	0.0	0.0
Length = 10.0 ft	1	1.259	0.301	1.60	1.00	1.00	1.00	1.000	1.00	1.00	1.00	2.96	2,014.6	1,600.0	1.08	84.2	280.0
+0.60D					1.00	1.00	1.00	1.000	1.00	1.00	1.00			0.0	0.00	0.0	0.0
Length = 10.0 ft	1	0.239	0.057	1.60	1.00	1.00	1.00	1.000	1.00	1.00	1.00	0.56	382.5	1,600.0	0.21	16.0	280.0

Wood Beam

Project File: roof.ec6

DESCRIPTION: wind uplift roof beam

Overall Maximum Deflections

Load Combination	Span	Max. "-" Defl	Location in Span	Load Combination	Max. "+" Defl	Location in Span
W Only	1	1.0660	5.036		0.0000	0.000

Vertical Reactions

Support notation : Far left is #1 Values in KIPS

Load Combination	Support 1	Support 2
Max Upward from all Load Conditions	1.600	1.600
Max Upward from Load Combinations	1.335	1.335
Max Upward from Load Cases	1.600	1.600
D Only	0.375	0.375
+D+0.60W	1.335	1.335
+D+0.450W	1.095	1.095
+0.60D+0.60W	1.185	1.185
+0.60D	0.225	0.225
W Only	1.600	1.600

Appendix D
Survey

TOPOGRAPHIC SURVEY

SCALE: 1"= 2 0'

CERTIFY TO:
QUINTANA & ASSOCIATES

LEGAL DESCRIPTION:
PARCEL A (1800 MICHIGAN AVENUE):
LOT 1, IN BLOCK 10, PALM VIEW SUBDIVISION, ACCORDING TO THE PLAT THEREOF, RECORDED IN PLAT BOOK 6, AT PAGE 29, OF THE PUBLIC RECORDS OF DADE COUNTY, FLORIDA.

SQUARE FOOTAGE OF PARCEL A:
7951.24 SQ. FT ±
OR
0.18 ACRES ±

PROPERTY ADDRESS:
1800 MICHIGAN AVENUE (PARCEL A)
1810 MICHIGAN AVENUE (PARCEL B)
1818 MICHIGAN AVENUE (PARCEL B)
VACANT LOT (MICHIGAN AVENUE)(PARCEL C)
MIAMI BEACH, FLORIDA 33139

FLOOD ZONE INFORMATION:
THE NFIP FLOOD MAPS HAVE DESIGNATED THE HEREIN DESCRIBED LAND TO BE SITUATED IN:
FLOOD ZONE: AE
COMMUNITY: 120651
PANEL NO: 317/H
DATE OF FIRM: 09/11/2009
THE SUBJECT PROPERTY DOES LIE IN A SPECIAL FLOOD HAZARD AREA

Notes:
a) all clearances and / or encroachments shown hereon are of apparent nature. fence ownership by visual means. legal ownership of fences not determined.
b)this is a boundary survey, prepared for use exclusively by those to whom it is certified, for the purpose of acquisition and/or refinancing of the property, and is not intended for use in construction as it was not ordered to meet alta standards.
c) code restriction and title search are not reflected on this survey.
d) the flood information shown hereon does not imply that the referenced property will or will not be free from flooding or damage and does not create liability on the part of the firm, any officer or employee thereof for any damage that results from reliance on said information.
e) the lands depicted hereon were surveyed per the legal description and no claims as to ownership or matters of title are made or implied.
f) underground encroachments, if any, not located.
g) i hereby certify that the survey represented hereon meets the minimum technical standards set forth by the board of land surveyors in chapter 5j-17.050 to 17.052 florida administrative code persuant to section 472.027 fla. statutes.
h) if shown, bearings are to an assumed meridian (by plat)
i) if shown, elevations are referred to NAVD 1988 vertical datum
j) the tree table, and all data relevant to the trees, was provided by Petar Stracenski ISA Certified Arborist #FL-9367A.
k) tree were located by surveyor
l) the project site is located in Section 34-Township 53S-Range 42E

0 40 80 Feet

PARCEL B (1810 MICHIGAN AVENUE & 1818 MICHIGAN AVENUE):
ALL OF LOT 3, BLOCK 10, PALM VIEW SUBDIVISION, ACCORDING TO PLAT THEREOF RECORDED IN PLAT BOOK 6, PAGE 29 OF THE PUBLIC RECORDS OF DADE COUNTY, FLORIDA, AND ALL OF LOT 2, BLOCK 10, EXCEPT THAT PORTION DESCRIBED AS FOLLOWS: BEGINNING AT THE SOUTHWESTERLY CORNER OF LOT 2; THENCE RUN EASTERLY ALONG SOUTHERLY LINE OF SAID LOT 2 FOR A DISTANCE OF 6 FEET TO A POINT; THENCE RUN NORTHERLY ALONG A LINE PARALLEL TO AND 6 FEET EAST OF WESTERLY LINE OF LOT 2 FOR A DISTANCE OF 25 FEET TO A POINT; THENCE RUN WESTERLY ALONG A LINE PARALLEL TO AND 25 FEET NORTH OF SOUTHERLY LINE OF LOT 2 TO THE POINT ON WESTERLY LINE OF LOT 2; THENCE SOUTHERLY ALONG WESTERLY LINE OF LOT 2.FOR A DISTANCE OF25 FEET TO THE .POINT OF BEGINNING, AND THAT PORTION OF LOT 4 DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHWESTERLY CORNER OF LOT 2; THENCE RUN NORTHERLY ALONG WESTERLY LINE OF LOT 2 FOR A DISTANCE OF25 FEET TO THE POINT OF BEGINNING; THENCE CONTINUE ALONG PREVIOUSLY DESCRIBED COURSE FOR A DISTANCE OF 41.2 FEET TO THE POINT ON THE SOUTHERLY LINE OF COLLINS CANAL THENCE RUN SOUTHWESTERLY ALONG SAID SOUTHERLY LINE OF COLLINS CANAL FOR A DISTANCE OF 19.0 FEET TO A POINT; THENCE RUN SOUTHEASTERLY FOR A DISTANCE OF36.01 FEET TO THE POINT OF BEGINNING.

1818 MICHIGAN AVENUE SQUARE FOOTAGE:
PROPERTY AREA PER LEGAL DESCRIPTION:
10085.57 ± SQ. FT OR 0.23 ± ACRES

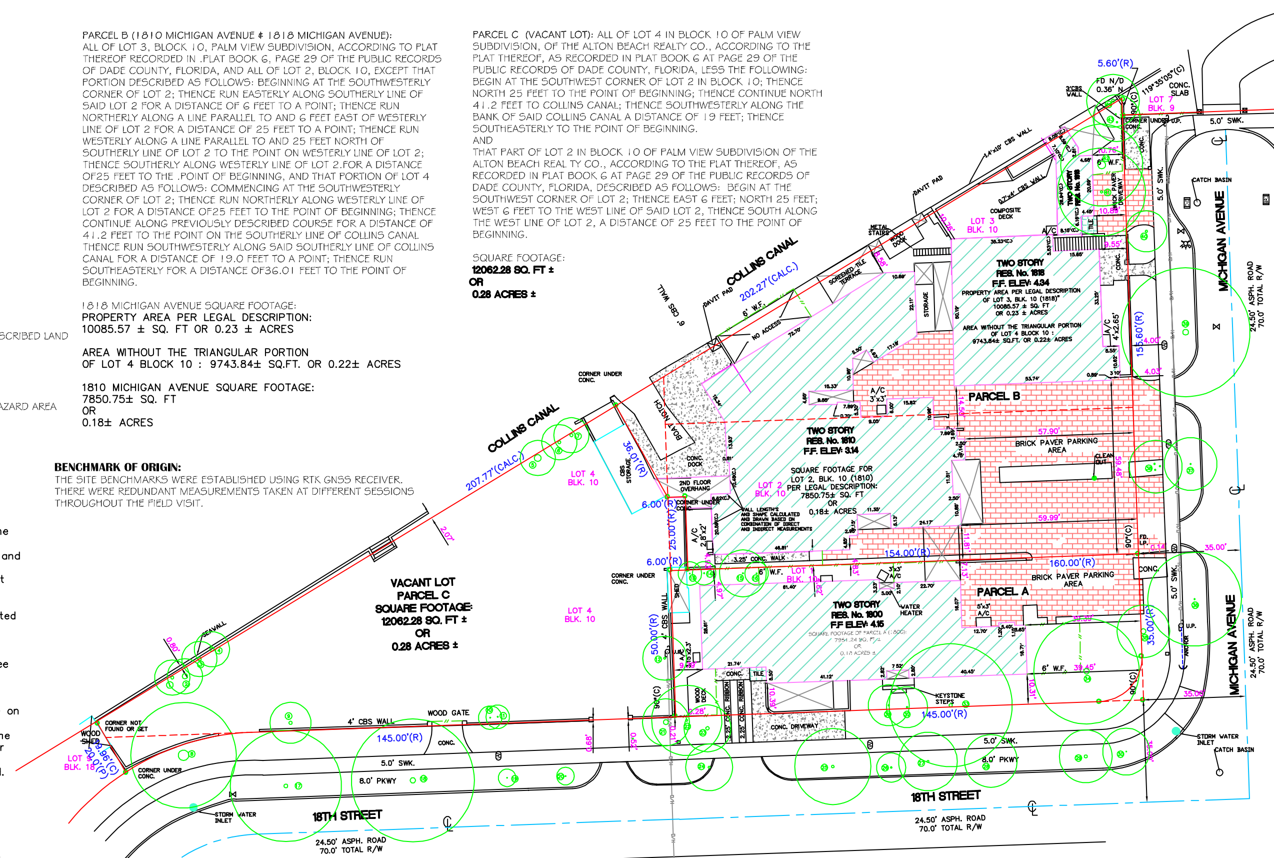
AREA WITHOUT THE TRIANGULAR PORTION
OF LOT 4 BLOCK 10 : 9743.84± SQ.FT. OR 0.22± ACRES

1810 MICHIGAN AVENUE SQUARE FOOTAGE:
7850.75± SQ. FT
OR
0.18± ACRES

PARCEL C (VACANT LOT): ALL OF LOT 4 IN BLOCK 10 OF PALM VIEW SUBDIVISION, OF THE ALTON BEACH REALTY CO., ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK 6 AT PAGE 29 OF THE PUBLIC RECORDS OF DADE COUNTY, FLORIDA, LESS THE FOLLOWING: BEGIN AT THE SOUTHWEST CORNER OF LOT 2 IN BLOCK 10; THENCE NORTH 25 FEET TO THE POINT OF BEGINNING; THENCE CONTINUE NORTH 41.2 FEET TO COLLINS CANAL; THENCE SOUTHWESTERLY ALONG THE BANK OF SAID COLLINS CANAL A DISTANCE OF 19 FEET; THENCE SOUTHEASTERLY TO THE POINT OF BEGINNING.
AND
THAT PART OF LOT 2 IN BLOCK 10 OF PALM VIEW SUBDIVISION OF THE ALTON BEACH REAL TY CO., ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK 6 AT PAGE 29 OF THE PUBLIC RECORDS OF DADE COUNTY, FLORIDA, DESCRIBED AS FOLLOWS: BEGIN AT THE SOUTHWEST CORNER OF LOT 2; THENCE EAST 6 FEET; NORTH 25 FEET; WEST 6 FEET TO THE WEST LINE OF SAID LOT 2, THENCE SOUTH ALONG THE WEST LINE OF LOT 2, A DISTANCE OF 25 FEET TO THE POINT OF BEGINNING.

SQUARE FOOTAGE:
12062.28 SQ. FT ±
OR
0.28 ACRES ±

BENCHMARK OF ORIGIN:
THE SITE BENCHMARKS WERE ESTABLISHED USING RTK GNSS RECEIVER. THERE WERE REDUNDANT MEASUREMENTS TAKEN AT DIFFERENT SESSIONS THROUGHOUT THE FIELD VISIT.



#	BOTANICAL NAME	COMMON NAME	DBH	HT	SP
	EXISTING TREE LIST				
1	*Thespesia populnea*	Portia Tree	Multi	16 '	12 '
2	*Thespesia populnea*	Portia Tree	Multi	16 '	12 '
3	*Thespesia populnea*	Portia Tree	Multi	16 '	12 '
4	*Thespesia populnea*	Portia Tree	Multi	16 '	12 '
5	*Thespesia populnea*	Portia Tree	Multi	16 '	12 '
6	*Thespesia populnea*	Portia Tree	Multi	16 '	12 '
7	*Thespesia populnea*	Portia Tree	Multi	16 '	12 '
8	*Thespesia populnea*	Portia Tree	38 "	29 '	36 '
9	*Sabal palmetto*	Sabal Palm	12 "	23 '	14 '
10	*Thrinax radiata*	Florida Thatch Palm	4 "	21 '	8 '
11	*Thrinax radiata*	Florida Thatch Palm	4 "	21 '	8 '
12	*Sabal palmetto*	Sabal Palm	13 "	35 '	15 '
13	*Ptychosperma elegans*	Solitaire Palm	4 "	23 '	8 '
14	*Ptychosperma elegans*	Solitaire Palm	4 "	23 '	8 '
15	*Dictyosperma album*	Hurricane Palm	8 "	25 '	16 '
16	*Ptychosperma elegans*	Solitaire Palm	4 "	19 '	8 '
17	*Lysiloma latisiquum*	Wild Tamarind	18 "	25 '	38 '
18	*Delonix regia*	Royal Poinciana	30 "	25 '	42 '
19	*Bulnesia arborea*	Verawood	3 "	13 '	6 '
20	*Bulnesia arborea*	Verawood	3 "	13 '	6 '
21	*Dypsis lutescens*	Areca Palm	Multi	16 '	16 '
22	*Ficus benjamina*	Weeping Fig	16 "	23 '	24 '
23	*Cocos nucifera*	Coconut Palm	9 "	27 '	16 '
24	*Cocos nucifera*	Coconut Palm	9 "	31 '	16 '
25	*Lagerstroemia speciosa*	Crape Myrtle	12 "	17 '	26 '
26	*Cocos nucifera*	Coconut Palm	7 "	23 '	10 '
27	*Lagerstroemia speciosa*	Crape Myrtle	10 "	15 '	20 '
28	*Lagerstroemia speciosa*	Crape Myrtle	5 "	13 '	18 '
29	*Tabebuia sp.*	Tabebuia	16 "	17 '	18 '
30	*Lagerstroemia speciosa*	Crape Myrtle	5 "	13 '	16 '
31	*Veitchia merrillii*	Christmas Palm	7 "	13 '	14 '
32	*Veitchia merrillii*	Christmas Palm	7 "	13 '	14 '
33	*Persea americana*	Avocado Tree	14 "	37 '	42 '
34	*Morinda citrifolia*	Noni Tree	29 "	27 '	36 '
35	*Phoenix canariensis*	Canary Island Date Palm	26 "	40 '	18 '
36	*Bulnesia arborea*	Verawood	8 "	27 '	32 '
37	*Bulnesia arborea*	Verawood	6 "	17 '	18 '
38	*Veitchia merrillii*	Triple Christmas Palm	16 "	16 '	18 '
39	*Lysiloma latisiquum*	Wild Tamarind	24 "	35 '	44 '
40	*Sabal palmetto*	Sabal Palm	9 "	13 '	14 '
41	*Schefflera actinophylla*	Umbrella Tree	19 "	29 '	30 '
42	*Schefflera actinophylla*	Umbrella Tree	23 "	27 '	28 '
43	*Veitchia merrillii*	Double Christmas Palm	11 "	19 '	16 '
44	*Cocos nucifera*	Coconut Palm	9 "	21 '	18 '

LEGEND OF SYMBOLOGY

MAN HOLE SANITARY SEWER
CATCH BASIN
FIRE HYDRANT
SIGN
HANDICAP PARKING
CONC. LIGHT POLE
TREE
WATER METER
WATER VALVE
ELECTRIC BOX
T.V. BOX
ELECTRIC METER
WOOD LIGHT POLE
METAL LIGHT POLE
UTILITY POLE

LEGEND OF SURVEY ABBREVATIONS

ADJ...............ADJACENT
A/C...............AIR CONDITIONER
ASPH. PAV....ASPHALT PAVEMENT
B/C...............BLOCK CORNER
BLDG.............BUILDING
BLK...............BLOCK
B.M................BENCH MARK
B.C.R.............BROWARD COUNTY RECORD
C/G...............CURB AND GUTTER
C.B................CATCH BASIN
CH.................CHORD DISTANCE
CH.L.F...........CHAIN LINK FENCE
CLP...............CONC.LIGHT POLE
C/L...............CENTER LINE
(C)................CALCULATED
C.B.S.............CONCRETE BLOCK AND STUCCO
CL.................CLEAR
C.M.E.............CANAL MAINTENANCE EASEMENT
CONC.............CONCRETE
COR...............CORNER
CT.................COURT
D.B................DEED BOOK
D.C.R.............DADE COUNTY RECORD
D.E................DRAINAGE EASEMENT
D/H...............DRILL HOLE
D/W...............DRIVEWAY
E...................EAST
ENC...............ENCROACHMENT
E.O.W.............EDGE OF WATER
F...................FENCE
FD.................FOUND
F.H................FIRE HYDRANT
FD. I.P..........FOUND IRON PIPE
F.FL.ELEV......FINISH FLOOR ELEVATION
F.P.L.............FLORIDA POWER AND LIGHT CO.
L...................LENGTH
L.M.E.............LAKE MAINTENANCE EASEMENT
M.E................MAINTENANCE EASEMENT
M.F................METAL FENCE
M.H.S.S.........MANHOLE SANITARY SEWER
(M)................MEASURED
N...................NORTH
N/D...............NAIL AND DISC
N.G.V.D.........NATIONAL GEODETIC VERTICAL DATUM
N.T.S.............NOT TO SCALE
O/H...............OVER HANG
O.R.B.............OFFICIAL RECORD BOOK
O.U.L.............OVERHEAD UTILITY LINE
(P)................PLAT
P.B................PLAT BOOK
P.C................POINT OF CURVATURE
P.C.C.............POINT OF COMPOUND CURVATURE
P.C.P.............PERMANENT CONTROL POINT
PG. ....PAGE
P.I.................Point of Intersection
P.K................PARKER KALON
PKWY.............PARKWAY
P.L.S.............PROFESSIONAL LAND SURVEYOR
P/L...............PROPERTY LINE
P.O.B.............POINT OF BEGINNING
P.O.C.............POINT OF COMMENCEMENT
P.R.C.............POINT OF REVERSE CURVATURE
P.R.M.............PERMANENT REFERENCE MONUMENT
P.T................POINT OF TANGENCY
(R)................RECORD
RE-BAR.........REINFORCEMENT BAR
(R/M)............RECORD AND MEASURED
RES...............RESIDENCE
R/W...............RIGHT-OF-WAY
S...................SOUTH
SEC...............SECTION
S.I.P..............SET IRON PIPE
SWK...............SIDEWALK
(TYP.)............TYPICAL
TERR.............TERRACE
U.E................UTILITY EASEMENT
U.P................UTILITY PLOLE
W.F................WOOD FENCE
W.M...............WATER METER
W..................WEST

JULIO SERGIO PITA CERTIFICATE No. 5789 STATE OF FLORIDA PROFESSIONAL SURVEYOR & MAPPER

06/28/2021(BOUNDARY&TOPO), UPDATE TREES(2/26/24)
JULIO S. PITA, P.S & M # 5789
STATE OF FLORIDA
NOT VALID UNLESS IMPRINTED WITH EMBOSSED SURVEYOR'S SEAL

L.B. # 8077
9495 SW 99 STREET
MIAMI, FLORIDA 33176
TEL:(786) 242-7692 DADE, (954) 779-3288 BRWD
FAX:(786) 242-6494 DADE, (954) 779-3260 BRWD
E-MAIL: TJKSURVEYS@GMAIL.COM

THOMAS J. KELLY
SURVEYORS-MAPPERS
LAND PLANNERS

TOPOGRAPHIC SURVEY

DATE	2/26/24
SCALE	1"=20'
DRAWN BY	J.P. IV
ORDER No.	24-0227
SHEET	1 OF 1